2011 Input-Output Tables for Japan

Joint Compilation

Ministry of Internal Affairs and Communications
Cabinet Office
Financial Services Agency
Ministry of Finance
Ministry of Education, Culture, Sports, Science and Technology
Ministry of Health, Labour and Welfare
Ministry of Agriculture, Forestry and Fisheries
Ministry of Economy, Trade and Industry
Ministry of Land, Infrastructure, Transport and Tourism
Ministry of the Environment

September 2016

Ministry of Internal Affairs and Communications
Japan

Contents

EXPLANATORY NOTES

CHAPTER Ⅰ

Japan's Economic Structure as Viewed from 2011 Input-Output Tables

1. Overview

The economic status quo of a particular economy for a particular period of time (normally on a yearly duration basis) may be inferred from the input-output tables (I-O tables) by analyzing the inter-industrial good and service transactions as recorded under the matrix column. As an illustration, a straightforward overall picture of the 2011 I-O tables for Japan with 13 sectors is depicted in Table 1 and the economic structure as inferred from the aforesaid tables is shown in Chart 1-1.

The values of Domestic production as well as the input components (for goods and services) of the individual sector may be inferred from the figures as appeared in the column sector of the I-O Tables. Moreover, the sales amount of Domestic production as well as import of the respective goods and service demanded may be inferred from the row sector of the tables.

To begin with, as deduced from the aforesaid tables, the Total supply of goods and services in 2011 is 1,022.83 trillion yen out of which the Domestic production amounted to 939.67 trillion yen (91.9% of the Total supply value) while the Imports valued at 83.16 trillion yen (8.1% of the Total supply value). As compared to 2005, although the values of Imports has increased by 14.7%, Total supply has reduced by 2.1% because Domestic production has reduced by 3.3%.

Observing the cost structure for Domestic production, Intermediate input of goods and services used in production such as raw materials and fuels amounted to 462.77 trillion yen. The Ratio of intermediate input, which represents the ratio of Domestic production accounted for by Intermediate inputs, increased from 48.0% in 2005 to 49.2% in 2011.

Gross value added, which is another structural element for Domestic production, amounted to 476.91 trillion yen, and the Ratio of gross value added, which represents the ratio accounted for by gross value added in Domestic production, is 50.8%. In addition, Gross value added is broken down into Compensation of employees (52.1%), Operating surplus (18.2%), and Depreciation of fixed capital (20.9%). As compared to 2005, Compensation of Employees and Depreciation of fixed capital increased, while Operating surplus decreased.

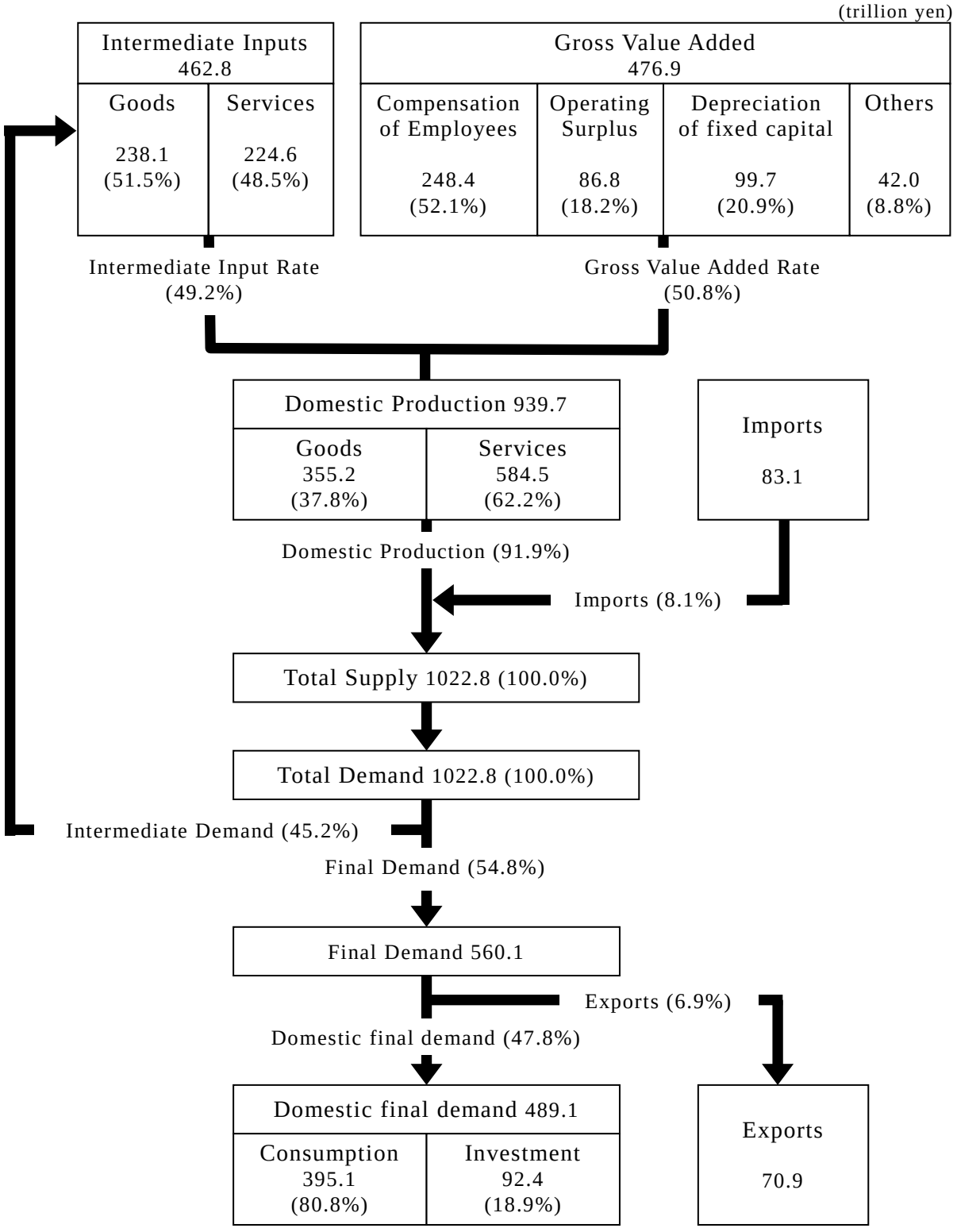
Furthermore, observing from the demand side, the total demand of goods and services demanded in 2011 is 1022.83 trillion yen, of which the value of intermediate demand for goods and services used in production activities, such as raw materials and fuels, amounted to 462.77 trillion yen (45.2% of the Total demand value). Domestic final demand amounted to 489.12 trillion yen (47.8% of the Total demand value), and exports amounted to 70.94 trillion yen (6.9% of the Total demand value). Observing the breakdown of Domestic final demand, Consumption amounted to 395.19 trillion yen (80.8% of the Domestic final demand), and Investments amounted to 92.36 trillion yen (18.9% of the Domestic final demand).

Comparing these figures to those from 2005, Intermediate demand decreased by 0.7%. Within Domestic final demand, Consumption increased by 1.7%, but Investments decreased by 20.3%. Exports decreased by 0.9%, but as ratio of the value of Exports as part of the value of Total demand is 6.9%, this remains unchanged from the ratio in 2005.

Explanations regarding each item are given starting on the following page.

(Note) Table 1-1 is the “Input-Output Table Valued at Producers’ Prices” that evaluates transactions in terms of producers’ shipment price. Table 1-2 is the “Input-Output Table Valued at Purchasers’ Prices” that evaluates shipment prices using prices that include marketing costs (commercial margin and domestic freights). In this chapter, statements are made based on the Input-Output Table Valued at Producers’ Prices unless otherwise specifically stated.

Chart 1-1. Overall Image of the Japan's Economy as Viewed from 2011 Input-Output Tables



Notes:

1: 'Goods' refers to sector 01 to 41 and 68 of the 34 sector classification, while 'Services' refers to sector 46 to 67 and 69.

2: In this Chart, consumption is the total of "Consumption expenditure outside households," "Consumption expenditure (private)," and "Consumption expenditure of general government," while investment is the total of "Gross domestic fixed capital formation," and "Increase in stocks." "Domestic final demand" includes the "Balancing sector" amount, in addition to Consumption and Investments.

3: Component figures may not add up to the total, because of rounding.

Table 1-1 Input-Output Table Valued at Producers' Prices (13 Sectors)

		Intermediate demand											
		01	02	03	04	05	06	07	08	09	10	11	12
Intermediate Inputs	01 Agriculture, forestry and fishery	1,456 6	0 1	7,793 6	56 9	0 0	8 8	0 0	0 2	2 1	0 0	1 8	1,360 9
	02 Mining	0 2	1 5	16,858 0	326 1	6,905 1	0 0	0 0	0 0	0 1	0 0	0 3	1 2
	03 Manufacturing	2,645 0	67 5	128,796 5	14,427 3	2,267 6	3,078 1	990 7	195 7	7,050 1	2,300 8	2,621 8	28,693 2
	04 Construction	70 6	6 1	1,340 6	74 1	1,179 5	644 8	188 4	3,155 7	687 0	322 8	810 3	1,293 5
	05 Electricity, gas and water supply	129 0	29 5	5,433 5	279 2	2,867 1	2,104 8	181 0	420 8	676 7	399 0	538 5	4,649 1
	06 Commerce	659 2	19 2	16,320 0	3,707 6	398 9	1,925 9	216 7	113 9	1,325 4	674 6	507 2	9,410 4
	07 Finance and insurance	70 6	26 9	1,667 2	705 5	415 8	1,595 8	2,012 3	5,383 1	995 8	219 7	1,629 2	1,858 0
	08 Real estate	25 5	7 5	590 0	243 7	175 2	3,217 4	631 5	1,562 0	1,016 7	1,214 7	61 2	2,961 1
	09 Transport and postal services	621 4	194 9	7,634 2	2,238 9	901 2	5,274 3	1,087 0	175 9	5,126 1	1,166 1	1,359 0	4,930 4
	10 Information and communications	40 9	7 8	1,897 0	473 7	451 1	3,758 5	1,901 8	287 0	542 6	7,022 4	1,045 6	7,819 1
	11 Public administration	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	12 Services	317 2	53 1	18,174 6	5,486 0	3,124 1	7,262 1	3,640 9	2,168 7	6,185 2	8,276 3	3,864 6	21,267 1
	13 Activities not elsewhere classified	161 5	5 8	832 6	783 3	109 8	672 8	126 3	344 6	373 7	303 2	33 9	1,279 9
	Sub-total	6,197 6	419 9	207,337 6	28,802 3	18,795 4	29,543 2	10,976 6	13,807 4	23,981 4	21,899 5	12,473 3	85,523 9
Gross Value Added	Consumption expenditure outside households	75 6	36 5	3,319 8	969 2	305 0	2,111 2	952 2	272 1	823 8	861 5	397 1	3,493 0
	Compensation of employees	1,352 3	143 6	43,270 0	18,409 8	2,498 2	37,017 8	9,836 1	3,947 9	14,100 8	10,648 0	14,501 4	92,516 6
	Operating surplus	2,857 9	44 5	7,886 2	1,031 4	-2,386 1	15,042 5	7,138 1	29,708 2	2,228 6	7,885 4	0 0	13,887 1
	Depreciation of fixed capital	1,723 1	74 2	17,789 2	1,654 5	5,669 9	6,512 9	3,493 6	19,495 2	5,328 2	3,978 6	11,911 0	21,802 5
	Indirect taxes	524 7	42 3	10,487 2	1,947 0	1,140 5	3,480 1	545 2	3,998 1	1,996 4	889 5	122 5	6,714 2
	(Less) Current subsidies	-695 2	-0 9	-185 6	-299 7	-268 3	-51 9	-847 8	-41 4	-225 1	-2 2	0 0	-979 1
	Sub-total	5,838 4	340 1	82,566 9	23,712 2	6,959 2	64,112 7	21,117 3	57,380 1	24,252 6	24,260 8	26,931 9	137,434 4
Domestic production		12,036 0	760 0	289,904 5	52,514 5	25,754 7	93,655 8	32,093 9	71,187 5	48,234 0	46,160 3	39,405 2	222,958 2

(unit : billion Yen)

		Final demand								h	i	j
13	Sub-Total	a	b	c	d	e	f	g	Sub-total			
0 0	10,681 0	63 4	3,389 1	0 0	168 3	246 8	3,869 9	47 9	3,917 8	14,598 8	-2,562 8	12,036 0
0 5	24,092 8	-5 4	-6 1	0 0	-7 0	-42 0	-58 8	35 6	-23 2	24,069 6	-23,309 6	760 0
454 8	193,589 1	1,639 1	55,177 6	242 9	31,026 7	598 3	90,241 8	54,437 7	144,679 5	338,268 6	-48,364 1	289,904 5
0 0	9,773 2	0 0	0 0	0 0	42,741 3	0 0	42,741 3	0 0	42,741 3	52,514 5	0 0	52,514 5
64 9	17,773 1	7 9	8,201 9	-261 4	0 0	0 0	7,948 4	35 3	7,983 7	25,756 8	-2 1	25,754 7
76 1	35,355 0	1,552 4	43,597 2	9 8	6,388 2	150 7	51,698 2	7,591 5	59,289 7	94,644 7	-988 9	93,655 8
24 1	16,604 0	0 2	15,558 2	0 0	0 0	0 0	15,558 3	838 2	16,396 5	33,000 6	-906 6	32,093 9
195 3	11,901 6	0 0	59,204 5	61 3	0 0	0 0	59,265 8	21 8	59,287 6	71,189 2	-1 7	71,187 5
397 5	31,107 0	399 2	13,784 9	-53 2	661 2	37 9	14,830 0	5,759 5	20,589 5	51,696 5	-3,462 5	48,234 0
212 2	25,459 6	161 4	12,722 9	35 8	8,217 0	-11 8	21,126 1	289 7	21,415 8	46,875 4	-715 2	46,160 3
1,136 6	1,136 6	0 0	1,115 2	37,153 5	0 0	0 0	38,268 6	0 0	38,268 6	39,405 2	0 0	39,405 2
449 5	80,269 4	9,815 0	70,057 3	61,547 9	2,188 8	0 0	143,610 3	1,883 7	145,493 9	225,763 3	-2,805 1	222,958 2
0 0	5,027 3	0 0	18 9	0 0	0 0	0 0	18 9	3 7	22 6	5,049 8	-39 5	5,010 3
3,011 5	462,769 6	13,633 3	282,821 4	98,736 5	91,384 4	979 8	489,118 8	70,944 6	560,063 3	1,022,832 9	-83,158 1	939,674 9
16 3	13,633 3											
178 7	248,421 0											
1,482 2	86,806 1											
275 0	99,708 0											
46 5	31,934 1											
-0 0	-3,597 2											
1,998 7	476,905 3											
5,010 3	939,674 9											

Column Codes are:

a : Consumption expenditure outside households
b : Consumption expenditure (private)
c : Consumption expenditure of general government
d : Gross domestic fixed capital formation
e : Increase in stocks
f : Total Domestic final demand
g : Exports
h : Total demand
i : (Less) Imports
j : Domestic production

Notes:

1. Component figures may not add up to the total because of rounding.
2. The values of intermediate transactions include consumption tax. However, exports exclude consumption tax because they are duty free.
3. The total of domestic final demand includes balancing sector besides consumption and investment. That is the reason why the component figures do not add up to the total.

Table 1-2 Input-Output Table Valued at Purchasers' Prices (13 Sectors)

		Intermediate demand											
		01	02	03	04	05	06	07	08	09	10	11	12
Intermediate Inputs	01 Agriculture, forestry and fishery	1,567 5	0 1	9,417 2	127 9	0 0	20 0	0 0	0 4	3 4	0 0	2 9	2,305 0
	02 Mining	0 3	2 1	17,712 7	499 5	7,727 6	0 0	0 0	0 0	0 1	0 0	0 5	1 5
	03 Manufacturing	3,447 6	88 4	147,113 4	18,890 1	2,519 3	4,013 1	1,203 1	282 8	8,475 5	3,014 4	3,080 9	37,878 2
	04 Construction	70 6	6 1	1,340 6	74 1	1,179 5	644 8	188 4	3,155 7	687 0	322 8	810 3	1,293 5
	05 Electricity, gas and water supply	129 0	29 5	5,433 5	279 2	2,867 1	2,104 8	181 0	420 8	676 7	399 0	538 5	4,649 1
	06 Commerce	0 0	0 0	0 0	0 0	0 0	988 9	0 0	0 0	0 0	0 0	0 0	0 0
	07 Finance and insurance	70 6	26 9	1,667 2	705 5	415 8	1,595 8	2,012 3	5,383 1	995 8	219 7	1,629 2	1,858 0
	08 Real estate	25 5	7 5	590 0	243 7	175 2	3,217 4	631 5	1,562 0	1,016 7	1,214 7	61 2	2,961 1
	09 Transport and postal services	353 7	191 8	2,935 0	1,154 0	216 7	5,088 5	1,039 6	155 6	4,958 7	1,012 3	1,271 0	3,668 2
	10 Information and communications	45 7	8 3	2,051 6	516 6	457 1	3,905 2	1,946 6	315 3	588 9	7,123 2	1,179 0	8,303 4
	11 Public administration	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	12 Services	317 2	53 1	18,174 6	5,486 0	3,124 1	7,262 1	3,640 9	2,168 7	6,185 2	8,276 3	3,864 6	21,267 1
	13 Activities not elsewhere classified	169 9	6 0	902 0	825 7	112 9	702 6	133 2	363 1	393 5	317 0	35 2	1,338 8
	Sub-total	6,197 6	419 9	207,337 6	28,802 3	18,795 4	29,543 2	10,976 6	13,807 4	23,981 4	21,899 5	12,473 3	85,523 9
Gross Value Added	Consumption expenditure outside households	75 6	36 5	3,319 8	969 2	305 0	2,111 2	952 2	272 1	823 8	861 5	397 1	3,493 0
	Compensation of employees	1,352 3	143 6	43,270 0	18,409 8	2,498 2	37,017 8	9,836 1	3,947 9	14,100 8	10,648 0	14,501 4	92,516 6
	Operating surplus	2,857 9	44 5	7,886 2	1,031 4	-2,386 1	15,042 5	7,138 1	29,708 2	2,228 6	7,885 4	0 0	13,887 1
	Depreciation of fixed capital	1,723 1	74 2	17,789 2	1,654 5	5,669 9	6,512 9	3,493 6	19,495 2	5,328 2	3,978 6	11,911 0	21,802 5
	Indirect taxes	524 7	42 3	10,487 2	1,947 0	1,140 5	3,480 1	545 2	3,998 1	1,996 4	889 5	122 5	6,714 2
	(Less) Current subsidies	-695 2	-0 9	-185 6	-299 7	-268 3	-51 9	-847 8	-41 4	-225 1	-2 2	0 0	-979 1
	Sub-total	5,838 4	340 1	82,566 9	23,712 2	6,959 2	64,112 7	21,117 3	57,380 1	24,252 6	24,260 8	26,931 9	137,434 4
Domestic production		12,036 0	760 0	289,904 5	52,514 5	25,754 7	93,655 8	32,093 9	71,187 5	48,234 0	46,160 3	39,405 2	222,958 2

(unit : billion Yen)

		Final demand												
13	Sub-Total	a	b	c	d	e	f	g	Sub-total	h	i	j	k	l
0 0	13,444 4	135 7	6,291 9	0 0	168 3	256 7	6,854 9	75 1	6,930 0	20,374 4	-2,562 8	-4,997 2	-778 4	12,036 0
0 7	25,945 1	-5 4	-5 6	0 0	-7 0	-34 8	-51 1	39 3	-11 7	25,933 3	-23,309 6	-410 2	-1,453 5	760 0
545 5	230,552 3	3,171 2	96,033 5	251 3	37,710 9	766 0	139,490 1	62,402 2	201,892 3	432,444 6	-48,364 1	-83,912 0	-10,263 9	289,904 5
0 0	9,773 2	0 0	0 0	0 0	42,741 3	0 0	42,741 3	0 0	42,741 3	52,514 5	0 0	0 0	0 0	52,514 5
64 9	17,773 1	7 9	8,201 9	-261 4	0 0	0 0	7,948 4	35 3	7,983 7	25,756 8	-2 1	0 0	0 0	25,754 7
0 0	988 9	0 0	754 8	0 0	217 7	0 0	972 4	798 9	1,771 4	2,760 3	-988 9	91,884 4	0 0	93,655 8
24 1	16,604 0	0 2	15,558 2	0 0	0 0	0 0	15,558 3	838 2	16,396 5	33,000 6	-906 6	0 0	0 0	32,093 9
195 3	11,901 6	0 0	59,204 5	61 3	0 0	0 0	59,265 8	21 8	59,287 6	71,189 2	-1 7	0 0	0 0	71,187 5
380 9	22,425 9	315 3	11,623 8	-56 3	0 0	0 0	11,882 8	4,549 8	16,432 6	38,858 5	-3,462 5	0 0	12,837 9	48,234 0
214 1	26,655 1	193 3	13,966 3	40 3	8,364 5	-8 1	22,557 1	294 9	22,852 0	49,507 1	-715 2	-2,427 3	-204 4	46,160 3
1,136 6	1,136 6	0 0	1,115 2	37,153 5	0 0	0 0	38,268 6	0 0	38,268 6	39,405 2	0 0	0 0	0 0	39,405 2
449 5	80,269 4	9,815 0	70,057 3	61,547 9	2,188 8	0 0	143,610 3	1,885 1	145,495 4	225,764 7	-2,805 1	-1 2	-0 2	222,958 2
0 0	5,300 0	0 0	19 8	0 0	0 0	0 0	19 8	3 9	23 7	5,323 7	-39 5	-136 5	-137 5	5,010 3
3,011 5	462,769 6	13,633 3	282,821 4	98,736 5	91,384 4	979 8	489,118 8	70,944 6	560,063 3	1,022,832 9	-83,158 1	0 0	0 0	939,674 9

16 3	13,633 3
178 7	248,421 0
1,482 2	86,806 1
275 0	99,708 0
46 5	31,934 1
-0 0	-3,597 2
1,998 7	476,905 3
5,010 3	939,674 9

Column Codes are:

a : Consumption expenditure outside households
b : Consumption expenditure (private)
c : Consumption expenditure of general government
d : Gross domestic fixed capital formation
e : Increase in stocks
f : Total Domestic final demand
g : Exports
h : Total demand
i : (Less) Imports
j : (Less) Trade margin
k : (Less) Transportation fee
l : Domestic production

Notes:

1. Component figures may not add up to the total because of rounding.
2. Treatment of consumption tax is the same as Table Valued at Producer'sPrice

2. Total Supply and Growth

Total supply of Domestic production and Imports reached 1022.8329 trillion yen, of which domestic production is 939.6749 trillion yen (91.9% of the total supply value) and imports is 83.1581 trillion yen (8.1% of the total supply value). Compared to 2005, the composition of Total supply for Domestic production decreased by 1.2 points.

With respect to growth from 2005 levels, Imports increased by 14.7% and Domestic production decreased by 3.3%, resulting in a 2.1% decrease of Total supply.

Chart 1-2 Composition of the total supply

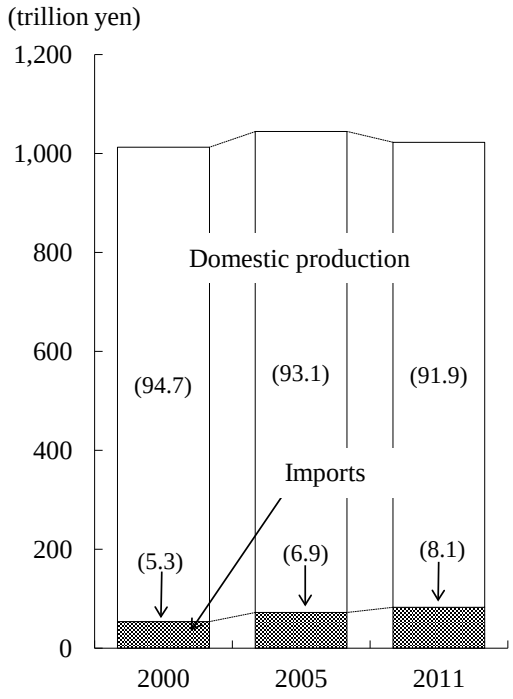


Chart 1-3 Growth of the total Supply

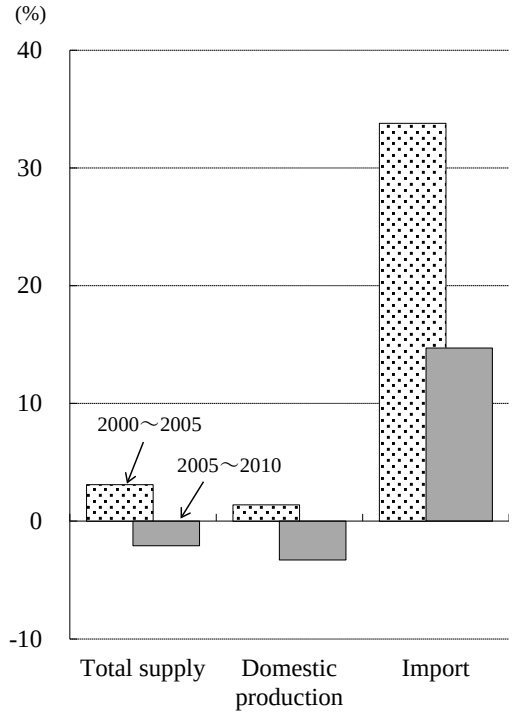


Table 1-3 Composition and growth of the total supply

	Value(billion yen)			Distribution ratio(%)			Growth rate(%)	
	2000	2005	2011	2000	2005	2011	2000～2005	2005～2010
Total supply	1,013,047.6	1,044,497.8	1,022,832.9	100.0	100.0	100.0	3.1	△ 2.1
Domestic production	958,886.5	972,014.6	939,674.9	94.7	93.1	91.9	1.4	△ 3.3
Import	54,161.2	72,483.1	83,158.1	5.3	6.9	8.1	33.8	14.7

3. Composition and Growth of Total Demand

Total demand for 2011 is 1022.8329 trillion yen with the breakdown figures as 462.7696 trillion yen (45.2%) for Intermediate demand, 489.1188 trillion yen (47.8%) for Domestic final demand (of which, 395.1912 trillion yen is Consumption (38.6%) and 92.3642 trillion yen is Investments (9.0%)), and 70.9446 trillion yen for Exports (6.9%).

As compared to 2005, Intermediate demand increased by 0.6 points, Domestic final consumption decreased by 0.7 points (of which, Consumption increased by 1.4 points and Investments decreased by 2.1 points), and Exports remained the same.

With respect to growth from 2005 levels, Total demand, Intermediate demand, and Exports decreased by 2.1%, 0.7%, and 0.9%, respectively. For Domestic final consumption, although Consumption increased by 1.7%, Investments decreased by 20.3%, resulting in a 3.5% decreased in Domestic final consumption.

Chart 1-4 Composition of Total demand

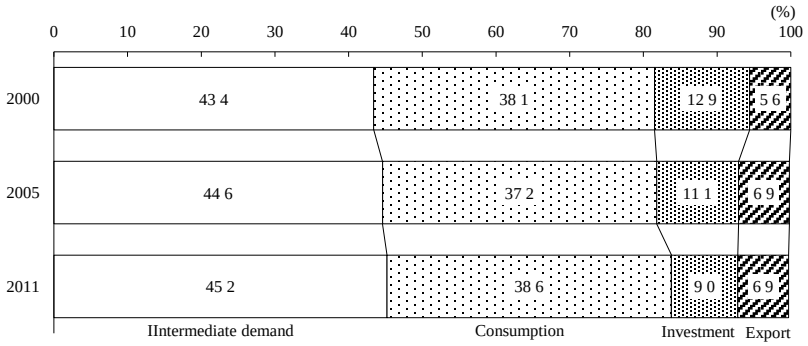


Chart 1-5 Growth of Total demand

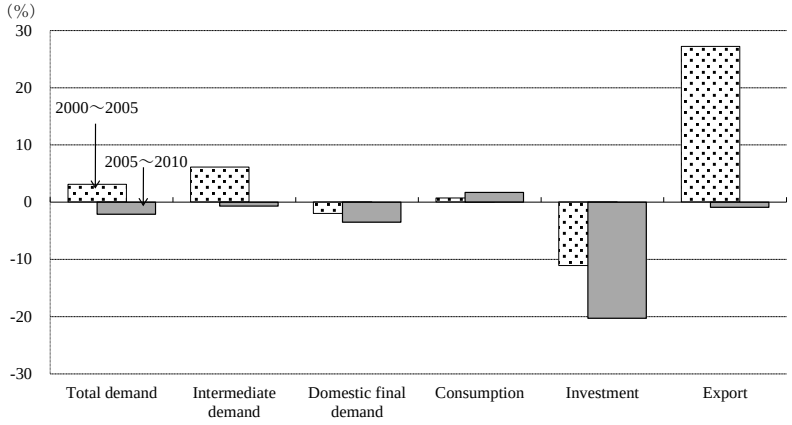


Table 1-8 Composition and Growth of Total demand

	Value(billion yen)			Distribution ratio(%)			Growth rate(%)	
	2000	2005	2011	2000	2005	2011	2000～2005	2005～2010
Total demand	1,013,047 6	1,044,497 8	1,022,832 9	100 0	100 0	100 0	3 1	△ 2 1
Intermediate demand	439,404 6	466,140 6	462,769 6	43 4	44 6	45 2	6 1	△ 0 7
Final demand	573,643 1	578,357 2	560,063 3	56 6	55 4	54 8	0 8	△ 3 2
Domestic final demand	517,344 4	506,745 9	489,118 8	51 1	48 5	47 8	△ 2 0	△ 3 5
Consumption	385,867 6	388,717 5	395,191 2	38 1	37 2	38 6	0 7	1 7
Investment	130,288 7	115,871 0	92,364 2	12 9	11 1	9 0	△ 11 1	△ 20 3
Export	56,298 7	71,611 3	70,944 6	5 6	6 9	6 9	27 2	△ 0 9
Domestic demand	956,749 0	972,886 4	951,888 4	94 4	93 1	93 1	1 7	△ 2 2

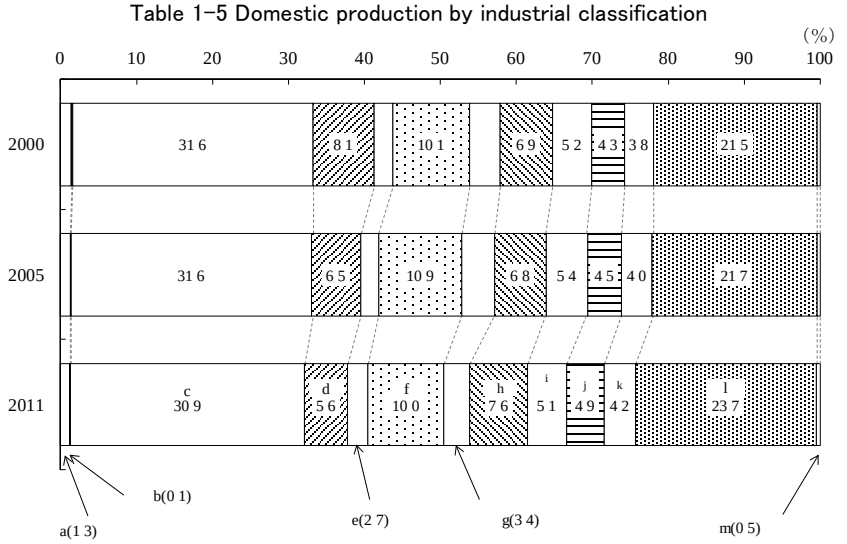
4. Domestic Production by Industry

Observing Domestic production in 2011 by the 13 sectors, the Manufacturing sector has the highest ratio (30.9%, 289.9045 trillion yen), followed by Services (23.7%, 222.9582 trillion yen), Commerce (10.0%, 93.6558 trillion yen), and Real Estate (7.6%, 71.1875 trillion yen).

When comparing this to 2005 levels, industries that increased include Service (2.0 points), Real Estate (0.8 points), and Information and communications (0.4 points), whereas sectors that decreased include Construction, Commerce, and Finance and Insurance (all by 0.9 points).

Observing industries by primary, secondary, or tertiary industries, primary industries accounted for 1.3% of Domestic production (12.360 trillion yen), secondary industries accounted for 36.5% (343.1790 trillion yen), and tertiary industries accounted for 62.2% (584.4599 trillion yen), indicating that there is an increasing trend in the component ratio of tertiary industries.

Table 1-5 Domestic production by industrial classification



Notes: Primary industries : a
Secondary industries: b, c, d,
Tertiary industries : e, f, g, h, i, j, k, l, m

Chart 1-6 Domestic production by industrial classification

	Domestic production(billion yen)			Distribution ratio(%)		
	2000	2005	2011	2000	2005	2011
Total	958,886 5	972,014 6	939,674 9	100 0	100 0	100 0
a Agriculture, forestry and fishery	14,415 6	13,154 6	12,036 0	1 5	1 4	1 3
b Mining	1,378 7	1,008 4	760 0	0 1	0 1	0 1
c Manufacturing	303,224 1	307,070 9	289,904 5	31 6	31 6	30 9
d Construction	77,310 5	63,237 3	52,514 5	8 1	6 5	5 6
e Electricity, gas and water supply	23,620 6	23,235 7	25,754 7	2 5	2 4	2 7
f Commerce	96,947 6	106,274 5	93,655 8	10 1	10 9	10 0
g Finance and insurance	38,149 5	41,586 8	32,093 9	4 0	4 3	3 4
h Real estate	65,852 7	66,205 9	71,187 5	6 9	6 8	7 6
i Transport and postal services	50,029 7	52,648 2	48,234 0	5 2	5 4	5 1
j Information and communications	41,242 6	43,953 4	46,160 3	4 3	4 5	4 9
k Public administration	36,225 9	38,537 9	39,405 2	3 8	4 0	4 2
l Services	206,276 7	211,133 1	222,958 2	21 5	21 7	23 7
m Activities not elsewhere classified	4,212 3	3,968 0	5,010 3	0 4	0 4	0 5
Primary industries	14,415 6	13,154 6	12,036 0	1 5	1 4	1 3
Secondary industries	381,913 3	371,316 6	343,179 0	39 8	38 2	36 5
Tertiary industries	562,557 6	587,543 5	584,459 9	58 7	60 4	62 2

Reference: Domestic production trend

Domestic production for the year 2011 decreased to 939.6749 trillion yen, 3.3% lower than 2005 figures. This decrease translated to an average annual growth rate of 0.6% for the six years from 2005 to 2011.

In terms of the historical development of the average annual growth rate, growth from 1975 to 1980 showed an increase of 10.8%, but was on a somewhat declining trend afterwards. Growth from 2000 to 2005 was 0.3%, but shifted to a decrease of 0.6% from 2005 to 2011.

Chart 1-7 Domestic production trend

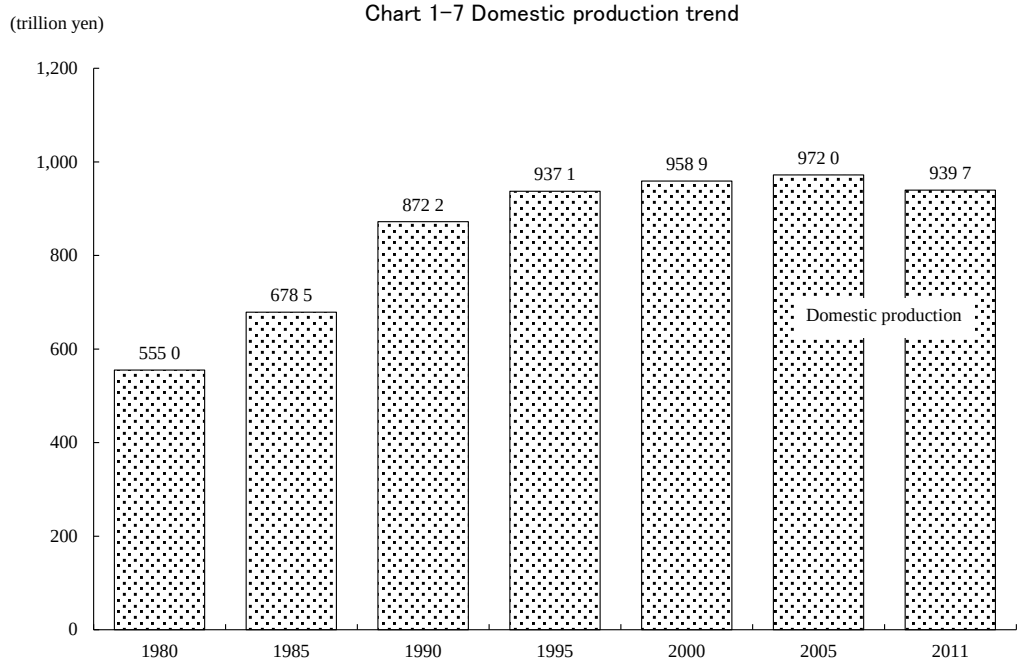


Table 1-6 Domestic production trend

	1980	1985	1990	1995	2000	2005	2011
Domestic production(billion yen)	555,040.8	678,544.1	872,212.2	937,100.6	958,886.5	972,014.6	939,674.9

Table 1-7 Annual change of domestic production

	1975～1980	1980～1985	1985～1990	1990～1995	1995～2000	2000～2005	2005～2011
Growth rate(%)	67.1	22.3	28.5	7.4	2.3	1.4	-3.3
Average annual growth rate(%)	10.8	4.1	5.1	1.4	0.5	0.3	-0.6

5. Growth of Domestic Production by Industry

Observing domestic production in 2011 based on the 34-sector classification table, Commerce has the highest domestic production with 93.6558 trillion yen, followed by Real estate (71.1875 trillion yen), Business services (66.1612 trillion yen), and Medical, health care and welfare (60.2751 trillion yen).

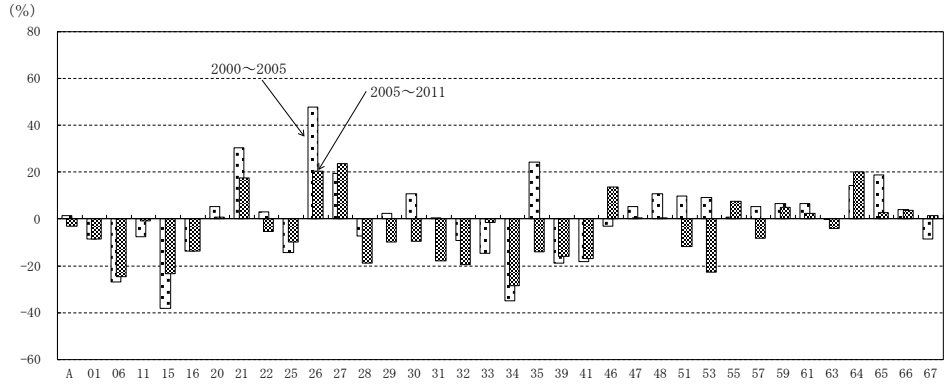
With regard to growth as compared to 2005, domestic production is increasing in sectors such as Non-ferrous metals (23.6% increase), Iron and steel (20.4% increase), Medical, health care and welfare (20.0% increase), while decreasing in sectors such as Information and communication electronics equipment (28.7% decrease) and Mining (24.6% decrease).

Observing the extent of impacts (contribution level) of each industry on the domestic production growth rate (3.3% decrease), Commerce (-1.30%) and Construction (-1.30%) have been contributing to the decrease.

Table 1-8 Growth of Domestic production by industrial classification

	Domestic production(billion yen)			Growth rate (%)		Contributions to changes (%)
	2000	2005	2011	2000～2005	2005～2011	
Total	958,886 5	972,014 6	939,674 9	1 4	△ 3 3	
01 Agriculture, forestry and fishery	14,415 6	13,154 6	12,036 0	△ 8 7	△ 8 5	△ 0 12
06 Mining	1,378 7	1,008 4	760 0	△ 26 9	△ 24 6	△ 0 03
11 Beverages and Foods	38,878 8	35,889 4	35,540 9	△ 7 7	△ 1 0	△ 0 04
15 Textile products	7,093 6	4,374 8	3,354 1	△ 38 3	△ 23 3	△ 0 11
16 Pulp, paper and wooden products	14,861 9	12,829 6	11,068 5	△ 13 7	△ 13 7	△ 0 18
20 Chemical products	26,102 5	27,487 0	27,633 9	5 3	0 5	0 02
21 Petroleum and coal products	12,983 4	16,920 2	19,857 2	30 3	17 4	0 30
22 Plastic and rubber products	13,240 4	13,636 1	12,906 1	3 0	△ 5 4	△ 0 08
25 Ceramic, stone and clay products	8,369 1	7,155 9	6,439 5	△ 14 5	△ 10 0	△ 0 07
26 Iron and steel	17,159 5	25,314 0	30,487 2	47 5	20 4	0 53
27 Non-ferrous metals	6,137 8	7,330 0	9,061 9	19 4	23 6	0 18
28 Metal products	13,452 4	12,484 4	10,131 3	△ 7 2	△ 18 8	△ 0 24
29 General-purpose machinery	10,246 2	10,474 7	9,424 8	2 2	△ 10 0	△ 0 11
30 Production machinery	14,373 2	15,905 4	14,359 1	10 7	△ 9 7	△ 0 16
31 Business oriented machinery	7,805 1	7,843 6	6,433 8	0 5	△ 18 0	△ 0 15
32 Electronic components	18,438 2	16,701 5	13,408 4	△ 9 4	△ 19 7	△ 0 34
33 Electrical machinery	17,926 6	15,272 4	15,042 7	△ 14 8	△ 1 5	△ 0 02
34 Information and communication electronics equipment	17,037 9	11,081 6	7,902 4	△ 35 0	△ 28 7	△ 0 33
35 Transportation equipment	42,667 5	53,016 3	45,571 5	24 3	△ 14 0	△ 0 77
39 Miscellaneous manufacturing products	14,608 0	11,836 2	9,956 2	△ 19 0	△ 15 9	△ 0 19
41 Construction	77,310 5	63,237 3	52,514 5	△ 18 2	△ 17 0	△ 1 10
46 Electricity, gas and heat supply	19,288 2	18,677 2	21,187 3	△ 3 2	13 4	0 26
47 Water supply	4,332 5	4,558 5	4,567 4	5 2	0 2	0 00
48 Waste management service	3,383 7	3,748 0	3,765 1	10 8	0 5	0 00
51 Commerce	96,947 6	106,274 5	93,655 8	9 6	△ 11 9	△ 1 30
53 Finance and insurance	38,149 5	41,586 8	32,093 9	9 0	△ 22 8	△ 0 98
55 Real estate	65,852 7	66,205 9	71,187 5	0 5	7 5	0 51
57 Transport and postal services	50,029 7	52,648 2	48,234 0	5 2	△ 8 4	△ 0 45
59 Information and communications	41,242 6	43,953 4	46,160 3	6 6	5 0	0 23
61 Public administration	36,225 9	38,537 9	39,405 2	6 4	2 3	0 09
63 Education and research	36,293 9	36,293 2	34,837 1	△ 0 0	△ 4 0	△ 0 15
64 Medical, health care and welfare	44,006 0	50,211 4	60,275 1	14 1	20 0	1 04
65 Miscellaneous non-profit services	4,232 3	5,030 6	5,165 6	18 9	2 7	0 01
66 Business services	61,413 4	63,827 9	66,161 2	3 9	3 7	0 24
67 Personal services	56,947 3	52,022 0	52,754 1	△ 8 6	1 4	0 08

Chart 1-8 Growth of Domestic production by industrial classification



6. Intermediate Inputs and Gross Value Added

Of the 939.6749 trillion yen worth of domestic production in 2011, the expenditure (intermediate input) of goods and services required for production accounted for 462.7696 trillion yen (ratio for intermediate input of 49.2%), while the gross value added, which increased through production activities, amounted to 476.9053 trillion yen (ratio for gross value added of 50.8%).

The ratio of intermediate input increased from 45.8% in 2000 to 48.0% in 2005, to 49.2% in 2011.

Chart 1-9 Intermediate inputs and Gross value added

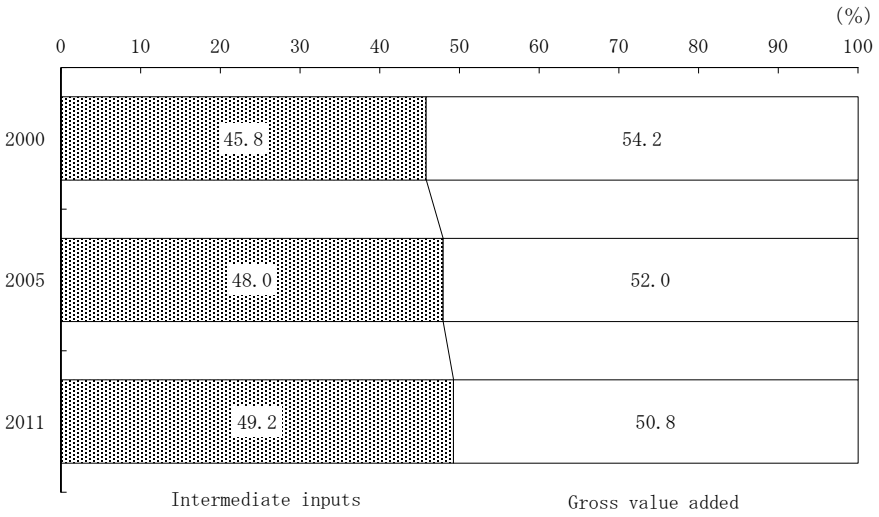


Table 1-9 Intermediate inputs and Gross value added

	Value (billion yen)			Distribution ratio (%)			Growth rate(%)	
	2000	2005	2011	2000	2005	2011	2000～2005	2005～2011
Domestic production	958,886.5	972,014.6	939,674.9	100.0	100.0	100.0	1.4	△ 3.3
Intermediate inputs	439,404.6	466,140.6	462,769.6	45.8	48.0	49.2	6.1	△ 0.7
Gross value added	519,481.9	505,874.1	476,905.3	54.2	52.0	50.8	△ 2.6	△ 5.7

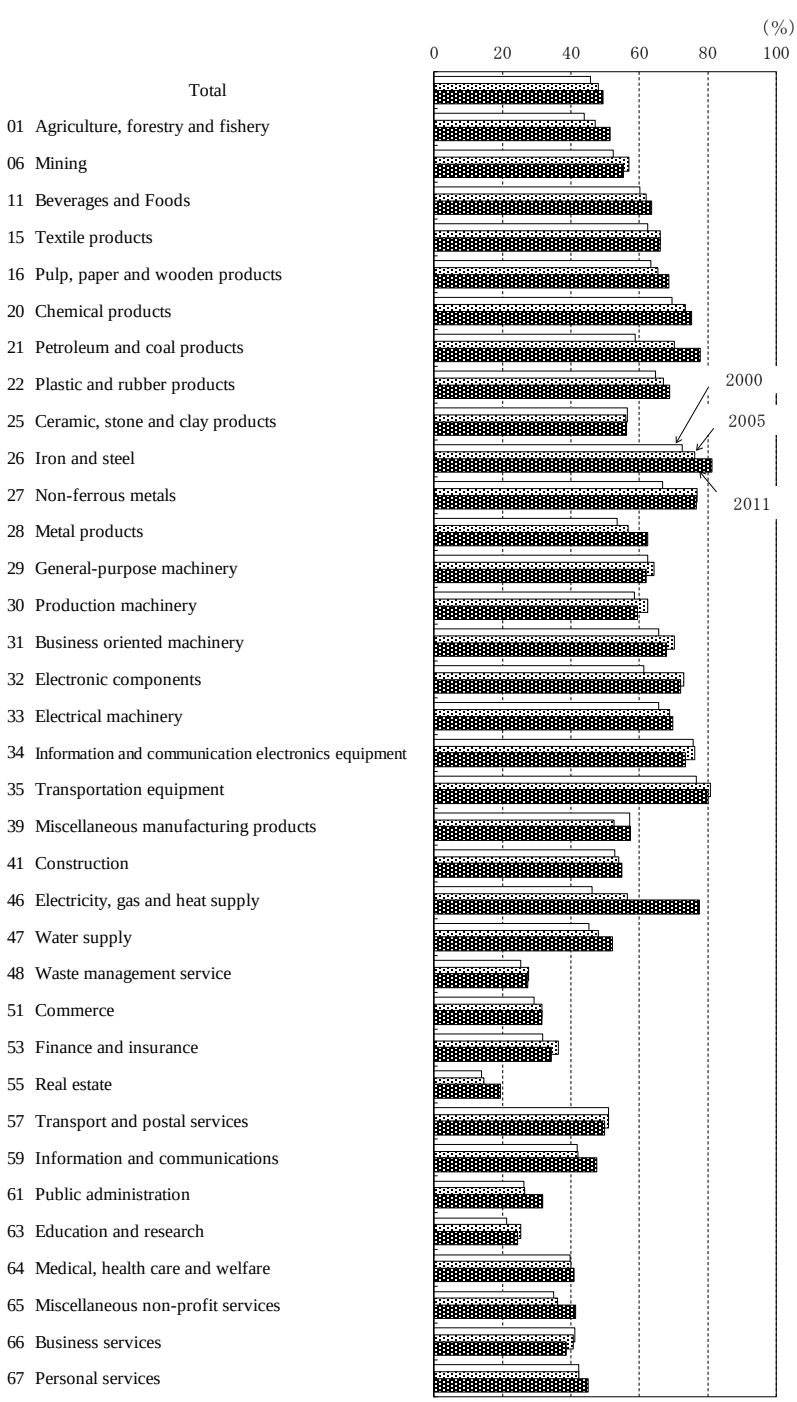
7. Intermediate Input ratio by Industry

Observing the intermediate input ratio by industry based on the 34-sector classification table, 2011 showed high trends for the manufacturing sector, including Iron and steel (81.3%), Transportation equipment (80.1%), and Petroleum and coal products (77.7%). For sectors other than manufacturing, Electricity, gas and heat supply (77.5%), Mining (55.2%), and Construction (54.8%) also shosd high trends.

However, Real estate (19.4%) and Education and research (24.4%) trend low.

When compared to 2005, the width of increase of Electricity, gas and heat supply (by 21.0 points) is the largest, followed by Petroleum and coal products (by 7.5 points), and Metal products (by 5.7 points).

Chart 1-10 Intermediate input ratio by Industry



(%)

	2000	2005	2011
Total	45 8	48 0	49 2
01 Agriculture, forestry and fishery	43 9	47 2	51 5
06 Mining	52 4	57 0	55 2
11 Beverages and Foods	60 1	61 9	63 5
15 Textile products	62 4	66 1	66 1
16 Pulp, paper and wooden products	63 3	65 3	68 7
20 Chemical products	69 6	73 3	75 3
21 Petroleum and coal products	58 9	70 2	77 7
22 Plastic and rubber products	64 6	66 9	68 9
25 Ceramic, stone and clay products	56 5	56 1	56 1
26 Iron and steel	72 5	76 1	81 3
27 Non-ferrous metals	66 7	76 9	76 7
28 Metal products	53 5	56 7	62 4
29 General-purpose machinery	62 5	64 2	61 9
30 Production machinery	58 6	62 4	59 3
31 Business oriented machinery	65 6	70 2	68 0
32 Electronic components	61 3	73 0	71 9
33 Electrical machinery	65 7	68 8	69 6
34 Information and communication electronics equipment	75 7	76 1	73 3
35 Transportation equipment	76 6	80 7	80 1
39 Miscellaneous manufacturing products	57 1	52 6	57 4
41 Construction	52 8	53 8	54 8
46 Electricity, gas and heat supply	46 1	56 5	77 5
47 Water supply	45 3	48 0	52 0
48 Waste management service	25 4	27 7	27 3
51 Commerce	29 2	31 5	31 5
53 Finance and insurance	31 8	36 3	34 2
55 Real estate	14 0	14 6	19 4
57 Transport and postal services	51 0	51 0	49 7
59 Information and communications	41 9	41 9	47 4
61 Public administration	26 3	26 3	31 7
63 Education and research	21 1	25 3	24 4
64 Medical, health care and welfare	39 9	39 9	40 8
65 Miscellaneous non-profit services	35 0	36 0	41 4
66 Business services	41 2	40 6	38 6
67 Personal services	42 4	42 2	45 0

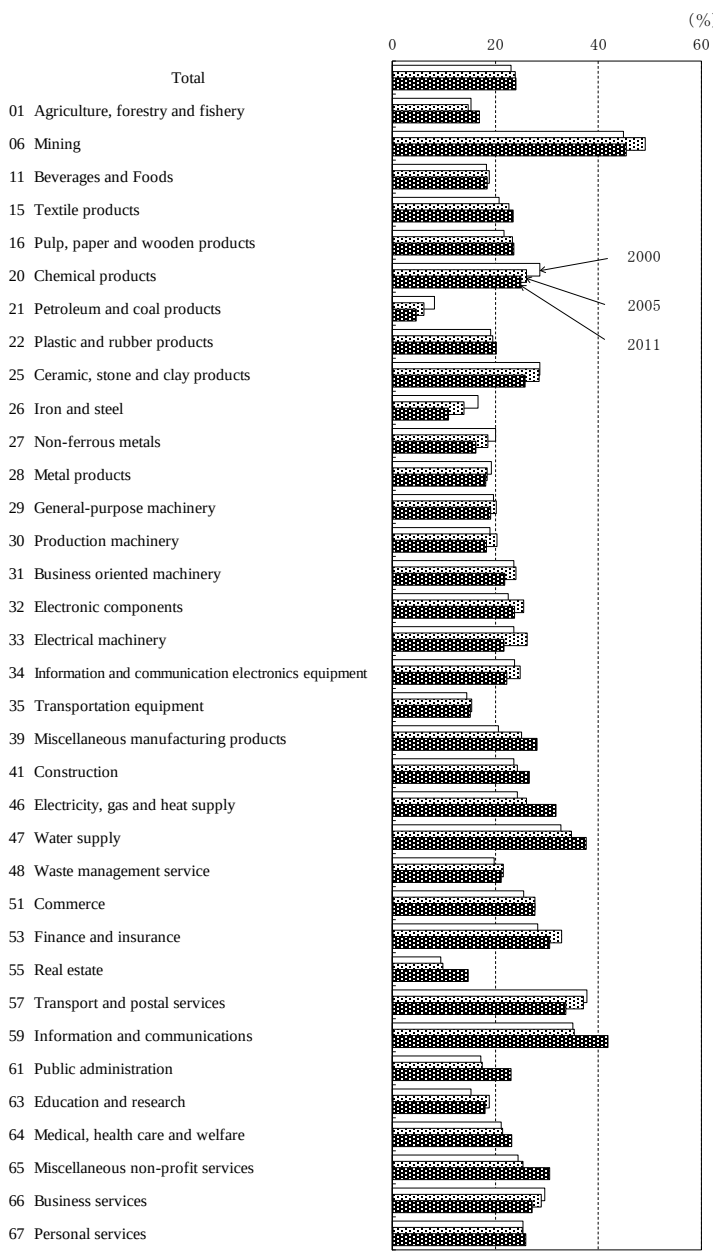
8. Intermediate input ratios of services by industry

Observing the intermediate input ratios of services by industry in 2011 after dividing intermediate inputs into “goods” and “services,” the intermediate input ratio for the industry total is 23.9%, indicating an increase by 0.1 points as compared to 2005 (23.8%).

In terms of the 34-sector classification table, Mining has the highest intermediate input ratio at 45.4%, followed by Information and communications at 41.8%, Water supply at 37.6%, Transport and postal services at 33.7%, and Electricity, gas and heat supply at 31.7%. On the other hand, the intermediate input ratio is lowest for Petroleum and coal products at 4.6%, followed by Iron and steel at 10.9%, Real estate at 14.7%, Transportation equipment at 15.0%, and Non-ferrous metals at 16.1%.

Compared to 2005, sectors that increased include Information and communications (by 6.6 points), Electricity, gas and heat supply (by 5.7 points), and Public administration (by 5.6 points), while those that decreased include Electrical machinery (by 4.5 points), Mining (by 3.7 points), and Transport and postal services (by 3.3 points).

Chart 1-11 Intermediate input ratios of services by industry



	2000	2005	2011
			(%)
Total	23.1	23.8	23.9
01 Agriculture, forestry and fishery	15.3	14.7	16.8
06 Mining	44.8	49.1	45.4
11 Beverages and Foods	18.3	18.8	18.3
15 Textile products	20.7	22.6	23.4
16 Pulp, paper and wooden products	21.6	23.2	23.5
20 Chemical products	28.7	26.0	24.8
21 Petroleum and coal products	8.2	6.1	4.6
22 Plastic and rubber products	19.1	19.5	20.1
25 Ceramic, stone and clay products	28.6	28.5	25.7
26 Iron and steel	16.7	13.8	10.9
27 Non-ferrous metals	20.1	18.5	16.1
28 Metal products	19.3	18.3	18.1
29 General-purpose machinery	19.7	20.2	19.0
30 Production machinery	19.0	20.3	18.3
31 Business oriented machinery	23.6	23.9	21.8
32 Electronic components	22.5	25.4	23.7
33 Electrical machinery	23.7	26.1	21.6
34 Information and communication electronics equipment	23.8	24.7	22.2
35 Transportation equipment	14.4	15.3	15.0
39 Miscellaneous manufacturing products	20.5	25.1	28.1
41 Construction	23.7	24.3	26.5
46 Electricity, gas and heat supply	24.3	26.0	31.7
47 Water supply	32.7	34.8	37.6
48 Waste management service	19.8	21.5	21.0
51 Commerce	25.5	27.6	27.6
53 Finance and insurance	28.3	32.7	30.5
55 Real estate	9.4	9.7	14.7
57 Transport and postal services	37.8	37.0	33.7
59 Information and communications	35.1	35.2	41.8
61 Public administration	17.2	17.3	22.9
63 Education and research	15.3	18.8	18.0
64 Medical, health care and welfare	21.1	21.3	23.2
65 Miscellaneous non-profit services	24.4	25.4	30.5
66 Business services	29.6	28.8	27.1
67 Personal services	25.3	25.2	25.9

9. Composition and Growth Rates of Gross Value Added

The amount of gross value added for 2011 is 476.9053 trillion yen. This figure breaks down into 248.4210 trillion yen for Compensation of employees (52.1%), 99.7080 trillion yen for Depreciation of fixed capital (20.9%), 86.8061 trillion yen for Operating surplus (18.2%), 31.9341 trillion yen for Indirect taxes (6.7%), 13.6333 trillion yen for Consumption expenditures outside households (2.9%), and -3.5972 trillion yen for Ordinary subsidies (deduction) (-0.8%).

Compared to 2005, the amount of gross value added as a whole decreased by 5.7%.

Observing the contribution ratio in relation to this growth rate (5.7% decrease), Operating surplus (-2.53%) is contribution to the decrease.

Chart 1-12 Composition of Gross value added

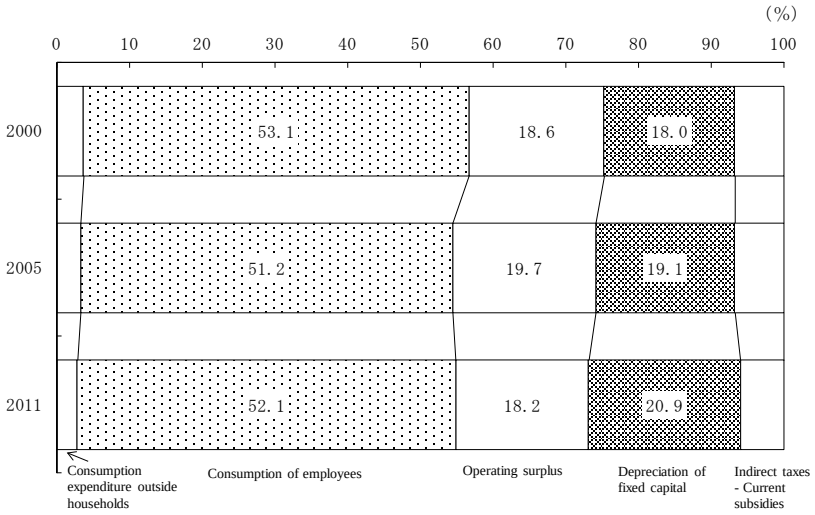


Chart 1-13 Growth of Gross value added

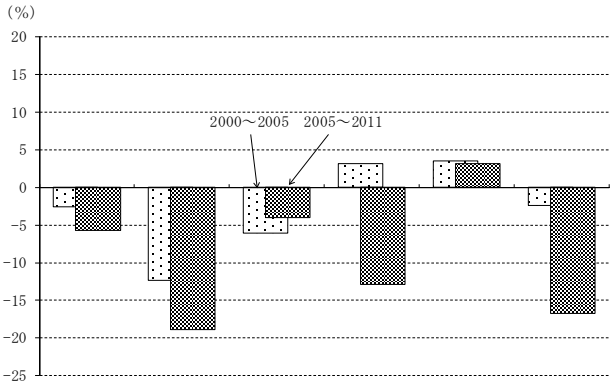


Table 1-10 Composition and rate of Gross value added

	Value (billion yen)			Distribution ratio (%)			Growth rate (%)		Contributions to changes (%)
	2000	2005	2011	2000	2005	2011	2000～2005	2005～2011	2005～2011
Total of gross value added	519,481 9	505,874 1	476,905 3	100 0	100 0	100 0	△ 2 6	△ 5 7	
Consumption expenditure outside households	19,171 2	16,802 7	13,633 3	3 7	3 3	2 9	△ 12 4	△ 18 9	△ 0 63
Consumption of employees	275,589 1	258,817 5	248,421 0	53 1	51 2	52 1	△ 6 1	△ 4 0	△ 2 06
Operating surplus	96,523 7	99,584 6	86,806 1	18 6	19 7	18 2	3 2	△ 12 8	△ 2 53
Depreciation of fixed capital	93,350 0	96,644 8	99,708 0	18 0	19 1	20 9	3 5	3 2	0 61
Indirect taxes	40,039 3	37,531 1	31,934 1	7 7	7 4	6 7	△ 6 3	△ 14 9	△ 1 11
(less) Current subsidies	△ 5,191 5	△ 3,506 7	△ 3,597 2	△ 1 0	△ 0 7	△ 0 8	△ 32 5	2 6	△ 0 02

10. Composition and Growth of Final Demand

The amount of final demand for 2011 is 560.633 trillion yen. This figure breaks down into 282.8214 trillion yen for Consumption expenditure (private) (50.5%), followed by 98.7365 trillion yen for Consumption expenditure of general government (17.6%), 91.3844 trillion yen for Gross domestic fixed capital formation (16.3%), and 70.9446 trillion yen for Exports (12.7%).

As compared to 2005, final demand as a whole decreased by 3.2%.

Observing the level of contribution to this growth rate (decrease of 3.2%), Gross domestic fixed capital formation (-3.88%) is contribution to this decrease.

Chart 1-14 Composition of Final demand

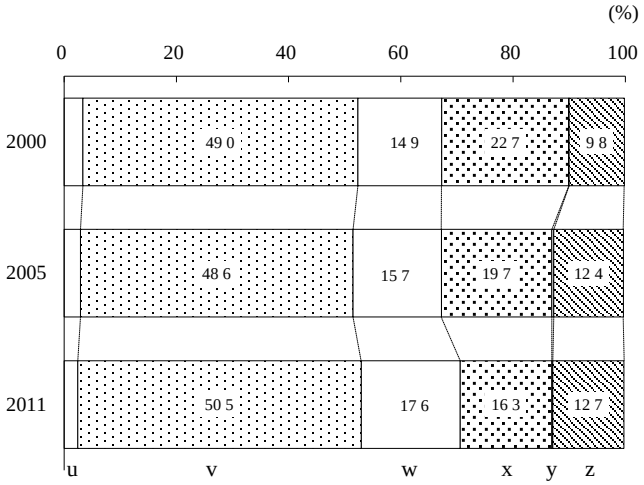


Chart 1-15 Growth of Final demand

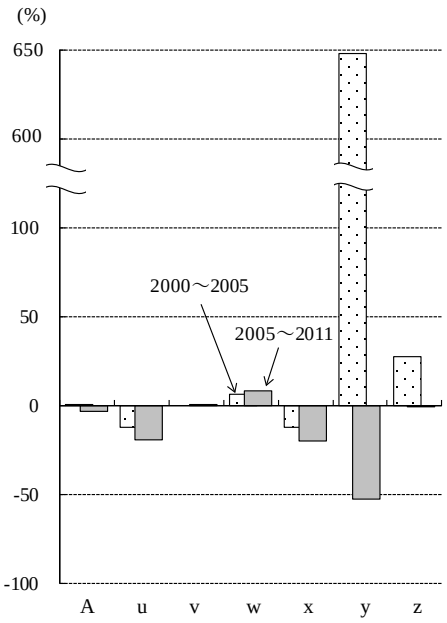


Table 1-11 Composition and Growth of Final demand

	Value (billion yen)			Distribution ratio (%)			Growth rate (%)		Contributions to changes (%)
	2000	2005	2011	2000	2005	2011	2000～2005	2005～2011	2005～2011
A Total final demand	573,643 1	578,357 2	560,063 3	100 0	100 0	100 0	0 8	△ 3 2	
u Comsumption expenditure outside households	19,171 2	16,802 7	13,633 3	3 3	2 9	2 4	△12 4	△18 9	△ 0 55
v Comsumption expenditure (private)	280,990 2	280,873 3	282,821 4	49 0	48 6	50 5	△ 0 0	0 7	0 34
w Comsumption expenditure of general government	85,706 2	91,041 6	98,736 5	14 9	15 7	17 6	6 2	8 5	1 33
x Gross domestic fixed capital formation	130,012 1	113,801 6	91,384 4	22 7	19 7	16 3	△12 5	△19 7	△ 3 88
y Increase in stocks	276 7	2,069 4	979 8	0 0	0 4	0 2	648 0	△52 7	△ 0 19
z Exports	56,298 7	71,611 3	70,944 6	9 8	12 4	12 7	27 2	△ 0 9	△ 0 12

11. Growth Rate and Contribution of Exports by Commodity

The amount of exports in 2011 is 70.9446 trillion yen, and when looking at the composition of exports by commodity classification as categorized in the 34 sector classification, Transportation equipment accounted for 20.3% (14.4206 trillion yen) of the whole commodity export industry, followed by Production machinery (8.5%, 6.250 trillion yen), Electronic components (7.9%, 5.6121 trillion yen), and Chemical products (6.8%, 4.7920 trillion yen).

As compared to 2005, sectors in which exports increased consist of Non-ferrous metals (by 1.5 points), Production machinery (by 1.2 points), and Iron and steel (by 1.0 points), while those that decreased include Information and communication electronics equipment (by 2.4 points) and Electronic components (by 1.1 points).

When looking at the growth rate in relation to 2005, Miscellaneous manufacturing products (49.4% decrease) and Information and communication electronics equipment (43.2% decrease) decreased, while Non-ferrous metals (87.5% increase) and Petroleum and coal products (73.9% increase) rose.

When looking at the level of contribution to the overall growth rate of industries (0.9% decrease), Information and communication electronics equipment (-2.41%) and Electronic components (-1.21%) have been contributing to the decrease.

Chart 1-16 Growth of Exports by Commodity classification

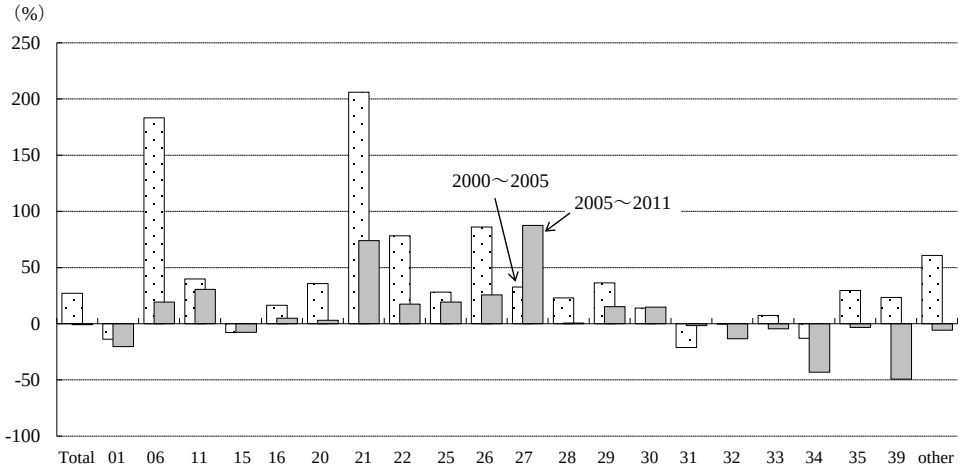


Table 1-12 Composition and Growth of Exports by Commodity classification

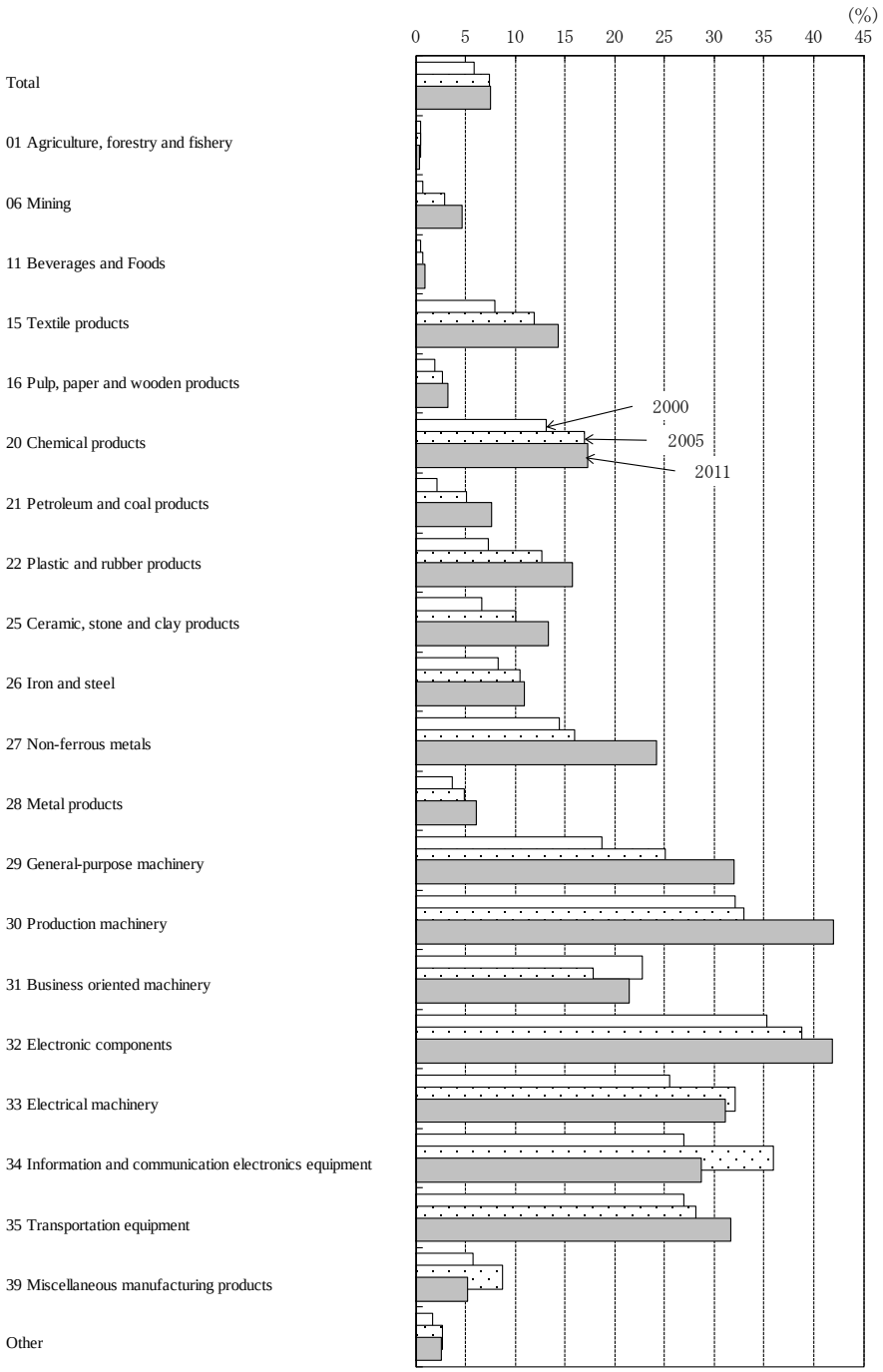
	Value (billion yen)			Distribution ratio (%)			Growth rate (%)		Contributions to changes (%)
	2000	2005	2011	2000	2005	2011	2000～2005	2005～2011	2005～2011
Total	56,298 7	71,611 3	70,944 6	100 0	100 0	100 0	27 2	△ 0 9	
01 Agriculture, forestry and fishery	69 8	60 1	47 9	0 1	0 1	0 1	△ 13 8	△ 20 4	△ 0 02
06 Mining	10 5	29 8	35 6	0 0	0 0	0 1	183 2	19 4	0 01
11 Beverages and Foods	181 0	253 2	331 0	0 3	0 4	0 5	39 9	30 7	0 11
15 Textile products	564 1	520 1	479 8	1 0	0 7	0 7	△ 7 8	△ 7 7	△ 0 06
16 Pulp, paper and wooden products	290 6	338 5	355 5	0 5	0 5	0 5	16 5	5 0	0 02
20 Chemical products	3,422 7	4,648 6	4,792 0	6 1	6 5	6 8	35 8	3 1	0 20
21 Petroleum and coal products	283 3	867 2	1,507 8	0 5	1 2	2 1	206 1	73 9	0 89
22 Plastic and rubber products	973 4	1,734 7	2,037 2	1 7	2 4	2 9	78 2	17 4	0 42
25 Ceramic, stone and clay products	560 1	718 1	857 8	1 0	1 0	1 2	28 2	19 4	0 20
26 Iron and steel	1,429 1	2,658 1	3,342 3	2 5	3 7	4 7	86 0	25 7	0 96
27 Non-ferrous metals	883 2	1,171 8	2,197 5	1 6	1 6	3 1	32 7	87 5	1 43
28 Metal products	498 5	612 6	617 1	0 9	0 9	0 9	22 9	0 7	0 01
29 General-purpose machinery	1,922 2	2,621 4	3,018 2	3 4	3 7	4 3	36 4	15 1	0 55
30 Production machinery	4,611 0	5,251 3	6,025 0	8 2	7 3	8 5	13 9	14 7	1 08
31 Business oriented machinery	1,775 6	1,401 5	1,377 4	3 2	2 0	1 9	△ 21 1	△ 1 7	△ 0 03
32 Electronic components	6,500 3	6,479 0	5,612 1	11 5	9 0	7 9	△ 0 3	△ 13 4	△ 1 21
33 Electrical machinery	4,569 9	4,902 2	4,677 0	8 1	6 8	6 6	7 3	△ 4 6	△ 0 31
34 Information and communication electronics equipment	4,583 6	3,988 7	2,266 3	8 1	5 6	3 2	△ 13 0	△ 43 2	△ 2 41
35 Transportation equipment	11,495 7	14,898 6	14,420 6	20 4	20 8	20 3	29 6	△ 3 2	△ 0 67
39 Miscellaneous manufacturing products	838 5	1,034 4	523 4	1 5	1 4	0 7	23 4	△ 49 4	△ 0 71
18 Miscellaneous manufacturing products	10,835 7	17,421 5	16,423 4	19 2	24 3	23 1	60 8	△ 5 7	△ 1 39

12. Commodity Export Ratios of Domestic Products

When looking at the commodity export ratios of domestic production in 2011 as categorized in the 34-sector classification table, Production machinery has the highest ratio at 42.0%, followed by Electronic components (41.9%), General-purpose machinery (32.0%), Transportation equipment (31.6%), and Electrical machinery (31.1%).

Compared to 2005, ratios that increased consist of Production machinery (by 9.0 points), Non-ferrous metals (by 8.2 points), and General-purpose machinery (by 7.0 points), while ratios that decreased consist of Information and communication electronics equipment (by 7.3 points) and Miscellaneous manufacturing products (by 3.4 points).

Chart 1-17 Commodity export ratios of Domestic products



13. Growth Rate and Contribution of Imports by Commodity

Imports in 2011 amounted to 83.1581 trillion yen, and by Commodity classification in the 34-sector classification table, the composition of imports for Mining has the highest ratio at 28.0% (23.3096 trillion yen), followed by Beverages and Foods (7.8%, 6.4974 trillion yen), Chemical products (6.9%, 5.7441 trillion yen), and Information and communication electronics equipment (5.6%, 4.6163 trillion yen).

As compared to 2005, increases in the import ratio are seen in Mining (increased by 6.8 points) and Chemical products (increased by 1.3 points), while decreases in the import ratio are seen in Electronic components (decreased by 1.6 points) and Transportation equipment (decreased by 1.0 points).

When looking at the growth rates of imports by commodity in relation to 2005, there are increases in Mining (51.8%), Chemical products (42.4%), and Petroleum and coal products (37.9%), while decreases are seen in Production machinery (26.8%) and Electronic components (20.4%).

When looking at the level of contribution to the growth rate (14.7%) of the industry total, Mining (10.97%) and Chemical products (2.36%) have been contributing to this increase.

Chart 1-18 Growth of Imports by Commodity classification

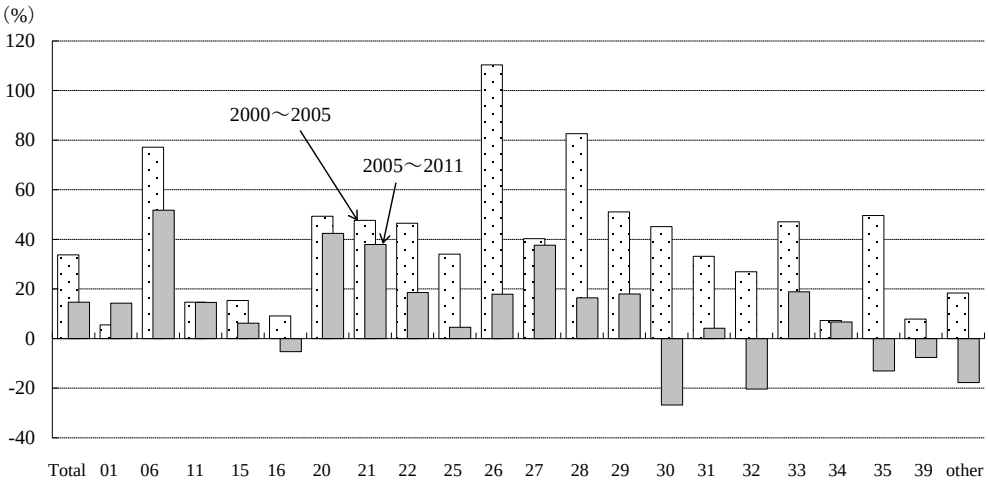


Table 1-13 Composition and Growth of Imports by Commodity classification

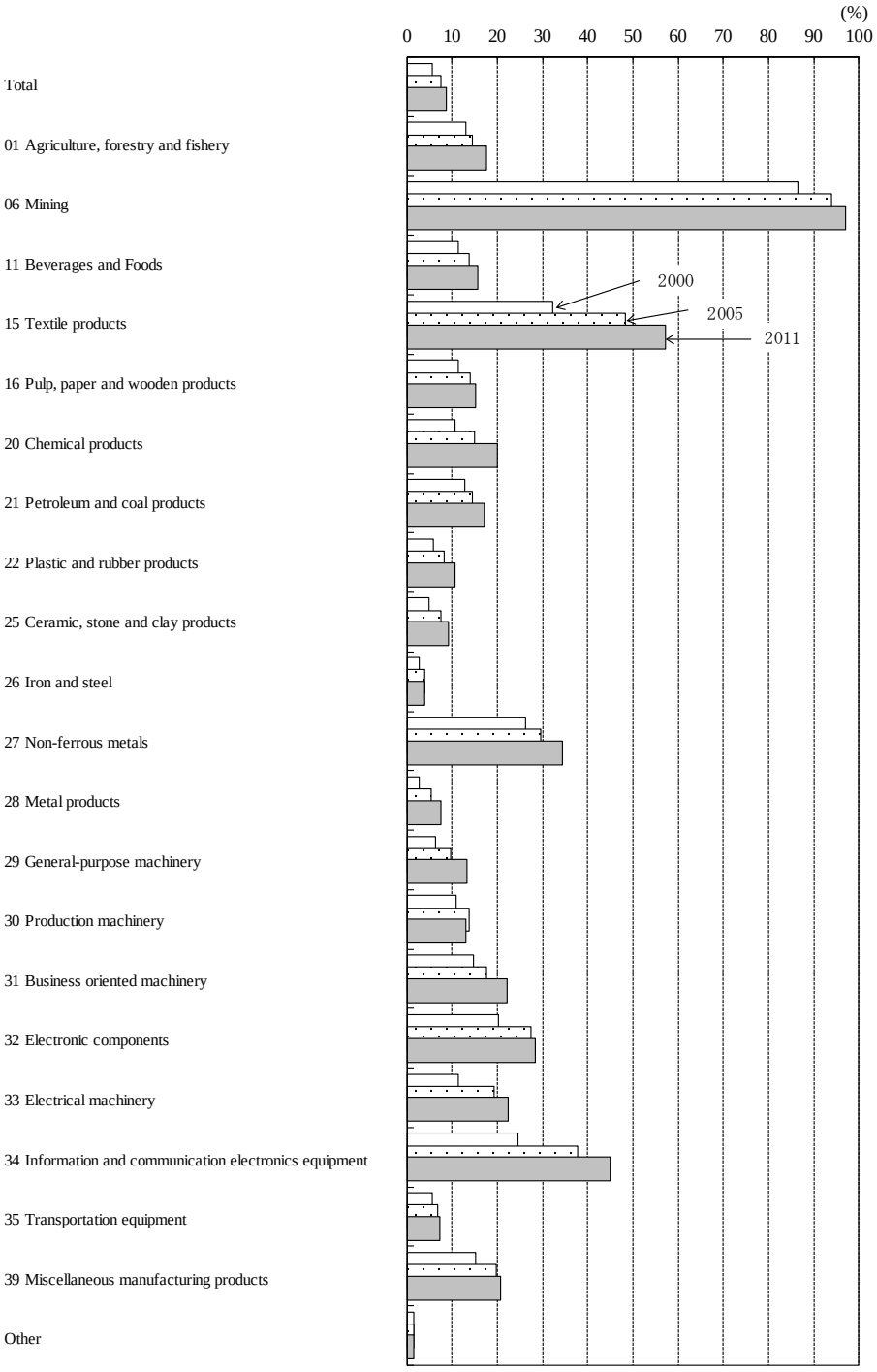
	Value (billion yen)			Distribution ratio (%)			Growth rate (%)		Contributions to changes (%)
	2000	2005	2011	2000	2005	2011	2000～2005	2005～2011	2005～2011
Total	54,161.2	72,483.1	83,158.1	100.0	100.0	100.0	33.8	14.7	
01 Agriculture, forestry and fishery	2,124.2	2,241.8	2,562.8	3.9	3.1	3.1	5.5	14.3	0.44
06 Mining	8,669.1	15,360.2	23,309.6	16.0	21.2	28.0	77.2	51.8	10.97
11 Beverages and Foods	4,942.9	5,667.3	6,497.4	9.1	7.8	7.8	14.7	14.6	1.15
15 Textile products	3,118.0	3,598.6	3,819.9	5.8	5.0	4.6	15.4	6.2	0.31
16 Pulp, paper and wooden products	1,868.2	2,037.4	1,929.3	3.4	2.8	2.3	9.1	△ 5.3	△ 0.15
20 Chemical products	2,702.5	4,035.0	5,744.1	5.0	5.6	6.9	49.3	42.4	2.36
21 Petroleum and coal products	1,854.5	2,738.6	3,775.7	3.4	3.8	4.5	47.7	37.9	1.43
22 Plastic and rubber products	744.9	1,091.0	1,294.2	1.4	1.5	1.6	46.5	18.6	0.28
25 Ceramic, stone and clay products	397.2	532.6	556.9	0.7	0.7	0.7	34.1	4.6	0.03
26 Iron and steel	451.3	949.5	1,119.7	0.8	1.3	1.3	110.4	17.9	0.23
27 Non-ferrous metals	1,858.0	2,607.0	3,588.0	3.4	3.6	4.3	40.3	37.6	1.35
28 Metal products	364.5	665.6	774.9	0.7	0.9	0.9	82.6	16.4	0.15
29 General-purpose machinery	554.3	837.6	988.2	1.0	1.2	1.2	51.1	18.0	0.21
30 Production machinery	1,183.5	1,718.6	1,258.6	2.2	2.4	1.5	45.2	△ 26.8	△ 0.63
31 Business oriented machinery	1,041.9	1,387.3	1,445.6	1.9	1.9	1.7	33.2	4.2	0.08
32 Electronic components	3,038.9	3,859.6	3,072.1	5.6	5.3	3.7	27.0	△ 20.4	△ 1.09
33 Electrical machinery	1,700.3	2,501.0	2,973.6	3.1	3.5	3.6	47.1	18.9	0.65
34 Information and communication electronics equipment	4,033.4	4,326.7	4,616.3	7.4	6.0	5.6	7.3	6.7	0.40
35 Transportation equipment	1,875.2	2,804.7	2,437.2	3.5	3.9	2.9	49.6	△ 13.1	△ 0.51
39 Miscellaneous manufacturing products	2,481.8	2,677.3	2,472.6	4.6	3.7	3.0	7.9	△ 7.6	△ 0.28
Other	9,156.6	10,845.8	8,921.6	16.9	15.0	10.7	18.4	△ 17.7	△ 2.65

14. Commodity Import Ratios of Domestic Demand

As categorized in the 34-sector classification table, the commodity import ratios of domestic demand in 2011 shows the highest for Mining at 97.0%, followed by Textile products (57.1%), Information and communication electronics equipment (45.0%), and Non-ferrous metals (34.4%).

As compared to 2005, commodity import ratios of domestic demand increased for Textile products (8.8 points), Information and communication electronics equipment (7.1 points), and Chemical products (5.1 points), while showing a decrease for Production machinery (0.8 points).

Chart 1-19 Commodity import ratios of Domestic demand

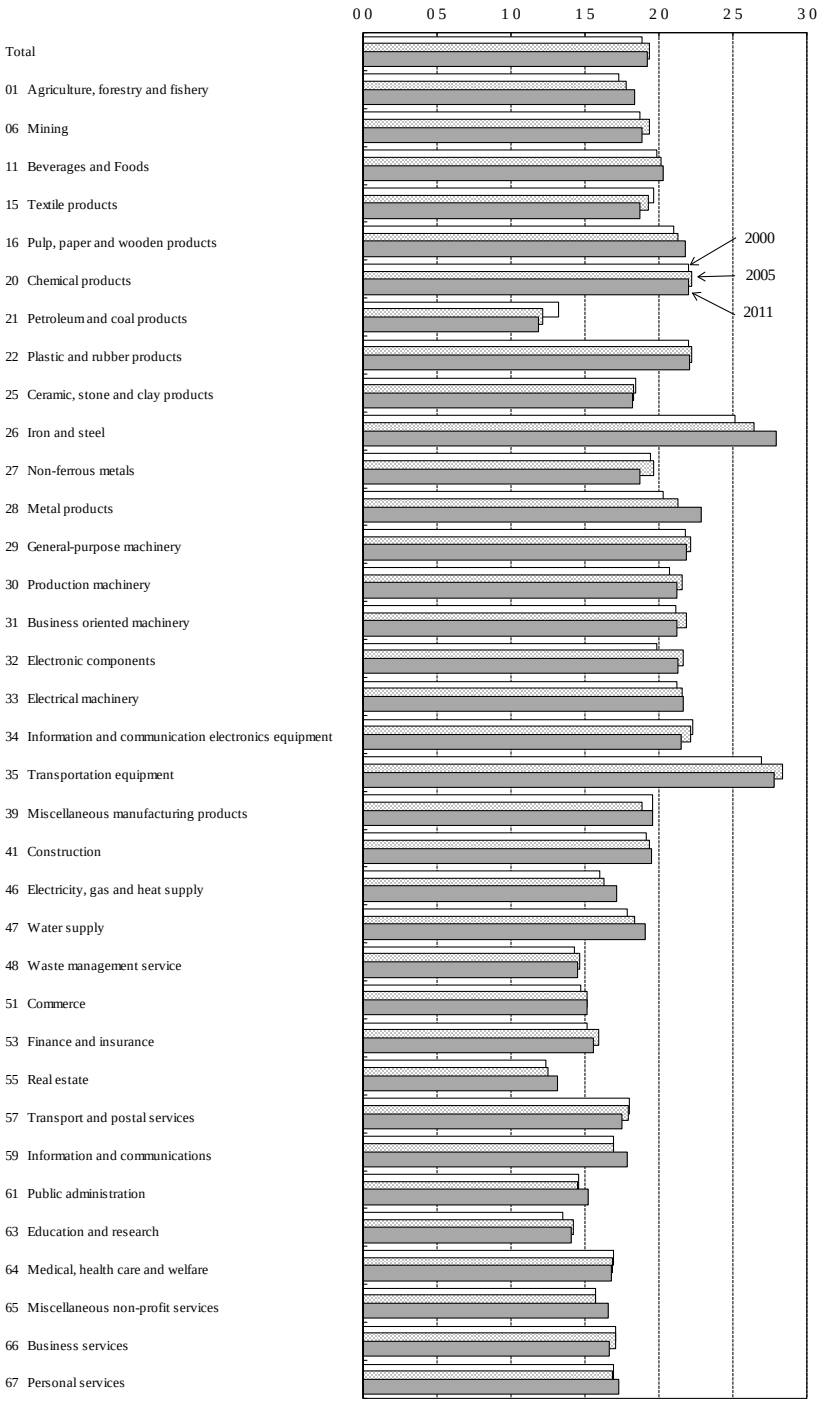


15. Intensity of Products Impact

As inferred from the 2011 inverse coefficient matrix in the 34-sector classification table, a unit of increase in final demand has produced 1.9176 times the impact on the average of all industries. By industry, there are sectors in the manufacturing industry that has a larger impact than the average, including Iron and steel (2.7872 times), Transportation equipment (2.7745 times), and Metal products (2.2859 times). Outside of the manufacturing industry, Construction (1.9461 times) receives a high impact.

Compared to 2005, the intensity of products impact by industry in 2011 shows increases in 15 sectors including Metal products, Iron and steel, Information and communications, and Electricity, gas and heat supply, and shows decreases in 20 sectors including Non-ferrous metals, Business oriented machinery, and Information and communication electronics equipment.

Chart 1-20 Intensity of Products impact



	2000	2005	2011
Total	1 8850	1 9341	1 9176
01 Agriculture, forestry and fishery	1 7249	1 7810	1 8351
06 Mining	1 8713	1 9372	1 8879
11 Beverages and Foods	1 9817	2 0130	2 0288
15 Textile products	1 9625	1 9306	1 8687
16 Pulp, paper and wooden products	2 0998	2 1252	2 1798
20 Chemical products	2 2017	2 2207	2 2010
21 Petroleum and coal products	1 3241	1 2168	1 1837
22 Plastic and rubber products	2 1998	2 2218	2 2028
25 Ceramic, stone and clay products	1 8453	1 8281	1 8228
26 Iron and steel	2 5106	2 6451	2 7872
27 Non-ferrous metals	1 9430	1 9643	1 8708
28 Metal products	2 0249	2 1270	2 2859
29 General-purpose machinery	2 1737	2 2145	2 1822
30 Production machinery	2 0716	2 1568	2 1192
31 Business oriented machinery	2 1112	2 1864	2 1223
32 Electronic components	1 9828	2 1623	2 1294
33 Electrical machinery	2 1183	2 1567	2 1631
34 Information and communication electronics equipment	2 2299	2 2131	2 1502
35 Transportation equipment	2 6898	2 8314	2 7745
39 Miscellaneous manufacturing products	1 9578	1 8867	1 9574
41 Construction	1 9125	1 9365	1 9461
46 Electricity, gas and heat supply	1 5978	1 6296	1 7137
47 Water supply	1 7867	1 8368	1 9055
48 Waste management service	1 4304	1 4640	1 4489
51 Commerce	1 4716	1 5129	1 5103
53 Finance and insurance	1 5173	1 5921	1 5558
55 Real estate	1 2342	1 2499	1 3170
57 Transport and postal services	1 7966	1 7940	1 7485
59 Information and communications	1 6902	1 6923	1 7857
61 Public administration	1 4596	1 4526	1 5215
63 Education and research	1 3505	1 4250	1 4072
64 Medical, health care and welfare	1 6911	1 6840	1 6744
65 Miscellaneous non-profit services	1 5695	1 5742	1 6536
66 Business services	1 7086	1 7045	1 6666
67 Personal services	1 6932	1 6891	1 7298

16. Final Demand and Induced Domestic Production

When looking at ratios by final demand item to determine which final demand items induced the domestic production of 939.6749 trillion yen in 2011 (Domestic production inducement distribution ratios by Individual final demand items), Consumption expenditure (private) (46.5%) is the highest, followed by Gross domestic fixed capital formation (17.8%), Consumption expenditure of general government (16.5%), and Exports (16.2%).

As compared to 2005, the Domestic products inducement distribution ratios attributable to Consumption expenditure (private), Consumption expenditure of general government, and Exports increased, while those attributable to other items decreased.

When looking at the extent to which a unit of change in the final demand induced domestic production (Domestic Production Inducement Coefficients by Individual final demand items), Exports exerts the greatest influence of 2.1506 times, followed by Gross domestic fixed capital formation (1.8316 times) and Increase in stocks (1.6761 times).

As compared to 2005, the Domestic products inducement coefficients increased for Consumption expenditure outside households, Consumption expenditure (private), and Consumption expenditure of general government, and decreased for all other items.

Chart 1-21 Domestic production inducement Distribution ratios by Individual final demand items

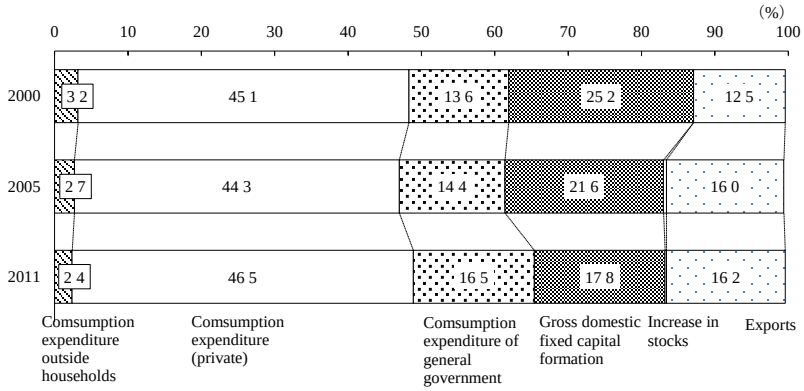


Chart 1-22 Domestic Production Inducement Coefficients by Individual final demand items

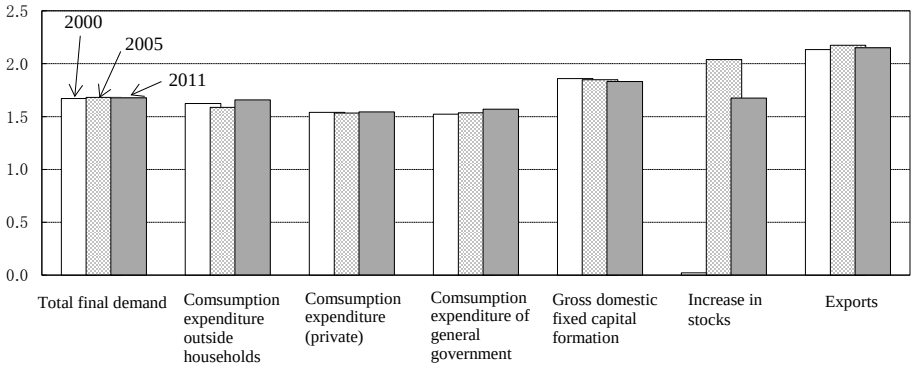


Table 1-12 Domestic Production induced, Domestic production inducement distribution ratios and Domestic production inducement coefficients by Individual final demand items

	Domestic Production Induced (billion yen)			Domestic Production Inducement Distribution Ratio(%)			Domestic Production Inducement Coefficient		
	2000	2005	2011	2000	2005	2011	2000	2005	2011
Total final demand	958,886 5	972,014 6	939,674 9	100 0	100 0	100 0	1 6716	1 6806	1 6778
Comsumption expenditure outside households	31,144 7	26,671 1	22,612 9	3 2	2 7	2 4	1 6246	1 5873	1 6587
Comsumption expenditure (private)	432,645 3	430,332 5	436,917 7	45 1	44 3	46 5	1 5397	1 5321	1 5449
Comsumption expenditure of general government	130,514 2	139,790 9	154,990 5	13 6	14 4	16 5	1 5228	1 5355	1 5697
Gross domestic fixed capital formation	241,727 9	210,295 1	167,376 5	25 2	21 6	17 8	1 8593	1 8479	1 8316
Increase in stocks	6 2	4,217 7	1,642 3	0 0	0 4	0 2	0 0225	2 0381	1 6761
Exports	120,175 1	155,711 3	152,575 7	12 5	16 0	16 2	2 1346	2 1744	2 1506

17. Final Demand and Induced Gross Value added

When looking at ratios by final demand item to determine which final demand items induced the gross value added of 476.9053 trillion yen in 2011 (Gross value added inducement ratio by Individual final demand items), Consumption expenditure (private) (50.6%) is the highest, followed by Consumption expenditure of general government (19.2%), Gross domestic fixed capital formation (15.4%), and Exports (11.9%).

As compared to 2005, the inducement impact of Consumption expenditure (private) and Consumption expenditure of general government on the gross value added increased.

In so far as the impact of the induced gross value added attributable to a unit of change in the final demand is concerned (Gross value added inducement coefficients by final demand item), Consumption expenditure of general government exerts the greatest influence at 0.9284 times, followed by Consumption expenditure outside households at 0.8633 points and Consumption expenditure (private) at 0.8536 points.

As compared to 2005, the gross value added inducement coefficients became larger for Consumption expenditure outside households, while those for all other items decreased.

Chart 1-23 Gross value added inducement ratio by Individual Final demand items

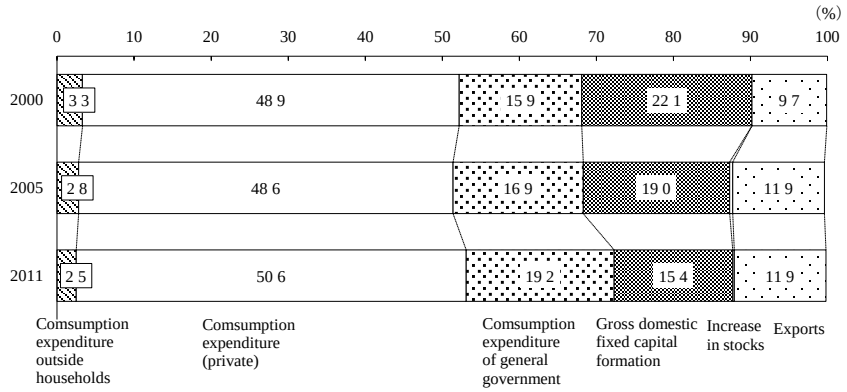


Chart 1-24 Gross value added Inducement coefficients by the Final demand items

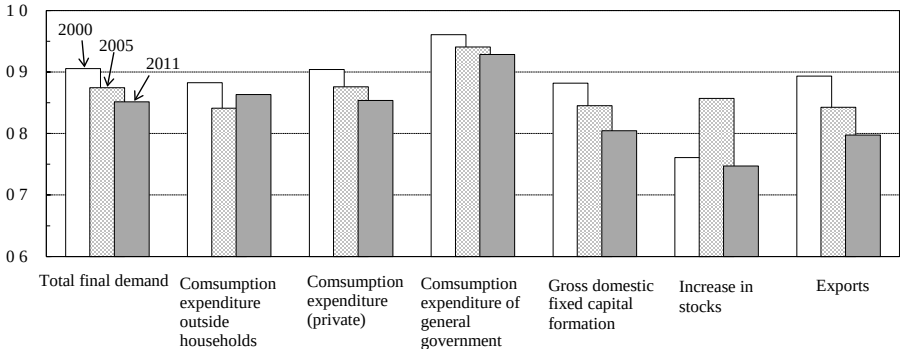


Table 1-15 Gross value added induced, Gross value added inducement distribution ratios and Gross value added inducement coefficients by Individual final demand items

	Gross Value Added Induced (billion yen)			Gross Value Added Inducement Distribution Ratio(%)			Gross Value Added Inducement Coefficient		
	2000	2005	2011	2000	2005	2011	2000	2005	2011
Total final demand	519,481 9	505,874 1	476,905 3	100 0	100 0	100 0	0 9056	0 8747	0 8515
Comsumption expenditure outside households	16,922 1	14,134 3	11,769 9	3 3	2 8	2 5	0 8827	0 8412	0 8633
Comsumption expenditure (private)	253,998 9	246,009 2	241,425 5	48 9	48 6	50 6	0 9039	0 8759	0 8536
Comsumption expenditure of general government	82,345 1	85,634 8	91,667 3	15 9	16 9	19 2	0 9608	0 9406	0 9284
Gross domestic fixed capital formation	114,670 5	96,215 1	73,523 9	22 1	19 0	15 4	0 8820	0 8455	0 8046
Increase in stocks	210 5	1,774 1	732 0	0 0	0 4	0 2	0 7607	0 8573	0 7470
Exports	50,289 0	60,347 1	56,590 9	9 7	11 9	11 9	0 8933	0 8427	0 7977

18 Final Demand and Induced Imports

When looking at ratios by final demand item to determine which final demand items induced the value of Imports of 83.1581 trillion yen in 2011 (Import inducement distribution ratios by Individual final demand items), Consumption expenditure (private) is the highest at 49.8%, followed by Gross domestic fixed capital formation (21.5%) and Exports (17.3%).

As compared to 2005, the Imports inducement distribution ratios attributable to Consumption expenditure (private), Consumption expenditure of general government, and Exports increased.

The impact of the Imports inducement coefficients attributable to a unit of change in the final demand (Imports inducement coefficients by Individual final demand items) may be traced back to such sectors as Increase in stocks (0.2530 points), followed by Exports (0.2023 points) and Gross domestic fixed capital formation (0.1954 points).

As compared to 2005, the imports inducement coefficients decreased for Consumption expenditure outside households decreased, while all other items showed an increase.

Chart 1-25 Import inducement distribution ratios by Individual final demand items

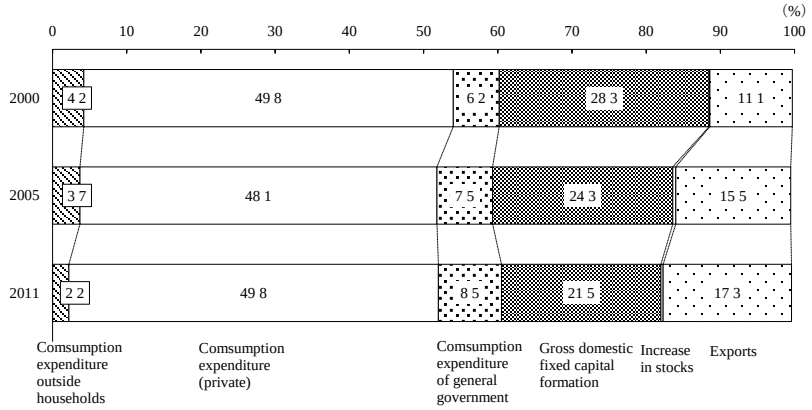


Chart 1-26 Imports inducement coefficients by Individual final demand items

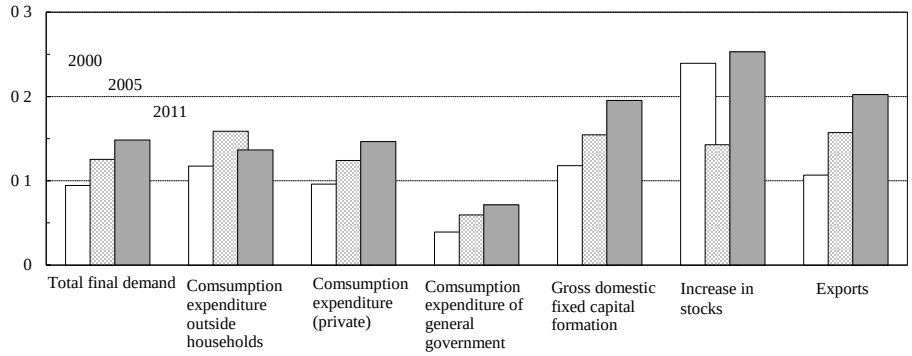


Table 1-16 Import induced, Import inducement distribution ratios and Imports inducement coefficients by Individual final demand items

	Imports Induced (billion yen)			Imports Inducement Distribution Ratio(%)			Imports Inducement Coefficient		
	2000	2005	2011	2000	2005	2011	2000	2005	2011
Total final demand	54,161 2	72,483 1	83,158 1	100 0	100 0	100 0	0 0944	0 1253	0 1485
Comsumption expenditure outside households	2,249 1	2,668 4	1,863 4	4 2	3 7	2 2	0 1173	0 1588	0 1367
Comsumption expenditure (private)	26,991 3	34,864 1	41,395 9	49 8	48 1	49 8	0 0961	0 1241	0 1464
Comsumption expenditure of general government	3,361 1	5,406 7	7,069 1	6 2	7 5	8 5	0 0392	0 0594	0 0716
Gross domestic fixed capital formation	15,341 6	17,586 5	17,860 5	28 3	24 3	21 5	0 1180	0 1545	0 1954
Increase in stocks	66 2	295 4	247 9	0 1	0 4	0 3	0 2393	0 1427	0 2530
Exports	6,009 7	11,264 2	14,353 7	11 1	15 5	17 3	0 1067	0 1573	0 2023

CHAPTER Ⅱ
ORGANIZATIONAL STRUCTURE AND COMPILATION PROCESS

§1 Organizational Structure

1 A Joint Undertaking Organizational Structure

Since initial publication in 1955, Input-Output Tables for Japan have been compiled jointly by various pertinent authorities, including the Ministry of Internal Affairs and Communications.

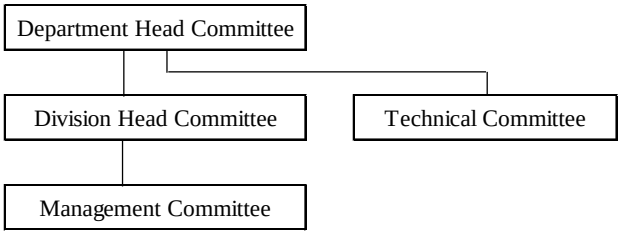
The 2011 Input-Output Tables were compiled as part of a five-year project starting in 2011 involving ten Office, Ministries and Agencies: The Ministry of Internal Affairs and Communications; Cabinet Office; Financial Services Agency; Ministry of Finance; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Health, Labour and Welfare; Ministry of Agriculture, Forestry and Fisheries; Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure Transport and Tourism; and Ministry of the Environment.

2 Organizational Structure and Tasks

To enable smooth compilation, the Department Head Committee and other committees entrusted with various relevant functions were established as indicated in Chart 2-1.

Table 2-1 gives the functional assignments to Office, Ministries and Agencies.

Chart 2-1 Work Implementation Structure



Notes: 1 Technical Committee

Comprised of a panel of specialists capable of advising the Department Head Committee on technical matters related to the I-O Tables.

2 Management Committee

Comprised of representatives of authorities participating in joint projects. Where necessary, working groups comprised of representatives of some authorities were established under this Committee in order to examine specific items in a concentrated manner.

3 Operating budget

For the operating budgets for compiling Input-Output Tables, necessary expenses (excluding personnel labor costs) are earmarked in a lump sum to the Ministry of Internal Affairs and Communications, which in turn distributes the funds to the appropriate authorities in accordance with operational specifics.

Table 2-1 Major Assignments of Operations

Name	Primary Operations
Ministry of Internal Affairs and Communications	(1) Planning, liaising, coordination, and publication (2) Computerized tabulation and analysis calculations (3) Postal services and mail delivery, information and communications (exclusive of those covered by other authorities) (4) Export and import sectors, within final demand sectors
Cabinet Office	(1) Sewage disposal, public administration, miscellaneous non-profit services, personal services (exclusive of those covered by other authorities) (2) Final demand sectors (exclusive of export and import sectors) (3) Gross value added sectors (exclusive of employee compensation)
Financial Services Agency	• Finance and insurance sectors
Ministry of Finance	• Salt, alcohol, tobacco, legal, financial and accounting service sectors
Ministry of Education, Culture, Sports, Science and Technology	• School lunch, education and research
Ministry of Health, Labour and Welfare	(1) Medicaments, water supply (2) Medical service, health and hygiene, social insurance and social welfare, nursing care (3) Worker dispatching services, building maintenance services (4) Hotels, eating and drinking services, cleaning, barber shops, beauty shops and public baths, movie theaters, ceremonial occasions (5) Total of compensation of employees, of gross value added sectors
Ministry of Agriculture, Forestry and Fisheries	(1) Agriculture, forestry and fishery (2) Beverages and foods manufacturing industries (exclusive of school lunch, liquors, and tobacco), lumber

Ministry of Economy, Trade and Industry	(1) Mining and manufacturing industries (exclusive of those covered by other authorities) (2) Electricity, gas and heat supply, wholesale and retail trade (3) Information services, newspaper, publication (4) Business services (exclusive of those covered by other authorities) (5) Office supplies
Ministry of Land, Infrastructure, Transport and Tourism	(1) Construction, real estate and civil engineering sectors (2) Transport, ships and repair of ships, rolling stock and repair of rolling stock
Ministry of the Environment	• Waste treatment services

§2 Overview of Compilation Project

As shown in Table 2-2, the compilation of Input-Output tables can be categorized into "I Review of Framework and Preliminary Work", "II Main Work for Compiling Input-Output tables" and "III Compilation of Linked Input-Output tables", but as enormous amounts of materials are handled, and work contents cover a broad range of topics, compilation was implemented as a joint project by the 10 authorities, and the project period extended for more than 5 years.

In addition, among the various statistical tables created as Input-Output tables, the "Basic Transaction Table," which serves as the most basic table, was compiled based on the procedure shown in Chart 2-2.

An overview is shown below for each work category.

1 Determination of Basic Guidelines

Since the first publication in 1955, Input-Output tables for Japan have been compiled roughly every five years as a joint project by relevant authorities. However, the compilation cycle and project structure are not legally specified. Since the tables are a large-scale project spanning over five years as a joint project by relevant authorities, in order to systematically and rationally carry out work, it is necessary to create a framework beforehand regarding the format of the Input-Output tables, the division of work, and the schedule. In addition, as Input-Output tables are positioned as part of the SNA (System of National Accounts) and it is necessary to achieve consistency with the Japan Standard Industrial Classification in establishing sectors, it is also necessary to organize review topics in the compilation process.

To support such requirements, the Basic Guidelines are what are decided on by the Department Head Committee as something that indicates the fundamental design for when starting work to compile Input-Output tables. For the 2011 tables, the "2011 Basic Guidelines for Input-Output tables" were decided on in December 2010.

In these Basic Guidelines, the following points were clarified as basic recognition for when compiling the 2011 tables:

[1] Under the new Statistics Act (Act No. 53 of 2007), which was fully enforced in April 2009, Input-Output tables were designated as "core statistics";

[2] After compilation of the 2005 tables, there have been large environmental changes such as

i) Formulation of a "basic plan related to the development of official statistics" (hereinafter referred to as "Official Statistics Basic Plan" in this Section), based on the Statistics Act

ii) Adoption of 2008 SNA, 2007 revision of Japan Standard Industrial Classification

iii) Changes in fundamental data based on implementation of the Economic Census for Business Activity

[3] Due to a change in the survey target year of the Economic Census for Business Activity, the 2011 Input-Output tables are an exception to the principle related to Input-Output tables being compiled using calendar years ending in 0 or 5 as target years

On that basis, major topics for review are as follows.

[1] Approaches to issues in the Official Statistics Basic Plan

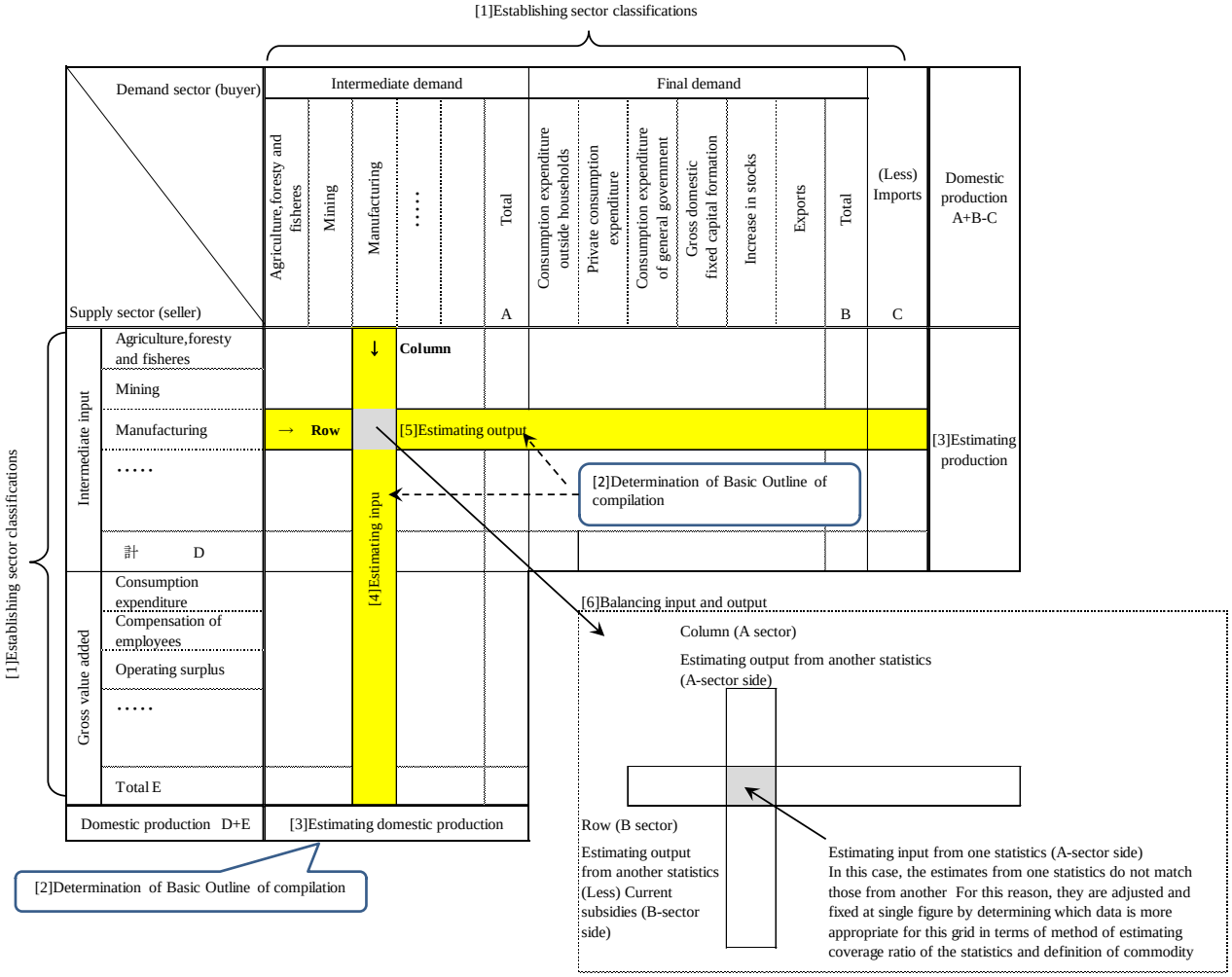
[2] Approaches to issues associated with adoption of the 2008 SNA, revision of the Japan Standard Industrial Classification, implementation of the Economic Census for Business Activity, etc.

In addition, with regard to the project structure, it was specified that the project will be implemented as a joint project by the ten authorities, including the Ministry of Internal Affairs and Communications, in continuation of the previous 2005 Input-Output tables.

Table 2-2 Compilation Workflow for Input-Output tables

Work category		Major contents of work	Work period
Ⅰ	Review of Framework and Preliminary Work		
	① Determination of Basic Guidelines	Formulation of basic design for compiling Input-Output tables, such as project implementation structure, points to consider in compiling tables, major review items, compilation schedule, etc.	2010.12 Determination
	② Determination of Basic Outline of compilation	Organization and refinement of the following items, based on the basic design presented in the Basic Guidelines ・Basic framework for compilation ・Changes from the previous tables ・Compilation procedure, work contents ・Establishment of sector classifications, concept/definition/scope of each sector, etc.	2010.12～2012.12 Review 2012.12 Determination
		Based on the determination on the Basic Outline, the Minister of Internal Affairs and Communications is notified of compilation method based on Article 26 of the Statistics Act	2013.6
	③ Determination of Basic Outline of compilation	・Statistical data ・Administrative record ・Reclassified counting ・Special Surveys ・Industry data	2011.1～2014.3
Ⅱ	Main Work for Compiling Input-Output tables		
	④Estimating and balancing of figures	・Estimating domestic production ・Estimating input ・Estimating output ・Balancing of input and output	2013.10～2014.12 Until Preliminary report 2015.1～2015.6 Until Final report
	⑤ Compilation of various coefficients tables	・Input coefficients table ・Inverse matrix coefficients table ・Domestic production inducement coefficients table ・Gross Value added inducement coefficients table ・Import inducement coefficients table ・Others	
	⑥ Compilation of various supplementary tables	・Table on value and Quantity ・Table on scrap and by-products ・Table on employees engaged in production activities(by Occupation) ・Employment matrix ・Fixed capital matrix ・Make table ・Table on self-transport	2015.1～2015.6
	⑦ Publication of the results and preparation of report	・Preparing report ・Distributing materials in the Cabinet meeting (preliminary report)	2014.12 Publication of Preliminary report 2015.6 Publication of Final report
Ⅲ	Tabulation of the Linked I-O Tables		
	⑧ Compilation of the Linked I-O Tables	・Establishing the sector classification for the Linked I-O Tables ・Compiling I-O Tables at current price ・Computing Inflator ・Compiling I-O Tables at constant price ・Publishing the results	2015.4～2016.4 2016.5 Publication

Chart 2-2 Overview of Input-Output Table Compilation Procedure



(Note) The following explanations concern [1]–[6] above.

[1] Establishing sector classifications

Various statistics based on different classifications are used as the basic data for the Input-Output Tables. It is therefore necessary to establish sector classifications in terms of their concept, definition, and scope in order to record Japan's industry activity in a well-integrated manner. The following work is performed in accordance with these sector classifications.

[2] Determination of Basic Outline of compilation

In addition to gathering information related to existing statistics, such as information on administrative records and information on primary statistics, which are represented in the Economic Census, information on input structure and output structure, which are not obtained in existing statistics, is obtained by carrying out "Survey on Input-Output Structure."

For existing statistics, reclassified counting is carried out so that values correspond to the sectors in the Input-Output tables.

[3] Estimating domestic production

Domestic production is estimated by sector using the basic data.

[4] Estimating input

The breakdown (detailed breakdown of raw materials and gross value added) of the domestic productions by column sectors (goods or services) is estimated based on the surveys of production costs and the Special Surveys. The Input Table is then compiled.

[5] Estimating output

The breakdown of customers by row sectors (goods or services) is estimated based on the surveys of product supply and demand. The Output Table is then compiled.

[6] Balancing input and output

The figures given in the Input and Output Tables differ, as they are estimated from different statistical data. The figures for all sectors are reconciled, made consistent, and compiled. Both are cross-checked, and the figures that are thought to be more adequate are used.

2 Determination of the Basic Outline of Compilation

(1) Determination of the Basic Outline of Compilation

The Basic Guidelines described in the preceding section specify the major orientation and review topics in starting work to compile the Input-Output tables. Input-Output tables cover domestic economic activity, estimate various transactions concerning goods and services using various statistics and other materials in the light of input and output, and compile the results into tables. In order to carry out concrete work for compiling Input-Output tables, it is necessary to set details beforehand, such as how to comprehend transaction activities, of what kind of scope, based on what kinds of principles, as well as what kind of estimation method to use, and as a result, what kind of statistical tables to compile.

Based on these kinds of necessities, the Basic Outline of Compilation specifies "detailed designs" for compiling Input-Output tables, such as (1) the basic framework for compilation, (2) changes from previous tables, (3) compilation procedure and work contents, (4) establishment of sector classifications and the concept/definition/scope of each sector, etc.

For the 2011 Input-Output tables, the Management Committee conducted reviews while obtaining advice from the Technical Committee regarding specialized technical items, and specified the "Basic Outline for Compiling 2011 Input-Output Tables," which was finalized at the Department Head Committee in December 2012.

(2) Changes in Sector Classifications

In the process of reviewing the Basic Outline of Compilation, sector classifications were reexamined.

A list of sector classifications used in the 2011 Input-Output tables is shown in Chapter VI.

(3) Notification of compilation method based on Article 26 of the Statistics Act

In the Statistics Act, among the statistics compiled by the government's administrative agencies, those that are particularly important are oriented as "core statistics," and the procedures for when statistics that are compiled based on a method other than statistical surveys (so-called derived statistics and business statistics) are designated as "core statistics." Concretely, based on Article 26 of the Statistics Act, it is necessary to notify the Minister of Internal Affairs and Communications beforehand regarding the method for compiling statistics.

Even with regard to Input-Output tables, this procedure has become necessary due to their designation as core statistics in July 2010, and the Minister of Internal Affairs and Communications was notified in June 2013 after the determination of the Basic Outline of Compilation.

3 Collection and Arrangement of Basic Data

Input-Output tables are derived statistics that are compiled using all production activities and transactions carried out domestically over the course of a year. Thus, in order to carry out highly accurate estimations, it is important to systematically gather and organize materials from a wide range of sectors, and enable for them to be used in estimation work.

In compiling the 2011 tables, all usable data has been collected, such as information on administrative records that are obtained in association with procedures for permits and approvals, as well as industry data (Refer to Table 2-3 for a list of major data).

In addition, for sectors where there would be insufficient information if existing data is used, "Survey on Input-Output Structure" (Note) (Table 2-4) is carried out, and where necessary, hearings with relevant industries were also carried out.

In estimation work, reclassified counting was carried out for "Economic Census for Business Activity" and "Trade Statistics" data that are used in a cross-sectoral manner across many sectors, after replacing them for the sector classifications in Input-Output tables.

(Note) At the point in time of compilation of the 2005 tables, this was collectively referred to as "Special Surveys for Compilation of Input-Output tables," but they are now collectively referred to as "Survey on Input-Output Structure" starting with the 2011 tables.

Table 2-3 Data Sources Used to Compile the 2011 Input-Output Tables

Organization	Title of Material
Cabinet Office	Annual Report on National Accounts Survey on Private Non-Profit Institutions
Ministry of Internal Affairs and Communications	Population Census Housing and Land Survey Labour Force Survey Consumer Price Index Family Income and Expenditure Survey Employment Status Survey Survey of Research and Development Yearbook of Local Financial Statistics Yearbook of Local Public Enterprises
Ministry of Internal Affairs and Communications and Ministry of Economy, Trade and Industry	Economic Census for Business Activity Basic Survey on the Information and Communications Industry
Ministry of Finance	Financial Statements Statistics of Corporations by Industry Detailed Statements on Settled Accounts Annual Report on Settled Accounts of Ministries and Agencies Foreign Trade Statistics Situation of Incorporated Enterprises Based on Tax Statistics
National Tax Agency	Statistics on National taxes
Ministry of Education, Culture, Sports, Science and Technology	School Basic Survey Social Education Survey Survey on School Lunch Programs Survey of Household Expenditure for Children's Education Survey on Local Education Expenditure Today's Finance of Private Schools
Ministry of Health, Labour and Welfare	Monthly Labour Survey Statistics of Production by Pharmaceutical Industry Basic Survey on Wage Structure Survey on Economic Conditions in Health Care Fact-finding Survey on Economic Conditions in Long-term Care Report on Nursing-Care Insurance Services Estimates of National Medical Care Expenditure General Survey on Working Conditions Water Supply Statistics Report on Worker Dispatching Undertaking
Ministry of Agriculture, Forestry and Fisheries	Statistics on Crop Statistical Survey on Farm Management and Economy Statistical Survey on Prices in Agriculture Statistics of Agricultural Income Produced Statistical Survey on Livestock Survey on Livestock Products Marketing Statistical Survey on Milk and Dairy Products Statistics Survey on Lumber Survey on Forestry Households Economy Statistics of Forestry Income Produced Statistics of National forest Operation Survey on Marketing of Fishery Products Survey on Fishery Management Fishery Production value Collective Survey on Agricultural Cooperatives and Their Federations Food Balance Sheets
Ministry of Economy, Trade and Industry	Census of Manufactures Statistics Survey of Current Industrial Production Current Survey of Commerce Survey of Selected Service Industries Current Survey of Energy Consumption in the Selected Industries Basic Survey of Japanese Business Structure and Activities Report concerning the State of Operations by Quarry Owners

	Crushed Stone Statistics Survey
	Survey of Precious Metals Distribution
	Iron and Steel Supply and Demand Statistics
	Non-Ferrous Metal Supply and Demand Statistics
	Ready-mixed Concrete Statistics Survey
	Energy Balances in Japan
	Structural Survey of Energy Consumption
Ministry of Land, Infrastructure,Transport and Tourism	Survey on Shipbuilding and Engineering
	Survey on Current Rolling Stock Production
	Annual Railroad Statistics
	Survey on Rolling Stock Transport
	Survey on Motor Vehicle Transport
	Survey on Coastwise Vessel Transport
	Survey on Air Transport
	Consumption Trend Survey for Foreigners Visiting Japan
	National Tourism Survey
	Survey of Building Construction Work Started
	Construction Work Survey
	Quick Estimate of Construction Investment
	Annual Construction Statistics
	Survey on Current State of Buildings
	Coastal Statistics

Table 2-4 Surveys on Input-Output Structure Conducted for Compilation of the 2011 Input-Output Tables

Organization/ Survey on Input-Output Structure	Implementation Period
＜Cabinet Office＞	
Input Survey of Local Government	2012.8～12
＜Ministry of Internal Affairs and Communications＞	
Input Survey of Service Industries and Non-Profit Organizations	2012.6～7
Survey on Management Activities of Enterprises	2012.8～9
Input Survey of Communication, Broadcasting and Internet based services	〃
＜Ministry of Finance＞	
Input Survey of Liquor Industry	2012.10～11
＜Ministry of Health, Labour and Welfare＞	
Input Survey of Medical and Social welfare	(Exclusive of medical industry) 2012.6～7 (Medical industry) 2013.9～10
＜Ministry of Agriculture, Forestry and Fisheries＞	
Input Survey of Agricultural Service	2012.10～11
Input Survey of Seed and Seeding	〃
Input Survey on Growers of Flowers and Plants	〃
Input Survey of Log Production (Non-national forest)	〃
Input Survey of Marine Culture and Inland Water Culture	〃
Input Survey of the Food Industry	〃
Input Survey of Livestock Feed and Organic Fertilizers	〃
Input Survey of Forestry Products	〃
Input Survey of Agricultural Construction	〃
Input Survey of Forestry Construction Ordered by Government	〃
＜Ministry of Economy, Trade and Industry＞	
Input Survey of Mining and Manufacturing Industry	2011.7～8
Survey on Capital Goods Demand	2012.9～10
Survey on Profit Margins of Commerce	2013.8～10
Survey on Sale Destination of Import Goods	〃
＜Ministry of Land, Infrastructure,Transport and Tourism＞	
Survey on Inland Shipping Charges by Articles	2011.10
Survey Concerning Charged Parking Lots	2012.5～7
Input Survey Concerning Packing Industry	〃
Survey on Transport-related Facilities of Local Governments	〃
Survey on Transport-related Business Input	2012.10～11
Survey on the Breakdown of Construction Ordered by Government (Preliminary Survey)	2012.4～5
Input Survey of Public Construction Works	2012.8～11
Breakdown Survey of Indirect Expenses on Civil Engineering Works	2012.9～11
Input Survey of Civil Engineering Work	2012.12～2013.1
Breakdown Survey Expenses on Civil Engineering Works ordered by incorporated administrative agencies	2012.8～10
Input Survey of Building Expenses	2013.1～2
Fact-finding Survey on Real Estate Industry	〃

4 Compilation and Balancing Figures

At each stage when various basic data becomes available, estimation work is carried out sequentially. Among the various statistics that are compiled for Input-Output tables, the “Basic Transaction Table” that serves as the most basic statistics was compiled based on the following procedure.

[1] Estimation of domestic production

[2] Estimation of input and output(Note)

[3] Compilation and balancing of input and output

(See Chart 2-2)

(Note) “Input” and “Output” are both terms that bear in mind the breakdown for each of the sectors of endogenous sectors (intermediate demand, intermediate input), but in actual work to compile Input-Output tables, the breakdown of vertical figures in the column sectors are referred to as “input” and the breakdown of horizontal figures in the row sectors are referred to as “output,” regardless of whether they are endogenous sectors or exogenous sectors (final demand sectors, gross value added sectors).

(1) Estimating the Domestic production

First, the value of the domestic production by sector that is recorded in the very right and very bottom of the Basic Transaction Table is estimated.

Simply put, domestic production is the total amount of production and transactions over the course of one year for each sector.

Domestic production by sector is a number that is first estimated when carrying out estimation work for the Basic Transaction Table, and after establishing this domestic production value, input and output are estimated as its breakdown. For this reason, errors in the value of domestic production may affect not only input and output of its own sector, but those for other sectors as well. In such a way, domestic production is very important as a “control value” for both the row sectors and column sectors in the Basic Transaction Table, and due to such a positioning, they are often referred to as control totals (CT).

In estimating domestic production by sector, it is better to divide and comprehend the goods and services that are included in each sector in as detailed of a manner as possible in order to increase accuracy of the Basic Transaction table. Thus, estimations are carried out of approximately 3,400 detailed items, which are then cumulated and domestic production is estimated by row sector and column sector of the basic sector classification.

When doing so, in principle, production is estimated for goods using “production quantity × unit price” for each detailed item. Because quantitative units are irrelevant in many service items, values are estimated directly based on the sales amount of the respective detailed items. Production values for producers of government services activity and private non-profit services for households are estimated by accumulating the cost of their activities.

(2) Input Estimates

Input estimation refers to the breakdown of the cost composition (including gross value added composition) for domestic production of column sectors (vertical sectors in Basic Transaction Table).

As the general procedure for estimations, an overall picture such as of intermediate input of raw materials, fuel, etc. and gross value added such as compensation of employees, etc. is estimated, and detailed items are then estimated.

For example, for the majority of industrial products, results of reclassified counting for the Economic Census for Business Activity are used to estimate the overall picture of major raw material usage, fuel consumption, cash salaries, depreciation, etc. Next, data related to raw materials statistics and production technology, and results of the Survey on Input-Output Structure that was implemented separately are used to estimate detailed expense breakdowns.

(3) Output Estimates

Output estimation refers to estimating the breakdown of the sales channel composition, or to which intermediate demand sector of final demand sector domestic production in the row sectors (horizontal sectors in the Basic Transaction table) was sold

The basic estimation method is to establish “total supply” as imports (absolute value) added to domestic production by sector, from which exports are deducted to estimate the “gross domestic supply.” Next, this gross domestic supply is distributed to the respective demand sectors using a wide range of supply and demand statistics, depending on product characteristics for detailed items.

(4) Balancing the Figures of Input and Output Values

Input and output values are estimated separately by

different methods, using separate basic data. As a result, even for the same cell in the Basic Transaction Table, the amount estimated from the input side and the amount estimated from the output side differ at first. Hence, for each of the cells in the Basic Transaction Table, the input is cross-checked with the output, and balancing to conform figures with the amounts that are thought to be more adequate is carried out.

[Reference] Method for compiling Input-Output tables as advocated by the United Nations

With regard to the compiling of Input-Output tables, in the United Nations' "Handbook of Input Output Table Compilation and Analysis," it is advocated that the "supply table" (equivalent, in terms of content, to what used to be referred to as the "V table" (table on commodity output by industry) and the "use table" (equivalent to what used to be referred to as the "U table" (table on commodity input by industry) are first compiled, after which a "symmetric input-output table" for commodity × commodity (table where column sectors and row sectors are supported one-on-one) is compiled based on either an industrial technology assumption or product technology assumption.

In Japan, however, since the 1955 tables that were compiled as a joint project by relevant authorities, a table of [row] commodities and [column] activities (commodities) was directly compiled, based on the methods described in (1) to (4) above, without creating U tables and V tables. This is thought to derive from the fact that in Japan, there was an environment where various statistics centering on the manufacturing industry were developed to a significant extent, such as data related to production for each commodity.

5 Compilation of Various Coefficients Tables

In the process for compiling Input-Output tables, in addition to the Basic Transaction Tables based on the basic sector classification, Basic Transaction Tables based on aggregated sector classifications are also compiled, depending on their usage purpose. Basic Transaction Tables represent economic structures for the years covered, and can be used independently to elicit useful information. However, their use is limited to the scope of the original tables. On the other hand, Input-Output tables are used primarily for measuring policy effects through analysis of economic ripple effects.

Thus, following the compilation of Basic Transaction Tables, various coefficients tables, such as the input coefficients tables and the inverse matrix coefficients tables that are required for various analyses are constructed.

6 Compilation of Various Supplementary Tables

The Basic Transaction Tables for Input-Output tables summarize the state of transactions of goods and services as a list. In order to carry out various input-output analyses, however, there are times when supplementary information is necessary.

Thus, in order to enable for multi-faceted use of Input-Output tables, the following supplementary tables have been compiled. An overview of the structure and compilation method, etc. for each supplementary table is given in Chapter V.

[1] Table on Value and Quantity

[2] Table on Scrap and By-products

[3] Table on Employees Engaged in Production Activities (by Occupation)

[4] Employment Matrix (Table on Employees Engaged in Production Activities [by Occupation])

[5] Fixed Capital Matrix (Table on Fixed Capital Formation)

[6] Table on Commodity Output by Industry (Make table)

[7] Table on Self-Transports

The "Table on Trade Margins," "Table on Domestic Freights" and "Table on Imports" were categorized as supplementary tables up until the 2005 tables. In terms of content, however, information related to the trade margin, domestic freight, and imports that are included in the Basic Transaction Tables based on the basic sector classification is aggregated as part of the medium aggregated classification (108 sectors). Thus, in the 2011 tables, these three tables were sectioned as part of statistical tables for the medium aggregated classification, and are no longer handled as supplementary tables.

7 Publication of the Results

Before, publication of estimation results of the Input-Output tables was divided into a preliminary report and final report, based on the progress of work. For the 2011 tables,

the same approach was made.

The preliminary report summarizes the Basic Transaction Tables and various coefficient tables of the medium aggregated classification (108 sectors) were compiled, and a summary was then delivered to the Cabinet on December 19, 2014, and published concurrently.

After publication of the preliminary report, further detailed balancing is carried out, and in addition to the Basic Transaction Table for the basic sector classification ([column] 518 sectors × [row] 397 sectors) and the various coefficient tables for the minor aggregated classification (190 sectors), various supplementary tables were compiled, and the final report was published on June 16, 2015.

Statistical tables published for compilation of the 2011 Input-Output tables are as indicated in Table 2-5. These tables can be obtained in Excel format from the Ministry of Internal Affairs and Communications homepage (MIC HP: http://www.soumu.go.jp/toukei_toukatsu/data/io/index.htm).

8 Compilation of the Linked Input-Output Tables

Although there are no major differences in the basic frame of the Input-Output Tables compiled every five years, several changes have been made in sector setups, as well as concepts, definitions, and scope of respective sectors. A direct comparison of tables from different periods is therefore not possible.

In particular, for the 2011 tables, there were changes to the data that was used, such as data from the "Economic Census for Business Activity" that was implemented for the first time in 2012 targeting all industries being newly used as important basic data. In association with such data changes, there were quite a few sectors for which estimation methods were reexamined.

To analyze economic structures or other aspects with historical comparisons of these Input-Output Tables, the sectors, concepts, definitions, and so on must be made consistent for past tables and the newly compiled tables. Comparable values must be projected for past tables or for newly compiled tables.

Thus, Linked Input-Output Tables have been compiled to enable comparisons of different points in time by reclassifying the past Input-Output Tables for consistency with the newest sector classifications.

The Linked Input-Output Tables produce two different kinds of tables in accordance with price evaluation methods. The first is "Linked Input-Output Tables at current price," in which tables for respective years are evaluated in terms of the prices for those years. The other is "Linked Input-Output tables at constant price," in which past transaction prices are reevaluated (inflated) to permit historical comparisons in accordance with those in newly compiled tables.

Following the publication of the 2011 tables, the "2000-2005-2011 Linked Input-Output tables" were published in May 2016.

§ 3 Basic Framework of the Basic Transaction Tables

The "Basic Transaction Table" that serves as the core for various statistical tables that are compiled for the 2011 tables were compiled based on establishing the following concepts. For the general theory of Input-Output tables ((1) structure and how to view the tables, (2) fundamental theory of Input-Output tables), refer to Chapter III.

1 Duration, Scope, and Timing of Recording

The 2011 Input-Output tables cover production activities and transactions of goods and services for Japan in the year 2011.

The accrual basis was used to determine the points in time at which productions and transactions occurred.

(Note) Since the 1955 Input-Output tables that were first compiled as a joint project by relevant authorities, Input-Output tables have been compiled in years ending with either a 0 or 5. However, the 2011 tables were compiled as tables targeting 2001, as the Economic Census for Business Activity, which serves as important basic data, was implemented with 2011 as the target year.

2 Evaluation Methods

The size of transaction activities was evaluated based on monetary amounts.

Domestic transactions were evaluated based on the prices of actual transactions (actual prices).

Price evaluation of imported and exported goods was carried out based on CIF prices for imports in ordinary trade, and on FOB prices for exports in ordinary trade.

Table 2-5 List of Statistical Tables for Compilation of the 2011 Input-Output Tables

Ttile of Statistial Tables			Basic (518×397)	Minor (190)	Medium (108)	Major (37)	13 Sector
(1) "Self-transports" sector represented							
①	Basic Transaction Tables	Input Table	○	○			
		Output Table	○	○			
		Basic Transations Table	◆	◆	○	○	○
		Input Coefficient Table			○	○	○
②	Input Coefficients at Producers' Prices				○	○	○
③	Inverse Matrix Coefficients Table	$[I-(I-M)A]^{-1}$		○	○	○	○
		$(I-Ad)^{-1}$		○	○	◆	
		$(I-A)^{-1}$		○	○	◆	
④	Table on Production Inducement by Individual Final Demand Items				○	○	○
⑤	Table on Gross Value Added Inducement by Individual Final Demand Items				○	○	○
⑥	Table on Import Inducement by Individual Final Demand Items				○	○	○
⑦	Import Coefficients, Input Coefficients of Imported Goods				○	○	○
⑧	Table on Trade Margins		○	○	◆		
⑨	Table on Domestic Freights				◆		
⑩	Table on Imports				◆		
付帯表 ⑪	Table on Value and Quantity		○				
⑫	Table on Scrap and By-products		○				
⑬	Table on Employees Engaged in Production Activities (by Occupation)		○	○	○		
⑭	Employment Matrix(Table on Employees Engaged in Production Activities[by Occupation])				○		
⑮	Fixed Capital Matrix(Table on Fixed Capital Formation)		○				
⑯	Table on Commodity Output by Industry(Make table)				○		
⑰	Table on Self-Transports		○				
(2) "Self-transports" sector not represented							
①	Basic Transaction Tables	Input Table	◆	◆			
		Basic Transations Table			◆	◆	
②	Inverse Matrix Coefficients Table	$[I-(I-M)A]^{-1}$		◆	◆	◆	
		$(I-A^d)^{-1}$		◆	◆	◆	
		$(I-A)^{-1}$		◆	◆	◆	

(Note) 1 ○: Published on both the Internet and printer matter

2 ◆: Published only on the Internet

3 In addition to the statistical tables listed in this Table, "Table on Domestic Production by Sector and Commodity" was also published as a compilation of domestic production used in compiling the 2011 tables.

3 Basic Structure of Basic Transaction Tables

i) The Basic Transaction Table is compiled as a table of Commodity (row) × Activity (or commodity) (column).

ii) As with the 2005 tables, both Input-Output tables at producers' prices(Note) and Input-Output tables at purchasers' prices in which the respective transaction values include trade margins and domestic freights have been compiled.

(Note) For Input-Output tables at producers' prices, trade margins and domestic freights that are incurred when commodities are distributed are collectively recorded in the Commerce sector and Transport sector, respectively (both row sectors).

iii) In order to accurately represent the size of the actual transaction amounts, each transaction amount is represented as the amount that includes consumption tax, and the tax amount is included in the indirect taxes of the gross value-added sectors.

iv) With regard to handling representation related to imports, in principle, they are recorded in the same manner as the 2005 tables based on the "competitive and non-competitive mixed import type," in which domestic products and imported goods are recorded together, and are considered as separate row sectors for some sectors.

4 Sector Classification

(1) Principle of sector classification

i) Among the sectors that make up the Input-Output tables, row sectors (horizontal) are sectors that represent the

sales channel structure of commodities, and are, in principle, classified based on commodities. Column sectors (vertical) represent the cost structure for each production activity, and are, in principle, based on "units of production activity," or "activity-based" (Note).

(Note) For sectors where a single activity corresponds to a single commodity, classifications are made based on commodities even for column sectors.

ii) In addition to the sectors based on i) above, "basic sector classifications," which are the most detailed sectors when publishing Input-Output tables, possess classification functions (production activity unit sectors) that are focused on the unit that carries out production activity in order to promote consistency with the System of National Accounts (SNA) indicated by the UN Statistical Commission. (Refer to Chapter III, Section 2-5 (3))

Classifications for production activity units are categorized based on a method of adding "★★" or "★" to the end of the basic sector classification name as follows, in consideration of the marketability of the provided products.

- ★★: Producers of government service activity
- ★: Producers of private non-profit service for households
- No symbol: Industries

(2) Basic sector classification and aggregated classification

i) System of classifications

The basic sector classification is comprised of 518 sectors (rows) and 397 sectors (columns).

Aggregated classification aggregates sectors with similar activities based on this basic sector classification, and is made up of minor aggregated classification (190 sectors), medium aggregated classification (108 sectors), and major aggregated classification (37 sectors). In addition, a 13-sector classification was also established as a classification that further aggregates the major aggregated classification, with the purpose of representing the Basic Transactions table on one sheet of paper.

Changes in the numbers of sector classifications for the basic sector classification and aggregate classification among the latest 2011 tables and previous tables (2005 tables and 2000 tables) are as shown in Table 2-6 below.

Table 2-6 Development of the Number of Sector Classifications

		2000 Tables	2005 Tables	2011 Tables
(1) Basic sector classification	(row)	517	520	518
	(column)	405	407	397
(2) Minor Aggregated Classification		188	190	190
(3) Medium Aggregated Classification		104	108	108
(4) Major Aggregated Classification		32	34	37

[2] Modifications in Sector Classifications

Taking into consideration the revisions made to the Standard Industrial Classification for Japan in November 2007, sector classifications were reviewed in order to more accurately comprehend changes in the economic structure.

Major modifications made to the 2011 Input-Output Tables based on the basic sector classifications are as follows.

i) Basic sector classification

a "Physical and chemical instruments" and "Analytical instruments, testing machine, measuring instruments" in the 2005 tables were integrated, and "Measuring instruments" was established.

b "Image information production and distribution industry" and some "Business services" in the 2005 tables were integrated, and "Video picture, sound information, character information production" was established.

c "General eating and drinking places (except coffee shops)," "Coffee shops," "Eating and drinking places for pleasures" and "Food take out and delivery services" that was included in "Retail trade" in the 2005 tables were integrated, and "Eating and drinking services" was established.

d "Coastal fisheries," "Off-shore fisheries," and "Distant water fisheries" in the 2005 tables were integrated into "Marine fishery."

e "Financial service (imputed interest), public" and "Financial service (imputed interest), private" in the 2005 tables were changed to "Financial service (FISIM), public" and "Financial service (FISIM), private," respectively, in association with changes to the estimation method.

f For medical service, for which sectors were set based on each establishing unit in the 2005 tables, sectors were reorganized by content such as medical examination, etc. in order to clarify the input/output structure by activity content.

g “Guard Services,” which was included in “Other business services” in the 2005 tables, was separated and specially presented, since domestic production exceeded 1 trillion yen.

ii) Aggregated classification

a “General machines,” etc. in the 2005 tables was reorganized into “General-purpose machinery,” “Production machinery,” and “Business oriented machinery” based on revisions to the Japan Standard Industrial Classification.

b “Postal service and mail delivery,” which was included in the major aggregated classification “Information and communications” in the 2005 tables, was moved to the major aggregated classification “Transport,” and the name of the major aggregated classification was changed to “Transport and postal services,” based on the revision of the Japan Standard Industrial Classification.

(3) Final demand sectors and gross value added sectors

In principle, classifications were made such that there is consistency with the System of National Accounts.

However, from the perspective of stability of input coefficients, “Consumption expenditure outside households” was established for both the final demand sector and gross value added sector. Also, to evaluate imported goods with the same standard as that for domestic goods, and to clarify each transaction amount, custom duties and commodity taxes on imported goods were set for the final demand sector (part of total imports), rather than the gross value added sector.

5 Special Treatment

(1) Imputation

Imputations are conducted for the following:

[1] Financial mediation services

[2] Insurance services such as life insurance and non-life insurance

[3] Capital consumption reserves concerning social overhead capitals

[4] House rents of owner-occupied dwellings and company housing units

(2) Establishment of dummy sectors

The intermediate sectors in the Input-Output tables were established based on commodity or activity. Among these, there are those listed below that cannot be thought of as independent, single industry sectors. These were established as “dummy sectors,” taking into consideration convenience, etc. in compiling and utilizing Input-Output sectors. Gross value added is not recorded in dummy sectors.

[1] Office supplies

[2] scrap iron, non-ferrous metal scraps, and used paper

[3] Self-transport (passenger and freight)

(3) Handling of goods rental and leasing

For the goods rental and leasing industry, for which there are two schools of thought—“user principle” and “owner principle,” estimations were made based on “owner principle.” In addition, estimations for real estate lessors and worker dispatching services were also made based on “owner principle.”

[Reference1] The history of Input-Output Tables for Japan

(1) The history of Input-Output Tables

The Input-Output Tables was developed by Dr. W. Leontief(1906~1999), the winner of Nobel Memorial Prize in Economic Science. He was born in Sankt-Petersburg in Russia, and invited to the Harvard University in the United States. In 1931, he started to make Input-Output Tables about the US economy. He announced the plan in the magazine, "Review Economics and Statistics" in 1936. It is said that the Input-Output Tables was an attempt of adjusting "General Equilibrium Theory" of L. Walras (1834~1910) to real national economy, and an attempt of making "Tableau Economique" of F. Quesnay (1694~1774) for the US economy.

This technique of Leontief`s Input-Output Analysis was admitted by U.S. Department of Labor, Bureau of Labor Statistics. After 1941, the technique was developed with the support of Bureau of Labor Statistics. When the economic forecast for the post World-War-II was made by the Planning Committee of U.S. War Production Board, the Input-Output Analysis showed higher degree of accuracy than other analysis techniques. Then, the utility and importance of the Input-Output Analysis came to be admitted widely. Since then, the theory of the Input-Output Analysis has been researched by U.S. government offices including the army, navy and air forces of the United States, and many countries has come to compile the Input-Output Tables and utilized the Input-Output analysis for the national economy of each country in the world without the distinction between socialism and liberalism.

(2) The history of Input-Output Tables for Japan

The first compilation of the Input-Output Tables for Japan dates back to 1955 for the reference year. When the Economic Planning Agency（current Cabinet Office ）and the Ministry of International Trade and Industry（current Ministry of Economy, Trade and Industry）and others complied provisional tables respectively. Thereafter, the Input-Output Tables came to be compiled as a joint work by the related ministries and agencies every five years.

A. 1951 Input-Output Tables

The 1951 Input-Output Tables was compiled abridged tables for the year 1951 by the Economic Planning Agency (EPA) and the Ministry of International Trade and Industry (MITI) respectively, and published in 1955. At the same time, the Ministry of Agriculture and Forestry（current the Ministry of Agriculture, Forestry and Fisheries）compiled the abridged tables focused on the sector of agriculture and forestry.

The tables compiled by the EPA and by the MITI covered all industries respectively, and the consisted of 9 sections. The Input-Output Tables compiled by the consisted of 182 sections. But both tables were compiled in accordance with different classifications, concepts, definitions, and different methods of estimation. As a result, inevitable differences in figures between both tables were found.

The differences might be unavoidable, because both tables were compiled with different purposes. But, it was not desirable to have to have two different kinds of information for the same economy for the same reference year. Therefore, the Statistics Council of the Administrative Management Agency (current Ministry of Internal Affairs and Communications) was reported as of 30 June 1955 that the related ministries should compile the integrated and unified Input-Output tables.

B. 1955 Input-Output Tables

After the publication of 1951 Input-Output tables, the Ministry of International Trade and Industry compiled 1954 abridged extension tables and 1955 preliminary tables. The Economic Planning Agency also compiled 1953 Input-Output tables and 1955 abridged tables. As the Input-Output tables shifted from the experimentation phase to the stage of practical use, it came to be requested strongly to compile the Input-Output Tables with high accuracy. In response to the report of the Statistics Council and the requests on accuracy, the related ministries submitted the integrated budgetary appropriation for the compilation of 1955 tables. And, the meeting of the related ministries was taken place on March 1957, and the meeting decided to compile the next Input-Output tables as a joint work.

Therefore, the working group was organized by 6 ministries and agencies, i.e., the Administrative Management Agency、the Economic Planning Agency, the Ministry of Agriculture and Forestry, the Ministry of International Trade and Industry and the Statistics Bureau in change of tabulation. The meeting discussed the setting, concept, and definition of sector classification, the method of evaluation of production, and the availability of the basic date, etc. Based on the result, it had been come to start full-

dress collaboration work since April 1958.

The joint work continued from 1958 F.Y to 1959 F.Y., and it was decided that the reference year was to be 1955 year.

The reasons were as follows.

- In 1958, almost all the data available were for the year 1955.
- Economic situations in 1955 were comparatively normal.
- The bench-mark year of national income statistics and other economic indexes were expected to be 1955.

As a result of work over a period 2 fiscal years, the preliminary tables were published in June 1960, and the final tables were published in June 1961 respectively.

C. 1960 Input-Output Tables

The 1960 Input-Output Tables was the first publication which was compiled by a joint work of the related ministries. In those days, however, they did not necessarily recognize that compilation would continue in the following phases. But, the 1960 Input-Output Tables had problems to be improved in respect of the consistency with national income statistics, which was the main account of the SNA, and sector classification. In addition, there were remarkable change in industrial structure according to technical innovation, and they needed materials for reviewing the Input-Output Tables as of the doubling national income plan. Therefore, the compilation of the Input-Output Tables for new reference year came to be requested strongly.

As the background of such situations, the budgetary appropriation for compiling 1960 Input-Output Tables was admitted. At the same time, the present system of the Input-Output Tables was established as being compiled by the joint work of the related ministries every five years.

The work was executed as continuous project for 2 fiscal years, 1962 to 1963. Then, the role of the Statistics Bureau of the Prime Minister's office, which had been in change of data processing by computer, was succeeded by The Ministry of International Trade and Industry. And, the Ministry of Transport (current the Statistics Bureau of the Ministry of Land, Infrastructure, Transport and Tourism) and the Ministry of Labour (current the Ministry of Health, Labour and Welfare) participated newly in joint work in addition to the ministries participated in compiling the 1955 Input-Output Tables. Thus, the 1960 Input-Output Tables was complied by joint work of seven ministries and agencies. Under the cooperation of the experts and ministries concerned, detailed reviews were done for desirable Input-Output Tables to be useful as basic statistics standard tables that were able to be used over a long period of time.

As a result, the frame of Input-Output Tables, which had consistency with SNA, came to be compiled. And, the sector classifications, concepts and definitions were basically improved in respect of comparability of long term time series and international comparability. As a rule, the sector classification was adopted on the basis of the Standard Industrial Classification for Japan and the International Standard Industrial Classification of all Economic Activities.

D. 1965 Input-Output Tables

The 1965 Input-Output Tables did not change greatly compared with the 1960 Input-Output Tables established as the standard of SNA. The basic frame did not change so as not to spoil the time series analysis, the basic frame did not change. But, it changed only to improve remaining issues, and establishment, division, and integration of sectors were undertaken according to appearance of new industries and growing industries.

The publication of result tables was made in July 1965. As methods of use were upgrade, the basic transaction tables, consisting of 456 row sectors×339 column sectors based on basic sector classification, were published for the first time.

And, after the publication of 1965 Input-Output tables, the 1960-1965 extension tables were compiled for the first time for time-series comparison with the 1960 Input-Output tables.

E. 1970 Input-Output Tables

The 1970 Input-Output Tables were basically compiled by using the frame of 1960 Input-Output Tables in the same way as the 1965 Input-Output Tables. But, International Standard Industrial Classification of all Economic Activities has revised in 1968, and 68SNA was presented. Therefore, the 1970 Input-Output Tables were improved in handling of sector classification. As a supplementary table, Fixed Assets Matrix was newly compiled.

F. 1975 Input-Output Tables

The characteristics of 1975 Input-Output Tables was that endogenous sectors were divided into 3 groups, i)industry, ii)producers of government services, iii)producers of the private nonprofit services to household. Particularly, as for producers of government services including a part of

government services, which were not classified as production activities, were coded to the endogenous sectors, and “the producers of government services” were divided into “public” services and “non-public” services.

And, it was expanded from the system of 7 ministries to the system of 11 ministries till then. In other words, for the compilation of 1975 Input-Output Tables, the Ministry of Finance (current Department of the Treasury), the Ministry of Education (current the Ministry of Education, Culture, Sports, Science and Technology), the Ministry of Health (current the Ministry of Health, Labour and Welfare) and The Ministry of Posts and Telecommunications (current the Ministry of Internal Affairs and Communications) participated newly in a joint work.

G. 1980 Input-Output Tables

Compared with the 1975 Input-Output Tables, the 1980 Input-Output Tables had no substantial changes except the concept of producers of government services corresponding to division, integration of the sectors according to the increase and decrease in the amount of production, and the arrangement of “non-public” of producers of government services corresponding to 68 SNA.

And, the Administrative Management Agency took over the works of data processing by computer from the Ministry of International Trade and Industry.

And, the result was published in the form of magnetic tape in advance of the publication in the form of hardcopy, when the figures were fixed.

H. 1985 Input-Output Tables

After 1980, Japanese Industries structure had changed fairly rapidly. And, the Standard Industrial Classification for Japan was revised in January 1984 and enforced in April 1985. Therefore, the sector classification, mainly the manufacturing sector, was substantially revised, taking into consideration the compilation and use of tables.

The sector codes of basic classification were systematically arranged, and the endogenous sectors were revised all over on domestic sector.

I. 1990 Input-Output Tables

The method of estimation of service sector was improved on the 1990 Input-Output Tables. For example, based on the 1985 Input-Output Tables, service sector was divided and new sector was established on the 1990 Input-Output Tables, and basic materials concerning the service industry to estimate was enhanced. As for “Rental and Leasing of Goods and Services”, the estimation by the former user principle was renewed to the estimation by the owner principle, and the self-activity sector was renewed.

J. 1995 Input-Output Tables

The basic framework of the 1995 Input-Output Tables followed the former ones, but the sector classifications such as was set up corresponding to the outline of the recommendations of 93 SNA and to the revision of Standard Industrial Classification for Japan (1993, Oct.), and service sector was expanded, and the basic materials for estimation was also enhanced.

The method of accounting indirect taxes was changed to that of accounting inclusive consumption tax.

K.2000 Input-Output Tables

The basic framework of the 2000 Input-Output Tables followed the former ones, and corresponded to the outline of the recommendations of 93 SNA. To reflect economic social structure of Japan in recent years, new sector classifications, such as “Reuse and recycling” and “Nursing care”, were set up.

Mechanical balance-adjustment “Lagrange’s method of indeterminate Multipliers” was used for aggregation of preliminary figures. Though, this method had the problem in processing techniques, it contributed to the early release of preliminary reports.

According to the reorganization of ministries and agencies in January 2001, the 2000 Input-Output Tables was accomplished as a joint work of ten office, ministries, and agencies including the Ministry of Internal Affairs and Communications (The name changed from the Ministry of Internal Affairs and Communications as of September 10, 2004) instead of the former joint work of 11 ministries and agencies.

L.2005 Input-Output Tables

In the 2005 tables, there were no large changes from the 2000 tables, but in line with the revision of the Japan Standard Industrial Classification (March 2002), and in association with sophistication of information and communications, reorganization of sectors related to information and communications and of sectors related to information-related manufacturing was carried out.

M.2011 Input-Output Tables

In the 2011 tables, the basic framework adheres to conventional policies, and sector classifications were established so that they correspond to the revision of the

Table 2-7 Supplementary tables yet compiled

	付　帯　表	‘55	‘60	‘65	‘70	‘75	‘80	‘85	‘90	‘95	‘00	‘05	‘11
1	Table on Value and Quantity	○	○	○	○	○	○	○	○	○	○	○	○
2	Table on Scrap and By-products		○	○	○	○	○	○	○	○	○	○	○
3	Table on Employees Engaged in Production Activities(by Occupation)		○	○	○	○	○	○	○	○	○	○	○
4	Employment Matrix				○	○	○	○	○	○	○	○	○
5	Fixed Capital Matrix				○	○	○	○	○	○	○	○	○
6	Table on Commodity Output by Industry (Make table)						○	○	○	○	○	○	○
7	Table on Self-Transports						○	○	○	○	○	○	○
8	Table on Trade Margins		○	○	○	○	○	○	○	○	○	○	
9	Table on Domestic Freights		○	○	○	○	○	○	○	○	○	○	(Note)
10	Table on Imports		○	○	○	○	○	○	○	○	○	○	

(Note) The “Table of Trade Margins,” “Table on Domestic Freights,” and “Table on Imports” were categorized as supplementary tables up until the 2005 tables In terms of content, information related to the trade margin, domestic freight, and imports that are included in the Basic Transaction Tables based on the basic sector classification is aggregated as part of the medium aggregated classification (108 sectors) Thus, in the 2011 tables, these three tables were sectioned as part of statistical tables for the medium aggregated classification, and are no longer handled as supplementary tables

Japan Standard Industrial Classification (November 2007). In addition, as an approach that is based on the general meaning of the 93SNA, the “imputed interest” method for “Financial service” was amended, and the “FISIM (Financial Intermediation Services Indirectly Measured” method was introduced.

With regard to the code numbers for sectors up until the 2005 tables, there was reciprocal consistency between the basic sector classification and minor aggregated classification, but for the medium aggregated classification and major aggregated classification, sequential numbers were added mechanically, and thus, considerations were not made to their relationship with the basic sector classification and minor aggregated classification. Hence, in the 2011 tables, complete reexaminations were carried out so that the correspondence relationships of code numbers, from the basic sector classification to the major aggregated classification, have consistency.

There were also large changes in the data environment, such as using the “Economic Census for Business Activity” that was implemented for the first time for the year 2011 as important basic data.

Table 2-8 Flow of the Input-Output Tables for Japan

	1951	1955	1960	1965	1970	1975
Number of sectors (Basic sector classification)	Row9×Column9 (Economic Planing Agency) Row182×Column182 (Ministry of International Trade and Industry) Row62×Column62 (Ministry of Agriculture, Forestry and Fisheries)	Row310×Column278	Row453×Column339	Row467×Column339	Row541×Column405	Row554×Column405
Transactions within own sector	All are included in principle	All are included in principle, except for those values of parts and semi-finished goods that are consumed within sector	Same as 1955	Same as 1955	Same as 1955	Same as 1955
Scrap and By-products	Those are in principle dealt with by Transfer method For MITI table, scrap is classified under the scrap sector	Transfer method	Those are in principle dealt with by Stone's method	Same as 1960	Same as 1960	Same as 1960
Valuation	Actual producers' prices	Uniform producers' prices	Actual producers' prices(tables valued at actual purchasers' prices are also compiled)	Same as 1960	Same as 1960	Same as 1960
Imports	Competing and non-competing inclusive (mixed method)	Mixed method Simplified non-competing type tables are also estimated	Competing Non-competing imports are also compiled	Same as 1960	Same as 1960	Mixed method(A partial non-competing tables are also compiled)
Consumption expenditure outside households	Treated as an endogenous sector	Same as 1951	Treated as an exogenous sector	Same as 1960	Same as 1960	Same as 1960
Public school, hospital services and others	The output is treated as government consumption expenditure Treated as industrial sector	The output is treated as households consumption expenditure Treated as industrial sector	The output is treated as government consumption expenditure Treated as industrial sector	Same as 1960	Same as 1960	The portion borne by the households is treated as household consumption expenditure, while the balance is treated as government consumption expenditure
Public administration and defense	Treated as government consumption expenditure	Same as 1951	Endogenous sector for public administration and defense is set up, but only value added items are estimated The output is treated as government consumption expenditure	Same as 1960	Same as 1960	Same as 1960, however, for these sectors are treated intermediate consumption expenditure
Imputed services of financial institutions	All are charged to the households for convenience purpose	Same as 1951	Charged to the depositors who receive the service either in the industrial or household sector	Same as 1960, but are oviated at intersections between financial sectors	Charged to the current depositors which first receive the services, and the blance charged to the industrial or household sector But the services are again oviated between financial sectors	Same as 1970, but are not shown in the final demand sectors Charged to intersections between finalcial sectors
Re-exports and re-imports	Included in exports and imports sectors	Same as 1951	Excluded from the exports and imports sectors	Imports and exports are inclueded to re-exports and re-imports sectors	Re-exports and re-imports of vessels are excluded with the balance treated as unidentified items	Same as 1970
Custom duties	Inclusive of indirect taxes is treated in the household sector	Same as 1951	The "(less) Custom duties" sector is set up in final demand and treated minus input at each import items Import items are broken down in detail and comopiled respectively	Same as 1960	Same as 1960	Same as 1960

1980	1985	1990	1995	2000	2005	2011
Row541×Column406	Row529×Column408	Row527×Column411	Row519×Column403	Row517×Column405	Row520×Column407	Row518×Column397
Same as 1955, but production for farm and fishery households is computed irrespective of self-product or selling	Same as 1980	Same as 1980	Same as 1980	Same as 1980	Same as 1980	Same as 1980
Same as 1960	Same as 1960	Same as 1960	Same as 1960	Those are output to the newly created "Reuse and recycling"sector, and further output through the sector to respective input sectors	Only costs related to collection and processing of scraps and by-products are counted towards the "Reuse and recycling" sector Counted based on the negative input method as in Input-Output Tables up until 1995	Same as 2005
Same as 1960	Same as 1960	Same as 1960	Same as 1960	Same as 1960	Same as 1960	Same as 1960
Same as 1975	Same as 1975	Same as 1975	Same as 1975	Same as 1975	Same as 1975	Same as 1975
Same as 1960	Same as 1960	Same as 1960	Same as 1960	Same as 1960	Same as 1960	Same as 1960
Same as 1975	Same as 1975	Same as 1975	Same as 1975 Medical service is treated as the industrial sector	Same as 1995	Same as 1995	Same as 1995
Same as 1975	Same as 1975	Same as 1975	Same as 1975 The final government consumption expenditure divides into individual and collective expenditure respectively	Same as 1995 Social overhead capital consumption incorporates	Same as 2000	Same as 2000
Same as 1975 Lending and imputed interest are treated in intermediate consumption of industrial sectors	Same as 1975	Same as 1975 Housing loan are treated in intersection between housing charges and fiancial sector	Same as 1990 nonbank financing of household estimates and records in Activities not elsewhere classified	Same as 1995	Same as 1995	The imputed interest method for Financial service was amended, and the FISIM (Financial Intermediation Services Indirectly Measured) method was introduced
Same as 1970	Same as 1970	Same as 1970	The value of imports and exports of vessels are exclueded With the exception of the value of vessels, the re-exports and re-imports value are deducted from the exports value and imports value respectively	Same as 1995	Same as 1995	Same as 1995
Same as 1960	Same as 1960	Same as 1960	Same as 1960	Same as 1960	Same as 1960	Same as 1960

CHAPTER Ⅲ
THEORY OF INPUT-OUTPUT TABLES

Since the 1955 Input-Output Tables, which were the first tables that were compiled based on a joint project by relevant ministries, gradual improvements have been made in Japan's Input-Output Tables, taking into account economic conditions and the actual state of production activities at the points in time when the tables are compiled, as well as consistency with the SNA and Standard Industrial Classification for Japan. Under the new Statistics Act that was fully enforced in April 2009, Input-Output Tables are designated as "fundamental statistics," or particularly important statistics that make up the core of official statistics.

In this chapter, explanations are provided on basic theories related to the "Basic Transaction Table," which is the core of various statistical tables that are compiled as Input-Output Tables.

1 Period Covered

The Input-Output Tables for Japan cover production activities and transactions involving goods and services conducted for one year from January to December (calendar year).

In principle, the Input-Output Tables have been compiled every five years (years ending with either a 0 or 5) since their first publication in 1955. However, the Basic Transaction Table that was compiled this time is a table that targets 2011, as the Economic Census for Business Activity, which is important basic data, was implemented with 2011 as the target year.

2 Geographical Coverage

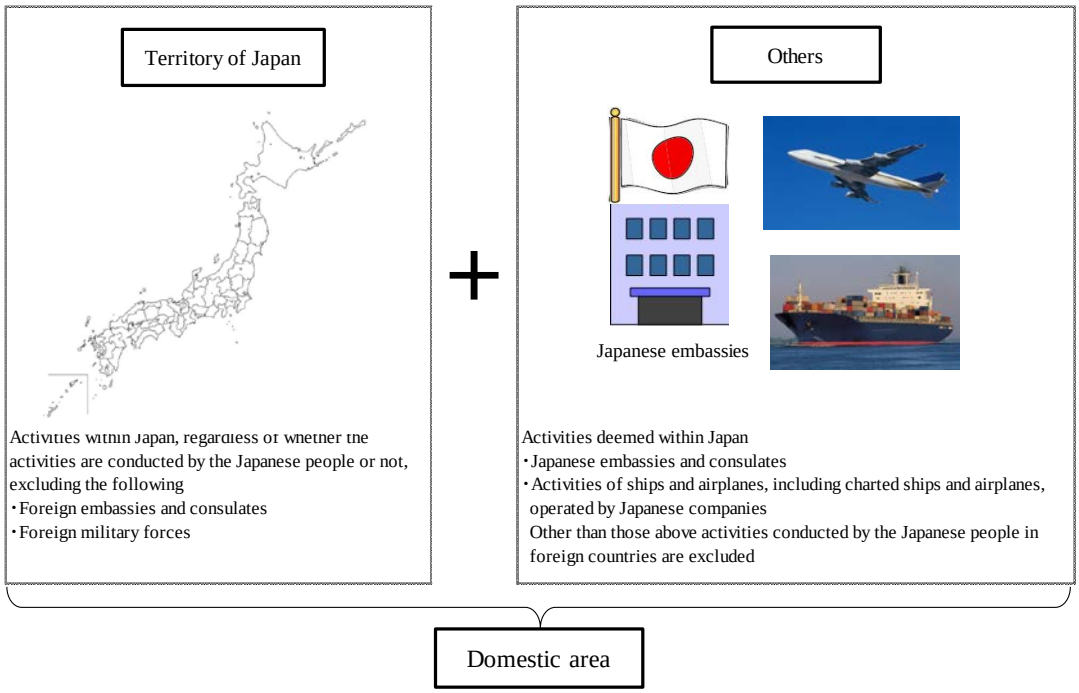
(1) Domestic Concept and national concept

In terms of perception of geographical scope when compiling the Basic Transaction Table, there is "domestic concept" and "national concept."

Simply put, the domestic concept is a concept where the scope covers economic activities that were carried out within the territory of a given country. For example, although activities of foreign companies that were carried out on Japanese territory are included, activities that were carried out by Japanese companies on foreign territory are excluded. However, although activities carried out by Japanese diplomatic missions are included, activities by foreign armed forces and diplomats of foreign governments residing in Japan are not included (see Chart 3-1).

In relation to this, the national concept is a concept that

Chart 3-1 Domestic Area in the Input-Output Tables



focuses on the residents of a country (the term “national” is sometimes used in the meaning of “people who have citizenship of a given country,” but please note that the meaning differs here). “Resident” refers to an individual who has been living within the applicable country for a long period of time, and who is engaged in economic activities of a substantial scope. For example, a Japanese citizen who lives in Japan, foreigner who has been living for a long period of time in Japan, and a Japanese company or organization, or foreign company or organization that is conducting activities in Japan are included as residents, as well as Japanese citizens who have only been living abroad for a short period of time. On the other hand, foreigners who are living in Japan for the purpose of studying abroad and medical treatment, etc. are not included in as residents.

(2) Handling of the Basic Transaction Table for Japan

Since the past, the domestic concept has been used for the Basic Transaction Table for Japan, and production activities and transactions that occurred in Japan are subject to recording. However, for only “Consumption expenditure of households,” the national concept is represented and consumption overseas by resident households is recorded as “(less) Imports (direct purchase),” while consumption in Japan by non-resident households is recorded as “Exports (direct purchase).” Based on this it is possible to convert “Consumption expenditure of households” to the domestic concept.

3 Timing for Recording

(1) Accrual basis and cash basis

In principle, production activities and transactions are recorded on an accrual basis in the Input-Output Tables, meaning that they are recorded at the time a transaction occurs. With the cash basis, on the other hand, production activities and transactions are recorded at the time earnings from and payments for production activities are actually paid. The equivalence of two aspects in the Input-Output Tables cannot be obtained on a cash basis (the respective totals of the gross added-value sector and the final demand sector (imports deducted) do not correspond) due to a time lag in the flow of accrual and distribution of earnings from production activities. However, the equivalence of two aspects in the Input-Output Tables can be obtained by recording on an accrual basis.

(2) Handling in the Basic Transaction Table for Japan

To maintain the equivalence of two aspects, accrual basis has been used since the past. Specific points in time of recording are as follows.

[1] Production activities and transaction for goods

Production activities for goods are recorded at the time they are produced, while those for services are recorded at the time they are performed during the year.

[2] Transactions for intermediate products

Transactions for intermediate products are recorded as the intermediate transaction value at the time intermediate products are actually consumed in each column sector during the year (Note).

(Note) These are handled as “stocks” up until the point when column sectors are used in actual production after intermediate products are purchased.

[3] Output to the final demand sectors

i) In the output to the final demand sectors, consumption expenditure, including consumption expenditure outside household, private consumption expenditure, and consumption expenditure of general government, are recorded at the time bargains are concluded, even in cases in which deliveries of applicable goods are delayed.

ii) Gross domestic fixed capital formation is recorded at the time of delivery, while various types of increases in stocks are recorded at the time legal proprietary rights to products are transferred to producers or distributors.

iii) Output to “Increase in stocks” is recorded at the point in time when the producer or distributor possesses ownership of a product subject to transaction.

iv) Exports (ordinary trade) and imports (ordinary trade) are recorded at the time of customs clearance.

[4] Goods with a production period of one year or more (long-term products)

i) Goods with a production period of one year or more (long-term products) are recorded as stocks under the domestic production until the ownership is transferred to the final users. The production value of finished goods of such long-term products is recorded as value of finished goods minus value of semi-

finished goods and work in progress.

ii) For capital production for the own account (production of goods for personal consumption), even in the case of the goods in progress, the progress levels for a period of one year are recorded as the "gross domestic fixed capital formation," as the final users retain the ownership. However, in the case of buildings, progress levels in constructions shall be recorded as domestic production in the "gross domestic fixed capital formation" even if the ownership has not been transferred.

iii) This principle is applied to animal growths: animals providing services (animals for draft, breeding or races, wool, fruit-trees, mulberry, tea leaves, etc.) are recorded in the "gross domestic fixed capital formation" and growths rendered by other specialized producers are recorded in the "increase in stocks of semi-finished goods and work-in-progress."

[5] Services with a production period of one year or more

Services with a production period of one year or more are recorded as produced when the services are offered (completion of production), therefore no stocks are recorded

4 Units of assessment

The Basic Transaction Table is a record of the actual state of production activities and transactions that were carried out over a year. In assessing the magnitude of such activities and transactions, there are two methods of assessment—one that is based on numerical quantities, and another that is based on monetary amounts.

Goods have a specific unit of quantity. The valuation of each transaction based on the unit of quantity would allow us to perform a quantitative input-output analysis based on production technologies, free from seasonal fluctuations in prices and regional differences.

However, many services do not have specific units of quantity. The same is true of goods in the sector composed of detailed items, as not all items in one sector (row) have a uniform unit of quantity. In addition to the above, calculation based on a uniform unit of quantity is impossible in the column sector, in which a wide variety of raw materials is entered as inputs. Therefore, the "monetary term" is a common criterion for the valuation of the scale of each transaction activity in compilation of the Basic Transaction Table.

Furthermore, to supplement the Basic Transaction Table in monetary terms, a "table on the value and quantity of selected goods" is compiled as a supplementary table.

5 Sector classification

(1) Concept of Sector Classification

Although various economic activities are carried out in this world, in order to express them in the form of the Basic Transaction Table, it is necessary to categorize economic activities into a given number of items. These items are called "sectors."

(2) Principles for Sector Classification

[1] Classification of units of products and classification of units of production activities

i) In the Basic Transaction Table for Japan, row sectors indicate the intended purpose and sales channel composition of products that were produced over the course of a year. Thus, in principle, classifications are made based on product classifications. On the other hand, column sectors indicate the cost composition for each production activity, and in principle, classifications are made in "units of production activities," or on an activity basis. There are many sectors where a single product corresponds to a single activity.

ii) Concretely, classifications based on units of production activities are classifications that focus on similarities with input structure, which is represented based on input coefficients.

Accordingly, in classifications based on units of production activities,

(a) Same products that are produced using the same production technology are ranked in the same sector, regardless of the industry in which they were produced.

(b) On the other hand, if the production technology differs even for the same product, the products are ranked in separate sectors (for example, thermal power and water power).

(c) If multiple products are produced within the same business site, allocation to multiple sectors is possible depending on differences in production technology. This point differs from the concept of ranking in the Standard Industrial Classification

for Japan, where business sites that carry out multiple economic activities are classified depending on its main economic activity.

[2] Standards for sector classifications

As described above, in the Basic Transaction Table, row sectors are classified in units of products, and column sectors are classified in units of production activities. However, for new establishment, separation and integration of sectors, and changes such as to the concept, definition and scope, classification is carried out taking into account the similarities of the input structure and output structure, magnitude of domestic production and total demand, the latest state of the Japan Standard Industrial Classification, time-series nature, state of maintenance of estimation materials, etc. each time Input-Output Tables are compiled.

[3] Correspondence relationship between row sectors and column sectors

Many of the row sectors and the column sectors for endogenous sectors correspond to each other 1-on-1.

However, in cases such as with petroleum refining where multiple products that differ in terms of both unit price and intended use are produced from the same production process, or in cases such as industry machinery where multiple products with different unit prices and functions are produced by consuming raw materials that were purchased commonly at a single business site, row sectors are divided by product for a single column sector.

At the same time, as with electricity, when the same product (in this case, electricity) is produced from different production facilities and production processes such as thermal power, water power, etc., the column sector is divided based on the production facility and production process, and the row sector is organized into a single sector.

As a result, in the basic sector classification for the 2011 Input-Output Tables, there are more row sectors (518 sectors) than column sectors (397 sectors) (in the Basic Transaction Table, which is based on integrated classifications; the table is one where a single row sector corresponds to a single column sector).

(3) Transactor-Based Production Activity Classification

[1] Definition of transactor-based production activity classification

Many of the products that are subject to recording in the Basic Transaction Table are “goods and services that are produced for the purpose of being sold in the market at a price where the costs spent in their production are recovered.” The production/supply entities of these products are entirely an “industry.” However, in the Basic Transaction Table, in addition to these,

i) Prices that do not commensurate with costs, or goods and services that are provided free of charge

ii) Goods and services that are not sold on the market that are supplied by government agencies and non-profit institutions are subject to being recorded as a “product.”

In the Basic Transaction Table for Japan, these various products are classified as basic sector classification. In basic sector classification, the principle is to classify based on the difference of products for row sectors and the difference of production structures for column sectors, or in other words, units of production activities (activity basis). If left as is, differences in the transactor-based production/supply (i.e., government agencies, non-profit institutions, and industries) for the product are not taken into consideration.

Thus, starting with the 1975 Tables, classification functions based on “transactor-based production activities” that focus on the transactor-based production/supply of the product were given to basic sector classifications, as part of approaches to the SNA indicated by the United Nations (68SNA at the time), and remain as such to this day.

Concretely, adding a “★★” or “★” to the end of the name of a basic sector classification serves as an index for classification of transactor-based production activities. Through this, basic sector classifications are considered as having classification functions based on the transactor-based production activities, rather than primarily being classifications based on products or units of production activity.

[2] System of transactor-based production activity classification

In the system of transactor-based production activity classification that was used in the 2011 Tables, such activities are broadly divided into the following three categories as shown in Chart 3-2.

i) Producer of government services

⇒ “★★” is added to the end of the basic sector classification name

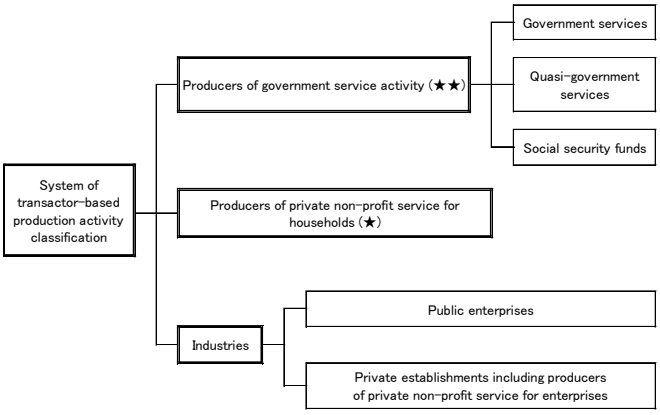
ii) Producer of private non-profit services for households

⇒ "★" is added to the end of the basic sector classification name.

iii) Industry

⇒ Nothing

Chart 3-2 System of transactor-based production activity classification



Among these, with regard to producers of government services, the breakdown categories of "Government services," "Quasi-government services," and "Social security funds" (Note 1, Note 2) were further established. For industries, the breakdown categories of "public activities" and "private activities" were established. (Note 3)

An overview of these categories is described below.

(Notes) 1 With regard to the breakdown category of producers of government services, there were the two categories of "government services" and "quasi-government services" up until the 2005 Tables. In the 2011 Tables, however, the category of "social security funds" was newly added in accordance with the standards indicated in the SNA.

2 With regard to school meals, although they are something that are fundamentally implemented by educational institutions, the actual state is one where there are cases where school meals are directly implemented by educational institutions, and other cases where they are entrusted to an external institution such as a food service center. However, if classifying based on the institution that actually carries out the service, not only will interferences arise, in terms of estimations, there is also the possibility of confusion arising in terms of usage. As a result, in the Basic Transaction Table, "School lunch (public) **" and "School lunch (private) *" are used, indicating that school meals are categorized based on the transactor-based production activity classification for educational institutions, which are the institutions that should fundamentally be implementing school lunches.

3 With regard to the breakdown categories for industry, "public corporations" and "private-sector business establishments" were used up until the 2005 tables. However, as there was inequality in the terms used, since one used the term "corporations" and the other used "business establishments," and as it did not also matter, in terms of handling in the Basic Action Table, whether activities were those as a corporation or those as a business establishment, in the 2011 Tables, the names of these categories were changed to "public activities" and "private-sector activities," respectively.

[3] Producers of government services

i) "Producers of government services" refer to those who fulfill the requirements in the table below, according to standards of the SNA.

Category	Requirement
"Social security funds"	(a) There is imposition/control by the government (b) Covers the entire society or a specific portion of society (c) There is a system of mandatory enrollment/burden
Producers of government services other than "social security funds"	(a) Does not correspond to social security funds (b) Does not correspond to financial institutions (c) There is no marketability in the activities contents (D)There is ownership/control by the government

"Social security funds" is a category that was newly established in the 2011 Tables, based on the reexamination of rankings related to the public sector with regard to the social insurance business that used to be included in "quasi-government services" or "producers of services for private non-profit institutions serving households." Producers of government services other than social security funds also include some activities of incorporated administrative agencies, special administrative corporations, etc., in addition to activities carried out generally by administrative agencies.

ii) Activities of "producers of government services" include the two services of "collective services" and "individual services," from the perspective of receivers of benefits and collection of costs.

[Collective services] Refers to services for the entire society, such as defense, legal system, maintenance of social order, lawmaking, and general

administrative activities. As they were services for the entire society, they are provided based on revenue from tax and other government revenue.

[Individual services] Refers to services where citizens receive benefits individually, such as education and health and hygiene. There are cases where some costs are collected depending on the services that are provided.

iii) In the Basic Transaction Table for Japan, "producers of government services" other than social security funds is further categorized into "government services" and "quasi-government services" as unique categories that do not exist in the SNA, for the purpose of analysis. The contents and concept behind ranking of each category are as follows.

[Government services] refers to services directly provided by the government and government-affiliated corporations, and there are no categories that provide similar services in the industry sector.

[Quasi-government services] refers to services directly provided by the government and government-affiliated corporations, although there are sectors that provide similar services in the industry sector. However, prices or charges are set at much lower levels than actual costs for social and public services.

For example, social and public services such as public gardens, health care, education, and culture, for which prices and charges are set at a much lower level than actual cost, are included in this category.

In cases where conditions such as those given in (a) and (b) below are fulfilled, they can be ranked as "quasi-government services," even if there do not exist sectors where services similar to "industry" are provided (For example, "Sewage disposal" and "Port and water traffic control").

(a) If the input and output structures differ significantly from "Public administration (central)" or "Public administration (local)"

(b) There exist reasonable classifications other than public administration in the Japan Standard Industrial Classification.

[4] Producers of services for private non-profit institutions serving households

"Producers of services for private non-profit institutions serving households" refers to those who fulfill the requirements (a) to (d) below, based on the standards of the SNA.

(a) Does not correspond to social security funds, nor financial institutions
(b) There is no marketability in the activities contents
(c) There is no ownership/control by the government
(d) Services are provided exclusively to households

[5] Industry

i) General theory

"Industry" mainly refers to production activities and transactions of goods and services that are carried out with the purpose of selling them on the market at a price that covers production costs (In the standards of the 93SNA, they are considered as having marketability if sales equal more than 50 percent of production costs).

Among these activities and transactions, in cases where ownership or control by the government is recognized, such as the government owning the majority of voting rights pertaining to the activity, are ranked as "public activities," and other cases are ranked as "private-sector activities." Among these, "public activities" correspond mainly to activities such as of incorporated administrative agencies and special administrative corporations, etc.; financial intermediation activities and non-financial activities with marketability, among special accounts of the central government and accounts of publicly owned entities of local governments; and those where a relationship with ownership or control by the government exists.

ii) In addition to i) above, the following is also handled as "Industry."

(a) Even when it is considered that rent does not generally arise, such as when a person owns his/her own house, etc., imputation is carried out by deeming that the resident is paying rent, in the same way as with rental housing, and such cases are handled as "Industry" ("House rent (imputed house rent)").

(b) Activities where an agricultural, forestry, and fisheries household produces agricultural, forestry, and fisheries products for personal consumption are handled as "Industry."

(c) With regard to various economic organizations,

burden charges and membership dues from relevant corporations, etc. are treated as payments for services provided by the said organization, and are handled as “Industry” (producers of services for private non-profit institutions serving households.”

(4) Types of sector classifications and classification codes

[1] Structure of sector classifications

i) With regard to sector classifications for when publishing the Basic Transaction Table for Japan, the “basic sector classification” serves as the most detailed classification, and the following were established as “aggregated classifications,” or an integration of these classifications.

・Minor aggregated sector classification
・Medium aggregated sector classification
・Major aggregated sector classification

In addition, with the purpose of representing the Basic Transaction Table on a single sheet of paper, a classification that further consolidates the major aggregated sector classification (13-sector classification in the 2011 Tables; referred to as “model” when compiling Input-Output Tables) was also established.

ii) In general, by carrying out estimations based on classifying sectors in a more detailed manner, highly accurate results are obtained, and it has also been considered that the input coefficients also become more stable for each sector. However, due to limitations with the materials used in estimations, there are limits to making classifications more detailed in order to ensure a certain level of accuracy. Based on such limitations, in recent years, the number of basic sector classifications in the Basic Transaction Table for Japan has been approximately 500 row sectors and approximately 400 column sectors, as shown in Table 3-1.

Estimation of inputs and outputs, and work for balancing numbers are carried out based on basic sector classifications. In order to estimate domestic production, which serves as the basis for estimating inputs and outputs, “detailed item classification” was established.

iii) For detailed item classification, endogenous sectors are set up so that there is a square matrix with the same number of row sectors and column sectors (the row sectors and column sectors correspond one-on-one), due to mathematical restrictions in calculating various coefficients such as the inverse matrix coefficients.

iv) In addition to the classifications in i) and ii) above, there is the term “competitive sectors,” as sectors that are used particularly in the “Table on Scraps and By-Products,” which is a complementary table.

[2] Classification codes

The classification codes for sector classifications used in representation are established based on the digits below.

・Major aggregated sector classification : 2-digit
・Medium aggregated sector classification : 3-digit
・Minor aggregated sector classification : 4-digit
・Basic sector classification : 6-digit(column), 7-digit(row)

Table 3-1 Development of the Number of Sector Classifications

	Basic sector classification		Minor Aggregated Classification	Medium Aggregated Classification	Major Aggregated Classification	Model
	Row	Column				
1955 Table	310	278	122	54	－	－
1960 Table	453	339	153	56	－	6
1965 Table	447	341	156	56	－	10
1970 Table	541	407	160	60	－	10
1975 Table	554	407	165	61	－	13
1980 Table	541	406	164	72	28	13
1985 Table	529	408	183	84	29	13
1990 Table	527	411	187	91	32	13
1995 Table	519	403	186	93	32	13
2000 Table	517	405	188	104	32	13
2005 Table	520	407	190	108	34	13
2011 Table	518	397	190	108	37	13

Among these, for basic sector classification and minor aggregated sector classification, the 4-digit classification code for minor aggregated sector classification and top four digits of the classification code for basic sector classification belonging to the corresponding minor aggregated sector classification were set to be the same previously, promoting consistency. However, sequential numbers were given to the medium aggregated sector classification and major aggregated sector classification mechanically, and there was no consistency with codes for the basic sector classification, etc.

Thus, in the 2011 Tables, in combination with that fact that sector classifications were reexamined in accordance with the 2007 revision of the Japan Standard Industrial Classification, it was considered that making the classification codes consistent between the major aggregated sector classification/medium aggregated sector classification and minor aggregated sector classification/basic sector classification would contribute greatly to use of the Input-Output Tables. Thus, the classification codes were reexamined and the classification codes of each sector were fully renewed.

[3] Special codes

For users' convenience, the following special classification codes (refer to item 9 in this section) are used for such special treatments as the output and input of scrap and by-products, as well as for trade margins and domestic freight. The following codes are indicated after the last (the 6th or 7th) digit of the basic sector classification code (the codes are referred to as "2 attached" or "3 attached," for example).

- Scrap input …… 2
- Scrap output …… 3
- By-product input ‥ 4
- By-product output 5
- Trade margin …… 6
- Domestic freight ‥ 7

(5) Final demand sectors and gross value added sectors

[1] As shown in Table 3-2, the final demand sectors and gross value added sectors, which are exogenous sectors of the Basic Transaction Table, correspond, for the most part, to each of the items in the System of National Accounts compiled by the Cabinet Office, despite differences in names and excluding consumption expenditure outside households.

[2] Consumption expenditure outside households

Consumption expenditure outside households is also known as "business consumption." A breakdown of business consumption, such as lodging expenses and daily allowances, entertainment allowances, and welfare expenses, is entered as an item of consumption expenditure outside households in the final demand sector (column) by goods and services.

On the other hand, lodging expenses and daily allowances, entertainment allowances, and welfare expenses are recorded by column sector in "Consumption expenditure outside households (row)" in gross value added sectors. In other words, the amounts that were spent by each production sector (column sector) towards these expenses are recorded.

In the System of National Accounts, consumption expenditure outside households is ranked as an endogenous sector, as an operating expenditure that is directly necessary for companies to carry out production activities and transactions, and is not included in exogenous sectors (final demand sectors and gross value added sectors).

However, in the Basic Transaction Table for Japan, expenditures that are the equivalent of consumption expenditure outside households are considered as (a) allocated from part of operating surplus, rather than being directly necessary for production activities, and (b) not being input at a given proportion in carrying out production activities, similar to general raw materials. Based on reasons such that making these exogenous will make input coefficients (production structure in endogenous sectors) more stable, they are oriented as exogenous sectors.

6 Basic Structure of the Basic Transaction Table

(1) Price valuations and table formats (Input-Output Table at producers' prices and Input-Output Table at purchasers' prices)

[1] Valuation methods for prices

As described in 4 above, in the Basic Transaction Table for Japan, the size of each transaction is recorded using "monetary amount," which is a unit of measurement common to products. When doing so, the size and

manner of representation of transaction amounts changes depending on the stage/price at which the "monetary amount" is perceived.

Not all goods of the same type or quantity are traded at the same price in the actual economy. The prices of commodities vary according to factors such as regional and seasonal fluctuations, as well as differences in the structure of supply and demand or transaction patterns.

For example, the shipment prices of producers and purchase prices of consumers often differ depending on expenditures in the distribution stage. In addition, there are also cases where prices for the same product differ depending on whether the target is large user or small user.

As such, there are two perspectives as shown below with regard to price valuation when recording in the Basic Transaction Table.

(a) Using either "actual prices" or "unified prices"

"Actual prices" is a method for evaluating prices at which transactions actually occurred, while "unified prices" is a method for evaluating based on separately establishing unified prices, regardless of the transaction destination or transaction format.

(b) Using either "producers' prices" or "purchasers' prices"

"Producers' prices" is a method for evaluating using shipment prices, while "purchasers' prices" is a method for evaluating using prices at the final stage of transactions.

Between these, only tables based on actual prices with regard to (A) are compiled in Japan. Thus, for the Basic Transaction Table, two types are compiled:

- Input-output tables at producers' prices based on actual prices
- Input-output tables at purchasers' prices based on actual prices

The former is referred to as "Input-Output Tables at producers' prices," while the latter is referred to as "Input-Output Tables at purchasers' prices."

The reason why the valuation method based on unified prices is not used is because while the data on transactions obtained from primary statistics is an accumulation of actual prices, it is necessary to separately solve the issue of "how to establish uniform prices" in order to make valuations based on uniform prices.

[2] Input-Output Table at producers' prices and Input-Output Table at purchasers' prices

i) Formats of the two tables and differences between them

The difference between the two prices can be ascribed to the fact that the purchasers' price is inclusive of such distributive costs as trade margins and domestic freight, while the producers' price is not (see Chart 3-3).

We compile both types of tables as the Basic Transaction Tables for Japan. In the Input-Output Table at producers' prices, each transaction is recorded at the producers' delivery price. Trade margins and domestic freight, incurred before purchasers buy products, are added at the intersection of the purchasers' sector (column), the commerce sector (row), and the transport sector (row).

In the Input-Output Table at the purchasers' prices, each transaction is recorded at prices including trade margins and domestic freight. As a result, only "cost trade margins," "passenger fares," and "cost transport margins" (see 10 (2) in this chapter) are recorded in the row sector for commerce and transport. Trade margins and domestic freight are not recorded in the row sector for commerce and transport.

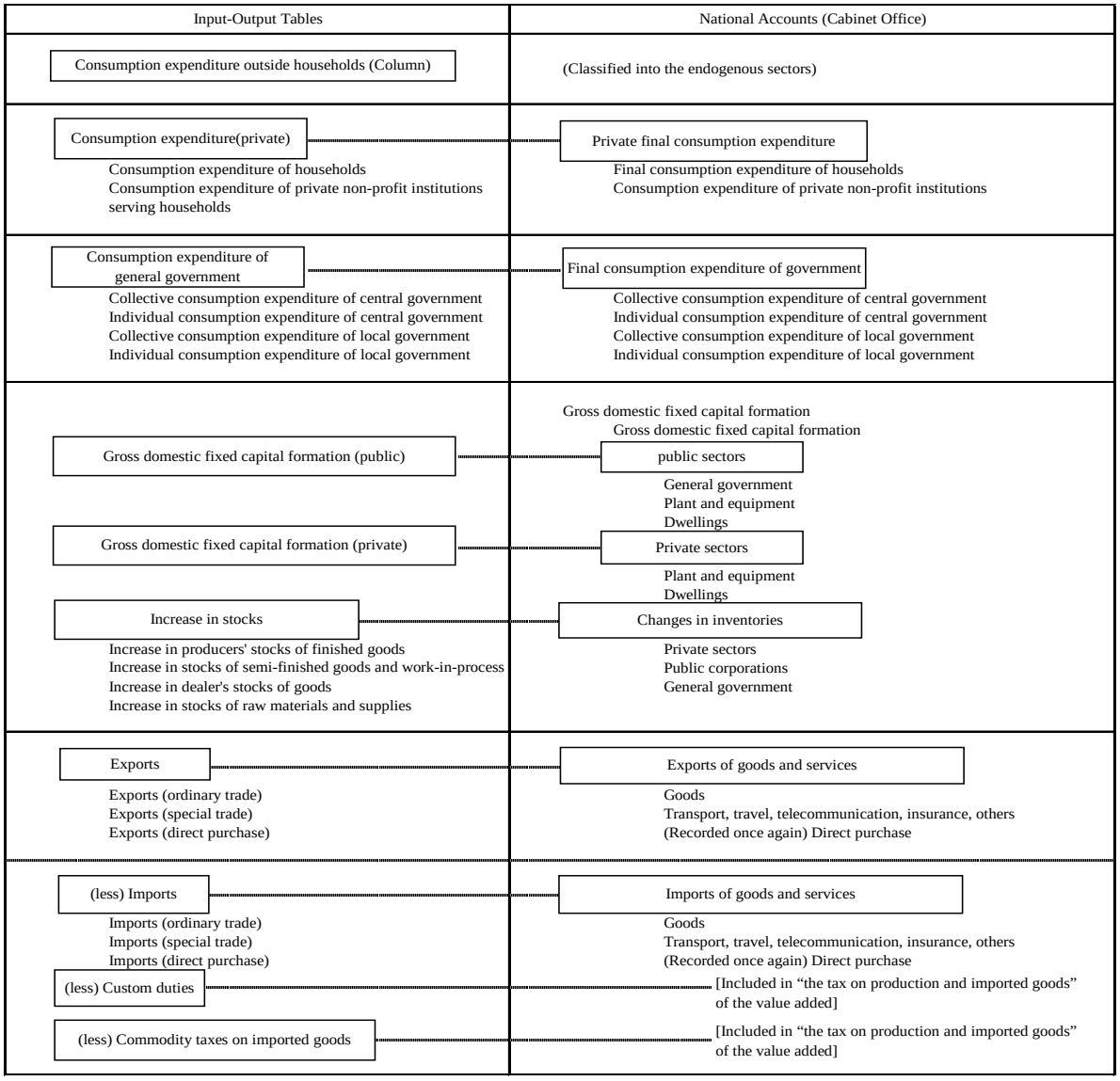
In the Basic Transaction Table for Japan, the basis for domestic production is valuated at producers' prices based on actual prices, as will be described in 7 (2) hereinafter. Thus, in each row sector for Input-Output Tables at purchasers' prices, it is ensured that domestic production is at producers' prices by excluding trade margins and domestic freights in exogenous sectors (see Chart 3-3[3]).

ii) Characteristics of use

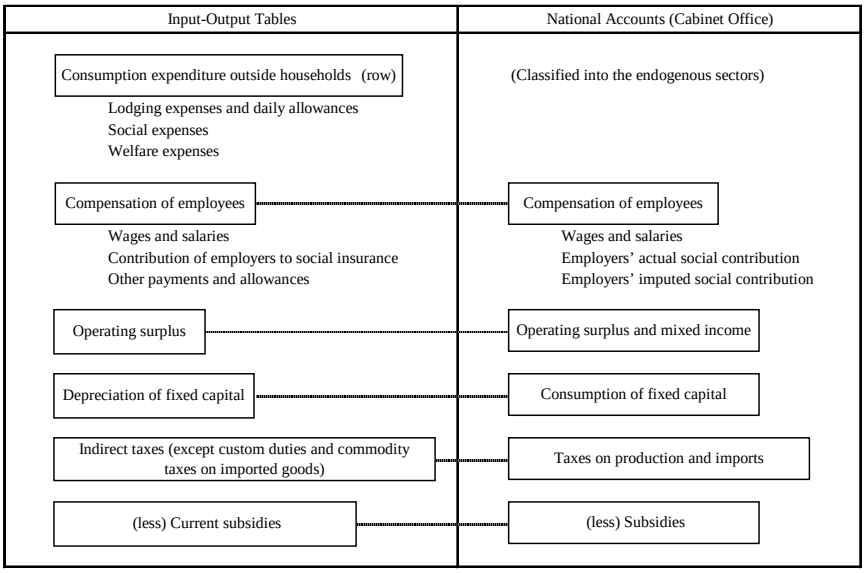
Use of the Input-Output Table at producers' prices and the Input-Output Table at purchasers' prices has the following features.

It is easy to understand the composition of manufacturing costs in each column sector, as the Input-Output Table at purchasers' prices is recorded at prices that are nearly equal to prices of our recognition of actual transactions.

Table 3-2 Input-Output Tables and Correspondence to National Accounts



Note: Encircled items in the I-O Tables correspond to the items involving final demand under the major aggregated sector classification



Note: Encircled items in the I-O Tables are elements of the gross value added corresponding to the major aggregated sector classification

On the other hand, the amount of domestic freight and trade margins differs not only depending on the type of goods and services, but also, in many cases, depending on transaction patterns even if goods and services are identical. Thus, the amount of domestic freight and trade margins is unstable and consequently, to stabilize input coefficients (as technical coefficients) by making the input coefficients as close as possible to the physical quantities, it is more convenient to use the producers' price as a basis for calculation in the Basic Transaction Table.

Even in the Input-Output Tables for Japan, the input coefficient tables and inverse matrix coefficient tables are compiled from Input-Output Tables at producers' prices, and analysis of Input-Output Tables is carried out using Input-Output Tables at producers' prices as a basis.

[Appendix] Basic price

The basic price is the producers' price minus commodity taxes such as consumption, tobacco, liquor, and other indirect taxes, plus subsidies. The 68SNA recommended that the transaction value be calculated using the basic price.

This 68SNA recommendation is based on the following facts: when commodity taxes are included in the transaction value, the commodity tax rates are not necessarily stable and are subject to variations depending on whether it is household or business consumption. In addition, when the tax rates are different among the commodities classified into the same sector, the transaction values are affected by the composition of the commodity to be purchased. Thus, the input coefficients are also affected by these artificial factors.

However, in the Basic Transaction Table for Japan, tables based on basic prices are not compiled due to reasons such as data limitations, etc.

(2) Handling of consumption tax

Among the value-added taxes, individual indirect taxes such as liquor tax and tobacco tax, where specific goods and services are subject to taxation, are indicated as-is as input costs, as the taxation amount (= amount of tax payment) is imputed to the price of the product, and the good or service is sold at a price inclusive of tax, regardless of destination between intermediate demand or final demand.

In relation to this, consumption tax is an indirect tax of a multi-stage taxation method that is imposed at all transaction stages that are carried out domestically, in principle. In addition, as tax is not accumulated during the stage of intermediate transactions, the purchase-related taxes are excluded. In other words, the tax that is paid by the person who purchased the product is calculated as a subtraction of the tax that was paid in the prior stage of distribution from the tax incurred on the sales amount.

As a result, with regard to how consumption tax is handled in the Basic Transaction Table, there are different concepts—a method where the monetary amount that actually moved is evaluated as is, and another method of valuation based on the monetary amount that is recognized as being original costs.

In the Basic Transaction Table for Japan, due to the benefit of not being able to read the magnitude of the actual transaction amount, the method of displaying the sales/purchase price as is at the distribution stage (tax-inclusive display) has been adopted since the consumption tax system was introduced. In the transaction amount, the amount that is subtracted in calculations at the tax payment stage is also included and recorded.

(3) Treatment of Imports and Table Types

[1] Competitive import type table and non-competitive import type table

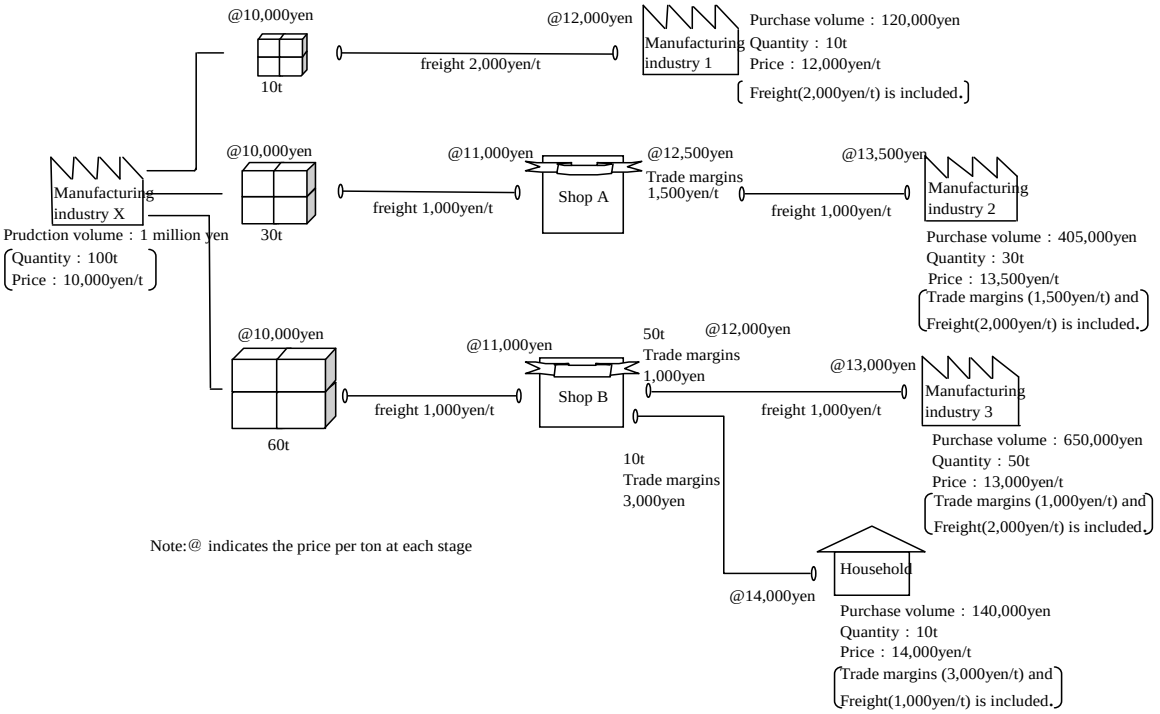
There are two methods for treating imports in the Basic Transaction Tables. One is the "competitive import type table," in which imports and domestic products are treated as identical if they are the same type of goods. The other is the "non-competitive import type table," in which imports and domestic products are treated differently despite the fact that they are the same type of goods.

[2] Table type for Japan

In principle, the Basic Transaction Table for Japan is the "competitive import type table," in which the input and output of domestic products, as well as imports, are treated collectively. However, in the Input-Output Tables for Japan, key imported goods such as raw materials and soybeans are recorded separately under the row sector for

Chart 3-3 Input-Output Table at Producers' Prices and Input-Output Table at Purchasers' Prices

［1］ Flow of price setting－temporary example－



[2] Input-Output Table at Producers' Prices — Model —

(unit 1,000 yen)

		Intermediate demand				Final demand			Total demand	Imports (Less)	Domestic production
		Manufacturing Industry 1	Manufacturing Industry 2	Manufacturing Industry 3		Consumption	Investment	Exports			
Intermediate input	Commodity "X"	100	300	500	0	100	0	0	1000	0	1000
	Commerce	0	45	50	0	30	0	0	125	0	125
	Transport	20	60	100	0	10	0	0	190	0	190
Gross value added											
Domestic production											

Note: This table is based on the figures in Chart 3-3 [1]

[3] Input-Output Table at Purchasers' Prices — Model —

(unit 1,000 yen)

		Intermediate demand				Final demand			Total demand	Less			Domestic production
		Manufacturing Industry1	Manufacturing Industry 2	Manufacturing Industry 3		Consumption	Investment	Exports		Imports	Trade margins	Freights	
Intermediate input	Commodity "X"	120	405	650	0	140	0	0	1315	0	-125	-190	1000
		100 +20	300 +45 +60	500 +50 +100		100 +30 +10							
	Commerce	0	0	0	0	0	0	0	0	0	125	0	125
	Transport	0	0	0	0	0	0	0	0	0	0	190	190
Gross value added													
Domestic production													

Note: This table is based on the figures in Chart 3-3 [1]
The trade margins and freights are included in the row for the transaction value of commodity"X "

imported goods, regardless of the scale of domestic production. Therefore, the Basic Transaction Tables for Japan is accurately described as a “mixed-type table of competitive and non-competitive imports”.

However, the above table can easily be converted into a non-competitive import type table, as the import value of each transaction is recorded as a breakdown item.

7 Price Valuation of Domestic Production

(1) Importance of domestic production

In a single word, “domestic production” is the total amount of production and transactions for each sector over the course of a year.

Domestic production by sector is a number that is estimated first when carrying out estimation work for the Basic Production Table, and inputs and outputs are estimated as its breakdown upon establishing this domestic production amount. As a result, when there is an error in domestic production, it is not only necessary to re-estimate inputs and outputs of its own sector; even inputs and outputs of other sectors are affected, and the accuracy of the entire Basic Production Table is influenced. In such a way, domestic production is extremely important as a “control value” for both the row sectors and column sectors of the Basic Transaction table. Based on such a positioning, they are often referred to as “CT,” which is an abbreviation of control totals.

(2) Price evaluations related to domestic production

In the Basic Transaction Table for Japan, domestic production is fundamentally evaluated using producers’ prices based on actual prices.

Fundamental concepts related to estimation of domestic

Chart 3-4 Tabular formats according to handling of input

[1] Perfectly Competitive Import Type Table (Model)

	A	B	C	D	Consumption	Investment	Exports	(Less) Imports	Domestic production
A	10	60	30	40	10	0	0	-100	50
B	20	10	50	10	20	15	10	-35	100
C	5	10	5	50	60	40	40	-50	160
D	5	5	20	15	70	30	30	-25	150
Gross value added	10	15	55	35					
Domestic production	50	100	160	150					

Note:The figure in each grid is the total of domestic products and imported goods, except for the figures in the gross value-added sector and the import sector.

[2] Mixed-Type Table of Competitive and Non-Competitive Imports (Model)

	A	B	C	D	Consumption	Investment	Exports	(Less) Imports	Domestic production
A	5	10	20	10	5	0	0	0	50
A (Imports)	5	50	10	30	5	0	0	-100	0
B	20	10	50	10	20	15	10	-35	100
C	5	10	5	50	60	40	40	-50	160
D	5	5	20	15	70	30	30	-25	150
Gross value added	10	15	55	35					
Domestic production	50	100	160	150					

Note:The Imports of Commodity “A” are recorded separately under the row sector, while the total of their domestic products and imported goods are recorded for Commodities “B,” “C,” and “D.”

[3] Perfectly Non-Competitive Import Type Table (Basic Type) (Model)

		A	B	C	D	Consumption	Investment	Exports	(Less) Imports	Domestic production
Domestic	A	5	10	20	10	5	0	0	0	50
	B	10	10	30	10	20	10	10	0	100
	C	5	10	5	40	30	30	40	0	160
	D	5	5	15	15	55	25	30	0	150
Imports	A	5	50	10	30	5	0	0	-100	0
	B	10	0	20	0	0	5	0	-35	0
	C	0	0	0	10	30	10	0	-50	0
	D	0	0	5	0	15	5	0	-25	0
Gross value added		10	15	55	35					
Domestic production		50	100	160	150					

Note:In Japan, a supplementary table (table on imports) enables compilation of the perfectly non-competitive import type table as above for the Basic Transaction Tables.

[4] Non-Competitive Import Type Table (Simplified Type) (Model)

		A	B	C	D	Consumption	Investment	Exports	(Less) Imports	Domestic production
Domestic	A	5	10	20	10	5	0	0	0	50
	B	10	10	30	10	20	10	10	0	100
	C	5	10	5	40	30	30	40	0	160
	D	5	5	15	15	55	25	30	0	150
Imports		15	50	35	40	50	20	0	-210	0
Gross value added		10	15	55	35					
Domestic production		50	100	160	150					

Note:Only the sectoral total of imports is shown. No breakdown by item is included.

production for each major sector type are as follows.

[1] Goods

In principle, with regard to goods, domestic production is estimated in the form of "production quantity × unit price" for each detailed item classification. When doing so, the factory shipment price is the unit price of products in the manufacturing industry.

For products of industries where the area of the business site is not clear, such as in forestry, gravel quarrying, etc., valuations are made using prices at the market closest to the production site. The transportation cost from the production site to market is added to domestic production as "cost transport margins."

[2] Manufacturer-sellers

Manufacturing activities and retail activities are separated, and the respective amounts are recorded in domestic production of the corresponding sector.

[3] Secondhand goods

The prices of secondhand goods are not recorded in domestic product, and only transaction margins are recorded in domestic production of the commerce sector as "cost trade margins."

[4] Old buildings

The prices of old buildings are not recorded in domestic production. Only the transaction processing fee is recorded in domestic production of the real estate sector.

In cases where old buildings are repaired and sold, the repair costs are recorded in domestic production of "Repair of construction."

[5] Services

Since services often do not have a unit of quantity, the domestic production for each detailed item classification is directly estimated. When doing so, fundamentally, valuation is carried out at the price at which the receiver of the service paid. Services are directly provided by producers to final consumers, and often do not incur trade margins and domestic freights. Thus, for many sectors related to services, the producers' price is equivalent to the purchasers' price.(Note)

(Note) Even for service-related sectors, in some sectors such as "Image information, sound information and character information production" (since sale of software for image information, sound information, etc. is included in the activities contents, this portion is subject to trade margins and domestic freights), the producers' price is not equivalent to the purchasers' price.

[6] Commerce

Most of the domestic production for the commerce sector is the trade margins determined based on "sales amount – cost of goods sold," but in addition to this, an amount equivalent to "cost trade margins" is included.

[7] For financing for which imputation is carried out, insurance, depreciation of fixed capital related to social capital, and house rent, see 10(4) below.

[8] Non-profit activities (activities of producers of government services and producers of private non-profit services for households)

Normally, transactions involving commodity are conducted at a price that will compensate for the cost of their production. However, there is commodity that the producers of government service activity and private non-profit service for households provide free of charge or at prices that are much lower than their actual cost.

In the Input-Output Tables, which include goods and services by non-profit activities, the domestic productions of producers of government service activity and private non-profit service for households are calculated based on their production costs.

[9] Self-produced and self-consumed goods

Self-produced and self-consumed goods, which are intermediate products in the production process that are all self-consumed in the corresponding sector, are, in principle, not recorded as domestic production (if estimated using shipment-based statistics such as the Economic Census for Business Activity, there is no method for comprehending domestic production (self-produced and self-consumed products are not recorded in statistics as they are not shipped)).

However, even for goods that are consumed immediately in the next production process, such as pig iron and crude steel in the production process for iron and steel, if the input and output structures differ, the products are divided respectively, and recorded in domestic production. When recording, the product price in the market is used as the standard.

For self-produced and self-consumed goods in households, only self-consumption by agricultural, forestry, and fisheries households is handled as "industry," and thus, only the portion corresponding to this is recorded.

[10] Treatment of Manufacturing Commissioned to Other Establishments

The production value, the intermediate input required for production, and the value added of products in each sector are included in the Basic Transaction Table, regardless of whether the products in each sector are manufactured in-house or outsourced.

However, in a sector in which the Economic Census for Business Activity is used as basic data for the estimation of domestic production, only income from the processing of goods other than raw materials is included in the production value of the entrusted industry.

As a result, in sectors where domestic production is estimated using the Census, it is not possible to comprehend the amount of raw materials, etc. related to contract manufacturing.

The production values of non-manufacturing industries that consign production (such as the wholesale and retail trade, including trading companies and department stores) are as follows: sales amount minus purchase amount equals margins.

Therefore, the cost of purchased materials required for consignment production is excluded from the intermediate input. As a result, in the production sector for raw materials, the sale of raw materials to such consignors as trading companies for consignment production cannot be transferred to any output sector if no reconciliation is conducted. In the sector for commissioned manufacturing, the production value is underestimated while the ratio of the value added is overestimated.

For value of consignment production from the non-manufacturing industry, the production value that includes the cost of raw materials is calculated by multiplying the income from the processing of goods by the reciprocal of the value-added ratio, as based on the following formula.

$$\text{Production value} = \text{Income by processing goods} \times \frac{\text{Product price}}{\text{Product price} - \text{Cost of raw materials}}$$

Although such handling can be applied in general to the manufacturing industry conceptually, in actuality, it corresponds in particular in relation to textile products. Based on this, the “Notes” for the sector related to fiber fabrics and wearing apparel in “15 Textile products” of Chapter 7, Section 1 include the statement, “The production value includes those products commissioned from non-manufacturing businesses.”

[11] Scraps and by-products

Scraps and by-products are, in principle, handled by the “negative input method.” Thus, the values of scraps and by-products obtained from using the “negative input method” are not recorded as domestic production. For “Reuse and recycling,” scraps and by-products are not input, and only expenditures related to reuse and recycling are recorded.

[12] Plant engineering

For domestic production of plant engineering, which is included in “Miscellaneous business services,” only the monetary amount related to engineering services not including construction costs is recorded.

[13] Fluctuations in stocks of semi-finished goods and work in progress

Fluctuations in stocks of semi-finished goods and work in progress are valued at the average of the opening and closing price for that year.

[14] Indirect taxes

Indirect taxes imposed during the process of producing goods are included in the production value of the production sector that pays them. Taxes levied in the process of distribution are included in the production value of commerce. (Note that light-oil delivery tax is treated as the tax imposed in the production process, taking into account other petroleum products manufactured by the same production process.) Consumption tax is included in the valuation.

[15] Land transactions

In the valuation of land transactions, the cost of land acquisition is not recorded, and only brokerage commissions and improvement expenses are recorded in their respective sectors of the domestic production.

(3) Double Counting in Domestic Production

[1] In the same basic sector classification

In estimating domestic production, first, domestic production is estimated for the detailed item classifications (approximately 34,000 classifications), and after being tabulated into aggregated items, these are accumu-

lated for each basic sector classification, and then the domestic production for each sector is estimated.

For this reason, if one commodity item in a basic classification sector concerned is also used as a raw material for the production of another commodity item in the same sector, the domestic productions for the raw material will be counted twice.

〔Example of Double Counting in Domestic Production〕

Basic classification：3411-021 Electric audio equipment

Electric audio equipment	321 9billion yen
Parts, fixtures, and accessories for electric audio equipment	93 9billion yen
Semi-finished goods and work in progress	1 2billion yen
	Total:417 1 billion yen

(Note) Within the 321.9 billion yen of completed goods, components and semi-finished goods are included; however, when looking at this based on the basic sector classifications, this amount is double-counted, resulting in domestic production of 417 1 billion yen.

[2] Double-counting that crosses over basic sector classifications

In [1] above, double counting of domestic production in the same basic sector classification was described. However, this is the same even for cases where double-counting occurs across basic sector classifications. For example, for domestic production relating to automobiles, not only completed goods but components such as the car body and engine are estimated in different basic sector classifications. Within domestic production of automobiles, which are completed goods, however, domestic production of components that are already recorded in other basic sector classifications are included. In other words, domestic production of automobile components are double counted in both their own sectors and the sector for automobiles, which are completed goods.

[3] Double counting by aggregating sector classifications

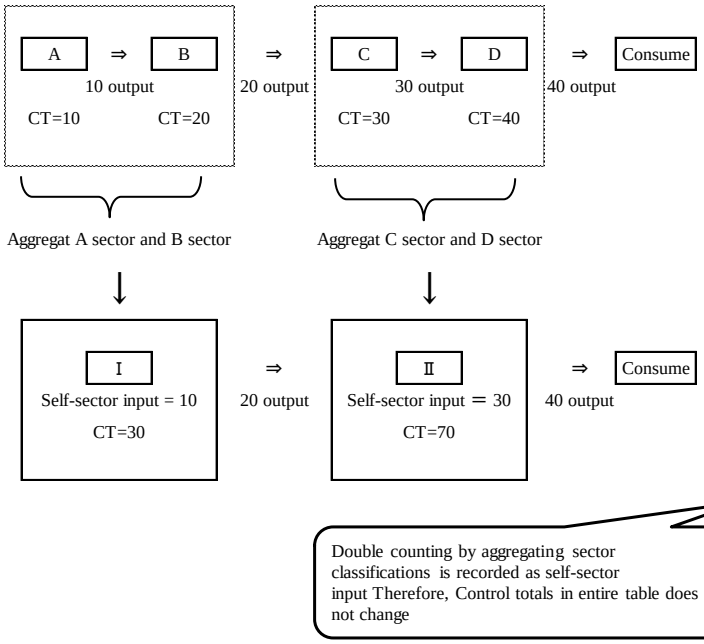
Double counting of domestic production occurs even by aggregating sectors. However, if sector classifications are aggregated, duplication of domestic production is only integrated as an input in its own sector at the intersection of the row sector and column sector of the sector that was aggregated, and depending on the aggregation, domestic production for the Basic Transaction table as a whole is not changed (see Chart 3-5).

8 Recording Transactions in Endogenous Sectors and Final Demand Sectors

(1) Endogenous sectors

Basically, the figures shown in the grid in the endogenous sector of the Basic Transaction Tables represent the transaction values of goods and services conducted between sectors. However, the transaction value recorded in the endogenous sector is the value of consumption required for the year. Therefore, the transaction value (purchase value) for the year is not recorded directly.

Chart 3-5 Double counting by aggregating sector classifications



	A	B	C	D	Consume	CT
A		10				10
B			20			20
C				30		30
D					40	40
Gross value added	10	10	10	10		
CT	10	20	30	40		

	I	II	Consume	CT
I	**10**	20		30
II		**30**	40	70
Gross value added	20	20		
CT	30	70		

(2) Transactions in Capital Goods

[1] Transactions involving capital goods, that is, goods with a durability of one year or more and for which the unit price is 100,000 yen or more, purchased by any sector, are recorded in the gross domestic fixed capital formation of the final demand sector and are not treated as the transaction value of endogenous sectors.

〔Transaction of capital goods recorded in endogenous sectors〕

i) Built into machinery:

Elements built into another piece of machinery; normally capital goods

ii) Construction bypass

Capital formation of such capital goods as elevators and boilers that bypass construction activities. In other words, builders purchase these capital goods as intermediate input.

iii) Civil engineering bypass

Such capital goods as bridges and floodgates that require civil engineering work for their construction, despite the fact that they are capital goods. Capital goods treated as items of the construction cost are applicable.

iv) Shipbuilding bypass

Such capital goods as boilers and telecommunication equipment installed in ships are applicable.

v) Weapons, etc. purchased by the Self-Defense Forces

[2] The fixed capital matrix, which are compiled as supplementary tables, indicate the amount and type of capital goods purchased by their respective sectors.

[3] The allowance for the depreciation of capital goods in each column sector (the depreciation caused by using the capital goods for the year) is recorded under "depreciation of fixed capital" in the gross value added sectors.

(3) Stocks

Stocks are treated as "Increase in stocks" in Input-Output Tables.

"Increase in stocks" refer to fluctuations in stocks that remain after subtracting the stocks as of the end of the previous year (for example, the end of 2010) from the stocks as of the end of the year covered (for example, 2011) (year-end balance of year covered minus year-end balance of previous year).

[1] Products that were produced but were not sold to any sectors or were not used for self-consumption during the year covered are recorded in the "increase in stocks of producers' stocks of finished goods" (refer to [1] in Chart 3-6).

[2] For "Increase in semi-finished goods and work-in-progress," the increase and decrease in goods that are in production and that cannot be sold or shipped without further working on them are recorded, as production activities of the target year (refer to [2] in Chart 3-6).

[3] Commodities that were purchased by wholesale and retail trades but were not sold are recorded in the "increase in dealers' stocks of goods" In this case, such commodities are recorded at the intersection with the

Chart 3-6 Example of Increase in Stocks

Example of the increase in stocks: a producer of wooden furniture purchased domestic and the stocks increased at each stage in the process of producing wooden furniture.

			Intermediate demand	Final demand			
				Increase in producer's stocks of finished goods	Increase in semi-finished goods and work-in-progress	Increase in dealer's stocks of goods (Notes:1)	Increase in stocks of raw materials and supplies (Notes:2)
Intermediate input	Materials	Domestic				[3]	[5]
		Imported		(Notes:3)		[4]	[6]
	Wooden furniture			[1]	[2]		
	Commerce						
	...						

Notes:1 The increase in goods of dealer's stocks of the commerce is recorded at the intersection of the sector of materials (row) and the increase in dealer's stocks ([3],[4]).

2 The increase in raw material stocks of the wooden furniture is recorded at the intersection of the sector of materials (row) and the increase in raw material stocks ([5],[6]).

3 Imports are not recorded in "Increase in producer's stocks of finished goods" or "Increase in semi-finished goods and work-in-progress."

row sector (sector before sale or shipment) to which the commodity originally belongs, rather than being recorded at the intersection with the commerce sector in which it was purchased (refer to [3] and [4] in Chart 3-6).

[4] Raw materials that were purchased but not used in the reference year are recorded in the "increase in stocks of raw materials and supplies". However, the raw materials are recorded at the intersection of the row sector to which the goods made from the raw materials belong, not at the intersection of the industry (row) sector that purchased the raw materials (refer to [5] and [6] in Chart 3-6).

In addition, stocks of imported goods are divided into the "increase in stocks of raw materials and supplies" and the "increase in dealers' stocks of goods".

9 Price Valuation of Exports and Imports

(1) Exported Goods by Ordinary Trade

In the Input-Output Table at producers' prices, the prices of exports in ordinary trade are valued at producers' ex-factory prices, in the same way as in the case of the prices of goods for domestic demand. On the other hand, in the Input-Output Table at purchasers' prices, they are valued at FOB (Free on Board) prices.

As Foreign Trade Statistics of Japan published by the Ministry of Finance value exports in ordinary trade at FOB prices, their prices are directly applicable in the Input-Output Table at purchasers' prices. However, domestic freight and trade margins for transporting goods from the factory to the ship must be deducted from the FOB prices in the Input-Output Table at producers' prices.

(2) Imported Goods by Ordinary Trade

The prices of imports in ordinary trade in the Input-Output Tables both at the producers' prices and at the purchasers' prices are valued at CIF prices (inclusive of freight and insurance: Cost, Insurance, and Freight).

The transaction amount in each cell of the Basic Transaction Table includes not only the amount of the imported good, but the custom duties and commodity taxes on imported goods related to the imported good. As a result, in the Basic Transaction Table, "Imports," "Custom duties," and "Commodity taxes on imported goods" are established as exclusion items in the final demand sectors, to ensure that domestic production of the row sectors matches the total of the breakdown.

(3) Imports and Exports by Special Trade and Direct Purchase

The values of imports and exports by special trade and direct purchase, that is, imports and exports of services and the transaction value of goods that are not recorded by ordinary trade, are estimated based on the Balance of Payments Table.

10 Special handling in compiling the Basic Transaction Table

In compiling the Basic Transaction Table, there are some items that are specially handled based on the concept of the SNA as well as in terms of convenience for compiling and analyzing Input-Output Tables.

Explanations on (1) to (7) are given below.

(1) Commerce and Transport Sectors
(2) Cost Trade Margins and Cost Transport Margins
(3) Scrap and By-Products
(4) Imputation
(5) Dummy Sectors
(6) Usership and Ownership
(7) Activities of Government and Private Non-Profit Institutions serving Households

(1) Commerce and Transport Sectors

We compile the Basic Transaction Tables in order to record the current status of transactions between sectors. Most actual transactions are conducted through the commerce and transport sectors. If actual transactions are recorded in line with this flow of transactions, trade relations between sectors will be very difficult to understand. For example, look at the following flow of commodity transactions that sector "B" purchased Commodity (value: 100) produced by sector "A" through commerce sector

[1] First, Commodity produced by sector "A" is sold to commerce through transport (freight: 10).
[2] The purchase price of commerce is 110.
[3] Next, Commodity is sold to sector "B" through transport (freight: 10) again after commerce adds margins (margins: 20).
[4] The purchase price of sector "B" is 140.

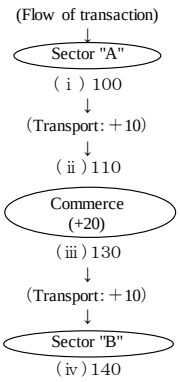
It is very difficult to determine the relationship between A and B in Chart 3-7 (1), which records the above transaction process directly.

To avoid such a complicated indication, trade margins and domestic freight are collectively recorded by demand sector, as if direct transactions were conducted between sectors (for example, between sector “A” and sector “B”) without going through the commerce and transportation sectors in the Input-Output Tables.

Concretely speaking, in the Input-Output Table at producers’ prices, the total amount of trade margins and domestic freight added in the process of a transaction is recorded at the intersection of the sector on the purchasers’ side (B), commerce, and transport (refer to [2] in Chart 3-7).

With regard to Input-Output Tables at purchasers’ prices, trade margins and domestic freights are included in individual transaction amounts. Thus, in the row sectors of commerce and transport, trade margins and domestic freights are not recorded (In the case of Chart 3-13②, 140 is recorded at the intersection between [row] A sector and [column] B sector, and the intersection with [row] Commerce and [row] Transport becomes 0.)

Chart 3-7 Treatment of Sectors of Commerce and Transport



(1) Direct indication

	A	B	Commerce	Transport	Final demand	Domestic production
A			100			
B						
Commerce			130			
Transport			10	10		
Value added						
Domestic production						

It is difficult to determine the relationship between A and B

(2) Actual indication (Input-Output Table producers' prices)

	A	B	Commerce	Transport	Final demand	Domestic production
A			100			
B						
Commerce			20			
Transport			20			
Value added						
Domestic production						

Transaction between commerce margin and freight becomes clear In addition, commerce margin and freight with the transaction can be displayed briefly

(2) Cost Trade Margins and Cost Transport Margins

Special commercial and transport activities that differ from the normal distribution costs specified in (1) above are treated as direct costs. These expenses are recorded at the intersection of the “commerce” and “transport” row sectors as “cost trade margins” and “cost transport margins,” that is, the cost for production activities in respective column sectors in the Input-Output Tables both at producers’ prices and at purchasers’ prices.

[1] Cost Trade Margins

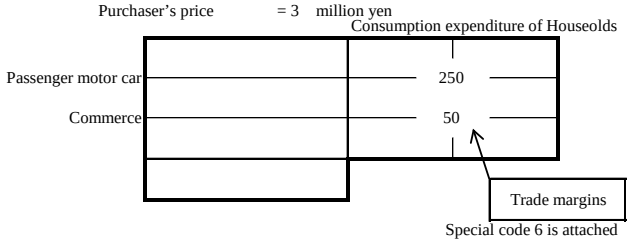
Amounts that can be considered as being the equivalent of “cost trade margins” are, for example, transaction amounts for secondhand goods.

Secondhand goods themselves are fundamentally not products of the target year for compiling Input-Output Tables, and are not subject to being recorded in the Basic Transaction Table(Note). However, commercial activities associated with transactions of secondhand goods are activities of the applicable year, and thus only the transaction margins are recorded as “cost trade margins” (see Chart 3-8).

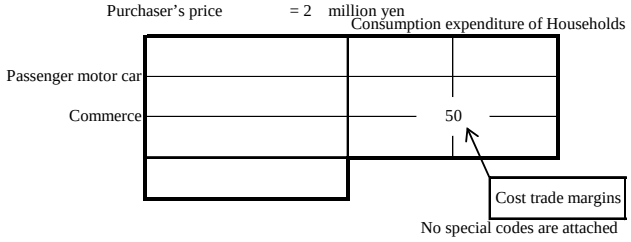
Specifically, transaction margins for purchases of used automobiles by households, and for used buses and trucks that correspond to fixed capital formation are equivalent to cost trade margins.

Chart 3-8 Differences in the Basic Transaction Table when a household purchases a new automobile and a used automobile

[1] New car: Price of passenger motor car = 2 5 million yen
Trade margins = 0 5 million yen
Purchaser’s price = 3 million yen



[2] Used car: Price of passenger motor car = 1 5 million yen
Trade margins = 0 5 million yen
Purchaser’s price = 2 million yen



(Note) Although there are cases where an automobile is resold as a used car in the same year as being transacted as a new product in the year targeted for compilation, in such a case, the price

at which the automobile was transacted as a new product (price of the good itself and the trade margins) is recorded in the Basic Transaction Table, and only the cost trade margins of the transaction as a used automobile are recorded.

[2] Cost Transport Margins

The following can be given as corresponding to "cost transport margins."

i) Costs for transportation activity that is part of the production process (that is, transportation activity that forms a part of costs for production activities)

(a) Costs for transporting such commodities as timber and perishable food from the places of production to the collection points or the wholesale markets where producers' prices for such commodities are determined

(b) Costs for transporting raw materials and semi-finished products such as iron and steel, as well as ships, within a large-scale factory for their manufacture

(c) Costs for transporting such production equipment as construction machinery and scaffolding

(ii) Costs for transporting goods to be moved, trip cargo, mail, secondhand goods, coffins, waste, and construction waste soil

(a) Transporting goods to be moved and trip cargo is not regarded as a transaction between sectors that generates freight, since they are for purposes of moving from one residence to another or for moving belongings (as in the case of travelers). Such transportation costs are regarded as cost transport margins.

Note that home delivery services are treated either as distribution costs for domestic freight or as cost transport margins, depending on the type of transaction of the cargo. If home delivery is used as a means of transportation that accompanies a transaction between industry sectors, the costs are regarded as domestic freight. If travelers themselves use home delivery in order to send souvenirs bought on a journey to their home or to friends, the costs are regarded as the cost transport margins of households. In business activities, if a company uses home delivery in order to send documents and electromagnetic tapes between the headquarters and the branch offices, the costs are regarded as the cost transport margins of the company.

(b) Costs for transporting secondhand goods are treated similarly to cost trade margins.

(c) Waste and construction waste soil, which account for a large portion of the cargo transported by truck, are treated not as scrap but as goods without value, and are thus not recorded as transactions in the I-O Tables. Therefore, costs for transporting waste and construction waste soil are recorded as cost transport margins at the intersection of the waste-generating sector and the transport sector. That is, the disposal of waste and construction waste soil (payment to the carrier) in one industry is regarded as a part of the production costs of the industry.

(3) Scrap and By-Products

[1] Various methods related to handling of scraps and by-products

When certain goods are produced, production technologies inevitably produce goods other than those intended. If such goods are produced as products in different sectors, they are referred to as "by-products"; if not, they are referred to as "scraps."

Because the Input-Output Tables are formulated according to activity-based classifications, at least one product must generally be assigned to each sector. In this regard, scraps and by-products require special handling.

Of the following four methods, Input-Output Tables is generally based on the "negative input method" and partly on the "lump" and "transfer" methods.

i) Lump method
ii) Transfer method
iii) Negative input method (Stone's method)
iv) Separation method

Explained below are representations by these four methods with an example of the "petrochemical sector producing 100 units of synthetic resin as its main product and 10 units of LPG as a by-product, and selling the petrochemical product to the resin sector and LPG to households, respectively." (refer to Chart 3-9)

i) Lump method

Under this method, the main product (synthetic resin) and by-product (LPG) are treated as a single entity, not differentiated. Domestic production in the petrochemical sector is as follows: resin (100) + LPG (10) = 110. The LPG (10) sold to the household sector is recorded as a sale for the petrochemical sector.

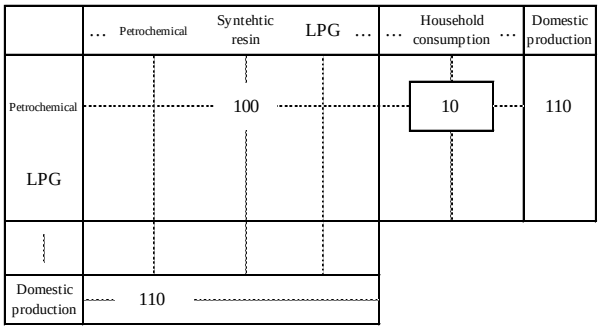
Since this treatment assumes that LPG production

in the petrochemical sector does not affect the LPG sector, it may be acceptable if the amounts of by-products are negligible.

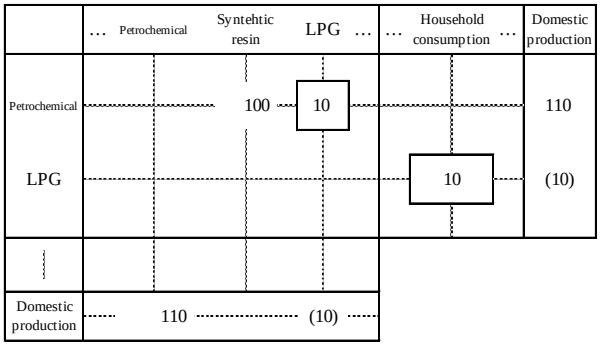
In the basic transaction tables for Japan, the lump method applies, for example, to “stable manure” in the “livestock” sector.

Chart 3-9 Representation Formats for Scrap and By-Products

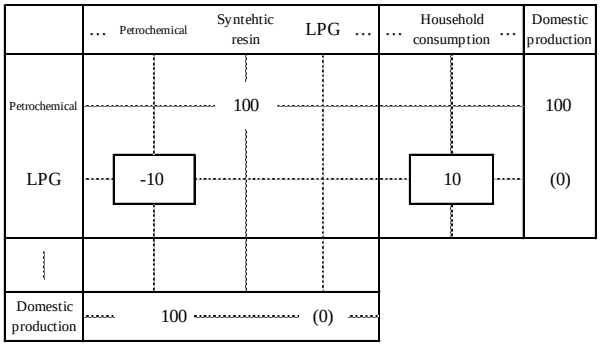
i) Lump mthod



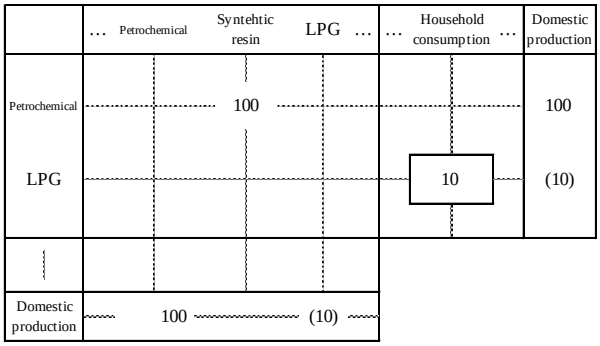
ii) Transfer method



iii) Negative input method



iv) Separation method



ii) Transfer method

With regard to LPG (10 units) that is produced as a by-product of the petrochemical sector, there is a method of outputting the LPG in the LPG sector where it is produced as a main product, and then recording it as being sold to households from the said LPG sector. The LPG that is produced as a by-product is “transferred” and output in the sector where it is treated as a main product, which is why this is referred to as the transfer method.

In this case, LPG produced by the petrochemical sector is included in domestic production, both for the petrochemical sector and for the LPG sector.

Based on this method, since the petrochemical sector that is input in the synthetic resins sector does not contain the input of LPG within its input structure, even when demand pertaining to synthetic resins raw materials arises, there is no induction pertaining to LPG. On the other hand, as there is input (10 units) from petrochemicals in the input structure of the LPG sector, when demand for LPG arises, this results in induction of production in the petrochemicals sector.

(Note) In the Basic Transaction Table for Japan, although there are no scraps and by-products in advertisement activities that are carried out within the activities of “Private broadcasting,” “Newspapers,” and “Publication,” the same kind of representation as the transfer method is used. This is because (1) monetary amounts are considerably large, and (2) the sense of transactions is such that even for advertising that is included in media such as private broadcasting, newspapers, and publication, rather than paying fees for private broadcasting, newspapers, publication, etc. in each column sector, fees are paid to the “Advertising services” sector.

iii) Negative input method (Stone’s method)

This method records negative inputs to the column sectors in which by-products were generated, and records positive inputs to the column sectors in which the said by-products were input. This is a method where the net value is made to be 0, and is referred to as “Stone’s method,” taking after Richard Stone (1913-1991), who contrived this method. In Japan, this method is fundamentally used to process scraps and by-products.

Concretely, in terms of production in the petrochemicals sector, only the 100 of the synthetic resin

that is the main product is recorded. On the other hand, the LPG (10 units) that was generated as a by-product of the petrochemical sector is recorded as a minus input in the [column] petrochemical sector from the [row] LPG sector (in other words, sold from the petrochemical sector to the LPG sector). Furthermore, (10 units) is recorded at the intersection between [column] household consumption sector to which the LPG was actually input and [row] LPG sector. Based on this, the generation and input of by-products is cancelled out in [row] LPG sector, and ultimately, the production of LPG, which is a by-product, becomes zero.

According to this tabular format, the monetary amount of the by-product is not recorded in domestic production, but it is possible to perceive the generation source and input destination by "scrap and by-product." In addition, from the perspective of analysis, (1) demand pertaining to synthetic resin increases supply of LPG as it induced demand in the petrochemical sector, resulting in control of production in the LPG sector; (2) on the other hand, production of LPG as a by-product is not included in domestic production for the LPG sector, and with regard to demand in the LPG sector, only demand for LPG as a main product can be purified as being subject to spread calculation, and does not directly affect production in the petrochemical sector.

However, this method may reflect actual economic conditions if LPG as a by-product is more competitive than LPG produced by specialty enterprises. However, it may cause problems involving inadequate balance of supply and demand unless production in the LPG sector is negative if there is significant demand for resin and low demand for LPG.

After the 2000 Tables, a "Reuse and recycling" sector was established in relation to processing based on this method (see [2] hereinafter).

iv) Separation method

This method is one where main products and by-products are separated, and each is recorded in their respective sectors. Specifically, under this method, production activities in the petrochemical sector are divided into those for the primary product (synthetic resin) and the by-product (LPG), and the results are recorded in their respective sectors.

Production of synthetic resin and that of LPG are, essentially, inseparable. Even if provisionally separated, their production structures should maintain certain ratios; but different demand ratios for synthetic resin and LPG may suggest seemingly different production structures.

As a result, this method is not used in the Basic Transaction Table for Japan.

[2] Handling of "Reuse and recycling"

As described in [1] above, the negative input method is fundamentally used for scraps and by-products in the Basic Transaction Table for Japan, but in anticipation of the increasing importance of recycling activities, "Reuse and recycling" was established as a sector, in relation to representing scraps and by-products that are processed using this method, starting with the 2000 Tables.

Using the following example as a model case, an explanation on the concrete representation method for this sector and its transitions is provided (refer to Chart 3-10)。

[Example]

In a case where the petrochemical sector produced 100 units of synthetic resin as a main product and 10 units of LPG as a by-product, the synthetic resin was sold in the synthetic resins sector, and LPG was sold to the household consumption sector; 8 units is required as expenditures for recycling and reusing LPG

Chart 3-10 Presentation method for the "reuse and recycling" sector

i) Presentation method applied to the 2000 Input-Output Table

	Petrochemical	Syntehtic resin	LPG	Reuse and recycling	Household consumption	Domestic production
Petrochemical		100				100
LPG	-10			10		(0)
Reuse and recycling					18	(18)
Collection and processing cost				5		
Employees compensation				3		
Domestic production	100			(18)		

ii) Presentation method applied to the 2005 Input-Output Table and later

	Petrochemical	Syntehtic resin	LPG	Reuse and recycling	Household consumption	Domestic production
Petrochemical		100				100
LPG	-10				10	(0)
Reuse and recycling					8	(8)
Collection and processing cost				5		
Employees compensation				3		
Domestic production	100			(8)		

i) 2000 Tables

In the 2000 Tables, a method was used where the LPG that was generated as a by-product from the petrochemicals sector was negatively recorded (-10 units) at the intersection with [row] LGP sector, and the amount that was generated was collectively input (10 units) into [column] reuse and recycling, after which the amount to which reuse and recycling was added (18 units) was output from [row] reuse and recycling, to the household consumption sector, which is a demand sector.

Based on this, up until the 1995 Tables, import and export of scraps and by-products, which were recorded individually in existing row sectors to which the scraps and by-products corresponded, were able to be collectively recorded in “Reuse and recycling,” which stabilized import coefficients.

However, since all scraps and by-products are input under this method in a lump sum to the “reuse and recycling” sector and output from there to demand sectors, it becomes impossible to maintain the basic principle of the Input-Output Tables: that “one product should be treated in one sector. ”

In other words, the state became one where it was unclear what kinds of scraps and by-products were included in the individual production amounts of [row] Reuse and recycling (in the example of Chart 3-16, although the model is a simple one where the by-product is a type of LPG, and the output destination is only the household consumption sector, in actuality, various scraps and by-products are output to various sectors, regardless of endogenous sectors or exogenous sectors).

As a result, unless the “Table on Scraps and By-Products,” which is compiled separately as a complementary table, is used, it is not possible to perceive inputs of each scrap and by-product. In addition, there was also the problem that reuse and recycling could not be separated due to data restrictions, even though they are intrinsically separate activities.

Even from the perspective of analysis, the following kinds of problems were evident.

(a) Since generation of by-products is displayed as a negative value, based on the perspective of analyzing spillover effects, there are many negative numbers in inverse matrices and there is no longer significance as coefficients.

(b) Various scraps and by-products are collectively handled as “Reuse and recycling,” thus resulting in problems from the perspectives of stability of input coefficients and analysis of spillover effects.

(c) The scraps and by-products that were generated are output via “Reuse and recycling,” and even for spillover effects, all scraps and by-products are affected.

ii) After the 2005 Tables

Based on such problems in the 2000 Tables, only expenditures related to reuse and recycling activities came to be recorded in “Reuse and recycling” in the 2005 Tables. Expenditures were output in association with scraps and by-products. The same kind of handling is implemented for the 2011 Tables.

Concretely, as with [1] i) above, only synthetic resin (100 units), which is a main product, is recorded as production in the petrochemical sector, while the LPG (10 units) that was generated as a by-product from the petrochemical sector is recorded as having been negatively input from [row] LPG sector to [column] petrochemical sector (in other words, sold from the petrochemical sector to the LPG sector). Furthermore, (10 units) is recorded at the intersection of [column] household consumption sector where the LPG was actually input and [row] LPG sector. Based on this, generation and input of the by-product is cancelled out within [row] LPG sector, and ultimately, the production amount of LPG, which is a by-product, becomes zero. Separately from this, expenditures for reuse, etc. of LPG are recorded in “Reuse and recycling,” and output to the household consumption sector, which is the demand destination for LPG.

In other words, this is a format based on the negative input method described in [1] iii) above, but with reuse and recycling added as a separate sector.

(4) Imputation

In cases in which transactions are not apparently conducted but utilities are actually produced and there are people who receive these utilities, “imputation” is conducted. “Imputation” is for valuing utilities at the market price and calculating such value as domestic production for the sectors producing the utilities.

The output sectors, which receive the utilities, are listed below.

This is an effort to try to comprehend the economic

activities that are hidden in the phenomena that are actually observed. Based on this, time-series comparisons and global comparisons are possible, regardless of changes and differences in social conditions and systems.

Specifically, imputation is carried out for the following:

○ Financial intermediation services
○ Life insurance and non-life insurance
○ Depreciation of fixed capital related to government buildings and social capital
○ House rent pertaining to house ownership (imputed rent)

[1] Financial intermediation services

Activities in the financial service sector can be broadly divided into the following two categories.

i) Management, reception, and financing services for deposits and savings
ii) Remittance services and sale and purchase of securities, etc.

Among these, revenue from processing fees associated with ii) can be considered purely as compensation for provision of services; however, "profit margins" associated with i) simply arise due to transfer of ownership, when looking at it from the perspective of receiving and paying interest as property income, and cannot always be considered as formation of new added value. However, when thinking about operating activities in the financial service sector, earnings from "profit margins" is extremely important. As a result, even since before, profit margins are deemed as being compensation for services generated by the financial service sector, and were included in domestic production. In other words, the financial service sector is considered as conducting intermediary services that link transactions between borrowers and lenders of funds. As a result, such activities related to the financial service sector are referred to as "financial intermediation services," and associated added values are imputed.

Before, domestic production was recorded as shown below based on the imputed interest method:

Imputed interest = (Interest earnings from loans) - (Interest paid in relation to deposits and savings)

The output destination was limited to the intermediate demand sector (industry sector), and allocated depending on the loan balance. This is because those that receive financial intermediation services are deemed as being companies that receive loans, and because this conforms to the 68SNA that proposes for all of the monetary amount to be processed as intermediate consumption for industry. Based on this method, amounts in the exogenous sectors are not affected by financial intermediation services, and thus, it was beneficial in that the amounts in exogenous sectors do not increase or decrease depending on changes in interest.

However, with the imputed interest method, the existence of depositors are not taken into consideration, and there were issues such that the actual state of the economy in which even households were borrowers of funds was not followed.

In the 2011 Tables, the concept that was proposed in the 93SNA "FISIM" (Financial Intermediation Services Indirectly Measured) was newly adopted. In FISIM, domestic production is calculated as follows.

[Domestic production = FISIM on borrower side + FISIM on lender side]

FISIM on borrower side = Total loan balance × (Investment interest rate - Reference interest rate)

FISIM on borrower side = Total deposits balance × (Reference interest rate - Procurement interest rate)

Investment interest rate = Total interest received from loans/Total loan balance

Procurement interest rate = Total interest paid on deposits/Total deposits balance

Reference interest rate = Total interest for calculating reference interest rate / Total balance for calculating reference interest rate

In this method, there are no limitations to the output destination as with the imputed interest method, contributing to representation of output structure that follows the actual state more closely.

[2] Life and casualty insurance

We will treat the sector for life and casualty insurance as producing imputed insurance services calculated based on the following:

(Premiums received + Earnings from asset management) - (Loss paid + Increase in reserves)

All imputed services for life insurance are recorded as consumption expenditure of households, while those for casualty insurance are recorded in the endogenous sectors in addition to consumption expenditure of households.

[3] Depreciation of fixed capital related to government buildings and social capital

Depreciation is imputed for social capital such as roads and dams for which depreciation is not carried out and government buildings (school facilities), etc. Specifically, among the social capital owned by the general government, etc., the operating costs of "new installation and improvement costs" and "disaster recovery costs" for each of 13 sectors (roads, harbors, aviation, sewage disposal, waste management services, urban parks, natural parks, flood control, agriculture (irrigation facilities), forestry (forest roads), fishery, school facilities, etc., and social education facilities, etc.) were totaled, depreciated based on the fixed-rate method, and calculated.

To correspond to this, the four sectors below were established in the final demand sector in the basic sector classifications.

i) Collective consumption expenditure of central government (social fixed capital depreciation)

ii) Collective consumption expenditure of local government (social fixed capital depreciation)

iii) Individual consumption expenditure of central government (social fixed capital depreciation)

iv) Individual consumption expenditure of local government (social fixed capital depreciation)

[4] House rent pertaining to house ownership (imputed rent)

The format of house ownership, etc. differs in terms of economic transactions from rental housing, in that there is generally no payment for rent for house ownership, while rental housing is associated with actual payment of rent. However, even with regard to house ownership, etc., it is thought that the same utility as rental housing is generated with respect to the point that the resident is receiving the benefits of housing services. In the SNA, even for house ownership, etc., it is deemed that one pays rent that follows market prices for rental housing and lives in his/her house, and an amount (imputed rent) is recorded (Note).

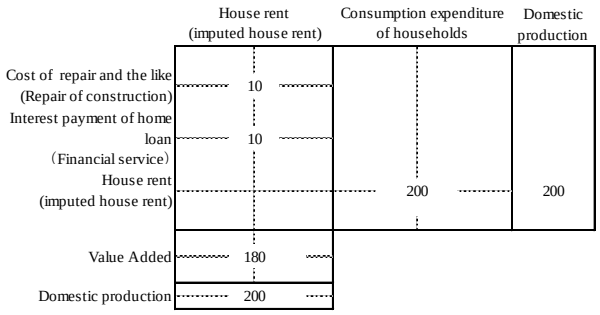
Even in the Basic Transaction Table for Japan, imputed rent has been recorded in line with this concept since the past, and a sector referred to as "House rent (imputed house rent)" has been established(Note 2). This sector is one where a person living in a house that he/she owns is operating a house rental business in relation to himself/herself, and expenditures for residing in and maintaining the said house are recorded as inputs. Specifically, most of the monetary amount is recorded in the gross value added sector, but repair of construction and financial service (interest payment related to housing loans) are recorded as intermediate input. With regard to the output, since services are provided to the resident himself/herself, most of the monetary amount is output to "Consumption expenditure of households" (Only the long-term care insurance benefits portion of housing repair costs using long-term care insurance is output to "Individual consumption expenditure of central government.") (See Chart 3-11).

(Notes)1 For employee housing and dormitories where there is actual payment of rent by residents, the difference between the market price of a housing facility equivalent to the said employee housing or dormitory and the amount that was actually paid as rent is recorded as imputed house rent.

2 "House rent (imputed house rent)" became independent from "House rent" starting with the 2000 Tables, but corresponding monetary amounts were recorded as "House rent" even before then.

Chart 3-11 Representation Format for Imputed Rent and House Rent

Example	Evaluate home rent equivalent by market rate ・2 million yen / year Maintenance cost of housing ・Cost of repair: 100,000 yen / year ・Interest payment of home loan: 100,000 yen / year



(5) Dummy Sectors

Among the respective sectors within the endogenous sector of the Basic Transaction Table based on production activities, some sectors are not considered independent industrial sectors. "Dummy sectors" are established to accommodate the aforementioned activities in order to facilitate compilation of the Basic Transaction Tables.

In the dummy sectors, the identification code "P" is attached at the end of the basic sector classification code.

Specifically, the following sectors are established:

○ “Office supplies”
○ “Self-transport (passengers)”
○ “Self-transport (freight)”
○ “Used paper”
○ “Scrap iron”
○ “Non-ferrous metal scrap”

Since the dummy sectors are not sectors that independently generate added value as they are characteristically “dummies,” only endogenous sectors are recorded in terms of numbers, and gross value added is not recorded.

[1] Office supplies

Office supplies such as pencils, erasers, notebooks, etc. that are used commonly in each sector are often collectively processed as “Consumables” in corporate accounting. In the Basic Transaction Table, these office supplies are output from each row sector to [column] “Office supplies” that was established as a dummy sector. On top of this, the corresponding monetary amount is collectively output from [row] “Office supplies” to each column sector in which the office supplies were actually purchased. By doing so, a representation that is close to the collective processing used in corporate accounting was achieved.

The differences in the representation formats for cases where office supplies is established and where it is not established are shown in Chart 3-12. Special treatment of the office supplies sector as a dummy sector allows us to regard the sector as performing independent production activities. Note that the domestic production in the Input-Output Tables will increase by the value of office supplies, although there will be no changes to the gross value added.

[2] Self-transport (passengers, freight)

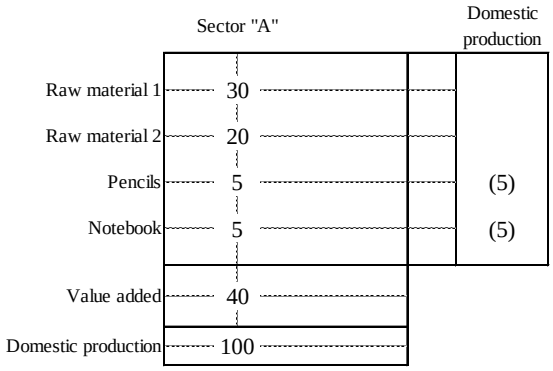
i) Definition of the self-activities sectors

In some cases, companies cover the activities in one industrial field in-house. For example, companies cover such activities as transport, packing, in-house education, in-house research and development, advertising, and data-processing services themselves, or in-house.

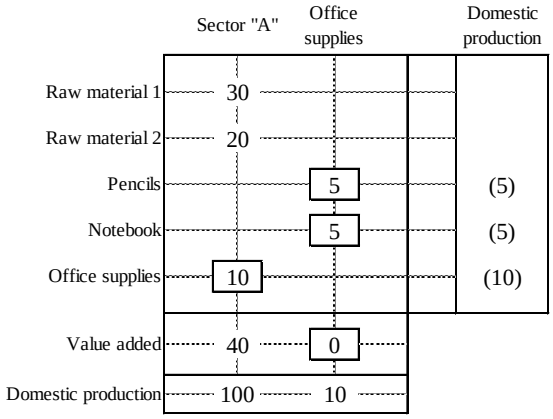
As the Basic Transaction Table are classified by production activities, strictly speaking, the aforementioned self-activities should be recorded in the respective sectors for transport, education, research, and data processing. However, these activities are absorbed as part of the activities of the respective sectors. Therefore, it is almost impossible for us to gain an understanding of the entire input structure by separating them. Due to such circumstances, only self-transport is established as a sector at the present moment.

Chart 3-12 Representation Formats for Office Supplies

[1] When the office supplies sector is not established



[2] When the office supplies sector is established



The state of establishment of the self-transport sector up to now is as indicated below.

Sector	Setting year
Self-transport (passangers)	1975, '80, '85, '90, '95, 2000, '05, '11
Self-transport (freight)	1975, '80, '85, '90, '95, 2000, '05, '11
Self-education	1975, '80, '85
Self-research	1975, '80, '85
Self-packing	1975, '80
Self-warehouse	1975

ii) Representation format

The products that are necessary for carrying out self-activities are represented in a format where they are output to [column] self-activities sector, after which they are purchased collectively by each demand

sector (column sectors that are carrying out self-activities in the process of production activities) from [row] self-activities sector.

The differences in representation formats for when the self-activities sectors are established and when they are not established are as shown in Chart 3-13. Specially targeting these self-activities sectors as dummy sectors means that their status as independent production activities is recognized within this extent. Accordingly, domestic production for the table as a whole becomes large only for the self-activities sectors, but as the gross value added amount is not recorded in dummy sectors, there are no changes to the gross value added amount.

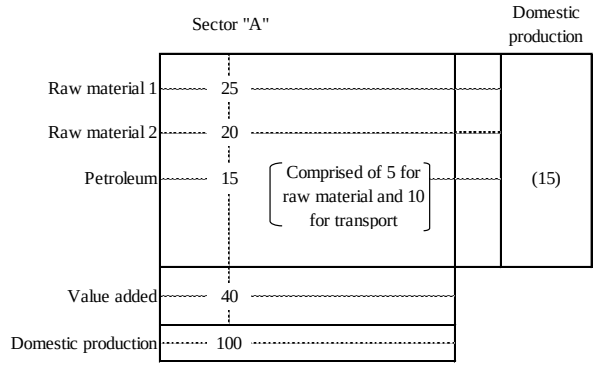
[3] Scrap iron, non-ferrous metal scrap, and used paper

In principle, scrap and by-products are treated as minus input, and are input the same amount to the "reuse and recycling" sector. The amount to which the cost of collection and treatment is add is output from that sector to each input sector. In this case, by-products can be recorded in the sectors (row) in which the products are primarily produced. In the case of scrap iron, non-ferrous metal scrap, and used paper, however, there is no sector in which these are the main products. Therefore, their output and input cannot be recorded. We will establish the row sectors for scrap iron, non-ferrous metal scrap, and used paper as dummy sectors.

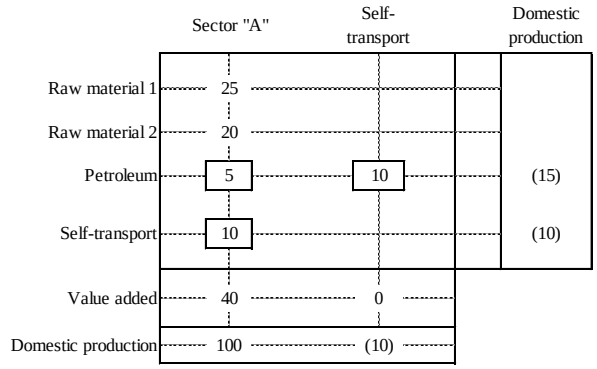
Other scrap should be recorded in the sectors for similar raw materials. For example, the scrap of glass bottles should be recorded in the sector for other glass products.

Chart 3-13 Representation Formats of Self-Transport Sector

i) When the self-transport sector is not established



ii) When the self-transport sector is established as a dummy sector



Note: If industry "A" spends 10units of petroleum for self-transport, another 10 units of the self-transport sector will be recorded in the total domestic products in addition to the 10 units of petroleum invested

(6) Usership and Ownership

[1] Concepts of usership and ownership

There are two methods for treating the current expenses of production facilities in the goods rental and leasing sectors: "Usership" and "Ownership."

With "Usership," the cost of using production facilities is recorded in the sector that uses them, regardless of who owns them and who directly pays the cost. As for rented production facilities, we record the rental expense composed of the cost of maintenance and depreciation, as well as the net rental (the amount after deduction of the cost of maintenance and depreciation from the gross rental), in the sector that uses the production facilities as the cost or the operating surplus (the portion of the net rental) . As a result, the rental sector does not work out to be a sector, but it is advantageous in that production and capital that is used for production can be processed together, and there is increased stability of input coefficients.

"Ownership," on the other hand, is a concept where expenditures, etc. are recorded in the sector that owns the production facility, and it is necessary to establish a sector that carries out rental and leasing of goods. In this case, the total of revenues from goods rental and leasing becomes the domestic production for the sector carrying out the goods rental and leasing, and on the other hand, the amount equivalent to goods rental and leasing (payment) is recorded in the column sectors corresponding to the users (borrowers) as intermediate input from the row sectors carrying out goods rental and leasing. In terms of the actual economic state, as there is considerable weight of the goods rental and leasing business making up the industry as a whole, in cases where it is necessary to record domestic production and

gross value added from sectors carrying out goods rental and leasing separately, the concept of ownership is used.

[2] Treatment in the Basic Transaction Table for Japan

In the Basic Transaction Table for Japan, both concepts were used together(Note) up until the 1985 Tables, but starting with the 1990 Tables, estimations are made based on "ownership" as a whole (Note 2).

This is because, as described above, there was a necessity to perceive goods rental and leasing as an independent sector, due to a rise in the weight of the goods rental and leasing business. At the same time, estimations based on "usership" were judged as being extremely difficult when looking at the current state of basic statistics.

Differences in representation formats based on usership and ownership are indicated in Chart 3-14.

Note:1 Until compilation of the 1985 tables, the following goods rental and leasing sectors had been estimated based on "ownership": "Electronic computing equipment rental and leasing," "Office machines rental and leasing (except electronic computing equipment)", and "Car rental and leasing," as well as "Real estate rental service." On the other hand, the industries included in "General goods rental and leasing" and "Industrial equipment and machinery rental and leasing" in the Standard Industrial Classification for Japan had been estimated based on "usership."

2 There are two formats for goods rental and leasing—"operating lease" and "finance lease."

Operating lease is a type of rental and lease that is generally imagined, where machinery and facilities are leased for a period of time that is shorter than their useful life. This is a format of production activity where the owner (lender) provides services of goods rental and leasing to a user (borrower) (as part such services, there are often cases where the user is responsible for maintenance and repair of machinery or facilities), and domestic production is valuated based on the rent that is paid by the user to the owner.

In relation to this, finance lease is a "lease transaction where the corresponding contract cannot be dissolved during the lease period based on the least contract, or a lease transaction conforming to such a lease, where the lender can substantially receive the economic benefits that are yielded from the property that is used based on the said contract, and is substantially responsible for the costs that are incurred in accordance with use of the said property" (Accounting Standards for Lease Transactions (Corporate Accounting Standard No. 13) Paragraph 5).

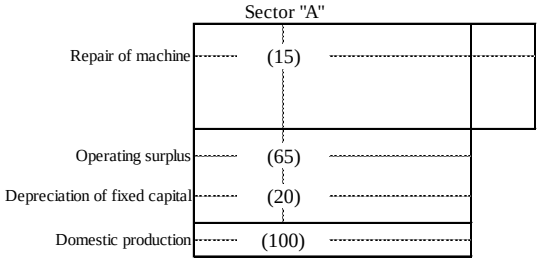
In Japan, accounting processing related to finance leases was, in principle, changed from leasing to sale and purchase, in accordance with changes in accounting standards related to lease transactions in 2008. Even within the same goods rental and leasing business, handling in terms of accounting has come to be divided. However, due to restrictions in basic statistics, finance leases continue to be handled as the goods rental and leasing business in the Basic Transaction Table, and are recorded as "ownership" for the goods rental and leasing business as a whole.

Chart 3-14 Representation Formats of Usership and Ownership

Example: When sector "A" rents industrial machinery at the rental expense of 100 from the company of goods rental and leasing

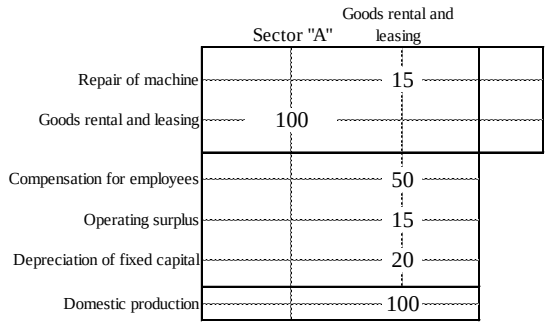
[1] Usership(recorded as if sector "A" owns the machinery.)

Note: The cost of the rental services is added to the cost for the original activities of sector "A"



[2] Ownership (The company of goods rental and leasing is recorded as the owner of the machines.)

Note: Represented in the same way as in normal purchase of services



(7) Activities of Government and Private Non-Profit Institutions serving Households

[1] Activities that are carried out by the government and independent administrative agencies, etc. are broadly categorized into (1) producers of government services, (2) producers of private non-profit services for households, and (3) industry, depending on the transactor-based production activity classification. (1) and (2) differ from general industry in terms of the cost structure and source of funds for activities. As a result, special handling is implemented.

[2] Even among sectors that are associated with a ★ symbol, such as "School education (public)," to which private schools correspond, and "Private non-profit

institutions serving households," to which academic organizations correspond, there are those that are handled as producers of private non-profit services for households in terms of transactor-based production activity classification. These kinds of sectors are handled in a special manner as follows (see Chart 3-15).

i) Domestic production is measured using gross expenditures, and operating surplus is not recorded.

ii) For output destinations, the amount paid for service activities of the corresponding sector is recorded in its burden sector (or in other words, the column sector for the industry or household that paid the fee,) and the remaining amount is recorded at the intersection of the row sector and "Consumption expenditure of private non-profit institutions serving households."

Chart 3-15 Representation Format of Activity of Producers of Private Non-Profit Services for Households

Example: A private university conducts an activity of 100, 60 of which are income from tuition

	Private university	Consumption expenditure of households	Consumption expenditure of private non-profit institutions serving	Domestic production
Goods 1	10			
Goods 2	10			
Private university		60	40	100
Compensation of employees	80			
Operating surplus	0			
Domestic production	100			

CHAPTER Ⅳ
COEFFICIENTS FOR INPUT-OUTPUT ANALYSIS AND COMPUTATION METHODS

§ 1 Input Coefficients

1 Calculating Input Coefficients

"Input coefficients" represent the scale of raw materials and fuels used can be obtained by dividing the input of raw materials and fuels utilized to generate one unit of production in each sector. They correspond to basic unit prices, and are obtained by dividing the amount of raw materials, fuel, etc. input into each sector by the domestic production value of that sector. A list of input coefficients indicated for each industry is referred to as an "input coefficient table."

(Note) The Input-Output Tables are basically "commodity -by-commodity" tables. The "sectors" comprising the endogenous sectors at the top and side of the table represent types of goods and services produced by the industries, producers of government services, and producers of private non-profit services for households. For the sake of convenience, they are referred to as "industries" or "industrial sectors."

To simplify, if the national economy is deemed to be comprised only of Industry 1 and Industry 2, the Basic Transaction Table may be as indicated in Chart 4-1.

Chapter 4-1 Basic Transaction Table (conceptual chart)

	[Column] Industry 1	[Column] Industry 2	Final demand	Total Domestic products
[Row] Industry 1	x_{11}	x_{12}	F_1	X_1
[Row] Industry 2	x_{21}	x_{22}	F_2	X_2
Gross Value added	V_1	V_2		
Total Domestic products	X_1	X_2		

However, it is assumed that next balance equations are satisfied.

Supply-demand balance equation (balancing of total supply and total demand)

$$\begin{cases} x_{11} + x_{12} + F_1 = X_1 \\ x_{21} + x_{22} + F_2 = X_2 \end{cases}$$

Income-expense balance equation

$$\begin{cases} x_{11} + x_{21} + V_1 = X_1 \\ x_{12} + x_{22} + V_2 = X_2 \end{cases}$$

When "a_{11}" is defined as the figure produced by dividing "X_{11}," representing the input of Industry 1 from Industry 1 by "X_1," representing the domestic production, "a_{11}" represents the input required to produce one unit of production of Industry 1 from Industry 1.

$$a_{11} = \frac{x_{11}}{X_1} \quad \cdots\cdots [1]$$

Similarly, the expression $a_{21} = x_{21}/X_1$ represents the amount of raw materials, etc. that the Industry 1 input from Industry 2 to produce one unit of the product.

Similar to intermediate inputs, $v_1 = V_1/X_1$ can be defined by dividing the value added produced in Industry 1 by domestic production.

In this case, "V_1," the gross value added, signifies inputs of the primary factors of Sector 1, such as labor and capital, and "v_1" can be regarded as an input unit of such production factors.

Applying the above procedure to Industry 2 (the second column for Chart 4-1) produces the following input coefficient table (Chart 4-2)

Chart 4-2 Input Coefficient Table (conceptual chart)

	[Column] Industry 1	[Column] Industry 2
[Row] Industry 1	a_{11}	a_{12}
[Row] Industry 2	a_{21}	a_{22}
Gross Value added	v_1	v_2
Total Domestic products	1.0	1.0

$$a_{ij} = \frac{x_{ij}}{X_j}$$

$$v_j = \frac{V_j}{X_j}$$

Indicating the scale of raw materials, etc. required to generate one unit of production in each sector, the input coefficient table can be referred to as the basic production unit table. The sum of input coefficients including the gross value added portion in each sector is defined as 1.0. This series of calculations is made for Basic Transaction Tables for 13 sectors in the 2011 Input-Output Tables, and indicated in Table 1-(3) in Chapter 8.

For instance, looking at the top of the table along the agricultural, forestry, and fisheries, when the agricultural, forestry, and fisheries industry generates one unit of production, intermediate inputs of 0.121022 units were produced by the agricultural, forestry, and fisheries sector, and, 0.219755 units of intermediate inputs were similarly

produced by the manufacturing sector. Thus, a total of 0.514923 units of intermediate inputs were required. The table also indicates that 0.485077 units of gross value added were produced as the result of the production.

(Note) Ideally, "Unit" here should be a physical unit, such as a weight or number of items, etc. In the Input-Output Tables, figures are represented in monetary amount to maintain consistency for various products. The input coefficients calculated from these figures are the input coefficients based on monetary values at the prices of the relevant year.

Suppose production of 100-yen of Product A requires 50 yen of Product B. If the prices of all products can be expressed through "amount-by-unit price," this situation may be equivalent to a hypothetical situation in which 50 of "Product B that can be purchased at one yen" was input to produce 100 of "Product A that can be purchased at one yen." Production volumes of all industries are valued at the unit of quantity equivalent to one yen (or one dollar or one million yen or other consistent monetary units), to allow comparison of industry production units. This system is called Input-Output Tables at the "yen value unit." Valuation by the "yen value unit" for the base year represents the nominal value itself. If the "yen value unit" in the base year is applied to the year to be compared, "real evaluation" based on the valuation at yen value in the table for the base timetable can be obtained.

2 Definition of Input Coefficients

(1) Measurement of Effects of Input Coefficients on Production

Next, the meanings of input coefficients are considered with Chart 4-1 and Chart 4-2 mentioned above.

Suppose demand for Industry 1 has increased by one unit. Industry 1 will require raw materials, etc. to generate one unit of production. Industry 1 will thus generate intermediate demands of "a11" and "a21" units of raw materials to Industry 1 and Industry 2, respectively, in accordance with the input coefficients, which is the primary production repercussion. Receiving the demands, Industry 1 and Industry 2 will further generate the secondary production repercussions, in accordance with the respective input coefficients to produce "a11" and "a12" units. This series of production repercussions continues infinitely, until domestic production levels for the respective sectors can ultimately be calculated as the summation of all production repercussions.

In this manner, input coefficients are crucial to measuring how much production can be ultimately induced at each sector when certain levels of final demand are generated in an industrial sector.

However, it is all but impossible and unfeasible to trace and calculate each process of production repercussion occurrences. The following inverse matrix coefficients are prepared to simplify such production repercussion calculations. As a preparatory step, it is necessary to explain the process of production repercussions.

(2) Mathematical Computation of Effects on Production

In Chart 4-1 above, the mathematical formula of the balance for every row is described by the following equations:

$$\left.\begin{aligned} x_{11} + x_{12} + F_1 &= X_1 \\ x_{21} + x_{22} + F_2 &= X_2 \end{aligned}\right\} \cdots\cdots\cdots\cdots\cdots\cdots [2]$$

As in the case of equation [1], "a21," "a12," and "a22" are calculated and substituted into equation [2], resulting in the following modifications:

$$\left.\begin{aligned} a_{11}X_1 + a_{12}X_2 + F_1 &= X_1 \\ a_{21}X_1 + a_{22}X_2 + F_2 &= X_2 \end{aligned}\right\} \cdots\cdots\cdots\cdots\cdots\cdots [3]$$

As indicated in equation [3], certain relationship exists between final demand and domestic production. The relationship is defined by "input coefficients."

Equation [3] can be expressed in a matrix, as follows:

$$\begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix} \begin{bmatrix} X_1 \\ X_2 \end{bmatrix} + \begin{bmatrix} F_1 \\ F_2 \end{bmatrix} = \begin{bmatrix} X_1 \\ X_2 \end{bmatrix}$$

$$A = \begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix}$$

This is referred to as the input coefficient matrix.

Assigning specific figures to the final demands represented by "F1" and "F2" in the simultaneous equations of [3] and solving them makes it possible to obtain domestic production that meets final demand. This calculation produces the domestic production levels in Industry 1 and Industry 2 resulting from production repercussion effects.

Demand increases in a certain industrial sector will require inputs of raw materials and fuels, etc. from other industries for production activities, and thereby affecting not just industry production but those of the other industries, which will further generate additional demands in the original sector as repercussion effects. Equation [3] indicates a mechanism for calculating the

cumulative effects of these repercussions. This is the fundamental approach and constitutes the basis of input-output analyses based on input coefficients.

However, note that this approach is based on the premise of stable input coefficients, as indicated below. Constant fluctuations in input coefficients will make it impossible to determine consistent relationships between final demand and domestic production.

3 Stability of Input Coefficients

(1) Consistency of Production Technology Levels

In the Input-Output Tables, input ratios of raw materials and fuels, etc. required to produce goods and services represented by the input coefficients are assumed not to fluctuate significantly between the year to be analyzed and that in which the table is compiled.

Input coefficients, in short, reflect production technologies adopted in a certain year. Changes in production technologies may naturally change the input coefficients.

Although drastic changes are generally not supposed to occur in production technologies in short timeframes, in countries such as Japan, extremely rapid technological advancements may make it necessary to acquire information on changes in input coefficients and make proper adjustments by some method.

(2) Consistency of Production Scale

Each industrial sector is comprised of various enterprises and establishments with different production scales. Even if the same products are produced, different production scales will inevitably lead to different input coefficients due to the different technologies and economy-of-scale levels.

However, the Input-Output Tables are compiled while reflecting the economic structures in the compilation years. In input-output analyses, production scales of enterprises and establishments, allocated to respective industrial sectors, are assumed not to undergo significant changes between the years to be analyzed and those in which tables are compiled.

(3) Change Factors of Input Coefficients

It is assumed that there are few changes in input coefficients between the year to be analyzed and the compilation year. However, in addition to the (1) and (2) above, the following factors may change over time:

[1] Changing Relative Prices

Since individual transactions in the Basic Transaction Tables are valued at prices in the year when the tables are compiled, changing the relative prices of goods and services will change the input coefficients, even if the technological structures remain constant.

Historical comparisons would require Linked Input-Output Tables based on fixed price valuations, in which effects of fluctuating relative prices are eliminated.

[2] Changing Product Mixes

If products with different input structures and unit prices are placed in the same sector (which is referred to as a “product mix”), changes in product structures within the sector will change the input coefficients of the entire sector, even if there is no change in input structure or unit price of each product.

§2 Inverse Matrix Coefficients

1 Definition and Computation of Inverse Matrix Coefficients

One of the important analyses in input-output analyses is to analyze the direct and indirect effects of certain final demands that occurred in an industrial sector on other industrial sectors. As stated before, input coefficients in the respective industrial sector may play crucial roles.

Suppose the national economy is comprised only of Industry 1 and Industry 2. As stated in section 1, when the final demand is given, solving the following simultaneous equations will give the domestic production levels of Industry 1 and Industry 2.

$$\left.\begin{aligned} a_{11}X_1 + a_{12}X_2 + F_1 = X_1 \\ a_{21}X_1 + a_{22}X_2 + F_2 = X_2 \end{aligned}\right\} \cdots\cdots\cdots\cdots\cdots\cdots [3]$$

Indeed, if the entire structure were composed only of these two sectors, calculations would be quite simple. In reality, even the Medium Consolidated Sector Classification has as many as 108 sectors, which makes solving simultaneous equations for all of them impractical and makes it almost impossible to conduct proper analyses.

If calculations can be made in advance, as to what kind of production repercussions on various sectors may be expected if one unit of final demand is produced for a certain sector, and how much domestic production will be finally expected in each sector, analyses could be significantly expedited. “Inverse matrix coefficient tables” are compiled in response to this need.

In the matrix indication for equation [3] above,

$$\begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix}\begin{bmatrix} X_1 \\ X_2 \end{bmatrix} + \begin{bmatrix} F_1 \\ F_2 \end{bmatrix} = \begin{bmatrix} X_1 \\ X_2 \end{bmatrix} \cdots\cdots\cdots\cdots\cdots [3]'$$

when the input coefficient matrix is defined as

$$\begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix} = A$$

the final demand column vector is defined as

$$\begin{bmatrix} F_1 \\ F_2 \end{bmatrix} = F$$

and the domestic production column vector is defined as

$$\begin{bmatrix} X_1 \\ X_2 \end{bmatrix} = X$$

$$AX + F = X \cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots [3]''$$

can be obtained. The solution for X is

$$X - AX = F$$
$$(I - A)X = F$$
$$\therefore \quad X = (I - A)^{-1}F$$

where “I” is an Identity matrix, $(I - A)^{-1}$ is the inverse matrix of $(I - A)$, as follows:

$$(I - A)^{-1} = \begin{bmatrix} 1 - a_{11} & -a_{12} \\ -a_{21} & 1 - a_{22} \end{bmatrix}^{-1}$$

The factors of this matrix are referred to as “inverse matrix coefficients,” a listing of which is the “Inverse Matrix Coefficient Table.” This table indicates how much production will be ultimately induced in what industry by a demand increase of one unit in a certain industry. Once the inverse matrix coefficients are calculated, the simultaneous equations in [3] do not need to be solved independently. When the final demand in a sector is given, the domestic production at each sector, corresponding to the final demand, can be immediately calculated.

(Note) For the equation of [3], to be able to give a non-negative solution for a certain F (non-negative), the necessary and sufficient condition will be that all principal minors in the matrix $(I - A)$ in the matrices need to be positive (Hawkins-Simon’s condition). For all the principal minors in matrix $(I - A)$ to be positive, the sufficient condition will be

$$\sum_{i=1}^{n} a_{ij} < 1 \qquad (j = 1,2,\cdots,n)$$

Here the sum of input coefficients should always be less than 1 (Solow’s condition).That is necessary condition.

For the 13-sector Basic Transaction Tables for the 2011 Input-Output Tables, calculations for the inverse matrices of the type of $[I - (I - \hat{M})A]^{-1}$ (please refer to the following explanations) are indicated in Table 1-(3) in Chapter 8.

Sectors at the top of the inverse matrix coefficient table are those in which one unit of the final demand has been generated; sectors at the side indicate those in which production can somehow be induced by generation. For instance, in examining the agriculture, forestry, and fisheries from the top of the table down, one unit of final demand in the agriculture, forestry, and fisheries industry can ultimately generate 1.120369 units of production inducement in the agriculture, forestry, and fisheries industry itself; and production inducements in the mining, manufacturing, and construction industries will be 0.000874 units, 0.369840 units, and 0.012681 units, respectively, resulting in a total of 1.861196 units of

production inducements, which can be interpreted as corresponding to the vertical sum.

Input coefficients introduced in §1 indicate the amount of raw materials and other factors directly required to produce one unit of certain goods or services. The inverse matrix coefficients indicate the magnitude of the ultimate direct and indirect production repercussions on various industrial sectors when there is one unit of final demand for a certain sector.

(Note) In this way, when inverse matrix coefficients are observed in relation to production repercussions, for instance, when one unit of final demand is generated in agriculture, forestry, and fisheries, production in the industry must increase (direct effect) to satisfy demand.

Due to agriculture, forestry, and fisheries to increase production, other sectors must increase production, the effects of which further increase production in agriculture, forestry, and fisheries (indirect effects). As a result, the production increase in the agriculture, forestry, and fisheries industry usually exceeds one unit. The diagonal elements in the inverse matrix coefficients indicating the production increase in the self-activity sector commonly exceed 1.

A column vector with the inverse matrix defined as B, the diagonal element as bii, and the column vector as (ui), in which the i-th element is 1 and the other elements are 0, can be describe as follows:

$$Bu_i = \begin{bmatrix} b_{11} & \cdots & b_{1i} & \cdots & b_{1n} \\ \vdots & \ddots & \vdots & \iddots & \vdots \\ b_{i1} & & b_{ii} & & b_{in} \\ \vdots & \iddots & \vdots & \ddots & \vdots \\ b_{n1} & \cdots & b_{ni} & \cdots & b_{nn} \end{bmatrix} \begin{bmatrix} 0 \\ \vdots \\ 1 \\ \vdots \\ 0 \end{bmatrix} = \begin{bmatrix} b_{1i} \\ \vdots \\ b_{ii} \\ \vdots \\ b_{ni} \end{bmatrix}$$

It can be concluded from the above that the i-th column vector of the inverse matrix B indicates the production increase units at each sector when one unit of final demand is generated in the sectors. (For the reasons mentioned, $b_{ii} \geqq 1$)

The vertical sum of aggregated i-th column in the inverse matrix B corresponds to the production inducement coefficient of the i-th sector (please refer to §3).

2 Types of Inverse Matrix Coefficients (handling of imports)

In analyses of production repercussions with Input-Output Tables, a major issue is import handling. §1 above the mentioned the so-called Type $(I-A)^{-1}$ model, which is a simplified model excluding imports. Basically various goods are imported and consumed in parallel with domestic products in industries and households.

Chart 4-3 shows the model for Basic Transaction Tables, clearly indicating imports. For row items, both intermediate demand (x_{ij}) and final demand (F_i) are supplies including imports, and columns and rows (production) offset each other because imports are indicated negative values.

Chart 4-3 Basic Transaction Table (conceptual chart that import is demonstrated)

	Industry 1	Industry 2	Final demand	Import	Domestic production
Industry 1	x_{11}	x_{12}	F_1	$-M_1$	X_1
Industry 2	x_{21}	x_{22}	F_2	$-M_2$	X_2
Gross value added	V_1	V_2			
Domestic production	X_1	X_2			

Input coefficients include imports. This implies that all repercussions derived from final demand do not necessarily induce domestic production; some effects may induce imports.

In other words, for accurate determination of domestic production inducements, import inducements must be deducted.

It is thus necessary to provide a calculation method for inverse matrix coefficients that accounts for import inputs.

The inverse matrix coefficients in the $[I-(I-\hat{M})A]^{-1}$ Type are commonly utilized in Japan. Several inverse matrix coefficient calculation methods are also used, as follows:

(1) $(I-A)^{-1}$ Type

This type is presented as a simplified model excluding imports in "1" above. In this model, imports are handled exogenously.

In the basic model (two rows and two columns), the supply-demand balance equation can be presented as follows:

$$\left.\begin{aligned} a_{11}X_1 + a_{12}X_2 + F_1 - M_1 = X_1 \\ a_{21}X_1 + a_{22}X_2 + F_2 - M_2 = X_2 \end{aligned}\right\} \cdots\cdots\cdots\cdots [4]$$

The matrix denotation is as indicated below.

$$AX + F - M = X \quad \cdots\cdots\cdots\cdots [4]'$$

This is a "Competitive import type" model in which intermediate demand (*AX*) and final demand (*F*) include a certain volume of imports.

The solution for *X* is:

$$X - AX = F - M$$
$$(I-A)X = F - M$$
$$\therefore \quad X = (I-A)^{-1}(F-M)$$

In this model, both final demand and imports can be determined exogenously. Imports, however, can be induced by domestic production, except in certain special circumstances. In other words, it is to regard them as endogenously determined. Thus, this model is used infrequently.

(2) $[I-(I-\hat{M})A]^{-1}$ Type

This model divides final demand (F) into domestic final demand (Y) and export (E), giving the following equation:

$$F = Y + E$$

This is substituted into [4]' above. The supply-demand balance equation can be expressed as follows:

$$AX + Y + E = X \quad \text{..... [5]}$$

In the tables, mere transit transactions are not supposed to be incorporated into exports. Thus, it can be assumed that exports do not include imports. Import coefficients by row can be defined as follows:

$$m_i = \frac{M_i}{\sum_j a_{ij} X_j + Y_i}$$

In other words, "m_i" represents the ratio of imports in product "i" within total domestic demands, or ratios of dependence on imports; while (1-m_i) represents self-sufficiency ratios.

When [5] is represented for "i" row,

$$\sum_j a_{ij} X_j + Y_i + E_i - M_i = X_i \quad \text{..... [6]}$$

From the definition of import coefficients,

$$M_i = m_i \left(\sum_j a_{ij} X_j + Y_i\right) \quad \text{..... [7]}$$

[7] is substituted into [6], and the equation is as follows:

$$X_i - (1-m_i)\sum_j a_{ij} X_j = (1-m_i)Y_i + E_i \quad \text{..... [8]}$$

The diagonal matrix ($\hat{M}$) can be assumed to have an import coefficient (m_i) as the diagonal element and zero as the non-diagonal element.

$$\hat{M} = \begin{bmatrix} m_1 & & 0 \\ & \ddots & \\ 0 & & m_n \end{bmatrix}$$

From [8] above, the following equation can be obtained:

$$[I-(I-\hat{M})A]\ X = (I-\hat{M})Y + E \quad \text{..... [9]}$$

From [9], the following equation can be obtained:

$$X = [I-(I-\hat{M})A]^{-1}[(I-\hat{M})Y + E] \quad \text{.....[10]}$$

Giving domestic final demand (Y) and export (E) produces domestic production (X).

Here, $(I-\hat{M})A$ indicates the input ratio of domestic products when the import input ratio is assumed to be constant in all sectors, whether they are for intermediate demand or final demand. $(I-\hat{M})Y$ indicates domestic final demand for domestic products under the same assumption. In other words, this is the "competitive import type" model when import ratios for individual items (for rows) (or import coefficients) are assumed to be identical in all output sectors.

Inverse matrix coefficient tables based on this model are commonly used in Japan. Table 1-(4) in Chapter 8 compiles the 13-sector Basic Transaction Tables for the 2011 Input-Output Tables, based on this approach.

[Points to remember when conducting calculations, in accordance with changes in the classification sectors for adjustment items]

In the 2011 Tables, adjustment items are handled as a classification that is included in "Total domestic final demand," rather than as a classification that is included in "Exports total" as in the past. This is based on the fact that the contents of adjustment items consist of items related to domestic transactions that occur in association with indirect exports. Conceptually, adjustment items are a classification where imports are never recorded as included numbers.

Thus, in the 2011 Tables, when calculating the inverse matrix coefficients and the various inducement amounts according to final demand item, please note that adjustment the following considerations are made.

1 The input coefficient is calculated by {Imports / (Total domestic demand – adjustment items)}.

2 When calculating the various inducement items according to domestic final demand item, adjustment items are not multiplied by (1 – import coefficient). Instead, they are calculated by directly multiplying with the inverse matrix coefficient.

(In other words, the same calculation method as when adjustment items were included in "Total exports" is used. "Total exports" is calculated by directly multiplying the inverse matrix coefficient, as in the 2005 Tables.)

(3) $(I - A^d)^{-1}$ Type

The inverse matrix coefficients based on this model is the "non-competitive import type," which can be used to analyse when the input ratios of imports differ from sector to sector.

Chart 4-4 shows simplified non-competitive Import Basic Transaction Table.

Chart 4-4 Basic Transaction Table(conceptual chart of Non-Competitive Import Type)

		Industry 1	Industry 2	Final demand	Import	Domestic production
Domestic	Industry 1	x_{11}^d	x_{12}^d	F_1^d	—	X_1
	Industry 2	x_{21}^d	x_{22}^d	F_2^d	—	X_2
Import	Industry 1	x_{11}^m	x_{12}^m	F_1^m	$-M_1$	—
	Industry 2	x_{21}^m	x_{22}^m	F_2^m	$-M_2$	—
Gross value added		V_1	V_2			
Domestic production		X_1	X_2			

Naturally, the following equations can be defined:

$$x_{ij} = x_{ij}^d + x_{ij}^m$$
$$F_i = F_i^d + F_i^m$$

The supply-demand balance for domestic products can be presented as follows:

$$\left.\begin{aligned} x_{11}^d + x_{12}^d + F_1^d &= X_1 \\ x_{21}^d + x_{22}^d + F_2^d &= X_2 \end{aligned}\right\} \cdots\cdots [11]$$

Where input coefficient for domestic intermediate goods is defined as follows:

$$a_{ij}^d = \frac{x_{ij}^d}{X_j}$$

Then, the equations [11] can be as follows:

$$\left.\begin{aligned} a_{11}^d X_1 + a_{12}^d X_2 + F_1^d &= X_1 \\ a_{21}^d X_1 + a_{22}^d X_2 + F_2^d &= X_2 \end{aligned}\right\} \cdots\cdots [11]'$$

This can be represented by the following matrix:

$$A^d X + F^d = X \cdots\cdots [11]''$$

This is the "non-competitive import type" model. Both intermediate demand (A^dX) and final demand (F^d) cover domestic products and exclude imports.

The solution of [11]" for X is as follows:

$$X - A^dX = F^d$$
$$(I - A^d)X = \mathrm{F}$$
$$\therefore \mathrm{X} = (\mathrm{I} - A^d)^{-1} F^d$$

When the final demand for domestic products (F^d) is given, the domestic production level (X) can be obtained:

The relationship with the competitive import type model may be presented as follows: When the input coefficient matrix for import is defined as (A^m) and the final demand colum vector for imports is defined as (F^m), the following equations can be derived:

$$A = A^d + A^m$$
$$F = F^d + F^m$$

Based on the above equations, the following supply-demand balance can be obtained:

$$(A^d + A^m)X + (F^d + F^m) = \mathrm{X} + \mathrm{M}$$

This is the basic equation of the competitive import type of model.

In the actual economy, input ratios of domestic and imported products may generally differ from sector to sector. Inverse matrix coefficients based on this model represent this situation as is. When this type of inverse matrix coefficients are compared with (2) $[I - (I - \hat{M})A]^{-1}$, significant differences may be observed at times in certain sectors.

In the Input-Output Tables compiled as a five-year project by ten authorities, inputs and outputs are divided into domestic and imported products, making it possible to use two different types of inverse matrix tables. The appropriate one will depend on the purposes of analyses and considerations regarding consistency with assumptions.

3 Index of the Power of Dispersion and Index of the Sensitivity of Dispersion

(1) Index of the Power of Dispersion

The figure in each column in the inverse matrix coefficient table indicates the production required directly and indirectly at each row sector when the final demand for the column sector (that is, demand for domestic production) increases by one unit. The total (sum of column) indicates the scale of production repercussions on entire industries, caused by one unit of final demand for the column sector.

The vertical sum of every column sector of the inverse matrix coefficients is divided by the mean value of the entire sum of column to produce a ratio. This ratio indicates the relative magnitudes of production repercussions; that is, which sector's final demand can exert

the greatest production repercussions on entire industries. This is called the "Index of the Power of Dispersion" and can be calculated as follows: (Please refer to Chart 4-5)

$$\text{Index of the power of dispersion by sector} = \frac{\text{Each sum of cloumn in inverse matrix coefficient table}}{\text{Mean value of entire vertical sum in the inverse matrix coefficient table}} = \frac{b_{*j}}{\overline{B}}$$

Here,

$$b_{*j} = \sum_i b_{ij}$$

$$\overline{B} = \frac{1}{n}\sum_j b_{*j} = \frac{1}{n}\sum_i \sum_j b_{ij}$$

The index of the power of dispersion indicated above is referred to as the "first category index of the power of dispersion." Table 4-1 indicates the calculation of the index of the power of dispersion by utilizing as the inverse matrix in the 37-sector table of the 2011 Input-Output Tables. This indicates that the indices for iron and steel and transportation machinery, etc. have relatively high indices of the power of dispersion, indicating that both sectors exert great production repercussions on entire industries.

Conversely, sectors indicating low indices of the power of dispersion are real estate, petroleum and coal products, education and research and so forth. Service-related sectors generally have slight production repercussions on entire industries.

However, the sum of column of inverse matrix coefficients tends to increase as the intermediate input ratios increase. In addition, since intermediate input includes the "Self-sector input," representing inter-industrial transactions, which may significantly affect intermediate input ratios, the "Self-sector input" may sometimes be excluded from calculations of "indices of the power of dispersion."

In this case, when only indirect effects excluding the direct effect of 1.0 to the self-sector are considered, they are referred to as the "second category index of the power of dispersion." When effects on the self-sector are completely eliminated and only the effects on the other sectors are considered, they are referred to as the "third category index of the power of dispersion."

(2) Index of the Sensitivity of Dispersion

The figure for each row in the inverse matrix coefficient table indicates the supplies required directly and indirectly at each row sector when one unit of the final demand for the column sector at the top of the table occurs. The ratio produced by dividing the total (horizontal sum) by the mean value of the entire sum of row will indicate the relative influences of one unit of final demand for a row sector, which can exert the greatest production repercussions on entire industries. This is called the "Index of the Sensitivity of Dispersion," which can be calculated as follows: (Please refer to Chart 4-5)

$$\text{Index of the sensitivity of dispersion by sector} = \frac{\text{Each sum of row in inverse matrix coefficient table}}{\text{Mean value of the entire horizontal sum in inverse matrix coefficient table}} = \frac{b_{i*}}{\overline{B}}$$

Here

$$b_{i*} = \sum_j b_{ij}$$

$$\overline{B} = \frac{1}{n}\sum_i b_{i*} = \frac{1}{n}\sum_i \sum_j b_{ij}$$

Chart 4-5 Inverse Matrix Coefficient Table (conceptual chart)

	1	2	3	…	n	Sum of column	Index of the Sensitivity of dispersion
1	b_{11}	b_{12}	b_{13}	⋮	b_{1n}	b_{1*}	$b_{1*}/\overline{B}$
2	b_{21}	b_{22}	b_{23}	⋮	b_{2n}	b_{2*}	$b_{2*}/\overline{B}$
3	b_{31}	b_{32}	b_{33}	⋮	b_{3n}	b_{3*}	$b_{3*}/\overline{B}$
				⋮			
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
				⋮			
n	b_{n1}	b_{n2}	b_{n3}	⋮	b_{nn}	b_{n*}	$b_{n*}/\overline{B}$
Sum of row	b_{*1}	b_{*2}	b_{*3}	…	b_{*n}	$\sum b_{i*} = \sum b_{*j}$	
Index of the Power of dispersion	$\frac{b_{*1}}{\overline{B}}$	$\frac{b_{*2}}{\overline{B}}$	$\frac{b_{*3}}{\overline{B}}$	…	$\frac{b_{*n}}{\overline{B}}$		

The index of the sensitivity of dispersion indicated

above is referred to as the “primary index of the sensitivity of dispersion.”

Table 4-1 indicates the calculation of index of the sensitivity of dispersion utilizing $[I-(I-\hat{M})A]^{-1}$ as the inverse matrix in the 37-sector table of the 2011 Input-Output Tables. Here, since the sensitivity indices of commerce and transportation, etc. are high, these sectors provide raw materials and services to a wide range of sectors. They are thus sensitive to fluctuations in business cycles in entire industries.

As in the case of the indices of the power of dispersion, the “Self-sector input” may be excluded. Again, as well as the index of the power of dispersion, the “second category index of the sensitivity of dispersion “ and “third category index of the sensitivity of dispersion “ can be defined.

Since they are based on inverse matrix coefficients, different results may obtain, depending on how sectors are aggregated and on the types of inverse matrix.

(3) Functional Analysis based on Indices of the Power and Sensitivity of Dispersion

By combining the indices of the power of dispersion and those of the sensitivity of dispersion, we can create a typological presentation of the functions of each industrial sector.

As indicated in Chart 4-6, the figures of the sectors are plotted on a chart, with the indices of the power of dispersion on the horizontal axis, and those of the sensitivity of dispersion on the vertical axis. Each position on the chart can reveal characteristics of the industrial sector.

Sectors plotted in Quadrant “I” can both exert strong influence on entire industries and are most affected to external influences. Typically, these are the raw materials manufacturing sectors, including basic materials such as iron and steel, pulp, paper and wooden products, and chemical products.

Quadrant “II” includes sectors whose influence on entire industries is weak, but whose sensitivity is high. Typically, these sectors provide services to other sectors, such as business services, commerce, transportation, and finance and insurance, etc.

Quadrant “III” includes sectors whose influence and sensitivity are both weak; typically, these are primary industrial sectors such as agriculture, forestry, and fisheries, as well as ceramics, stone and clay products,and independent industrial sectors such as real estate, water supply and waste disposal services, etc.

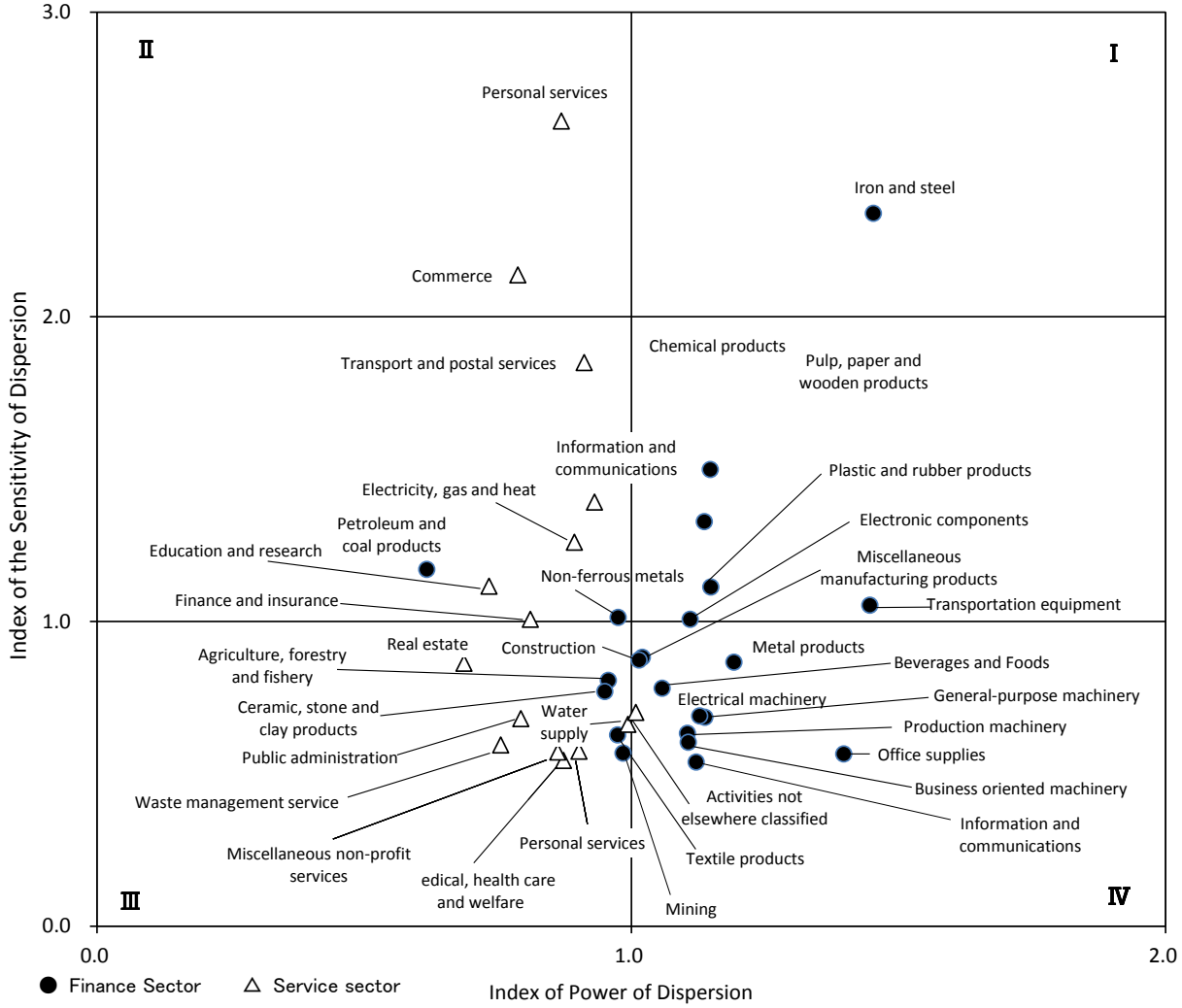
Quadrant “IV” includes sectors with strong influence on entire industries but relatively weak production repercussions. Typically, these sectors involve the manufacture of final goods, including general machinery, textile products, metal products, precision instruments, and construction, etc.

Table 4-1 Tables of Indices of Power of Dispersion and of the Sensitivity of Dispersion for 2011

Sector	Index of Power of Dispersion	Index of Sensitivity of Dispersion
01 Agriculture, forestry and fishery	0.956949	0.806398
06 Mining	0.984509	0.567638
11 Beverages and Foods	1.057986	0.780765
15 Textile products	0.974466	0.627390
16 Pulp, paper and wooden products	1.136689	1.326998
20 Chemical products	1.147750	1.498586
21 Petroleum and coal products	0.617290	1.171013
22 Plastic and rubber products	1.148722	1.112687
25 Ceramic, stone and clay products	0.950546	0.769416
26 Iron and steel	1.453449	2.339416
27 Non-ferrous metals	0.975590	1.013335
28 Metal products	1.192033	0.866208
29 General-purpose machinery	1.137976	0.684738
30 Production machinery	1.105084	0.632876
31 Business oriented machinery	1.106698	0.603033
32 Electronic components	1.110403	1.007109
33 Electrical machinery	1.127987	0.689191
34 Information and communication electronics equipment	1.121286	0.538408
35 Transportation equipment	1.446831	1.053315
39 Miscellaneous manufacturing products	1.020745	0.881773
41 Construction	1.014864	0.872984
46 Electricity, gas and heat supply	0.893665	1.260012
47 Water supply	0.993654	0.661798
48 Waste management service	0.755585	0.594452
51 Commerce	0.787584	2.137430
53 Finance and insurance	0.811321	1.007023
55 Real estate	0.686759	0.862406
57 Transport and postal services	0.911776	1.849653
59 Information and communications	0.931216	1.391800
61 Public administration	0.793432	0.680468
63 Education and research	0.733810	1.115098
64 Medical, health care and welfare	0.873131	0.543579
65 Miscellaneous non-profit services	0.862329	0.571098
66 Business services	0.869098	2.642450
67 Personal services	0.902030	0.573654
68 Office supplies	1.397993	0.564912
69 Activities not elsewhere classified	1.008763	0.700890

(Note) Derived from the 37-Sector Table

Chart 4-6 Indices of the Power of Dispersion and the Sensitivity of Dispersion



§3 Relationship Between Final Demand and Domestic Production

1 Domestic Production Induced by Individual Final Demand Items

Every industry in the endogenous sector supplies goods and services to each industrial sector as well as final demand sectors. On the whole, however, the industrial activities of the endogenous sectors produce to just satisfy the final demand, and their production levels depend on the size of the respective final demands. Based on the competitive import model and when imports fluctuate in proportion to domestic demand, the following relationship holds in the Input-Output Tables, as indicated by equation [10] of §2, through the inverse matrix coefficients:

$$X = [I - (I - \hat{M})A]^{-1} [(I - \hat{M})Y + E]^{-1}$$

Total domestic products — Inverse matrix — Value of final demand

Here, final demand (F) can be classified into six categories: [1] consumption expenditure outside households; [2] private consumption expenditures; [3] consumption expenditure of general government; [4] gross domestic fixed capital formation; [5] increase in stock; and [6] exports (E). Domestic products induced by individual final demand items refer to the production of every industry induced by individual final demand items.

Domestic products induced by individual final demand items can bean indication for analyzing and analyzing the items in the final demand that influence value fluctuations in domestic production, and can be calculated as follows:

As mentioned above, the final demand vector F may be divided into domestic final demand vector Y and export vector E. Domestic final demand vector Y can be dissolved into various vectors of domestic final demand items (e.g., private consumption expenditure and gross domestic fixed capital formation, etc.), which may be represented as

follows:

$$Y = Y_1 + Y_2 + Y_3 + \cdots + Y_N$$

Given that X_K represents the induced production value derived from the respective domestic final demands, domestic final demand may be expressed as follows:

$$X_k = [I - (I - \hat{M})A]^{-1}(I - \hat{M})Y_k \qquad k = 1,2,\cdots,N$$

Production value induced by exports E can be expressed as follows:

$$X_E = [I - (I - \hat{M})A]^{-1} E$$

Since the aggregate of induced production values by the respective final demand items is equivalent to the value of domestic production, we derive the following equation:

$$X = \sum_{k=1}^{N} X_k + X_E$$

It is also possible to use $(I - A^d)^{-1}$ as the inverse matrix. In that case, the final demand vector multiplying on the right side represents the final demand for domestic items (F^d).

2 Domestic production Inducement Coefficients by Individual Final Demand Items

"Production inducement coefficient by final demand item" is defined as the domestic products induced by individual final demand items divided by the total for corresponding final demand.

Given that:

$$Y_k = \begin{bmatrix} Y_{1k} \\ \vdots \\ Y_{nk} \end{bmatrix}, \quad X_k = \begin{bmatrix} X_{1k} \\ \vdots \\ X_{nk} \end{bmatrix} \qquad k = 1,2,\cdots,N$$

(Domestic final demand items)

And

$$E = \begin{bmatrix} E_1 \\ \vdots \\ E_n \end{bmatrix}, \quad X_E = \begin{bmatrix} X_{1\,N+1} \\ \vdots \\ X_{n\,N+1} \end{bmatrix}$$

Then, the domestic production of industry "*i*" induced by domestic final demand item "*K*" and exports will be X_{ik} and $X_{i,N+1}$, respectively, and the production inducement coefficients can be expressed as follows:

$$\text{Production inducement coefficients by final demand items} = \begin{cases} \dfrac{X_{ik}}{\sum_{j=1}^{n} Y_{jk}} & \text{(Domestic final demand)} \\ \dfrac{X_{i,N+1}}{\sum_{j=1}^{n} E_j} & \text{(Exports)} \end{cases}$$

This indicates the rate of increase of domestic production in an industry, derived from the total increase of one unit of a certain final demand item (within the same item).

The aggregated production inducement coefficients by final demand items for the respective sectors—that is,

$$\frac{\sum_{i=1}^{n} X_{ik}}{\sum_{j=1}^{n} Y_{jk}} \; and \; \frac{\sum_{i=1}^{n} X_{i\,N+1}}{\sum_{j=1}^{n} E_j}$$

Chart 4-7 Domestic production Inducement Coefficients by Individual Final Demand Items (conceptual chart)

		Final demand item							
		1	2	3	…	…	…	N	$N+1$
Industrial sector	1 2 3 ⋮ ⋮ n	Production inducement coefficient by final demand item $\left[\dfrac{X_{ik}}{\sum_{j=1}^{n} Y_{jk}}\right]$ $\left[\dfrac{X_{i\,N+1}}{\sum_{j=1}^{n} E_j}\right]$							
Total									

(Note) X_{ik}, $X_{i\,N+1}$: Production inducements by final demand item

$\sum_{j=1}^{n} Y_{jk}, \sum_{j=1}^{n} E_j$: Total of Final demands

3 Domestic production Inducement Distribution Ratios by Individual Final Demand Items

"Production inducement distribution ratios by final demand items" are defined as the proportion ratios of induced production value derived from the respective industrial sectors. They indicate the degree of influence or weighting of the respective final demand items on the domestic productions in industrial sectors.

Chart 4-8 Domestic production Inducement Distribution Ratios by Individual Final Demand Items (conceptual chart)

		Final demand item								Total
		1	2	3	…	…	…	N	$N+1$	
Industrial sector	1 2 3 ⋮ ⋮ n	Production inducement distribution ratio by final demand item $\left[\frac{X_{ik}}{X_i}\right]\left[\frac{X_{i\,N+1}}{X_i}\right]$								1.0

(Note) X_{ik}, $X_{i\,N+1}$: Production inducement by final demand item

X_i : Total of production inducement (total domestic products)

§4 Relationship Between Final Demand and Gross Value Added

The domestic production of each sector is comprised of intermediate input and gross value added. Since domestic production can be induced by final demand, we can assume that gross value added, which is part of domestic production, can be similarly induced by final demand.

It is thus possible to apply the relational expression between domestic production and final demand, introduced in §3, to gross value added and final demand in exactly the same manner.

The ratio of gross value added is defined as the gross value added of each sector divided by the domestic production of the sector. This is the gross value added per unit of production, the elements of which can be represented in a diagonal matrix " ."

$$\hat{v}=\begin{bmatrix} v_1 & & & 0 \\ & v_2 & & \\ & & v_3 & \\ & & & \ddots \\ 0 & & & v_n \end{bmatrix} \qquad v_j=\frac{V_j}{X_j}(j=1,2,\cdots,n)$$

Therefore, when V is defined as a vector comprised of gross value added,

$$V=\hat{v}\cdot X$$

Thus, the supply-demand balance equation mentioned in §3 can be indicated for the gross value added, as follows:

$$V=\hat{v}\cdot\ [I-(I-\hat{M})A]^{-1}[(I-\hat{M})Y+E]$$

This equation can be used to define the following, as in the case of production inducement:

[1] Gross value added inducement

[2] Gross value added inducement coefficient

[3] Gross value added inducement distribution ratio

A characteristic finding from comparisons between the production inducement coefficient and the gross value added inducement coefficient is that "exports" and "gross domestic fixed capital formation," which indicate larger figures among final demand items for production inducement coefficients, give smaller figures than "consumption" for gross value added inducement coefficient. This implies that increasing public sector investment and exports stimulates the economy, but that stimulating consumption is more effective for added value levels (GDP levels).

§5 Relationship Between Final Demand and Imports

1 Imports Induced, Imports Inducement Coefficients and Imports Inducement Distribution Ratios by Individual Final Demand Items

When certain final demands are generated, not all are usually satisfied by domestic production. Some are met by imports.

A fundamental field within input-output analyses is a measurement of the scale of production induced at each sector by generation of a certain final demand. Also critical is determining the scale of imports induced by the same cause. This requires the import coefficient of each sector. The scale of imports induced by one unit of final demand can be calculated with the import coefficients.

In the inverse matrix coefficients based on the $[I-(I-\hat{M})A]^{-1}$ type, commonly utilized in Japan, as explained in §2, the Input-Output Tables do not cover re-exports of imported goods (that is, exports exclude all imports). Thus, import coefficients are defined as ratios to domestic demand, as follows:

$$m_i=\frac{M_i}{\sum_{j=1}^{n}a_{ij}X_j+Y_i} \qquad \hat{M}=\begin{bmatrix} m_1 & & 0 \\ & \ddots & \\ 0 & & m_n \end{bmatrix}$$

$$\therefore M=\hat{M}(AX+Y) \qquad \cdots\cdots\cdots\cdots\cdots\cdots [12]$$

Total domestic products X can be expressed as follows:

$$X = [I - (I - \hat{M})A]^{-1}[(I - \hat{M})Y + E] \cdots\cdots\cdots [13]$$

The inverse matrix coefficient $[I - (I - \hat{M})A]^{-1}$ is expressed as B and replaces [12] above and expanded as follows:

$$M = \hat{M}AB(I - \hat{M})Y + \hat{M}ABE + \hat{M}Y$$

$$M = [\hat{M}AB(I - \hat{M}) + \hat{M}]\ Y + \hat{M}ABE \cdots\cdots\cdots [14]$$

In other words, imports can be divided into those induced by domestic final demand, excluding exports (the first term of the right side of M in the equation [14]), and those induced by exports E (the second term on the right side of [14]).

$\hat{M}AB$ can be regarded as the inverse matrix coefficient B multiplied by the input coefficient $\hat{M}A$.

The breakdown of the import inducement by each of the final demand items is presented as the "import inducement coefficient by final demand item." As indicated in equation [14], imports *M* can be resolved as follows:

$$M = [\hat{M}AB(I - \hat{M}) + \hat{M}]\ Y + \hat{M}ABE$$

As is apparent from this equation, these factors are given by multiplying the final demands of the relevant items, respectively. Namely, they are given by multiplying the respective final demand item vectors from the "consumption expenditure outside households" to " increase in stocks," which are domestic final demands by the matrix $[\hat{M}AB(I - \hat{M}) + \hat{M}]$, and for "exports" by multiplying the export vector by the matrix $\hat{M}AB$.

Import inducement coefficients by final demand items and import inducement distribution ratios by final demand items are not explained here, as they can be calculated in the same as in the case of production inducement coefficients and production inducement distribution ratios in §3.

2 Comprehensive Imports Coefficients

The sum of column of the matrix $[\hat{M}AB(I - \hat{M}) + \hat{M}]$, $\hat{M}AB$ are coefficients that indicate the size of import inducements due to generation of one unit of "final demand excluding exports" and "exports" (the same itemized structure), and are referred to as "comprehensive import coefficients.".

§ 6 Labor Input-Output Analysis Coefficients

1 Labor Inducement Coefficients

In the Input-Output Tables, the following relationship holds between domestic production and final demand with, suggesting inverse matrix coefficients:

$$X = [I - (I - \hat{M})A]^{-1}[(I - \hat{M})Y + E] \cdots\cdots\cdots [15]$$

X	: Total domestic products
$[I - (I - \hat{M})A]^{-1}$	: Inverse matrix
$[(I - \hat{M})Y + E]$	: Final demand

Here, each row of matrix L of the labor input (man-year) for each sector is divided by domestic production to give the labor input coefficient matrix L'.

(Labor input *L*)

	Sector 1	Sector 2	Sector 3	.....	Sector *n*
Total employees	l_{11}	l_{12}	l_{13}	·····	l_{1n}
Self-employed	l_{21}	l_{22}	l_{23}	·····	l_{2n}
Family worker	l_{31}	l_{32}	l_{33}	·····	l_{3n}
⋮□	⋮	⋮	⋮		⋮
⋮□	⋮	⋮	⋮		⋮
⋮□	⋮	⋮	⋮		⋮
Total domestic products	X_1	X_2	X_3	·····	X_n

(Labor input coefficient, *L'*)

	Sector 1	Sector 2	Sector 3	.....	Sector *n*
Total employees	l'_{11}	l'_{12}	l'_{13}	·····	l'_{1n}
Self-employed	l'_{21}	l'_{22}	l'_{23}	·····	l'_{2n}
Family worker	l'_{31}	l'_{32}	l'_{33}	·····	l'_{3n}
⋮□	⋮	⋮	⋮		⋮
⋮□	⋮	⋮	⋮		⋮
⋮□	⋮	⋮	⋮		⋮

(Note) $l'_{ij} = \dfrac{l_{ij}}{X_j}$

Here, the total number of employees and the *i*-th employee position are analyzed. The *i*-th row of *L* is placed vertically to produce vector L_i, and the *i*-th element of *L'* is placed diagonally to produce matrix $\hat{L}'_i$, as follows:

$$L_i = \begin{bmatrix} l_{i1} \\ l_{i2} \\ \vdots \\ l_{in} \end{bmatrix}, \quad \hat{L}_i' = \begin{bmatrix} l_{i1}' & & 0 \\ & l_{i2}' & \\ & & \ddots \\ 0 & & l_{in}' \end{bmatrix}$$

$$\begin{aligned} L_i &= \hat{L}_i' X \\ &= \hat{L}_i' [I - (I - \hat{M})A]^{-1} [(I - \hat{M})Y + E] \\ &= \hat{L}_i' B [(I - \hat{M})Y + E] \cdots\cdots\cdots\cdots\cdots\cdots [16] \end{aligned}$$

Here, the following equation is defined.

$$B = [I - (I - \hat{M})A]^{-1}$$

Each column of the matrix $\hat{L}_i' B$ indicates the size of labor demand required directly and indirectly at each sector when one unit of final demand is generated for each sector. The elements of this matrix $\hat{L}_i' B$ are commonly referred to as "labor inducement coefficients."

Each row of matrix $L'B$ indicates the scale of labor demand by occupational positions required directly and indirectly when one unit of final demand is generated for each sector. This may also be referred to as "labor inducement coefficients." "Occupation inducement coefficients" to be explained later are based on the latter concept.

Domestic final demand *Y* is comprised of consumption expenditure of households, consumption expenditure of general government, gross domestic fixed capital formation and exports, etc., and can be expressed as follows:

$$Y = Y_1 + Y_2 + \cdots + Y_N \cdots\cdots\cdots\cdots\cdots\cdots [17]$$

From [16] and [17], the following equation can be obtained:

$$\begin{aligned} L_i &= \hat{L}_i' B \ [(I - \hat{M})(Y_1 + Y_2 + \cdots + Y_N) + E] \\ &= \hat{L}_i' B(I - \hat{M})Y_1 + \cdots + \hat{L}_i' B(I - \hat{M})Y_N + \hat{L}_i' BE \cdots [18] \end{aligned}$$

Each term on the right-hand side indicates the comprising item of the final demand of labor induced.

In input-output analyses, it is assumed that input coefficients are stable and that no significant differences exist among them between the time at which the tables are compiled and the time at which analyses are made. A similar assumption is applied to labor-related input-output analyses; labor input coefficients are assumed to be stable.

However, unlike input coefficients, labor input coefficients cannot always be stable. For instance, even if production in a certain sector has doubled, the labor input does not necessarily double when industrial robots are installed or the operating ratios are improved. In conducting labor-related input-output analyses, therefore, it is necessary to fully consider changes in operating ratios and labor productivity.

2 Labor-Related Indices of Power and Sensitivity of Dispersion

As the indices of the power of dispersion and those of the sensitivity of dispersion can be obtained from the inverse matrix coefficients, the indices of the power of dispersion and those of the sensitivity of dispersion concerning labor inducements can also be obtained from the labor inducement coefficient matrix $\hat{L}_i' B$.

(1) Index of the power of dispersion for labor inducement

This index is used to compare the sizes of effects at different sectors of an increase of one unit of final demand at a certain sector on labor demand at the respective row sectors.

The "primary index of the power of dispersion for labor inducement" can be calculated as follows:

$$\begin{aligned} &\text{Primary index of the power of dispersion for labor inducement by sector} \\ &= \frac{\text{Each vertical sum of labor inducement coefficient matrix}}{\text{Mean of the entire vertical sum of labor inducement coefficient matrix}} \\ &= \frac{C_j}{\overline{C}} \end{aligned}$$

Here,

$$C = \hat{L}_i' B = [C_{ij}]$$

$$C_j = \sum_i C_{ij}, \quad \overline{C} = \frac{1}{n}\sum_j C_j$$

The bigger the index of the power of dispersion, the greater the labor demand at each sector, induced by one unit of final demand at the sector.

While the "primary index of the power of dispersion for labor inducement" indicates the direct and indirect effects of labor inducement, including the self-sector, the "tertiary index of the power of dispersion for labor inducement" completely eliminates the effects on the self-sector and concentrates on labor inducement effects

on the other sectors. It is calculated by replacing the diagonal element on the labor inducement coefficient matrix with zero, and using a similar method to that applied for the primary index of the power of dispersion. The bigger the index of the tertiary index of the power of dispersion, the greater the labor inducement effects on the other sectors.

(2) Index of the sensitivity of dispersion for labor inducement

The index of the power of dispersion is calculated from each vertical sum of the labor inducement coefficients. An index can also be calculated from each horizontal sum of the labor inducement coefficients, which is referred to as the "index of the sensitivity of dispersion." Used to compare labor inducement effects received at different sectors from one unit of final demand generated at each sector, the "primary index of the sensitivity of dispersion for labor inducement" is calculated as follows:

Primary index of the sensitivity of dispersion for labor inducement by sector

$$= \frac{\text{Each horizontal sum of labor inducement coefficient matrix}}{\text{Mean of the entire horizontal sums of labor inducement coefficient matrix}}$$

$$= \frac{C_i}{\overline{C}}$$

Here,

$$C_i = \sum_j C_{ij}, \quad \overline{C} = \frac{1}{n}\sum_i C_i$$

Sectors indicating higher "primary indices of the sensitivity of dispersion for labor inducement" are more susceptible to labor inducement effects.

The "tertiary index of the sensitivity of dispersion for labor inducement" indicates the relative effects of labor inducement on each sector, excluding the self-sector, due to generation of one unit of final demand.

3 Occupation Inducement Coefficients

The Employment matrix (table on employees engaged in production activities [by occupation]) makes it possible to calculate the employment inducement coefficient by occupation.

The occupational input coefficient matrix can be derived by dividing each element of the employment matrix *S* by domestic production at each sector.

(Employment Matrix S)

	Sector 1	Sector 2	Sector 3	.....	Sector *n*
Occupation 1	S_{11}	S_{12}	S_{13}	·····	S_{1n}
Occupation 2	S_{21}	S_{22}	S_{23}	·····	S_{2n}
Occupation 3	S_{31}	S_{32}	S_{33}	·····	S_{3n}
⋮□	⋮	⋮	⋮		⋮
⋮□	⋮	⋮	⋮		⋮
⋮□	⋮	⋮	⋮		⋮
Domestic production	X_1	X_2	X_3	·····	X_n

(Note) Employees include paid officers.

(Occupation Input Coefficient *S'*)

	Sector 1	Sector 2	Sector 3	.....	Sector *n*
Occupation 1	S'_{11}	S'_{12}	S'_{13}	·····	S'_{1n}
Occupation 2	S'_{21}	S'_{22}	S'_{23}	·····	S'_{2n}
Occupation 3	S'_{31}	S'_{32}	S'_{33}	·····	S'_{3n}
⋮□	⋮	⋮	⋮		⋮
⋮□	⋮	⋮	⋮		⋮
⋮□	⋮	⋮	⋮		⋮

(Note) $S'_{ij} = \frac{S_{ij}}{X_j}$

The vector *S** comprised of the sum of row of S may be expressed as follows:

$$S^* = S'B\ [(I-\hat{M})Y + E] \cdots\cdots\cdots\cdots\cdots\cdots [19]$$

Here, $B = [I-(I-\hat{M})A]^{-1}$

The matrix *S'B* is the "occupation inducement coefficients" matrix, representing the number of employees by occupation, to be required directly and indirectly by one unit of final demand at each sector.

4 Labor and Occupation Induced Coefficients by Individual Final Demand Items

As stated earlier, domestic final demand Y can be resolved for each item and represented as follows:

$$Y = Y_1 + Y_2 + \cdots + Y_N \cdots\cdots\cdots\cdots\cdots\cdots [17]$$

$$L_i = \hat{L}'_i B(I-\hat{M})Y_1 + \cdots + \hat{L}'_i B(I-\hat{M})Y_N + \hat{L}'_i BE \cdot [18]$$

The above equations can be used to obtain the labor inducement coefficient by final demand items. They can also indicate which final demand items and how many employees or workers in the respective sectors will be required, as well as their respective occupational positions.

In the equation [19], final demands can be resolved for the respective items, as follows:

$$S^* = S'B(I-\hat{M})Y_1 + \cdots + S'B(I-\hat{M})Y_N + S'BE$$

This obtains the number of employees by occupations required for specific final demand items (occupation inducement coefficients by final demand items).

§7 Problem of Sector Integration

1 Introduction

In the 2011 Input-Output Tables, the 190-sector tables, the 108-sector tables, 37-sector tables and 13-sector classification tables were compiled based on a basic sector classification comprised of 518 rows and 397 columns. In addition, users can easily compile aggregated sector classification tables for their own purposes just by adding up the figures of relevant sectors:

If the objective is to read the Input-Output Tables as they are, sector integration is simply how accuracy the tabulations should be. However, the most important things in using Input-Output Tables is conducting economic forecasts, measuring the mode of specific economic policies, or analyzing prices using input coefficients, inverse matrix coefficients, production inducement coefficients by final demand item, etc. If Input-Output Tables are to be useful for these purposes, the manner in which the sectors for Input-Output Tables are defined will be crucial.

That is, for calculations of production inducement and other effects with Input-Output Tables (to calculate inverse matrix coefficients), different results are generally obtained from different sector establishments.

This was once pointed out by W. Leontief, founder of Input-Output Tables, as follows:

Industrial classifications for input-output analyses are led by considerations of technical homogeneity. Integration problems may arise from scaling down the matrix by integrating the columns in input-output matrix and the related several rows. The relationship between the nature of the integrated matrix and that of the non-integrated ones depends on the positions at which the input columns of the integrated sectors are placed within the non-integrated matrix. Under certain ideal conditions, the integrated inverse matrix of the original matrix corresponds to the inverse matrix of the integrated matrix. If these conditions are met not completely but approximately, that correspondence has been realized only approximately.

Which sector should be established to eliminate production repercussions? What needs to be kept in mind when integrating sectors? These points will be addressed in the following sections.

2 Theoretical Aspects of Sector Integration

(1) Integration of two sectors

We will discuss a case of integrationg Sector 1 and Sector 2 by defining an input coefficient matrix A as follows

$$A = \begin{array}{c} \begin{matrix} \text{Sector } l & \text{Sector 1} & \text{Sector 2} & \text{Sector } r \end{matrix} \\ \begin{bmatrix} P & u_1 & u_2 & R \\ l_1' & a_{11} & a_{12} & r_1' \\ l_2' & a_{21} & a_{22} & r_2' \\ Q & d_1 & d_2 & S \end{bmatrix} \end{array} \begin{matrix} \text{Sector } l \\ \text{Sector 1} \\ \text{Sector 2} \\ \text{Sector r} \end{matrix}$$

Here, X_1 and X_2 are defined as domestic productions of Sector 1 and Sector 2, respectively, and the following relationships are established.

$$\alpha = \frac{X_1}{X_1 + X_2} \qquad \beta = \frac{X_2}{X_1 + X_2}$$

In this case, the input coefficient matrix when Sector 1 and Sector 2 are integrated can be represented in the following matrix:

$$\overset{+}{A} = \begin{bmatrix} P & \alpha u_1 + \beta u_2 & R \\ l_1' + l_2' & \begin{matrix} \alpha(a_{11} + a_{21}) \\ + \beta(a_{12} + a_{22}) \end{matrix} & r_1' + r_2' \\ Q & \alpha d_1 + \beta d_2 & S \end{bmatrix}$$

Here, final demand can be expressed as follows:

$$F = \begin{bmatrix} F_l \\ F_1 \\ F_2 \\ F_r \end{bmatrix} \begin{matrix} F_l & \text{Final demand for Sector l} \\ F_1 & \text{Final demand for Sector 1} \\ F_2 & \text{Final demand for Sector 2} \\ F_r & \text{Final demand for Sector r} \end{matrix}$$

In the above inverse matrix model considering, the

conditions required to make production inducements in A and $\overset{+}{A}$ identical for a certain final demand F

First, the input coefficient matrix A prior to the sector integration is used to calculate the primary repercussion on final demand F. When X_1 is defined as the vector of domestic production induced by the primary repercussion on the relevant sectors, the following can be defined:

$$X^1 = \begin{bmatrix} X_l^1 \\ X_1^1 \\ X_2^1 \\ X_r^1 \end{bmatrix} = AF = \begin{bmatrix} PF_l + u_1F_1 + u_2F_2 + RF_r \\ l_1'F_l + a_{11}F_1 + a_{12}F_2 + r_1'F_r \\ l_2'F_l + a_{21}F_1 + a_{22}F_2 + r_2'F_r \\ QF_l + d_1F_1 + d_2F_2 + SF_r \end{bmatrix} \quad \cdots\cdots\cdots\cdots\cdots\cdots \quad [20]$$

Next, the input coefficient matrix $\overset{+}{A}$ after the sector integration is used to calculate the primary repercussion on final demand F:

Here,

$$\overset{+}{F} = \begin{bmatrix} F_l \\ F_1 + F_2 \\ F_r \end{bmatrix}$$

When $\overset{+}{X}^1$ is defined as the vector of domestic production induced by the primary repercussion on the relevant sectors, we can define the following:

$$\overset{+}{X}^1 = \begin{bmatrix} \overset{+}{X}_l^1 \\ \overset{+}{X}_{1+2}^1 \\ \overset{+}{X}_r^1 \end{bmatrix} = \overset{+}{A}\overset{+}{F} = \begin{bmatrix} PF_l + \\ (l_1' + l_2')F_l + \\ QF_l + \end{bmatrix}$$

$$\begin{matrix} (\alpha u_1 + \beta u_2)(F_1 + F_2) & + RF_r \\ \{\alpha(a_{11} + a_{21}) + \beta(a_{12} + a_{22})\}(F_1 + F_2) + (r_1' + r_2')F_r & \\ (\alpha d_1 + \beta d_2)(F_1 + F_2) & + SF_r \end{matrix} \quad \cdots\cdots\cdots\cdots\cdots\cdots \quad [21]$$

Here, regardless of the status of integration, any F should meet the following conditions to make production inducements by the primary repercussion coincide:

$$\left.\begin{matrix} X_l^1 = \overset{+}{X}_l^1 \\ X_1^1 + X_2^1 = \overset{+}{X}_{1+2}^1 \\ X_r^1 = \overset{+}{X}_r^1 \end{matrix}\right\} \quad \cdots\cdots\cdots\cdots\cdots\cdots \quad [22]$$

If we substitute [20] and [21] into [22], we obtain the following from

$$\left.\begin{matrix} u_1 = u_2 \\ a_{11} + a_{21} = a_{12} + a_{22} \\ d_1 = d_2 \end{matrix}\right\} \quad \cdots\cdots\cdots\cdots \quad [22]'$$

As mentioned above, the equations in [22]' indicate conditions under which sector integration does not affect the magnitude of the primary repercussions. They can also be the conditions for the coincidence of the domestic production inducements. They can also be the conditions for the coincidence of the domestic production inducements, X_2 and $\overset{+}{X}^2$, due to the secondary repercussions obtained by replacing F of [20] and $\overset{+}{F}$ of [21] into X_1 and $\overset{+}{X}^1$, respectively, and furthermore the conditions for the coincidence of the sizes of the ultimate repercussions (so-called "production inducements"). The conditions under which integration will not change production inducements at each sector specified in [22]'; that is, input coefficients of the respective sectors to be integrated should coincide with the input coefficients of the relevant sectors after integration. In other words, there are no changes in production inducements before and after integration only when the input coefficients representing the technological structures for production are identical.

Classifications of sectors in the Input-Output Tables for Japan are based on activities relating the types of goods and services. The above conditions indicate that the activity-based homogeneity is required for defining sectors. In this sense, they indicate the criteria and principles of section definition.

(2) Effects of production inducements on other sectors due to sector integration

Next, effects of sector integration on production inducements of other sectors will be considered. Here, to simplify the discussion, a certain sector (sector " l ") is represented all sectors.

The conditions under which the sizes of primary repercussions before and after sector integration are identical are the ones give below from [22] above.

$$X_l^1 = \overset{+}{X}_l^1$$

The condition derived from the above is:

$$u_1 = u_2$$

In other words, when the production coefficients from Sector l to Sector 1 and Sector 2 to be integrated are identical, the primary production repercussions on Sector l due to any final demand are identical before and after sector integration. However, for second and further repercussions, they generally do not coincide before and after integration.

Specifically, when the following can be defined,

$$u_1 = u_2 = 0 \quad and \quad R = 0$$

or, when sectors other than Sector *l*, which is under study, do not receive any input from Sector *l*, while sectors other than Sector *l* are integrated, no effects will be found in production inducements to Sector *l*.

A clearer overall picture of these relationships can be provided by blocking the input coefficient table modified as follows by maintaining the relationships between, and at the same time changing the orders of, the row and column sectors of the input coefficient tables.

	I	II	III	IV
I	× × ×			
II		× × × × × × × × × ×		
III			× × × ×	
IV	× × × × × × × × ×	× × × × × × × × × × × ×	× × × ×	× × × × × × × × ×

(Note) All except "×" are "0."

Here, to analyze the repercussion effects from a certain final demand, for instance, only concerning Group I, regardless how Groups II, III, and IV are integrated, the inducement effects at I are held constant. The same is true of Group II or Group III.

Or, when the relative ratios of final demands at the sectors to be integrated are equivalent to the respective domestic production ratios—that is, the following relations can be established:

$$F_1 : F_2 = X_1 : X_2 = \alpha : \beta \quad (\alpha + \beta = 1)$$

Here, the following can be defined.

$$X^1 = \begin{bmatrix} PF_l + (u_1 + \frac{\beta}{\alpha}u_2)F_1 + RF_r \\ l_1'F_l + (a_{11} + \frac{\beta}{\alpha}a_{12})F_1 + r_1'F_r \\ l_2'F_l + (a_{21} + \frac{\beta}{\alpha}a_{22})F_1 + r_2'F_r \\ QF_l + (d_1 + \frac{\beta}{\alpha}d_2)F_1 + SF_r \end{bmatrix}$$

$$\overset{+}{X}{}^1 = \begin{bmatrix} PF_l + (\alpha u_1 + \beta u_2) \\ (l_1' + l_2')F_l + \{\alpha(a_{11} + a_{21}) + \beta(a_{12} + a_{22})\} \\ QF_l + (\alpha d_1 + \beta d_2) \end{bmatrix}$$

$$\times \quad (1 + \frac{\beta}{\alpha})F_1 + RF_r$$
$$\times \quad (1 + \frac{\beta}{\alpha})F_1 + (r_1' + r_2')F_r$$
$$\times \quad (1 + \frac{\beta}{\alpha})F_1 + SF_r$$

$$= \begin{bmatrix} PF_l + (u_1 + \frac{\beta}{\alpha}u_2)F_1 \\ (l_1' + l_2')F_l + \left\{(a_{11} + a_{21}) + \frac{\beta}{\alpha}(a_{12} + a_{22})\right\}F_1 \\ QF_l + (d_1 + \frac{\beta}{\alpha}d_2)F_1 \end{bmatrix}$$

$$+ \quad RF_r$$
$$+ \quad (r_1' + r_2')F_r$$
$$+ \quad SF_r$$

In other words, integrated X^1 corresponds to $\overset{+}{X}{}^1$.

(3) Conditions for preventing production repercussion effects due to integration

The following conclusions summarize the above:

[1] When the input coefficients of the sectors to be integrated are identical to the input coefficients of the sectors after integration, production repercussions are completely identical for any final demand.

[2] When the input coefficients of the sectors to be integrated from the other specific sectors do not change before and after sector integration, the primary production repercussions on the specific sectors have not been changed with respect to any final demand.

[3] For sectors that have not received any input from certain specified sectors, whatever integration may take place, there is no effect on production repercussions on the specified sector.

[4] When the mutual ratios of the final demands at the sectors to be integrated are equal to those of the respective domestic productions, the primary production repercussions due to the final demands are identical in all relevant sectors.

Furthermore, when considering the inverse matrix model that accounts for imports, except for [3] above, another condition is added: that import ratios of the sectors to be affected by $[I-(I-\hat{M})A]^{-1}$ of the integration are equal. In this manner, except for such highly unusual cases in which input structures do not change before and after integration, it should always

be kept in mind that the integration (or establishment) of sectors may cause different results to production repercussions and inducements.

3 Example of Sector Integration

Effects of example sector integration will be investigated using the 2011 Input-Output Table. The following two methods are used to calculate production inducements (by final demand item) of the 13 sectors and compare the results.

The $[I-(I-\hat{M})A]^{-1}$ type inverse matrix coefficient is used.

[1] Calculations are conducted with 190 sectors, then the results are integrated into 13 sectors.

[2] Calculations are conducted with 13 sectors from the beginning.

The comparison results are as indicated in Table 4-2, the figures represent the difference ratios of [2] against [1]. These figures make it quite clear that significant differences exist, particularly in the agriculture, forestry, and fisheries sector and in the mining sector, suggesting notable effects from sector integration. In addition, looking at the weighted average figures of the absolute values of the above ratios by the weights of production inducements derived from [1] for each row and column (which are referred to as “deviation rates”), consumption expenditure outside households and exports indicate greater figures for the respective final demand items.

[2]′ After calculations are conducted with the 34 sectors, the results are integrated into 13 sectors.

[2]″After calculations are conducted with 108 sectors, the results are integrated into 13 sectors.

The results can be presented only in the form of deviation rates by final demand items, as in Table 4-3.

4 Summary

In Section 3 above, the integration to 13 sectors was reviewed for the sake of convenience. In actual analyses, however, integration is commonly conducted to 37 or more sectors. Still, the basic premise remains the same.

Given the recent remarkable progress in computing power, it is now recommended that integration be conducted after calculating as many sectors as possible. Computations should at least be performed for sector tables one stage higher that the one required for analysis at hand, specifically, when the results need to be compared for final demand items and respective sectors. However, in sector integration within the scope in which conditions specified in “2” may be satisfied even approximately, the repercussion effects are not exceptional. Specifically, when only certain sectors are analyzed, “blocking” may realize effective sector integration.

Table 4-2 Difference in Production Inducement due to Sector Integration (Difference Ratio)

		Consumption expenditure outside households	consumption expenditure (private)	Consumption expenditure of general government	Gross domestic fixed capital formation	Increase in stocks	Balancing sector	Exports total	Devitation rate (λ_{i*})
01	Agriculture, forestry and fishery	-69 59	-35 83	191 46	295 38	-9 34	614 02	659 79	68 32
02	Mining	261 21	121 35	113 41	-69 90	-107 08	63 82	76 71	82 81
03	Manufacturing	-6 16	10 87	13 02	-2 87	29 08	-8 63	-10 16	8 89
04	Construction	7 20	-2 05	-0 90	0 23	13 20	-6 22	2 88	0 54
05	Electricity, gas and water supply	-30 09	-2 47	7 94	16 28	32 78	-6 66	1 95	4 95
06	Commerce	-20 04	-1 37	6 50	3 99	25 27	4 69	3 42	2 98
07	Finance and insurance	-8 99	0 96	4 32	-12 39	33 42	-7 01	-3 45	2 23
08	Real estate	-3 68	0 85	-5 53	-11 64	6 08	-11 63	-15 06	1 57
09	Transport and postal services	-16 60	0 39	7 18	-3 14	23 99	5 95	-0 08	1 71
10	Information and communications	0 64	-6 59	35 61	7 23	-0 04	-16 74	-11 26	9 27
11	Public administration	18 60	-0 08	0 01	-4 11	-2 01	0 78	4 21	0 07
12	Services	3 07	2 86	-1 90	-8 19	30 35	-8 60	-2 56	2 98
13	Activities not elsewhere classified	18 60	-0 26	2 08	-4 11	-2 04	0 78	4 21	2 31
	Devitation rate (λ_{*j})	9 68	4 84	4 33	4 58	23 32	10 09	9 35	5 61

Note: i : Industrial sectors, j : Final demand sectors

Z_{ij} is calculated by 190 sectors and is integrated by 13 sectors.

Z'_{ij} is calculated by 13 sectors.

Difference ratio : $\rho_{ij} = \left(Z'_{ij} / Z_{ij} - 1\right) \times 100$

Deviation rate : $\lambda_{i*} = \sum_{j} \left(|\rho_{ij}| \times \frac{Z_{ij}}{\sum_{j} Z_{ij}} \right)$ $\lambda_{*j} = \sum_{i} \left(|\rho_{ij}| \times \frac{Z_{ij}}{\sum_{i} Z_{ij}} \right)$

$$\lambda_{ij} = \sum_{ij} \left(|\rho_{ij}| \times \frac{Z_{ij}}{\sum_{ij} Z_{ij}} \right)$$

Table 4-3 Deviation Rates by Final Demand Item at Each Aggregated sector

(%)

	Consumption expenditure outside households	consumption expenditure (private)	Consumption expenditure of general government	Gross domestic fixed capital formation	Increase in stocks	Balancing sector	Exports total	Devitation rate (λ_{i*})
[2] (13/190)	9.68	4.84	4.33	4.58	23.32	10.09	9.35	5.61
[2]′ (37/190)	5.23	1.44	1.77	2.88	16.55	0.97	1.84	1.93
[2]″ (108/190)	0.79	0.58	0.36	1.18	4.58	1.80	1.94	0.89

CHAPTER Ⅴ
SUPPLEMENTARY TABLES

The Basic Transaction Tables summarize transactions involving all goods and services produced for a period of one year, based on all available data. The 2011 Input-Output tables are comprised of 518 row sectors and 397column sectors.

The core of the Input-Output Tables, the Basic Transaction Tables are compiled in accordance with certain rules, based on 68 SNA, 93 SNA and 08 SNA advocated by the United Nations, as well as Input-Output Table compilation theories accumulated so far. However, it is difficult to incorporate all information into Basic Transaction Tables. To meet the purposes of various input-output analyses, supplementary information is required to compensate for the limitations of the Basic Transaction Tables.

Thus, in the 2011 Tables, the various supplementary tables below are compiled in accordance with their respective intended usage.

The “Table on Trade Margins,” “Table on Domestic Freights,” and “Table on Imports” were categorized as supplementary tables up until the 2005 Tables. However, in terms of contents, they represent a consolidation of information related to trade margins, domestic freights, and imports included in the Basic Transaction Table for the basic sector classification into medium aggregated classifications (108 sectors). In the 2011 Tables, these tables were not handled as supplementary tables as they were categorized as part of statistical tables for medium aggregated classifications (provided only on the Internet). As a result, separate explanations on these tables are provided at the end of this chapter in [Reference 2] and [Reference 3].

1 Table on Value and Quantity

(1) Concepts

This table indicates the transacted quantities of major goods listed in the Basic Transaction Tables (Chart 5-1 [1]).

Ideally, in input-output analyses, Basic Transaction Tables would be based on the quantity of transactions between sectors to ensure the stability of input coefficients. Actually, given the various input materials in the column sectors, it is impossible to measure their size in a single numerical unit. The Basic Transaction Tables are thus based on monetary value. The tables on values and quantities are compiled to present quantitative data concerning the Basic Transaction Tables, although to limited extent.

Compiling tables on values and quantities of selected

Chart 5-1 Relationship Between Transaction Table and Table on Value and Quantity

[1] Input-Output Tables at Producers’ Prices

	A	B	C	D	Consumption	Fixed capital formation, etc	Exports	Domestic production
A								
B	600 (40×15)	150 (10×15)	500 (25×20)	250 (10×25)	120 (4×30)	180 (9×20)	100 (5×20)	1900
C								
D								
Gross value added								
Domestic production	1900							

(Note) Figures in parentheses are quantity multiplied by unit price. The table on value and quantity of selected goods extracts and lists these parts.

[2] Table on Value and Quantity

		A	B	C	D	Consumption	Fixed capital formation, etc.	Exports	Domestic production
Sectors for major goods	A Quantity (unit price)								
	A Monetary value (million yen)								
	B Quantity (unit price)	40	10	25	10	4	9	5	103
	B Monetary value (million yen)	600	150	500	250	120	180	100	1900
	C Quantity (unit price)								
	C Monetary value (million yen)								
	⋮								

goods are compiled to provide physical data related to the Basic Transaction Tables, and make it possible to conduct physical analyses of the prospects of supply and demand in energy and other subjects.

(2) Compilation method

[1] The sectors for which the table on value and quantity of selected goods is compiled are producers of major materials, primarily basic materials, among the row sectors in the Basic Transaction Tables. Those with significant differences in price levels of detailed items comprising the row sectors and those for which multiple quantitative units are used to estimate detailed items are generally excluded.

[2] The table on value and quantity of selected goods is basically compiled by estimating transaction units for individual output destinations and using these units to calculate transaction quantities by output destination (monetary transaction amounts/transaction unit prices). The following was done for the 2011 Input-Output Tables.

i) Imported goods and domestic goods are separated and the transaction quantities by output destinations estimated.

ii) The table on value and quantity of selected goods is ideally compiled by estimating transaction units for individual output destinations and using these units to calculate transaction quantities by output destination (monetary transaction amounts/transaction unit prices).

iii) For domestic production, the quantities of ordinary trades among exported goods are taken from the Foreign Trade Statistics. The amounts of special trades and direct purchases are derived from the average unit prices of the ordinary trades to estimate quantities, as in the case of estimates of import quantities. The domestic supply quantities for row section of the domestic production are estimated by deducting export quantities from the domestic production quantities by row acquired from Domestic Production Table by Sector and Commodity. Finally, the domestic supply quantities are allocated to each column sector based on the proportion of domestic transactions (transaction amounts at producers' prices – transaction amounts of imports) in output tables.

iv) The table on value and quantity of selected goods is compiled by adding [ii] and [iii] above.

(3) Precautions when using

Tables on value and quantity are tables that express the transactions that are possible from among the individual transactions listed in the Basic Transaction Tables.

At this time, it is impossible to compile tables on values and quantities for all sectors for the following reasons:

[1] When compiling tables on value and quantity, it is presumed that transaction amounts for each commodity can be comprehended by "quantity × unit price." For services among the row sectors, however, it is extremely difficult to measure quantity units.

[2] In the goods sectors, there are cases in which multiple commodities are included in the same sector, making it impossible to calculate the amounts by row sector units.

[3] In sectors represented as "Miscellaneous …" and those related to processing and assembling, various commodities with different unit prices and units may be combined. In these sectors, quantity-based indication by row sector is almost meaningless.

[4] The availability of quantity-related information by output destination is significantly reduced.

Also, the limitations of the table on value and quantity must be kept in mind, since quantitative estimates are limited to specified sectors and estimation methods tend to be mechanical.

2 Table on Scrap and By-Products

(1) Concepts of Table on Scraps and By-products

"Scraps" and "by-products" may be treated in compiling the basic transaction tables by several different methods. The method applied in Japan is the "minus input method" (Stone method; refer to CHAPTER III). In the table of conventional basic transaction tables based on the minus input method, the output of scraps and by-products is recorded as a negative value at the intersection of the output sector (column) and the competing sector (row), while the input is recorded as a positive value at the intersection of the competing sector (row) and demand sector (column), and production is offset to be zero.

Chart 5-2 Relationship Between Transaction Table and Table on Scrap and By-Products

[1] Input-Output Tables at Producers' Price (Model)(2000 table)

	A	B	C	D	Reuse and Recycling	Final demands	Imports	Domestic production
A		65	5	・・・	5	25		100
					(5)	(△5)		(0)
B	45	20	△10	50	35	60		200
			(△30)		(35)	(△5)		(0)
C	・・・	40	・・・	・・・	10	・・・		・・・
					(0)			(0)
D	18	30	・・・	・・・	5	・・・		・・・
	(△5)				(5)			(0)
Reuse and Recycling	18	18	・・・	34	・・・	・・・	△5	65
	(15)	(15)		(20)			(△5)	(45)
Total value added	19	27	・・・	・・・	10			
Domestic production	100	200	・・・	・・・	65			

(Note) The figures in parentheses are generated values (double-counted). Positive values represent the input value before adding processing costs. In addition, the establishment of the "reuse and recycling" sector increases domestic production (total).

[2] Input-Output Tables at Producers' Price (Model) (2005, 2011table)

	A	B	C	D	Reuse and Recycling	Final demands	Imports	Domestic production
A		70	5		0	25		100
		(5)				(△5)		(0)
B	60	20	△10	70	0	60		200
	(15)		(△30)	(20)		(△5)		(0)
C	・・・	40	・・・	・・・	10	・・・		・・・
								(0)
D	18	40	・・・	・・・	0	・・・	△5	・・・
	(△5)	(10)					(△5)	(0)
Reuse and Recycling	3	3	・・・	14	・・・	・・・		20
Total value added	19	27	・・・	・・・	10			
Domestic production	100	200	・・・	・・・	20			

(Note) 1 Output scraps and by-products are directly input into sectors without going through "Reuse and recycling"
2 Only collection and processing are recorded in "Reuse and recycling."

[3] Table on scraps and by-products (template) (Model) (2005, 2011 Table)

Competing sector	Output Sector	Output	Input Sector	Input
A	Final demands	△ 5	B	5
B	C	△ 30	A	15
	Final demands	△ 5	D	20
	Total	△ 35	Total	35
C	・・・	・・・	・・・	・・・
D	A	△ 5	B	10
	Import	△ 5		
	Total	△ 10	Total	10

(Note 1) 1 "Competing sector" represents row sectors, and "Output Sector" represents column sectors.

2 "Competing sector" refers to sectors with a special number ("2" to "5") attached to the row sector classification code (7 digits), as outputs and inputs of scraps and by-products are recorded in such sectors.

For "by-products," although there are row sectors where such by-products are considered as being the main product, in terms of representation in the Basic Transaction Table based on basic sector classification, in order to distinctively record numbers related to output of main products and numbers related to output and input of by-products, sectors (competing sectors) with a special symbol ("4" or "5") attached to the classification code for row sectors related to main products are established separately, and figures are recorded in these sectors. The reason why they are referred to as "competing sectors" derives from the fact that although there is a difference depending on whether there is a special symbol attached, these sectors are established (competing) as row sectors of the same name as those for main products. "2111-018-4 LPG (liquefied petroleum gas)" and "2111-018-5 LPG (liquefied petroleum gas)" in Table 5-1 correspond to "Competing sectors."

For "scraps," on the other hand, there are no sectors where scraps are treated as main products, and thus, only row sectors of "Used paper," "Scrap iron," and "Non-ferrous metal scrap" were established as dummy sectors. For other scraps, sectors for raw materials with which they are closely associated were established as competing sectors, and outputs and inputs are recorded in the corresponding sectors. To ensure uniformity with the terms that are used for by-products, row sectors related to scraps are also referred to as "competing sectors," and special symbols ("2" or "3") are also attached to the classification codes of the said sectors.

Table 5-1 Example of normal sector and competing sectors in an input table

Column code and name Row code and name	Transaction value (Producers Prices)	(Reference) How to read this table
2031-01 Petrochemical basic products		
…		
2111-018 LPG (liquefied petroleum gas)	57	Purchasing LPG from the sector that core business is producting LPG
2111-018-4 LPG (liquefied petroleum gas)	Competing sector 12018	Purchasing LPG that is generated as a by-product from the sector except LPG sector,
2111-018-5 LPG (liquefied petroleum gas)	-219041	LPG that is generated as a by-product in the process of the production activities of the petrochemical basic products

Due to the “Reuse and recycling” sector newly established in the 2000 Input-Output Tables, all scraps and by-products generated (negative) are output in the basic transaction tables to the sector, and through that sector, output (positive) to each input sector, while generally maintaining the minus input method. Imports/exports of scraps and by-products are recorded as a lump sum in the “Reuse and recycling” sector to stabilize the import coefficient and ensure analytical consistency. (Chart 5-2 [1]). However, in this table, all scraps and by-products are output from the single sector of “Reuse and recycling,” making it impossible to determine specific goods and input values.

In the 2005 and 2011 Input-Output Tables, the value of scraps and by-products are not input into the “Reuse and recycling” sector, and only related expenses are counted. As with the 1995 Input-Output Tables and prior tables, the negative input method was used for output and input of scraps and by-products. As a result, the output sector, output amount, input sector and input amount of “scraps and by-products” by type of scrap or by-product, and the expenditures related to each are recorded respectively in the Basic Transaction Tables (Chart 5-2 [2]).

The “Table on Scraps and By-products” thus clarifies the generation and input status of scraps and by-products by compiling the generated and input values of scraps and by-products, as compiled in Chart 5-2 [3].

(2) How to Compile the Table on Scraps and By-Products

Scraps and by-products can be distinguished from other transactions by appending the following special codes to sector codes when compiling the basic transaction tables.

Special code	special classification
2	Scrap input
3	Scrap output
4	By-product input
5	By-product output

Actually, estimates involving to which column sectors output or input what types of scraps and by-products are generated as follows.

[1] Consumption of scraps and by-products is converted to a monetary value from various current surveys of industrial production. The generated monetary values can be estimated through correspondence to the specific column sectors from the production technology structure.

[2] Of all scraps, for scrap iron and non-ferrous metal scraps, consumption by each column sector can be estimated from the Statistical Yearbook of Iron and Steel, etc. Due to the scarcity of relevant data, generated monetary values can be estimated for each sector from input value of iron, etc., at each industrial sector.

[3] For used paper, consumption values are estimated consumption values derived from waste paper supply/demand statistics, etc.

3 Table on Employees Engaged in Production Activities (by Occupation)

(1) Concepts

The “Table on employees engaged in production activities” shows the amount of labor input in terms of the average number of people by each sector for production activities during one year by employment status, such as the number of employees (full-time, part-time, and day workers), number of paid executives, number of self-employed workers, and number of family workers. As in the Basic Transaction Table, the sector classifications of this table are based on activities.

The incomes of employees and paid executives correspond to the “compensation of employees” in the Basic Transaction Table, while those of self-employed workers and family workers are included in the “operating surplus.”

From the table on persons engaged in production activities, the labor input coefficients and labor inducement coefficients corresponding to the input coefficients and production inducement coefficients, among others, are calculated. Labor input coefficients indicate the labor directly required for unit production, generally corresponding to the inverse of labor productivity. Labor inducement coefficients indicate how much labor is required for each sector to produce goods and services directly and indirectly induced by the increase of one unit

of final demand.

These coefficients are used to identify the repercussion processes of changes in final demand on employment demand and entire employment demand figures, which enable analyses of labor force flow and employment structures, analyses of the effects of economic fluctuations on employment and employment demand prospects outlook, etc.

(2) Compilation method

In compiling the table on persons engaged in production activities, firstly, the number of employees is estimated based on industrial classifications (does not necessary match the activity) using the Population Census, Employment Status Survey, Economic Census for Business Activity, and Labour Force Survey.

Then, a correspondence table consisting of industrial classifications and sector classifications is compiled, and the number of employees by industry is converted to the number of industries by column sector of the Basic Transaction Table. When doing so, the attempts are made to bring the industrial classifications as close as possible to activity concepts, by taking occupational structure and management structure into consideration.

In the end, if there is data from which activities can be further accurately comprehended, figures are replaced by values that are estimated based on such other data where necessary. In addition, consistency with employer income and wage per capita is also verified and revised.

4 Employment Matrix (Table on Employees Engaged in Production Activities [by Occupation])

(1) Concepts

The employment matrix gives a breakdown into occupational categories of paid executives and employees by production activity sectors, obtained from the above table on persons engaged in production activities. The employment matrix can indicate the number of employees by occupation and in terms of production activities. In addition, calculating occupational inducement coefficients makes it possible to analyze how many of what types of employees is required due to changing economic structures or other factors.

(2) Compilation method

To compile the employment matrix, the occupational component ratios by industries are compiled for paid executives and employees from the Population Census data.

Next, by using the correspondence between “sectors” of the Input-Output Tables and “industries” of the Population Census, obtained during the employment table compilation process, the occupational component ratios by industries are transformed in accordance with the sector concepts of the medium aggregated sectors (108 sectors) of the Input-Output Tables (105 sectors in actuality, as “House rent (imputed rent),” “self-transport,” and “office supplies” are excluded).

Chart 5-3 Relationship Between Basic Transaction Table, Table on Persons Engaged in Production Activities and Employment Matrix

[1] Basic Transaction Table

	A	B	C…	Final demand	Domestic production
A					
B					
C					
⋮					
Gross Value Added					
	Compensation of employees				
	Operating surplus				
Domestic production					

[2] Table on Employees Engaged in Production Activities

	T0tal	Self-employed workers	Family workers	Paid directors・employees	Paid directors	Employees	Regular employees	Full-time employees	Part-time employees	Temporary employees	Per captial compensation of paid directors and employees / Per captal wages of regular employees
A	…	…	…	…	…	…	…	…	…	…	
B	75	10	5	60	10	50	35	23	12	15	
C	…	…	…	…	…	…	…	…	…	…	
⋮	…	…	…	…	…	…	…	…	…	…	
Total	…	…	…	…	…	…	…	…	…	…	

(Note) Since the incomes of self-employed workers occupy only part of the operating surpluses, and since family workers are in principle unpaid, these numbers are estimated, regardless of the gross value added.

[3] Table on Employees Engaged in Production Activities

	Occupation				
	Researcher	Engineer	Medical service provider	・・・・・・・・・・・・	Total
A	…	…	…		…
B	5	12	8	・・・・・・・・・・・・	60
C	…	…	…	・・・・・・・・・・・・	…
⋮	…	…	…	・・・・・・・・・・・・	…
計	…	…	…	・・・・・・・・・・・・	…

(Note) The "occupation" is classified into 227 types, including "Unable to classify."

Production activity sectors are comprised of 108 sectors of medium aggregated sector classifications (since "house rent (imputed rent)","self-transport" and "office supplies" are excluded, the actual number is 105).

When making converting these ratios mechanically, there are instances where there is no consistency between the activity and occupation. Thus, by taking the definition of sectors into consideration, a process of eliminating occupations that should be categorized under other sectors and adding occupations that have been omitted is carried out.

Next adjustments are made so that the figures match with the range of the number of employees by sector estimated in the employment matrix.

Finally, consistency between the numbers of employees by occupation estimated by considering the number of those with public qualifications and the status of main and subsidiary businesses and the numbers of employees by occupation in respective sectors obtained above should be flowed up and reconciled.

5 Fixed Capital Matrix (Table on Fixed Capital Formation)

(1) Concepts

The "gross domestic fixed capital formation" basically covers the transaction values of reproducible capital assets with purchaser unit price of 100,000 yen or more and utility duration of one year or longer, including buildings, machinery, and equipment, as well as growth and increase of productive capital services provided by livestock and fruit trees. (please refer to Section 2, Chapter 7).

From the 1995 Input-Output Tables, intangible fixed assets have also been included under capital formation to cover the software industry. Similarly, mineral exploration is included under "Miscellaneous business services."

In the Basic Transaction Table, fixed capital formation is treated as "total domestic fixed capital formation (public)" and "total domestic fixed capital formation (private)" merely to record the total capital goods in the column vectors. It is thus impossible to identify how much capital formation has occurred in which sector.

The table on fixed capital formation (fixed capital matrix) supplements the Basic Transaction Tables. As indicated in Chart 5-4[2], the fixed capital matrix can indicate which and how much capital goods and have been purchased ("capital formation") by which column sectors ("capital formation sectors") for different investment entities (public or private).This data then makes it possible to conduct dynamic input-output analyses that treat capital formation values at column sectors as endogenous variables, and cost analyses including capital formation, etc.

The capital formation sectors at the top of the fixed capital matrix in Chart 5-4[2] are based in principle on the medium aggregated sector classifications (105 sectors).

Chart 5-4 Relationship Between the Basic Transaction Table and Fixed Capital Matrix

[1] Basic Transaction Table

	A	B	C	D	…	Consumption	Domestic total fixed capital formation (public)	Domestic total fixed capital formation (private)	Exports	Domestic production
A	…	…	…	…	…		200			
B	…	…	…	…	…		500			
C										
D										
・										
・										
・										
Gross value added										
Domestic production										

(Note) The fixed capital formation recorded in the final demand in a lump sum is distributed to output destinations to formulate the "fixed capital matrix."

[2] Fixed Capital Matrix

Capital formation sector / Sector of capital goods	Total	Agriculture	Steel	Construction	…	Other		
						Road	Housing	…
A	200			50		100	50	
B	500	50	200	100			150	
C								
D								
・								
・								
Total								

(Note) Three types of tables are compiled: public, private, and public + private

Table 5-2 Detailed Classification and Scope in "Other"

Classification	Scope
Road	Road businesses (including maintenance, repair, restoration after disaster operations, etc.) and street business. However, toll road businesses are classified under "transportation services"
Housing	Owner-occupied units, built-for-sale units (urban renaissance agency, and private) (sold urban renaissance agency units are "private," but unsold ones are "public"). Rental units and company housing units are included in the "real estate (rental housing rents).
Environment and hygiene	City parks (including maintenance, repair, restoration after disaster operations, etc.), natural parks, public parks, drainage. Water-supply facilities and waste disposal facilities are classified under "water supply"
Land conservation	Soil conservation (special accounts for National Forest Service) (including maintenance, repair, restoration after disaster operations, etc.) and water control (special accounts for social infrastructure improvement), coastal preservation business, forest reserves, mine pollution recovery business
Land development	Residential land development, industrial land development, reclamation

Fixed capital formation includes general social capital, which cannot be treated as capital for production activities at specific sectors such as housing, roads, and parks. Such capital is defined as "Other" under the medium aggregated sector classification. The classifications and scopes are as indicated in Table 5-2. Furthermore, in the fixed capital formation, the cost trade margins generation of scrap and by-products are excluded from the scope of the fixed capital matrix.(Note)

(Note) The fixed capital matrix targets capital goods that were produced in the target year for compilation of Input-Output Tables, and that were recorded as domestic production.

Scraps and by-products consist of those that were output in the target year for compilation of Input-Output Tables, but as they were output collaterally in the process of production activities of other goods, they are recorded based on the negative input method and, as a result, are not included in domestic production of row sectors. As a result, they are excluded from the fixed capital matrix.

Cost trade is associated with, for example, transaction of secondhand goods, but the secondhand goods themselves that are subject to transactions are fundamentally not those that are produced in the target year for compilation of Input-Output Tables, and their prices are not recorded in the Basic Transaction Table. Accordingly, cost trade is not targeted in the fixed capital matrix.

(2) Compilation method

Compilation of the fixed capital matrix for both public and private sector capitals begins with estimates of breakdowns by output destination for respective capital goods (capital formation sectors) based on data such as the Survey of Capital Goods Demand Structure, Economic Census for Business Activity, Survey of Building Construction Started, and domestic production in detailed items, etc. Necessary adjustments are then made, based on specific information from the input sectors.

All capital goods concerning the goods rental and leasing sectors are estimated by the Ownership approach.

6 Table on Commodity Output by Industry (Make table)

(1) Concepts

The Basic Transaction Table is a table of [row] commodity × [column] unit of production activity (activity). For activities of business sites that are producing and providing multiple types of goods and services, the table is compiled by ranking such goods and services in the corresponding multiple sectors in accordance with the type of each.

As a result, when analyzing the kinds of effects of production spillover that will be obtained due to the results of analysis of Input-Output Tables in relation to each industry that is classified as a unit of business site, separate information that indicates the relationship between business sites and commodities becomes necessary.

In order to meet this kind of request, the table on commodity output by industry (hereinafter referred to as "V table") indicates what kinds of goods and services are produced and provided by each industry, regardless of whether they are produced and provided as a main business or side business, by industry ranking of the business

site (for activities of business sites that produce and provide multiple types of goods and services, industry ranking is based on the main types of goods and services).

The V table is a matrix representation where the side (rows) represents industry sectors and head (columns) represents commodity sectors. Accordingly, the row sum represents the total output by industry, and the column sum represents the total output by commodity.

The industry sectors on the side of the table are broadly divided into [1] industry, [2] producers of government services, and [3] producers of private non-profit services for households, depending on the transactor-based production activity classification. In principle, although these are established in a format where they correspond to medium aggregated classifications (108 sectors), segmentalization is carried out for some sectors. Also, the commodity sectors in the table head are set so that they correspond one-on-one in terms of format with the industry sectors on the side of the table. Accordingly, the V table is a square matrix table (table of 125 sectors) where rows are industry classifications and columns are commodity classifications.

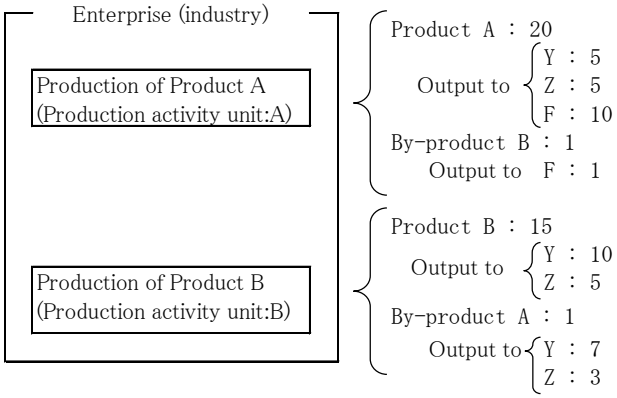
(2) Compilation method

In compiling V tables, the necessary numbers are obtained by carrying out recombined tabulation of shipment amounts by industry and by commodity that are obtained from the results of the Economic Census for Business Activity in accordance with the sector classifications of the V table. Furthermore, various statistical materials are used to carry out estimations and adjustments, and figures are established.

In the Basic Transaction Table, outputs of scraps and by-products that use the negative input method are not included in domestic production. However, the V table is compiled by including the outputs (absolute values) of scraps and by-products. As a result, the total by commodity (output by commodity = each row total in the V table) matches the total of “domestic production + the value of scraps and by-products (endogenous sectors)” (the value of scraps and by-products in the final demand sector are not recorded since they do not fall under the concept of the V table) (Chart 5-5[3]).

Chart 5-5 Enterprises and Production Activity Units

[1] Case



[2] Basic Transaction Table

		Intermediate demand					Final demand	Domestic production
		A	B		Y	Z	F	
Intermediate input	A	0	△10	…	12	8	10	20
	B	△1	…	…	10	5	1	15
		…	…	…	…	…	…	…
	Y	5	3	…	…	…	…	…
	Z	10	12	…	…	…	…	…
Gross value added		…	…	…	…	…		
		6	10	…	…	…		
		…	…	…	…	…		
Domestic production		20	15	…	…	…		

[3] Table on Commodity Output by Industry (Make table)

[3] Table on Commodity Output by Industry (Make table)

		Product(goods and services)					Total
		A	B		Y	Z	
Industry	A	30	16	…	…	…	46
	B	…	…	…	…	…	…
		…	…	…	…	…	…
	Y	…	…	…	…	…	…
	Z	…	…	…	…	…	…
Total		30	16	…	…	…	…
Scrap and by-products		10	1	…	…	…	…
Domestic production		20	15	…	…	…	…

[Explanation]

Here, as shown in [1], a business site that produces Commodity A and Commodity B is envisioned.

At this business site, one unit of Commodity B is produced as a by-product in the process for producing 20 units of Commodity A. At the same time, 10 units of Commodity A are produced as a by-product in the process for producing 15 units of Commodity B.

As a result, as a whole, the business site produces 30 units of Commodity A and 16 units of Commodity B. Since Commodity A is the main product, the business site is ranked as being of Industry A.

In the Basic Transaction Table ([2]), the by-product is negatively recorded in the output sector, and by recording this as a positive in the output destination, it is canceled out for the row sector. As a result, Commodity B (by-product) that is produced in production activities for Commodity A is recorded as "△1" at the intersection of [column] Sector A and [row] Sector B, and at the same time, "1" is recorded at the intersection of the output destination [column] F and [row] B, canceling each other out. In addition, Commodity A (by-product) that is output in the process of production activities for Commodity B is recorded as "△10" at the intersection of [column] Sector B and [row] Sector A. At the same time, "7" and "3" are included at the intersection of the output destinations [column] Y and [column] Z, respectively, with [row] B. As a result, in the Basic Transaction Table, domestic production of Commodity A is 20 and that of Commodity B is 15.

In the V table, ([3]), since the side of the table represents the industry ranking of the business site, the activities of this business site are all recorded in row A. Since the production amount of Commodity A was 30 units, including the output (absolute value) of by-products, and the production amount of Commodity B was 16 units, including the output (absolute value) of by-products, "30" is recorded at the intersection of [row] Sector A and [column] Sector A, and "16" is recorded at the intersection of [row] Sector A and [column] Sector B.

7 Table on Self-Transports

(1) Concepts

The table on self-transports indicates the detailed goods and services input for activities related to "Self-transport by private cars (passengers)" and "Self-transport by private cars (freight)," which are dummy sectors representing self-activities, under the column sector of the Basic Transaction Table (refer to Chart 5-6).

In Basic Transaction Table, expenses for fuel, non-life insurance, and auto repairs, etc., input by each column sector to conduct self-transport activities are not recorded directly at the intersection of the respective column sectors and the rows of the goods and services. Instead, the expenses required for self-transport activities for passenger and freight services are aggregated and the "Self-transport by private cars (passengers)" and "Self-transport by private cars (freight)" are regarded as input in a lump sum. It is thus impossible to identify the breakdown of the expenses required for the self-transport activities in each column sector.

The table on self-transports is compiled as a supplementary table to fill the gap, revealing the input structure of goods and services required for self-transport activities at each column sector and the status of the output of goods and services required for self-transport activities to each column sector.

"Self-Transport" sector is dummy sector, and doesn't record value added.

(2) Compilation method

The table on self-transports is compiled in parallel with the compilation of the Basic Transaction Table, as follows.

i) Each column sector distributes the expenses required for self-transport proportionately from the goods and services input to date, accumulates these figures, and estimates the inputs for "Self-transport by private cars (passengers)" and "Self-transport by private cars (freight)."

ii) In parallel with i), inputs of goods and services are estimated from various data for private automobiles in both sectors of "Self-transport by private cars (passengers)" and "Self-transport by private cars (freight)." The output of each column is also estimated. Input and output to the private automobile sector are established by making the necessary adjustments with the relevant sectors.

iii) With the input of the self-transport sector obtained in ii) above and the output of the self-transport sector to each column as CT (Control Totals), the table on self-transport of the preceding table and various data on the subsequent changes of the self-transport activities at each industry are used to distribute the input of the column sectors, which are then adjusted with the output sectors (including readjustments for cases in which the figures of ii) need to be changed at this stage) to complete the table on self-transport.

The Basic Transaction Table has been compiled in two formats: one indicating the self-transport sectors at columns and rows, and one not setting self-transport sectors, with each sector directly inputting goods and services related to self-transport. The two formats are offered to meet varying needs.

Chart 5-6 Relationship Between Basic Transaction Table and Table on Self-Transports

[1] Basic Transaction Table

	A	B	C	D	Self-transport	E	Final demand	Domestic production
A			(5)		20			
B		Disaggregated	(20)		80			
C			(5)		30			
D			(0)		10			
Self-transport	20	40	30	50	(0)	10	·····	150
E			(0)		10			
Gross value added					· · 0			
Domestic production					150			

(Note) Expenses concerning self-transport aggregated and recorded in the self-transport sectors in the rows of the Basic Transaction Table are disaggregated into each row sector to produce the table on self-transports.

[2] Table on Self-Transports

	A	B	C	D	E	Total
A	···	···	5	···	···	20
B	···	···	20	···	···	80
C	4	8	5	10	3	30
D	···	···	0	···	···	10
E	···	···	0	···	···	10
Total	20	40	30	50	10	150

(Note) [2] is a representational image of Sector C from [1]

〔Reference 2〕 Table on Trade Margins and Table on Domestic Freights

(1) Concepts

These two tables show, in matrix form, distribution expenses, or trade margins and domestic freight, for transactions involving goods between each sector recorded in the Basic Transaction Table.

In the Basic Transaction Table (output table), trade margins (wholesale and retail trade margins) and domestic freights (freights for seven transport modes) that are included in individual transaction amounts are represented in the basic sector classification (518 row sectors × 397 column sectors) and minor aggregated classification (190 sectors). However, it is not possible to extract and form a list of only the state of trade margins and domestic freights.

Thus, the "Table on Trade Margins" and "Table on Domestic Freights" are compiled (provided on the Internet), in which the trade margin amounts and domestic freight amounts that are included in individual transaction amounts are extracted and made into a list using medium aggregated classification (108 sectors).

(2) Types and scopes of tables on trade margins and tables on domestic freights

[1] Tables on trade margins

Tables on trade margins are compiled for wholesale margins and retail trade margins. They do not include commissions received by agencies from the import and export of goods (recorded in "special trade") and cost trade margins, such as trade margins derived from second-hand goods. In addition, freight paid by trade sectors is excluded from trade margins that treated as domestic freight.

[2] Tables on domestic freights

Tables on domestic freights are compiled for domestic freight and fees derived from operating transportation activities.

Freight incurred outside the Japanese territory in international transportation and "cost transport margins" are not counted as domestic freight.

Tables on domestic freights are compiled by estimating the transportation expenses incurred in each transaction by the following seven transport modes:

i) Railway freight transport

ii) Road freight transport

iii) Coastal and inland water freight transport

iv) Port transport

v) Domestic air freight transport

vi) Handling of freight transport

vii) Warehouse

Chart 5-7 Relationships Between Basic Transaction Tables and Tables on Trade Margins and Tables on Domestic Freights

[1] Input-Output Table at Producers' Prices (Model)

		Intermediate demand					Final demand	Domestic production
		A	B	C	Commerce	Transport	·····	
Intermediate input	A		20					
	B	40	40	70	40	10	····· 100	300
	C		110					
	Trade margins							
	Commerce		50				···	900
	Domestic freights							
	Transport		30				···	700
Gross value added	・ ・ ・ ・ ・ ・		・ ・ ・ ・ ・ 50					
Domestic production			300					

(Note) Input-Output Tables at purchasers' prices can be compiled by recording the trade margins and domestic freights recorded as a lump sum at the intersections of the commerce (row) and the transport (row) at each demanding sector (column) in the Basic Transaction Tables, by input goods of the relevant column sectors.

[2] Input-Output Table at Purchasers' Price (Model)

		Intermediate demand					Final demand	Total demand	Deduction		Domestic production
		A	B	C	Commerce	Transport	·····		Trade margins	Domestic freight	
Intermediate input	A		30 (5+5)								
	B	55 (10+5)	55 (10+5)	90 (12+8)	70 (18+12)	15 (3+2)	····· 125 (17+8)	410	-70	-40	300
	C		165 (35+20)								
	Commerce		0					0	900	0	900
	Transport		0					0	0	700	700
Gross value added	・ ・ ・ ・ ・ ・		・ ・ ・ ・ ・ 50								
Domestic production			300								

(Note) The values inside the parentheses ( ) signify "(Trade margins + Domestic freights)," and schematically indicate the relationship that they are numbers included in transaction amounts. These values are extracted and turned into the lists in "Table on Trade Margins" ([3]) and "Table on Domestic Freights" ([4]) based on the medium aggregated classification.

In the actual Input-Output Table at purchasers' price, the trade margins (wholesale and retail trade margins) and domestic freights (freights for seven transport modes) for individual transaction amounts are represented in the output tables for basic sector classification and minor aggregated classification, and not represented in this kind of matrix form.

[3] Table on Trade Margins (Model)

		Intermediate demand					Final demand	Total
		A	B	C	Commerce	Transport	·····	
Intermediate input	A		5					
	B	10	10	12	18	3	17	70
	C		35					
	Commerce		-50					-900
	Transport		0					
Total			0					0

(Note) This is compiled by removing trade margins from the Input-Output Table at purchasers' price.

[4] Table on Domestic Freights (Model))

		Intermediate demand					Final demand	Total
		A	B	C	Commerce	Transport	·····	
Intermediate input	A		5					
	B	5	5	8	12	2	8	40
	C		20					
	Commerce		0					0
	Transport		-30					-700
Total			0					0

(Note) This is compiled by taking out domestic freight from the Input-Output Table at purchasers' price.

(3) Compilation method of table on trade margins

Tables on trade margins are compiled in the following manner.

[1] Removing the total trade margins by wholesale and retail trade

By correcting the results of recombined tabulation of the "Economic Census for Business Activity," the total trade margins by wholesale and retail are estimated. This total amount is the domestic production amount for the wholesale and retail industries.

[2] Estimating the transaction value subject to trade margins

For individual transactions, estimate the ratios of transactions not covered by trade margins and of transactions whose margin ratios differ.

The factors generating or not generating trade margins or generating the difference of margin ratios in different transactions can include the following:

i) Consumption in one's own factory

ii) Consumption in other factories of one's own company

iii) Direct sales to other companies (without intermediary wholesale or retail trade; as for wholesale trade, direct sales without intermediary retail trade)

iv) Whether there is a ratio of discount margins

v) Whether there is a kickback

vi) Differences between distribution systems

vii) Whether there is multistage distribution (such as first, second, and third wholesale)

viii) Differences due to large- and small-sized transactions

[3] Estimating trade margins by each transaction

Wholesale and retail trade margins are estimated by each transaction based on the results of i) and ii).

(4) Compilation method of table on domestic freights

Overviews of the method of compiling the tables on domestic freight are as follows.

[1] Estimating domestic production in the transport sector

"Freight" as domestic production in transport sectors, including cost transport margins, is estimated for seven transport modes.

Aggregate domestic production in the transport sector (CT) [1] for the seven transport modes.

			CT
Transport			①
CT			

[2] Estimating freight by row sector (transport commodities)

First, classify the freight established by the seven transport modes broadly for the respective transport commodity groups, then gradually divide into smaller commodity groups. Finally, estimate freight by row sector (transport commodities).

Next, estimate the freight by row sector (F) ②. The total of ② is equal to ①.

		CT	F
			②
Transport		①	
			②

		CT	F	
			F'	Cost transport margin
			F_i'	③
Transport		①		
			F_i'	③

Domestic freight

[3] Separation of cost transport margins

From the freight established for the respective row sectors, separate the cost transport margins by row sector (commodities) estimated. Estimate the freight by row sector to be covered by the freight.

[4] Estimating the transaction value subject to freight

Not all transactions involving goods require freight, nor is the ratio of freight in all transactions constant. In consideration of these facts, makes it judgment which part of each transaction value, by each good and its output sector (column sector), is subject to freight and, contrary, which part is not subject to freight. At the same time, the "Table of the Ratio Not Subject to Freight" by each transaction is compiled in view of the ratio of freight in the transactions subject to freight.

The following factors presumably caused the differences in the ratio not subject to freight:

- Whether the portion was consumed in one's own factory and its ratio
- The ratio of the self-transport portion
- Whether pipeline transport is involved
- Difference in the distance of transport
- Whether discount freight is applied

Next, the "transaction value subject to freight in each transaction" is computed by multiplying each transaction value by [1 - the ratio not subject to freight]. Then, this is totaled by row sector, and the "transaction value subject to freight by row sector" is estimated.

[5] Computation of freight by each transaction

The ratio of freight by row sector to the transaction value subject to freight by row sector is defined as the "ratio of freight by row sector." "Freight by each transaction" is computed by multiplying the "ratio of freight by row sector" by the transaction value subject to freight by each transaction obtained in iv).

$$F'_{ij} = X'_{ij} \frac{F'_i}{X'_i}$$

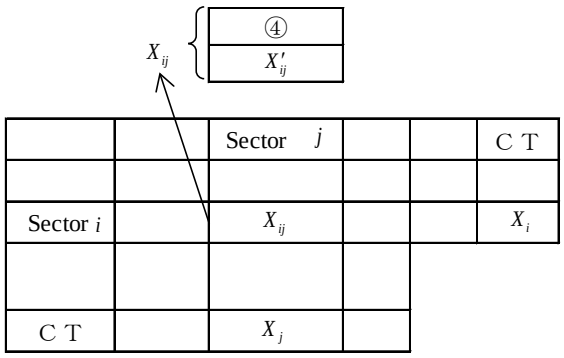
Notes:

F'_{ij} : Freight by each transaction excluding cost transport margins

X'_{ij} : Transaction value subject to freight by each transaction excluding cost transport margins

F'_i : Freight by row sector excluding cost transport margins

X'_i : Transaction value subject to freight by row sector excluding cost transport margins



$\frac{④}{X_{ij}} = n_{ij}$ = Freight non-coverage ratios

$\sum_j X'_{ij} = X'_i =$ Transaction to be covered by freight in Sector i

$\frac{F'_i}{X'_i} =$ Freight ratio in Sector i

[Reference 3] Table on Imports

(1) Concepts

The Table on Imports specially targets the imports included in transactions between each sector represented in the Basic Transaction Table (total of ordinary trade, special trade, direct purchases, customs duties, as well as import commodity taxes), and shows these imports in the form a matrix.

For the basic sector classification (518 row sectors × 397 column sectors) and minor aggregated classification (190 sectors), the imports included in individual transaction amounts are included in the Basic Transaction Table (input table/output table), but it is not possible to extract and form a list of only the state of imports.

Thus, the imports included in individual transaction amounts are extracted, and a "Table on Import" that makes these imports into a list based on the medium aggregated classification (108 sectors) is compiled (provided on the Internet).

Chart 5-8 Relationship Between Basic Transaction Table and Table on Imports

[1] Input-Output Tables at Producers' Price (Model)

	A	B	C	D	Consumption	Fixed capital formation, etc.	Exports	Import deduction	Domestic production
A	…	60 (10)	…	…	…	…	…	…	…
B	20 (5)	10 (0)	50 (15)	10 (0)	20 (10)	15 (5)	10 (0)	-35 (-35)	100
C	…	10 (5)	…	…	…	…	…	…	…
D	…	5 (0)	…	…	…	…	…	…	…
	…	…	…	…					
Gross value added	…	…	…	…					
	…	15	…	…					
Domestic production	…	100	…	…					

(Note) Figures in parentheses indicate transaction amounts for imported goods and are included in the above figures.

[2] Table on Import (Model)

	A	B	C	D	Consumption	Fixed capital formation, etc.	Exports	Total
A	…	10	…	…	…	…	…	…
B	5	0	15	0	10	5	0	35
C	…	5	…	…	…	…	…	…
D	…	0	…	…	…	…	…	…
	…	15	…	…	…	…	…	…

(2) Compilation method

In compilation of the table on imports, the demand figures for each column sector are estimated for "ordinary trade," "special trade," "direct purchases," "customs duties," and "import commodity taxes" in the respective row sectors. Estimates are made as follows:

[1] Ordinary trade

Imports by row sector in the Basic Transaction Tables (row vector) are first calculated by reclassifying the Foreign Trade Statistics to the Input-Output Table sectors. For these imports, demand figures for respective row sectors are then estimated, based on the product characteristics of the individual imported goods belonging to each row sector (Note: 9-digit items of the HS classifications) and the preliminary import tables.

[2] Special trade

Demand sectors are determined in accordance with the product characteristics of the goods and services to distribute import figures by row sector.

As for row sectors for which demand sectors cannot be determined, distributions are made using the import ratios of the row sectors (imports/domestic final demand).

[3] Direct purchases

Total amounts are recorded in household consumption expenditure sectors, based on the concepts, definitions and scopes.

[4] Custom duties

Individual import items (9-digit items of HS classification) have been examined to determine whether customs duties are applied; if so, they are estimated accordingly.

As for imported items for which application of the customs duties cannot be determined, duties are distributed in accordance with the ratios of demanders to the imports by row sector concerning ordinary trade.

[5] Import commodity taxes

Determine the demand sectors for import items to be taxed. Taxes are distributed in accordance with the transaction ratios of the relevant sectors. Consumption taxes on imported items are distributed in accordance with the ratios of demand sectors to ordinary trade to which is added customs duties and import commodity taxes.

Import tables based on the basic sector classification (518 row sectors, 397 column sectors) and minor aggregated sector classification (190 sectors) are not compiled. However, the functions of import tables are secured by indicating import breakdowns for individual transactions in the "output tables" and in the "input tables."

(Note) Used in the import item list of the Monthly Trade Statistics (Ministry of Finance), these are 9-digit codes regulated in accordance with the HS (Harmonized Commodity Description and Coding System: a unified system of product names and classifications) Treaty.

CHAPTER Ⅵ
SECTOR CLASSIFICATION (Basic Sector, Aggregated Sector, and Special Classification)

1 Basic Sector Classification and Aggregated Sector Classification

Endogeneous Sectors

1 Basic Sector Classification (518 Rows x 397 Columns)			2 Aggregated Sector Classification					
			190 Sector Classification		108 Sector Classification		34 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column	Row Code							
0111 -01		Rice	0111	Grains	011	Crop cultivation	01	Agriculture, forestry and fishery
	0111 -011	Rice						
	0111 -012	Rice straw						
0111 -02		Wheat, barley and the like						
	0111 -021	Wheat (domestic)						
	0111 -022	Wheat (imported)						
	0111 -023	Barley (domestic)						
	0111 -024	Barley (imported)						
0112 -01		Potatoes and sweet potatoes	0112	Potatoes, beans				
	0112 -011	Sweet potatoes						
	0112 -012	Potatoes						
0112 -02		Pulses						
	0112 -021	Soybeans (domestic)						
	0112 -022	Soybeans (imported)						
	0112 -029	Miscellaneous pulses						
	0113 -001	Vegetables	0113	Vegetables				
0113 -01		Vegetables (outdoor)						
0113 -02		Vegetables (under facilities)						
0114 -01		Fruits	0114	Fruits				
	0114 -011	Citrus fruits						
	0114 -012	Apples						
	0114 -019	Miscellaneous fruits						
0115 -01	0115 -011	Sugar crops	0115	Miscellaneous edible crops				
0115 -02		Crops for beverages						
	0115 -021	Green coffee and cocoa beans (imported)						
	0115 -029	Miscellaneous crops for beverages						
0115 -09		Miscellaneous edible crops						
	0115 -091	Miscellaneous cereals						
	0115 -092	Oil seeds						
	0115 -099	Edible crops, n e c						
0116 -01	0116 -011	Feed and forage crops	0116	Inedible crops				
0116 -02	0116 -021	Seeds and seedlings						
0116 -03	0116 -031	Flowers and plants						
0116 -09		Miscellaneous inedible crops						
	0116 -091	Leaf tobacco						
	0116 -092	Raw rubber (imported)						
	0116 -093	Raw cotton (imported)						
	0116 -099	Inedible crops, n e c						
0121 -01		Dairy cattle farming	0121	Livestock	012	Livestock		
	0121 -011	Raw milk						
	0121 -019	Miscellaneous dairy farming products						
0121 -02	0121 -021	Beef cattle						
0121 -03	0121 -031	Hogs						
0121 -04	0121 -041	Hen eggs						
0121 -05	0121 -051	Chickens						
0121 -09		Miscellaneous livestock						
	0121 -091	Sheep and lamp wool						
	0121 -099	Livestock, n e c						
0131 -01	0131 -011	Veterinary service	0131	Agricultural services	013	Agricultural services		
0131 -02	0131 -021	Agricultural services (except veterinary service)						
0151 -01	0151 -011	Silviculture	0151	Silviculture	015	Forestry		
0152 -01		Logs	0152	Logs				
	0152 -011	Logs (domestic)						
	0152 -012	Logs (imported)						
0153 -01	0153 -011	Special forest products (including hunting)	0153	Special forest products				
0171 -01		Marine fishery	0171	Marine fishery	017	Fishery		
	0171 -011	Marine fishery (domestic)						
	0171 -012	Marine fishery (imported)						
0171 -02	0171 -021	Marine aquaculture						
	0172 -001	Inland water fishery and inland water aquaculture	0172	Inland water fishery				
0172 -01		Inland water fishery						
0172 -02		Inland water aquaculture						

Endogeneous Sectors								
1 Basic Sector Classification (518 Rows x 397 Columns)			2 Aggregated Sector Classification					
			190 Sector Classification		108 Sector Classification		34 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column	Row Code							
0611 -01		Metallic ores	0611	Metallic ores	061	Metallic ores	06	Mining
	0611 -011	Iron ores						
	0611 -012	Non-ferrous metallic ores						
0621 -01		Coal mining, crude petroleum and natural gas	0621	Coal mining, crude petroleum and natural gas	062	Coal mining, crude petroleum and natural gas		
	0621 -011	Coal mining						
	0621 -012	Crude petroleum						
	0621 -013	Natural gas						
0631 -01	0631 -011	Gravel and quarrying	0631	Gravel and quarrying	063	Non-metallic ores		
0631 -02	0631 -021	Crushed stones						
0639 -09		Miscellaneous ores	0639	Miscellaneous ores	063	Non-metallic ores	06	Mining
	0639 -091	Limestone						
	0639 -092	Materials for ceramics (except limestone)						
	0639 -099	Ores, n e c						
1111 -01		Meat	1111	Meat	111	Foods	11	Beverages and Foods
	1111 -011	Beef						
	1111 -012	Pork						
	1111 -013	Chicken meat						
	1111 -014	Miscellaneous meat						
	1111 -015	By-products of slaughtering and meat processing						
1112 -01	1112 -011	Processed meat products	1112	Dairy products				
1112 -02	1112 -021	Bottled or canned meat products						
1112 -03		Dairy farm products						
	1112 -031	Drinking milk						
	1112 -032	Dairy products						
1113 -01	1113 -011	Frozen fish and shellfish	1113	Processed seafood				
1113 -02	1113 -021	Salted, dried or smoked seafood						
1113 -03	1113 -031	Bottled or canned seafood						
1113 -04	1113 -041	Fish paste						
1113 -09	1113 -099	Miscellaneous processed seafood						
1114 -01		Grain milling	1114	Grain milling				
	1114 -011	Milled rice						
	1114 -019	Miscellaneous grain milling						
1114 -02		Flour and miscellaneous grain milled products						
	1114 -021	Wheat flour						
	1114 -029	Miscellaneous grain milled products						
1115 -01	1115 -011	Noodles	1115	Noodles, bread, confectionery				
1115 -02	1115 -021	Bread						
1115 -03	1115 -031	Confectionery						
1116 -01	1116 -011	Bottled or canned vegetables and fruits	1116	Preserved agricultural food stuffs				
1116 -02	1116 -021	Preserved agricultural foodstuffs (except bottled or canned)						
1117 -01		Sugar	1117	Sugar, oils, condiments and seasoning				
	1117 -011	Refined sugar						
	1117 -019	Miscellaneous sugar and by-products of sugar manufacturing						
1117 -02	1117 -021	Starch						
1117 -03	1117 -031	Dextrose, syrup and isomerized sugar						
1117 -04		Animal oil and fats, vegetable oil and meal						
	1117 -041	Vegetable oil						
	1117 -042	Animal oils and fats						
	1117 -043	Cooking oil						
	1117 -044	Vegetable meal						
1117 -05	1117 -051	Condiments and seasonings						
1119 -01	1119 -011	Prepared frozen foods	1119	Miscellaneous foods				
1119 -02	1119 -021	Retort foods						
1119 -03	1119 -031	Dishes, sushi and lunch boxes						
1119 -04	1119 -041	School lunch (public) **						
1119 -05	1119 -051	School lunch (private) *						
1119 -09	1119 -099	Miscellaneous foods						
1121 -01	1121 -011	Refined sake	1121	Liquors	112	Beverage		
1121 -02	1121 -021	Malt liquors						
1121 -03	1121 -031	Whiskey and brandy						
1121 -09	1121 -099	Miscellaneous liquors						
1129 -01	1129 -011	Tea and roasted coffee	1129	Miscellaneous drinks				
1129 -02	1129 -021	Soft drinks						
1129 -03	1129 -031	Manufactured ice						
1131 -01	1131 -011	Feeds	1131	Feeds and organic fertilizers, n e c	113	Feeds and organic fertilizer, n e c		
1131 -02	1131 -021	Organic fertilizers, n e c						
1141 -01	1141 -011	Tobacco	1141	Tobacco	114	Tobacco		

Endogeneous Sectors								
1 Basic Sector Classification (518 Rows x 397 Columns)			2 Aggregated Sector Classification					
			190 Sector Classification		108 Sector Classification		34 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column	Row Code							
1511 -01	1511 -011	Fiber yarns	1511	Fiber yarns	151	Textile products	15	Textile products
1512 -01	1512 -011	Cotton and staple fiber fabrics (including fabrics of synthetic spun fibers)	1512	Fiber fabrics				
1512 -02	1512 -021	Silk and artificial silk fabrics (including fabrics of synthetic filament fibers)						
1512 -09	1512 -099	Miscellaneous fabrics						
1513 -01	1513 -011	Knitting fabrics	1513	Knitting fabrics				
1514 -01	1514 -011	Yarn and fabric dyeing and finishing (processing on commission only)	1514	Yarn and fabric dyeing and finishing				
1519 -09		Miscellaneous fabricated textile products	1519	Miscellaneous fabricated textile products				
	1519 -091	Ropes and nets						
	1519 -099	Fabricated textiles products, n e c						
1521 -01	1521 -011	Woven fabric apparel	1521	Wearing apparel	152	Wearing apparel and miscellaneous ready-made textile products		
1521 -02	1521 -021	Knitted apparel						
1522 -09	1522 -099	Miscellaneous wearing apparel and clothing accessories	1522	Miscellaneous wearing apparel and clothing accessories				
1529 -01	1529 -011	Bedding	1529	Miscellaneous ready-made textile products				
1529 -02	1529 -021	Carpets and floor mats						
1529 -09		Miscellaneous ready-made textile products						
	1529 -091	Fabricated textiles for medical use						
	1529 -099	Ready-made textile products, n e c						
1611 -01	1611 -011	Timber	1611	Lumber	161	Lumber and wood products	16	Pulp, paper and wooden products
1611 -02	1611 -021	Plywood, glued laminated timber						
1611 -03	1611 -031	Wooden chips						
1619 -09		Miscellaneous wooden products	1619	Miscellaneous wooden products	161	Lumber and wood products	16	Pulp, paper and wooden products
	1619 -091	Wooden products for construction						
	1619 -099	Wooden products, n e c						
1621 -01	1621 -011	Wooden furniture	1621	Furniture and fixtures	162	Furniture and fixtures		
1621 -02	1621 -021	Metallic furniture						
1621 -03	1621 -031	Wooden fixtures						
1621 -09	1621 -099	Miscellaneous furniture and fixtures						
1631 -01	1631 -011	Pulp	1631	Pulp	163	Pulp, paper, paperboard and building paper		
	1631 -021P	Used paper						
1632 -01	1632 -011	Paper	1632	Paper, paperboard				
1632 -02	1632 -021	Paperboard						
1633 -01	1633 -011	Corrugated cardboard	1633					
1633 -02	1633 -021	Coated paper and building (construction) paper						
1641 -01	1641 -011	Corrugated card board boxes	1641	Paper containers	164	Paper products		
1641 -09	1641 -099	Miscellaneous paper containers						
1649 -01	1649 -011	Paper textile for medical use	1649	Miscellaneous processed paper products				
1649 -09	1649 -099	Miscellaneous pulp, paper and processed paper products						
1911 -01	1911 -011	Printing, plate making and book binding	1911	Printing, plate making and book binding	191	Printing, plate making and book binding	39	Miscellaneous manufacturing products
2011 -01	2011 -011	Chemical fertilizer	2011	Chemical fertilizer	201	Chemical fertilizer	20	Chemical products
2021 -01		Industrial soda chemicals	2021	Industrial soda chemicals	202	Industrial inorganic chemicals		
	2021 -011	Soda ash						
	2021 -012	Caustic soda						
	2021 -013	Liquid chlorine						
	2021 -019	Miscellaneous industrial soda chemicals						
2029 -01		Inorganic pigment	2029	Miscellaneous industrial inorganic chemicals				
	2029 -011	Titanium oxide						
	2029 -012	Carbon black						
	2029 -019	Miscellaneous inorganic pigments						
2029 -02	2029 -021	Compressed gas and liquefied gas						
2029 -03		Salt						
	2029 -031	Crude salt						
	2029 -032	Salt						
2029 -09	2029 -099	Miscellaneous industrial inorganic chemicals						
2031 -01		Petrochemical basic products	2031	Petrochemical basic products	203	Petrochemical basic products		
	2031 -011	Ethylene						
	2031 -012	Propylene						
	2031 -019	Miscellaneous petrochemical basic products						
2031 -02		Petrochemical aromatic products (except synthetic resin)						
	2031 -021	Pure benzene						
	2031 -022	Pure toluene						
	2031 -023	Xylene						
	2031 -029	Miscellaneous petrochemical aromatic products						

Endogeneous Sectors								
1 Basic Sector Classification (518 Rows x 397 Columns)			2 Aggregated Sector Classification					
			190 Sector Classification		108 Sector Classification		34 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column	Row Code							
2041 -01		Aliphatic intermediates	2041	Aliphatic intermediates and cyclic intermediates	204	Organic chemical products (except petrochemical basic products)		
	2041 -011	Synthetic alcohol						
	2041 -012	Acetic acid						
	2041 -013	Ethylene dichloride						
	2041 -014	Acrylonitrile						
	2041 -015	Ethylene glycol						
	2041 -016	Acetic acid vinyl monomer						
	2041 -019	Miscellaneous aliphatic intermediates						
2041 -02		Cyclic intermediates						
	2041 -021	Styrene monomer						
	2041 -022	Synthetic phenol						
	2041 -023	Terephthalic acid (high purity)						
	2041 -024	Capro lactam						
	2041 -029	Miscellaneous cyclic intermediates						
2041 -03	2041 -031	Synthetic dyes and organic pigments						
2042 -01	2042 -011	Synthetic rubber	2042	Synthetic rubber				
2049 -01	2049 -011	Methane derivatives	2049	Miscellaneous basic organic chemical products				
2049 -02	2049 -021	Plasticizers						
2049 -09	2049 -099	Miscellaneous industrial organic chemicals						
2051 -01	2051 -011	Thermo-setting resins	2051	Synthetic resins	205	Synthetic resins		
2051 -02		Thermoplastics resins						
	2051 -021	Polyethylene (low density)						
	2051 -022	Polyethylene (high density)						
	2051 -023	Polystyrene						
	2051 -024	Polypropylene						
	2051 -025	Vinyl chloride resins						
2051 -03	2051 -031	High function resins						
2051 -09	2051 -099	Miscellaneous synthetic resins						
2061 -01	2061 -011	Rayon and acetate	2061	Synthetic fibers	206	Synthetic fibers		
2061 -02	2061 -021	Synthetic fibers						
2071 -01	2071 -011	Medicaments	2071	Medicaments	207	Medicaments		
2081 -01		Oil and fat products, soap, synthetic detergents and surface active agents	2081	Oil and fat products, soap, synthetic detergents, surface active agents and cosmetics	208	Final chemical products (except medicaments)		
	2081 -011	Oil and fat industrial chemicals						
	2081 -012	Soap and synthetic detergents						
	2081 -013	Surface active agents						
2081 -02	2081 -021	Cosmetics, toilet preparations and dentifrices						
2082 -01	2082 -011	Paint and varnishes	2082	Paint and varnishes, printing ink	208	Final chemical products (except medicaments)	20	Chemical products
2082 -02	2082 -021	Printing ink						
2083 -01	2083 -011	Photographic sensitive materials	2083	Photographic sensitive materials				
2084 -01	2084 -011	Agricultural chemicals	2084	Agricultural chemicals				
2089 -01	2089 -011	Gelatin and adhesives	2089	Miscellaneous final chemical products				
2089 -09		Miscellaneous final chemical products						
	2089 -091	Catalyzer						
	2089 -099	Final chemical products, n e c						
2111 -01		Petroleum refinery products (including greases)	2111	Petroleum refinery products	211	Petroleum refinery products	21	Petroleum and coal products
	2111 -011	Gasoline						
	2111 -012	Jet fuel oils						
	2111 -013	Kerosene						
	2111 -014	Light oils						
	2111 -015	Heavy oil A						
	2111 -016	Heavy oil B and C						
	2111 -017	Naphtha						
	2111 -018	LPG (liquefied petroleum gas)						
	2111 -019	Miscellaneous petroleum refinery products						
2121 -01		Coal products	2121	Coal products	212	Coal products		
	2121 -011	Coke						
	2121 -019	Miscellaneous coal products						
2121 -02	2121 -021	Paving materials						
2211 -01		Plastic products	2211	Plastic products	221	Plastic products	22	Plastic and rubber products
	2211 -011	Plastic films and sheets						
	2211 -012	Plastic plates, pipes and bars						
	2211 -013	Foamed plastic products						
	2211 -014	Industrial plastic products						
	2211 -015	Reinforced plastic products						
	2211 -016	Plastic containers						
	2211 -017	Plastic table ware, kitchen ware and miscellaneous household articles						
	2211 -019	Miscellaneous plastic products						

Endogeneous Sectors								
1 Basic Sector Classification (518 Rows x 397 Columns)			2 Aggregated Sector Classification					
			190 Sector Classification		108 Sector Classification		34 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column	Row Code							
2221 -01	2221 -011	Tires and inner tubes	2221	Tires and inner tubes	222	Rubber products	22	Plastic and rubber products
2229 -01	2229 -011	Rubber and plastic footwear	2229	Miscellaneous rubber products				
2229 -09	2229 -099	Miscellaneous rubber products						
2311 -01	2311 -011	Leather footwear	2311	Leather footwear	231	Leather, fur skins and miscellaneous leather products	39	Miscellaneous manufacturing products
2312 -01	2312 -011	Leather and fur skins	2312	Leather, fur skins and miscellaneous leather products				
2312 -02	2312 -021	Baggage, handbags, small leather cases and miscellaneous leather products						
2511 -01		Sheet glass and safety glass	2511	Glass and glass products	251	Glass and glass products	25	Ceramic, stone and clay products
	2511 -011	Sheet glass						
	2511 -012	Safety glass and multilayered glass						
2511 -02	2511 -021	Glass fiber and glass fiber products, n e c						
2511 -09		Miscellaneous glass products						
	2511 -091	Glass processing materials						
	2511 -099	Glass products, n e c						
2521 -01	2521 -011	Cement	2521	Cement and cement products	252	Cement and cement products		
2521 -02	2521 -021	Ready mixed concrete						
2521 -03	2521 -031	Cement products						
2531 -01		Pottery, china and earthenware	2531	Pottery, china and earthenware	253	Pottery, china and earthenware		
	2531 -011	Pottery, china and earthenware for construction						
	2531 -012	Pottery, china and earthenware for industry						
	2531 -013	Pottery, china and earthenware for home use						
2591 -01	2591 -011	Clay refractories	2591	Structural clay products	259	Miscellaneous ceramic, stone and clay products		
2591 -09	2591 -099	Miscellaneous structural clay products						
2599 -01	2599 -011	Carbon and graphite products	2599	Miscellaneous ceramic, stone and clay products				
2599 -02	2599 -021	Abrasive						
2599 -09	2599 -099	Miscellaneous ceramic, stone and clay products						
2611 -01	2611 -011	Pig iron	2611	Pig iron and crude steel	261	Pig iron and crude steel	26	Iron and steel
2611 -02	2611 -021	Ferro alloys						
2611 -03	2611 -031	Crude steel (converters)						
2611 -04	2611 -041	Crude steel (electric furnaces)						
	2612 -011P	Scrap iron	2612	Scrap iron				
2621 -01		Hot rolled steel	2621	Hot rolled steel	262	Steel products		
	2621 -011	Section steel (ordinary steel)						
	2621 -012	Steep plate (ordinary steel)						
	2621 -013	Steel strip (ordinary steel)						
	2621 -014	Steel bar (ordinary steel)						
	2621 -015	Miscellaneous hot rolled steel (ordinary steel)						
	2621 -016	Hot rolled steel (special steel)						
2622 -01		Steel pipes and tubes	2622	Steel pipes and tubes				
	2622 -011	Steel pipes and tubes (ordinary steel)						
	2622 -012	Steel pipes and tubes (special steel)						
2623 -01		Cold-finished steel	2623	Cold-finished steel, coated steel				
	2623 -011	Cold-finished steel (ordinary steel)						
	2623 -012	Cold-finished steel (special steel)						
2623 -02	2623 -021	Coated steel						
2631 -01		Cast and forged steel	2631	Cast and forged steel products	263	Cast and forged steel products		
	2631 -011	Forged steel						
	2631 -012	Cast steel						
2631 -02	2631 -021	Cast iron pipes and tubes	2631	Cast and forged steel products	263	Cast and forged steel products	26	Iron and steel
2631 -03		Cast and forged materials (iron)						
	2631 -031	Cast materials (iron)						
	2631 -032	Forged materials (iron)						
2699 -01	2699 -011	Iron and steel shearing and slitting	2699	Miscellaneous iron or steel products	269	Miscellaneous iron or steel products		
2699 -09	2699 -099	Miscellaneous iron or steel products						
2711 -01	2711 -011	Copper	2711	Non-ferrous metals	271	Non-ferrous metals	27	Non-ferrous metals
2711 -02	2711 -021	Lead and zinc (including regenerated lead)						
2711 -03	2711 -031	Aluminum (including regenerated aluminum)						
2711 -09	2711 -099	Miscellaneous non-ferrous metals						
	2712 -011P	Non-ferrous metal scrap	2712	Non-ferrous metal scrap				
2721 -01	2721 -011	Electric wires and cables	2721	Electric wires and cables	272	Non-ferrous metal products		
2721 -02	2721 -021	Optical fiber cables						
2729 -01	2729 -011	Rolled and drawn copper and copper alloys	2729	Miscellaneous non-ferrous metal products				
2729 -02	2729 -021	Rolled and drawn aluminum						
2729 -03	2729 -031	Non-ferrous metal castings and forgings						
2729 -04	2729 -041	Nuclear fuels						
2729 -09	2729 -099	Miscellaneous non-ferrous metal products						

Endogeneous Sectors								
1 Basic Sector Classification (518 Rows x 397 Columns)			2 Aggregated Sector Classification					
			190 Sector Classification		108 Sector Classification		34 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column	Row Code							
2811 -01	2811 -011	Metal products for construction	2811	Metal products for construction	281	Metal products for construction and architecture	28	Metal products
2812 -01	2812 -011	Metal products for architecture	2812	Metal products for architecture				
2891 -01	2891 -011	Gas and oil appliances and heating and cooking apparatus	2891	Gas and oil appliances and heating and cooking apparatus	289	Miscellaneous metal products		
2899 -01	2899 -011	Bolts, nuts, rivets and springs	2899	Miscellaneous metal products				
2899 -02	2899 -021	Metal containers, fabricated plate and sheet metal						
2899 -03		Plumber's supplies, powder metallurgy products and tools						
	2899 -031	Plumber's supplies						
	2899 -032	Powder metallurgy products						
	2899 -033	Cutlery and tools						
2899 -09		Miscellaneous metal products						
	2899 -091	Stamped and pressed metal products						
	2899 -092	Fabricated wire products						
	2899 -099	Metal products, n e c						
2911 -01	2911 -011	Boilers	2911	Boilers and engines	291	General-purpose machinery	29	General-purpose machinery
2911 -02	2911 -021	Turbines						
2911 -03	2911 -031	Engines						
2912 -01	2912 -011	Pumps and compressors	2912	Pumps and compressors				
2913 -01	2913 -011	Conveyors	2913	Conveyors				
2914 -01	2914 -011	Refrigerators and air conditioning apparatus	2914	Refrigerators and air conditioning apparatus				
2919 -01	2919 -011	Bearings	2919	Miscellaneous general-purpose machinery				
2919 -09		Miscellaneous general-purpose machinery						
	2919 -091	Mechanical power transmission equipment						
	2919 -099	General-purpose machinery, n e c						
3011 -01	3011 -011	Machinery for agricultural use	3011	Machinery for agricultural use	301	Production machinery	30	Production machinery
3012 -01	3012 -011	Machinery and equipment for construction and mining	3012	Machinery and equipment for construction and mining				
3013 -01	3013 -011	Textile machinery	3013	Textile machinery				
3014 -01		Daily lives industry machinery	3014	Daily lives industry machinary				
	3014 -011	Food processing machinery and equipment						
	3014 -012	Wood working machinery						
	3014 -013	Pulp equipment and paper machinery						
	3014 -014	Printing, bookbinding and paper-converting machinery						
	3014 -015	Packing machinery						
3015 -01	3015 -011	Chemical machinery	3015	Basic material industry machinery				
3015 -02		Casting equipment and plastic processing machinery						
	3015 -021	Casting equipment						
	3015 -022	Plastic processing machinery						
3016 -01	3016 -011	Metal machine tools	3016	Metal processing machinery				
3016 -02	3016 -021	Metal processing machinery						
3016 -03	3016 -031	Machinists' precision tools						
3017 -01	3017 -011	Semiconductor making equipment	3017	Semiconductor making equipment				
3019 -01	3019 -011	Metal molds	3019	Miscellaneous production machinery				
3019 -02	3019 -021	Vacuum equipment and vacuum component						
3019 -03	3019 -031	Robots						
3019 -09	3019 -099	Miscellaneous production machinery						
3111 -01	3111 -011	Copy machine	3111	Office machines	311	Business oriented machinery	31	Business oriented machinery
3111 -09	3111 -099	Miscellaneous office machines						
3112 -01		Machinery for service industry	3112	Machinery for service industry				
	3112 -011	Vending machines						
	3112 -012	Amusement machinery						
	3112 -019	Miscellaneous machinery for service industry						
3113 -01	3113 -011	Measuring instruments	3113	Measuring instruments				
3114 -01	3114 -011	Medical instruments	3114	Medical instruments				
3115 -01	3115 -011	Optical instruments and lenses	3115	Optical instruments and lenses				
3116 -01	3116 -011	Ordnance	3116	Ordnance				
3211 -01	3211 -011	Electron tubes	3211	Electronic devices	321	Electronic devices	32	Electronic components
3211 -02	3211 -021	Semiconductor devices						
3211 -03	3211 -031	Integrated circuits						
3211 -04	3211 -041	Liquid crystal panel						
3299 -01	3299 -011	Magnetic tapes and discs	3299	Miscellaneous electronic components	329	Miscellaneous electronic components		
3299 -02	3299 -021	Electric circuit						
3299 -09	3299 -099	Miscellaneous electronic components	3299	Miscellaneous electronic components	329	Miscellaneous electronic components	32	Electronic components

Endogeneous Sectors								
1 Basic Sector Classification (518 Rows x 397 Columns)			2 Aggregated Sector Classification					
			190 Sector Classification		108 Sector Classification		34 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column	Row Code							
3311 -01		Rotating electrical equipment	3311	Electrical devices and parts	331	Electrical devices and parts	33	Electrical machinery
	3311 -011	Generators						
	3311 -012	Electric motors						
3311 -02	3311 -021	Transformers and reactors						
3311 -03	3311 -031	Relay switches and switchboards						
3311 -04	3311 -041	Wiring devices and supplies						
3311 -05	3311 -051	Electrical equipment for internal combustion engines						
3311 -09	3311 -099	Miscellaneous electrical devices and parts						
3321 -01	3321 -011	Household air-conditioners	3321	Household electric appliances	332	Household electric appliances		
3321 -02	3321 -021	Household electric appliances (except air-conditioners)						
3331 -01	3331 -011	Applied electronic equipment	3331	Applied electronic equipment	333	Applied electronic equipment and electric measuring instruments		
3332 -01	3332 -011	Electric measuring instruments	3332	Electric measuring instruments				
3399 -01	3399 -011	Electric bulbs	3399	Miscellaneous electrical machinery	339	Miscellaneous electrical machinery		
3399 -02	3399 -021	Electric lighting fixtures and apparatus						
3399 -03	3399 -031	Batteries						
3399 -09	3399 -099	Miscellaneous electrical devices and parts						
3411 -01	3411 -011	Video equipment and digital camera	3411	Household electronics equipment	341	Household electronics equipment	34	Information and communication electronics equipment
3411 -02	3411 -021	Electric audio equipment						
3411 -03	3411 -031	Radio and television sets						
3412 -01	3412 -011	Wired communication equipment	3412	Communication equipment				
3412 -02	3412 -021	Cellular phones						
3412 -03	3412 -031	Radio communication equipment (except cellular phones)						
3412 -09	3412 -099	Miscellaneous communication equipment						
3421 -01	3421 -011	Personal Computers	3421	Electronic computing equipment and accessory equipment of electronic computing equipment	342	Electronic computing equipment and accessory equipment of electronic computing equipment		
3421 -02	3421 -021	Electronic computing equipment (except personal computers)						
3421 -03	3421 -031	Electronic computing equipment (accessory equipment)						
3511 -01	3511 -011	Passenger motor cars	3511	Passenger motor cars	351	Passenger motor cars	35	Transportation equipment
3521 -01	3521 -011	Trucks, buses and miscellaneous cars	3521	Trucks, buses and miscellaneous cars	352	Miscellaneous cars		
3522 -01	3522 -011	Two-wheel motor vehicles	3522	Two-wheel motor vehicles				
3531 -01	3531 -011	Internal combustion engines for motor vehicles	3531	Motor vehicle parts and accessories	353	Motor vehicle parts and accessories		
3531 -02	3531 -021	Motor vehicle parts and accessories						
3541 -01	3541 -011	Steel ships	3541	Ships and repair of ships	354	Ships and repair of ships		
3541 -02	3541 -021	Miscellaneous Ships (except steel ships)						
3541 -03	3541 -031	Internal combustion engines for vessels						
3541 -10	3541 -101	Repair of ships						
3591 -01	3591 -011	Rolling stock	3591	Rolling stock and repair of rolling stock	359	Miscellaneous transportation equipment and repair of transportation equipment		
3591 -10	3591 -101	Repair of rolling stock						
3592 -01	3592 -011	Aircrafts	3592	Aircrafts and repair of air crafts				
3592 -10	3592 -101	Repair of aircrafts						
3599 -01	3599 -011	Bicycles	3599	Miscellaneous transport equipment				
3599 -09		Miscellaneous transport equipment						
	3599 -091	Transport equipment for industrial use						
	3599 -099	Transpot equipment, n e c						
3911 -01	3911 -011	Toys and games	3911	Toys and games, sporting and athletic goods	391	Miscellaneous manufacturing products	39	Miscellaneous manufacturing products
3911 -02	3911 -021	Sporting and athletic goods						
3919 -01	3919 -011	Jewelry and adornments	3919	Miscellaneous manufacturing products				
3919 -02	3919 -021	Watches and clocks						
3919 -03	3919 -031	Musical instruments						
3919 -04	3919 -041	Stationery						
3919 -05	3919 -051	"Tatami" (straw matting) and straw products						
3919 -06	3919 -061	Audio and video records, other information recording media						
3919 -09	3919 -099	Miscellaneous manufacturing products						
3921 -01	3921 -011	Reuse and recycling	3921	Reuse and recycling	392	Reuse and recycling		
4111 -01	4111 -011	Residential construction (wooden)	4111	Residential construction	411	Building construction	41	Construction
4111 -02	4111 -021	Residential construction (non-wooden)						
4112 -01	4112 -011	Non-residential construction (wooden)	4112	Non-residential construction				
4112 -02	4112 -021	Non-residential construction (non-wooden)						
4121 -01	4121 -011	Repair of construction	4121	Repair of construction	412	Repair of construction		
4131 -01	4131 -011	Public construction of roads	4131	Public construction	413	Public construction		
4131 -02	4131 -021	Public construction of rivers, drainages and miscellaneous public construction						
4131 -03	4131 -031	Agricultural public construction						
4191 -01	4191 -011	Railway construction	4191	Miscellaneous civil engineering and construction	419	Miscellaneous civil engineering and construction		
4191 -02	4191 -021	Electric power facilities construction						
4191 -03	4191 -031	Telecommunication facilities construction						
4191 -09	4191 -099	Miscellaneous civil engineering and construction						

Endogeneous Sectors								
1 Basic Sector Classification (518 Rows x 397 Columns)			2 Aggregated Sector Classification					
			190 Sector Classification		108 Sector Classification		34 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column	Row Code							
	4611 -001	Electricity	4611	Electricity	461	Electricity	46	Electricity, gas and heat supply
4611 -01		Electricity (nuclear power)						
4611 -02		Electricity (thermal power)						
4611 -03		Electricity (water power, etc)						
4611 -04	4611 -041	Private power generation						
4621 -01	4621 -011	Gas supply	4621	Gas supply	462	Gas and heat supply		
4622 -01	4622 -011	Steam and hot water supply	4622	Steam and hot water supply				
4711 -01	4711 -011	Water supply	4711	Water supply	471	Water supply	47	Water supply
4711 -02	4711 -021	Industrial water supply						
4711 -03	4711 -031	Sewage disposal **						
4811 -01	4811 -011	Waste management services (public) **	4811	Waste management service	481	Waste management service	48	Waste management service
4811 -02	4811 -021	Waste management services (industry)						
5111 -01	5111 -011	Wholesale trade	5111	Wholesale trade	511	Commerce	51	Commerce
5112 -01	5112 -011	Retail trade	5112	Retail trade				
5311 -01		Financial service	5311	Financial service	531	Finance and insurance	53	Finance and insurance
	5311 -011	Financial service (FISIM), public						
	5311 -012	Financial service (FISIM), private						
	5311 -013	Financial service (commission), public						
	5311 -014	Financial service (commission), private						
5312 -01	5312 -011	Life insurance	5312	Insurance				
5312 -02	5312 -021	Non-life insurance						
5511 -01	5511 -011	Real estate agencies and managers	5511	Real estate agencies and rental services	551	Real estate agencies and rental services	55	Real estate
5511 -02	5511 -021	Real estate rental service						
5521 -01	5521 -011	House rent	5521	House rent	552	House rent		
5531 -01	5531 -011	House rent (imputed house rent)	5531	House rent (imputed house rent)	553	House rent (imputed house rent)		
5711 -01	5711 -011	Railway transport (passengers)	5711	Railway transport (passengers)	571	Railway transport	57	Transport and postal services
5712 -01	5712 -011	Railway transport (freight)	5712	Railway transport (freight)				
5721 -01	5721 -011	Bus transport service	5721	Road transport service	572	Road transport (except self-transport)		
5721 -02	5721 -021	Hired car and taxi transport						
5722 -01	5722 -011	Road freight transport (except self-transport)	5722	Road freight transport (except self-transport)				
5731 -01P	5731 -011P	Self-transport (passengers)	5731	Self-transport (passengers)	573	Self-transport		
5732 -01P	5732 -011P	Self-transport (freight)	5732	Self-transport (freight)				
5741 -01	5741 -011	International shipping	5741	International shipping	574	Water transport		
5742 -01		Coastal and inland water transport	5742	Coastal and inland water transport				
	5742 -011	Coastal and inland water transport (passengers)						
	5742 -012	Coastal and inland water transport (freight)						
5743 -01	5743 -011	Harbor transport service	5743	Harbor transport service				
5751 -01		Air transport	5751	Air transport	575	Air transport		
	5751 -011	International air transport						
	5751 -012	Domestic air transport (passengers)						
	5751 -013	Domestic air transport (freight)						
	5751 -014	Aircraft service except air transport						
5761 -01	5761 -011	Consigned freight forwarding	5761	Freight forwarding	576	Freight forwarding		
5771 -01	5771 -011	Storage facility service	5771	Storage facility service	577	Storage facility service		
5781 -01	5781 -011	Packing service	5781	Packing service	578	Services relating to transport		
5789 -01	5789 -011	Facility service for road transport	5789	Miscellaneous services relating to transport				
5789 -02	5789 -021	Port and water traffic control **						
5789 -03	5789 -031	Services relating to water transport						
5789 -04	5789 -041	Airport and air traffic control (public) **						
5789 -05	5789 -051	Airport and air traffic control (industrial)						
5789 -06	5789 -061	Services relating to air transport						
5789 -09	5789 -099	Travel agency and miscellaneous services relating to transport						
5791 -01	5791 -011	Postal services and mail delivery	5791	Postal services and mail delivery	579	Postal services and mail delivery		
5911 -01	5911 -011	Fixed telecommunications	5911	Telecommunications	591	Communications	59	Information and communications
5911 -02	5911 -021	Mobile telecommunications						
5911 -09	5911 -099	Miscellaneous telecommunications						
5919 -09	5919 -099	Miscellaneous services relating to communication	5919	Miscellaneous services relating to communication				
5921 -01	5921 -011	Public broadcasting	5921	Broadcasting	592	Broadcasting		
5921 -02	5921 -021	Private broadcasting						
5921 -03	5921 -031	Cable broadcasting						

Endogeneous Sectors								
1 Basic Sector Classification (518 Rows x 397 Columns)			2 Aggregated Sector Classification					
			190 Sector Classification		108 Sector Classification		34 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column	Row Code							
5931 -01		Information services	5931	Information services	593	Information services	59	Information and communications
	5931 -011	Computer programming and miscellaneous software services						
	5931 -012	Data processing and research and information services						
5941 -01	5941 -011	Internet based services	5941	Internet based services	594	Internet based services		
5951 -01	5951 -011	Video picture, sound information, character information production	5951	Image information, sound information and character information production	595	Image information, sound information and character information production		
5951 -02	5951 -021	Newspaper						
5951 -03	5951 -031	Publication						
6111 -01	6111 -011	Public administration (central) **	6111	Public administration (central)	611	Public administration	61	Public administration
6112 -01	6112 -011	Public administration (local) **	6112	Public administration (local)				
6311 -01	6311 -011	School education (public) **	6311	School education	631	Education	63	Education and research
6311 -02	6311 -021	School education (private) *						
6312 -01	6312 -011	Social education (public) **	6312	Social education and miscellaneous educational and training institutions				
6312 -02	6312 -021	Social education (private, non-profit) *						
6312 -03	6312 -031	Miscellaneous educational and training institutions (public) **						
6312 -04	6312 -041	Miscellaneous educational and training institutions (profit-making)						
6321 -01	6321 -011	Research institutes for natural science (pubic) **	6321	Research institutes	632	Research		
6321 -02	6321 -021	Research institutes for cultural and social science (public) **						
6321 -03	6321 -031	Research institutes for natural sciences (private, non-profit) *						
6321 -04	6321 -041	Research institutes for cultural and social science (private,non-profit) *						
6321 -05	6321 -051	Research institutes for natural sciences (profit-making)						
6321 -06	6321 -061	Research institutes for cultural and social science (profit-making)						
6322 -01	6322 -011	Research and development (intra-enterprise)	6322	Research and development				
6411 -01	6411 -011	Medical service (hospitalization)	6411	Medical service	641	Medical service	64	Medical, health care and welfare
6411 -02	6411 -021	Medical service (except hospitalization)						
6411 -03	6411 -031	Medical service (dentistry)						
6411 -04	6411 -041	Medical service (pharmacy dispensing)						
6411 -05	6411 -051	Medical service (miscellaneous medical service)						
6421 -01	6421 -011	Health and hygiene (public) **	6421	Health and hygiene	642	Health and hygiene		
6421 -02	6421 -021	Health and hygiene (profit-making)						
6431 -01	6431 -011	Social insurance **	6431	Social insurance and social welfare	643	Social insurance and social welfare	64	Medical, health care and welfare
6431 -02	6431 -021	Social welfare (public) **						
6431 -03	6431 -031	Social welfare (private, non-profit) *						
6431 -04	6431 -041	Social welfare (profit-making)						
6441 -01	6441 -011	Nursing care (facility services)	6441	Nursing care	644	Nursing care		
6441 -02	6441 -021	Nursing care (except facility services)						
6599 -01	6599 -011	Private non-profit institutions serving enterprises	6599	Miscellaneous non-profit services	659	Miscellaneous non-profit services	65	Miscellaneous non-profit services
6599 -02	6599 -021	Private non-profit institutions serving households, n e c *						
6611 -01		Goods rental and leasing (except car rental)	6611	Goods rental and leasing (except car rental)	661	Goods rental and leasing services	66	Business services
	6611 -011	Industrial equipment and machinery rental and leasing (except construction machinery)						
	6611 -012	Construction machine rental and leasing						
	6611 -013	Electronic computing equipment rental and leasing						
	6611 -014	Office machines rental and leasing (except electronic computing equipment)						
	6611 -015	Sports goods, recreation goods and miscellaneous goods rental and leasing						
6612 -01	6612 -011	Car rental and leasing	6612	Car rental and leasing				
6621 -01		Advertising services	6621	Advertising services	662	Advertising services		
	6621 -011	Television and radio advertising services						
	6621 -012	Newspaper, magazine and miscellaneous advertising services						
6631 -10	6631 -101	Motor vehicle maintenance services	6631	Motor vehicle maintenance services	663	Motor vehicle maintenance and machine repair services		
6632 -10	6632 -101	Repair of machine	6632	Repair of machine				
6699 -01	6699 -011	Judicial, financial and accounting services	6699	Miscellaneous business services	669	Miscellaneous business services		
6699 -02	6699 -021	Civil engineering and construction services						
6699 -03	6699 -031	Worker dispatching services						
6699 -04	6699 -041	Building maintenance services						
6699 -05	6699 -051	Guard services						
6699 -09	6699 -099	Miscellaneous business services						

Endogeneous Sectors								
1 Basic Sector Classification (518 Rows x 397 Columns)			2 Aggregated Sector Classification					
			190 Sector Classification		108 Sector Classification		34 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column	Row Code							
6711 -01	6711 -011	Hotels	6711	Hotels	671	Hotels	67	Personal services
6721 -01	6721 -011	Eating and drinking services	6721	Eating and drinking services	672	Eating and drinking services		
6731 -01	6731 -011	Cleaning	6731	Cleaning, barber shops, beauty shops and public baths	673	Cleaning, barber shops, beauty shops and public baths		
6731 -02	6731 -021	Barber shops						
6731 -03	6731 -031	Beauty shops						
6731 -04	6731 -041	Public baths						
6731 -09	6731 -099	Miscellaneous cleaning, barber shops, beauty shops and public baths						
6741 -01	6741 -011	Movie theaters	6741	Amusement and recreational services	674	Amusement and recreational services		
6741 -02	6741 -021	Performances (except movie theaters), theatrical comranies						
6741 -03	6741 -031	Stadiums and companies of bicycle, horse, motorcar and motorboat races						
6741 -04	6741 -041	Sport facility service, public gardens and amusement parks						
6741 -05	6741 -051	Amusement and recreation facilities						
6741 -09	6741 -099	Miscellaneous amusement and recreation services						
6799 -01	6799 -011	Photographic studios	6799	Miscellaneous personal services	679	Miscellaneous personal services		
6799 -02	6799 -021	Ceremonial occasions						
6799 -03	6799 -031	Supplementary tutorial schools, instruction services for arts, culture and technical skills						
6799 -04	6799 -041	Miscellaneous repairs, n e c						
6799 -09	6799 -099	Miscellaneous personal services						
6811 -00P	6811 -000P	Office supplies	6811	Office supplies	681	Office supplies	68	Office supplies
6911 -00	6911 -000	Activities not elsewhere classified	6911	Activities not elsewhere classified	691	Activities not elsewhere classified	69	Activities not elsewhere classified
7000 -00	7000 -000	Total of intermediate sectors	7000	Total of intermediate sectors	700	Total of intermediate sectors	70	Total of intermediate sectors

(Notes 1) Meanings of the symbols are as follows;

**: Producers of government service activity

*: Producers of private non-profit service for households

No symbol: Industries

(Note 2) "P" which placed next to the last digit of the Basic Sector Classification Code means "Dummy sector (provisional sector)"

Final Demand Sectors								
1 Basic Sector Classification (518 Rows x 397 Columns)			2 Aggregated Sector Classification					
			190 Sector Classification		108 Sector Classification		34 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column	Row Code							
7111 -00		Consumption expenditure outside households (column)	7111	Consumption expenditure outside households (column)	711	Consumption expenditure outside households (column)	71	Consumption expenditure outside households (column)
7211 -00		Consumption expenditure of households	7211	Consumption expenditure of households	721	Consumption expenditure (private)	72	Consumption expenditure (private)
7212 -00		Consumption expenditure of private non-profit institutions serving households	7212	Consumption expenditure of private non-profit institutions serving households				
7311 -01		Collective consumption expenditure of central government	7311	Consumption expenditure of general government	731	Consumption expenditure of general government	73	Consumption expenditure of general government
7311 -02		Collective consumption expenditure of local government						
7311 -03		Individual consumption expenditure of central government						
7311 -04		Individual consumption expenditure of local government						
7321 -01		Collective consumption expenditure of central government (social fixed capital depreciation)	7321	Consumption expenditure of general government (social fixed capital depreciation)	732	Consumption expenditure of general government (social fixed capital depreciation)		
7321 -02		Collective consumption expenditure of local government (social fixed capital depreciation)						
7321 -03		Individual consumption expenditure of central government (social fixed capital depreciation)						
7321 -04		Individual consumption expenditure of local government (social fixed capital depreciation)						
7411 -00		Gross domestic fixed capital formation (public)	7411	Gross domestic fixed capital formation (public)	741	Gross domestic fixed capital formation (public)	74	Gross domestic fixed capital formation (public)
7511 -00		Gross domestic fixed capital formation (private)	7511	Gross domestic fixed capital formation (private)	751	Gross domestic fixed capital formation (private)	75	Gross domestic fixed capital formation (private)
7611 -01		Increase in producer's stocks of finished goods	7611	Increase in stocks	761	Increase in stocks	76	Increase in stocks
7611 -02		Increase in semi-finished goods and work-in-progress						
7611 -03		Increase in dealer's stocks of goods						
7611 -04		Increase in stocks of raw materials and supplies						
7711 -00		Balancing sector	7711	Balancing sector	771	Balancing sector	77	Balancing sector
7800 -00		Total domestic final demand	7800	Total domestic final demand	780	Total domestic final demand	78	Total domestic final demand
7900 -00		Total domestic demand	7900	Total domestic demand	790	Total domestic demand	79	Total domestic demand
8011 -01		Exports (ordinary trade)	8011	Exports	801	Exports	80	Exports
8011 -02		Exports (special trade)						
8012 -00		Exports (direct purchase)	8012	Exports (direct purchase)				
8100 -00		Exports total	8100	Exports total	810	Exports total	81	Exports total
8200 -00		Total Final demand	8200	Total Final demand	820	Total Final demand	82	Total Final demand
8300 -00		Total demand	8300	Total demand	830	Total demand	83	Total demand
8411 -01		(less) Imports (ordinary trade)	8411	(less) Imports	841	(less) Imports	84	(less) Imports
8411 -02		(less) Imports (special trade)						
8412 -00		(less) Imports (direct purchase)	8412	(less) Imports (direct purchase)				
8511 -00		(less) Custom duties	8511	(less) Custom duties	851	(less) Custom duties	85	(less) Custom duties
8611 -00		(less) Commodity taxes on imported goods	8611	(less) Commodity taxes on imported goods	861	(less) Commodity taxes on imported goods	86	(less) Commodity taxes on imported goods
8700 -00		(less) Total imports	8700	(less) Total imports	870	(less) Total imports	87	(less) Total imports
8800 -00		Total of final demand sectors	8800	Total of final demand sectors	880	Total of final demand sectors	88	Total of final demand sectors
8911 -00		Trade margins (wholesale)	8911	Trade margins (wholesale)	891	Trade margins	89	Trade margins
8912 -00		Trade margins (retail)	8912	Trade margins (retail)				
9011 -00		Transportation charges (railway)	9011	Transportation charges (railway)	901	Transportation charges	90	Transportation charges
9012 -00		Transportation charges (road)	9012	Transportation charges (road)				
9013 -01		Transportation charges (coastal and inland water)	9013	Transportation charges (coastal and inland water)				
9013 -02		Transportation charges (harbor)						
9014 -00		Transportation charges (air)	9014	Transportation charges (air)				
9015 -00		Transportation charges (forwarding)	9015	Transportation charges (forwarding)				
9016 -00		Transportation charges (storage facility)	9016	Transportation charges (storage facility)				
9700 -00		Domestic production (gross outputs)	9700	Domestic production (gross outputs)	970	Domestic production (gross outputs)	97	Domestic production (gross outputs)

Gross Value Added Sectors								
1 Basic Sector Classification (518 Rows x 397 Columns)			2 Aggregated Sector Classification					
			190 Sector Classification		108 Sector Classification		34 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column	Row Code							
	7111 -001	Lodging expenses and daily allowances	7111	Consumption expenditure outside households (row)	711	Consumption expenditure outside households (row)	71	Consumption expenditure outside households (row)
	7111 -002	Social expenses						
	7111 -003	Welfare expenses						
	9111 -000	Wages and salaries	9111	Wages and salaries	911	Compensation of employees	91	Compensation of employees
	9112 -000	Contribution of employers to social insurance	9112	Contribution of employers to social insurance				
	9113 -000	Miscellaneous payments and allowances	9113	Other payments and allowances				
	9211 -000	Operating surplus	9211	Operating surplus	921	Operating surplus	92	Operating surplus
	9311 -000	Depreciation of fixed capital	9311	Depreciation of fixed capital	931	Depreciation of fixed capital	93	Depreciation of fixed capital
	9321 -000	Depreciation of fixed capital (Social fixed capital depreciation)	9321	Depreciation of fixed capital (Social fixed capital depreciation)	932	Depreciation of fixed capital (Social fixed capital depreciation)		
	9411 -000	Indirect taxes (except custom duties and commodity taxes on imported goods)	9411	Indirect taxes (except custom duties and commodity taxes on imported goods)	941	Indirect taxes (except custom duties and commodity taxes on imported goods)	94	Indirect taxes (except custom duties and commodity taxes on imported goods)
	9511 -000	(less) Current subsidies	9511	(less) Current subsidies	951	(less) Current subsidies	95	(less) Current subsidies
	9600 -000	Total of gross value added sectors	9600	Total of gross value added sectors	960	Total of gross value added sectors	96	Total of gross value added sectors
	9700 -000	Domestic production (gross inputs)	9700	Domestic production (gross inputs)	970	Domestic production (gross inputs)	97	Domestic production (gross inputs)

2 Special Classification

Code	Sector Name
2	Scrap input
3	Scrap output
4	By-product input
5	By-product output
6	Trade margins
7	Domestic freight

3 13 Sector Classification

Code	Sector Name	34 Sector Classification Code
01	Agriculture, forestry and fishery	01
02	Mining	02
03	Manufacturing	11-39,68
04	Construction	41
05	Electricity, gas and water supply	46,47
06	Commerce	51
07	Finance and insurance	53
08	Real estate	55
09	Transport and postal services	57
10	Information and communications	59
11	Public administration	61
12	Services	48,63-67
13	Activities not elsewhere classified	69
70	Total of intermediate sectors	70

〔Reference 4〕

Coressponding table of 190 sector Classification in 2011 Input-Output Tables and International Standard Industrial classification

190 sector in 2011 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
0111	Grains	0111	Growing of cereals (except rice), leguminous crops and oil seeds	(1/3)
		0112	Growing of rice	
0112	Potatoes, beans	0111	Growing of cereals (except rice), leguminous crops and oil seeds	(2/3)
		0113	Growing of vegetables and melons, roots and tubers	(1/4)
0113	Vegetables	0113	Growing of vegetables and melons, roots and tubers	(2/4)
0114	Fruits	0121	Growing of grapes	
		0122	Growing of tropical and subtropical fruits	
		0123	Growing of citrus fruits	
		0124	Growing of pome fruits and stone fruits	
		0125	Growing of other tree and bush fruits and nuts	
0115	Miscellaneous edible crops	0111	Growing of cereals (except rice), leguminous crops and oil seeds	(3/3)
		0113	Growing of vegetables and melons, roots and tubers	(3/4)
		0114	Growing of sugar cane	
		0126	Growing of oleaginous fruits	
		0127	Growing of beverage crops	
		0128	Growing of spices, aromatic, drug and pharmaceutical crops	(1/2)
0116	Inedible crops	0115	Growing of tobacco	
		0116	Growing of fibre crops	
		0119	Growing of other non-perennial crops	
		0128	Growing of spices, aromatic, drug and pharmaceutical crops	(2/2)
		0129	Growing of other perennial crops	
		0130	Plant propagation	
		0164	Seed processing for propagation	
0121	Livestock	0141	Raising of cattle and buffaloes	
		0142	Raising of horses and other equines	
		0143	Raising of camels and camelids	
		0144	Raising of sheep and goats	
		0145	Raising of swine/pigs	
		0146	Raising of poultry	
		0149	Raising of other animals	
0131	Agricultural services	0161	Support activities for crop production	
		0162	Support activities for animal production	
		0163	Post-harvest crop activities	
		7500	Veterinary activities	
0151	Silviculture	0210	Silviculture and other forestry activities	
		0240	Support services to forestry	(1/3)
0152	Logs	0220	Logging	(1/2)
		0240	Support services to forestry	(2/3)
0153	Special forest products	0113	Growing of vegetables and melons, roots and tubers	(4/4)
		0170	Hunting, trapping and related service activities	
		0220	Logging	(2/2)
		0230	Gathering of non-wood forest products	
		0240	Support services to forestry	(3/3)
0171	Marine fishery	0311	Marine fishing	
		0321	Marine aquaculture	
0172	Inland water fishery	0312	Freshwater fishing	
		0322	Freshwater aquaculture	
0611	Metallic ores	0710	Mining of iron ores	
		0721	Mining of uranium and thorium ores	
		0729	Mining of other non-ferrous metal ores	
0621	Coal mining, crude petroleum and natural gas	0510	Mining of hard coal	
		0520	Mining of lignite	
		0610	Extraction of crude petroleum	
		0620	Extraction of natural gas	
		0892	Extraction of peat	
		0910	Support activities for petroleum and natural gas extraction	
0631	Gravel and quarrying	0810	Quarrying of stone, sand and clay	(1/2)
		0990	Support activities for other mining and quarrying	(1/2)
		2396	Cutting, shaping and finishing of stone	(1/3)
0639	Miscellaneous ores	0810	Quarrying of stone, sand and clay	(2/2)
		0891	Mining of chemical and fertilizer minerals	
		0899	Other mining and quarrying n.e.c.	
		0990	Support activities for other mining and quarrying	(2/2)
1111	Meat	1010	Processing and preserving of meat	(1/3)
1112	Dairy products	1010	Processing and preserving of meat	(2/3)
		1050	Manufacture of dairy products	
1113	Processed seafood	1020	Processing and preserving of fish, crustaceans and molluscs	(1/2)
1114	Grain milling	1061	Manufacture of grain mill products	

190 sector in 2011 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
1115	Noodles, bread, confectionery	1071	Manufacture of bakery products	(1/2)
		1073	Manufacture of cocoa, chocolate and sugar confectionery	
		1074	Manufacture of macaroni, noodles, couscous and similar farinaceous products	
		1079	Manufacture of other food products n.e.c.	(1/4)
1116	Preserved agricultural food stuffs	1030	Processing and preserving of fruit and vegetables	(1/3)
1117	Sugar, oils, condiments and seasoning	1010	Processing and preserving of meat	(3/3)
		1040	Manufacture of vegetable and animal oils and fats	(1/2)
		1062	Manufacture of starches and starch products	
		1072	Manufacture of sugar	
		1079	Manufacture of other food products n.e.c.	(2/4)
1119	Miscellaneous foods	1030	Processing and preserving of fruit and vegetables	(2/3)
		1075	Manufacture of prepared meals and dishes	
		1079	Manufacture of other food products n.e.c.	(3/4)
1121	Liquors	1101	Distilling, rectifying and blending of spirits	
		1102	Manufacture of wines	
		1103	Manufacture of malt liquors and malt	
1129	Miscellaneous drinks	1030	Processing and preserving of fruit and vegetables	(3/3)
		1079	Manufacture of other food products n.e.c.	(4/4)
		1104	Manufacture of soft drinks; production of mineral waters and other bottled waters	
		3530	Steam and air conditioning supply	(1/2)
1131	Feeds and organic fertilizers, n.e.c.	1020	Processing and preserving of fish, crustaceans and molluscs	(2/2)
		1040	Manufacture of vegetable and animal oils and fats	(2/2)
		1080	Manufacture of prepared animal feeds	
		3821	Treatment and disposal of non-hazardous waste	(1/2)
1141	Tobacco	1200	Manufacture of tobacco products	
1511	Fiber yarns	1311	Preparation and spinning of textile fibres	(1/2)
1512	Fiber fabrics	1312	Weaving of textiles	(1/2)
		1399	Manufacture of other textiles n.e.c.	(1/4)
		2219	Manufacture of other rubber products	(1/3)
1513	Knitting fabrics	1391	Manufacture of knitted and crocheted fabrics	
1514	Yarn and fabric dyeing and finishing	1313	Finishing of textiles	(1/2)
		1430	Manufacture of knitted and crocheted apparel	(1/3)
1519	Miscellaneous fabricated textile products	1311	Preparation and spinning of textile fibres	(2/2)
		1394	Manufacture of cordage, rope, twine and netting	
		1399	Manufacture of other textiles n.e.c.	(2/4)
1521	Wearing apparel	1410	Manufacture of wearing apparel, except fur apparel	(1/4)
		1430	Manufacture of knitted and crocheted apparel	(2/3)
1522	Miscellaneous wearing apparel and clothing accessories	1410	Manufacture of wearing apparel, except fur apparel	(2/4)
		1420	Manufacture of articles of fur	
		1430	Manufacture of knitted and crocheted apparel	(3/3)
1529	Miscellaneous ready-made textile products	1312	Weaving of textiles	(2/2)
		1392	Manufacture of made-up textile articles, except apparel	(1/2)
		1393	Manufacture of carpets and rugs	
		1399	Manufacture of other textiles n.e.c.	(3/4)
		1709	Manufacture of other articles of paper and paperboard	(1/4)
		3250	Manufacture of medical and dental instruments and supplies	(1/6)
1611	Lumber	1610	Sawmilling and planing of wood	(1/2)
		1621	Manufacture of veneer sheets and wood-based panels	(1/2)
		1622	Manufacture of builders' carpentry and joinery	(1/4)
1619	Miscellaneous wooden products	1610	Sawmilling and planing of wood	(2/2)
		1621	Manufacture of veneer sheets and wood-based panels	(2/2)
		1622	Manufacture of builders' carpentry and joinery	(2/4)
		1623	Manufacture of wooden containers	(1/2)
		1629	Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	(1/3)
		3290	Other manufacturing n.e c.	(1/5)
1621	Furniture and fixtures	1622	Manufacture of builders' carpentry and joinery	(3/4)
		1629	Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	(2/3)
		2220	Manufacture of plastics products	(1/4)
		2393	Manufacture of other porcelain and ceramic products	(1/2)
		2395	Manufacture of articles of concrete, cement and plaster	(1/3)
		2396	Cutting, shaping and finishing of stone	(2/3)
		2817	Manufacture of office machinery and equipment (except computers and peripheral equipment)	(1/3)
		3100	Manufacture of furniture	(1/2)
		3212	Manufacture of imitation jewellery and related articles	(1/2)
		3220	Manufacture of musical instruments	(1/2)
1631	Pulp	1701	Manufacture of pulp, paper and paperboard	(1/3)
1632	Paper, paperboard	1701	Manufacture of pulp, paper and paperboard	(2/3)

190 sector in 2011 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
1633	Building paper	1701	Manufacture of pulp, paper and paperboard	(3/3)
		1702	Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	(1/3)
		1709	Manufacture of other articles of paper and paperboard	(2/4)
1641	Paper containers	1702	Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	(2/3)
		1709	Manufacture of other articles of paper and paperboard	(3/4)
1649	Miscellaneous processed paper products	1702	Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	(3/3)
		1709	Manufacture of other articles of paper and paperboard	(4/4)
		2220	Manufacture of plastics products	(2/4)
1911	Printing, plate making and book binding	1313	Finishing of textiles	(2/2)
		1811	Printing	
		1812	Service activities related to printing	
2011	Chemical fertilizer	2012	Manufacture of fertilizers and nitrogen compounds	(1/2)
2021	Industrial soda chemicals	2011	Manufacture of basic chemicals	(1/6)
2029	Miscellaneous industrial inorganic chemicals	0893	Extraction of salt	
		2011	Manufacture of basic chemicals	(2/6)
		2012	Manufacture of fertilizers and nitrogen compounds	
2031	Petrochemical basic products	2011	Manufacture of basic chemicals	(3/6)
		2013	Manufacture of plastics and synthetic rubber in primary forms	(1/4)
2041	Aliphatic intermediates and cyclic intermediates	2011	Manufacture of basic chemicals	(4/6)
		2013	Manufacture of plastics and synthetic rubber in primary forms	(2/4)
2042	Synthetic rubber	2013	Manufacture of plastics and synthetic rubber in primary forms	(3/4)
2049	Miscellaneous basic organic chemical products	2011	Manufacture of basic chemicals	(5/6)
		2029	Manufacture of other chemical products n.e.c.	(1/5)
2051	Synthetic resins	2013	Manufacture of plastics and synthetic rubber in primary forms	(4/4)
2061	Synthetic fibers	2030	Manufacture of man-made fibres	
2071	Medicaments	2021	Manufacture of pesticides and other agrochemical products	(1/2)
		2100	Manufacture of pharmaceuticals, medicinal chemical and botanical products	
2081	Oil and fat products, soap, synthetic detergents, surface active agents and cosmetics	2023	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	(1/2)
2082	Paint and varnishes, printing ink	2022	Manufacture of paints, varnishes and similar coatings, printing ink and mastics	(1/2)
2083	Photographic sensitive materials	2029	Manufacture of other chemical products n.e.c.	(2/5)
2084	Agricultural chemicals	2021	Manufacture of pesticides and other agrochemical products	(2/2)
2089	Miscellaneous final chemical products	2011	Manufacture of basic chemicals	(6/6)
		2023	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	(2/2)
		2029	Manufacture of other chemical products n.e.c.	(3/5)
		3290	Other manufacturing n.e c.	(2/5)
2111	Petroleum refinery products	1910	Manufacture of coke oven products	(1/2)
		1920	Manufacture of refined petroleum products	(1/2)
2121	Coal products	1910	Manufacture of coke oven products	(2/2)
		1920	Manufacture of refined petroleum products	(2/2)
2211	Plastic products	1399	Manufacture of other textiles n.e.c.	(4/4)
		2219	Manufacture of other rubber products	(2/3)
		2220	Manufacture of plastics products	(3/4)
		2930	Manufacture of parts and accessories for motor vehicles	(1/4)
		3290	Other manufacturing n.e c.	(3/5)
2221	Tires and inner tubes	2211	Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres	(1/2)
2229	Miscellaneous rubber products	1410	Manufacture of wearing apparel, except fur apparel	(3/4)
		1520	Manufacture of footwear	(1/2)
		2029	Manufacture of other chemical products n.e.c.	(4/5)
		2211	Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres	(2/2)
		2219	Manufacture of other rubber products	(3/3)
		2220	Manufacture of plastics products	(4/4)
		3830	Materials recovery	(1/4)
2311	Leather footwear	1520	Manufacture of footwear	(2/2)
2312	Leather, fur skins and miscellaneous leather products	1410	Manufacture of wearing apparel, except fur apparel	(4/4)
		1511	Tanning and dressing of leather; dressing and dyeing of fur	
		1512	Manufacture of luggage, handbags and the like, saddlery and harness	
		3092	Manufacture of bicycles and invalid carriages	(1/3)
2511	Glass and glass products	2310	Manufacture of glass and glass products	
2521	Cement and cement products	2394	Manufacture of cement, lime and plaster	(1/2)
		2395	Manufacture of articles of concrete, cement and plaster	(2/3)
2531	Pottery, china and earthenware	2392	Manufacture of clay building materials	(1/2)
		2393	Manufacture of other porcelain and ceramic products	(2/2)
		2399	Manufacture of other non-metallic mineral products n e.c.	(1/2)

190 sector in 2011 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
2591	Structural clay products	2391	Manufacture of refractory products	
		2392	Manufacture of clay building materials	(2/2)
		2395	Manufacture of articles of concrete, cement and plaster	(3/3)
2599	Miscellaneous ceramic, stone and clay products	2394	Manufacture of cement, lime and plaster	(2/2)
		2396	Cutting, shaping and finishing of stone	(3/3)
		2399	Manufacture of other non-metallic mineral products n e.c.	(2/2)
		2599	Manufacture of other fabricated metal products n.e.c.	(1/5)
		2790	Manufacture of other electrical equipment	(1/6)
		3830	Materials recovery	(2/4)
2611	Pig iron and crude steel	2410	Manufacture of basic iron and steel	(1/5)
2621	Hot rolled steel	2410	Manufacture of basic iron and steel	(2/5)
		2599	Manufacture of other fabricated metal products n.e.c.	(2/5)
2622	Steel pipes and tubes	2410	Manufacture of basic iron and steel	(3/5)
		2592	Treatment and coating of metals; machining	(1/5)
2623	Cold-finished steel, coated steel	2410	Manufacture of basic iron and steel	(4/5)
		2592	Treatment and coating of metals; machining	(2/5)
		2599	Manufacture of other fabricated metal products n.e.c.	(3/5)
2631	Cast and forged steel products	2431	Casting of iron and steel	(1/2)
		2591	Forging, pressing, stamping and roll-forming of metal; powder metallurgy	(1/3)
		2599	Manufacture of other fabricated metal products n.e.c.	(4/5)
2699	Miscellaneous iron or steel products	2410	Manufacture of basic iron and steel	(5/5)
		2592	Treatment and coating of metals; machining	(3/5)
2711	Non-ferrous metals	2420	Manufacture of basic precious and other non-ferrous metals	(1/2)
2721	Electric wires and cables	2731	Manufacture of fibre optic cables	
		2732	Manufacture of other electronic and electric wires and cables	
2729	Miscellaneous non-ferrous metal products	2420	Manufacture of basic precious and other non-ferrous metals	(2/2)
		2432	Casting of non-ferrous metals	
		2591	Forging, pressing, stamping and roll-forming of metal; powder metallurgy	(2/3)
2811	Metal products for construction	2511	Manufacture of structural metal products	
2891	Gas and oil appliances and heating and cooking apparatus	2512	Manufacture of tanks, reservoirs and containers of metal	(1/2)
		2750	Manufacture of domestic appliances	(1/3)
		2815	Manufacture of ovens, furnaces and furnace burners	(1/3)
2899	Miscellaneous metal products	2431	Casting of iron and steel	(2/2)
		2512	Manufacture of tanks, reservoirs and containers of metal	(2/2)
		2591	Forging, pressing, stamping and roll-forming of metal; powder metallurgy	(3/3)
		2592	Treatment and coating of metals; machining	(4/5)
2899	Miscellaneous metal products	2593	Manufacture of cutlery, hand tools and general hardware	(1/2)
		2599	Manufacture of other fabricated metal products n.e.c.	(5/5)
		2750	Manufacture of domestic appliances	(2/3)
		2818	Manufacture of power-driven hand tools	(1/2)
		2819	Manufacture of other general-purpose machinery	(1/7)
		2822	Manufacture of metal-forming machinery and machine tools	(1/3)
		2829	Manufacture of other special-purpose machinery	(1/6)
		2930	Manufacture of parts and accessories for motor vehicles	(2/4)
		3091	Manufacture of motorcycles	
		3092	Manufacture of bicycles and invalid carriages	(2/3)
		3099	Manufacture of other transport equipment n.e.c.	(1/2)
		3250	Manufacture of medical and dental instruments and supplies	(2/6)
		3290	Other manufacturing n.e c.	(4/5)
2911	Boilers and engines	2513	Manufacture of steam generators, except central heating hot water boilers	
		2811	Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	(1/3)
2912	Pumps and compressors	2812	Manufacture of fluid power equipment	
		2813	Manufacture of other pumps, compressors, taps and valves	(1/2)
2913	Conveyors	2816	Manufacture of lifting and handling equipment	(1/2)
2914	Refrigerators and air conditioning apparatus	2819	Manufacture of other general-purpose machinery	(2/7)
2919	Miscellaneous general-purpose machinery	2592	Treatment and coating of metals; machining	(5/5)
		2811	Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	(2/3)
		2813	Manufacture of other pumps, compressors, taps and valves	(2/2)
		2814	Manufacture of bearings, gears, gearing and driving elements	
		2815	Manufacture of ovens, furnaces and furnace burners	(2/3)
		2819	Manufacture of other general-purpose machinery	(3/7)
		3311	Repair of fabricated metal products	(1/2)
		3312	Repair of machinery	(1/3)
3011	Machinery for agricultural use	2821	Manufacture of agricultural and forestry machinery	
3012	Machinery and equipment for construction and mining	2824	Manufacture of machinery for mining, quarrying and construction	
3013	Textile machinery	2826	Manufacture of machinery for textile, apparel and leather production	(1/3)
3014	Daily lives industry machinary	2819	Manufacture of other general-purpose machinery	(4/7)
		2822	Manufacture of metal-forming machinery and machine tools	(2/3)
		2825	Manufacture of machinery for food, beverage and tobacco processing	
		2829	Manufacture of other special-purpose machinery	(2/6)

190 sector in 2011 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
3015	Basic material industry machinery	2819	Manufacture of other general-purpose machinery	(5/7)
		2823	Manufacture of machinery for metallurgy	(1/2)
		2829	Manufacture of other special-purpose machinery	(3/6)
3016	Metal processing machinery	2818	Manufacture of power-driven hand tools	(2/2)
		2822	Manufacture of metal-forming machinery and machine tools	(3/3)
		2823	Manufacture of machinery for metallurgy	(2/2)
3017	Semiconductor making equipment	2829	Manufacture of other special-purpose machinery	(4/6)
3019	Miscellaneous production machinery	2593	Manufacture of cutlery, hand tools and general hardware	(2/2)
		2826	Manufacture of machinery for textile, apparel and leather production	(2/3)
		2829	Manufacture of other special-purpose machinery	(5/6)
3111	Office machines	2817	Manufacture of office machinery and equipment (except computers and peripheral equipment)	(2/3)
3112	Machinery for service industry	2790	Manufacture of other electrical equipment	(2/6)
		2819	Manufacture of other general-purpose machinery	(6/7)
		2826	Manufacture of machinery for textile, apparel and leather production	(3/3)
		2829	Manufacture of other special-purpose machinery	(6/6)
3113	Measuring instruments	2651	Manufacture of measuring, testing, navigating and control equipment	(1/2)
		2819	Manufacture of other general-purpose machinery	(7/7)
		3250	Manufacture of medical and dental instruments and supplies	(3/6)
3114	Medical instruments	2660	Manufacture of irradiation, electromedical and electrotherapeutic equipment	(1/4)
		3250	Manufacture of medical and dental instruments and supplies	(4/6)
3115	Optical instruments and lenses	2670	Manufacture of optical instruments and photographic equipment	(1/2)
3116	Ordnance	2520	Manufacture of weapons and ammunition	
		3040	Manufacture of military fighting vehicles	
3211	Electronic devices	2610	Manufacture of electronic components and boards	(1/2)
		2660	Manufacture of irradiation, electromedical and electrotherapeutic equipment	(2/4)
3299	Miscellaneous electronic components	2610	Manufacture of electronic components and boards	(2/2)
		2680	Manufacture of magnetic and optical media	
3311	Electrical devices and parts	2710	Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	
		2733	Manufacture of wiring devices	
		2790	Manufacture of other electrical equipment	(3/6)
		2815	Manufacture of ovens, furnaces and furnace burners	(3/3)
		2930	Manufacture of parts and accessories for motor vehicles	(3/4)
3321	Household electric appliances	2750	Manufacture of domestic appliances	(3/3)
3331	Applied electronic equipment	2660	Manufacture of irradiation, electromedical and electrotherapeutic equipment	(3/4)
3332	Electric measuring instruments	2651	Manufacture of measuring, testing, navigating and control equipment	(2/2)
		2660	Manufacture of irradiation, electromedical and electrotherapeutic equipment	(4/4)
3399	Miscellaneous electrical machinery	2720	Manufacture of batteries and accumulators	
		2740	Manufacture of electric lighting equipment	
		2790	Manufacture of other electrical equipment	(4/6)
3411	Household electronics equipment	2630	Manufacture of communication equipment	(1/2)
		2640	Manufacture of consumer electronics	(1/2)
		2670	Manufacture of optical instruments and photographic equipment	(2/2)
3412	Communication equipment	2630	Manufacture of communication equipment	(2/2)
		2790	Manufacture of other electrical equipment	(5/6)
3421	Electronic computing equipment and accessory equipment of electronic computing equipment	2620	Manufacture of computers and peripheral equipment	
3511	Passenger motor cars	2910	Manufacture of motor vehicles	
3521	Trucks, buses and miscellaneous cars	2910	Manufacture of motor vehicles	
		2920	Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers	
3522	Two-wheel motor vehicles	3091	Manufacture of motorcycles	(3/3)
3531	Motor vehicle parts and accessories	2930	Manufacture of parts and accessories for motor vehicles	(4/4)
		3091	Manufacture of motorcycles	
3541	Ships and repair of ships	2811	Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	(3/3)
		3011	Building of ships and floating structures	
		3012	Building of pleasure and sporting boats	
		3315	Repair of transport equipment, except motor vehicles	
3591	Rolling stock and repair of rolling stock	3020	Manufacture of railway locomotives and rolling stock	
3592	Aircrafts and repair of air crafts	1392	Manufacture of made-up textile articles, except apparel	(2/2)
		3030	Manufacture of air and spacecraft and related machinery	(1/2)
		3312	Repair of machinery	(2/3)
3599	Miscellaneous transport equipment	2816	Manufacture of lifting and handling equipment	(2/2)
		3030	Manufacture of air and spacecraft and related machinery	(2/2)
		3092	Manufacture of bicycles and invalid carriages	(3/3)
		3099	Manufacture of other transport equipment n.e.c.	(2/2)

190 sector in 2011 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
3911	Toys and games, sporting and athletic goods	2640	Manufacture of consumer electronics	(2/2)
		3230	Manufacture of sports goods	
		3240	Manufacture of games and toys	
3919	Miscellaneous manufacturing products	1622	Manufacture of builders' carpentry and joinery	(4/4)
		1623	Manufacture of wooden containers	(2/2)
		1629	Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	(3/3)
		1820	Reproduction of recorded media	
		2022	Manufacture of paints, varnishes and similar coatings, printing ink and mastics	(2/2)
		2029	Manufacture of other chemical products n.e.c.	(5/5)
		2652	Manufacture of watches and clocks	
		2790	Manufacture of other electrical equipment	(6/6)
		2817	Manufacture of office machinery and equipment (except computers and peripheral equipment)	(3/3)
		3100	Manufacture of furniture	(2/2)
		3211	Manufacture of jewellery and related articles	
		3212	Manufacture of imitation jewellery and related articles	(2/2)
		3220	Manufacture of musical instruments	(2/2)
		3250	Manufacture of medical and dental instruments and supplies	(5/6)
		3290	Other manufacturing n.e c.	(5/5)
3921	Reuse and recycling	3830	Materials recovery	(3/4)
		4669	Wholesale of waste and scrap and other products n.e.c.	(1/2)
4111	Residential construction	3320	Installation of industrial machinery and equipment	
4112	Non-residential construction	4100	Construction of buildings	
4121	Repair of construction	4210	Construction of roads and railways	
4131	Public construction	4220	Construction of utility projects	
4191	Miscellaneous civil engineering and construction	4290	Construction of other civil engineering projects	
		4311	Demolition	
		4312	Site preparation	
		4321	Electrical installation	
		4322	Plumbing, heat and air-conditioning installation	
		4329	Other construction installation	
		4330	Building completion and finishing	
		4390	Other specialized construction activities	
		8130	Landscape care and maintenance service activities	(1/2)
4611	Electricity	3510	Electric power generation, transmission and distribution	
4621	Gas supply	3520	Manufacture of gas; distribution of gaseous fuels through mains	
4622	Steam and hot water supply	3530	Steam and air conditioning supply	(2/2)
4711	Water supply	3600	Water collection, treatment and supply	(1/2)
		3700	Sewerage	(1/2)
4811	Waste management service	3700	Sewerage	(2/2)
		3811	Collection of non-hazardous waste	
		3812	Collection of hazardous waste	
		3821	Treatment and disposal of non-hazardous waste	(2/2)
		3822	Treatment and disposal of hazardous waste	
		8412	Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security	(1/5)
5111	Wholesale trade	4510	Sale of motor vehicles	(1/2)
		4520	Maintenance and repair of motor vehicles	(1/3)
		4530	Sale of motor vehicle parts and accessories	(1/2)
		4540	Sale, maintenance and repair of motorcycles and related parts and accessories	(1/3)
		4610	Wholesale on a fee or contract basis	
		4620	Wholesale of agricultural raw materials and live animals	
		4630	Wholesale of food, beverages and tobacco	
		4641	Wholesale of textiles, clothing and footwear	
		4649	Wholesale of other household goods	
		4651	Wholesale of computers, computer peripheral equipment and software	
		4652	Wholesale of electronic and telecommunications equipment and parts	
		4653	Wholesale of agricultural machinery, equipment and supplies	(1/2)
		4659	Wholesale of other machinery and equipment	
		4661	Wholesale of solid, liquid and gaseous fuels and related products	
		4662	Wholesale of metals and metal ores	
		4663	Wholesale of construction materials, hardware, plumbing and heating equipment and supplies	
		4669	Wholesale of waste and scrap and other products n.e.c.	(2/2)
		4690	Non-specialized wholesale trade	

190 sector in 2011 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
5112	Retail trade	1071	Manufacture of bakery products	(2/2)
		4510	Sale of motor vehicles	(2/2)
		4520	Maintenance and repair of motor vehicles	(2/3)
		4530	Sale of motor vehicle parts and accessories	(2/2)
		4540	Sale, maintenance and repair of motorcycles and related parts and accessories	(2/3)
		4653	Wholesale of agricultural machinery, equipment and supplies	(2/2)
		4711	Retail sale in non-specialized stores with food, beverages or tobacco predominating	
		4719	Other retail sale in non-specialized stores	
		4721	Retail sale of food in specialized stores	
		4722	Retail sale of beverages in specialized stores	
		4723	Retail sale of tobacco products in specialized stores	
		4730	Retail sale of automotive fuel in specialized stores	
		4741	Retail sale of computers, peripheral units, software and telecommunications equipment in specialized stores	
		4742	Retail sale of audio and video equipment in specialized stores	
		4751	Retail sale of textiles in specialized stores	
		4752	Retail sale of hardware, paints and glass in specialized stores	
		4753	Retail sale of carpets, rugs, wall and floor coverings in specialized stores	
		4759	Retail sale of electrical household appliances, furniture, lighting equipment and other household articles in specialized stores	
		4761	Retail sale of books, newspapers and stationary in specialized stores	
		4762	Retail sale of music and video recordings in specialized stores	
		4763	Retail sale of sporting equipment in specialized stores	
		4764	Retail sale of games and toys in specialized stores	
		4771	Retail sale of clothing, footwear and leather articles in specialized stores	
		4772	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles in specialized stores	
		4773	Other retail sale of new goods in specialized stores	(1/2)
		4774	Retail sale of second-hand goods	
		4781	Retail sale via stalls and markets of food, beverages and tobacco products	
		4782	Retail sale via stalls and markets of textiles, clothing and footwear	
		4789	Retail sale via stalls and markets of other goods	
		4791	Retail sale via mail order houses or via Internet	
		4799	Other retail sale not in stores, stalls or markets	
		6492	Other credit granting	(1/2)
5311	Financial service	6411	Central banking	
		6419	Other monetary intermediation	(1/2)
		6430	Trusts, funds and similar financial entities	
		6492	Other credit granting	(2/2)
		6499	Other financial service activities, except insurance and pension funding activities, n.e.c.	
		6512	Non-life insurance	(1/2)
		6520	Reinsurance	(1/2)
		6611	Administration of financial markets	
		6612	Security and commodity contracts brokerage	
		6619	Other activities auxiliary to financial service activities	
		6630	Fund management activities	
		8291	Activities of collection agencies and credit bureaus	(1/2)
5312	Insurance	6511	Life insurance	
		6512	Non-life insurance	(2/2)
		6520	Reinsurance	(2/2)
		6621	Risk and damage evaluation	
		6622	Activities of insurance agents and brokers	(1/2)
		6629	Other activities auxiliary to insurance and pension funding	
5511	Real estate agencies and rental services	6810	Real estate activities with own or leased property	(1/3)
		6820	Real estate activities on a fee or contract basis	(1/3)
5521	House rent	6810	Real estate activities with own or leased property	(2/3)
5711	Railway transport (passengers)	4911	Passenger rail transport, interurban	
		4921	Urban and suburban passenger land transport	(1/2)
		4922	Other passenger land transport	(1/2)
		5221	Service activities incidental to land transportation	(1/2)
5712	Railway transport (freight)	4912	Freight rail transport	
5721	Road transport service	4921	Urban and suburban passenger land transport	(2/2)
		4922	Other passenger land transport	(2/2)
5722	Road freight transport (except self-transport)	4923	Freight transport by road	
5741	International shipping	5011	Sea and coastal passenger water transport	(1/3)
		7730	Renting and leasing of other machinery, equipment and tangible goods	(1/4)
5742	Coastal and inland water transport	5011	Sea and coastal passenger water transport	(2/3)
		5021	Inland passenger water transport	(1/2)
		7730	Renting and leasing of other machinery, equipment and tangible goods	(2/4)

190 sector in 2011 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
5743	Harbor transport service	5224	Cargo handling	(1/2)
5751	Air transport	5110	Passenger air transport	
		5120	Freight air transport	
		7310	Advertising	(1/3)
		7420	Photographic activities	(1/2)
5761	Freight forwarding	5229	Other transportation support activities	(1/4)
		5320	Courier activities	(1/2)
5771	Storage facility service	5210	Warehousing and storage	
5781	Packing service	5229	Other transportation support activities	(2/4)
5789	Miscellaneous services relating to transport	3600	Water collection, treatment and supply	(2/2)
		5221	Service activities incidental to land transportation	(2/2)
		5222	Service activities incidental to water transportation	
		5223	Service activities incidental to air transportation	
		5224	Cargo handling	(2/2)
		5229	Other transportation support activities	(3/4)
		6810	Real estate activities with own or leased property	(3/3)
		6820	Real estate activities on a fee or contract basis	(2/3)
		7911	Travel agency activities	
		7912	Tour operator activities	
5791	Postal services and mail delivery	5310	Postal activities	(1/2)
		5320	Courier activities	(2/2)
5911	Telecommunications	6110	Wired telecommunications activities	(1/3)
		6120	Wireless telecommunications activities	
		6130	Satellite telecommunications activities	(1/2)
		6190	Other telecommunications activities	(1/2)
		6311	Data processing, hosting and related activities	(1/3)
5919	Miscellaneous services relating to communication	4773	Other retail sale of new goods in specialized stores	(2/2)
		5310	Postal activities	(2/2)
		6110	Wired telecommunications activities	(2/3)
		6190	Other telecommunications activities	(2/2)
		6419	Other monetary intermediation	(2/2)
		6622	Activities of insurance agents and brokers	(2/2)
5921	Broadcasting	6010	Radio broadcasting	
		6020	Television programming and broadcasting activities	
		6110	Wired telecommunications activities	(3/3)
		6130	Satellite telecommunications activities	(2/2)
5931	Information services	5820	Software publishing	
		6201	Computer programming activities	
		6202	Computer consultancy and computer facilities management activities	
		6209	Other information technology and computer service activities	
		6311	Data processing, hosting and related activities	(2/3)
		6399	Other information service activities n.e.c.	(1/3)
		7320	Market research and public opinion polling	
5941	Internet based services	6311	Data processing, hosting and related activities	(3/3)
		6312	Web portals	
		6399	Other information service activities n.e.c.	(2/3)
5951	Image information, sound information and character information production	5811	Book publishing	
		5812	Publishing of directories and mailing lists	
		5813	Publishing of newspapers, journals and periodicals	
		5819	Other publishing activities	
		5911	Motion picture, video and television programme production activities	
		5912	Motion picture, video and television programme post-production activities	
		5913	Motion picture, video and television programme distribution activities	
		5920	Sound recording and music publishing activities	
		6391	News agency activities	
		7810	Activities of employment placement agencies	(1/3)
6111	Public administration (central)	8411	General public administration activities	(1/2)
		8412	Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security	(2/5)
		8413	Regulation of and contribution to more efficient operation of businesses	(1/2)
		8421	Foreign affairs	
		8422	Defence activities	
		8423	Public order and safety activities	(1/2)
		8430	Compulsory social security activities	(1/2)
6112	Public administration (local)	8411	General public administration activities	(2/2)
		8412	Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security	(3/5)
		8413	Regulation of and contribution to more efficient operation of businesses	(2/2)
		8423	Public order and safety activities	(2/2)
6311	School education	8510	Pre-primary and primary education	
		8521	General secondary education	(1/3)
		8522	Technical and vocational secondary education	
		8530	Higher education	(1/2)

190 sector in 2011 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
6312	Social education and miscellaneous educational and training institutions	8521	General secondary education	(2/3)
		8530	Higher education	(2/2)
		8541	Sports and recreation education	(1/2)
		8549	Other education n.e.c.	(1/2)
		8550	Educational support activities	(1/2)
		8890	Other social work activities without accommodation	(1/2)
		9101	Other social work activities without accommodation	
		9102	Other social work activities without accommodation	
		9103	Other social work activities without accommodation	
6321	Research institutes	7210	Research and experimental development on natural sciences and engineering	
		7220	Research and experimental development on social sciences and humanities	
6411	Medical service	3250	Manufacture of medical and dental instruments and supplies	(6/6)
		8610	Hospital activities	(1/2)
		8620	Medical and dental practice activities	(1/2)
		8690	Other human health activities	(1/3)
6421	Health and hygiene	8412	Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security	(4/5)
6431	Social insurance and social welfare	6530	Pension funding	
		8430	Compulsory social security activities	(2/2)
		8521	General secondary education	(3/3)
		8690	Other human health activities	(2/3)
		8710	Residential nursing care facilities	(1/2)
		8720	Residential care activities for mental retardation, mental health and substance abuse	
		8730	Residential care activities for the elderly and disabled	(1/2)
		8790	Other residential care activities	
		8810	Social work activities without accommodation for the elderly and disabled	(1/2)
		8890	Other social work activities without accommodation	(2/2)
6441	Nursing care	8610	Hospital activities	(2/2)
		8620	Medical and dental practice activities	(2/2)
		8690	Other human health activities	(3/3)
		8710	Residential nursing care facilities	(2/2)
		8730	Residential care activities for the elderly and disabled	(2/2)
		8810	Social work activities without accommodation for the elderly and disabled	(2/2)
6599	Miscellaneous non-profit services	8412	Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security	(5/5)
		9411	Activities of business and employers membership organizations	
		9412	Activities of professional membership organizations	
		9420	Activities of trade unions	
		9491	Activities of religious organizations	(1/2)
		9492	Activities of political organizations	
		9499	Activities of other membership organizations n.e.c.	
6611	Goods rental and leasing (except car rental)	6491	Financial leasing	(1/2)
		7721	Renting and leasing of recreational and sports goods	
		7722	Renting of video tapes and disks	
		7729	Renting and leasing of other personal and household goods	
		7730	Renting and leasing of other machinery, equipment and tangible goods	(3/4)
6612	Car rental and leasing	6491	Financial leasing	(2/2)
		7710	Renting and leasing of motor vehicles	
		7730	Renting and leasing of other machinery, equipment and tangible goods	(4/4)
6621	Advertising services	7310	Advertising	(2/3)
6631	Motor vehicle maintenance services	4520	Maintenance and repair of motor vehicles	(3/3)
		4540	Sale, maintenance and repair of motorcycles and related parts and accessories	(3/3)
6632	Repair of machine	3311	Repair of fabricated metal products	(2/2)
		3312	Repair of machinery	(3/3)
		3314	Repair of electrical equipment	
		9511	Repair of computers and peripheral equipment	
		9512	Repair of communication equipment	
		9521	Repair of consumer electronics	
		9522	Repair of household appliances and home and garden equipment	
6699	Miscellaneous business services	3830	Materials recovery	(4/4)
		5229	Other transportation support activities	(4/4)
		6399	Other information service activities n.e.c.	(3/3)
		6820	Real estate activities on a fee or contract basis	(3/3)
		6910	Legal activities	
		6920	Accounting, bookkeeping and auditing activities; tax consultancy	
		7020	Management consultancy activities	
		7110	Architectural and engineering activities and related technical consultancy	
		7120	Technical testing and analysis	
		7310	Advertising	(3/3)
		7410	Specialized design activities	

190 sector in 2011 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
		7490	Other professional, scientific and technical activities n.e.c.	
		7740	Leasing of intellectual property and similar products, except copyrighted works	
		7810	Activities of employment placement agencies	(2/3)
		7820	Temporary employment agency activities	
		7830	Other human resources provision	
		8010	Private security activities	
		8020	Security systems service activities	
		8030	Investigation activities	
		8110	Combined facilities support activities	
		8121	General cleaning of buildings	
		8129	Other building and industrial cleaning activities	
		8211	Combined office administrative service activities	
		8219	Photocopying, document preparation and other specialized office support activities	
		8220	Activities of call centres	
		8230	Organization of conventions and trade shows	
		8291	Activities of collection agencies and credit bureaus	(2/2)
		8292	Packaging activities	
		8299	Other business support service activities n.e.c.	
		8550	Educational support activities	(2/2)
6711	Hotels	5510	Courier activities	
		5520	Courier activities	
		5590	Other accommodation	
6721	Eating and drinking services	5610	Restaurants and mobile food service activities	
		5621	Event catering	
		5629	Other food service activities	
		5630	Beverage serving activities	
6731	Cleaning, barber shops, beauty shops and public baths	9601	Washing and (dry-) cleaning of textile and fur products	
		9602	Hairdressing and other beauty treatment	
		9609	Other personal service activities n.e.c.	(1/2)
6741	Amusement and recreational services	5011	Sea and coastal passenger water transport	(3/3)
		5021	Inland passenger water transport	(2/2)
		5914	Motion picture projection activities	
		7810	Activities of employment placement agencies	(3/3)
		7990	Other reservation service and related activities	(1/2)
		9000	Other social work activities without accommodation	
		9200	Other social work activities without accommodation	(1/2)
		9311	Operation of sports facilities	
		9312	Activities of sports clubs	
		9319	Other sports activities	
		9321	Activities of amusement parks and theme parks	
		9329	Other amusement and recreation activities n.e.c.	
6799	Miscellaneous personal services	7420	Photographic activities	(2/2)
		7990	Other reservation service and related activities	(2/2)
		8130	Landscape care and maintenance service activities	(2/2)
		8541	Sports and recreation education	(2/2)
		8542	Cultural education	
		8549	Other education n.e.c.	(2/2)
		9200	Other social work activities without accommodation	(2/2)
		9491	Activities of religious organizations	(2/2)
		9523	Repair of footwear and leather goods	
		9524	Repair of furniture and home furnishings	
		9529	Repair of other personal and household goods	
		9603	Funeral and related activities	
		9609	Other personal service activities n.e.c.	(2/2)
		9700	Activities of households as employers of domestic personnel	

CHAPTER Ⅶ
CONCEPT, DEFINITION AND SCOPE BY SECTOR

This chapter stipulates the concept, definition, and scope of individual sectors that are shown in the basic sector classification table of the 2011 I-O Tables.

The concept, definition, and scope of the sectors are generally described in following ways.

(Column・Row Code、Sector Name)

Organized according to the coding number order. However, for sectors related to the major aggregated classification "Miscellaneous manufacturing products," there are some sectors that do not follow the coding number order, as there are some sectors that cover multiple categories.

(Ministry or agency in charge)

The responsible Ministry or Agency in charge of the sector is shown.

(Definition, Scope)

The definition and the scope of the sectors are summarized.

(Given examples)

Examples of major goods or services that are generated by the sector's activities are shown.

However, in cases where the major goods or services that are generated are clear from the row sector name, there are instances where given examples are omitted.

(Changes)

Major changes in concept, definition, or scope in the 2011 Input-Output Tables are shown if they differ from those of 2005 I-O Tables.

(Notes)

Points to remember with regard to concept, definition, or scope are listed.

Notes 1 A star mark in the column of the sector name signifies that sector's major acting body.

**・・・・・・・Producer of government services

*・・・・・・・・Producer of private non-profit services for households

(nothing)・・Industry

2 P represents a dummy sector.

3 Based on the 12th revision of the Japan Standard Industrial Classification implemented in November 2007, "Establishments engaged in administrative or ancillary economic activities" was established as a minor classification for each medium industrial classification. However, in the 2011 Tables, these activities were not established as an independent sector, and are conceptually handled as being included in each sector. This is not listed for each instance.

The Industry Number 7282 "Pure holding companies" of the Japan Standard Industrial Classification is handled in the same manner, as it does not have a core business, and is considered as having the same activities as "Establishments engaged in administrative or ancillary economic activities" since it is dedicated to management strategy, human resources strategy, decision-making, etc. of other companies.

§1 Endogenous Sectors

01 Agriculture, forestry, and fishery

Column Code	Row Code	Sector Name
0111-01		Rice
	0111-011	Rice
	0111-012	Rice straw

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “Rice farming” as specified in Industry Number 0111 of the Standard Industrial Classification for Japan.

(Given examples)

Rice, rice straw

Column Code	Row Code	Sector Name
0111-02		Wheat, barley and the like
	0111-021	Wheat (domestic)
	0111-022	Wheat (imported)
	0111-023	Barley (domestic)
	0111-024	Barley (imported)

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for wheat, barley and the like among those listed as “Grain and soybean farming, except rice farming” as specified in Industry Number 0112 of the Standard Industrial Classification for Japan.

(Given examples)

Wheat, barley (nijo, rokujo), hadaka-mugi

(Notes)

As handling changed due to systematic changes to subsidies that were included in domestic production, this does not match the standard for domestic production in tables up to the 2005 Tables.

Column Code	Row Code	Sector Name
0112-01		Potatoes and sweet potatoes
	0112-011	Sweet potatoes
	0112-012	Potatoes

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “Potato and sweet potato farming” as specified in Industry Number 0117 of the Standard Industrial Classification for Japan.

(Given examples)

Sweet potatoes, potatoes

(Notes)

(1) Taro and yams are classified in the “0113-01 Vegetables (outdoor)” and “0113-001 Vegetables” sectors.

(2) As handling changed due to systematic changes to subsidies that were included in domestic production, this does not match the standard for domestic production in tables up to the 2005 Tables.

Column Code	Row Code	Sector Name
0112-02		Pulses
	0112-021	Soybeans (domestic)
	0112-022	Soybeans (imported)
	0112-029	Miscellaneous pulses

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for pulses among those listed as “Grain and soybean farming, except rice farming” as specified in Industry Number 0112 of the Standard Industrial Classification for Japan.

(Given examples)

Soybeans (domestic), soybeans (imported), other pulses (peas, broad beans, kidney beans, adzuki beans, Sausage, peanuts, other pulses)

(Notes)

(1) Immature soybeans, peas, broad beans, and kidney beans are classified in the “0113-01 Vegetables (outdoor)” and “0113-001 Vegetables” sectors.

(2) As handling changed due to systematic changes to subsidies that were included in domestic production, this does not match the standard for domestic production in tables up to the 2005 Tables.

Column Code	Row Code	Sector Name
	0113-001	Vegetables
0113-01		Vegetables (outdoor)
0113-02		Vegetables (under facilities)

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

Theproduction activities for Vegetables for among those liseted as “Vegetable farming, including mushrooms” as specified in Industry Number 0113 of the Standard Industrial Classification for Japan.

Furthermore, the scope of Vegetables (under facilities) corresponds to the vegetable production activities of glasshouses (a facility covered by glass and in which one is able to conduct work in a normal posture) or houses (a facility covered by material other than glass, and in which one is able to conduct work in a normal posture); the scope of Vegetables (outdoor) corresponds to vegetable production activities based on other methods.

(Given examples)

Fruit vegetables (outdoor): Pumpkins, green peppers, cucumbers, melons (outdoor), water melons, eggplants, tomatoes, young peas (immature peas), immature corn, green soybeans (immature soybeans), kidney beans (immature kidney beans)

Leafy vegetables (outdoor): Cabbages, Chinese cabbages, non-fruit Chinese cabbages, spinach, long leeks, onions, leeks, hornworts, crown daisies, garlic, lettuces, celery, cauliflower, broccoli, asparagus, bamboo shoots

Root vegetables: Japanese radish, Japanese turnip, carrots, burdock root, taros, yams, lotus root, ginger

Fruit vegetables (under facilities): pumpkins, green peppers, cucumbers, greenhouse melon, water melon, eggplants, tomatoes, strawberries

Leafy vegetables (outdoor): Lettuces, bean sprouts

(Changes)

In the 2005 Tables, production in plastic tunnels was classified under Vegetables (under facilities), however, this is changed to Vegetables (outdoor).

Column Code	Row Code	Sector Name
0114-01		Fruits
	0114-011	Citrus fruits
	0114-012	Apples
	0114-019	Miscellaneous fruits

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “Fruit and nut farming” as specified in Industry Number 0114 of the Standard Industrial Classification for Japan.

(Given examples)

Citrus fruits: Oranges, summer oranges, navel oranges, hassaku oranges, iyo oranges, grapefruits (imported), and the growing of citrus fruits

Apples: Apples and the growing of apples

Other fruits: Grapes, Japanese pears, pears, peaches, otoh, Japanese apricots, loquats, persimmons, Japanese chestnuts, kiwi fruits, pineapples, bananas (imported), and the growing of other fruits

Column Code	Row Code	Sector Name
0115-01	0115-011	Sugar crops

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for sugar crops among those listed as “Crop farming for industrial products” as specified in Industry Number 0116 of the Standard Industrial Classification for Japan

(Given examples)

Sugar canes, sugar beets

(Notes)

As handling changed due to systematic changes to subsidies that were included in domestic production, this does not match the standard for domestic production in tables up to the 2005 Tables.

Column Code	Row Code	Sector Name
0115-02		Crops for beverages
	0115-021	Green coffee and cocoa beans (imported)
	0115-029	Miscellaneous crops for beverages

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for crops for beverages that are among those listed as “Crop farming for industrial products” as specified in Industry Number 0116 of the Standard Industrial Classification for Japan

(Given examples)

Coffee beans, cocoa beans (imported), materials for beverages, tea leaves, hops, and the growing of tea leaves

Column Code	Row Code	Sector Name
0115-09		Miscellaneous edible crops
	0115-091	Miscellaneous cereals
	0115-092	Oil seeds
	0115-099	Edible crops, n.e.c.

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for edible crops, n.e.c that are not elsewhere classified among those listed as “Grain and soybean farming,except rice farming” as specified in Industry Number 0112 or “Crop farming for industrial products” as specified in Industry Number 0116 of the Standard Industrial Classification for Japan.

(Given examples)

Miscellaneous cereals (edible crops): Ryes, buckwheat, enbaku, corn, foxtail millets, millets, hie, grain

Oil seeds plants: Rape seeds (seeds), sesame, olives

Edible crops, n.e.c.: Konnyaku potatoes, spice crops (imported), cassava taro for feed(imported)

Column Code	Row Code	Sector Name
0116-01	0116-011	Feed and forage crops

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “Miscellaneous crop farming” as specified in Industry Number 0119 of the Standard Industrial Classification for Japan.

(Given examples)

Pasture grass, young corns, feed turnips

Column Code	Row Code	Sector Name
0116-02	0116-021	Seeds and seedlings

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for bulbs among those listed as “Flower farming” as specified in Industry Number 0115 of the Standard Industrial Classification for Japan and production activities for seeds and seedlings among those listed as production activities of bulbs as specified in “Miscellaneous crop farming” as specified in Industry Number 0119 of the Standard Industrial Classification for Japan; production activities relating to products inputted directly to their own sectors are excluded.

(Given examples)

Farm products seeds (excluding stock farm products and cocoons), bulbs, seedlings (excluding seedlings for mountain planting), plant growth of seedlings

(Notes)

Flowering tree saplings are included in “0116-03, -031 Flowers and plants”

Column Code	Row Code	Sector Name
0116-03	0116-031	Flowers and plants

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “Flower farming” as specified in Industry Number 0115 of the Standard Industrial Classification for Japan.

(Given examples)

Cut flowers, potted plants, flowering trees (bearing trees), saplings for flower gardens, grasses, ground cover plants, plant growth of flowering trees (bearing trees)

Column Code	Row Code	Sector Name
0116-09		Miscellaneous inedible crops
	0116-091	Leaf tobacco
	0116-092	Raw rubber (imported)
	0116-093	Raw cotton (imported)
	0116-099	Inedible crops, n.e.c.

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for other inedible crops that are not elsewhere classified among those listed as “Crop farming for industrial products” as specified in Industry Number 0116 of the Standard Industrial Classification for Japan; scraps and by-products (waste cotton) produced by other sectors are competing with “0116-093 Raw cotton (imported).”

(Given examples)

Leaf tobacco, raw rubber (imported), raw cotton (imported), medicinal crops (medicinal carrots, ama-cha-tsuru), crops for paper (paper mulberry, mitsumata plants, and so forth), crops for mattresses (rushes and so forth)

Column Code	Row Code	Sector Name
0121-01		Dairy cattle farming
	0121-011	Raw milk
	0121-019	Miscellaneous dairy farming products

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Dairy cattle farming" as specified in Industry Number 0121 of the Standard Industrial Classification for Japan.

(Given examples)

Raw milk, young milk cows (for slaughter or breeding), increase in growth of young milk cows, culled dairy cattle, manure

Column Code	Row Code	Sector Name
0121-02	0121-021	Beef cattle

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Beef cattle farming" as specified in Industry Number 0122 of the Standard Industrial Classification for Japan.

(Given examples)

Cattle for slaughter (including the increase of the number of breeding in relation to the number of cattle), cattle for breeding, manure

Column Code	Row Code	Sector Name
0121-03	0121-031	Hogs

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Pig and hog farming" as specified in Industry Number 0123 of the Standard Industrial Classification for Japan.

(Given examples)

Hogs (including the increase of the number of young hogs in relation to the number of hogs), manure

Column Code	Row Code	Sector Name
0121-04	0121-041	Hen eggs

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for hen eggs among those listed as "Layers and broilers farming" as specified in Industry Number 0124 of the Standard Industrial Classification for Japan.

(Given examples)

Hen eggs, hens (including the increase of the number of chickens in relation to the number of hens), abnormal eggs, chicken manure

Column Code	Row Code	Sector Name
0121-05	0121-051	Chickens

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for fowls and broilers among those listed as "Layers and broilers farming" as specified in Industry Number 0124 of the Standard Industrial Classification for Japan.

(Given examples)

Broilers, chicken manure

Column Code	Row Code	Sector Name
0121-09		Miscellaneous livestock
	0121-091	Sheep and lamp wool
	0121-099	Livestock, n.e.c.

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for livestock that are classified as "Livestock animals specialties" specified in Industry Number 0125, "Sericulture farming" as specified in Industry Number 0126, and "Miscellaneous livestock farming" as specified in Industry Number 0129 of the Standard Industrial Classification for Japan; scraps and by-products(wool waste) are competing with this sector.

(Given examples)

Wool, horses (including stallions), goats, sheep, fur animals (the breeding of minks and rabbits, their furs, and other furs), edible fowl (excluding hens), other edible livestock (goat's milk, bee honey, quail eggs), pet animals (including insects), experimental animals (mice, guinea pigs), manure, sericulture

Column Code	Row Code	Sector Name
0131-01	0131-011	Veterinary service

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Veterinary services" as specified in Industry Number 7411 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
0131-02	0131-021	Agricultural services (except veterinary service)

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "AGRICULTURAL SERVICES, EXCEPT GARDANING SERVICES" as specified in Group Number 013 of the Standard Industrial Classification for Japan.

(Given examples)

Grain elevators, rice centers, community facilities for rice seedbeds, land reformation areas, community sorting facilities for fruits and vegetables, crop spraying, community breeding beds for silkworms, stud services, incubator services

Column Code	Row Code	Sector Name
0151-01	0151-011	Silviculture

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Timber tracts" under Industry Number 0211 and "Tree seed gathering and forest nursery services" under Industry Number 0231 of the Standard Industrial Classification for Japan.

(Given examples)

Seedlings, the planting of trees

(Notes)

(1) Although seedlings for forestry use are intermediate products, they are included in this sector.

(2) This sector covers "Timber tract services" under Industry Number 0241 and "Tree seed gathering and forest nursery services" under Industry Number 0243 of the Standard Industrial Classification for Japan, but does not record its production value because of transaction within its own sector.

Column Code	Row Code	Sector Name
0152-01		Logs
	0152-011	Logs (domestic)
	0152-012	Logs (imported)

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Logging" under Industry Number 0221 and "Logging services" under Industry Number 0242 of the Standard Industrial Classification for Japan.

(Given examples)

Logs (soma-corner, large-cut parts)

(Notes)

This sector covers "Logging services" under Industry Number 0242 of the Standard Industrial Classification for Japan, but does not record its production value because of transaction within its own sector.

Column Code	Row Code	Sector Name
0153-01	0153-011	Special forest products (including hunting)

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production and harvesting activities of forest products, excluding logs, for general use among those listed as "Vegetable farming,including mushrooms" as specified in Industry Number 0113, and production activities for "Cutting of fuelwood and charcoal-making" as specified in Industry Number 0231, "Miscellaneous special forest product production,except mushrooms" as specified in Industry Number 0239, "Miscellaneous forestry services" as specified in Industry Number 0249, and "Miscellaneous forestry" as specified in Industry Number 0299.

(Given examples)

Mushrooms (matsutake, shiitake, velvet shank, and so forth), nuts (chestnuts, walnuts, and so forth), root bend bamboo, raw lacquer from lacquer trees, japan wax, bamboo, fire wood, charcoal, animal skins from hunting

(Notes)

(1) Cultivated nuts are included in the "Fruits" sector in Column Number 0114-01, and the "Miscellaneous fruits" sector under Row Number 0114-019.

(2) This sector covers "Miscellaneous forestry services"

under Industry Number 0249 of the Standard Industrial Classification for Japan, but does not record its production value because of transaction within its own sector.

Column Code	Row Code	Sector Name
0171-01		Marine fishery
	0171-011	Marine fishery (domestic)
	0171-012	Marine fishery (imported)

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “MARINE FISHERIES” under Group Number 031 of the Standard Industrial Classification for Japan.

(Given examples)

Fish, shrimp, crabs, squid, octopus, sea urchins, sea cucumbers, shell fish, seaweed, whales

Column Code	Row Code	Sector Name
0171-02	0171-021	Marine aquaculture

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “MARINE AQUACULTURE” as specified in Group Number 041 of the Standard Industrial Classification for Japan.

(Given examples)

Horse mackerel, yellowtail, sea breams, prawns, sea squirts, scallops, oysters, konbu seaweed, wakame seaweed, seaweed, pearls

Column Code	Row Code	Sector Name
	0172-001	Inland water fishery and inland water aquaculture
0172-01		Inland water fishery
0172-02		Inland water aquaculture

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “INLAND WATER FISHERIES” as specified under Group Number 032 and “INLAND WATER AQUACULTURE” under Group Number 042 of the Standard Industrial Classification for Japan.

(Given examples)

Inland water fishery : Salmons and trouts, smelts, sweetfish, whitebait, carp, crucians, eels, corbiculas, shrimp

Inland water aquaculture : Trout, sweetfish, carp, crucians, eels,water pearls, ornamental fish

(Notes)

Domestic production from fish caught by recreational fishers, which was classified under inland water fishery up to the 2005 I-O Tables, is not included.

06 Mining

Column Code	Row Code	Sector Name
0611-01		Metallic ores
	0611-011	Iron ores
	0611-012	Nonferrous metallic ores

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The mining and ore sorting activities of “METAL MINING” a specified under Group Number 051 of the Standard Industrial Classification for Japan.

(Given examples)

Non-ferrous metallic ores: Copper ores, lead and zinc ores, gold ores, silver ores, tin ores, tungsten ores, iron sulfide ores

Column Code	Row Code	Sector Name
0621-01		Coal mining, crude petroleum and natural gas
	0621-011	Coal mining
	0621-012	Crude petroleum
	0621-013	Natural gas

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The extraction and sorting activities of “COAL AND LIGNITE MINING” as specified in Group Number 052 and “CRUDE PETROLEUM AND NATURAL GAS PRODUCTION” as specified in Group Number 053 of the Standard Industrial Classification for Japan.

(Given examples)

Crude coal, fuel coal, anthracite, lignite, low-grade coal, crude oil, natural gas, liquefied natural gas, compressed gas

Column Code	Row Code	Sector Name
0631-01	0631-011	Gravel and quarrying

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The mining, quarrying, and ore sorting activities of “STONE QUARRYING,SAND AND GRAVEL PITS” under Group Number 054 of the Standard Industrial Classification for Japan.

(Given examples)

Gravel, sand, peridotite (concentrate)

Column Code	Row Code	Sector Name
0631-02	0631-021	Crushed stones

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Crushed stones” as specified in Industry Number 2181 of the Standard Industrial Classification for Japan; scrap and by-products (tailing) that appear in other sectors are competing with this sector.

(Given examples)

Crushed stone, stone materials

Column Code	Row Code	Sector Name
0639-09		Miscellaneous ores
	0639-091	Limestone
	0639-092	Materials for ceramics (except limestone)
	0639-099	Ores, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The extraction and sorting activities of “CERAMIC MINERAL MINING (MINERALS ONLY FOR REFRACTORY,POTTERY AND PORCELAIN,GLASS AND CEMENT MATERIALS)” as specified in Group Number 055 and “MISCELLANEOUS MINERAL MINING” as specified in Group Number 059 of the Standard Industrial Classification for Japan; scrap and by-products (gypsum, chemical gypsum, blast furnace slag, fly ash, glass scrap, glass bottles, sulfur) that appear in other sectors are competing with this sector.

(Given examples)

Materials for ceramics (except limestone): Silica, silica sand, dolomite, soapstone, clay, silicate, porcelain, kaolin

Ores, n.e.c.: Barite, bentonite, clay such as diatomite, olivine sand

11 Beverages and Foods

Column Code	Row Code	Sector Name
1111-01		Meat
	1111-011	Beef
	1111-012	Pork
	1111-013	Chicken meat
	1111-014	Miscellaneous meat
	1111-015	Byproducts of slaughtering and meat processing

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for “Frozen meat and subprimal products” listed under Industry Number 0911, “Miscellaneous livestock products” listed under Industry Number 0919 and the production of edible fowl and their processing as specified in “Distilled, rectified and blended liquors” listed under Industry Number 9521of the Standard Industrial Classification for Japan.

Edible fowl and their processing listed in “Miscellaneous livestock products” under Industry Number 0919, and the activities of “Frozen meat and subprimal products” listed under Industry Number 9111 and “Distilled, rectified and blended liquors” listed under Industry Number 0521 of the Industry Number of the Standard Industrial Classification for Japan.

(Given examples)

Beef, pork, poultry, other meats (horse, ram, or kid meat), by-products of slaughtering (unprocessed skins, internal organs, and by-products of meat processing)

(Changes)

Frozen meat (including chicken), which was classified under “1119-09, -099 Other foods” in the 2005 I-O Tables, is integrated into this sector.

(Notes)

Other livestock products other than edible meat and their processing are classified under “1119-09, -099 Miscellaneous foods.”

Column Code	Row Code	Sector Name
1112-01	1112-011	Processed meat products

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for hams, bacons, sausages, and so forth from among those listed as “Meat products” as specified in Industry Number 0912 of the Standard Industrial Classification for Japan.

(Given examples)

Ham, bacon, sausages, hamburger (chilled), roasted pork

Column Code	Row Code	Sector Name
1112-02	1112-021	Bottled or canned meat products

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of bottled or canned meat products specified in “Meat products” listed under Industry Number 0912 and “Miscellaneous livestock products” listed under Industry Number 0919 of the Standard Industrial Classification for Japan.

(Given examples)

Bottled and canned meat products (canned corned beef, canned boiled quail eggs), canned processed food (canned curry, canned meat sauce

Column Code	Row Code	Sector Name
1112-03		Dairy farm products
	1112-031	Drinking milk
	1112-032	Dairy products

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for “Processed milk and milk beverage products” as specified in Industry Number 0921 and “Dairy products,except processed milk and milk beverage products” as specified in Industry Number 0914 of the Standard Industrial Classification for Japan。

(Given examples)

Drinking milk: Milk, processed milk

Dairy products: Milk drinks, milk powder, condensed milk, butter, cheese, ice-cream, powder mix, cream, fermented milk, lactic acid beverage

Column Code	Row Code	Sector Name
1113-01	1113-011	Frozen fish and shellfish

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for “Frozen seafood products

(unprocessed and packaged)" as specified in Industry Number 0925, and "Frozen seafood products (processed and packaged)" as specified in Industry Number 0926 of the Standard Industrial Classification for Japan.

(Given examples)

Frozen fish and shellfish, frozen processed fish and shellfish (whole or cut into three pieces and processed as frozen "sashimi"), frozen minced fish, by-products of "fish bone with little flesh"

Column Code	Row Code	Sector Name
1113-02	1113-021	Salted, dried or smoked seafood

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for salted, dried, or smoked fish and shellfish from among those listed as "Salted-dried and salted products" as specified in Industry Number 0924 and "Miscellaneous seafood products" as specified in Industry Number 0929 of the Standard Industrial Classification for Japan.

(Given examples)

Boiled and dried seafood, dried seafood, salted and dried seafood, smoked seafood, by-products of "fish bone with little flesh"

(Notes)

Dried shrimp and sweetened dried-fish are included in "1113-09, -099 Miscellaneous processed seafood"

Column Code	Row Code	Sector Name
1113-03	1113-031	Bottled or canned seafood

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Canned seafood and seaweed" as specified in Industry Number 0921 of the Standard Industrial Classification for Japan.

(Given examples)

Crab, salmon, tuna, bonito, mackerel, sardines, other bottled or canned seafood, by-products of "fish bone with little flesh"

(Notes)

Tsukudani (preserved seafood boiled reduced in soy sauce) are included, regardless of packaging, in sector "1113-09, -009 Miscellaneous processed seafood"

Column Code	Row Code	Sector Name
1113-04	1113-041	Fish paste

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Fish paste products" listed under Industry Number 0923 of the Standard Industrial Classification for Japan.

(Given examples)

Baked fish paste, boiled fish-paste, ham-and sausage-like products made of fish meat, by-products of "fish bone with little flesh"

Column Code	Row Code	Sector Name
1113-09	1113-099	Miscellaneous processed seafood

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities, excluding those for salted, dried, or smoked seafood, of "Seaweed products,except canned" listed under Industry Number 0922 and "Miscellaneous seafood products" listed under Industry Number 0929 of the Standard Industrial Classification for Japan.

(Given examples)

Dried bonito, tsukudani seafood, agar-agar, toasted and flavored seaweed, dried shrimp, sweetened dried-fish

Column Code	Row Code	Sector Name
1114-01		Grain milling
	1114-011	Milled rice
	1114-019	Miscellaneous grain milling

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Rice,Wheat and barley cleaning and polishing" listed under Industry Number 0961 of the Standard Industrial Classification for Japan.

(Given examples)

Milled rice, rice waste, rice bran, milled wheat, wheat waste

Column Code	Row Code	Sector Name
1114-02		Flour and miscellaneous grain milled products
	1114-021	Wheat flour
	1114-029	Miscellaneous grain milled products

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Wheat flour milling" listed under Industry Number 0962 and "Miscellaneous flour and grain mill products" listed under Industry Number 0969 of the Standard Industrial Classification for Japan.

(Given examples)

Wheat, "fusuma" powder, "soba" powder, "konnyaku" powder, rice powder

Column Code	Row Code	Sector Name
1115-01	1115-011	Noodles

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Noodles,macaroni and spaghetti" listed under Industry Number 0992 of the Standard Industrial Classification for Japan.

(Given examples)

Dried noodles, instant noodles, macaroni and spaghetti, noodles

Column Code	Row Code	Sector Name
1115-02	1115-021	Bread

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Bread" listed under Industry Number 0971, processed bread and sandwiches in "Sushi, box lunch and bread with ingredients" listed under Industry Number 0997, and manufacturing as part of "Retail bakers (manufacturers-sellers)" listed under Industry Number 5863 of the Standard Industrial Classification for Japan.

(Given examples)

Breads, cookie bread, processed bread, sandwiches

(Notes)

Includes production activities of manufacturing of goods that are manufactured and sold within retail stores.

Column Code	Row Code	Sector Name
1115-03	1115-031	Confectionery

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Pastries and cakes" listed under Industry Number 0972, "Biscuits, crackers and other dry bakery products" listed under Industry Number 0973, "Baked rice confections" listed under Industry Number 0974, "Miscellaneous bakery and confectionery products" listed under Industry Number 0979, instant cocoa as specified in "Food and related products, n.e.c" listed under Industry Number 0999, and activities of manufacturing of "Candy, confectionery and nut stores (manufacturer-sellers" listed under Industry Number 5861 of the Standard Industrial Classification for Japan.

(Given examples)

Caramel, sweet drops, candies, chocolate, chewing gums, baked cookies, biscuits, rice cakes, Japanese cakes, cakes, snack cookies, fatty cakes, cocoa

(Notes)

Includes production activities of manufacturing of goods that are manufactured and sold within retail stores.

Column Code	Row Code	Sector Name
1116-01	1116-011	Bottled or canned vegetables and fruits

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for bottled or canned and undiluted juices as listed among those specified in "Canned and preserved fruit and vegetable products, except vegetables pickled or in brine" under Industry Number 0931 of the Standard Industrial Classification for Japan.

(Given examples)

Bottled or canned vegetables, bottled or canned fruits, bottled or canned jams, vegetable juice, condensed undiluted fruit juice

(Notes)

(1) Fruit juices other than undiluted condensed fruit juices are classified in "1129-02, -021 Soft drinks," and canned cakes are classified in "1115-03, -031 Confectionery."

(2) Bottled or canned gravy sauce, soup, and tomato-based products (ketchup, puree,) excluding juice, are classified

in “1117-05, -051 Condiments and seasonings”

(3) The classification of vegetable juices and undiluted condensed fruit juices is not affected by the type of containers in use

Column Code	Row Code	Sector Name
1116-02	1116-021	Preserved agricultural foodstuffs (except bottled or canned)

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities, excluding thoese for bottled or canned and undiluted juices,of“Canned and preserved fruit and vegetable products,except vegetables pickled or in brine” listed under Industry Number 0931, and production activities for “Vegetables pickled or in brine,not in air-tight containers” listed under Industry Number 0932 of the Standard Industrial Classification for Japan.

(Given examples)

Dried vegetables, frozen vegetables, pickles, cup-jam, dried gourd, dried cut radishes, mashed potatoes, dried persimmon

Column Code	Row Code	Sector Name
1117-01		Sugar
	1117-011	Refined sugar
	1117-019	Miscellaneous sugar and byproducts of sugar manufacturing

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for “Sugar, except refined sugar” listed under Industry Number 0951 and “Refined sugar products” listed under Industry Number 0952 of the Standard Industrial Classification for Japan.

(Given examples)

Refined sugar (beet sugar, sugarcane), honey, by-products (sugar honey, beet pulp)

(Notes)

This sector covers the production activities of non-refined sugar from cane (domestic) and of refined sugar from non-refined sources, but does not record their production value that carry out these processes because of input within their own sector.

Column Code	Row Code	Sector Name
1117-02	1117-021	Starch

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for “Starch” listed under Industry Number 0991 of the Standard Industrial Classification for Japan.

(Given examples)

Sweet potato starch, potato starch, wheat starch, corn starch, starch lees

Column Code	Row Code	Sector Name
1117-03	1117-031	Dextrose, syrup and isomerized sugar

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for “Glucose, starch syrup and high-fructose corn syrup” listed under Industry Number 0953 of the Standard Industrial Classification for Japan.

(Given examples)

Dextrose (dextrose (glucose) anhydrous, dextrose (glucose) monohydrate, dextrose (glucose) total sugar type), syrup (syrup, dried syrup), isomerized sugar

Column Code	Row Code	Sector Name
1117-04		Animal oil and fats, vegetable oil and meal
	1117-041	Vegetable oil
	1117-042	Animal oils and fats
	1117-043	Cooking oil
	1117-044	Vegetable meal

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for hardened oils (edible oils) listed among those specified in “ANIMAL AND VEGETABLE OILS AND FATS” under Group Number 098, and “Fatty acids, hydrogenated oils and glycerin” under Industry Group Number 1641 of the Standard Industrial Classification for Japan.

The competing sector of the other sector’s scrap and by-products (fruit juice strained lees, vegetable scrap) is “Vegetable meal.”

(Given examples)

Vegetable oils and fats: Edible rape seed oil, edible bean oil, non-edible vegetable oils (linseed oil, castor oil)

Animal oils and fats：Animal oils and fats, refined lard, fish oils

Cooking oil：Margarine, shortening, purification lard

Vegetable meal：Rapeseed meal, soy meal, rice bran meal

Column Code	Row Code	Sector Name
1117-05	1117-051	Condiments and seasonings

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "SEASONINGS" listed under Group Number 094 of the Standard Industrial Classification for Japan.

(Given examples)

Soybean paste, soy sauce, edible amino-acids, sauce, mayonnaise, tomato ketchup, tomato puree, edible acids, instant curry, glutamic acid soda, spices, soup, fermented seasonings, flavorings, gravy sauce, soba soup, rice and tea, toppings, instant soy bean soup, clear soup, mayonnaise by-products (albumen)

Column Code	Row Code	Sector Name
1119-01	1119-011	Prepared frozen foods

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Precooked frozen packed foods" listed under Industry Number 0995 of the Standard Industrial Classification for Japan.

(Given examples)

Prepared frozen fried foods (croquettes, pork steak, fried fish), prepared frozen rice and grain, prepared frozen hamburgers, prepared frozen meat balls with rice powder covering

Column Code	Row Code	Sector Name
1119-02	1119-021	Retort foods

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Retort pouch" listed under Industry Number 0998 of the Standard Industrial Classification for Japan.

(Given examples)

Retort foods (Curry, bean curd flavor, meat sauce, soup)

Column Code	Row Code	Sector Name
1119-03	1119-031	Dishes, sushi and lunch boxes

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "'Sozai' (side-dish foods)" listed under Industry Number 0996, sushi and lunch boxes as specified in "Sushi, box lunch and bread with ingredients" listed under Industry Number 0997, and manufacturing as part of "Delicatessen stores" listed under Industry Number 5895 of the Standard Industrial Classification for Japan.

(Given examples)

Side-dishes, sushi, lunch boxes

(Notes)

(1) Includes production activities for manufacturing food manufactured and sold inside retail stores.

(2) Processed breads and sandwiches are classified under "1115-02, -021 Bread."

Column Code	Row Code	Sector Name
1119-04	1119-041	School lunch (public) **

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The production activities for school meals provided for school children at compulsory public schools, in accordance with the "School Meals Law" (No. 160 of 1954).

(Notes)

School meals programs shall be basically implemented by the schools themselves. However, in reality there are cases in which school meals are provided by school organizations or by external organizations such as school meals centers and so forth that have been contracted. Confusion may arise if the classification is made according to meal service providers, and therefore it is made according to the educational entity that is supposed to provide the school meals service: either "public school" or "private school."

Column Code	Row Code	Sector Name
1119-05	1119-051	School lunch (private) *

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The production activities for school meals provided for school children at compulsory private schools, in accordance with the “School Meals Law” (No. 160 of 1954) .

(Notes)

Same as “1119-04, -041 School lunch (public) **”

Column Code	Row Code	Sector Name
1119-09	1119-099	Miscellaneous foods

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for edible fowl and their processing as well as other livestock products other than bottled or canned meat products as specified in “Miscellaneous livestock products” listed under Industry Number 0919, “‘Tofu’ (bean curd) and ‘Aburage’ (fried bean curd)” listed under Industry Number 0993, “‘Anko’ (sweet bean paste) and other related products” listed under Industry Number 0994, and production activities other than for soy milk and instant cocoa as specified in “Food and related products, n.e.c” listed under Industry Number 0999 of the Standard Industrial Classification for Japan.

(Given examples)

Tofu, aburage (fried bean curd), nama-age, ganmodoki, nama-an (sweet bean paste), konnyaku (jelly), natto (fermented soybeans), mugicha (barley tea), ripened bananas, juice powder, rice cakes

(Changes)

Frozen meat (including chicken), which was classified under this sector in the 2005 I-O Tables, is integrated into “1111-01 Meat.”

(Notes)

Edible fowl and their processing is classified under the row sector “1111-01 Meat” and row sector “1111-013 Chicken meat.” Bottled or canned meat products is classified under “1112-02, -021 Bottled or canned meat products.” Soy milk is classified under “1129-02, -021 Soft drinks.” Instant cocoa is classified under “1115-03, -031 Confectionery.”

Column Code	Row Code	Sector Name
1121-01	1121-011	Refined sake

(Ministry or agency in charge)

Ministry of Finance

(Definition, Scope)

The production activities for “Sake” (Japanese rice wine)” listed under Industry Number 1023 and the production activities for mirin as specified in “Distilled,rectified and blended liquors” listed under Industry Number 1024 of the Standard Industrial Classification for Japan.

(Given examples)

Refined sake, mirin, sake lees, mirin lees

Column Code	Row Code	Sector Name
1121-02	1121-021	Malt liquors

(Ministry or agency in charge)

Ministry of Finance

(Definition, Scope)

The production activities for “Malt liquors” listed under Industry Number 1022 of the Standard Industrial Classification for Japan.

(Given examples)

Beer, hops, beer lees, dry yeast, fresh yeast, low-malt beer

Column Code	Row Code	Sector Name
1121-03	1121-031	Whiskey and brandy

(Ministry or agency in charge)

Ministry of Finance

(Definition, Scope)

The production activities for whiskey and brandy listed among those of “Distilled,rectified and blended liquors” specified under Industry Number 1024 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
1121-09	1121-099	Miscellaneous liquors

(Ministry or agency in charge)

Ministry of Finance

(Definition, Scope)

The production activities for “Wine,except “sake” (Japanese rice wine)” listed under Industry Number 1021 and “Distilled,rectified and blended liquors” excluding the production of whiskey, brandy, and mirin listed under Industry Number 1024

of the Standard Industrial Classification for Japan.

(Given examples)

Fruit liquors, synthetic sake, shochu, spirits, liquors, miscellaneous brewage, miscellaneous liquors, additive alcohol

Column Code	Row Code	Sector Name
1129-01	1129-011	Tea and roasted coffee

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "EA AND COFFEE,EXCEPT SOFT DRINKS AND CARBONATED WATER" listed under Group Number 103 of the Standard Industrial Classification for Japan.

(Given examples)

Green tea, tea, chinese tea, coffee

(Notes)

Coffee drinks, tea drinks and Chinese tea drinks are classified under "1129-02, -021 Soft drinks." Barley tea is classified under "1119-09, -099 Miscellaneous foods." Cocoa is classified under "1115-03, -031 Confectionery"

Column Code	Row Code	Sector Name
1129-02	1129-021	Soft drinks

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "SOFT DRINKS AND CARBONATED WATER" listed under Group Number 101 and the production of soybean milk listed among the production activities for "Food and related products,n.e.c" specified in Industry Number 0999 of the Standard Industrial Classification for Japan.

(Given examples)

Cider, lemon soda, coke drinks, flavor soda drinks, other soda drinks, fruit drinks, coffee drinks, tea drinks, Chinese tea drinks, soybean milk, mineral waters, sports drinks

(Notes)

Fermented milk and lactic acid beverages are classified in "1112-03 Dairy farm products" and "1112-032 Dairy products" Vegetable juices, undiluted condensed fruit juices, and natural fruit juices are classified in "1116-01, -011 Bottled or canned vegetables and fruits"

Column Code	Row Code	Sector Name
1129-03	1129-031	Manufactured ice

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "MANUFACTURED ICE" listed under Group Number 104 of the Standard Industrial Classification for Japan.

(Given examples)

Salable ice

Column Code	Row Code	Sector Name
1131-01	1131-011	Feeds

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Balanced compound feeds" listed under Industry Group Number 1061 and "Elemental feeds" listed under Industry Group Number 1062 of the Standard Industrial Classification for Japan.

This sector is the competing sector of the other sector's scrap and by-products (meat scrap, cocoon scrap and by-products).

(Given examples)

Feed for livestock and poultry, feed for fish farming, pet foods, fish meal

Column Code	Row Code	Sector Name
1131-02	1131-021	Organic fertilizers, n.e.c.

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Organic fertilizers" listed under Industry Number 1063 of the Standard Industrial Classification for Japan.

(Given examples)

Animal-based organic fertilizers (fish meal, meat and bone meal, processed poultry manure), plant-based organic fertilizers (rape seed oil lees, rice bran oil lees, cotton oil lees), others (manure)

(Notes)

N.e.c. refers to the column sector "0121-01 Dairy cattle farming" and row columns "0121-019 Miscellaneous dairy farming products," "0121-02, -021 Beef cattle," "0121-03, -031

Pork," "0121-04, -041 Hen eggs," and "0121-05, -051 Chickens," as well as manure and chicken manure classified under the column sector "0121-09 Miscellaneous livestock" and row sector "0121-099 Livestock, n.e.c."

Column Code	Row Code	Sector Name
1141-01	1141-011	Tobacco

(Ministry or agency in charge)

Ministry of Finance

(Definition, Scope)

The production activities of "TOBACCO MANUFACTURES" listed under Group Number 105 of the Standard Industrial Classification for Japan.

(Given examples)

Rolled cigarettes, cigars, loose tobacco, pipe tobacco

15 Textile products

Column Code	Row Code	Sector Name
1511-01	1511-011	Fiber yarns

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities exclusive of "Chemical fibers" listed under Industry Number 1112 and "Carbon fiber" listed under Industry Number 1113, as specified in "SILK REELING PLANTS, SPINNING MILLS, CHEMICAL FIBERS AND TWISTING AND BULKY YARNS" listed under Group Number 111 of the Standard Industrial Classification for Japan.

(Given examples)

Natural fiber: Silk, by-silk fiber

Cotton fiber: Cotton, mixed cotton fiber

Chemical fiber: Viscose staple fiber, cupra staple fiber, acetate fiber, vinylon fiber, nylon fiber, acrylic fiber, polyester fiber, polypropylene fiber

Wool: Raw wool fiber, spun wool fibe

Other fiber: Silk fiber, saku-fiber, noil silk yarn, hemp fiber, wa-fiber, twisted yarn, bulk processed fiber

Column Code	Row Code	Sector Name
1512-01	1512-011	Cotton and staple fiber fabrics (including fabrics of synthetic spun fibers)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "Fabric mills, woven cotton and spun rayon" listed under Industry Number 1141 of the Standard Industrial Classification for Japan.

(Given examples)

Cotton fabrics, viscose staple fiber fabrics, chemical fiber fabrics, cotton, staple fiber, and synthetic fiber textile

(Notes)

(1) Fabrics of 13.0 cm or less width shall be classified as narrow width fabrics in the sector "1519-09, -009 Miscellaneous fabrics." (This criteria applies throughout the textile products sector.)

(2) The production value includes those products commissioned from non-manufacturing businesses. (This applies throughout the textile products sector.)

Column Code	Row Code	Sector Name
1512-02	1512-021	Silk and artificial silk fabrics (including fabrics of synthetic filament fibers)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “Fabric mills,woven silk and rayon” listed under Industry Number 1142 of the Standard Industrial Classification for Japan.

(Given examples)

Silk textiles, silk fabrics, artificial silk fabrics, synthetic long filament fiber fabrics, chemical fiber tire cord

(Notes)

(1) Fabrics of 13.0 cm or less width shall be classified as narrow width fabrics in the sector “1519-09, -009 Miscellaneous fabrics.” (This criteria applies throughout the textile products sector.)

(2) The production value includes those products commissioned from non-manufacturing businesses. (This applies throughout the textile products sector.)

Column Code	Row Code	Sector Name
1512-09	1512-099	Miscellaneous fabrics

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “Fabric mills, woven woolen and worsted” listed under Industry Number 1123, “Fabric mills, woven hard and bast fiber” listed under Industry Number 1124, “Narrow woven farbic” listed under Industry Number 1125, and “Miscellaneous woven fabric mills” listed under Industry Number 1129 of the Standard Industrial Classification for Japan.

(Given examples)

Woven woolen and worsted fabric: Worsted wool cloth, other worsted wool fiber fabrics, spun woolen cloth, other spun woolen fiber fabrics, other wool fiber fabrics

Woven hard and best fiber fabric: Fiber hoses, woven synthetic fiber fabrics

Miscellaneous fabrics：Moquette

(Changes)

Narrow woven fabrics, which were classified under “1519-09, -009 Miscellaneous fabrics” in the 2005 I-O tables, are integrated into this sector

(Notes)

(1) Fabrics of 13.0 cm or less width shall be classified as narrow width fabrics in the sector “1519-09, -009 Miscellaneous fabrics.” (This criteria applies throughout the textile products sector.)

(2) The production value includes those products commissioned from non-manufacturing businesses. (This applies throughout the textile products sector.)

Column Code	Row Code	Sector Name
1513-01	1513-011	Knitting fabrics

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “KNIT FABRICS MILLS” listed under Group Number 115 of the Standard Industrial Classification for Japan.

(Given examples)

Circular knitted textiles, knitted textiles (horizontal), knitted textiles (vertical)

Column Code	Row Code	Sector Name
1514-01	1514-011	Yarn and fabric dyeing and finishing (processing on commission only)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “DYED AND FINISHED TEXTILES” listed under Group Number 116 of the Standard Industrial Classification for Japan.

(Notes)

The production value is split into the market value (raw materials purchase value) and the trade commission (supplied materials value). However, this sector is defined to cover only the production activities for dyeing and finishing that does not purchase the raw materials, and the raw materials purchase value is deducted from the market value.

Column Code	Row Code	Sector Name
1519-09		Miscellaneous fabricated textile products
	1519-091	Ropes and nets
	1519-099	Fabricated textiles products, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “ROPE AND NETTING” listed under Group Number 117 of the Standard Industrial Classification for Japan.

(Given examples)

Ropes and nets : Ropes, cordage, twine, fishing net, net cloth other than fishing net

Fabricated textiles products, n.e.c. : Lace textile, strings, narrow width fabricated textile, other fabricated products “Ririan” (knitted sting), moll, tasseles, washed wool, tops, bedding cotton, cotton fabric, felt, non-fabricated cloth, coated water-proof fabricated textiles

Column Code	Row Code	Sector Name
1521-01	1521-011	Woven fabric apparel

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Men’s and boys’ textile outer garments, including bonded fabrics and lace products” listed under Industry Number 1161, “Ladies’ and girls’ textile outer garments, including bonded fabrics and lace products” listed under Industry Number 1162, “Infants' textile outer garments, cluding bonded fabrics and lace products” listed under Industry Number 1163, “Textile shirts, cluding bonded farbics and lace products, except underwear” listed under Industry Number 1164, “Textile business, sport clothing and school uniforms including bonded fabrics and lace products” listed under Industry Number 1165, “Textile underwear” listed under Industry Number 1171, textile products as specified in “Textile and knitted nightclothes” listed under Industry Number 1173, and “Japanese style apparel, including Japanese ‘tabi’-socks” listed under Industry Number 1181 of the Standard Industrial Classification for Japan. Also includes activities related to manufacturing within clothing manufacture and retail.

(Given examples)

Men’s apparel, women’s apparel, infant’s clothing, working clothes, sporting gear, school uniforms, white shirts, underwear, pajamas, kimono products such as readymade Japanese kimono and obi, shawls, tabi socks, etc.

(Changes)

Tabi socks, which were classified under “1522-09, -099 Miscellaneous wearing apparel and clothing accessories” in the 2005 I-O Tables, are integrated into this sector

(Notes)

The production value includes those products outsourced production commissioned from non-manufacturers.

Column Code	Row Code	Sector Name
1521-02	1521-021	Knitted apparel

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Knitted garments, except outer shirts and sweater” listed under Industry Number 1166, “Knitted outer shirts” listed under Industry Number 1167, “Sweaters” listed under Industry Number 1168, “Miscellaneous garments and shirts” listed under Industry Number 1169, “Knitted underwear” listed under Industry Number 1172, knitted goods specified in “Textile and knitted nightclothes” listed under Industry Number 1173, and “Foundation garments” listed under Industry Number 1174 of the Standard Industrial Classification for Japan.

(Given examples)

Men’s knitted apparel, women’s knitted apparel, knitted sporting wear, knitted swimming gear, knitted infant apparel, knitted underwear, knitted pajamas, foundation garments

(Notes)

The production value includes outsourced production commissioned from non-manufacturers

Column Code	Row Code	Sector Name
1522-09	1522-099	Miscellaneous wearing apparel and clothing accessories

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “Ties” listed under Industry Number 1182, “Scarfs, mufflers and handkerchieves” listed under Industry Number 1183, “Hosiery” listed under Industry Number 1184, “Gloves” listed under Industry Number 1185, “Hats, including hat bodies” listed under Industry Number 1186, and “Textile apparel and accessories, n.e.c.” listed under Industry Number 1189 of the Standard Industrial Classification for Japan.

(Given examples)

Hats, fur apparel and accessories, neck-ties, scarves, neckerchiefs, handkerchiefs, leather apparel, fabric footwear

Column Code	Row Code	Sector Name
1529-01	1529-011	Bedding

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Bedding” listed under Industry Number 1191 and “Blankets” listed under Industry Number 1192 of the Standard Industrial Classification for Japan.

(Given examples)

Futons, down futons, futon covers, sheets, cotton blankets, pillows

Column Code	Row Code	Sector Name
1529-02	1529-021	Carpets and floor mats

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Carpets and other textile mats” listed under Industry Number 1193 of the Standard Industrial Classification for Japan.

(Given examples)

Carpets, rugs, turf carpet, palm-leaf flooring, floor padding and fabricated flooring textile

Column Code	Row Code	Sector Name
1529-09		Miscellaneous readymade textile products
	1529-091	Fabricated textiles for medical use
	1529-099	Readymade textile products, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Canvas products” listed under Industry Number 1194, “Textile bags” listed under Industry Number 1195, “Embroidery” listed under Industry Number 1196, “Towels” listed under Industry Number 1197, “Textile sanitary materials” listed under Industry Number 1198, and “Fabricated textile products,n.e.c.” listed under Industry Number 1199 of the Standard Industrial Classification for Japan.

(Given examples)

Fabricated textiles for medical use : Gauze, bandage, absorbent cotton, sticking plaster, cotton swab

Readymade textile products, n.e.c. : Canvas products (sheets, tents, and awnings), fabricated bags (hemp sack, cotton sack, and synthetic fiber sack), embroidery products, towels, curtains, tablecloths

16 Pulp, paper and wooden products

Column Code	Row Code	Sector Name
1611-01	1611-011	Timber

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “General sawing and planing mills” listed under Industry Number 1211 of the Standard Industrial Classification for Japan.

Scrap and by-products (wood chips), which appeared in other sectors, consider this sector as a competitor.

(Given examples)

Timber board, hikiwari, hikikado, scrap

Column Code	Row Code	Sector Name
1611-02	1611-021	Plywood, glued laminated timber

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for “Veneer wood” listed under Industry Number 1212, “Flooring mills” listed under Industry Number 1213, “Plywood” listed under Industry Number 1223, and “Grued laminated timber mills” listed under Industry Number 1223 of the Standard Industrial Classification for Japan.

(Given examples)

Single board, floorings, general plywood, special plywood, laminboards

Column Code	Row Code	Sector Name
1611-03	1611-031	Wooden chips

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “Wood chip mills” listed under Industry Number 1214 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
1619-09		Miscellaneous wooden products
	1619-091	Wooden products for construction
	1619-099	Wooden products, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “Miscellaneous sawing and planning mills” listed under Industry Number 1219, “Millwork,except lumber for fixtures” listed under Industry Number 1221 , “Prefabricated wooden buildings and structural members” listed under Industry Number 1224 , “Particle board” listed under Industry Number 1225 , “Fiber board” listed under Industry Number 1226 , “High-grade decorative boards and wood” listed under Industry Number 1227 , “WOOD-EN,BAMBOO AND RATTAN CONTAINERS” listed under Group Number 123 , and “MISCELLANEOUS MANUFAC-TURE OF WOOD PRODUCTS,INCLUDING BAMBOO AND RATTAN” listed under Group Number 129 of the Standard Industrial Classification for Japan.

(Given examples)

Wooden products for construction : Fittings, pre-fabricated wooden parts, particle board, Fiberboard, name plates, main pillars, stage pillars

Wooden products, n.e.c. : Thin-sliced wooden pieces, barrels, tubs, bamboo, cane and “kiryu” containers, folding boxes, wooden boxes, frames, roll frames, Japanese barrels, western barrels, chemically treated wood, last, chopsticks, other bamboo products, cane and “kiryu” products, cork products

Column Code	Row Code	Sector Name
1621-01	1621-011	Wooden furniture

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “Wooden furniture, except japanned” listed under Industry Number 1311 of the Standard Industrial Classification for Japan; also includes production-related activities of manufacturing and retailing businesses

(Given examples)

Desks, tables, chairs, sinks, cooking tables, dresser drawers, shelves, cupboards, cabinets for audio-visual equipment, wooden furniture like beds

(Changes)

Fixtures and some non-wooden furniture (stone and clay furniture, plastic furniture, glass furniture, pottery furniture, etc.) that were classified under this sector in the 2005 I-O Tables are classified under "1621-09, -099 Miscellaneous furniture and fixtures."

Column Code	Row Code	Sector Name
1621-02	1621-021	Metallic furniture

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "Metal furniture" listed under Industry Number 1312 of the Standard Industrial Classification for Japan.

(Given examples)

Desks, chairs, tables, beds, sinks, cooking ranges, gas ovens, shelves, metal furniture like cupboards

(Changes)

Taking into consideration consistency with the Standard Industrial Classification for Japan, fixtures and some non-wooden furniture (stone and clay furniture, plastic furniture, glass furniture, pottery furniture, etc.) that were classified under this sector in the 2005 I-O Tables are classified under "1621-09, -099 Miscellaneous furniture and fixtures."

Column Code	Row Code	Sector Name
1621-03	1621-031	Wooden fixtures

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "SLIDING DOORS AND SCREENS" as listed under Group Number 133 of the Standard Industrial Classification for Japan; also includes production-related activities of manufacturing and retailing businesses

(Given examples)

Window screens (wooden sliding doors and windows), paper sliding doors, paper screens

Column Code	Row Code	Sector Name
1621-09	1621-099	Miscellaneous furniture and fixtures

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "Mattresses and box springs" listed under Industry Number 1311, "URNITURE FOR RELIGIOUS PURPOSES" listed under Group Number 132, and "MISCELLANEOUS FURNITURE AND FIXTURES" listed under Group Number 139 of the Standard Industrial Classification for Japan; also includes production-related activities of manufacturing and retailing businesses

(Given examples)

Mattresses combined with springs, religious articles, Japanese paper partitions, bamboo dress hangers, bamboo screens, mirror frames, picture frames, partitions, showcases, office fixtures like accordion style curtains, windows and door screens

(Changes)

Taking into consideration consistency with the Standard Industrial Classification for Japan, the scope consists of "Mattresses and box springs" listed under Industry Number 1313 of the Standard Industrial Classification for Japan, which was classified under "1711-01, -011 Wooden furniture and fixtures" and "1711-03, -031 Metallic furniture and fixture" in the 2005 I-O Tables, as well as "FURNITURE FOR RELIGIOUS PURPOSES" listed under Group Number 132 and "MISCELLANEOUS FURNITURE AND FIXTURES" listed under Group Number 139, and this sector is newly established.

Column Code	Row Code	Sector Name
1631-01	1631-011	Pulp

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "PULP" listed under Group Number 141 of the Standard Industrial Classification for Japan.

(Given examples)

Dissolved pulp, processing pulp

Column Code	Row Code	Sector Name
	1631-021P	Used paper

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

This sector is a competing sector for waste paper generated in manufacturing and retail businesses, as well as in the final demand sector

(Notes)

There is no competing sector that yields waste paper as its major product; therefore, a dummy sector showing the row number is created.

Column Code	Row Code	Sector Name
1632-01	1632-011	Paper

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Paper” listed under Industry Number 1421, “Machine-made Japanese style paper” listed under Industry Number 1423, and “Hand-made Japanese style paper” listed under Industry Number 1424 of the Standard Industrial Classification for Japan, and production activities for washi (Japanese paper) used in currency printed by the National Printing Bureau.

(Given examples)

Paper for newspaper, printing and information paper, packaging paper, sanitary paper, other paper, hand-made Japanese paper, Japanese washi for bill on bankbote

(Notes)

The sanitary paper included in this sector refers to crude paper; products such as tissue paper and toilet paper are included in “1649-01, -011 Paper textile for medical use”

Column Code	Row Code	Sector Name
1632-02	1632-021	Paperboard

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Paperboard” listed under Industry Number 1422 of the Standard Industrial Classification for Japan.

(Given examples)

Corrugated paper, white paper, colored paper, paper for construction use, other flat paper

Column Code	Row Code	Sector Name
1633-01	1633-011	Corrugated cardboard

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Corrugated board” listed under Industry Number 1432 of the Standard Industrial Classification for Japan.

(Given examples)

Corrugated cardboard (sheet)

Column Code	Row Code	Sector Name
1633-02	1633-021	Coated paper and building (construction) paper

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Coated paper,excpet printing paper” listed under Industry Number 1431, and “Wall paper and sliding door (“fusuma”) paper” listed under Industry Number 1433 of the Standard Industrial Classification for Japan.

(Given examples)

Insulating paper, insulating tape, asphalt-based coated paper, other coated paper, processed paper, wall paper, fusuma (paper wall) paper

Column Code	Row Code	Sector Name
1641-01	1641-011	Corrugated card board boxes

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Corrugated board boxes” listed under Industry Number 1453 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
1641-09	1641-099	Miscellaneous paper containers

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Sacks for heavy weight shipping” listed under Industry Number 1451, “Square bottom paper bags” listed under Industry Number 1452, and “Paperboard boxes and cups” listed under Industry Number 1454 of the Standard Industrial Classification for Japan.

(Given examples)

Cement sacks, packaging sacks for heavy use like rice and

wheat sacks, shopping bags, paper sacks with rectangular bottoms, folded paper boxes, boxes made of paper and glue, paper tubes, paper cups, paper plates and other paper containers

Column Code	Row Code	Sector Name
1649-01	1649-011	Paper textile for medical use

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for paper textile materials and products for medical use as specified in “MISCELLANEOUS PULP,PAPER AND PAPER WORKED PRODUCTS” listed under Group Number 149 of the Standard Industrial Classification for Japan.

(Given examples)

Sanitary paper and cotton, sanitary paper supplies like sanitary cotton pulp, paper towels, paper diapers, sanitary supplies, paper supplies like tissue paper

Column Code	Row Code	Sector Name
1649-09	1649-099	Miscellaneous pulp, paper and processed paper products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “PAPER PRODUCTS” listed under Group Number 144, and “MISCELLANEOUS PULP,PAPER AND PAPER WORKED PRODUCTS” excluding production activities for sanitary paper materials and products listed under Industry Number 1599 of the Standard Industrial Classification for Japan.

(Given examples)

Paper and fabric book-binding cloth, office paper supplies, paper supplies for schools, paper supplies for home use, cellophane, paper tubes, paper string, paper tape, solid fiber and vulcanized fiber products

(Changes)

Fiberboard, which was classified under this sector in the 2005 I-O Tables, was integrated into column sector “1619-09 Miscellaneous wooden products” and the row sector “1619-091 Wooden products for construction.”

20 Chemical products

Column Code	Row Code	Sector Name
2011-01	2011-011	Chemical fertilizer

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Nitrogenous and phosphatic fertilizers” excluding nitric acid, sodium nitrate, and sodium nitrite listed under Industry Number 1611, “Compound fertilizers” listed under Industry Number 1612, “Miscellaneous chemical fertilizers” listed under Industry Number 1619, and production activities for ammonium chloride as specified in “Soda” listed under Industry Number 1621 of the Standard Industrial Classification for Japan; scrap and by-products (ammonium sulfate and calcium silicate), which appeared in other sectors, consider this sector as a competitor.

(Given examples)

Compound fertilizer: Ammonium phosphate (fertilizer use), high-grade chemical fertilizer, standard-grade chemical fertilizer, NK fertilizer, blended fertilizer

Column Code	Row Code	Sector Name
2021-01		Industrial soda chemicals
	2021-011	Soda ash
	2021-012	Caustic soda
	2021-013	Liquid chlorine
	2021-019	Miscellaneous industrial soda chemicals

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Soda” excluding those of ammonium chloride listed under Industry Number 1621 of the Standard Industrial Classification for Japan.

(Given examples)

Miscellaneous industrial soda chemicals : Chlorine gas, gaseous hydrochloric acid, oxygen chloride bleaching powder, chlorinated lime solvent, sodium chlorate

Column Code	Row Code	Sector Name
2029-01		Inorganic pigment
	2029-011	Titanium oxide
	2029-012	Carbon black
	2029-019	Miscellaneous inorganic pigments

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Inorganic pigments” listed under Industry Number 1622 of the Standard Industrial Classification for Japan.

(Given examples)

Miscellaneous inorganic pigments : Zinc oxide, ferric oxide, chrome yellow, minium, lead oxide, cadminium pigment, ginshu lacquer

Column Code	Row Code	Sector Name
2029-02	2029-021	Compressed gas and liquefied gas

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Compressed and liquefied gases” listed under Industry Number 1623 of the Standard Industrial Classification for Japan.

(Given examples)

Oxygen, nitrogen, argon, hydrogen, acetylene, carbon dioxide

Column Code	Row Code	Sector Name
2029-03		Salt
	2029-031	Crude salt
	2029-032	Salt

(Ministry or agency in charge)

Ministry of Finance

(Definition, Scope)

The production activities for “Salt” listed under Industry Number 1624 of the Standard Industrial Classification for Japan.

(Given examples)

Salt, table salt, sea water, bittern

(Notes)

Rock salt is classified under column sector “0639-09 Miscellaneous ores” and row sector “0639-099 Ores, n.e.c.”

Column Code	Row Code	Sector Name
2029-09	2029-099	Miscellaneous industrial inorganic chemicals

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Nitrogenous and phosphatic fertilizers” listed under Industry Number 1611, excluding nitric acid, sodium nitrate, and sodium nitrite, and also the activities of “Miscellaneous industrial inorganic chemicals” listed under Industry Number 1629, excluding catalysts, of the Standard Industrial Classification for Japan.

(Given examples)

Sulphuric acid salt, sulfide, fluoride, phosphorite, potassium, barium, activated charcoal

Column Code	Row Code	Sector Name
2031-01		Petrochemical basic products
	2031-011	Ethylene
	2031-012	Propylene
	2031-019	Miscellaneous petrochemical basic products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for primary products created by the dissolution of naphtha such as ethylene, propylene, butane, butylene, butadiene, paraffin, dissolved gasoline, and top gas as specified in “Basic petrochemicals, including derivatives produced from an integrated process” listed under Industry Number 1631 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
2031-02		Petrochemical aromatic products (except synthetic resin)
	2031-021	Pure benzene
	2031-022	Pure toluene
	2031-023	Xylene
	2031-029	Miscellaneous petrochemical aromatic products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for aromatic solvent, and products

created by reformate and dissolved gasoline, such as pure benzene, pure toluene, and xylene (refined o-xylene, m-xylene, and refined p-xylene) specified in “Basic petrochemicals, including derivatives produced from a process production” listed under Industry Number 1631 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
2041-01		Aliphatic intermediates
	2041-011	Synthetic alcohol
	2041-012	Acetic acid
	2041-013	Ethylene dichloride
	2041-014	Acrylonitrile
	2041-015	Ethylene glycol
	2041-016	Acetic acid vinyl monomer
	2041-019	Miscellaneous aliphatic intermediates

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Aliphatic intermediates,including aliphatic solvent” listed under Industry Number 1632 of the Standard Industrial Classification for Japan; products in this sector are derivatives of olefin such as ethylene, propylene, and butylenes

(Given examples)

Synthetic alcohol : Ethyl alcohol, high-grade synthetic alcohol (C9 or higher), isopropyl alcohol, compound octanol, compound butanol

Miscellaneous aliphatic intermediates : Ethylene oxide, vinyl chloride (monomer)

Column Code	Row Code	Sector Name
2041-02		Cyclic intermediates
	2041-021	Styrene monomer
	2041-022	Synthetic phenol
	2041-023	Terephthalic acid (high purity)
	2041-024	Capro lactam
	2041-029	Miscellaneous cyclic intermediates

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for cyclic intermediates as specified in “Cyclic intermediates, synthetic dyes and organic pigments” listed under Industry Number 1634 of the Standard Industrial Classification for Japan; products in this sector are derivatives of benzene, toluene, and xylene

(Given examples)

Miscellaneous cyclic intermediates : Phthalic anhydride, toluylenediisocyanate, diphenyl methane diisocyanate, cyclohexane,aniline, nitrobenzene/chlorobenzene

Column Code	Row Code	Sector Name
2041-03	2041-031	Synthetic dyes and organic pigments

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for synthetic dyes and organic pigments as specified in “Cyclic intermediates,synthetic dyes and organic pigments” listed under Industry Number 1634 of the Standard Industrial Classification for Japan.

(changes)

Azo pigment, which was classified under “2039-09, -091 Other industrial organic chemicals” in the 2005 I-O Tables, is integrated into this sector.

Column Code	Row Code	Sector Name
2042-01	2042-011	Synthetic rubber

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Synthetic rubber” listed under Industry Number 1636 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
2049-01	2049-011	Methane derivatives

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for methane derivatives as specified in “Miscellaneous industrial organic chemicals” listed under Industry Number 1739 of the Standard Industrial Classification for Japan.

(Given examples)

Refined methanol, formalin, methyl chloride, CFC gases

Column Code	Row Code	Sector Name
2049-02	2049-021	Plasticizers

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for plasticizers specified in "Miscellaneous industrial organic chemicals" listed under Industry Number 1639 of the Standard Industrial Classification for Japan

(Given examples)

Phthalate plasticizers, fatty acid plasticizers, phosphate plasticizers, adipate plasticizers, polyester plasticizers, epoxy plasticizers

Column Code	Row Code	Sector Name
2049-09	2049-099	Miscellaneous industrial organic chemicals

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "Fermentation industry" listed under Industry Number 1633 and plasticizers and production activies excusive of methane derivatives specified in "Miscellaneous industrial organic chemicals" listed under Industry Number 1639 of the Standard Industrial Classification for Japan, as well as the production activities of the Japan Alcohol Corporation.

(Given examples)

Pure benzene (non-petroleum), creosote oil, pitch, naphthalene, ethyl alcohol, lake, rubber accelerator, rubber antioxidant, high-grade alcohol (fatty products)

(Changes)

Azo pigment, which is classified under this sector in the 2005 I-O Tables, was integrated into "2041-03, -31 Synthetic dyes and organic pigments."

Column Code	Row Code	Sector Name
2051-01	2051-011	Thermosetting resins

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for phenol resin, urea resin, melamine resin, unsaturated polyester resin, alkyd resin, epoxy resin, and silica resin as specified in "Plastics" listed under Industry Number 1635 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
2051-02		Thermoplastics resins
	2051-021	Polyethylene (low density)
	2051-022	Polyethylene (high density)
	2051-023	Polystyrene
	2051-024	Polypropylene
	2051-025	Vinyl chloride resins

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for polyethylene, polystyrene, polypropylene, and vinyl chloride resin as specified in "Plastics" listed under Industry Number 1635 of the Standard Industrial Classification for Japan.

(Notes)

EVA (Ethylene-vinyl acetate copolymers) are classified under "2051-021 Polyethylene (low density)"

Column Code	Row Code	Sector Name
2051-03	2051-031	High function resins

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for polyamide resin, polycarbonate, polyacetate, polyethylene terephthalate (excl. fiber use), polybutylene terephthalate, and modified polyphenylene ether specified in "Plastics" listed under Industry Number 1635 of the Standard Industrial Classification for Japan.

(Given examples)

Polyamide resin, polycarbonate, polyacetate, polyethylene terephthalate (excluding fiber use), polybutylene terephthalate, modified polyphenylene ether

(Notes)

Polyethylene terephthalate (for fiber use) is included in "2051-09, -099 Miscellaneous synthetic resins"

Column Code	Row Code	Sector Name
2051-09	2051-099	Miscellaneous synthetic resins

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of synthetic resins that are not elsewhere classified such as petroleum resin, methacrylic resin, polyvinyl alcohol, vinyliden chloride resin, fluorin resin, acetyl cellulose, and polyethylene terephthalate (fiber use) specified in "Plastics" listed under Industry Number 1635 of the Standard Industrial Classification for Japan.

(Given examples)

Petroleum resin (polybuten, petroleum resin), methacrylic resin (formed materials, plate materials), polyvinyl alcohol, vinyliden chloride resin, fluorocarbon resin, polyethylene terephthalate (fiber use)

Column Code	Row Code	Sector Name
2061-01	2061-011	Rayon and acetate

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for rayon and acetate specified in "Chemical fibers" listed under Industry Number 1112 of the Standard Industrial Classification for Japan.

(Given examples)

Viscose fiber, cupra fiber, acetate fiber

Column Code	Row Code	Sector Name
2061-02	2061-021	Synthetic fibers

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for synthetic fibers specified in "Chemical fibers" listed under Industry Number 1112 of the Standard Industrial Classification for Japan.

(Given examples)

Nylon fiber, polyester fiber, acrylic fiber, vinyl-nylon fiber, polypropylene fiber

Column Code	Row Code	Sector Name
2071-01	2071-011	Medicaments

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The production activities for "DRUGS AND MEDICINES" listed under Group Number 165 of the Standard Industrial Classification for Japan.

(Given examples)

Ethical pharmaceuticals (cardiovascular use, antibiotic use), consumer products (cold remedies, analgesic agents, deodorants, repellents, pesticides, disinfectants, ointments, vitamin tablets, calcium tablets), veterinary medicines, consumer medicine

(Notes)

Cosmetics, toilet preparations and dentifrices are classified under "2081-02, -021 Cosmetics, toilet preparations and dentifrice" and agricultural chemicals are classified under "2084-01, -011 Agricultural chemicals."

Column Code	Row Code	Sector Name
2081-01		Oil and fat products, soap, synthetic detergents and surface active agents
	2081-011	Oil and fat industrial chemicals
	2081-012	Soap and synthetic detergents
	2081-013	Surface active agents

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities exclusive of hardened oils (edible oils) specified under "Fatty acids, hydrogenated oils and glycerin" listed under Industry Number 1641, and production activities for "Soaps and synthetic detergents" listed under Industry Number 1642 and "Surface-active agents, except soaps and synthetic detergent" listed under Industry Number 1643 of the Standard Industrial Classification for Japan.

(Given examples)

Oil and fat industrial chemicals: Pure benzene (non-petroleum), creosote oil, pitch, naphthalene, ethyl alcohol, lake, rubber accelerator, rubber antioxidant, high-grade alcohol (fatty products)

Surface active agents:Anionic surfactants, cation surfactants, ionic surfactants, non-ionic surfactants, softener agents

Column Code	Row Code	Sector Name
2081-02	2081-021	Cosmetics, toilet preparations and dentifrices

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "COSMETICS,TOOTHPASTE AND TOILET PREPARATIONS" listed under Group Number 166 of the Standard Industrial Classification for Japan

(Given examples)

Perfumes, colognes, hair treatments (shampoos, rinses, tonics, conditioners), skin-care products (creams, moisturizers, lotions, masques), cosmetics (foundation, powders, lipsticks, facial coloring, eye make-up), special cosmetics (sunscreens, after-shave lotions), toothpaste

Column Code	Row Code	Sector Name
2082-01	2082-011	Paint and varnishes

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Paints" listed under Industry Number 1644 of the Standard Industrial Classification for Japan.

(Given examples)

Oil paints, lacquers, insulating paints, synthetic resin paints, thinners

Column Code	Row Code	Sector Name
2082-02	2082-021	Printing ink

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Printing ink" listed under Industry Number 1645 of the Standard Industrial Classification for Japan.

(Given examples)

Ink for general purposes, newspaper printing inks, additives, printing varnishes

Column Code	Row Code	Sector Name
2083-01	2083-011	Photographic sensitive materials

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Photosensitive materials" listed under Industry Number 1695 of the Standard Industrial Classification for Japan.

(Given examples)

Films, photographic papers, photosensitive papers, chemical agents for photography

Column Code	Row Code	Sector Name
2084-01	2084-011	Agricultural chemicals

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Agricultural chemicals" listed under Industry Number 1692 of the Standard Industrial Classification for Japan.

(Given examples)

Insecticides, sterilizers, herbicides, pesticides, plant nutrition, additives

(Notes)

Production activities for insecticides and pesticides (excluding agri-chemicals) and production activities for sterilizers and disinfectants are classified under "2071-01, -011 Medicaments"

Column Code	Row Code	Sector Name
2089-01	2089-011	Gelatin and adhesives

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Gelatin and adhesives" listed under Industry Number 1694 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
2089-09		Miscellaneous final chemical products
	2089-091	Catalyzer
	2089-099	Final chemical products, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for catalysts as specified in "Miscellaneous industrial inorganic chemicals" listed under Industry Number 1629, "Cleaning and scouring preparations" listed under Industry Number 1646, "Candles" listed under Industry Number 1647, "Explosives" listed under Industry Number 1691, "Perfumes and fragrances" listed under Industry Number 1693, "Natural resin and wood chemical products" listed under Industry Number 1696, "Reagents" listed under Industry Number 1697, and "Chemicals and allied products,n.e.c." listed under Industry Number 1699 of the Standard Industrial Classification for Japan.

(Given examples)

Propellants (excluding ammunition), electrically ignited percussion caps, cleansers, waxes, shoe creams, candles, natural fragrances, synthetic fragrances, mixed fragrances, dextrin (incl. soluble starch), erasing fluid

21 Petroleum and coal products

Column Code	Row Code	Sector Name
2111-01		Petroleum refinery products (including greases)
	2111-011	Gasoline
	2111-012	Jet fuel oils
	2111-013	Kerosene
	2111-014	Light oils
	2111-015	Heavy oil A
	2111-016	Heavy oil B and C
	2111-017	Naphtha
	2111-018	LPG (liquefied petroleum gas)
	2111-019	Miscellaneous petroleum refinery products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities exclusive of briquettes and briquette balls as specified in “PETROLEUM REFINING” listed under Group Number 171, “LUBRICATING OILS AND GREASES (NOT MADE IN PETROLEUM REFINERIES)” listed under Group Number 172, and “Miscellaneous petroleum and coal products” listed under Group Number 1799 of the Standard Industrial Classification for Japan.

A part of plastic scrap generated in the other sectors is considered to be a competitor of the sector “2111-017 Naphtha.”

Liquefied petroleum gas generated as a by-product in the sector “2031-01 Petrochemical basic products” is considered to be a competing section “2111-018 LPG (liquefied petroleum gas).”

(Given examples)

Miscellaneous petroleum refinery products：Grease, lube-oil, paraffin, asphalt, crude oil for refining and blending, petroleum gas, oil cokes

Column Code	Row Code	Sector Name
2121-01		Coal products
	2121-011	Coke
	2121-019	Miscellaneous coal products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “COKE” listed under Group Number 173 and “Miscellaneous petroleum and coal products” listed under Group Number 1799 of the Standard Industrial

Classification for Japan; the sector also includes coal tar generated in the cooling process of coal gas, and crude benzol extracted directly from coal tar and coal gas.

A part of plastic scrap generated in the other sectors is considered to be a competitor of the sector “2121-011 Coke” and the sector “2121-019 Miscellaneous coal products”.

Blast furnace gas, basic oxygen furnace gas and electric furnace gas generated as a by-product in the other sectors are considered to be competing section “2121-019 Miscellaneous coal products”.

(Given examples)

Miscellaneous coal products : Briquettes, briquette balls, crude benzol, coal tar, coke oven gas

Column Code	Row Code	Sector Name
2121-02	2121-021	Paving materials

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “PAVING MATERIALS” listed under Group Number 174 of the Standard Industrial Classification for Japan.

(Given examples)

Mixed materials for asphalt paving, mixed materials for tar paving

22 Plastic and rubber products

Column Code	Row Code	Sector Name
2211-01		Plastic products
	2211-011	Plastic films and sheets
	2211-012	Plastic plates, pipes and bars
	2211-013	Foamed plastic products
	2211-014	Industrial plastic products
	2211-015	Reinforced plastic products
	2211-016	Plastic containers
	2211-017	Plastic table ware, kitchen ware and miscellaneous household articles
	2211-019	Miscellaneous plastic products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “PLASTIC PLATES,BARS AND RODS,PIPES AND TUBES,PIPE FITTINGS AND PROFILE EXTRUSIONS” listed under Group Number 181, “PLASTIC FILMS,SHEETS,FLOOR COVERINGS AND SYNTHETIC LEATHER” listed under Group Number 182, “INDUSTRIAL PLASTIC PRODUCTS”listed under Group Number 183, “FOAMED AND REINFORCED PLASTIC PRODUCTS” listed under Group Number 184, “COMPOUNDING PLASTIC MATERIALS,INCLUDING RECLAIMED PLASTICS” listed under Group Number 185, and “MISCELLANEOUS PLASTIC PRODUCTS” listed under Group Number 189 of the Standard Industrial Classification for Japan.

A part of plastic scrap generated in the other sectors is considered to be a competitor of the sector “2211-019 Miscellaneous plastic products”.

(Given examples)

Plastic films and sheets : Plastic film, plastic sheeting, plastic flooring, synthetic leather extrusion products

Plastic plates, pipes and bars : Plastic plates, pipes, and bars: plastic plates, waveform plates, layer plates, laminated plates and rods, hard plastic tubes, plastic hoses, plastic joints, troughs, other plastic extrusion products, processed articles of plastic plate, tubes, bars, joints and plastic extrusion products

Foamed plastic products: Polyurethane foam, polyethylene foam, vinyl chloride foam, polystyrene foam, polystyrene paper, foam plate products, processed foam plastic products

Industrial plastic products: Plastic products for vehicles (bumpers, dashboards, hubcaps), plastic products for electrical appliances (television cabinets, cleaner bodies, refrigerator parts), other plastic products for industrial use

Reinforced plastic products: Reinforced plastic plates, bars, and joints, reinforced plastic containers, bathtubs, and septic tanks, reinforced hard hats, insulators, bridge piers, and containers, processed reinforced plastic products

Plastic containers : Plastic kerosene containers, containers for industrial chemicals, containers for detergents and shampoos, containers for beer bottles, containers for agricultural and fishery use, trash cans

Plastic table ware, kitchen ware and miscellaneous household articles : Plastic cutting boards, plastic bowls, kitchen and tableware like trays, sundries, toiletries

Miscellaneous plastic products : Other plastic products: Plastic parts, waste plastic products (piles, shelves, fishing banks), binding tapes, plastic insulating tapes, watch covers, waterproofing, artificial turf, processed articles (not classified elsewhere)

Column Code	Row Code	Sector Name
2221-01	2221-011	Tires and inner tubes

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “TIRES AND INNER TUBES” listed under Group Number 191 and “Retreaded tires” listed under Industry Number 1994 of the Standard Industrial Classification for Japan.

(Given examples)

Automobile tires and tubes, aircraft tires and tubes, bicycle tires and tubes, tractors tires and tubes, solid tires, re-treaded tires

Column Code	Row Code	Sector Name
2229-01	2229-011	Rubber and plastic footwear

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “RUBBER AND PLASTIC FOOTWEAR AND ITS FINDINGS” listed under Group Number 192 of the Standard Industrial Classification for Japan.

(Given examples)

Rubber: Rubber-soled canvas boots, rubber-soled shoes, rubber boots, rubber zori slippers, slippers (including sponge-soled), related rubber supplies (rubber soles, rubber heels, zori slipper soles, uppers)

Plastic: Plastic shoes (synthetic leather shoes, plastic formed shoes), plastic sandals, slippers and zori slippers, plastic athletic shoes, plastic shoe accessories

Column Code	Row Code	Sector Name
2229-09	2229-099	Miscellaneous rubber products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “RUBBER BELTS AND HOSES AND MECHANICAL RUBBER GOODS PRODUCTS” listed under Group Number 193, “Rubber coated fabric and its products” listed under Industry Number 1991, “Medical and sanitary rubber products” listed under Industry Number 1992, “Rubber sheet (repairsheet)” listed under Industry Number 1993, “Reclaimed rubber” listed under Industry Number 1995, and “Rubber products,n.e.c.” listed under Industry Number 1999 of the Standard Industrial Classification for Japan.

(Given examples)

Conveyor belts, flat belts, v-shape belts (including fan belts), rubber hoses, industrial rubber products (vibration proof rubber, rubber packing), rubber coated sheets, rubber coated sheet products (air mattress), medical and sanitary rubber products, (nursing-bottle heads, water pillows, ice bags, surgical gloves, rubber), rubber for retreading, recycled rubber other rubber products (foam rubber and rubber gloves but excluding those for surgical use, rubber abrasives, rubber bands)

25 Ceramic, stone and clay products

Column Code	Row Code	Sector Name
2511-01		Sheet glass and safety glass
	2511-011	Sheet glass
	2511-012	Safety glass and multilayered glass

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Flat glass” listed under Industry Number 2111, and “Processed flat glass” listed under Industry Number 2112 of the Standard Industrial Classification for Japan.

(Given examples)

Regular flat glass, laminated flat glass, polished flat glass, laminated glass, reinforced glass, multilayered glass, ground glass, bent glass, mirrors

Column Code	Row Code	Sector Name
2511-02	2511-021	Glass fiber and glass fiber products, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Glass fiber and its products” listed under Industry Number 2117 of the Standard Industrial Classification for Japan.

(Given examples)

Glass fiber felt, glass fiber board, glass fiber tube, glass fiber roving, glass fiber chopped strand, glass fiber thread, glass fiber cloth, glass fiber matting, optical fiber (strand)

Column Code	Row Code	Sector Name
2511-09		Miscellaneous glass products
	2511-091	Glass processing materials
	2511-099	Glass products, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Glass processing materials” listed under Industry Number 2113, “Glass containers” listed under Industry Number 2114, “Scientific and medical glass instruments” listed under Industry Number 2115, “Table and kitchen glassware” listed under Industry Number 2116, and “Miscellaneous glass and its products” listed under Industry Number 2119 of the Standard Industrial Classification for Japan; scrap and by-products(glass bottles) generated in other sectors are considered to be in competition to this sector.

(Given examples)

Glass processing materials: Glass base for optical use (including eyeglasses), glass for electric bulbs, glass for electronic tubes, glass for tubes, rods, and bulbs (excluding electrical use)

Glass products, n.e.c.: Glass containers (glass containers for drinks, foods and seasonings, cosmetics, and ink bottles), glassware for scientific and medical use (flasks, beakers, test tubes, ampoules, and medicine bottles), table glassware, kitchen and dining table glassware, other glassware (inner glass containers for thermoses, glass products for lighting and signaling, glass blocks, and glass tiles)

Column Code	Row Code	Sector Name
2521-01	2521-011	Cement

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Cement” listed under Industry Number 2121 of the Standard Industrial Classification for Japan; cement clinkers are classified as semi-products

(Given examples)

Portland cement, fly ash cement, blast furnace cement, white Portland cement

Column Code	Row Code	Sector Name
2521-02	2521-021	Ready mixed concrete

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Fresh concrete” listed under Industry Number 2122 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
2521-03	2521-031	Cement products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Concrete products” listed

under Industry Number 2123 and “Miscellaneous cement products” listed under Industry Number 2129 of the Standard Industrial Classification for Japan.

(Given examples)

Concrete panels, centrifugal reinforced concrete products (pipes, pillars, and piles), regular concrete pipes, and hollow concrete blocks, concrete blocks for earth works, concrete products for pavement, pre-stressed concrete products, terrazzo products, asbestos cement board, waveform asbestos slate, other cement products (cement roof tiles, thick type slate, wood cement products, and aerated concrete products)

Column Code	Row Code	Sector Name
2531-01		Pottery, china and earthenware
	2531-011	Pottery, china and earthen-ware for construction
	2531-012	Pottery, china and earthen-ware for industry
	2531-013	Pottery, china and earthen-ware for home use

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “POTTERY AND RELATED PRODUCTS” listed under Group Number 214 of the Standard Industrial Classification for Japan.

(Given examples)

Pottery, china and earthenware for construction: Plumbing f ixtures (bathtubs, hand basins, and toilet bowls), tiles (mosaic tiles, interior tiles)

Pottery, china and earthenware for industry: Porcelain for electrical applications (insulators, insulating tubes, special porcelain parts for electrical use, fine ceramic IC-boards, and packaged board (annealed)), porcelain products for scientific and industrial use, and fine ceramics (annealed) for scientific and industrial use

Pottery, china and earthenware for home use : Pottery tableware, pottery kitchen and cooking ware, pottery ornaments, painted pottery, pottery clay

Column Code	Row Code	Sector Name
2591-01	2591-011	Clay refractories

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

he production activities of “CLAY REFRACTORIES” listed under Group Number 215 of the Standard Industrial Classification for Japan.

(Given examples)

Refractory bricks, unshaped refractory materials (refractory mortar, castable refractory materials), artificial refractory materials (magnesia-clinker, synthetic mullite), and other refractory materials (including clay melting pot)

Column Code	Row Code	Sector Name
2591-09	2591-099	Miscellaneous structural clay products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “STRUCTURAL CLAY PRODUCTS, EXCEPT THOSE OF POTTERY” listed under Group Number 213 and “Gypsum products” listed under Industry Number 2192 of the Standard Industrial Classification for Japan.

(Given examples)

Plaster board, laminated plaster board, LAS plaster board, waterproof plaster board, reinforced plaster board, gypsum plaster, baked plaster, clay roof tiles (ibushi roof tiles, glazed roof tiles, and salt-baked roof tiles), regular bricks, porcelain pipes

Column Code	Row Code	Sector Name
2599-01	2599-011	Carbon and graphite products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Carbon fiber” listed under Industry Number 1113 and “Carbon fiber” listed under Industry Number 2169 of the Standard Industrial Classification for Japan.

(Given examples)

Electrodes (graphite electrodes, electrolytic plate, carbon electrodes, and continuous self-burning electrode paste), carbon bars (for gauging and batteries), brushes (artificial graphite, metallic graphite), carbon fibers, graphite melting pots, special carbon products

Column Code	Row Code	Sector Name
2599-02	2599-021	Abrasive

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “ABRASIVE PRODUCTS” listed under Group Number 217 of the Standard Industrial Classification for Japan.

(Given examples)

Natural abrasives, processed abrasives, abrasive grinders, abrasive cloth paper

Column Code	Row Code	Sector Name
2599-09	2599-099	Miscellaneous ceramic, stone and clay products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Reclaimed aggregate” listed under Industry Number 2182, “Artificial aggregate” listed under Industry Number 2183, “Cut-stones and stone ware products” listed under Industry Number 2184, “Diatomaceous earth and its products” listed under Industry Number 2185, “Minerals and stones crushed or otherwise treated” listed under Industry Number 2186, “Rock wool,slag wool and its products” listed under 2191, “Lime products” listed under Industry Number 2193, “Molds,including cores” listed under Industry Number 2194, and “Ceramic,stone and clay products,n.e.c” listed under Industry Number 2199 of the Standard Industrial Classification for Japan.

(Given examples)

Joint sheets, brake linings, enameled containers (enameled kitchen and table ware, enameled sanitary articles), lime ash (raw lime, slaked lime, light calcium carbonate), other stone and clay products (Reclaimed aggregate, artificial bones, stone-made parts, diatomite and its products, crushed minerals, crushed stone and clay, and other treated items), cloisonne products, artificial jewels, rock wool and its products, molds, other ceramic, stone, and clay products (enamel, mica)

(Changes)

“Reclaimed aggregate” listed under Industry Number 2182 that was newly established based on the revision of the Standard Industrial Classification for Japan is included in this sector.

26 Iron and steel

Column Code	Row Code	Sector Name
2611-01	2611-011	Pig iron

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of pig iron not dependent on blast furnace iron and blast furnaces specified in “MANUFACTURE OF IRON AND STEEL” listed under Major Group Number 22 (exclusive of “ESTABLISHMENTS ENGAGED IN ADMINISTRATIVE OR ANCILLARY ECONOMIC ACTIVITIES (MANUFACTURE OF IRON AND STEEL)” listed under Group Number 220) of the Standard Industrial Classification for Japan; includes raw iron, pure iron, and base metals

(Given examples)

Blast furnace iron, electric furnace iron

Column Code	Row Code	Sector Name
2611-02	2611-021	Ferro alloys

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Ferro-alloys” listed under Industry Number 2213 of the Standard Industrial Classification for Japan.

(Given examples)

Ferro-nickel, ferro-chrome, ferro-manganese, ferro-molybdenum, ferro-vanadium

Column Code	Row Code	Sector Name
2611-03	2611-031	Crude steel (converters)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of steel ingots based on converters, specified in “MANUFACTURE OF IRON AND STEEL” listed under Major Group Number 22 (exclusive of “ESTABLISHMENTS ENGAGED IN ADMINISTRATIVE OR ANCILLARY ECONOMIC ACTIVITIES (MANUFACTURE OF IRON AND STEEL)” listed under Group Number 220) of the Standard Industrial Classification for Japan.

(Given examples)

Ordinary crude steel, special crude steel

Column Code	Row Code	Sector Name
2611-04	2611-041	Crude steel (electric furnaces)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of steel ingots based on electric furnaces, specified in “MANUFACTURE OF IRON AND STEEL” listed under Major Group Number 22 (exclusive of “ESTABLISHMENTS ENGAGED IN ADMINISTRATIVE OR ANCILLARY ECONOMIC ACTIVITIES (MANUFACTURE OF IRON AND STEEL)” listed under Group Number 220) of the Standard Industrial Classification for Japan.

(Given examples)

Ordinary crude steel, special crude steel

Column Code	Row Code	Sector Name
	2612-011P	Scrap Iron

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

This sector competes with iron scrap generating in the production activities of each sector and in the final demand sectors

(Notes)

No sector generating iron scrap as a major product competes with this sector, and therefore the row code is set as a dummy sector.

Column Code	Row Code	Sector Name
2621-01		Hot rolled steel
	2621-011	Section steel (ordinary steel)
	2621-012	Steep plate (ordinary steel)
	2621-013	Steel strip (ordinary steel)
	2621-014	Steel bar (ordinary steel)
	2621-015	Miscellaneous hot rolled steel (ordinary steel)
	2621-016	Hot rolled steel (special steel)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of rails, section steel, steel bars and rods, wire materials, step plates, steel pipes and tubes, steel strips, paddle wheels, tool steel, structural steel, steel for special use, and semi-finished steel specified under “MANUFACTURE OF IRON AND STEEL” listed under Major Group Number 22 (exclusive of “ESTABLISHMENTS ENGAGED IN ADMINISTRATIVE OR ANCILLARY ECONOMIC ACTIVITIES (MANUFACTURE OF IRON AND STEEL)” listed under Group Number 220) of the Standard Industrial Classification for Japan.

Semi-finished steel is handled as an intermediate product.

(Given examples)

Section steel (ordinary steel) : Structural steel plate, H-shape steel, large, medium, and small tool steel

Steep plate (ordinary steel) : Thick plate, medium thickness plate, thin plate

Steel strip (ordinary steel) : Cold-rolled steel band, steel band for other uses

Steel bar (ordinary steel) : Round bar for small structural use, deformed bar for small structural, other small steel bar and rod products

Miscellaneous hot rolled steel (ordinary steel) : Rails, large and medium steel bars and rods, steel pipes and tubes, bar in coil form, wire materials, paddle wheel

Hot rolled steel (special steel) : Tool steel, structural steel, spring steel, bearing steel, stainless steel, refractory steel, free-cutting steel, piano string materials, high-tensile steel, manganese steel, alloy steel materials

Column Code	Row Code	Sector Name
2622-01		Steel pipes and tubes
	2622-011	Steel pipes and tubes (ordinary steel)
	2622-012	Steel pipes and tubes (special steel)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of hot steel pipes and tubes, cold steel pipes and tubes, and plated steel pipes and tubes specified under “MANUFACTURE OF IRON AND STEEL” listed under Major Group Number 22 (exclusive of “ESTABLISHMENTS ENGAGED IN ADMINISTRATIVE OR ANCILLARY ECONOMIC ACTIVITIES (MANUFACTURE OF IRON AND STEEL)” listed under Group Number 220) of the Standard Industrial Classification for Japan.

(Given examples)

Steel pipes and tubes (ordinary steel):Ordinary hot-worked

steel pipes and tubes (seamless steel pipes and tubes, high-frequency welded steel tubes, and arc-welded steel tubes), ordinary steel pipes and tubes for cold drawing, ordinary coated steel pipes and tubes

Steel pipes and tubes (special steel):Hot-worked special steel pipes and tubes (seamless steel pipes and tubes, high frequency welded steel tubes, and arc-welded steel tubes), special steel pipes and tubes for cold drawing

Column Code	Row Code	Sector Name
2623-01		Coldfinished steel
	2623-011	Coldfinished steel (ordinary steel)
	2623-012	Coldfinished steel (special steel)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of cold-rolled tool steel, strip steel, bar and rod steel, cold-rolled steel plate, cold-rolled wide steel band, cold-rolled electric furnace strip steel, steel wire, carbon steel for cold rolling, hard steel wire, solder rod core wire, P.C. steel wire, piano strings, stainless steel wire, other special steel wire specified under "MANUFACTURE OF IRON AND STEEL" listed under Major Group Number 22 (exclusive of "ESTABLISHMENTS ENGAGED IN ADMINISTRATIVE OR ANCILLARY ECONOMIC ACTIVITIES (MANUFACTURE OF IRON AND STEEL)" listed under Group Number 220) of the Standard Industrial Classification for Japan.

(Given examples)

Coldfinished steel (ordinary steel) : Strip steel, cold-rolled wide steel band, old-rolled steel plate, cold-rolled electric furnace strip steel, bar and rod steel, steel wire, carbon steel for cold rolling, hard steel wire, solder rod core wire, light-gauge structural steel plate, light-gauge section steel

Coldfinished steel (special steel) : Strip steel, cold-rolled wide steel band, cold-rolled steel plate, bar and rod steel, P.C. steel wire, piano strings, stainless steel wire, carbon steel for cold rolling, other special steel wire

Column Code	Row Code	Sector Name
2623-02	2623-021	Coated steel

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities except for coated steel tubes for "COATED STEEL" listed under Group Number 224 of the Standard Industrial Classification for Japan.

(Given examples)

Tin plate, zinc-coated steel, steel wire, zinc-coated hard steel wire, aluminum-coated steel plates, tin-free steel

Column Code	Row Code	Sector Name
2631-01		Cast and forged steel
	2631-011	Forged steel
	2631-012	Cast steel

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Steel castings" listed under Industry Number 2253 and "Steel forgings" listed under Industry Number 2255 of the Standard Industrial Classification for Japan.

(Given examples)

Forged steel : Ordinary forged steel materials and special forged steel materials (before gas-cutting)

Cast steel : Ordinary cast steel materials and special cast steel materials (before riser cutting)

Column Code	Row Code	Sector Name
2631-02	2631-021	Cast iron pipes and tubes

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Cast iron pipe" listed under Industry Number 2293 of the Standard Industrial Classification for Japan.

(Given examples)

Straight pipes (regular type, hard cast iron), deformed pipes (regular type, hard cast iron)

Column Code	Row Code	Sector Name
2631-03		Cast and forged materials (iron)
	2631-031	Cast materials (iron)
	2631-032	Forged materials (iron)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Iron castings, except cast iron

pipes and malleable iron castings" listed under Industry Number 2251, "Malleable iron castings" listed under Industry Number 2252, and "Secondary forgings" listed under Industry Number 2254 of the Standard Industrial Classification for Japan.

(Given examples)

Cast materials (iron): Iron castings, spheroidal graphite cast iron, alloy cast iron, malleable cast iron, precision cast parts, malleable cast iron joints

Forged materials (iron): Forged parts (for automobiles, for industrial machines)

Column Code	Row Code	Sector Name
2699-01	2699-011	Iron and steel shearing and slitting

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Iron and steel shearing and slitting" listed under Industry Number 2291 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
2699-09	2699-099	Miscellaneous iron or steel products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Iron and steel,n.e.c." listed under Industry Number 2299 of the Standard Industrial Classification for Japan.

(Given examples)

Iron powder, rolled pure iron, pellets

27 Non-ferrous metals

Column Code	Row Code	Sector Name
2711-01	2711-011	Copper

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for the "Primary smelting and refining of copper" listed under Industry Number 2311 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
2711-02	2711-021	Lead and zinc (including regenerated lead)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "Primary smelting and refining of zinc" listed under Industry Number 2312, primary smelting and refining of lead specified in "Miscellaneous primary smelting and refining of non-ferrous metals" listed under Industry Number 2319, "Secondary smelting and refining of lead, including lead alloys" listed under Industry Number 2321, and the production activities of zinc regeneration and zinc alloy manufacturing specified in "Miscellaneous secondary smelting and refining of non-ferrous metals, including non-ferrous alloys" listed under Industry Number 2329 of the Standard Industrial Classification for Japan.

(Given examples)

Lead, regenerated lead, anti-friction metal alloy, solder, zinc, regenerated zinc, zinc alloy

Column Code	Row Code	Sector Name
2711-03	2711-031	Aluminum (including regenerated aluminum)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of aluminum smelting and refining and alumina refining specified in "Miscellaneous primary smelting and refining of non-ferrous metals" listed under Industry Number 2319 and "Secondary smelting and refining of aluminum including aluminum alloys" listed under Industry Number 2322 of the Standard Industrial Classification for Japan.

(Given examples)

Raw aluminum, alumina, hydro-oxide aluminum, regenerated aluminum, aluminum alloy

Column Code	Row Code	Sector Name
2711-09	2711-099	Miscellaneous nonferrous metals

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities exclusive of aluminum smelting and refining, alumina refining, and primary smelting and refining of lead specified in “Miscellaneous primary smelting and refining of non-ferrous metals” listed under Industry Number 2319 and production activities exclusive of zinc regeneration and zinc alloy manufacturing specified in “Miscellaneous secondary smelting and refining of non-ferrous metals, including non-ferrous alloys” listed under Industry Number 2329 of the Standard Industrial Classification for Japan.

(Given examples)

Gold, silver, titanium, tungsten, tin, antimony, regenerated gold, gold alloy, regenerated silver, silver alloy, regenerated copper, copper alloy

Column Code	Row Code	Sector Name
	2712-011P	Nonferrous metal scrap

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

A competitive sector for non-ferrous metal scrap generated in the production activities of manufacturers and in the final demand sectors

(Notes)

No sector generating non-ferrous metal scrap as a major product competes with this sector, and therefore the row code is set as a dummy sector.

Column Code	Row Code	Sector Name
2721-01	2721-011	Electric wires and cables

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Electric wire and cable,except optical fiber cable” listed under Industry Number 2341 of the Standard Industrial Classification for Japan.

(Given examples)

Communication wires and cables, power wires and cables

Column Code	Row Code	Sector Name
2721-02	2721-021	Optical fiber cables

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Optical fiber cables, including telecommunication composite cables” listed under Industry Number 2342 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
2729-01	2729-011	Rolled and drawn copper and copper alloys

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for the “Rolling and drawing of copper and copper alloys” listed under Industry Number 2331 of the Standard Industrial Classification for Japan.

(Given examples)

Rolled and drawn articles of copper, yellow copper, and bronze

Column Code	Row Code	Sector Name
2729-02	2729-021	Rolled and drawn aluminum

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for the “Rolling of aluminum and aluminum alloys, including drawing and extruding” listed under Industry Number 2332 of the Standard Industrial Classification for Japan.

(Given examples)

Aluminum plates, aluminum discs, aluminum thread, aluminum tubes, aluminum bars, aluminum formed materials, aluminum wires, aluminum foil

Column Code	Row Code	Sector Name
2729-03	2729-031	Nonferrous metal castings and forgings

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “NON-FERROUS METAL MACHINE PARTS AND TOOLING PRODUCTS” listed under Group Number 235 of the Standard Industrial Classification for Japan.

(Given examples)

Copper alloy castings, light metal alloy castings, zinc die-cast components, copper die-cast components, aluminum die-cast components, precision castings, forged products (aluminum)

Column Code	Row Code	Sector Name
2729-04	2729-041	Nuclear fuels

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Nuclear fuel” listed under Industry Number 2391 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
2729-09	2729-099	Miscellaneous nonferrous metal products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Miscellaneous rolling of non-ferrous metals and alloys, including drawing and extruding” listed under Industry Number 2339, and “Non-ferrous metal products,n.e.c.” listed under Industry Number 2399 of the Standard Industrial Classification for Japan.

(Given examples)

Lead pipes, lead plates, drawn lead-alloy wires, zinc products, drawn gold, silver, platinum, nickel, and the like, non-ferrous metal alloy powder

28 Metal products

Column Code	Row Code	Sector Name
2811-01	2811-011	Metal products for construction

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Iron framework” listed under Industry Number 2441, and “Constructional metal products, except iron framework” listed under Industry Number 2442 of the Standard Industrial Classification for Japan.

(Given examples)

Steel frames, light-gauge steel frames, iron bridge components, iron tower components, floodgates, metal ladders

Column Code	Row Code	Sector Name
2812-01	2812-011	Metal products for architecture

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Metal sashes and doors” listed under Industry Number 2443, “Steel framed prefab housing” listed under Industry Number 2444, and “Fabricated architectural metal products, except sashes,doors and structural hardwares” listed under Industry Number 2445 of the Standard Industrial Classification for Japan.

(Given examples)

Aluminum window and door sashes, other metal window and door sashes, shutters, metal lathes, steel-framed prefabricated houses, unit-type houses, metal plate structural products

Column Code	Row Code	Sector Name
2891-01	2891-011	Gas and oil appliances and heating and cooking apparatus

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Gas and oil appliances” listed under Industry Number 2432, “Heated air and hot water heating systems” listed under Industry Number 2433, and “Miscellaneous heating and cooking apparatus, except electrical appliances and gas and oil appliances” listed under Industry Number 2439 of the Standard Industrial Classification for Japan.

(Given examples)

Gas appliances such as gas ovens, bath heaters and flash water heaters, oil appliances such as kerosene stoves, heated air systems, head water systems such as heated water boilers, heating and cooking apparatus, solar heating appliances

Column Code	Row Code	Sector Name
2899-01	2899-011	Bolts, nuts, rivets and springs

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “BOLTS, NUTS,RIVETS, MACHINE SCREWS AND WOOD SCREWS” listed under Group Number 248, and “Metallic springs” listed under Industry Number 2492 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
2899-02	2899-021	Metal containers, fabricated plate and sheet metal

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “TIN CANS AND OTHER PLATED SHEET PRODUCTS” listed under Group Number 241 and “Fabricated plate work and sheet metal work” listed under Industry Number 2446 of the Standard Industrial Classification for Japan.

(Given examples)

Oil drums, 18 liter cans, metal cans (for canned foods), general purpose cans, containers, tanks made of metal sheet, high pressure vessels tanks

Column Code	Row Code	Sector Name
2899-03		Plumber’s supplies, powder metallurgy products and tools
	2899-031	Plumber’s supplies
	2899-032	Powder metallurgy products
	2899-033	Cutlery and tools

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Edge tools for machinery “listed under Industry Number 2422, “Edge tools, artisans' tools and hand tools, except files, saws and knives for kitchen use “listed under Industry Number 2423, “Work tools “listed under Industry Number 2424, “Hand saws and saw blades “listed under Industry Number 2425, “Agricultural tools,except agricultural machinery “listed under Industry Number 2426, “Plumbers' supplies, except valves and cocks “listed under Industry Number 2431, and “Powder metallurgy products “listed under Industry Number 2453 of the Standard Industrial Classification for Japan.

(Given examples)

Plumber’s supplies : Pipe joint (metal), metal sanitary ware, atomizing nozzles, sprinkler heads, drain-pipe shut-off plugs

Powder metallurgy products : Machine parts (powder metallurgy), carbide tips, carbide tools (powder- or metal-lurgy-based)

Cutlery and tools : Machine edge, artisan’s tools and hand tools (cooking knives, knives, scissors, and barber’s tools, picks, hammers, shovels, and scoops), files, work tools (hand saws, saw edges, wrenches, cutting pliers, and screwdrivers), farm tools (rakes, hoes, and scythes), farm tool parts

Column Code	Row Code	Sector Name
2899-09		Miscellaneous metal products
	2899-091	Stamped and pressed metal products
	2899-092	Fabricated wire products
	2899-099	Metal products, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “Tableware (occidental type)” listed under Industry Number 2421, “Miscellaneous hardware” listed under Industry Number 2429, “Stamped and pressed aluminum products and aluminum alloys” listed under Industry Number 2451, “Stamped and pressed metal products, except aluminum and aluminum alloys” listed under Industry Number 2452, “METAL COATING, ENGRAVING AND HEAT TREATING, EXCEPT ENAMELED IRONWARE” listed under Group Number 246, “FABRICATED WIRE PRODUCTS” listed under Group Number 247, “Safes” listed under Industry Number 2491, “Fabricated metal products, n.e.c.” listed under Industry Number 2499 of the Standard Industrial Classification for Japan, and coin production activities by the

Japan Mint

(Given examples)

Stamped and pressed metal products : Aluminum machine parts, aluminum kitchen and tableware, aluminum cans for drinks, other metal products (stamped and pressed machine parts, bottle crowns)

Fabricated wire products : Nails, Metal nets, PC steel twisted wire, wire rope, welding rods

Metal products, n.e.c. : Metal cutlery, metal ware (keys, locks, structural metal ware, and cable metal ware), engraved metal products, heat-treated metal products, safes, coins, metal packing and gaskets, metal name tags, metal tube clamps, and safe parts, fixtures and accessories

29 General-purpose machinery

Column Code	Row Code	Sector Name
2911-01	2911-011	Boilers

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Boilers” listed under Industry Number 2511 of the Standard Industrial Classification for Japan.

(Given examples)

Steam boilers, water heaters, and boiler parts, fixtures and accessories

Column Code	Row Code	Sector Name
2911-02	2911-021	Turbines

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Steam engines,turbines and water wheels,except marine engines” listed under Industry Number 2512 of the Standard Industrial Classification for Japan.

(Given examples)

Steam turbines, water-powered turbines, gas-fired turbines, parts, fixtures and accessories for steam engines, turbines, and water-powered turbines

(Notes)

Turbines for aircrafts are classified under “3592-01, -011 Aircrafts.”

Column Code	Row Code	Sector Name
2911-03	2911-031	Engines

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “General-purpose internal combustion engines” listed under Industry Number 2513 and “Miscellaneous engines and turbines” listed under Industry Number 2519 of the Standard Industrial Classification for Japan.

(Given examples)

General-purpose gasoline engines, general-purpose kerosene

engines, general-purpose diesel engines, atomic power reactors, water wheels (excluding water power turbines), windmill engines, compressed-air engines, parts, fixtures and accessories for general-purpose internal combustion engines, atomic power reactors, and other engines

(Notes)

(1) Internal combustion engines for vessels, aircrafts, automobiles, and motorcycles are not classified in this sector.

(2) Electrical equipment for internal combustion engines is classified under "3311-05, -051 Electrical equipment for internal combustion engines."

Column Code	Row Code	Sector Name
2912-01	2912-011	Pumps and compressors

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Pumps and pumping equipments" listed under Industry Number 2521, "Air compressors,gas compressors and blowers" listed under Industry Number 2522, and "Oil hydraulic and pneumatic equipment" listed under Industry Number 2523 of the Standard Industrial Classification for Japan.

(Given examples)

Single-step rotary pumps, multi-step rotary pumps, pumps (anti-corrosive type), electric pumps (for household), hand-operated pumps, cylindrical compressors, rotary compressors, centrifugal compressors, axial flow compressors, vacuum pumps, hydraulic pumps, hydraulic motors, hydraulic cylinders, hydraulic valves, air compressors, and parts, fixtures, and accessories for pumps and compressors

(Notes)

This sector includes fire pumps and vessel pumps; automotive fuel pumps are classified under "3531-01, -011 Internal combustion engines for motor vehicles," motor pumps for aircrafts are classified under "3592-01, -011 Aircrafts," and metering pumps are classified under "3113-01, -011 Measuring instruments."

Column Code	Row Code	Sector Name
2913-01	2913-011	Conveyors

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Elevators and escalators" listed under Industry Number 2532 and "Logistics and conveying equipment" listed under Industry Number 2533 of the Standard Industrial Classification for Japan.

(Given examples)

Elevators, escalators, cranes, hoists, conveyors, and parts, fixtures and accessories for conveying machines

Column Code	Row Code	Sector Name
2914-01	2914-011	Refrigerators and air conditioning apparatus

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Refrigerating machines and air conditioning apparatus" listed under Industry Number 2535 of the Standard Industrial Classification for Japan.

(Given examples)

Refrigerators, refrigerated and cooled display cases (incl. shelves for frozen foods), packaged air-conditioners, water coolers, cooling towers, cooling apparatus, freezing apparatus, ice-making apparatus, dehumidifiers (excluding for consumer use), parts, fixtures and accessories for refrigerators, and heat and humidity conditioners

Column Code	Row Code	Sector Name
2919-01	2919-011	Bearings

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Ball and roller bearings" listed under Industry Number 2594 of the Standard Industrial Classification for Japan.

(Given examples)

Bearing shaft receptacles, roller shaft receptacles, shaft units, and bearing parts

Column Code	Row Code	Sector Name
2919-09		Miscellaneous generalpurpose machinery
	2919-091	Mechanical power transmission equipment
	2919-099	Generalpurpose machinery, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Mechanical power transmission equipment, except ball and roller bearings" listed under Industry Number 2531, "Industrial furnaces and ovens" listed under Industry Number 2534, "Fire extinguishing equipment and its apparatus" listed under Industry Number 2591, "Valves and fittings" listed under Industry Number 2592, "Fabricated pipe and fittings" listed under Industry Number 2593, "Piston rings" listed under Industry Number 2595, "Genaral－purpose machinery and apparatus,n.e.c." listed under Industry Number 2596, and "Machine shops (jobbing and repair)" listed under Industry Number 2599 of the Standard Industrial Classification for Japan.

(Given examples)

Mechanical power transmission equipment : Transmissions, gears (including those of plastics), roller chains

Generalpurpose machinery, n.e.c. : Industrial ovens, oil and gas burners, mechanical parking devices, fire extinguishing gear, fire engine equipment, high-temperature high pressure valves, automatic adjustable valves, supply and drain valves, cocks, general purpose valves and cocks, cut, bent, and threaded pipe articles, piston rings, parts, fixtures, and accessories for fire extinguishing gear, attachments for valves and cocks, and other machine parts not elsewhere classified

30 Production machinery

Column Code	Row Code	Sector Name
3011-01	3011-011	Machinery for agricultural use

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "AGRICULTURAL MACHINERY AND EQUIPMENT" listed under Group Number 261 of the Standard Industrial Classification for Japan.

(Given examples)

Cultivators, push tractors, sprays, dust sprays, rice seeding machines, rice chaffing machines, agricultural drying machines, combines, cropping machines, feed machines, and parts, fixtures, and accessories for agricultural machinery

(Notes)

Hand tools for farming are classified under the column sector "2899-03 Plumber's supplies, powder metallurgy products and tools" and row column "2899-033 Cutlery and tools."

Column Code	Row Code	Sector Name
3012-01	3012-011	Machinery and equipment for construction and mining

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "MACHINERY AND EQUIPMENT FOR CONSTRUCTION AND MINING" listed under Group Number 262 of the Standard Industrial Classification for Japan.

(Given examples)

Excavators, construction cranes, grounding machines, asphalt paving machines, concrete machines, foundation work machines, drilling machines, rock drilling machines, iron piles, crushing machines, triturator, sorters, wheel tractors, caterpillar tractors, and parts, fixtures, and accessories of construction and mining machines

Column Code	Row Code	Sector Name
3013-01	3013-011	Textile machinery

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "TEXTILE MACHINERY"

listed under Group Number 263 of the Standard Industrial Classification for Japan.

(Given examples)

Chemical fiber fabrication machines, fiber spinning machines, textile fabrication machines, knitting machines, dyeing and finishing machines, sawing machines (household sawing machines, industrial sawing machines), and parts, fixtures, and accessories of textile machinery

Column Code	Row Code	Sector Name
3014-01		Daily lives industry machinery
	3014-011	Food processing machinery and equipment
	3014-012	Wood working machinery
	3014-013	Pulp equipment and paper machinery
	3014-014	Printing, bookbinding and paperconverting machinery
	3014-015	Packing machinery

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Food processing machinery and equipment” listed under Industry Number 2641, “Woodworking machinery” listed under Industry Number 2642, “Pulp and paper industry machinery” listed under Industry Number 2643, “Food processing machinery and equipment” listed under Industry Number 2644, and “Woodworking machinery” listed under Industry Number 2645 of the Standard Industrial Classification for Japan.

(Given examples)

Food processing machinery and equipment: Grain processing machines and systems, bakery and confectionary machines and systems, brewing machines, milk-processing and diary products processing machines and systems, meat and marine products processing machines, and parts, fixtures, and accessories for food processing machinery

Wood working machinery : Timber sawing machinery (band saws, circular saws), woodwork machinery (planers, saws, and nailers), plywood machinery (veneer lathes, presses, and cutters), and parts, fixtures, and accessories for machinery for timber, woodwork, and plywood

Pulp and paper machines: Pulp machines and machinery (chip-makers, chip-crushers, and refiners), paper machines (long net, round net, short net, combined net), cutters, winders, coating machines, and parts, fixtures, and accessories of pulp and paper machines

Printing, bookbinding and paperconverting machinery : Printing machines (relief printing machines, lithographic printing machines, (for sizes greater than B3 paper), special printing machines, intaglio printing machines), bookbinding machines (cutters, binders, and folders), paper processing machines (for paper boxes, corrugate boxes, paper sacks and envelop, and paper cups), plate-making machines (type-casting machines, photographic typesetting machines), and parts, fixtures, and accessories of printing, bookbinding, and paper processing machines

Packing machinery : Wrapping and packaging machines, packing machines, and parts, fixture, and accessories for Packing machines

Column Code	Row Code	Sector Name
3015-01	3015-011	Chemical machinery

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Chemical machinery and its equipment” listed under Industry Number 2652 of the Standard Industrial Classification for Japan.

(Given examples)

Heat exchangers (including partial condensers), annealing machines, compressors, filters, separators, mixers, agitators, kneading machines, dissolvers, granulator emulsifiers, crushers, reactors, production furnaces, pyrolysis furnaces electrolytic bathes, evaporators, distillers, machines for crystallizations, dryers, roasting machines, sintering machines, dust controllers, chemical tanks,(fixed types, floating-roof types, spheres, and others) and parts, fixtures, and accessories of chemical machines

Column Code	Row Code	Sector Name
3015-02		Casting equipment and plastic processing machinery
	3015-021	Casting equipment
	3015-022	Plastic processing machinery

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Foundry equipment” listed under Industry Number 2651 and “Machinery for fabrication of plastic and its equipment” listed under Industry Number 2653 of the Standard Industrial Classification for Japan.

(Given examples)

Casting equipment : Die-casting machines, other casting machines (die-molding, die-inserting, inner arrangement, and specialty die molding), dies and die-fitting (limited to iron and steel), and parts, fixtures, and accessories for casting machines

Plastic processing machinery: Injectors, Extruders, other plastic processing machines (compressed molding, blow molding, vacuum molding), and parts, fixtures, and accessories for plastic processing machines

Column Code	Row Code	Sector Name
3016-01	3016-011	Metal machine tools

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Metal machine tools” listed under Industry Number 2661 and parts and accessories for metal working machines specified in “Parts and accessories for metal working machines and machine tools, except machinists' precision tools, molds and dies” listed under Industry Number 2663 of the Standard Industrial Classification for Japan.

(Given examples)

Turning machines, drilling machines, boring machines, milling machines, flat grinding machines, broaching machines, grinding machines, gear-cutting machines, gear finishing machines, machining centers, transverse planing machines, horning machines, lapping machines, metal sawing machines, and parts, fixtures, and accessories for machine-tools

Column Code	Row Code	Sector Name
3016-02	3016-021	Metal processing machinery

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Metalworking machinery and its equipment, except metal machine tools” listed under Industry Number 2662 and parts and accessories for metal-working machines specified in “Parts and accessories for metal working machines and machine tools, except machinists' precision tools, molds and dies” listed under Industry Number 2663 of the Standard Industrial Classification for Japan.

(Given examples)

Metal rolling machines, refiner, bending machines, hydraulic pressing machines, mechanical pressing machines, shearing machines, forging machines, wire-forming machines, gas welding machines, fusing machines, rolls for metal rolling, and parts, fixtures, and accessories for metal machine tools

Column Code	Row Code	Sector Name
3016-03	3016-031	Machinists’ precision tools

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Machinists’ precision tools, except powder metallurgy products” listed under Industry Number 2664 of the Standard Industrial Classification for Japan.

(Given examples)

Special steel cutting tools, carbide tipped tools (excluding powder metallurgy), air tools, electric tools, diamond bladed tools, and jigs and accessories for metal processing

(Notes)

Carbide tipped tools (powder metallurgy) are classified under the column sector “2899-03 Plumber’s supplies, powder metallurgy products and tools” and row sector “2899-032 Powder metallurgy products.”

Column Code	Row Code	Sector Name
3017-01	3017-011	Semiconductor making equipment

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Semiconductor manufacturing equipment” listed under Industry Number 2671, and “Flat-panel display manufacturing equipment” listed under Industry Number 2672 of the Standard Industrial Classification for Japan.

(Given examples)

Handling devices for wafer processes (electronic circuitry formation), semiconductor assembly devices, flat panel display manufacturing devices, and parts, fixtures, and accessories for semiconductor manufacturing devices

(Notes)

Ion implantation equipment other than for semiconductor manufacturing devices are included in the column and row sector “3019-02, -021 Vacuum equipment and vacuum component.”

Column Code	Row Code	Sector Name
3019-01	3019-011	Metal molds

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Molds and dies, parts and accessories for metal products” listed under Industry Number 2691, and “Molds and dies,parts and accessories for nonmetal products” listed under Industry Number 2692 of the Standard Industrial Classification for Japan.

(Given examples)

Metal molds for press machines, metal molds for forging, metal molds for casting (including die-casting), metal molds for plastics, molds for rubber, and parts and accessories for molds and dies

Column Code	Row Code	Sector Name
3019-02	3019-021	Vacuum equipment and vacuum component

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Vacuum equipment and vacuum component” listed under Industry Number 2693 of the Standard Industrial Classification for Japan.

(Given examples)

Vacuum pumps, vacuum metallurgy equipment , vacuum chemical equipment, vacuum deposition equipment, vacuum coating equipment, sputtering apparatuses, dry etching equipment, CVD equipment, ion implantation equipment (excluding for semiconductor manufacturing devices), and parts, fixtures, and accessories for vacuum equipment and vacuum components

Column Code	Row Code	Sector Name
3019-03	3019-031	Robots

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Robots” listed under Industry Number 2694 of the Standard Industrial Classification for Japan.

(Given examples)

Manual manipulators, fixed-sequence robots, variable-sequence robots, playback robots, computer-controlled robots, and parts, fixtures, and accessories for robots

Column Code	Row Code	Sector Name
3019-09	3019-099	Miscellaneous production machinery

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Production machinery and machine parts,n.e.c” listed under Industry Number 2699 of the Standard Industrial Classification for Japan.

(Given examples)

Machines and tools for the rubber industry, specialty machines for the glass industry, other specialty industrial machines (tobacco machines, specialty machines for the chemical and drug, hat-making, leather-processing, and shoe-making industries), and parts, fixtures, and accessories for miscellaneous production machinery

31 Business oriented machinery

Column Code	Row Code	Sector Name
3111-01	3111-011	Copy machine

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for copying machines specified in "Copying machines" listed under Industry Number 2711 of the Standard Industrial Classification for Japan.

(Given examples)

Electrostatic indirect copying machines, digital copying machines, full-color copying machines, and parts, fixtures, and accessories for copying machines

Column Code	Row Code	Sector Name
3111-09	3111-099	Miscellaneous office machines

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Miscellaneous office machines" listed under Industry Number 2719 of the Standard Industrial Classification for Japan.

(Given examples)

Computing machines, word processors, accounting registers (cash registers), typewriters, time recorders, duplicators, address printers, microfilm machines, offset printing machines (for sizes smaller than B3 paper), coin calculators, shredders, and parts, fixtures, and accessories for office machines except copying machines

(Notes)

Electric measuring instruments are included in "3421-01, -011 Personal Computers" or "3421-02, -021 Electronic computing equipment (except personal computers)"

Column Code	Row Code	Sector Name
3112-01		Machinery for service industry
	3112-011	Vending machines
	3112-012	Amusement machinery
	3112-019	Miscellaneous machinery for service industry

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Service industry machines" listed under Industry Number 2721, "Amusement machines" listed under Industry Number 2722, "Vending machines" listed under Industry Number 2723, and "Miscellaneous service industry and amusement machines" listed under Industry Number 2729 of the Standard Industrial Classification for Japan.

(Given examples)

Vending machines : Vending machines for food stuffs, tobacco vending machines, ticket tellers, and parts, fixtures, and accessories for vending machines

Amusement machinery : "Pachinko" machines, slot machines (pachinko tables, pachinko ball feeders, and slot machine tables), amusement machines for game centers (arcade game machines, crane game machines, and industrial TV game machines), machines for amusement parks (jet coasters, merry-go-rounds, and other amusement rides), and parts, fixtures, and accessories for amusement machinery

Miscellaneous machinery for service industry : Professional laundry machines, automobile adjustment and repair tools, other service/household instruments (money exchangers, automatic ticket inspection machines, automatic inspection machines for entry, coin lockers), and parts, fixtures, and accessories for miscellaneous service industry and amusement machines

(Notes)

Elevators for household use are included in the column and row sector "2913-01, -011 Conveyors"

Column Code	Row Code	Sector Name
3113-01	3113-011	Measuring instruments

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "MEASURING INSTRUMENTS, ANALYTICAL INSTRUMENTS" listed under Group Number 273 of the Standard Industrial Classification for Japan.

(Given examples)

Range finders, integral volume meters (oil volume meters, gas volume meters, and water volume meters), other volume meters (measuring cups, volume meters for chemistry, and measuring flasks), scales (fixed scales, spring scales, and electronic scales), thermometers (glass), pressure meters,

metallic thermometers, flow meters, level meters, precision measuring instruments, industrial range finders, optical analyzers, other analyzers, material testers, other testers, optical meters, optical flux meters, luxmeters, refracto meters, pollution-measuring instruments, density meters, specific gravity meters, noise level meters, wave counters, speedometers, seismographs, geophysical measuring apparatus (gyroscopic instruments, magnetic compasses, angle-measuring apparatus, and level-measuring apparatus), and parts, fixtures, and accessories for analytical instruments, testing instruments, meters, measuring instruments, laboratory instruments (chemical instruments, physical instruments, observatory instruments), educational instruments (experimental instruments for physics, chemistry, natural history and mathematics), geophysical instruments (gravity meters, magnetometers), astronomical instruments, and parts, fixtures, and accessories for scientific chemical instruments

Column Code	Row Code	Sector Name
3114-01	3114-011	Medical instruments

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "MEDICAL INSTRUMENTS AND APPARATUS" listed under Group Number 274 of the Standard Industrial Classification for Japan.

(Given examples)

Medical instruments, apparatus, and devices, apparatus and devices for hospitals, dental apparatus and devices, veterinary tools and apparatus, medical supplies, materials for dentistry, and parts, fixtures, and accessories for medical instruments and apparatus

(Notes)

X-ray equipment, electronic equipment, and laser equipment are classified under the sector "3331-01, -011 Applied electronic equipment"

Column Code	Row Code	Sector Name
3115-01	3115-011	Optical instruments and lenses

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "OPTICAL INSTRUMENTS AND LENSES" listed under Group Number 275 of the Standard Industrial Classification for Japan.

(Given examples)

35mm cameras (focal-plane shutter type, lens shutter type, and compact cameras), cameras other than 35mm cameras (twin-lens cameras, miniature cameras, professional cameras), photographic and related devices (enlarging devices, developing, printing, and finishing devices, photo dryers, readers, and viewers) and parts, fixtures, and accessories for photographic devices (filters, hoods, tripods, geared heads with mounting plates, self-timers, range finders, exposure meters, shutters, bodies, foldable camera bodies, camera attachments for close-up photography and telescopic photography, and electronic flash), Telescopes, binoculars, microscopes, magnifiers, film cameras, film projectors, slide projectors, film developing devices, film printing devices, film screens, camera lenses, interchangeable camera lenses, optical lenses, prisms, and parts, fixtures, and accessories for miscellaneous optical equipment

Column Code	Row Code	Sector Name
3116-01	3116-011	Ordnance

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "ORDNANCE AND ACCESSORIES" listed under Group Number 276 of the Standard Industrial Classification for Japan.

(Given examples)

Weapons, heavy weapons, grenade launchers, military vehicles, cartridges, shells, explosives, command-center systems and equipment, weapons parts and accessories, weapons repairs

32 Electronic components

Column Code	Row Code	Sector Name
3211-01	3211-011	Electron tubes

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “Electron tubes” listed under Industry Number 2811 and plasma panels specified in “Liquid crystal panel and flat-panel” listed under Industry Number 2815 of the Standard Industrial Classification for Japan.

(Given examples)

Microwave tubes, cathode-ray tubes (Braun tubes), display tubes, X-ray tubes, plasma display panels, plasma display modules (including those conducted in an integrated manner from panel production)

(Notes)

(1) In association with the establishment of Industry Number 2815 “Liquid crystal panel and flat-panel” in the Standard Industrial Classification for Japan, PDP modules were separated from this sector. However, as with the 2005 I-O Tables, plasma display panels and plasma display modules (including those carried out in an integrated manner from panel production) are classified under this sector.

(2) Electron tube components are classified under the sector “3299-09, -099 Miscellaneous electronic components”

Column Code	Row Code	Sector Name
3211-02	3211-021	Semiconductor devices

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Photoelectric conversion element” listed under Industry Number 2812, and “Semiconductor devices,except photoelectric conversion element” listed under Industry Number 2813 of the Standard Industrial Classification for Japan.

(Given examples)

Diodes, rectifiers, silicon transistors, transistors, photoelectric converters, and LEDs (light-emitting diode）,solar cell）

(Notes)

Components of semiconductor devices are classified under the sector “3299-09, -099 Miscellaneous electronic components”

Column Code	Row Code	Sector Name
3211-03	3211-031	Integrated circuits

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Integrated circuits” listed under Industry Number 2814 of the Standard Industrial Classification for Japan.

(Given examples)

Bipolar ICs, MOS ICs, linear ICs, HICs (Hybrid ICs; thin and thick films), ICs not mounted (for export)

(Notes)

Components of integrated circuits are classified under the sector “3299-09, -099 Miscellaneous electronic components”

Column Code	Row Code	Sector Name
3211-04	3211-041	Liquid crystal panel

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for liquid crystal panel and liquid crystal devices among those listed as “Liquid crystal panel and flat-panel” as specified in Industry Number 2815 of the Standard Industrial Classification for Japan

(Given examples)

Liquid crystal panel: Active types (TFT types), passive types, liquid crystal modules (those conducted in an integrated manner from panel production)

Column Code	Row Code	Sector Name
3299-01	3299-011	Magnetic tapes and discs

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Optical discs and magnetic tapes and discs” listed under Industry Number 2832 of the Standard Industrial Classification for Japan.

(Given examples)

Magnetic tape (unrecorded; for sound or image recording and for computer use), magnetic discs (unrecorded; flexible discs, magnetic optical discs)

Column Code	Row Code	Sector Name
3299-02	3299-021	Electric circuit

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “ELECTRONIC CIRCUIT” listed under Group Number 284 of the Standard Industrial Classification for Japan.

(Given examples)

Rigid printed wiring board, flexible printed wiring board, module substrates, printing wiring mounting board, module mounting board

Column Code	Row Code	Sector Name
3299-09	3299-099	Miscellaneous electronic components

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Resistors, capacitors, transformers and composite parts” listed under Industry Number 2821 ,“Electro acoustic transducers,magnetic heads and small motors” listed under Industry Number 2822 ,“Connectors, switches and relays” listed under Industry Number 2823 ,“Semiconductor memory media” listed under Industry Number 2831 ,“Power supply unit,radio frequency unit and cntrol unit” listed under Industry Number 2851 ,“Miscelleaneous unit parts” listed under Industry Number 2859, and “Miscellaneous electronic parts, devices and electronic circuits” listed under Industry Number 2899 of the Standard Industrial Classification for Japan.

(Given examples)

Resistors, fixed capacitors, capacitors, transducers, switches, connectors, relays, audio parts, magnetic heads, small motors (less than 3W), switching power supplies, TV tuners, control units, magnetic components (including powder and gold), silicon wafers (surface grounded)

(Changes)

Silicon wafers (surface grounded), which were classified under “3241-09, -099 Other electrical devices and parts” in the 2005 I-O tables, were integrated into this sector.

(Notes)

(1) Super mini-motors (less than 3W) are included in this sector.

(2) Parts for electron tubes, semiconductor devices, and integrated circuits are included in this sector.

(3) Parts and accessories for radio and television sets and wired communication equipment are included in this sector.

33 Electrical machinery

Column Code	Row Code	Sector Name
3311-01		Rotating electrical equipment
	3311-011	Generators
	3311-012	Electric motors

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Generators,motors and other rotating electrical machinery” listed under Industry Number 2911of the Standard Industrial Classification for Japan.

(Given examples)

Turbine generators, engine generators, DC motors, single-phase induction motors, tri-phase induction motors, other AC motors (synchronous motors, brush motors), DC and AC mini-motors, other mini-motors (synchronous motors, stepping motors), other generators (DC generators, hydro-generators, motor-driven generators), and parts, fixtures, and accessories for rotary electrical machine

(Notes)

Super mini-motors (less than 3W) are included in “3299-09, -099 Miscellaneous electronic components”

Column Code	Row Code	Sector Name
3311-02	3311-021	Transformers and reactors

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Power and distribution transformers, except electronic appliances transformers” listed under Industry Number 2912 of the Standard Industrial Classification for Japan.

(Given examples)

Standard transformers, non-standard transformers, transformers for special applications, instrument transformers, inductive voltage controllers, reactors, and parts, fixtures, and accessories for transformers

Column Code	Row Code	Sector Name
3311-03	3311-031	Relay switches and switchboards

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Electrical relay switches” listed under Industry Number 2913, and “Switchboards and electrical control equipment” listed under Industry Number 2914 of the Standard Industrial Classification for Japan.

(Given examples)

Power distribution boards, monitoring control panels, distribution panels, relays, circuit breakers, switchgear, programmable controllers, and parts, fixtures, and accessories for switchgear, distribution panels, and power control systems

Column Code	Row Code	Sector Name
3311-04	3311-041	Wiring devices and supplies

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Wiring devices and supplies” listed under Industry Number 2915 of the Standard Industrial Classification for Japan.

(Given examples)

Small switchgear, flasher unit, cord connectors, lamp holders, panel boards, small wiring boxes, fuses, wiring attachments

Column Code	Row Code	Sector Name
3311-05	3311-051	Electrical equipment for internal combustion engines

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Electrical equipment for internal combustion engines” listed under Industry Number 2922 of the Standard Industrial Classification for Japan.

(Given examples)

Battery igniters, ignition motors, magnetic igniters, ignition coils, distributors, spark plugs, and parts, fixtures, and accessories for internal combustion engines

(Notes)

Electrical equipment for internal combustion engines for automobiles, aircrafts, etc. are included in this sector.

Column Code	Row Code	Sector Name
3311-09	3311-099	Miscellaneous electrical devices and parts

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Electrical welding equipment” listed under Industry Number 2921, and “Miscellaneous industrial electrical apparatus, including those for vehicles and vessels” listed under Industry Number 2929 of the Standard Industrial Classification for Japan.

(Given examples)

Arc-welding machines, resistance welding machines, condensers, electric furnaces, industrial heating devices, power converters, silicon and selenium rectifiers, and parts, fixtures, and accessories for other industrial heavy electrical equipment

Column Code	Row Code	Sector Name
3321-01	3321-011	Household airconditioners

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Home comfort” excluding household airconditioners, listed under IndustryNumber 2932 of the Standard Industrial Classification for Japan.

(Given examples)

Household airconditioners (window type, separate type), and parts, fixtures, and accessories for household airconditioners

Column Code	Row Code	Sector Name
3321-02	3321-021	Household electric appliances (except airconditioners)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for household air-conditioners specified in “HOUSEHOLD ELECTRIC APPLIANCES” listed under Group Number 293 of the Standard Industrial Classification for Japan.

(Given examples)

Kitchen appliances: Microwaves (including open ranges and steam ranges), electric rice cookers, hot water dispensers, electric refrigerators, dishwashers, cooking heaters

Ventilation and housing-related appliances: Electric fans, electric ventilation fans, electric water heaters, dehumidifiers, humidifiers, air cleaners

Apparel and sanitation-related appliances: Electric irons, electric vacuum cleaners, electric washers (including washing and drying machines), clothes dryers, electrically-heating flushing toilet seats

Other household electric appliances: Electric razors, electric stoves, electric carpets, electric massage appliances

Parts, fixtures, and accessories for household electric appliances (excluding household air conditioners)

Column Code	Row Code	Sector Name
3331-01	3331-011	Applied electronic equipment

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “ELECTRONIC EQUIPMENT” listed under Group Number 296 of the Standard Industrial Classification for Japan.

(Given examples)

X-ray devices for medical use, X-ray devices for industrial use, television devices for industrial use, electronic devices for medical use, applied ultrasound devices, applied high frequency power devices, electronic microscopes, numerical control devices, industrial magnetic recording and playback devices (excluding for broadcasting), Geiger counters, laser devices, applied magnetic probing devices, and parts, fixtures, and accessories for applied electronic equipmen

(Changes)

Magnetic video recording/reproducing equipment for industrial use, which was included in this sector in the 2005 I-O Tables, is integrated into “3411-01, -011 Video equipment and digital camera.”

Column Code	Row Code	Sector Name
3332-01	3332-011	Electric measuring instruments

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “ELECTRIC MEASURING INSTRUMENTS” listed under Group Number 297 of the Standard Industrial Classification for Japan.

(Given examples)

Electric meters (watt-hour meters, ammeters, and voltmeters), electric measuring instruments (voltage standards, ammeter standards, and circuit testers), semiconductor and IC testers, industrial process control instruments, medical instruments, and parts, fixtures, and accessories for electric measuring instruments

Column Code	Row Code	Sector Name
3399-01	3399-011	Electric bulbs

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Electric bulbs” listed under Industry Number 2941 of the Standard Industrial Classification for Japan.

(Given examples)

General purpose light bulbs, miniature lamps, Xmas tree light bulbs, automobile lamps, infra-red lamps, flash bulbs for photography, pilot lamps, halogen lamps, fluorescent lamps, mercury lamps, UV lamps, sterilizer lamps, neon tubes, arc lamps

(Notes)

Parts for Electric bulbs are classified under the sector “3399-09, -099 Miscellaneous electrical devices and parts.

Column Code	Row Code	Sector Name
3399-02	3399-021	Electric lighting fixtures and apparatus

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Electric lighting fixtures” listed under Industry Number 2942 of the Standard Industrial Classification for Japan.

(Given examples)

Incandescent lamps and fixtures, fluorescent lamps, mercury lamps, lamps with generators, portable searchlights, UV sterilizers, flashlights, sodium lamps, and parts, fixtures, and accessories for electric lighting fixtures and apparatus

Column Code	Row Code	Sector Name
3399-03	3399-031	Batteries

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “PRIMARY BATTERIES (DRY AND WET)” listed under Group Number 295 of the Standard Industrial Classification for Japan.

(Given examples)

Cylinder-type manganese dry cells, layer-type manganese dry cells, lithium-ion cells, alkali-manganese dry cells, lead storage batteries, alkali storage batteries, and parts, fixtures, and accessories for battery cells

Column Code	Row Code	Sector Name
3399-09	3399-099	Miscellaneous electrical devices and parts

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Miscellaneous electrical machinery equipment and supplies” listed under Industry Number 2999 of the Standard Industrial Classification for Japan.

(Given examples)

Lead wires,lamp sockets, tungsten wire for electrical lamps and electronics, permanent magnets, electrical contacts, solar cell module

(Changes)

(1) Silicon wafers (surface grounded), which were classified in this sector in the 2005 I-O tables, were integrated into “3299-09, -099 Miscellaneous electronic components.”

(2) Electric bulb parts are included in this sector.

34 Information and communication electronics equipment

Column Code	Row Code	Sector Name
3411-01	3411-011	Video equipment and digital camera

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Video equipment” listed under Industry Number 3021, and “Digital camera” listed under Industry Number 3022 of the Standard Industrial Classification for Japan.

(Given examples)

Video disc players, video cameras (excluding for broadcasting), digital cameras, and parts, fixtures, and accessories for video equipment and digital camera

(Changes)

Industrial magnetic recording and playback device (excluding for broad casting), which were classified under “3221-01, -011 Applied electronic equipment” in the 2005 I-O tables, are integrated into this sector.

Column Code	Row Code	Sector Name
3411-02	3411-021	Electric audio equipment

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Electric audio equipment” listed under Industry Number 3023 of the Standard Industrial Classification for Japan.

(Given examples)

Audio equipment, car audio equipment, tape-recorders, digital audio disc players, Hi-fi amplifiers, Hi-fi speakers and automobile speaker systems, acouophone, speakers, microphones, earphones, and parts, fixtures, and accessories for electric audio equipment

Column Code	Row Code	Sector Name
3411-03	3411-031	Radio and television sets

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Radio and television set receivers” listed under Industry Number 3014 of the Standard Industrial Classification for Japan.

(Given examples)

Radio receivers, television receivers (CRT0based televisions, LCD televisions, plasma televisions, projector televisions (integrated with a receiver)

(Notes)

Parts and accessories for radio and television sets are classified in “3299-09, -099 Miscellaneous electronic components”

Column Code	Row Code	Sector Name
3412-01	3412-011	Wired communication equipment

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Communication equipment wired” listed under Industry Number 3011 of the Standard Industrial Classification for Japan.

(Given examples)

Telephone machines, telephone applied devices, facsimile machines, telephone exchanges, and transmission equipment

(Notes)

(1) Parts and accessories of wired communication equipment are classified under the sector “3299-09, -099 Miscellaneous electronic components”

(2) Cellular phones and portable handy phones (PHS) are classified under the sector “3321-02, -021 Cellular phones.” However, cordless handset of a telephone machine or a facsimile machine that are available for independent use as portable handy phones (PHS) shall also be classified in this sector, while a PHS unit that is available as a slave unit of a telephone machine shall be classified under the sector “3412-02, -021 Cellular phones”

Column Code	Row Code	Sector Name
3412-02	3412-021	Cellular phones

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Mobile phone and PHS” listed under Industry Number 3012 of the Standard Industrial Classification for Japan.

(Given examples)

Cellular phones, portable handy phones (PHS)

Column Code	Row Code	Sector Name
3412-03	3412-031	Radio communication equipment (except cellular phones)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Radio communication equipment” listed under Industry Number 3013 of the Standard Industrial Classification for Japan.

(Given examples)

Radio and television broadcasting equipment, fixed radio communication equipment, mobile radio communication equipment (excluding cellular phones and portable handy phones (PHS)), portable radio communication equipment, applied radio equipment (including car navigation systems), and other radio communication equipment

Column Code	Row Code	Sector Name
3412-09	3412-099	Miscellaneous communication equipment

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Railway signal and safety appliances” listed under Industry Number 3015, and “Miscellaneous communication equipment and related products” listed under Industry Number 3019 of the Standard Industrial Classification for Japan.

(Given examples)

Traffic signal safety devices (traffic signals, manual signals, electric rail switchers, mechanical rail switchers), fire alarms, security alarms, lighting signals, communication signals, and parts, fixtures, and accessories for traffic signal safety devices

Column Code	Row Code	Sector Name
3421-01	3421-011	Personal Computers

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Personal computer” listed under Industry Number 3032 of the Standard Industrial Classification for Japan.

(Given examples)

Desktop computers, notebook computers, personal computers for servers

Column Code	Row Code	Sector Name
3421-02	3421-021	Electronic computing equipment (except personal computers)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Computer,except personal computer” listed under Industry Number 3031 of the Standard Industrial Classification for Japan.

(Given examples)

General purpose computers, office computers, mini-computers, workstations, and parts, fixtures, and accessories for computer mainframes

Column Code	Row Code	Sector Name
3421-03	3421-031	Electronic computing equipment (accessory equipment)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “External storages” listed under Industry Number 3033, “Printer” listed under Industry Number 3034, “Display unit” listed under Industry Number 3035, and “Miscellaneous peripheral equipment” listed under Industry Number 3039 of the Standard Industrial Classification for Japan.

(Given examples)

External storage equipments：Magnetic disc devices, optical disc devices, flexible disc devices,

Printer devices:Serial printers, line printers, plotter

Display devices: Displays (for electronic computers)

Other accessory equipment: Banking terminals, other terminals

Parts, fixtures, and accessories of electronic computer accessory equipment

35 Transportation equipment

Column Code	Row Code	Sector Name
3511-01	3511-011	Passenger motor cars

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for passenger motor cars specified in “Motor vehicles, including motorcycles” listed under Industry Number 3111 of the Standard Industrial Classification for Japan.

(Given examples)

Compact cars, small cars, sedans

(Notes)

Vehicle chassis or CKD (Completely Knocked Down) vehicles (to be exported unassembled, where the shipping value per vehicle is over 60% of the total composite parts of an assembled vehicle [on FOB price basis]), are classified under this sector.

Column Code	Row Code	Sector Name
3521-01	3521-011	Trucks, buses and miscellaneous cars

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Motor vehicles, including motorcycles” but excluding passenger cars and motorcycles listed under Industry Number 3111, and the production activities for “Motor vehicles bodies and trailers” listed under Industry Number 3112 of the Standard Industrial Classification for Japan.

(Given examples)

Small buses, large buses, light trucks, small trucks (gasoline or diesel), trucks (gasoline or diesel), trailers, special purpose vehicles, trailers, small truck bodies, truck bodies, special purpose vehicle bodies

Column Code	Row Code	Sector Name
3522-01	3522-011	Twowheel motor vehicles

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for twowheel motor vehicles specified in “Motor vehicles,including motorcycles” listed under Industry Number 3111 of the Standard Industrial Classification for Japan.

(Notes)

Bicycles with engines, motor scooters, vehicles with sidecars, or CKD vehicles (to be exported unassembled, where the shipping value per vehicle is over 60% of the total composite parts of an assembled vehicle [on FOB price basis]), are classified under this sector.

Column Code	Row Code	Sector Name
3531-01	3531-011	Internal combustion engines for motor vehicles

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for internal combustion engines for motor vehicles and related parts specified in “Motor vehicles parts and accessories” listed under Industry Number 3113 of the Standard Industrial Classification for Japan.

(Given examples)

Gasoline engines for motor vehicles, diesel engines for motor vehicles, internal combustion engines for motorcycles and motor scooters, and parts, fixtures, and accessories for internal combustion engines for motor vehicles (radiators, oil strainers, oil filters, pistons, inlet valves, exhaust valves, cylinders, carburetors, air cleaners, and fuel injection devices)

Column Code	Row Code	Sector Name
3531-02	3531-021	Motor vehicle parts and accessories

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for internal combustion engines and related parts specified in “Motor vehicles parts and accessories” but excluding internal combustion engines for motor vehicles and related parts, listed under Industry Number 3113 of the Standard Industrial Classification for Japan.

(Given examples)

Parts for driving, transmitting, and steering devices, parts for suspension and braking devices, parts for chassis and bodies, car air-conditioners, car heaters, car seats, knocked-

down parts (for passenger cars, busses, trucks, and motorcycles)

(Notes)

Sets of knocked-down parts (to be exported unassembled, where the shipping value per vehicle is under 60% of the total composite parts of an assembled vehicle [on FOB price basis]), are classified under this sector.

Column Code	Row Code	Sector Name
3541-01	3541-011	Steel ships

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The production activities of steel shipbuilding specified in “Shipbuilding and repairing” listed under Industry Number 3131 and “Hull blocks” listed under Industry Number 3132 of the Standard Industrial Classification for Japan.

(Given examples)

Cargo vessels, cargo and passenger vessels, passenger vessels, automobile carrier vessels, oil tankers, fishing vessels

(Notes)

(1) Hull manufacturing is the production activities for own sector. Therefore, its production value will, in principle, not be counted in but is treated as one of ship building process.

(2) The refurbishing of steel vessels is included in this sector.

Column Code	Row Code	Sector Name
3541-02	3541-021	Miscellaneous Ships (except steel ships)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The production activities related to manufacturing of wooden ships specified in “Shipbuilding and repairing” listed under Industry Number 3131 and production activities related to shipbuilding specified in “Small watercraft building and repairing” listed under Industry Number 3133 of the Standard Industrial Classification for Japan.

(Given examples)

Wooden vessels, wooden boats, plastic boats, metal fabricated boats

(Notes)

(1) Vessels made primarily from reinforced plastic or aluminum (less than a gross weight of 20 tons) are classified under this sector.

(2) All related refurbishing and repairing are classified under this sector.

Column Code	Row Code	Sector Name
3541-03	3541-031	Internal combustion engines for vessels

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Marine engines” listed under Industry Number 3134 of the Standard Industrial Classification for Japan.

(Given examples)

Diesel engines for vessels, hot-bulb engines for vessels, electrical ignition engines for vessels, steam engines for vessels, gas turbines for vessels, steam turbines for vessels, and parts, fixtures, and accessories for vessel engines

Column Code	Row Code	Sector Name
3541-10	3541-101	Repair of ships

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The repair activities specified in “Shipbuilding and repairing” listed under Industry Number 3131 and “Small watercraft building and repairing” listed under Industry Number 3133 of the Standard Industrial Classification for Japan.

(Notes)

(1) Repair work undertaken by the users of the vessels is classified under this sector.

(2) Refurbishing is not included in this sector but is included in either “3541-01, -011 Steel ships” or “3541-02, -021 Miscellaneous Ships (except steel ships).

Column Code	Row Code	Sector Name
3591-01	3591-011	Rolling stock

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The production and repair activities for "RAILROAD EQUIPMENT AND PARTS" listed under Group Number 312 of the Standard Industrial Classification for Japan.

(Given examples)

Locomotives for railways and tramcars, passenger carriages, cargo trains, special purpose trains, related parts

(Notes)

(1) Production and repair activities carried out by railways are classified under this sector

(2) Signal safety devices are not included in this sector but classified under "3412-09, -099 Miscellaneous communication equipment"

Column Code	Row Code	Sector Name
3591-10	3591-101	Repair of rolling stock

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The repair activities for "Train's coach-cars" listed under Industry Number 3121 of the Standard Industrial Classification for Japan.

(Notes)

(1) Repair work for rolling stock is not classified under this sector but included in "3591-01, -011 Rolling stock"

(2) Repair work carried out by railways is included in this sector.

Column Code	Row Code	Sector Name
3592-01	3592-011	Aircrafts

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "AIRCRAFT AND PARTS" listed under Group Number 314 of the Standard Industrial Classification for Japan.

(Given examples)

Piston-engine aircraft, turbojet aircraft, turboprop aircraft, helicopters, gliders, and parts and accessory devices for aircraft bodies, engines (pistons, turbojets, turboprops, turbo shafts), other aircraft related parts and accessory devices (propellers, blades auxiliary devices, aeronautical instruments, aircraft steering training facilities, and air rescue devices)

Column Code	Row Code	Sector Name
3592-10	3592-101	Repair of aircrafts

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The repair activities for "AIRCRAFT AND PARTS" listed under Group Number 314 and aircraft maintenance performed at airports, etc. specified in "MACHINE REPAIR SHOPS,EXCEPT ELECTRICAL MACHINERY, APPARATUS, APPLIANCES AND SUPPLIES" listed under Group Number 901 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
3599-01	3599-011	Bicycles

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Bicycles and parts" listed under Industry Number 3191 of the Standard Industrial Classification for Japan.

(Given examples)

Finished bicycles (racing bicycles, children's bicycles, infant bicycles, mini bicycles, mountain bicycles, motor-assisted bicycles, and special purpose bicycles), wheelchairs, bicycle frames, and parts, fixtures, and accessories for bicycles

(Notes)

Wheelchairs (electric) are included in the column sector "3599-09 Miscellaneous transport equipment" and row sector "3599-099 Transport equipment, n.e.c."

Column Code	Row Code	Sector Name
3599-09		Miscellaneous transport equipment
	3599-091	Transport equipment for industrial use
	3599-099	Transpot equipment, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "INDUSTRIAL TRUCKS AND PARTS AND ACCESSORIES" listed under Group Number 315 and for "Transportation equipment, n.e.c." listed under Industry Number 3199 of the Standard

Industrial Classification for Japan.

(Given examples)

Transport vehicles for industry: Fixed platform truck (powered by batteries or internal combustion engines, and motor-driven transport vehicles), forklift trucks, bulldozers, industrial trailers, industrial locomotives, industrial carriages, straddle carriers, pallet trucks, and parts, fixtures, and accessories for industrial transport vehicles

Transpot equipment, n.e.c.: Aircraft and spacecraft (rockets, satellites, and spaceship), and parts, fixtures, and accessories for aircraft and spacecraft, other transport vehicles not elsewhere classified (transport carts, carts, shopping carts, golf cars, and golf carts), and parts, fixtures, and accessories for other transport vehicles not elsewhere classified

(Notes)

Wheelchairs (manual) are included in "3599-01, -011 Bicycles"

39 Miscellaneous manufacturing products

Column Code	Row Code	Sector Name
1911-01	1911-011	Printing, plate making and book binding

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "PRINTING" listed under Group Number 151, "PLATE MAKING FOR PRINTING" listed under Group Number 152, "BOOKBINDING AND PRINTED MATTER" listed under Group Number 153, and "SERVICE INDUSTRIES RELATED TO PRINTING TRADE" listed under Group Number 159 of the Standard Industrial Classification for Japan, as well as the activities of the National Printing Bureau for printing, plate-making, and book-binding; revenue from advertisements of the National Printing Bureau is included in the production value.

(Given examples)

Letterpress printing, offset printing, lithographic printing (gravure), special printing, plate-making, gazette printing, currency printing

(Notes)

Revenue of trade margins from general printing is not included in the production value because most of the activities are commissioned from similar businesses.

Column Code	Row Code	Sector Name
2311-01	2311-011	Leather footwear

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "CUT STOCK AND FINDINGS FOR BOOTS AND SHOES" listed under Group Number 203 and "LEATHER FOOTWEAR" listed under Group Number 204 of the Standard Industrial Classification for Japan.

(Given examples)

Men's leather shoes (over 23 cm), women's and children's leather shoes, athletic leather shoes (mountaineering shoes, skating shoes, golfing shoes), work shoes (safety shoes, anti-static shoes), leather zori slippers, slippers and sandals, supplies and components for leather shoes (uppers, soles, and heels)

Column Code	Row Code	Sector Name
2312-01	2312-011	Leather and fur skins

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “LEATHER TANNING AND FINISHING” listed under Group Number 201 and “FUR SKINS” listed under Group Number 208 of the Standard Industrial Classification for Japan.

(Given examples)

Cowhide uppers, ox hide uppers, cowhide soles, coated cattle leather, other cattle leather, horsehide, pigskin, goat and sheep skin, other coated leather (crocodile, lizard, and snake skin), fur (processed but not finished)

(Notes)

Fur clothing, coated leather clothing, and fur apparel accessories (coats, mufflers, and fur accessories) are classified under “1522-09, -099 Miscellaneous wearing apparel and clothing accessories”

Column Code	Row Code	Sector Name
2312-02	2312-021	Baggage, handbags, small leather cases and miscellaneous leather products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “MECHANICAL LEATHER PRODUCTS,EXCEPT GLOVES AND MITTENS” listed under Group Number 202, “LEATHER GLOVES AND MITTENS” listed under Group Number 205, “BAGGAGE” listed under Group Number 206, “HANDBAGS AND SMALL LEATHER CASES” listed under Group Number 207, and “MISCELLANEOUS LEATHER PRODUCTS” listed under Group Number 209 of the Standard Industrial Classification for Japan.

(Given examples)

Industrial leather products (industrial leather belts, leather packing, gaskets), leather gloves (for dress, work, and sport, and including those of synthetic leather), luggage (regardless of materials; leather travel bags, leather brief cases, school bags, and school satchels, plastic luggage, and synthetic leather cases), bags (wallet, purse, and shopping bags), handbags (regardless of materials), miscellaneous leather products (dress leather belts, saddles, spurs, and wristwatch bands)

(Notes)

Leather athletic goods (like gloves) are classified under “3911-02, -021 Sporting and athletic goods” and leather clothes are classified under “1522-09, -099 Miscellaneous wearing apparel and clothing accessories”

Column Code	Row Code	Sector Name
3911-01	3911-011	Toys and games

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Games and toys, except dolls” listed under Industry Number3251, and “Dolls” listed under Industry Number 3252 of the Standard Industrial Classification for Japan.

(Given examples)

Cards, hanafuda cards, igo games, shogi games, mahjong games, television games (home use), electronic toys, metallic toys, model kits, air-filled vinyl toys, stuffed animal toys, wooden toys, plastic toys, Japanese dolls, sekku dolls, hina dolls, western-style dolls, children’s carriage vehicles (walkers for infants, baby carriages, and tricycles), and parts and accessories for toys

(Notes)

Game software recording media (CDs, DVDs, cassettes, etc.) are included in “3919-06, -061 Audio and video records, ther information recording media”

Column Code	Row Code	Sector Name
3911-02	3911-021	Sporting and athletic goods

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Sporting and athletic goods” listed under Industry Number 3252 of the Standard Industrial Classification for Japan.

(Given examples)

Baseball gear, softball gear, basketball gear, volleyball gear, rugby gear, soccer gear, tennis gear, ping-pong gear, badminton gear, golf gear, hockey gear, ski gear, water-ski gear, skating gear, track and field gear, gymnastics gear, fishing gear and accessories, swings, slides, air-guns, hunting guns, Japanese fencing gear, hang-gliding gear, and parts and accessories for sporting goods

(Notes)

Hats, uniforms, shoes, belts, and so forth are not classified under this sector but are included in their respective sectors.

Column Code	Row Code	Sector Name
3919-01	3919-011	Jewelry and adornments

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “PRECIOUS METAL PRODUCTS, INCLUDING JEWEL” listed under Group Number 321 and “COSTUME JEWELRY, COSTUME ACCESSORIES, BUTTONS AND RELATED PRODUCTS, EXCEPT PRECIOUS METALS AND JEWELRY” listed under Group Number 322 of the Standard Industrial Classification for Japan; the metallic art objects produced by Japan Mint as a special account are included in this sector

(Given examples)

Necklaces, bracelets, rings, earrings, broaches, lockets, cuff links, powder compacts, badges, buckles, medals, combs, jewel boxes, accessory cases, and natural, grown, or artificial accessories (necklaces, bracelets, rings, earrings, broaches, cuff links, tie-pins), tin and antimony products, buttons, sewing needles, machine needles, zips, snaps, hooks, wigs, kamoji, decorative medals, and parts and accessories for small accessories

(Notes)

Japanese fans, Japanese performance fans, paper lanterns, umbrellas, Japanese umbrellas, and cigars, pipes, and related accessories are classified under “3919-09, -099 Miscellaneous manufacturing products” Furthermore, artificial flowers, decorative feathers, needles, pins, hooks, and zips are included in this sector.

Column Code	Row Code	Sector Name
3919-02	3919-021	Watches and clocks

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “WATCHES, CLOCKS, CLOCKWORK-OPERATED DEVICES AND PARTS” listed under Group Number 323 of the Standard Industrial Classification for Japan.

(Given examples)

Watches (including movements; spring-driven watches, battery-operated watches), clocks (including movements; mechanical clocks, clocks, alarm clocks, wall clocks, and instrument panel clocks), other watches and clocks (stop watches, timer watches, metronomes), watch and clock parts (dial plates, springs, gears, and screws)

Column Code	Row Code	Sector Name
3919-03	3919-031	Musical instruments

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “MUSICAL INSTRUMENTS” listed under Group Number 324 of the Standard Industrial Classification for Japan.

(Given examples)

Pianos, guitars, electronic guitars, electronic musical instruments (“Electone”, synthesizers, electronic keyboards, electronic pianos), organs, accordions, drums, pipe instruments, stringed instruments, shamisen, koto, shakuhachi, harmonicas, music box movements, and parts, fixtures, and accessories for musical instruments

Column Code	Row Code	Sector Name
3919-04	3919-041	Stationery

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “PENS,LEAD PENCIL S,PAINTING MATERIALS AND STATIONERY” listed under Group Number 326 of the Standard Industrial Classification for Japan.

(Given examples)

Fountain pens, refillable lead pencils, ball-point pens, marking pens, pencils, lead for refillable lead pencils, water color tubes, crayons, pastels, sketchbooks, brushes, paint brushes, oil paint tubes, canvas, drawing plates, drawing clothes, poster colors, seals, seal pads, stamps, stamp pads, rulers, compasses, drafting boards, abacuses, glue for offices and industries, staplers, pencil boxes, hole punchers, pencil sharpeners, and parts and accessories for writing instruments and stationery

Column Code	Row Code	Sector Name
3919-05	3919-051	“Tatami“ (straw matting) and straw products”

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for “Straw,panama hats and straw goods” listed under Industry Number 3281 and “Tatami” mats (straw-mats)” listed under Industry Number 3282 of the Standard Industrial Classification for Japan.

(Given examples)

Tatami mats, tatami flooring, tatami floor coverings, goza (thin woven-straw floorings), mushiro (woven-straw wall hangings), hana-mushiro (woven-straw flower patterned wall hangings), kamasu, straw, rope, straw hats, woven-rope hats

Column Code	Row Code	Sector Name
3919-06	3919-061	Audio and video records, other information recording media

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Information recording materials,except newspapers,books,other printed products,etc.” listed under Industry Number 3296 of the Standard Industrial Classification for Japan.

(Given examples)

Audio discs (CD), audiotapes, videodiscs, videotapes, game cassettes, prepaid cards, computer software floppy discs

(Notes)

Video software, prepaid cards, recording media for television games (CDs, DVDs, cassettes, etc.) are included in this sector, and raw recording media (magnetic tapes, magnetic disks, etc.) are included in “3299-01, -011 Magnetic tapes and discs”

Game software, video software, and music software are production activities of the column sector “5931-01 Information services” and row sectors “5931-011 Computer programming and miscellaneous software services” and “5951-01, -011 Video picture, sound information, character information production,” respectively. Only production activities of media are included in this sector, and not the value of information.

Column Code	Row Code	Sector Name
3919-09	3919-099	Miscellaneous manufacturing products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “LACQUER WARE” listed under 327, “Fans and lanterns (Japanese style)” listed under Industry Number 3283,“Brooms and brushes” listed under Industry Number 3284, “Smoking accessories and supplies,except precious metals and jewelry” listed under Industry Number 3285, “Miscellaneous sundry goods” listed under Industry Number 3289, “Fireworks” listed under Industry Number 3291, “Signboards and signs” listed under Industry Number 3292, “Pallets” listed under Industry Number 3293, “Models and patterns” listed under Industry Number 3294, “Pattern manufactured of industrial use” listed under Industry Number 3295, “Ophthalmic goods,including frames” listed under Industry Number 3297, and “Miscellaneous manufacturing industries,n.e.c.” listed under Industry Number 3299 of the Standard Industrial Classification for Japan.

(Given examples)

Japanese lacquer furniture, Japanese lacquer kitchen utensils and tableware, other Japanese lacquerware, Japanese fans, Japanese performance fans, paper lanterns, toothbrushes, brushes for cosmetic use, other brushes, brooms, dusters, mops, other cleaning gear, umbrellas, Japanese umbrellas, matches, cigarette lighters, fireworks (incl. toy models), signboards, signs, displays, male and female mannequins, body stand for sewing, models (globes, food stuffs), industrial models (incl. wooden models), thermoses, pallets, textile wall components, scents, safety and protection gear, life-saving gear, life saving equipment, prefabricated houses, interior lighting, lamp shades, funeral accessories, eyeglasses, eyeglass frames, eyeglass lenses, (including contact lenses)

(Changes)

Eyeglasses (including frames), which were included in “3711-09, -099 Other photographic and optical instruments” in the 2005 I-O Tables, are integrated into this sector.

(Notes)

“Prepaid cards” are included in “3919-06, -061 Audio and video records, other information recording media”

artificial flowers, decoration feathers, needles, pins, hooks, fasteners” included in this sector are included in “3919-01, -011 Jewelry and adornments” and straw hats, straw knitted hats are

included in “3919-05, -051 "Tatami" (straw matting) and straw products” Furthermore, Japanese fans, Japanese performance fans, paper lanterns, umbrellas, Japanese umbrellas, and cigarette lighters and smoking accessories are included in this sector

Column Code	Row Code	Sector Name
3921-01	3921-011	Reuse and recycling

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The recovery and processing activities for recyclable materials such as iron scrap. This sector becomes a bridging sector for by-products in addition to scrap. This sector include siron scrap, non-ferrous metal scrap, plastic scrap, glass scrap, and waste paper.

(Given examples)

Iron scrap, non-ferrous metal scrap, plastic scrap, glass scrap, waste paper, cotton fiber waste, wool waste, animal hair waste, plaster, blast furnace slag, fly ash, mineral waste, sulfur, by-produced chrysalis, fruit juice pulp, scrap meat, vegetable waste, soy sauce lees, coffee lees, ammonium sulfate, silicic acid calcium, LPG, coke, coalbed gas, blast furnace gas, converter gas

(Notes)

In the 2000 I-O Tables, scraps and by-products were input into this sector and the output value of this sector was included in the production value, but since the 2005 I-O Tables, scraps and by-products are directly output to the input sector without bypassing this sector, and only expenditures are recorded in this sector.

The recyclable materials wholesale activities in “5111-01, -011 Wholesale trade” are the recovery activities, and are classified under this sector.

Scraps and by-products for which the “lump method” or “transfer method” are applied are not handled in this sector.

41 Construction

Column Code	Row Code	Sector Name
4111-01	4111-011	Residential construction (wooden)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities related to the building of new wooden houses, expanding existing houses, and refurbishing houses; houses are stipulated as being buildings that are used exclusively for residential use or as (living quarters of) “combined buildings for living and commercial use.” The key component, referred to as the “key building component,” stipulated in Article 2 of the Building Standards Law (the same definition applies hereafter), of the aforementioned buildings (as defined in Article 2 of the same Law and also applied hereafter) shall be wood.

(Given examples)

Housing building (wooden), living quarters of combined housing for both living and commercial use (wooden)

(Notes)

(1) The drawing of plans for buildings may be carried out by the house owners themselves, by professional design engineers, or by sub-contractors of building contractors. The activities conducted by professional design engineers are classified as inputs from the sector “6699-02, -021 Civil engineering and construction services” on a lump sum basis.

The same shall apply to all sectors in “41 Construction” of the aggregated sector classification, except for the sector “4111-01, -011 Residential construction (wooden)”

(2) “Building new houses” refers to the construction of buildings on new sites where no buildings exist.

“Expansion” refers to construction related to existing buildings, thereby increasing the floor space.

“Refurbishment” refers to the construction of new buildings including the elimination, wholly or partially, of existing buildings, with usage, size, and structure remaining generally similar to that of the pre-existing construction.

(3) Activities related to regular repairs for buildings (housing and non-housing) are classified under the sector “4121-01, -011 Repair of construction”

Column Code	Row Code	Sector Name
4111-02	4111-021	Residential construction (nonwooden)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities related to constructing new buildings, expanding existing buildings, and refurbishing buildings; the buildings referred herein are those buildings that are used exclusively for living or as (living quarters of) "combined buildings for living and industry use." The key building component of the aforementioned buildings shall be non-wooden materials.

(Given examples)

Housing buildings (non-wooden), living quarters of combined housing buildings for both residential and industry use (non-wooden)

(Notes)

The structural classification of non-wooden buildings is as following:

Steel framed and reinforced concrete structure (SRC structure): This refers to buildings with an integral steel frame and reinforced concrete structure. Key building components are defined in Point 5, Article 2 of the Building Standards Law. (The same applies hereafter.)

Reinforced concrete structure (RC structure): This refers to buildings with an integral structure of reinforced concrete.

Iron structure (S structure): This refers to buildings with frames of iron or other metals (including reinforced iron bars with "ri-pu-ra-su" treatment and light steel frame structures).

"Concreet block structure (CB structure): This refers to buildings built with concrete blocks reinforced by iron bars (including those with exterior walls of concrete block).

Others: This refers to buildings built with other structures, such as stone, bricks, concrete without reinforcing bars, concrete blocks without reinforcing bars, and other structures that are not elsewhere classified

Column Code	Row Code	Sector Name
4112-01	4112-011	Nonresidential construction (wooden)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities of constructing new buildings, expanding existing buildings, and refurbishing buildings of wood, except those specified in "4111-01, -011 Residential construction (wooden)"

(Given examples)

Factory and warehouse buildings, office buildings

Column Code	Row Code	Sector Name
4112-02	4112-021	Nonresidential construction (nonwooden)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities of constructing new buildings, expanding existing buildings, and refurbishing buildings of non-wooden materials, except those specified in "4111-02, -021 Residential construction (nonwooden)"

(Given examples)

Factory and warehouse buildings, office buildings, school buildings, and hospital and store buildings

(Notes)

The structural classification of "non-wooden" buildings is the same as that of "4111-02, -021 Residential construction (nonwooden)"

Column Code	Row Code	Sector Name
4121-01	4121-011	Repair of construction

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

(1) The regular repair work of buildings (housing and non-housings buildings) and civil construction (railways, electric power, telecommunication, water supply, and drainage facilities, gas tanks, parking lots, and golf links). Output is considered to be building repairs and civil construction repairs.

(2) However, the following are not considered to be activities of this sector, but those of corresponding sectors.

1 Large-scale modernization causing a significant increase in the life expectancy of the construction

2 Maintenance and repair work relating to public works, and restoration work following natural disaster

3 Replacement and repair work relating to rails, power,

and signal facilities, power transmission and distribution facilities, and transmission and telecommunication cables

(Notes)

With regard to domestic production of repair of construction related to housing, the portion covered by households was yielded based on repair of construction → house rent, or house rent (imputed house rent) → household consumption expenditure, and the portion covered by nursing care insurance was yielded based on repair of construction → house rent (imputed house rent) → individual consumption expenditure of central government.

Column Code	Row Code	Sector Name
4131-01	4131-011	Public construction of roads

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The following public works, including new construction as well as maintenance and repair work

(1) Construction of roads and streets implemented by the government and by local governments

(2) Toll road businesses conducted by the Japan Highway Public Corporation, Metropolitan Expressway Public Corporation, Hanshin Expressway Public Corporation, Honshu-Shikoku Bridge Authority, and local governments

(Given examples)

Roads, streets, toll roads, land re-adjustment projects

(Notes)

(1) Small-scale maintenance and repair work for roads and streets may be classified in the sector "4121-01, -011 Repair of construction" as regular and constant expenditures. However, every item is treated, as before, as a public work (capital formation) and is listed chronologically. (In the 68 SNA (System of National Accounts), maintenance and repair work was listed as public construction and treated as capital formation; the same applies in the 93 SNA.)

(2) The activities of the sectors "4131-01, -011 Public construction of roads" "4131-02, -021 Public construction of rivers, drainages and miscellaneous public construction," and "4131-03, -031 Agricultural public construction" may be considered more or less as established items rather than as activities. For example, the activities of road construction are not included in this sector in their entirety but divided between the government, local governments, East Nippon Expressway Company Limited, Metropolitan Expressway Public Corp., Central Nippon Expressway Company Limited, West Nippon Expressway Company Limited, Hanshin Expressway Public Corp., and Honshu-Shikoku Bridge Authority. Construction activities by other entities are classified in a separate sector, "4191-09, -099 Miscellaneous civil engineering and construction"

Column Code	Row Code	Sector Name
4131-02	4131-021	Public construction of rivers, drainages and miscellaneous public construction

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The following public works, including maintenance and repair work, in addition to new construction

(1) Rivers: Activities implemented by the government and local governments relating to rivers, soil erosion prevention and sediment control, and the sea shore, as well as activities implemented by the Water Resources Development Public Corporation

(2) Urban planning: Activities implemented by the government and local governments relating to drainage, parks, and waste treatment facilities

(3) Ports and harbors: Activities implemented by the government and local governments relating to ports and fishing harbors

(4) Airports: Activities implemented by the government and local governments as well as by Narita Airport Authority, Kansai International Airport Co., Ltd., and the Central Japan International Airport Co., Ltd. relating to airports

(5) Reconstruction after natural disaster: Reconstruction activities related to natural disasters, mine pollution, and urban disasters, all implemented by the government and local governments for the aforementioned, and for "4131-01 Public construction of roads."

(6) Offshore fishing-bed preparation: Activities implemented by the government and local governments relating to offshore fishing-bed preparation

(Given examples)

River restoration, the overall development of rivers, soil erosion prevention and sediment control, seashore, drainage, waste treatment facilities, park, port, fishing harbor, airport, reconstruction after disaster

(Notes)

Small-scale maintenance and repair work is classified under the sector "4121-01, -011 Repair of construction" as regular and constant expenditure. However, every item is treated, as before, as a public work (capital formation) and is listed chronologically. (In the 68 SNA (System of National Accounts), maintenance and repair work was listed as public construction and treated as capital formation; the same applies in the 93 SNA.)

Column Code	Row Code	Sector Name
4131-03	4131-031	Agricultural public construction

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The activities of the following public works, including maintenance and repair works, in addition to new construction

(1) Agricultural public works: Agricultural infrastructure improvement activities implemented by the government, local governments, land improvement sectors, other entities, and the Farmland Improvement Authority

(2) Forest paths: Activities implemented by the government and local governments relating to forest paths

(3) Mountain forest preservation: Activities implemented by the government and local governments relating to mountain forest preservation

(4) Reconstruction following natural disaster: Reconstruction activities, relating to the aforementioned points 1 through 3, implemented by the government and local governments

(Given examples)

Land improvement, forest paths, mountain forest preservation, reconstruction after disaster

Column Code	Row Code	Sector Name
4191-01	4191-011	Railway construction

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The construction activities relating to railways implemented by Japan Railway, Japan Railway Construction Corporation, public railways, private railways, Teito Rapid Transit Authority, and Honshu-Shikoku Bridge Authority, as well as the replacement and repair activities of rails and power and signal facilities

(Given examples)

Construction relating to railways

(Notes)

Activities of the sectors "4191-01, -011 Railway construction" "4191-02, -021 Electric power facilities construction" "4191-03, -031 Telecommunication facilities construction" and "4191-09, -099 Miscellaneous civil engineering and construction" may be considered more or less as established items rather than as activities similar to the sector of "Public works." In short, the classification of the sectors in the "Construction" sector is defined on a production (construction) basis, while in the "Civil engineering" sector it is based on investment.

Civil engineering construction activities implemented by other establishments than those that are defined according to investment will be classified in the sector "4191-09, -099 Miscellaneous civil engineering and construction"

Column Code	Row Code	Sector Name
4191-02	4191-021	Electric power facilities construction

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

Electricity business activities conducted by nine power companies, Okinawa Power Company, Electric Power Development Company, and local public enterprises as well as facility construction work activities conducted by other electricity business entities and Japan Atomic Power Company relating to power generation, transmission and distribution.

Facilities replacement and repair work is included in this sector, and entities that obtain the licensed permission for installing in-house power generation of more than 1000kW are also included in this sector.

(Given examples)

Facilities relating to power generation, transmission, and distribution

Column Code	Row Code	Sector Name
4191-03	4191-031	Telecommunication facilities construction

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

Telecommunication facilities construction activities conducted

by Type 1 telecommunication carriers, and facilities replacement and repair works, are included in this sector.

(Given examples)

Construction of telecommunication related facilities

Column Code	Row Code	Sector Name
4191-09	4191-099	Miscellaneous civil engineering and construction

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The following civil construction works by private sectors and that are not classified elsewhere, and civil construction works other than government public works.

(1) Water supplies and water supplies for industry:

Facilities construction conducted by local public entities relating to water supplies, small-scale water-supply systems, and water supplies for industry

(2) Site preparation:

Site preparation work conducted by the Urban Development Corporation, the Japan Regional Development Corporation, local public entities, and the private sector

(3) Other civil engineering:

Restoration work, in relation to mining pollution, carried out by the government and local public entities, gas related works carried out by local public entities and the private sector, investment-oriented construction work by unemployed people placement programs conducted by local public entities, parking maintenance work conducted by the government, and other private sector civil engineering construction not previously mentioned

(Given examples)

Facilities relating to water supplies and water supplies for industry, reclamation and site preparation work, construction work for gas tanks, parking lots, golf links, ball parks, recreation parks and pipelines, district streets in housing complexes conducted by private sectors, piers and bank roads, and river construction work

46 Electricity, gas and heat supply

Column Code	Row Code	Sector Name
	4611-001	Electricity
4611-01		Electricity (nuclear power)
4611-02		Electricity (thermal power)
4611-03		Electricity (water power, etc.)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for the “PRODUCTION, TRANSMISSION AND DISTRIBUTION OF ELECTRICITY” excluding private power generation listed under Group Number 331 of the Standard Industrial Classification for Japan.

(Changes)

Joint power generation, which was included in the row sector “5111-001 Electricity” in the 2005 I-O Tables, is included in “4611-041 Private power generation.”

Column Code	Row Code	Sector Name
4611-04	4611-041	Private power generation

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The private power generation activities specified in “PRODUCTION,TRANSMISSION AND DISTRIBUTION OF ELECTRICITY” listed under Group Number 331 of the Standard Industrial Classification for Japan. However, only activities of the mining industry with continuous power generation facilities of a maximum output of more than 1,000 kWare applicable to this scope.

(Changes)

Joint power generation, which was included in the row column “5111-001 Electricity” in the 2005 I-O Tables, is integrated into this sector.

(Notes)

This sector is defined as an independent activity sector, not as a self-activity sector, despite the sector name “private power generation.”

Column Code	Row Code	Sector Name
4621-01	4621-011	Gas supply

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “PRODUCTION AND DISTRIBUTION OF GAS” listed under Group Number 341 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
4622-01	4622-011	Steam and hot water supply

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “HEAT SUPPLY” listed under Group Number 351 of the Standard Industrial Classification for Japan.

47 Water supply

Column Code	Row Code	Sector Name
4711-01	4711-011	Water supply

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The production activities of “WATER FOR END USERS, EXCEPT INDUSTRIAL USERS” excluding water supply for shipping listed under Group Number 361 of the Standard Industrial Classification for Japan.

(Given examples)

Activities of water bureaus (departments), water supply offices, water purification pools, drainage facilities, water pumping stations

(Notes)

(1) This sector applies to activities related to drinking water supplies, regardless of usage (mains water, general water supplies, and small-scale water-supply systems, as specified in the Water Law).

(2) Activities related to water supplies for shipping are included in “5789-02, -021 Port and water traffic control **”

Column Code	Row Code	Sector Name
4711-02	4711-021	Industrial water supply

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “WATER FOR INDUSTRIAL USERS” listed under Group Number 362 of the Standard Industrial Classification for Japan.

(Notes)

(1) This sector corresponds to activities (industrial water business based on “Industrial Water Road Business Act”) for supplying water for industrial use (exclusive of water supplied for hydroelectric power generation and for drinking)

(2) Water supplies and small-scale water supply activities conducted by local public entities according to the “Water Law” are classified in the sector “4711-01, -011 Water supply”

Column Code	Row Code	Sector Name
4711-03	4711-031	Sewage disposal **

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The associated treatment activities for “SEWERAGE” listed under Group Number 363 of the Standard Industrial Classification for Japan; namely, the activities of sewage bureau (departments), sewerage facilities, sewerage offices, and sewerage pumping stations

(Notes)

This sector covers the business activities of facilities that drain sewerage and rain water within the scope of public sewerage activities conducted by local public entities. Therefore, the activities of this sector are aimed at sanitation by way of drains, drainage canals and other ancillary facilities (such as filtration facilities). Activities by local public entities in treating waste and excretion are classified in the sector “4811-01, -011 Waste management services (public) **”

48 Waste management service

Column Code	Row Code	Sector Name
4811-01	4811-011	Waste management services (public) **

(Ministry or agency in charge)

Ministry of the Environment

(Definition, Scope)

The activities of local public entities among those specified in “DOMESTIC WASTE DISPOSAL BUSINESS” listed under Group Number 881, “INDUSTRIAL WASTE DISPOSAL BUSINESS” listed under Group Number 882, and “MISCELLANEOUS WASTE DISPOSAL BUSINESS” listed under Group Number 889 of the Standard Industrial Classification for Japan.

(Given examples)

Activities related to the collection and treatment of human waste, waste, and industrial waste

(Notes)

Taking into account handling in terms of industrial classifications and laws, it may be more desirable to reorganize this sector into “Domestic waste disposal (including night soil disposal)” and “Industrial waste disposal.” However, as both domestic waste disposal and industrial waste disposal are intermixed with both industry and publicly-managed, and strict categorization is not possible when recording, the current sectors are kept.

Column Code	Row Code	Sector Name
4811-02	4811-021	Waste management services (industry)

(Ministry or agency in charge)

Ministry of the Environment

(Definition, Scope)

The activities of private entities among those specified in “DOMESTIC WASTE DISPOSAL BUSINESS” listed under Group Number 881, “INDUSTRIAL WASTE DISPOSAL BUSINESS” listed under Group Number 882, and “MISCELLANEOUS WASTE DISPOSAL BUSINESS” listed under Group Number 889 of the Standard Industrial Classification for Japan; activities commissioned by local public entities are included, while in-house disposal is not included.

(Given examples)

Activities related to the collection and treatment of human waste, waste, and industrial waste

(Notes)

Same as “4811-01, -011 Waste management services (public) **.”

Column Code	Row Code	Sector Name
5111-01	5111-011	Wholesale trade

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The wholesale trade activities related to Group Numbers 501, 511through 513, 521 thurough 522, 531 through 535, 541 through 549, 551 through 559 of the Standard Industrial Classification for Japan; the production values are wholesale trade margins.

The sector includes sales activities of Agriculture Cooperative Unions, Fishery Cooperative Unions, Processed Marine Products Cooperative Unions, and Forestry Cooperative Unions, sales and procurement activities of the Japan Agriculture Cooperative Association, Japan Fishery Cooperative Association, Japan Processed Marine Products Cooperative Association, and Japan Forestry Cooperative Association, central wholesale market, local wholesale markets, and activities of the resource storage business of the Japan Oil, Gas and Metals National Corporation.

(Notes)

The activities of “RECYCLED MATERIAL” listed under Group Number 536 of the Standard Industrial Classification for Japan are included in “3921-01, -011 Reuse and recycling.” Activities exclusive of the resource storage business of the Japan Oil, Gas and Metals National Corporation are included in “6699-09, -099 Miscellaneous business services.”

Column Code	Row Code	Sector Name
5112-01	5112-011	Retail trade

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The activities of “retail business” of Group Numbers 561 – 569, 571 – 579, 581 – 589, 591 – 599, 601-609, and 611-619, as well as “PAWNBROKERS” listed under Group Number 642 of the Standard Industrial Classification for Japan. The domestic production amount is the retail margin amount.

The sector includes the procurement activities of Agriculture Cooperative Unions, Fishery Cooperative Unions, Processed Marine Products Cooperative Unions, and Forestry Cooperative Unions, and activities of retail stores and Co-ops. The production activities of manufacturing and retailing are not classified in this sector, but classified in the corresponding sector of manufacturing.

(Given examples)

Examples of manufacturing and retailing: Retail of menswear, confectionery, bread, processed food such as tofu, kamaboko, and so forth, the retail of cooked dishes, furniture, housing fixtures, tatami, religious ceremonial articles

(Changes)

(1) Food takeout and delivery services that were included in Delicatessen stores were integrated into “011 Eating and drinking services” due to revision of the Standard Industrial Classification for Japan.

(2) The activities of “PAWNBROKERS” listed under Group Number 642 of the Standard Industrial Classification for Japan are included in this sector.

(Notes)

Among the activities of dispensing pharmacies, dispensing by pharmacies as based on prescriptions from physicians or dentists are exclueded.

53 Finance and insurance

Column Code	Row Code	Sector Name
5311-01		Financial service
	5311-011	Financial service (FISIM), public
	5311-012	Financial service (FISIM), private
	5311-013	Financial service (commission), public
	5311-014	Financial service (commission), private

(Ministry or agency in charge)

Financial Services Agency

(Definition, Scope)

The scope corresponds to the activities of "CENTRAL BANK" listed under Group Number 621, "BANKS,EXCEPT CENTRAL BANK" listed under Group Number 622, "FINANCIAL INSTITUTIONS FOR SMALL－BUSINESS" listed under Group Number 631, "FINANCIAL INSTITUTIONS FOR AGRICULTURE,FORESTRY AND FISHERIES FINANCES" listed under Group Number 632, "MONEY LENDING BUSINESS" listed under Group Number 641, "CREDIT CARD AND INSTALLMENT FINANCE BUSINESSES" listed under Group Number 643, "MISCELLANEOUS NON-DEPOSIT MONEY CORPORATIONS" listed under Group Number 649, "FINANCIAL PRODUCTS TRANSACTION DEALERS" listed under Group Number 651, "FUTURES COMMODITY TRANSACTION DEALERS AND COMMODITY INVESTORS" listed under Group Number 652, ""FINANCIAL AUXILIARIES listed under Group Number 661, "TRUST BUSINESSES" listed under Group Number 662, and "FINANCIAL BROKERS AND INTERMEDIARIES" listed under Group Number 663 of the Standard Industrial Classification for Japan.

(Given examples)

City banks, regional banks (including second-tier regional banks), trust banks, long-term credit banks, foreign banks in Japan, Norinchukin Bank, JA Bank Shin-ren, JF Bank Shin-gyoren, JA Co-op unions (credit facility), JF Co-op unions (credit facility), Agriculture, Credit finance services, Shin-kin Federation Bank, credit co-op unions, Shin-kin Central Bank, Shoko Chukin Bank, Rokin banks, Rokin Federation Bank, short-term financing companies, investment management companies, securities financing companies, securities companies, securities investment trust companies, securities investment advisory companies, financial instruments exchanges, Japan Post Co., Ltd. (bank agency business) and those ranked as "Financial service" in "public activities"

(Changes)

In accordance with the 93SNA, as FISIM was introduced, the codes and names of the row sector "6211-011 Financial service (imputed interest), public" in the 2005 I-O Tables was changed to "5311-011 Financial service (FISIM), public," and "6211-012 Financial service (imputed interest), private" was changed to "5311-012 Financial service (FISIM), private."

With regard to the change from imputed interest to FISIM, see Chapter 3-10 (4)

(Notes)

(1) Public financial institutions are those that are ranked as "finance" in "public activities" and the Japan Post Co., Ltd. (bank agency business). Other financial institutions are all private financial institutions.

(2) Financing activities conducted by life insurance businesses and insurance businesses are not classified in this sector but in the sectors of "5312-01, -011 Life insurance" and "5312-02, -021 Non-life insurance"

(3) The row sectors are divided into "public" and "private" in order to make them consistent with institutional sector division of the SNA's income expenditure and capital finance accounts, as well as to clarify the differences between the output structures.

Column Code	Row Code	Sector Name
5312-01	5312-011	Life insurance

(Ministry or agency in charge)

Financial Services Agency

(Definition, Scope)

The activities of "LIFE INSURANCE INSTITUTIONS" listed under Group Number 671, "Life insurance agents and brokers" listed under Industry Number 6741, "MUTUAL AID ORGANIZATIONS AND SMALL-AMOUNT SHORT-TERM INSURANCE PROVIDERS" listed under Group Number 673, and "Miscellaneous insurance service institutions" listed under Industry Number 6759 of the Standard Industrial Classification for Japan.

(Given examples)

Life insurance, pension insurance, re-insurance of life insurance, life insurance agents, re-insurance of JA mutual aid insurance (such as life insurance mutual aid), retrocession of re-insurance, life insurance consultancy

(Notes)

(1) This sector includes the group life insurance services of he Government Housing Loan Corporation and life insurance services practiced in Japan by foreign life insurance companies licensed as specified in the Insurance Business Act.

(2) A study was conducted in the 1985 I-O Tables to establish a row code for imputed interest because activities of life insurance companies would produce pure insurance services and, simultaneously, they would produce imputed services for finance as a combined product. However, this idea was withdrawn in consideration of the 68 SNA (the interpretation of the 93 SNA remains the same as that of the 68 SNA).

Column Code	Row Code	Sector Name
5312-02	5312-021	Nonlife insurance

(Ministry or agency in charge)

Financial Services Agency

(Definition, Scope)

The activities of "NON-LIFE INSURANCE INSTITUTIONS" listed under Group Number 672, "Non-life insurance agents and brokers" listed under Industry Number 6742, "Agents and brokers for mutual aid and Small-amount Short-term Insurance" listed under Industry Number 6743, "Rate-making services" listed under Industry Number 6751, "Appraisers" listed under Industry Number 6752, "MUTUAL AID ORGANIZATIONS AND SMALL-AMOUNT SHORT-TERM INSURANCE PROVIDERS" listed under Group Number 673, and "Miscellaneous insurance service institutions" listed under Industry Number 6759 of the Standard Industrial Classification for Japan.

(Given examples)

Fire insurance, earthquake insurance, marine insurance, automobile insurance (compulsory, arbitrary), theft insurance, transportation insurance, re-insurance of non-life insurance, trade insurance, non-life insurance agents, JA mutual aid (fire, car), re-insurance of JA mutual aid (fire, car), and retrocession of re-insurance

(Notes)

This sector includes government insurance and reinsurance special accounts, Japan Housing Finance Agency (housing loan insurance), Japan Finance Corporation (credit insurance business), insurance business conducted by the Agriculture, Forestry and Fisheries Credit Foundations, and disaster provident benefits conducted by the Japan Sport Council, as well as nonlife insurance businesses operated in Japan by foreign insurance companies that have received a license as specified in the "Insurance Business Act."

55 Real estate

Column Code	Row Code	Sector Name
5511-01	5511-011	Real estate agencies and managers

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities of "SALES AGENTS OF BUILDINGS AND HOUSES AND LAND SUBDIVIDERS AND DEVELOPERS" listed under Group Number 681, "REAL ESTATE AGENTS AND BROKERS" listed under Group Number 682, parking lots that are managed and operated with the purpose of storing automobiles upon being commissioned by the owner as specified in "AUTOMOBILE PARKING" listed under Group Number 693, and "REAL ESTATE MANAGERS" listed under Group Number 694 of the Standard Industrial Classification for Japan.

(Given examples)

Commission fees for selling, leasing, swapping, and brokering real estate, real estate management fees

(Notes)

(1) The construction activities by sales agents of buildings and houses are not included in this sector, but in the construction sector.

(2) Regarding the activities of property sales, only commission fees for trade agencies and brokerages are included in production values. Costs needed for site preparation are included in the construction sector.

Column Code	Row Code	Sector Name
5511-02	5511-021	Real estate rental service

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities exclusive of "Land lessors" listed under Industry Number 6912 from among "REAL ESTATE LESSORS, EXCEPT HOUSE AND ROOM LESSORS" listed under Group Number 691, and activities of parking businesses with the objective of storing automobiles specified in "AUTOMOBILE PARKING" listed under Group Number 693 (exclusive of activities of management and operation of parking lots conducted upon being commissioned by the owner) of the Standard Industrial Classification for Japan.

(Given examples)

Leasing fees for real estate leasing (commercial property rentals (or partial property rental in the case of combined housing), building rental, warehouse rental)

(Notes)

The leasing fee for the housing portion in the case of combined housing shall be classified in the sector "5521-01, -011 House rent."

Column Code	Row Code	Sector Name
5521-01	5521-011	House rent

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities of "HOUSE AND ROOM LESSORS" listed under Group Number 692 of the Standard Industrial Classification for Japan.

Column Code	Row Code	Sector Name
5531-01	5531-011	House rent (imputed house rent)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

In activities where a person living in a house that he/she owns is operating a house rental business in relation to himself/herself, services that arise due to use of one's own home, not associated with receipt and payment of rent.

Even with regard to housing and dormitories for employees that are owned by a company, the difference between the market price and the rent that is actually paid is included in this sector.

57 Transport and postal services

Column Code	Row Code	Sector Name
5711-01	5711-011	Railway transport (passengers)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities related to passenger transport specified in "RAILWAY TRANSPORT" listed under Group Number 421 and activities specified in "Railway facilities services" listed under Industry Number 4851 of the Standard Industrial Classification for Japan; other activities of the railway business, including carriage repair activities, shall be ranked in separate sectors according to their nature.

(Given examples)

Passenger transportation activities undertaken by JR, public and private railways, and tramways (regular railways, tramways, underground railways, monorail railways, guided rail type tramways, cable tramways, ropeways, and non-rail tramways)

(Notes)

(1) Revenues relating to advertisements in carriage and on station premises, and the sales of goods, public telephone services, and coin locker use shall not be included in this sector.

(2) Revenues derived from other forms of transport such as "Bus transport services" shall be treated in the same way.

Column Code	Row Code	Sector Name
5712-01	5712-011	Railway transport (freight)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities of cargo transportation specified in "RAILWAY TRANSPORT" listed under Major Group Number 421 of the Standard Industrial Classification for Japan.

(Given examples)

Cargo transport by JR, private railways

(Notes)

Activities carried out by freight forwarders and freight forwarding agents are not included in this sector, but are included in "5761-01, -011 Consigned freight forwarding"

Column Code	Row Code	Sector Name
5721-01	5721-011	Bus transport service

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The scope corresponds to the activities of "COMMON OMNIBUS OPERATORS" listed under Group Number 431, "CONTRACTED OMNIBUS OPERATORS" listed under Group Number 433, and "Motor passenger transport (particularly-contracted)" listed under Industry Number 4391 of the Standard Industrial Classification for Japan.

(Given examples)

Passenger transportation by passenger bus transport, passenger rental bus, special-purpose passenger car transport

(Notes)

Revenues from advertisements in bus carriages, etc. are not included in domestic production for this sector.

Column Code	Row Code	Sector Name
5721-02	5721-021	Hired car and taxi transport

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The scope corresponds to the activities of "COMMON TAXICAB OPERATORS" listed under Group Number 432, and "Road passenger transport, n.e.c." listed under Industry Number 4399 of the Standard Industrial Classification for Japan.

(Given examples)

6799-09, -099 Miscellaneous personal services

(Notes)

Chauffeur services are included in "6799-09, -099 Miscellaneous personal services"

Column Code	Row Code	Sector Name
5722-01	5722-011	Road freight transport (except selftransport)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The scope corresponds to the activities of "COMMON MOTOR TRUCKING" listed under Group Number 441, "MOTOR TRUCKING (PARTICULARLY-CONTRACTED)" listed under Group Number 442, "MINI-SIZED VEHICLE

FREIGHT TRANSPORT" listed under Group Number 443, and "MISCELLANEOUS ROAD FREIGHT TRANSPORT" listed under Group Number 449 of the Standard Industrial Classification for Japan.

(Given examples)

Freight transport by trucks (regular freight, special combined freight, specific-purpose freight), by mini-sized vehicle

(Notes)

(1) Activities carried out by freight forwarders and freight forwarding agents are not included in this sector, but are included in "5761-01, -011 Consigned freight forwarding"

(2) Due to the revision of the Postal Act, parcels, which were included in "7311-01, -011 Postal services and mail delivery" in the 2005 I-O Tables, were integrated into this sector.

(3) Although the definition and scope of this sector is as described above, charter fee payment or receipt is the transaction within the sector and shall not be counted in the production values.

Column Code	Row Code	Sector Name
5731-01P	5731-011P	Selftransport (passengers)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The scope corresponds to the activities of transporting people by private vehicles according to own demands (excluding self-driven travel.) Further, transportation by cargo vehicles is included in this sector.

(Notes)

(1) The production values are calculated by aggregating expenses relating to goods and services that were needed for the transport by the private cars. However, expenses that are ranked as gross value added sector items shall not be charged against the sector of transport by private cars, a dummy sector that does not book added values, but shall be charged against corresponding gross value added sectors. Such expenses referred to above relating transport by private cars are personnel expense included in "9111-000 Wages and salaries", and expenses for car inspection, car registration, and car park certificate included in "9411-000 Indirect taxes (except custom duties and commodity taxes on imported goods)."

(2) The "Matrix of transport by private cars" will be created, both for passengers and for freight, as a supporting table showing expense details for goods and services by respective industry that were needed for transport activities by private cars.

Column Code	Row Code	Sector Name
5732-01P	5732-011P	Selftransport (freight)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The scope corresponds to the activities of transporting cargo by private vehicles according to own demands (excluding self-driven travel.)

(Notes)

Same as those of aforementioned sector "5731-01P, -011P Self-transport (passengers)".

Column Code	Row Code	Sector Name
5741-01	5741-011	International shipping

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities specified in "OCEANGOING TRANSPORT" listed under Group Number 451, and "Vessel rental,except coastwise ship leasing" listed under Industry Number 4541of the Standard Industrial Classification for Japan.

(Given examples)

Passenger and freight transportation by ocean transport

(Notes)

(1) Activities of "Vessel rental,except coastwise ship leasing" under 4541 of the Industry Number of the Standard Industrial Classification for Japan are included in this sector. However, charter fee payment or receipt is the transaction within the sector and shall not be counted in the production values. A charter agreement with foreign "ocean transport" or "vessel leasing" shall, however, be counted in view of the international balance of payment. The import side of this (payment side of charter fee) shall be counted in at the point of intersection of own sector.

(2) Activities carried out by freight forwarders and freight forwarding agents are not included in this sector, but are included in "5761-01, -011 Consigned freight forwarding"

Column Code	Row Code	Sector Name
5742-01		Coastal and inland water transport
	5742-011	Coastal and inland water transport (passengers)
	5742-012	Coastal and inland water transport (freight)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities specified in "COASTWISE TRANSPORT" listed under Group Number 452, "INLAND WATER TRANSPORT" listed under Group Number 453, and "Coastwise ship leasing" listed under Industry Number 4542 of the Standard Industrial Classification for Japan.

(Given examples)

Passenger transport by coastal water transport (including transport of passengers below twelve people), freight transport by coastal water transport, passenger transport by port transport, passenger and freight transport by river water transport and inland water transport

(Notes)

Activities of "Coastwise ship leasing" under Industry Number 4542 of the Standard Industrial Classification for Japan are included in this sector. However, the related charter fee, payment and receipt, shall not be counted in this sector because of transactions within the sector. Activities carried out by freight forwarders and freight forwarding agents are not included in this sector, but are included in "5761-01, -011 Consigned freight forwarding"

Column Code	Row Code	Sector Name
5743-01	5743-011	Harbor transport service

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities specified in "PORT TRANSPORT" listed under Group Number 481 of the Standard Industrial Classification for Japan.

(Given examples)

Regular port transport, port-cargo handling, lighter transport (including towing lighters and rafts), coastal cargo handling and raft cargo handling

Column Code	Row Code	Sector Name
5751-01		Air transport
	5751-011	International air transport
	5751-012	Domestic air transport (passengers)
	5751-013	Domestic air transport (freight)
	5751-014	Aircraft service except air transport

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities specified in "AIR TRANSPORT" listed under Group Number 461, and "AIRCRAFT SERVICE, EXCEPT AIR TRANSPORT" listed under Group Number 462 of the Standard Industrial Classification for Japan.

(Given examples)

Passenger and freight transportation internationally or domestically, and aircraft services (chemical spray by aircrafts, aerial photography) by air transport

(Notes)

(1) Although "AIR TRANSPORT" listed under Group Number 461 of the Standard Industrial Classification for Japan is within the scope of this sector, charter fee payment or receipt for international air transport is a transaction within the sector and shall not be counted in the production values. A charter agreement (passenger charger + freight charter) with foreign "air transport" shall, however, be counted in view of the international balance of payment. The import side of this (payment side of charter fee) shall be counted in at the point of intersection of own sector.

(2) Activities carried out by freight forwarders and freight forwarding agents are not included in this sector, but are included in "5761-01, -011 Consigned freight forwarding."

Column Code	Row Code	Sector Name
5761-01	5761-011	Consigned freight forwarding

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities specified in "COLLECT-AND-DELIVER FREIGHT TRANSPORT" listed under Group Number 444 and "FREIGHT FORWARDING, EXCEPT COLLECT-AND-DELIVER FREIGHT TRANSPORT" listed under Group Number 482 of the Standard Industrial Classification for Japan.

(Given examples)

Freight forwarders (1st group freight forwarders), collect-and-deliver freight transporters (2nd group freight forwarders), freight forwarding agents

(Notes)

The production value of this sector corresponds to the amount of transport fare and trade commission deducted by transport fare payable to actual transportation entities and trade commission, in order to avoid double counting of freight transport fare.

Column Code	Row Code	Sector Name
5771-01	5771-011	Storage facility service

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities specified in "ORDINARY WAREHOUSING" listed under Group Number 471, "REFRIGERATED WAREHOUSING" listed under Group Number 472 of the Standard Industrial Classification for Japan, and co-op warehousing activities

(Given examples)

Regular warehousing (outdoor warehousing, storage silo, storage tank, trunk room), storage and cargo handling at chilled warehouse, water surface timber warehouse, JA warehouse, marine products union warehouse, forestry union warehouse, union warehouse for small businesses

(Notes)

Activities at a private warehouse shall be included in the activities of the corresponding industry. However, activities at union warehouses shall be included in this sector because union warehouses charge similar as commercial warehouses do.

Column Code	Row Code	Sector Name
5781-01	5781-011	Packing service

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities specified in "PACKING AND CRATING" listed under Group Number 484 of the Standard Industrial Classification for Japan.

(Given examples)

Packing, cargo packing, crating, industrial products crating, export packing

(Notes)

Private packing activities shall be treated as inputs of packing materials of corresponding sector, and shall not be included in this sector.

Column Code	Row Code	Sector Name
5789-01	5789-011	Facility service for road transport

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities of "Fixed facilities for road transport" listed under Industry Number 4852, "Terminal facilities for motor vehicles" listed under Industry Number 4853, activities related to road transport in specified in "Terminal facilities for handling freight" listed under Industry Number 4854, and activities exclusive of surface parking lots and parking lots with the purpose of storing automobiles specified in "AUTOMOBILE PARKING" listed under Group Number 693 of the Standard Industrial Classification for Japan.

(Given examples)

Motorways, toll roads, toll bridges, toll tunnels, car terminals, facilities relating to road transport among "Terminal facilities for handling freight", toll parking lot

(Notes)

(1) Rent-a-car and leasing cars are included in "6612-01, -011 Car rental and leasing"

(2) Parking lots on roads are not included in this sector, but included in "6112-01, -011 Public administration (local) **" for the following reasons; parking lots on roads are the tentative measure for car parking until such time that sufficient volume of regular parking space becomes available; and parking lots on roads provided with parking meters and tickets that are prepared by the National Public Safety Commission are aiming at parking hours control for better road utilization.

Column Code	Row Code	Sector Name
5789-02	5789-021	Port and water traffic control **

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities specified in "Piers and docks" listed under Industry Number 4855, port-related activities such as cargo handling pier facilities specified in "Terminal facilities for

handling freight" listed under Industry Number 4854, water supply activities for vessels specified in "WATER FOR END USERS,EXCEPT INDUSTRIAL USERS" listed under Group Number 361, and activities of providing waterways information by waterway signaling office (lighthouse), and by the water traffic center specified "Services incidental to transport,n.e.c." listed under Industry Number 4899 of the Standard Industrial Classification for Japan

(Given examples)

Management of port and fishing harbor, provision of waterways information

(Notes)

(1) Management activities conducted by pier public corporations within port premises for a part of facilities are also included in this sector.

(2) Regarding vessel tonnage tax and special tonnage tax, those taxes are primarily paid to customs directly by captains of inbound vessels or by operators. However, those taxes are the cost of using port facilities by inbound vessels and, therefore, shall be input to this sector as expenses booked as indirect taxes to consist the production value. In the similar manner, canal passage tax and lighthouse tax are booked in this sector, but limited to those for import.

Column Code	Row Code	Sector Name
5789-03	5789-031	Services relating to water transport

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities of measuring quantities, volume, transport appraisal, ship pilot, salvage, marine rescue, rope handling on anchoring, and vessel towing specified in "Services incidental to transport,n.e.c." listed under Industry Number 4899 of the Standard Industrial Classification for Japan.

(Given examples)

Ship pilot, quantity inspection, volume inspection, appraisal

Column Code	Row Code	Sector Name
5789-04	5789-041	Airport and air traffic control (public) **

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The management activieties of airports by the government and local public entities specified in "Airports and air fields heliports" listed under Industry Number 4856, and air traffic control activities specified in "Services incidental to transport, n.e.c." listed under Industry Number 4899 of the Standard Industrial Classification for Japan.

(Given examples)

Airport control, air traffic control

(Notes)

Import (payment relating to foreign airport facilities) shall be counted in the sector "5789-05, -051 Airport and air traffic control (industrial)"

Column Code	Row Code	Sector Name
5789-05	5789-051	Airport and air traffic control (industrial)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities conducted by entities other than the government and local public entities among those specified in "Airports and air fields heliports" listed under Industry Number 4856 of the Standard Industrial Classification for Japan.

(Given examples)

Airport management

(Notes)

Import (payment relating to foreign airport facilities) shall be counted in this sector.

Column Code	Row Code	Sector Name
5789-06	5789-061	Services relating to air transport

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The supporting activities relating to air transport (on-board food services, operation service, passenger boarding, luggage loading, aircraft fuel control and fuel supply charge, and other related services) among those specified in "Services incidental to transport,n.e.c." excluding air traffic control activities under Industry Number 4899 of the Standard Industrial Classification for Japan.

(Given examples)

Provision of facilities for fueling aircrafts, provision of

convenience facilities, provision of supply facilities

(Notes)

Airport terminal buildings are included in "65511-02, -021 Real estate rental service", passenger transportation limousine buses are in "75721-01, -011 Bus transport service", fuel supply (sale of fuel) is in "Trade", and aircraft maintenance and repair are in "3592-10, -101 Repair of aircrafts" respectively

Column Code	Row Code	Sector Name
5789-09	5789-099	Travel agency and miscellaneous services relating to transport

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities conducted by tourism associations among those specified in "TRAVEL AGENCY" listed under Group Number 791, "TRANSPORT AGENCIES" listed under Group Number 483, "Shipping brokers" listed under Industry Number 4891, "Services incidental to transport,n.e.c." listed under Industry Number 4899 of the Standard Industrial Classification for Japan.

(Given examples)

Travel agencies, transport agencies, transport intermediates

(Notes)

This sector covers other transport businesses not elsewhere classified.

Column Code	Row Code	Sector Name
5791-01	5791-011	Postal services and mail delivery

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The post-related activities among those specified in "POSTAL ACTIVITIES,INCLUDING MAIL DELIVERY" listed under Group Number 491 and "POSTAL SERVICES" listed under Group Number 861 the Standard Industrial Classification for Japan

(Given examples)

Regular post, parcel delivery

(Changes)

The activities of "POSTAL ACTIVITIES, INCLUDING MAIL DELIVERY" listed under Group Number 491 and post-related activities among those specified in "POSTAL SERVICES" listed under Group Number 861 of the Standard Industrial Classification for Japan.

(Notes)

Commissioning of transport of postal matter shall be counted in at the point of intersection of "5712-011 Railway transport (freight)," "5742-012 Coastal and inland water transport (freight)," "5751-011 International air transport" and "5751-013 Domestic air transport (freight)."

Column Code	Row Code	Sector Name
5911-01	5911-011	Fixed telecommunications

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

From among the activities specified in "FIXED TELE-COMMUNICATIONS" listed under Group Number 371, with the exception of activities specified in "Wire broadcast telephones" listed under Industry Number 3713 of the Standard National Classification for Japan, those for providing telecommunications services where the entity establishes its own telecommunication wiring facilities

(Given examples)

Telephone, wire, cable, personal

(Notes)

Self-operated telecommunication network systems and telephone systems such as public offices, electricity, railways, aircrafts and ships are not included in this sector.

Column Code	Row Code	Sector Name
5911-02	5911-021	Mobile telecommunications

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The activities specified in "MOBILE TELECOMMUNICA-TIONS" listed under Group Number 372 of the Standard Industrial Classification for Japan.

(Given examples)

Mobile phone, PHS, on-demand radio communication, airport radio phone

Column Code	Row Code	Sector Name
5911-09	5911-099	Miscellaneous telecommunica-tions

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

From among the activities specified in "FIXED TELE-COMMUNICATIONS" listed under Group Number 371, with the exception of activities specified in "Wire broadcast telephones" listed under Industry Number 3713 of the Standard National Classification for Japan, those for providing telecommunications service by leasing a telecommunications network from another entity, rather than establishing its own telecommunications network.

(Given examples)

ISP(internet service provider), IX (internet exchange)、IDC(internet data center), Internet connection service, voice storing service, fax storing service

Column Code	Row Code	Sector Name
5919-09	5919-099	Miscellaneous services relating to communication

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The activities specified in "Wire broadcast telephones" listed under Industry Number 3713, "SERVICES INCIDENTAL TO TELECOMMUNICATIONS" listed under Group Number 373, and "CONTRACTED POSTAL SERVICES" listed under Group Number 862 of the Standard Industrial Classification for Japan.

(Given examples)

Wire broadcasting phone, mobile radio, fishery radio, mobile telecommunication services, postal stamp selling stand (trade commission), telephone subscription trading (including subscription leasing)

(Changes)

Server housing services and server hosting services included in "7341-01, -011 Internet based services" in the 2005 I-O Tables were integrated into this sector.

Column Code	Row Code	Sector Name
5921-01	5921-011	Public broadcasting

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The activities specified in "PUBLIC BROADCAST-ING,EXCEPT CABLECASTING" listed under Group Number 381, and the activities related to public broadcasting specified in "Satellite broadcasting s" listed underIndustry Number 3823 of the Standard Industrial Classification for Japan.

(Given examples)

Television, radio, satellite broadcasting by Japan Broadcast-ing Corporation

(Notes)

The Science & Technical Research Laboratories, and the Broadcasting Culture Research Institute, both are belong to NHK are included in this sector.

Column Code	Row Code	Sector Name
5921-02	5921-021	Private broadcasting

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The activities specified in "PRIVATE-SECTOR BROADCASTING, EXCEPT CABLECASTING" listed under Group Number 382 (exclusive of public broadcasting activities specified in "Satellite broadcasting" listed under Industry Number 3823) of the Standard Industrial Classification for Japan.

Revenues from advertising are included in domestic production.

(Given examples)

Television, radio, satellite broadcasting supported primarily by advertisement commission revenue or fee from broadcasting on contract

Column Code	Row Code	Sector Name
5921-03	5921-031	Cable broadcasting

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The activities of specified in "CABLECASTING" listed under Group Number 383 of the Standard Industrial Classification for Japan; advertisement commission revenue is included in the production value

(Given examples)

Cable television broadcasting, cable radio broadcasting

Column Code	Row Code	Sector Name
5931-01		Information services
	5931-011	Computer programming and miscellaneous software services
	5931-012	Data processing and research and information services

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The activities specified in "COMPUTER PROGRAMMING AND OTHER SOFTWARE SERVICES" listed under Group Number 391 and "DATA PROCESSING AND INFORMATION SERVICES" listed under Group Number 392 of the Standard Industrial Classification for Japan, as well as the document information provision account of the Japan Science and Technology Agency and activities of the Nippon Automated Cargo and Port Consolidated System, Inc.

(Given examples)

Computer programming and miscellaneous software services : software development, information system development

Data processing and research and information services : computation services, computer center, machine time service, punching services, economic information provider service, real estate information provider service, weather information provider service, traffic information provider service, market research, polling service

Column Code	Row Code	Sector Name
5941-01	5941-011	Internet based services

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The activities specified in "INTERNET BASED SERVICES" listed under Group Number 401 of the Standard Industrial Classification for Japan; advertisement commission revenue is included in the production value

(Given examples)

ASP(application service provider), electronic authentication, information network security service, portal site management

(Changes)

Server housing services and server hosting services, which were included in this sector in the 2005 I-O Tables, are integrated into "5911-09, -099 Miscellaneous telecommunications."

Column Code	Row Code	Sector Name
5951-01	5951-011	Video picture, sound information, character information production

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The activities specified in "VIDEO PICTURE INFORMATION PRODUCTION AND DISTRIBUTION" listed under Group Number 411, "SOUND INFORMATION PRODUCTION"listed under Group Number 412, "COMMERCIAL ART

AND GRAPHIC DESIGN" listed under Group Number 415, and "SERVICES INCIDENTAL TO VIDEO PICTURE, SOUND INFO R MATION,CHARACTER INFORMATION PRODUCTION AND DISTRIBUTION" listed under Group Number 416 of the Standard Industrial Classification for Japan.

(Given examples)

Movie production and distribution, video production and sales, television program production, television commercial production, record production, music publishing, radio program production, advertising production (related to printed matter), Kyodo News Service, Jiji Press, news agency branches (those that do not print and publish), rental studios, pre-production, post-production

(Notes)

(1) Production activities of DVDs, etc. are included in "3919-06, -061 Audio and video records, other information recording media."

(2) "Theatrical goods rental" listed under Industry Number 7091 of the Standard Industrial Classification for Japan is included in the column sector "6611-01 Goods rental and leasing (except car rental)" and row sector "6611-015 Sports goods, recreation goods and miscellaneous goods rental and leasing."

(Changes)

Activities related to sound information production, and sound information and character information production and distribution from among services incidental to video picture, sound information, character information production and distribution, which were included in "8519-09, -099 Other business services," as well as news syndicates included in "7351-04, -041 News syndicates and private detective agencies" in the 2005 I-O Tables are integrated into this sector.

Column Code	Row Code	Sector Name
5951-02	5951-021	Newspaper

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "NEWSPAPER PUBLISHERS" listed under Group Number 413 of the Standard Industrial Classification for Japan; revenue from advertisements is also included in the production value

(Notes)

Electronic media is also included in this sector.

Column Code	Row Code	Sector Name
5951-03	5951-031	Publication

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "PUBLISHERS, EXCEPT NEWSPAPERS" listed under Group Number 414 of the Standard Industrial Classification for Japan; the production value includes revenue from advertisements.

(Given examples)

Books, magazines, journals, other publications

(Notes)

Electronic media is also included in this sector.

61 Public administration

Column Code	Row Code	Sector Name
6111-01	6111-011	Public administration (central) **

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "NATIONAL GOVERNMENT SERVICES" in general under Major Group Number 97 of the Standard Industrial Classification for Japan. To be precise, the scope covers the central government general accounts and special accounts as well as the government services by central government-related entities categorized as government service producers excluding those of sectors that are ranked in "semi-public administration" and "social security funds" sector.

(Notes)

Activities by Self Defense Force are included in this sector.

Column Code	Row Code	Sector Name
6112-01	6112-011	Public administration (local) **

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "LOCAL GOVERNMENT SERVICES" in general under Major Group Number 98 of the Standard Industrial Classification for Japan. To be precise, the scope covers the government services by local government-related entities categorized as government service producers among regular local public entities and special local public entities excluding those of sectors that are ranked in "semi-public administration" and "social security funds" sector.

63 Education and research

Column Code	Row Code	Sector Name
6311-01	6311-011	School education (public) **

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the activities of "KINDERGARTENS" listed under Group Number 811, "ELEMENTARY SCHOOLS" listed under Group Number 812, "LOWER SECONDARY SCHOOLS" listed under Group Number 813, "UPPER SECONDARY SCHOOLS, SECONDARY SCHOOLS" listed under Group Number 814, "SCHOOLS FOR SPECIAL NEEDS EDUCATION" listed under Group Number 815, "INSTITUTION OF HIGHER EDUCATION" listed under Group Number 816, and "SPECIALIZED TRAINING COLLEGES AND MISCELLANEOUS SCHOOLS" listed under Group Number 817 of the Standard Industrial Classification for Japan established by the National University Corporation, the Institute of National Colleges of Technology, local governments, and public university corporations.

(Given examples)

Kindergartens, elementary schools, middle schools, high schools,secondary education school, special needs school, specialized high schools, junior colleges, universities, special training schools, other types of school

(Notes)

Libraries attached to schools are classified in this sector. However, hospitals and research institutes attached to schools are classified in "Medical" and "Research institutions" respectively.

Column Code	Row Code	Sector Name
6311-02	6311-021	School education (private) *

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the activities of "KINDERGARTENS" listed under Group Number 811, "ELEMENTARY SCHOOLS" listed under Group Number 812, "LOWER SECONDARY SCHOOLS" listed under Group Number 813, "UPPER SECONDARY SCHOOLS, SECONDARY SCHOOLS"

listed under Group Number 814, “SCHOOLS FOR SPECIAL NEEDS EDUCATION” listed under Group Number 815, “INSTITUTION OF HIGHER EDUCATION” listed under Group Number 816, and “SPECIALIZED TRAINING COLLEGES AND MISCELLANEOUS SCHOOLS” listed under Group Number 817 of the Standard Industrial Classification for Japan established by entities other than National University Corporation, the Institute of National Colleges of Technology, local governments, and public university corporations.

(Given examples)

Kindergartens, elementary schools, middle schools, high schools, secondary education school, special needs school, specialized high schools, junior colleges, universities, special training schools, other types of school

(Notes)

Libraries attached to schools are classified in this sector. However, hospitals and research institutes attached to schools are classified in “Medical” and “Research institutions” respectively.

Column Code	Row Code	Sector Name
6312-01	6312-011	Social education (public) **

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the activities of social educational facilities opened by the national government, local governments, and independent administrative agencies, from among “SOCIAL EDUCATION” listed under Group Number 821 of the Standard Industrial Classification for Japan. To be specific, the activities refer to organizational and educational activities outside of those that are conducted according to school education curriculums.

(Given examples)

Public hall, library, museum, art museum, zoo, botanical garden, aquarium, educational facilities for youths (youth’s house, nature house for boys), social education by correspondence, education hall for women

Column Code	Row Code	Sector Name
6312-02	6312-021	Social education (private, nonprofit) *

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the activities of social educational facilities opened by entities other than the national government, local governments, and independent administrative agencies, from among “SOCIAL EDUCATION” listed under Group Number 821 of the Standard Industrial Classification for Japan. To be specific, the activities refer to organizational and educational activities outside of those that are conducted according to school education curriculums.

(Given examples)

Public hall, library, museum, art museum, zoo, botanical garden, aquarium, educational facilities for youths (youth’s house, nature house for boys), social education by correspondence, education hall for women

Column Code	Row Code	Sector Name
6312-03	6312-031	Miscellaneous educational and training institutions (public) **

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the activities of employees training facilities opened by the government, local governments and independent administrative agencies, from among “Employee training facilities and supporting facilities” listed under Industry Number 8221, and the activities of “Vocational guidance centers” listed under Industry Number 8222 of the Standard Industrial Classification for Japan.

(Given examples)

Aeronautical Safety College, National Defense Academy, National Police Academy, Local Autonomy College, Meteorological College, Fire Academy, Vocational Ability Development School, National Institute for Sea Training

Column Code	Row Code	Sector Name
6312-04	6312-041	Miscellaneous educational and training institutions (profitmaking)

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the activities of employees training facilities opened by entities other than the government, local governments and independent administrative agencies, “Employee training facilities and supporting facilities” listed under Industry Number 8221, as well as the activities of

"Educational and learning support services,n.e.c." listed under Industry Number 8299 of the Standard Industrial Classification for Japan.

(Given examples)

Training school for dental hygiene specialist (other than specialized schools nor other types of school), cooking schools (other than specialized schools nor other types of school), dressmaking schools (other than specialized schools nor other types of school), driving training school (other than specialized schools nor other types of school)

Column Code	Row Code	Sector Name
6321-01	6321-011	Research institutes for natural science (pubic) **

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the experimental, testing and researching activities relating to natural science conducted by the research institutes of the government, local governments and independent administrative agencies, from among "RESEARCH INSTITUTES FOR NATURAL SCIENCES" listed under Group Number 711 of the Standard Industrial Classification for Japan.

(Given examples)

National Institute for Materials Science, National Institute of Advanced Industrial Science and Technology, National Institute of Biomedical Innovation, theoretical research institutes, engineering research institutes, agricultural research institutes, medical and medicine research institutes

(Notes)

Activities of research institutes attached to public schools are included in this sector.

Column Code	Row Code	Sector Name
6321-02	6321-021	Research institutes for cultural and social science (public) **

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the research and study activities relating to cultural and social science conducted by the research institutes of the government, local governments and independent administrative agencies, from among "RESEARCH INSTITUTES FOR HUMANITIES AND SOCIAl SCIENCES" listed under Group Number 712 of the Standard Industrial Classification for Japan.

(Given examples)

National Education Policies Research Institute, National Institute for Japanese Language, National Institute of Social Security Research, National Institute of Population Research, Research Institute of Postal Policies

(Notes)

Activities of research institutes attached to public schools are included in this sector.

Column Code	Row Code	Sector Name
6321-03	6321-031	Research institutes for natural sciences (private, nonprofit) *

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the experimental, testing and researching activities relating to natural science conducted by the research institutes opened by non-profit private corporations such as research institutes established as an annex of private schools, from among activities specified in "RESEARCH INSTITUTES FOR NATURAL SCIENCES" listed under Group Number 711 of the Standard Industrial Classification for Japan.

(Given examples)

Theoretical research institutes, engineering research institutes, agricultural research institutes, medical and medicine research institutes

Column Code	Row Code	Sector Name
6321-04	6321-041	Research institutes for cultural and social science (private, nonprofit) *

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the experimental, testing and researching activities relating to cultural and social science conducted by the research institutes opened by non-profit private corporations such as research institutes established as an annex of private schools, from among activities specified in "RESEARCH INSTITUTES FOR HUMANITIES AND SOCIAl SCIENCES" listed under Group Number 712 of the

Standard Industrial Classification for Japan.

(Given examples)

Institute of Oriental Culture, social science research institutes

Column Code	Row Code	Sector Name
6321-05	6321-051	Research institutes for natural sciences (profitmaking)

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the experimental, testing and researching activities relating to natural science conducted by research institutes except for the following entities, from among those of "RESEARCH INSTITUTES FOR NATURAL SCIENCES" listed under Group Number 711 of the Standard Industrial Classification for Japan.

(1) Research institutes of the government and local governments, and research institutes established by independent administrative agencies (including research institutes attached to public schools)

(2) Research institutes opened by non-profit private corporations such as research institutes attached to private schools

(Given examples)

Theoretical research institutes, engineering research institutes, agricultural research institutes, medical and medicine research institutes

Column Code	Row Code	Sector Name
6321-06	6321-061	Research institutes for cultural and social science (profitmaking)

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the experimental, testing and researching activities relating to cultural and social science conducted by research institutes except for the following entities, from among those of "RESEARCH INSTITUTES FOR HUMANITIES AND SOCIAl SCIENCES" listed under Group Number 712 of the Standard Industrial Classification for Japan.

(1) Research institutes of the government and local governments, and research institutes established by independent administrative agencies (including research institutes attached to public schools)

(2) Research institutes opened by non-profit private corporations such as research institutes attached to private schools

(Given examples)

Cultural and social research institutes, social science research institutes

Column Code	Row Code	Sector Name
6322-01	6322-011	Research and development (intraenterprise)

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to creative efforts and research activities by enterprises to get new knowledge on materials, functions or phenomena, or to have existing knowledge utilized for new directions. Further, research and development activities by enterprises relating to production and manufacturing processes of products (commodities), or technical improvement thereof are included in this sector.

(Given examples)

(1) Examples refer to thoughts, ideas, gathering of information and data, proto-type production, experiment, examination, analysis and reports that are needed for activities and research. Therefore, activities of making machines, tools or devices for the researches, growing animals and plants and surveying documents are included in this sector.

(2) Examples also refer to the activities described in the aforementioned paragraph as well as engineering and manufacturing of a pilot plan and prototype with testing at other site than the entity's research laboratory or research and development division, for example at manufacturing plant.

(Notes)

The research activities of "corporations" in the Survey of Research and Development, exclusive of activities conducted by corporations having special status.

64 Medical, health care and welfare

Column Code	Row Code	Sector Name
6411-01	6411-011	Medical service (hospitalization)

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The hospitalization activities, from among general practice as specified in "HOSPITALS" listed under Group Number 831 and "Clinics with beds or less" listed under Industry Number 8321 of the Standard Industrial Classification for Japan.

Dentistry in hospitals and clinics of medical practitioners is included in "Medical service (dentistry)." Services with Long-Term Care Insurance are classified under "Nursing care (facility services)" or "Nursing care (except facility services)."

(Given examples)

General practice (hospitalization (excluding dentistry))

(Changes)

"8311-01, -011 Medical service (public)," "8311-02, -021 Medical service (non-profit foundations, etc.)," and "8311-03, -031 Medical service (medical corporations, etc.)" in the 2005 I-O Tables are reorganized.

Column Code	Row Code	Sector Name
6411-02	6411-021	Medical service (except hospitalization)

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

Activities such as medical service except hospitalization, preventive care activities, and medical consultations, etc. from among general practice specified in "HOSPITALS" listed under Group Number 831 and "CLINICS OF MEDICAL PRACTITIONERS" listed under Group Number 832 of the Standard Industrial Classification for Japan.

Dentistry in hospitals and clinics of medical practitioners is included in "Medical service (dentistry)." Services with Long-Term Care Insurance are classified under "Nursing care (facility services)" or "Nursing care (except facility services)."

(Given examples)

General practice (medical service except hospitalization (excluding dentistry))

(Changes)

Same as "6411-01, -001 Medical service (hospitalization)"

Column Code	Row Code	Sector Name
6411-03	6411-031	Medical service (dentistry)

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The activities of dentistry and various dental exams as specified in "HOSPITALS" listed under Group Number 831 and "DENTAL CLINICS" listed under Group Number 833 of the Standard Industrial Classification for Japan.

Services with Long-Term Care Insurance are classified under "Nursing care (facility services)" or "Nursing care (except facility services)."

(Given examples)

Dentistry activities

(Changes)

Same as "6411-01, -001 Medical service (hospitalization)"

Column Code	Row Code	Sector Name
6411-04	6411-041	Medical service (pharmacy dispensing)

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

Pharmacy dispensing activities as specified in "Pharmacy" listed under Industry Number 6033 of the Standard Industrial Classification for Japan.

Services with Long-Term Care Insurance are classified under "Nursing care (facility services)" or "Nursing care (except facility services)."

(Given examples)

Pharmacy dispensing at pharmacies and dispensing pharmacies

(Changes)

Same as "6411-01, -001 Medical service (hospitalization)"

Column Code	Row Code	Sector Name
6411-05	6411-051	Medical service (miscellaneous medical service)

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The activities of "MATERNITY CLINICS AND NURSING" listed under Group Number 834, "OTHER HEALTH PRACTITIONERS" listed under Group Number 835, and

"SERVICES INCIDENTAL TO MEDICAL" listed under Group Number 836 of the Standard Industrial Classification for Japan. Home nursing services carried out by hospitals and clinics of medical practitioners are included in this sector.

Services with Long-Term Care Insurance are classified under "Nursing care (facility services)" or "Nursing care (except facility services)."

(Given examples)

Birth centers, home nursing stations, treatment places, eye banks, bone marrow banks, sanitation inspection stations, sterilization (of medical devices), clinical examinations, etc.

(Changes)

Same as "6411-01, -001 Medical service (hospitalization)"

Column Code	Row Code	Sector Name
6421-01	6421-011	Health and hygiene (public) **

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities by the government and local governments among those of "PUBLIC HEALTH CENTERS" listed under Group Number 841, "HEALTH CONSULTATION OFFICES" listed under Group Number 842, and "OTHER PUPLIC HEALTH AND HYGIENE" listed under Group Number 849 of the of the Standard Industrial Classification for Japan.

(Given examples)

Public health centers, health consultation offices, quarantine (excluding animal and plants), medical-related examiners (parasites, water quality), meat inspection stations, dog control centers, dog control offices

Column Code	Row Code	Sector Name
6421-02	6421-021	Health and hygiene (profitmaking)

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities by entities other than the government and local governments among those of "HEALTH CONSULTATION OFFICES" listed under Group Number 842, and "OTHER PUPLIC HEALTH AND HYGIENE" listed under Group Number 849 of the of the Standard Industrial Classification for Japan.

(Given examples)

Health consultation offices, medical-related examiners (parasites, water quality), meat inspection stations, sterilizer business (articles, phones), dog control centers, dog control offices

Column Code	Row Code	Sector Name
6431-01	6431-011	Social insurance **

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The activities specified in "SOCIAL INSURANCE ORGANIZATIONS" listed under Group Number 851 of the Standard Industrial Classification for Japan.

(Given examples)

Social insurance work, such as national pension, welfare pension, mutual aid pension, health insurance, long-term care insurance, labor insurance, National Pension Fund Association, Employees Pension Fund, Pension Fund Association, etc.

(Notes)

(1) Includes funds that does not correspond to the following social insurance funds.

National pension funds, National Pension Fund Association, Employees Pension Fund, corporate pension funds, Pension Fund Association, Farmers Pension Fund (excluding old pension), Organization for Small & Medium Enterprises and Regional Innovation (mutual aid account for small enterprises), Organization for Workers' Retirement Allowance Mutual Aid

(2) Activities for hygiene facilities (recreation centers, lodging facilities) for the insured and their families by social insurance business groups are included in "6711-01, -011 Hotels"

Column Code	Row Code	Sector Name
6431-02	6431-021	Social welfare (public) **

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

Self-support facilities for children among "Miscellaneous vocational and educational supporting facilities" listed under Industry Number 8229, "WELFARE OFFICES" listed under Group Number 852, "CHILD WELFARE SERVICES" listed under Group Number 853, "WELFARE SERVICES FOR THE

AGED AND CARE SERVICES,EXCEPT HOME CARE HELP SERVICES" listed under Group Number 854, "WELFARE SERVICES FOR DISABLED PERSONS" listed under Group Number 855, and social welfare facility service activities and social welfare local service activities by the national government and local public agencies specified in "MISCELLANEOUS SOCIAL INSURANCE, SOCIAL WELFARE AND CARE SERVICES" listed under Group Number 859 of the Standard Industrial Classification for Japan.

The services with Long-Term Care Insurance are classified under "Nursing care (facility services)" or "Nursing care (except facility services)."

(Given examples)

Social welfare offices, infant nursing facilities, child consultation centers, children's welfare facilities (children's houses), children's nursing care facilities, self-support facilities for children, senior's nursing care home, senior's inexpensive nursing home, senior's welfare centers, support facilities for the disabled, self-training offices

Column Code	Row Code	Sector Name
6431-03	6431-031	Social welfare (private, nonprofit) *

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

Self-support facilities for children among "Miscellaneous vocational and educational supporting facilities" listed under Industry Number 8229, "CHILD WELFARE SERVICES" listed under Group Number 853, "WELFARE SERVICES FOR THE AGED AND CARE SERVICES, EXCEPT HOME CARE HELP SERVICES" listed under Group Number 854, "WELFARE SERVICES FOR DISABLED PERSONS" listed under Group Number 855, and social welfare facility service activities and social welfare local service activities by social welfare corporations specified in "MISCELLANEOUS SOCIAL INSURANCE, SOCIAL WELFARE AND CARE SERVICES" listed under Group Number 859 of the Standard Industrial Classification for Japan.

The services with Long-Term Care Insurance are classified under "Nursing care (facility services)" or "Nursing care (except facility services)."

(Given examples)

Infant nursing facilities, children's welfare facilities (children's houses), children's nursing care facilities, self-support facilities for children, private nursing homes, senior's nursing care home, senior's inexpensive nursing home, senior's welfare centers, support facilities for the disabled, self-training offices, rehabilitation facilities

Column Code	Row Code	Sector Name
6431-04	6431-041	Social welfare (profitmaking)

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to social welfare facility service activities and social welfare regional service activities by corporations and individuals, from among those of "CHILD WELFARE SERVICES" listed under 853, "WELFARE SERVICES FOR THE AGED AND CARE SERVICES,EXCEPT HOME CARE HELP SERVICES" listed under Group Number 854, "WELFARE SERVICES FOR DISABLED PERSONS" listed under Group Number 855, and "MISCELLANEOUS SOCIAL INSURANCE,SOCIAL WELFARE AND CARE SERVICES" listed under Group Number 829 of the Standard Industrial Classification for Japan.

The services with Long-Term Care Insurance are classified under "Nursing care (facility services)" or "Nursing care (except facility services)."

(Given examples)

Infant nursing facilities, private nursing homes, care house, support facilities for the disabled

Column Code	Row Code	Sector Name
6441-01	6441-011	Nursing care (facility services)

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The activities of facility services based on Long-Term Care Insurance, from among "HOSPITALS" listed under Group Number 831, "CLINICS OF MEDICAL PRACTITIONERS" listed under Group Number 832, "DENTAL CLINICS" listed under Group Number 833, "Nursing" listed under Industry Number 8342, "OTHER HEALTH PRACTITIONERS" listed under Group Number 835, and "WELFARE SERVICES FOR THE AGED AND CARE SERVICES, EXCEPT HOME CARE HELP SERVICES" listed under Group Number 854 of the Standard Industrial Classification for Japan.

(Given examples)

Welfare facilities for the elderly requiring long-term care (special nursing home for the elderly), Health care facilities for

the elderly requiring long-term care, Sanatorium type medical care facilities for the elderly requiring care

Column Code	Row Code	Sector Name
6441-02	6441-021	Nursing care (except facility services)

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The activities exclusive of facility services based on Long-Term Care Insurance, from among “HOSPITALS” listed under Group Number 831, “CLINICS OF MEDICAL PRACTITIONERS” listed under Group Number 832, “DENTAL CLINICS” listed under Group Number 833, “Nursing” listed under Industry Number 8342, “OTHER HEALTH PRACTITIONERS” listed under Group Number 835, and “WELFARE SERVICES FOR THE AGED AND CARE SERVICES, EXCEPT HOME CARE HELP SERVICES” listed under Group Number 854 of the Standard Industrial Classification for Japan.

(Given examples)

In-home services, community-based services, preventive care services, community-based preventive care services

(Notes)

“In-home services” include home-visit care, home nursing, outpatient care, short-stay services, etc.; “community-based services” include small multi-care facilities, home-visit at night for long-term care, outpatient long-term care for a dementia patient, etc.; “preventative care services” include outpatient preventative long-term care, outpatient rehabilitation for preventative long-term care, home-visit service for preventative long-term care, etc.; “community-based preventive care services” include multifunctional preventive long-term care in a small group home, preventive long-term care for a dementia patient in communal living, etc.

65 Miscellaneous non-profit services

Column Code	Row Code	Sector Name
6599-01	6599-011	Private nonprofit institutions serving enterprises

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The activities of private non-profit organizations established by corporate organizations related to profit that are trying to promote the activities specified in “AGRICULTURE, FORESTRY AND FISHERIES COOPERATIVE ASSOCIATIONS, N.E.C.” listed under Group Number 871, “BUSINESS COOPERATIVE ASSOCIATIONS, N.E.C.” listed under Group Number 872, and “BUSINESS AND PROFESSIONAL ASSOCIATIONS” listed under Group Number 931 of the Standard Industrial Classification for Japan.

Among the activities specified in “AGRICULTURE, FORESTRY AND FISHERIES COOPERATIVE ASSOCIATIONS, N.E.C.” listed under Group Number 871 and “BUSINESS COOPERATIVE ASSOCIATIONS, N.E.C.” listed under Group Number 872 of the Standard Industrial Classification for Japan, activities for the purpose of commercial gain, such as buying and selling, are included in the activities sector for wholesale and retail trade, and are not included in this sector.

(Given examples)

Cooperative association of fabrics, Chamber of commerce and industry, Japan Business Federation, Life Insurance Association, Japanese Bankers Association, Japan Federation of Certified Public Tax Accountants' Associations, National Federation of Small Business Associations, National Chamber of Agriculture

Column Code	Row Code	Sector Name
6599-02	6599-021	Private nonprofit institutions serving households, n.e.c. *

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of “RELIGION” listed under Major Group Number 94, “LABOR ORGANIZATIONS” listed under Group Number 932, “NON-PROFIT CULTURAL,SCIENCE AND ART ORGANIZATIONS” under Group Number 933, “POLITICAL ORGANIZATIONS” listed under Group Number 934, “NON-PROFIT ORGANIZA-

TIONS,N.E.C." listed under Group Number 939, and "MEETING HALLS" listed under Group Number 951 of the Standard Industrial Classification for Japan. The sector includes the activities of non-profit private entities providing free services or services of no-economic significance to households.

(Given examples)

Religious groups, labor groups, academic groups, cultural groups, political groups, bachelor groups, "igo" federation, prefecture citizens halls, culture halls

(Notes)

Excludes the scope of the sectors individually established as non-profit private service producers for households (*)

66 Business services

Column Code	Row Code	Sector Name
6611-01		Goods rental and leasing (except car rental)
	6611-011	Industrial equipment and machinery rental and leasing (except construction machinery)
	6611-012	Construction machine rental and leasing
	6611-013	Electronic computing equipment rental and leasing
	6611-014	Office machines rental and leasing (except electronic computing equipment)
	6611-015	Sports goods, recreation goods and miscellaneous goods rental and leasing

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The scope corresponds to the activities of "GENERAL GOODS RENTAL AND LEASING" listed under Group Number 701, "INDUSTRIAL EQUIPMENT AND MACHINERY RENTAL" listed under Group Number 702, "OFFICE MACHINERY RENTAL" listed under Group Number 703, "SPORTS AND HOBBY GOODS RENTAL" listed under Group Number 705, and "MISCELLANEOUS GOODS RENTAL AND LEASING" listed under Group Number 709 of the Standard Industrial Classification for Japan.

(Given examples)

Industrial equipment and machinery rental and leasing (except construction machinery) : renting and leasing of agricultural machinery equipment, communication machinery and equipment, telephone exchange equipment, medical equipment and machines, mining machinery, metal manufacturing machines, metal processing machines, plastic molding and processing machinery, generators, measuring instruments and equipment, automatic vending machines (coin operated), showcases, cargo transporting machinery and facilities, containers, pallets, bowling machines and facilities

Construction machine rental and leasing : renting and leasing of construction machinery and equipment, civil engineering machinery and equipment, power shovels, construction cranes

Electronic computing equipment rental and leasing : renting and leasing of electronic computers, computer-related equipment

Office machines rental and leasing (except electronic computing equipment) : renting and leasing of office machines and equipment, electronic copying machines, cash registers, filing system-related equipment

Sports goods, recreation goods and miscellaneous goods rental and leasing : renting and leasing of sporting goods, skiing goods, skating goods, bicycles, athletic meeting gear, tents, yachts, motor boats, cine-film related equipment and tools, theater play related tools and devices, cine-film projectors, cine-films, costumes and apparels, videotapes, books, musical instruments, art goods, bed clothing, live plant, flower wreaths, medical welfare equipment

(Notes)

Activities of "GENERAL GOODS RENTAL AND LEASING" listed under Group Number 701 of the Standard Industrial Classification for Japan are separately included in the activities of corresponding renting and leasing business by goods.

The renting of welfare equipment in nurse insurance are outputted from this sector via "6441-02 Nursing care (except facility services)"

Column Code	Row Code	Sector Name
6612-01	6612-011	Car rental and leasing

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The scope corresponds to the activities of "AUTOMOBILE RENTAL" listed under Group Number 704 of the Standard Industrial Classification for Japan.

(Given examples)

Rent-a-car business, automobile leasing business

Column Code	Row Code	Sector Name
6621-01		Advertising services
	6621-011	Television and radio advertising services
	6621-012	Newspaper, magazine and miscellaneous advertising services

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The scope corresponds to the activities of "ADVERTISING" listed under Group Number 731 of the Standard Industrial Classification for Japan.

Further, advertising activities conducted by other industrial sectors (private broadcasting, newspapers and magazines) providing advertising media are included in this sector.

(Given examples)

Newspaper, magazine and miscellaneous advertising services: newspaper advertisement, magazine advertisement, direct mailing advertisement, outdoor advertisement, traffic advertisement, insertion advertisement

Column Code	Row Code	Sector Name
6631-10	6631-101	Motor vehicle maintenance services

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The scope corresponds to maintenance, repair and recycling activities of "AUTOMOBILE MAINTENANCE SERVICES" listed under Major Group Number 891 of the Standard Industrial Classification for Japan.

(Changes)

Automobile inspection activities conducted by the National Agency of Vehicle Inspection shall be included inthis sector.

(Notes)

(1) Maintenance activities of motor bicycles and motor tricycles are included in this sector.

(2) Recycling business of automobile tires shall be included in "2221-01, -011 Tires and inner tubes"

Column Code	Row Code	Sector Name
6632-10	6632-101	Repair of machine

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The activities specified in "MACHINE REPAIR SHOPS, EXCEPT ELECTRICAL MACHINERY, APPARATUS, APPLIANCES AND SUPPLIES" listed under Group Number 901 exclusive of aircraft maintenance conducted at airports, etc. and the activities specified in "ELECTRICAL MACHINERY, APPARATUS, APPLIANCES AND SUPPLIES REPAIR SHOP" listed under Group Number 902 of the Standard Industrial Classification for Japan.

(Given examples)

General machine repairs, construction machinery and mining machine repairs, electric machine repairs, industrial transportation vehicle repairs, optical equipment repairs

(Notes)

The activities of aircraft maintenance conducted at airports, etc. are included in "3592-10, -101 Repair of aircrafts."

Column Code	Row Code	Sector Name
6699-01	6699-011	Judicial, financial and accounting services

(Ministry or agency in charge)

Ministry of Finance

(Definition, Scope)

The scope corresponds to the activities of "LAWYERS' AND PATENT ATTORNEYS' OFFICES" listed under Group Number 721, "Notaries public's and judicial scriveners' offices' offices listed under Industry Number 7221, and "CERTIFIED PUBLIC ACCOUNTANTS' AND AUDITORS' OFFICES" listed under Group Number 724 of the Group Number of the Standard Industrial Classification for Japan.

(Given examples)

Legal offices, patent attorney offices, notary public, judicial scrivener office, public certified accountant office, tax consultant office

Column Code	Row Code	Sector Name
6699-02	6699-021	Civil engineering and construction services

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The scope corresponds to the activities of "ENGINEERING AND ARCHITECTURAL SERVICES" listed under Group Number 742 of the Standard Industrial Classification for Japan.

(Given examples)

Engineering supervisory services, architectural design and engineering services, architectural consultant, land measurement services, geological survey services

Column Code	Row Code	Sector Name
6699-03	6699-031	Worker dispatching services

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "WORKER DISPATCHING SERVICES" listed under Group Number 912 of the Standard Industrial Classification for Japan.

(Notes)

No provision of worker dispatch is possible for the following services.

(1) Port transport services

(2) Construction works

(3) Security services

(4) Medical related services at hospitals (partially excepted)

Since administrative and ancillary economic activities at headquarters, etc. are included in each sector and counted in Input-Output Tables, even in sectors that are closely related to (1) to (4) above, worker dispatching services may be input in work such as clerical work, etc.

Column Code	Row Code	Sector Name
6699-04	6699-041	Building maintenance services

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "BUILDING MAINTENANCE SERVICES" listed under Group Number 922 of the Standard Industrial Classification for Japan.

(Given examples)

Building service business, building maintenance service, floor polishing service, window glass cleaning service, chimney cleaning service, sterilizer service, housing disinfect service, building cleaning service, building drinking water management services, building cleaning services, building drain cleaning services

(Notes)

Sterilizer services for railways and vessels are included in this sector

Column Code	Row Code	Sector Name
6699-05	6699-051	Guard services

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The scope corresponds to the activities of "GUARD SERVICES" listed under Group Number 923 of the Standard Industrial Classification for Japan.

(Given examples)

Guarding of facilities: Guard services for facilities, patrol guard services, security guard services, guard services for airport security, machine guard services

Guarding of crowds: Guard services for traffic guidance, guard services for crowds

Guarding of transport: Guard services for transport of valuables, guard services for transport of hazardous materials such as nuclear fuel

Personal guard services

Column Code	Row Code	Sector Name
6699-09	6699-099	Miscellaneous business services

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The activities of “Land and house surveyors’ offices” listed under Industry Number 7222, “ADMINISTRATIVE SCRIVENERS’ OFFICES” listed under Group Number 723, “CERTIFIED SOCIAL INSURANCE AND LABOR CONSULTANTS’ OFFICES” listed under Group Number 725, “DESIGN SERVICES” listed under Group Number 726, “Business consultants” listed under Industry Number 7281, “MISCELLANEOUS PROFESSIONAL SERVICES” listed under Group Number 729, “MECHANICAL DESIGN SERVICES” listed under Group Number 743, “COMMODITY INSPECTION AND NON-DESTRUCTIVE TESTING SERVICES” listed under Group Number 744, “SURVEYOR CERTIFICATION” listed under Group Number 745, “MISCELLANEOUS TECHNICAL SERVICES” listed under Group Number 749, “EMPLOYMENT SERVICES” listed under Group Number 911, “STENOGRAPHIC, ENTR?E DOCUMENT AND COPY SERVICES” listed under Group Number 921, “BUSINESS SERVICES,N.E.C.” listed under Group Number 929 of the Standard Industrial Classification for Japan, patent special accounts, National Center for University Entrance Examinations, and activities exclusive of the resource storage business conducted by the Japan Oil, Gas and Metals National Corporation.

(Given examples)

Stenographer, address writer, copying service, micro-filming service, commodity inspection service, silk inspection office, mass measurement certifying services, environmental measurement services, metal and mineral analysis services, private job introduction services, display related services, industrial facility cleaning services, non-destructive inspection services, plant engineering services, party entertaining services, tow truck services, LPG filling services, hot spring water supply services, designing services, management consultancy services, machine engineering services, administrative scriveners, real estate assessment services, land and building surveyors, presides, interpreters, detective agencies, credit survey agencies

(Notes)

The resource storage business conducted by the Japan Oil, Gas and Metals National Corporation is included in “5111-01, -011 Wholesale trade.”

67 Personal services

Column Code	Row Code	Sector Name
6711-01	6711-011	Hotels

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the lodging activities except for company dormitories and student dormitories among those of "HOTELS" listed under Group Number 751, "COMMON LODGING HOUSES" listed under Group Number 752, "BOARDING HOUSES" listed under Group Number 753, and "MISCELLANEOUS LODGING PLACES" listed under Group Number 759 of the Standard Industrial Classification for Japan.

(Given examples)

Hotels, inns, national lodging facilities, motels, common lodging facilities, bed houses, mountain cottages, boarding houses, membership lodging facilities, mutual aid operated lodging facilities, recreational lodging houses, youth-hostels, resort club,common lodging houses

(Changes)

"Resort clubs" specified in Industry Number 7592 of the Standard Industrial Classification for Japan are included in this sector.

(Notes)

(1) Souvenir shops located in inns and hotels are not included in this sector, but included in "5112-01, -011 Retail trade"

(2) Company dormitories, bachelor's housings and student dormitories among the sector of "Lodging places,n.e.c." under 7599 of the Industry Number of the Standard Industrial Classification for Japan shall be included in "5531-01, -011 House rent (imputed house rent)"

(3) Eating and drinking services that are included in accommodations services and provided are included in this sector.

Column Code	Row Code	Sector Name
6721-01	6721-011	Eating and drinking services

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "EATING AND DRINKING PLACES" listed under Major Group Number 76 (excluding "ESTABLISHMENTS ENGAGED IN ADMINISTRATIVE OR ANCILLARY ECONOMIC ACTIVITIES (EATING AND DRINKING PLACES)" listed under Group Number 760) and "FOOD TAKE OUT AND DELIVERY SERVICES" listed under Major Group Number 77 (excluding "ESTABLISHMENTS ENGAGED IN ADMINISTRATIVE OR ANCILLARY ECONOMIC ACTIVITIES (FOOD TAKE OUT AND DELIVERY SERVICES)" listed under Group Number 770) of the Standard Industrial Classification for Japan.

(Given examples)

Cafeterias, restaurant, specialty restaurants, Japanese noodle ("Soba" and "Udon") restaurants, Sushi bars, drinking bars, beer halls, bars, cabaret, night clubs, Coffee shops,hamburger shop, food take out, food delivery services

(Changes)

Food take out and delivery services that were included in "6112-01, -11 Retail trade" in the 2005 I-O Tables fall within the scope of this sector.

Column Code	Row Code	Sector Name
6731-01	6731-011	Cleaning

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "LAUNDRIES" listed under Group Number 781of the Standard Industrial Classification for Japan.

(Given examples)

Laundries, Cleaning services, laundry services, cleaning factories, intermediate for laundry services, intermediate for cleaning services, linen-supply services, rental diaper services, rental towel services, rental floorcloth services, rental mop services

Column Code	Row Code	Sector Name
6731-02	6731-021	Barber shops

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "BARBERSHOPS" listed under Group Number 822 of the Standard Industrial Classification for Japan.

(Given examples)

Barber shops

Column Code	Row Code	Sector Name
6731-03	6731-031	Beauty shops

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "HAIR-DRESSING AND BEAUTY SALON" listed under Group Number 783 of the Standard Industrial Classification for Japan.

(Given examples)

Beauty parlors, beauty salon

Column Code	Row Code	Sector Name
6731-04	6731-041	Public baths

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "PUBLIC BATH-HOUSES" listed under Group Number 784 and "MISCELLA-NEOUS PUBLIC BATHHOUSES" listed under Group Number 785 of the Standard Industrial Classification for Japan.

(Given examples)

Public baths, hot-spring baths, steam baths, sand baths, saunas, spas, mineral spring baths, health spas, deluxe public baths

(Changes)

Massage brothels, which were included in this sector in the 2005 I-O Tables, are integrated into "6731-09, -099 Miscella-neous cleaning, barber shops, beauty shops and public baths."

(Notes)

Health centers shall be included in "6741-09, -099 Miscella-neous amusement and recreation services"

Column Code	Row Code	Sector Name
6731-09	6731-099	Miscellaneous cleaning, barber shops, beauty shops and public baths

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "MISCELLANE-OUS LAUNDRY,BEAUTY AND BATH SERVICES" listed under Group Number 789 of the Standard Industrial Classifica-tion for Japan.

(Given examples)

Fulling plants, dyeing plants, aesthetic salons, coin-operated showers, laundromats, nail salons, massage brothel

(Changes)

Massage brothels, which were included in "8614-04, -041 Public baths" in the 2005 I-O Tables, are integrated into this sector.

Column Code	Row Code	Sector Name
6741-01	6741-011	Movie theaters

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "CINEMAS" listed under Group Number 801 of the Standard Industrial Classification for Japan.

(Given examples)

Movie halls, movie theaters, outdoor movie theaters, movie theater rental and leasing services, mini theater, video theater

Column Code	Row Code	Sector Name
6741-02	6741-021	Performances (except movie theaters), theatrical comranies

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "PERFOMANCES (EXCEPT OTHERWISE CLAASIFIED), THEATRICAL COMRANIES" listed under Group Number 802 of the Standard Industrial Classification for Japan. Such activities as following are included in the scope: entertainment providers of plays, artistic shows, music, public shows, and entertaining sports performed by themselves or on contract.

(Given examples)

Theaters, orchestra attached to theaters, musical performer groups, musical dancing team groups, comical theaters, "sumo" rings, boxing rings, ballparks (for professional baseball games), theater play performer group, arts production business, music performer group, professional baseball players group, professional wrestling performer group

Column Code	Row Code	Sector Name
6741-03	6741-031	Stadiums and companies of bicycle, horse, motorcar and motorboat races

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "BYCYCLE,HORSE,MOTORCAR AND MOTORBOAT RACE TRACK OPERATIONS AND COMPANIES" listed under Group Number 803 of the Standard Industrial Classification for Japan.

(Given examples)

Bicycle racing truck, horse racing ground, motorboat racing sea, small-sized car racing track, bicycle racing establishment, horse racing establishment

Column Code	Row Code	Sector Name
6741-04	6741-041	Sport facility service, public gardens and amusement parks

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "SPORTS FACILITIES" listed under Group Number 804, and "PUBLIC GARDENS AND AMUSEMENT PARKS" listed under Group Number 805 of the Standard Industrial Classification for Japan.

(Given examples)

Sports facility provider services (not elsewhere classified), gymnasium, golf links, golf practice ranges, bowling alleys, tennis ground, batting and tennis practice ranges, swimming pools, ice-skating arena, parks, amusement parks

(Changes)

Fitness clubs, which were included in "8619-04, -041 Supplementary tutorial schools, instruction services for arts, culture and technical skills" in the 2005 I-O Tables, are integrated into this sector.

Column Code	Row Code	Sector Name
6741-05	6741-051	Amusement and recreation facilities

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "AMUSEMENT AND RECREATION FACILITIES" listed under Group Number 806 of the Standard Industrial Classification for Japan. This sector includes activities that offer amusement to the public.

(Given examples)

Pool, "igo" and "shogi" halls, mahjong halls, "pachinko" halls, game centers, slot machine game halls, bingo-game hallstoy-gun shooting halls

Column Code	Row Code	Sector Name
6741-09	6741-099	Miscellaneous amusement and recreation services

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "MISCELLANEOUS AMUSEMENT AND RECREATION SERVICES" listed under Group Number 809, and "AUTHORS AND ARTISTS" listed under Group Number 727 of the Standard Industrial Classification for Japan. Activities of associated amusement-related services that are not elsewhere classified such as play guide, and of creation of artistic literature are included in this sector.

(Given examples)

Dancing halls, marine service provider, playing fish boat service provider, dancing entertainer provider, play guide, horse racing ticket counter (off-site), bicycle racing ticket counter (off-site), fishing pond services, writers, artists

Column Code	Row Code	Sector Name
6799-01	6799-011	Photographic studios

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "PHOTOGRAPHIC STUDIOS" listed under Group Number 746 of the Standard Industrial Classification for Japan.

This sector covers the photographic activities with the other industry sectors activities such as Advertising services and Publication.

(Given examples)

Photographic services, photographic studios, commercial photographic services

Column Code	Row Code	Sector Name
6799-02	6799-021	Ceremonial occasions

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "CREMATORIES

AND GRAVEYARD CUSTODIANS" listed under Group Number 795 and "CEREMONIAL OCCASIONS" listed under Group Number 796 of the Standard Industrial Classification for Japan.

(Given examples)

Funeral service providers, funeral ceremonial halls, graveyard custodians, mutual aid ceremonial cervices, wedding halls

(Notes)

The activities to carry the dead by hearse is included in "5722-01, -011 Road freight transport (except selftransport)"

Column Code	Row Code	Sector Name
6799-03	6799-031	Supplementary tutorial schools, instruction services for arts, culture and technical skills

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "SUPPLEMENTARY TUTORIAL SCHOOLS" listed under Group Number 823 and "INSTRUCTION SERVICES FOR ARTS,CULTURE AND TECHNICALS" listed under Group Number 824 of the Standard Industrial Classification for Japan.

(Given examples)

Preparatory learning classes (not categorized as schools), music class, calligraphy class, flower arrangement and tea ceremony classes, abacus practicing class, foreign language conversation classes, sports and health classes, fitness clubs, other instructional services for arts, culture and technical skills

(Changes)

Fitness clubs, which were included in this sector in the 2005 I-O Tables, are integrated into "6741-04, -041 Sport facility service, public gardens and amusement parks."

Column Code	Row Code	Sector Name
6799-04	6799-041	Miscellaneous repairs, n.e.c.

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "PAPER HANGERS" listed under Group Number 903 and "MISCELLANEOUS REPAIR SERVICES" listed under Group Number 900 of the Standard Industrial Classification for Japan.

The activities are primarily intended for final demands, and furniture refurbishing and blacksmith services are included.

(Given examples)

Paper refurbishing for wooden furniture, furniture repair services, clock and watch repair services, footwear repairing service, blacksmith services, musical instruments repair services, bicycle repair services

(Notes)

(1) Industrial repairs such as machinery repairs, ship repairs, railway cart repairs, and aircraft repairs shall be included in the corresponding industry sector.

(2) The item of "bicycle tire repairs" shall be included in "6631-10, -101 Motor vehicle maintenance services"

(3) Clothes repairs shall be included in "6799-09, -099 Miscellaneous personal services"

Column Code	Row Code	Sector Name
6799-09	6799-099	Miscellaneous personal services

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "GARDENING SERVICES" listed under Group Number 014, "DOMESTIC SERVICES" listed under Group Number 792, "GARMENT SEWING SERVICES AND REPAIRS" listed under Group Number 793, "CHECKROOMS,SAFETY DEPOSIT SERVICES" listed under Group Number 794, and "LIVING-RELATED AND PERSONAL SERVICES,N.E.C." listed under Group Number 799 of the Standard Industrial Classification for Japan.

(Given examples)

Professional landscaping services, garden plants maintenance services, housemaids, clothes mending services, luggage deposit service, bicycle deposit service, contract food processing service, used cotton recycling services, marriage consultancy service, photographic development and printing services, tourist guide service (guide), Lottery ticket sales

68 Office supplies

Column Code	Row Code	Sector Name
6811-00P	6811-000P	Office supplies

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The number of articles are so many that fall in the category of office supplies. Their composition will not necessarily change drastically according to production activities, and therefore, these items are collectively included in this sector as a dummy sector from analysis viewpoints.

The scope of office supplies sector corresponds to those supplies that individual industry will input as office supplies generally and commonly, and that are included in “Stationery, paper products, stationery and photographic supplies” under 93 of the Major Group Number of the Standard Commodity Classification for Japan excluding parts and components.

Further, electronic desktop calculators (except programmable type), printing papers and scissors are not included in Commodity Classification Number 93, but shall be included in this sector.

(Given examples)

Paper filing threads, copying papers, sequential slip notebooks, hardboard papers, carbon copy papers, accounting notebooks, accounting slips, envelops, spread sheets, filing supplies, photo films, photo printing papers, office starch, tapes, strings, erasers, chalks, scissors, electronic desktop calculators, writing tools, stamp pads, seal stamp pad, staplers, hole punchers, paper clips, semiconductor memory media

69 Activities not elsewhere classified

Column Code	Row Code	Sector Name
6911-00	6911-000	Activities not elsewhere classified

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The scope corresponds to the production activities of goods and services that are not elsewhere classified.

Further, this sector serves the purpose of booking accumulated errors in estimation of columns and rows sectors.

(Notes)

For residual errors in counting the row and column sectors, both the residual error of endogenous sectors and residual error of exogenous sectors are included. In Input-Output Tables of Japan, this sector is oriented as an endogenous sector, and disagreement between the row total and column total of this sector, or in other words, the final overall error is balanced at the point of intersection of “9211-000 Operating surplus” and “6911-00 Activities not elsewhere classified,” and also plays the role of adjusting dual equivalence of national income.

§2 Final Demand Sectors

Column Code	Row Code	Sector Name
7111-00		Consumption expenditure outside households (column)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to so-called “enterprise expenditures” that are similar to consumption expenditures of household including expense account and entertainment expenses that are paid by companies or other entities.

For details, refer to the explanation given in row sectors 7110-001 through 7110-003 of Gross Value Added Sector.

(Notes)

This sector indicates the contents of goods and services relating to expenditures of the sectors “7111-001 Lodging expenses and daily allowances”, “7111-002 Social expenses” and “7111-003 Welfare expenses”.

Column Code	Row Code	Sector Name
7211-00		Consumption expenditure of households

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

(1) The expenditure represents the amount of expenditure for household goods and services, deducted by the amount of sales of similar kinds (used articles and scrap), then added by net increase of gifts-in-kind received from overseas, and further added by residents’ expenditure in overseas. The consumption expenditures referred to herein represent all expenditures except for those spent on land, house building and construction buildings. The whole of purchase amount of goods including the amount of unused goods be recorded consumption expenditures.

(2) There are two concepts about consumption expenditures for household in national accounts calculation; one is “residents’ household and non-residents’ household consumption in domestic market” (DOMESTIC concept); and the other is “consumption of residents’ household both in domestic market and in overseas” (NATION concept.) In the I-O Tables, this sector is expressed in “NATION concept”. And residents’ household consumption in overseas and non-residents’ household consumption in domestic market are shown in a separate column of “9412-00 (less) Imports (direct purchase)” and “9212-00 Exports (direct purchase)” respectively. This way of presentation has the following benefits.

1 Both concepts regarding household consumption make available in the national accounting.

2 The I-O Tables as a whole can be convertible to “DOMSTIC concept” basis. Further, refer to “8412-00 (less) Imports (direct purchase)”and “8012-00 Exports (direct purchase)” for the conversion.

(3) Overseas gifts-in-kind (gifts that an individual receives from overseas) and overseas consumption expenditure (residents’ consumption of goods and services in overseas) shall once be recorded in import columns, and then transferred to demand side column, consumption expenditure of household.

(4) Transactions of used goods are divided in a transaction within the household sector, and a transaction between sectors such as capital formation or government service producers.

In former case, trade amount of used goods is cancelled out, and only related trade margin and freight cost are recorded. In latter case, however, trade amount from a household is recorded as negative consumption expenditure of household. On the contrary, purchase amount of used goods that a household purchases from other sector shall be recognized as consumption expenditure of the household sector, and the same shall be recognized of its sales amount as negative expenditure of the selling sector.

(5) For medical services and care services, the amount shared by a household shall be recorded.

(6) Benefit-in-kind (commuting allowance) shall be included in consumption expenditure of households. Therefore, served meals arranged by enterprises and the Self Defense Force shall be treated as consumption directly by household. Further, served meals by jails shall be treated as government consumption of materials for food and beverage, and are not included in consumption expenditure of household.

(7) For foods and beverages provided by restaurants, hotels, amusement centers, and hospitals, materials of food and beverage are not consumed by household directly, but are recorded as expenses of industries of their entirety, and then become consumption expenditures of household via industry output.

(8) Repair and maintenance costs incurred in households

relating to housings shall be purchased by households via housing lease.

For repairs which the nursing insurance is applied, the amount shared by a household shall be recorded.

(Changes)

As FISIM (Financial Intermediation Services Indirectly Measured) was introduced in the "Financial service" sector in the 2011 I-O Tables, FISIM purchased by households is counted.

Column Code	Row Code	Sector Name
7212-00		Consumption expenditure of private nonprofit institutions serving households

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The expenditure represents costs that were borne by private non-profit entities among those that relate to goods and services supplied at price of no-economic significance. Namely, it equals to the amount of difference between the production value (appraised in necessary cost for production activities) of supplied services and the sales amount of the same at price of no-economic significance. Therefore, it is the production value generated by private non-profit service producers less output to other sectors.

Column Code	Row Code	Sector Name
7311-01		Collective consumption expenditure of central government

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The expenditure represents costs that were borne by the central government themselves that relate to collective services provided (diplomatic and national defense services) at price of no-economic significance. Namely, it equals to the amount of difference between the production value (appraised in necessary cost for production activities of collective services) of collective services provided by government service producers that are classified as the central government, and the sales amount of the same at price of no-economic significance. Therefore, it equals to self-consumed value of collective services by the central government.

Column Code	Row Code	Sector Name
7311-02		Collective consumption expenditure of local government

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The expenditure represents costs that were borne by local governments themselves that relate to collective services provided (services provided for overall society such as diet, and police) at price of no-economic significance. Namely, it equals to the amount of difference between the production value (appraised in necessary cost for production activities of collective services) of collective services provided by local government service producers that are classified as the local government, and the sales amount of the same at price of no-economic significance. Therefore, it equals to self-consumed value of collective services by the local government.

Column Code	Row Code	Sector Name
7311-03		Individual consumption expenditure of central government

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The expenditure represents costs that were borne by the central government themselves that relate to individual goods and services provided (goods and services provided for an individual such as education, health and hygiene) at price of no-economic significance. Namely, it equals to the amount of difference between the production value (appraised in necessary cost for production activities of individual services) of individual services provided by the central government service producers that are classified as the central government, and the sales amount of the same at price of no-economic significance (self-consumed value of individual services by the central government) plus benefits-in-kind of school textbooks for households and insurance benefits for medical and nursing care services for households.

(Notes)

Benefits of nursing care insurance shall be recorded in this sector.

Column Code	Row Code	Sector Name
7311-04		Individual consumption expenditure of local government

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The expenditure represents costs that were borne by local governments themselves that relate to individual goods and services provided (goods and services provided for an individual such as education, health and hygiene) at price of no-economic significance. Namely, it equals to the amount of difference between the production value (appraised in necessary cost for production activities of individual services) of individual services provided by local government service producers that are classified as the local government, and the sales amount of the same at price of no-economic significance (self-consumed value of individual services by the local government.)

(Notes)

Special municipal benefits of nursing care insurance shall be recorded in this sector

Column Code	Row Code	Sector Name
7321-01		Collective consumption expenditure of central government (social fixed capital depreciation)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to depreciated fixed capital relating to collective services provided by the central government at no-economic significance (the scope of "7311-01 Collective consumption expenditure of central government").

The scope of fixed capital subject to "collective consumption expenditure of central government (social fixed capital depreciation)" are as follows: "roads, ports, aeronautics, sewerage, waste treatment, urban parks, natural parks, river improvement, agriculture (irrigation facility), forestry (forest path), fisheries"

(Changes)

Market valuation is introduced.

Column Code	Row Code	Sector Name
7321-02		Collective consumption expenditure of local government (social fixed capital depreciation)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to depreciated fixed capital relating to collective services provided by the local government at no-economic significance (the scope of "7311-02 Collective consumption expenditure of local government").

The scope of fixed capital subject to "collective consumption expenditure of local government (social fixed capital depreciation)" that is newly added are as follows: "roads, ports, aeronautics, sewerage, waste treatment, urban parks, natural parks, river improvement, agriculture (irrigation facility), forestry (forest path), fisheries"

(Changes)

Market valuation is introduced.

Column Code	Row Code	Sector Name
7321-03		Individual consumption expenditure of central government (social fixed capital depreciation)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to depreciated fixed capital relating to individual goods and services provided by the central government at no-economic significance (the scope of "7311-03 Individual consumption expenditure of central government").

(Changes)

Market valuation is introduced.

Column Code	Row Code	Sector Name
7321-04		Individual consumption expenditure of local government (social fixed capital depreciation)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to depreciated fixed capital relating to individual goods and services provided by the local

government at no-economic significance (the scope of "7311-04 Individual consumption expenditure of local government".

(Changes)

Market valuation is introduced.

Column Code	Row Code	Sector Name
7411-00		Gross domestic fixed capital formation (public)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

(1) The sector comprises of domestic acquisition of fixed assets (purchase and transfer of fixed assets) such as buildings, machines, and devices by government service producers and public enterprises including direct expenses needed for the acquisition such as cost of capital objects, installation cost, freight margin, trade-in margin of used assets and so forth.

The scope is limited to assets that are produced through manufacturing process. Therefore, non-produced assets such as patent rights and goodwill are not included in the scope. Land is non-produced asset and is, therefore, not included in fixed asset formation. However, land preparation and improvement work costs excluding land purchase price are recorded in this sector.

(2) The scope of fixed assets stipulated are the ones of more than ¥100,000 in value on unit purchase price basis with life of more than one year. In case, however, that an article of less than ¥100,000 were purchased in a package at business inauguration or for expanding activities, such assets may be recorded as capital formation. Later supplemental purchase of those shall not be treated as capital formation but as regular transaction.

(3) Regular maintenance and repair works are not categorized as capital formation. However, incidental large-scale repair and improvement works by that the asset life is extended shall primarily be recorded as capital formation. Rails of railways and tramways, power transmission and distribution facilities, signaling facilities, telecommunication cables, and replacement work of power transmission and distribution facilities shall be recorded as capital formation.

(4) Assets requiring long production period (long-term products) shall be recorded as inventory until the users obtain their titles. Regarding self-accounts (capital production of self-use), progressed portion of works, even if they are works-in-process, shall be recorded as capital formation because the user owns the works. Construction-in-process is, however, recorded as capital formation for the progressed portion even if the titles are not yet transferred.

Livestock for working, breeding, milking, racing and wool-fabricating that provide capital services shall be recorded in capital formation according to their degree of growth. However, the portion of degree of growth shall be recorded as inventory when the livestock are specifically grown by producers for sale. Plants such as fruit trees, mulberry, and tea trees that provide capital services are recorded in self-accounts, booking the portion of degree of growth as capital formation.

(5) Regarding capital formation either by direct booking or by indirect booking through constructions for goods attached to constructions and vessels (hereinafter called "constructions"), the goods that payment thereof are made by contractors and the cost thereof are included in their production value shall be indirectly booked as capital formation via constructions. If payment mode is unclear, goods that can function by themselves shall be treated as capital formation. Goods that cannot function without being combined with constructions shall be treated as indirect capital formation via constructions.

(6) Expenditure needed for acquiring fixed assets primarily for military use shall not be recorded in gross fixed assets capital formation, but recorded in "6111-01 Public administration (central) **" as an intermediate expenditure. However, such fixed assets (buildings and office equipment of airport, dock, roads, and hospitals) that can be acquired by private sector users for production purpose , that types of usage thereof by military are same as those by private sectors, and that can be identifiable from military usage shall be recorded as gross fixed capital formation.

Column Code	Row Code	Sector Name
7511-00		Gross domestic fixed capital formation (private)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the domestic acquisition of fixed assets (purchase and transfer of fixed assets) such as buildings,

machinery and devices. The scope of “Gross domestic fixed capital formation (private)” is same as that of “7411-00 Gross domestic fixed capital formation (public)”. Main bodies to exercise capital formation are industries (excluding public enterprises), non-profit private service producers for households and households. Further, only capital formation that households exercise are acquisition of housing buildings and construction buildings as well as site preparation and improvement work on lands.

Column Code	Row Code	Sector Name
7611-01		Increase in producer's stocks of finished goods

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The sector shows volume increases or decreases of product inventory by producers defined as products before sold or shipped (excluding construction buildings) that are appraised by annually averaged market prices.

(Notes)

(1) One-time productions of plants and animals with over one year production period such as livestock grown for butchery and growing trees for timbers are included in “7611-02 Increase in semi-finished goods and work-in-progress” for the portion of degree of growth.

(2) Includes stock that was lost due to the Great East Japan Earthquake. The loss amount is counted under certain conditions.

Column Code	Row Code	Sector Name
7611-02		Increase in semifinished goods and workinprogress

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The sector shows volume increases or decreases of semi-finished products or products of work-in-progress that are appraised by assumed annual averaged market prices.

Such products are defined as products that are partially processed, assembled, or on growing by goods production industries, and that are unable to be sold, shipped or delivered to other businesses without additional processing (excluding self-accounts and construction work-in-progress.)

(Notes)

(1) The grown portion of one-time productions of plants and animals with over one year production period such as livestock grown for butchery and growing trees for timbers shall be included in this sector. Also increase of the goods that are owned by professional producers that grow and deliver goods not for their own use even if classified as fixed capital formation shall be included in this sector.

(2) Includes stock that was lost due to the Great East Japan Earthquake. The loss amount is counted under certain conditions.

Column Code	Row Code	Sector Name
7611-03		Increase in dealer’s stocks of goods

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

This represents goods acquired by producers that are classified as wholesalers or retailers and their volume increases or decreases appraised by annual average market price.

(Notes)

(1) Other business sectors than those classified as wholesalers or retailers are not outputting to this sector. However, the national petroleum reserve by Japan Oil, Gas and Metals National Corporation shall be exceptionally treated as dealer inventories.

(2) Includes stock that was lost due to the Great East Japan Earthquake. The loss amount is counted under certain conditions.

Column Code	Row Code	Sector Name
7611-04		Increase in stocks of raw materials and supplies

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

This represents volume increases or decreases of raw materials appraised by annual average market prices. Row materials are referred to one of the followings.

(1) All of raw materials, resources, parts and components and/or stocks that are acquired for processing, manufacturing, assembling or repairing of commodity goods, or for construction works

(2) Coals, petroleum and other fuels that are purchased for

consumption

(3) Fertilizers, agricultural chemicals, seeds, feeds and similar kinds for agricultural producers

(4) Non-endurable containers, packing materials at packaging plants, stationery and other stocks that are purchased

(5) Others

(Notes)

(1) Production volume of government service producers shall be estimated by aggregating expenses needed for these activities. Intermediate input expenditures, however, are recorded in such that new purchases of goods and services in current accounts deducting net sales amount of used goods and scrap of same kinds as intermediate consumption for production volume estimation. The output goes to consumption expenditures either by the central government or local governments after deducting sales amount to other sectors (tuition fees of public schools, for example.)

Therefore, the calculated amount that are considered as materials inventory of government service producers in terms of industry comparison are actually recorded in the consumption expenditure of central government and in the consumption expenditure of local governments. They are not included in the increase in stocks of raw materials and supplies.

(2) Non-profit service producers for households are also treated in the similar manner as government service producers are.

(3) Includes stock that was lost due to the Great East Japan Earthquake. The loss amount is counted under certain conditions.

Column Code	Row Code	Sector Name
7711-00		Balancing sector

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

Consumption tax related to domestic distribution of exported goods via exporters is calculated. Although consumption tax is exempt for exported goods, consumption tax is levied in the distribution process of exported goods domestically (distribution process from production region to exporting port). As a result, the mechanism is one where exporters receive a refund of the consumption tax levied in the domestic distribution process of exported goods. In Input-Output Tables, domestic production of goods is counted by including such refunds, but exports are counted based on deducting refunds. Thus, refunds are counted in this sector in order to ensure a balance between domestic production in row sectors and their breakdowns.

(Changes)

Although the contents are related to exported goods, since this is solely a sector where amounts generated in the domestic distribution process are counted, the orientation was changed such that this category is removed from “Exports total” and oriented as a sector of “domestic demand.”

Column Code	Row Code	Sector Name
8011-01		Exports (ordinary trade)

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The sector is stipulated and defined as “transactions of goods between residents and non-residents” and the scope corresponds to the goods recorded in the trade statistics compiled by the Ministry of Finance.

However, from the perspective of counting net exports (exports of goods produced in Japan in the corresponding year), re-exported goods (goods that are exported after being imported, without being demanded domestically; in other words, goods that are not domestic products) and exports that are presumed to be re-imported (actual state does not differ from a domestic product being demanded domestically) are deducted. With regard to calligraphic works, antiques, used tires, used automobiles, etc., only the margin equivalent is counted.

Further, the followings are outside of export statistics and not able to be captured as data. Therefore, the followings are excluded from the scope.

(1) Small cargo (less than ¥200,000 in value per cargo)

(2) Samples and gifts

(3) Cargoes relating to military forces stationed and U.N. military force

(4) Exhibition goods for expositions and trade fairs

(5) Cargoes treated as special statistics items

Appraisal of “export (ordinary trade)” is made on FOB (Free-on-board) price basis.

(Given examples)

Articles handled in trade statistics (partially excepted)

(Notes)

In trade statistics, exports are valuated using a FOB price basis, and this basis is also used for this sector. However, FOB

prices include the trade margins and domestic freights that were used in the span from the production factory to actual vessel within the monetary amount of a good, and are considered as being equivalent to purchasers' price.

As a result, when recording in producers' price valuation tables, the values from which trade margins and domestic freights were subtracted are counted for each good, in the same manner as in the said valuation tables. The trade margins and domestic freights for each good are collectively counted in the commerce and transport sectors.

Column Code	Row Code	Sector Name
8011-02		Exports (special trade)

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The scope is "transactions of services and goods not counted in ordinary trade between residents and non-residents," and the main scope consists of, from among the international balance of payments tables compiled by the Bank of Japan, the balance on services for which receipt and payment of compensation for services that are provided between residents and non-residents is recorded, less (1) the estimated scope of "exports (direct purchase)" and (2) building maintenance services, etc.

Cargo freights and freight insurance are considered as being "transport (insurance) services that are provided (exported) in a condition of trade by a Japanese business operator," regardless of whether the revenue from cargo freights (net insurance premium) received by a Japanese transport (insurance) business operator in relation to cargo freights and freight insurance is from imported goods or exported goods, or whether the paying party is a resident or non-resident. All are considered as export of cargo freights and freight insurance, and counted in this sector.

Correspondence (outline) between international balance of payments and input-output tables is as shown in the table in "8411-02 (less) Imports (special trade)."

(Given examples)

Cargo freight, passenger freight, port expenses, consumption of goods and services on business trip, international phone call, cargo insurance, agent commission, advertisement expenses, films and tapes rental fees, other service-related transactions by private sector

(Notes)

Consumption of goods and services on sightseeing trips shall be included in "8012-00 Exports (direct purchase)"

Column Code	Row Code	Sector Name
8012-00		Exports (direct purchase)

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The scope corresponds to "direct transactions of goods and services in domestic market by non-resident households."

Other final demand sectors than "7211-00 Consumption expenditure of households" are described on domestic concept. However, consumption expenditures of households are defined based on national concept. Therefore, a sector that adjusts two different concepts is needed converting it to domestic concept that I-O Tables stand on.

Should a sector be established that converts from nation consumption expenditure by households to domestic consumption expenditure by households, the total sum of final demands becomes equal to total sum of domestic expenditure. Thus, domestic concept can be maintained with I-O Tables.

The sector "Export (direct purchase)" plays such roles..

(Given examples)

Consumption by foreign persons traveling to Japan (with a purpose other than business, such as sightseeing) in Japan, individual spending by diplomatic mission members, individual spending by military personnel stationed in Japan

(Notes)

Conversion equation to convert "7211-00 Consumption expenditure of households" to domestic concept

Consumption expenditure of households（DOMSTIC concept）
＝Consumption expenditure of households（NATION concept）
＋Exports (direct purchase)－Imports (direct purchase)

Column Code	Row Code	Sector Name
8411-01		(less) Imports (ordinary trade)

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The sector is stipulated and defined as "transactions of goods between residents and non-residents" and the scope corresponds to the goods recorded on trade statistics that are compiled by the Ministry of Finance.

However, from the perspective of counting net imports (exports of goods produced in foreign countries and demanded in Japan in the corresponding year), re-imported goods (goods that are imported after being exported, without being demanded

abroad; in other words, goods that are produced in Japan) and imports that are presumed to be re-exported (import of goods that are exported without being demanded in Japan) are deducted. Calligraphic works, antiques, used tires, used automobiles, etc., are deducted.

Further, the followings are outside of ordinary trade statistics and not able to be captured as data. Therefore, the followings are excluded from the scope.

(1) Small cargo (less than ¥200,000 in value per cargo)

(2) Samples and gifts

(3) Cargoes relating to military forces stationed and U.N. military force

(4) Exhibition goods for expositions and trade fairs

(5) Cargoes treated as special trade or direct purchase

Appraisal of "(less) import (ordinary trade)" is made on CIF price basis.

(Given examples)

Articles handled in trade statistics (partially exempted)

Column Code	Row Code	Sector Name
8411-02		(less) Imports (special trade)

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The scope is "transactions of services and goods not counted in ordinary trade between residents and non-residents," and the main scope consists of, from among the international balance of payments tables compiled by the Bank of Japan, the balance on services for which receipt and payment of compensation for services that are provided between residents and non-residents is recorded, less (1) the estimated scope of "Iimports (direct purchase)" and (2) building maintenance services, etc.

Cargo freights and freight insurance are considered as being "transport (insurance) services that are provided (exported) in a condition of trade by a Japanese business operator," regardless of whether the revenue from cargo freights (net insurance premium) received by a Japanese transport (insurance) business operator in relation to cargo freights and freight insurance is from imported goods or exported goods, or whether the paying party is a resident or non-resident. All are counted in "8011-02 Exports (special trade)" as export of cargo freights and freight insurance, and counted in this sector. For example, with regard to transport of imports by a Japanese transport business operator, revenue is not counted in this sector even if it is earned (if it is counted in this sector, domestic production decreases, despite there being revenue).

Payment of charter vessel fees and charter aircraft fees to foreign transport business operators is counted in this sector, however, such payments are inputted directly to their own sectors for international shipping and international air transport, and are thus cancelled out in terms of row sectors.

Correspondence (outline) between international balance of payments and input-output tables is as shown below.

	Balance of Payments				I-O Tables	
	Cargo freight		Cargo insurance		Freight and insurance	
	Export	Import	Export	Import	Export	Import
Activities by Japanese transport (insurance) companies Relating to exports						
Paid by exporters (residents)	○		○		○	
Paid by importers (non-residents)	○		○		○	
Relating to imports Paid by exporters (residents)					○	
Paid by importers (non-residents)					○	
Multinational transport between three countries	○		○		○	
Activities by foreign transport (insurance) companies						
Relating to exports Paid by exporters (residents)						
Paid by importers (non-residents) Relating to imports						
Paid by exporters (residents)		○		○		
Paid by importers (non-residents)		○		○		

(Given examples)

Cargo freight, passenger freight, port expenses, consumption of goods and services on business trip, international phone call, cargo insurance, agent commission, advertisement expenses, films and tapes rental fees, other service-related transactions by

private sector

(Notes)

(1) Import articles in the ordinary trade in I-O Tables are appraised on CIF prices. Therefore, booking import of cargo freight and cargo insurance in special trade causes duplicated booking. As a result, cargo freights and insurance are not counted in imports (special trade) in Input-Output Tables, with the exception of some exceptions such as charter vessel fees and charger aircraft fees.

(2) Consumption of goods and services on sightseeing trips shall be included in "8412-00 (less) Imports (direct purchase)"

Column Code	Row Code	Sector Name
8412-00		(less) Imports (direct purchase)

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The scope corresponds to "direct transactions of goods and services in overseas market by resident households."

Other final demand sectors than "9121-00 Consumption expenditure of households" are described on domestic concept. However, consumption expenditures of households are defined based on national concept. Therefore, a sector that adjusts two different concepts is needed converting it to domestic concept that I-O Tables stand on.

Should a sector be established that converts from nation consumption expenditure by households to domestic consumption expenditure by households, the total sum of final demands becomes equal to total sum of domestic expenditure. Thus, domestic concept can be maintained with I-O Tables.

The sector "Import (direct purchase)" plays such roles.

(Given examples)

Local consumption by Japanese visitors to foreign countries (with a purpose other than business, such as sightseeing), individual spending by diplomatic mission members

(Notes)

Conversion equation to convert "7211-00 Consumption expenditure of households" to domestic concept

Consumption expenditure of households（DOMSTIC concept）＝Consumption expenditure of households（NATION concept）＋Exports (direct purchase)－Imports (direct purchase)

Column Code	Row Code	Sector Name
8511-00		(less) Custom duties

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

Import articles are levied of customs duties from trade policy considerations based on Customs Tariff Table. This works for squeezing price gaps between inexpensive import products and expensive domestic products by appraising import products at the same price level of domestic products.

Thus, a "Custom duties" sector was established separate from "Imports" sector, clarifying the amount related to imported goods.

Refunds that are provided in cases corresponding to certain conditions after paying taxes are included in total custom duties, due to restrictions with the basic data.

Regarding vessels that are re-imported, the transactions are recorded as cancellation of imports and therefore no customs duties are recorded.

Cine-film rental fees are also recorded as services in special trade. Therefore, they are deducted from ordinary trade and no customs duties are recorded.

Column Code	Row Code	Sector Name
8611-00		(less) Commodity taxes on imported goods

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

Imported goods are levied of consumption tax as inland tax same as the case of domestic goods, alcohol tax, tobacco tax, gasoline tax, local road tax, petroleum gas tax and petroleum gas (hereinafter called as "import commodity tax") on customs clearance in addition to customs duty.

As a part of clarifying the amount of imported goods, this sector was established as a column sector in the same manner as "8511-00 (less) Custom duties," with these taxes as the scope.

(Given examples)

Alcohol tax, tobacco tax, gasoline tax, local gasoline tax, local road tax, petroleum gas tax, petroleum tax and consumption tax on imported goods

§3 Gross Value Added Sectors

Column Code	Row Code	Sector Name
	7111-001	Lodging expenses and daily allowances
	7111-002	Social expenses
	7111-003	Welfare expenses

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

Consumption expenditure outside households is so-called "corporate consumption" and the scope corresponds to expenditures paid by corporations and other entities such as expense accounts and entertainment expenses similar to those paid by households, including welfare expenses (excluding the ones that are recorded in other gross value added sectors), expense accounts and entertainment expenses as well as trip expenses paid but excluding transport fares (primarily staying and daily allowances.)

(1) Staying and daily allowance

This corresponds to daily allowance payable to directors or employees of expenses needed for trips of business management and of sales and for trips of transfer, staying charges and preparation allowance for transfer, transfer allowance and nursing allowance.

(2) Expense accounts

The expenses refer to such expenses of entertaining, inviting, soliciting, giving fits to customers, suppliers and other business related persons or similar actions. This does not include expenses for employees.

However, expenses for year-end and year-beginning parties for directors or managers, expenses entertaining finance personnel, and party expenses after department meetings are included in expense accounts as exceptions.

(3) Welfare expenses

They consist of shared value of welfare facilities (expenses needed for facilities of welfare excluding dining facility for served foods), health, hygiene and medical service expenses (expenses needed for medical services for employees such as expenses for goods and services to maintain operations of related facilities), and recreational and sports-related expenses (expenses needed for employees' and their families' recreational activities as well as related expenses for those facilities.)

Further, personnel cost for employees that corporations directly hire to operate welfare facilities, depreciation cost thereof and indirect taxes are not included in this sector, but are included in "9111-000 through 9113-000 employers income sectors", "9311-000 Depreciation of fixed capital" and "9411-000 Indirect taxes (except custom duties and commodity taxes on imported goods)" respectively.

(Notes)

(1) Activities relating to lodging and recreational facilities that corporations provide for their employees are included in "6711-01 Hotels", and similarly activities relating to staying lodges, company housings for bachelors, and for students are included in "5531-01 House rent (imputed house rent)".

Further, costs of food materials or corporate spending that supplements expenses for outsourcing among employees' canteen expenses shall be included in employers income ("9113-000 Miscellaneous payments and allowances") as a sort of "salaries-in-kind". Therefore, employee's share as well as corporate share shall be treated in the way that "7211-00 Consumption expenditure of households" shall input individual foods materials or "Eating and drinking services".

(2) "7111-00 Consumption expenditure outside households (column)" (domestic production of column sector) matches the total of "7111-001 Lodging expenses and daily allowances," "7111-002 Social expenses," and "7111-003 Welfare expenses" (total of domestic production for row sectors).

Column Code	Row Code	Sector Name
	9111-000	Wages and salaries
	9112-000	Contribution of employers to social insurance
	9113-000	Miscellaneous payments and allowances

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

(1) Scope of employees' income

Employee's income refers to all income of cash and in kind that are paid as compensation to work to the employed by private sectors and governments domestically. The incomes referred herein are recorded on employer's payment basis, and not on employee's receipt basis. Further, salaries shall be recorded as employees' income in the specified payment period of relevant entities regardless

whether the said wages and salaries are paid on time or delayed in order to capture and recognize correctly due income for due period (accrual basis.) Furthermore, employees' income are recognized on domestic concept, and therefore, employees' income incurred domestically is the employees' income regardless whether an employee is resident or non-resident.

The scope of employees' income covers incomes (wages and salaries, social insurance premium (employer's share), and other compensation and allowances) of directors on payroll, regular workers, temporary and day-workers. Incomes of self-support owners are included in business surplus.

(2) Contents of items included in employees' income

Employees' income includes every and all items that can be considered as rewards to works done by employees. In addition, a system of national accounts is taken into consideration, driving at the following items that consist of employees' income.

1 Wages and salaries

A) Wages for regular workers, Wages for temporary and day-workers

This refers to pay amount of an employer before deducting taxes and social insurance premium (employer share). This also includes marriage and condolence money that are obligatorily specified in employees policy manuals, or labor agreements, and tips that are redivided by an employer after collection.

When marriage and condolence money are specified in employees manuals or labor agreement, it is included in employees' income. Items under "Marriage and condolence money" are following:

a) Happy money for marriage
b) Happy money for childbirth
c) Happy money for school initiation
d) Condolence money for death
e) Sadness money for injury
f) Sadness money for casualties

There are two kinds of "tips"; the one that a guest gives directly to an employee; the other that a tip from a guest is divided by an employer to an employee. A tip due to an employee is basically cash given by a guest other than a specified amount of charges and is a continued revenue source. Therefore, aforementioned two kinds of tips can both be considered as employees' income. However, the latter was only included in the income, and the former has been considered as a cash transfer from a guest to an employee.

The compensation for national diet representatives and for local diet representatives (Annual allowance for diet representatives) is treated as the wages for regular workers.

B) Compensation of directors

This refers to the amount payable to corporate directors as corporate expense cost.

2 Social insurance premium (employer share)

a) Health insurance managed by the Japan Health Insurance Association (including day-worker insured under special provision)
b) Health insurance managed by unions
c) Pension insurance
d) National pension fund
e) Seamen's insurance
f) Mutual aid for private school personnel
g) Employment insurance
h) Workers' casualties compensation insurance
i) Child allowance
j) National public service personnel mutual aid association
k) Pension fund association for local government officials
l) Government employees' accident compensation fund
m) Casualties compensation fund for local government officials

Insurance premiums for health insurance include insurance premiums for medical care and nursing care.

Furthermore, the payment amount of accident compensation based on the "Labor Standards Act" and casualties compensation for government officials of the national and local governments as in 1, m shall be the social insurance premium (paid for by employer)

The social insurance premium (paid for by employer) for the national pension fund in d does not include installments related to additional benefits.

3 Miscellaneous payments and allowances

a) Installments and allowances for retirement pensions, allowances for lump-sum retirement

Installments and allowances for retirement pensions consist of installments related to additional benefits for the Employees Pension Fund, installments to the Smaller Enterprise Retirement Allowance Mutual Aid System, installments to defined-benefit corporate pension and

defined-contribution pension (corporate), and allowances unique to corporate pensions.

Allowances for lump-sum retirement consist of the employer's reserved amount for the funded pension plan based on mutual aid contracts for retirement allowance, and the retirement allowance actually paid by the employer other than based on the funded pension plan.

b) Wage-in-kind

This refers to the cost borne by employers when served meals, commuting pass and corporate products are provided.

c) Housing rent difference

When an employee lives in a corporate supported housing, the difference between the market rent charge and the rent that the employee pays is deemed as wage-in-kind.

d) Added benefits of social insurance

Employers' costs that are paid on top of legal payments from the employer to employee, regarding payment of social insurance. Examples consist of compensation other than legal compensation for workmen's compensation insurance and added benefits for health insurance managed by unions.

e) Expenses for assets building

This refers to an employer's cost for the benefit of an employee.

(Changes)

Directors' bonuses are included in the "Wages and salaries" sector.

Column Code	Row Code	Sector Name
	9211-000	Operating surplus

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

(1) The scope corresponds to the value of gross value added deducted by consumption expenditure outside households, employees' income, capital depreciation reserve, and pure indirect taxes (indirect taxes minus subsidies.)

The contents of operating surplus are roughly equivalent to the total upon adding subsidies to operating surplus in corporate accounting.

(2) Income of an individual business or a family employee without pay shall be recorded as business surplus, not as employees' income

(3) Since it is defined in such that production values of government service producers and non-profit private service producers for households are equal to production costs (total sum of expenditures), no business surplus is created, but it is only created in industries.

(Notes)

Business tax, which was included in "9404-000 Indirect taxes (except custom duties and commodity taxes on imported goods)" up to the 2005 I-O Tables, is included in this sector in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
	9311-000	Depreciation of fixed capital

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

Values of fixed capital will be consumed during production processes. This is the cost in reserve to supplement the depreciated portion of the values, and it covers depreciation and incidental capital loss. Depreciation reserve is to prepare for normal wear and tear as well as for damages of fixed capital. Incidental capital loss reserve is for incidental looses like accidents. However, losses from rare and major disasters such as the Great East Japan Earthquake are not targeted in Input-Output Tables.

The scope of fixed capital subject to capital depreciation reserve is the same range of that of "domestic gross fixed capital formation."

(Changes)

Market valuation is introduced.

Column Code	Row Code	Sector Name
	9321-000	Depreciation of fixed capital (Social fixed capital depreciation)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

This represents reserved costs to supplement depreciated portion of fixed capital values such as government owned roads, constructions like dams and bunkers, and buildings (social capital.) The scope covers depreciation and incidental capital loss same as "9311-000 Depreciation of fixed capital" The scope of fixed capital subject to this sector are "roads, ports, aeronautics, sewerage, waste treatment, urban parks, natural parks, river improvement, agriculture (irrigation), forestry (forest paths), fisheries, school facilities and social education

facilities" in addition to "government buildings."

(Changes)

Market valuation was introduced.

Column Code	Row Code	Sector Name
	9411-000	Indirect taxes (except custom duties and commodity taxes on imported goods)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

(1) Indirect taxes are duties and outside duty burden to be levied on production, sales, purchase and/or usage of goods and services. These are not income but recognized as expenses by the Taxation Law and are to burden by final purchasers. Further, outside tax revenues that are not classified as operating income of the government but levied for financial purposes are also included in indirect taxes. However, "customs duties" and "imported goods commodity tax" are not included in direct taxes but recorded as exemption items for the final demands.

(2) Consumption tax, alcohol tax, tobacco tax, gasoline tax, and car weight tax fall in the government tax category. Tobacco tax (local) and fixed asset tax fall in the local government tax category. Some payments and revenue from profit operations fall in outside taxation item category and the total amount is treated as indirect taxes.

(3) Fixed asset taxes are not only levied on factory lands and depreciative assets but also on housing and housing lands. Total amount of fixed asset taxes are treated as indirect taxes.

Namely, housings are all supplied by industries in terms of system of national accounts and I-O Tables, and housings, even though they are owned by individuals for living, are nominally rented from the sector "5531-01 House rent (imputed house rent)" and their rents are recorded as imputed rent. Therefore, fixed asset taxes levied on self-owned housings shall be treated as indirect taxes same as taxation on corporations. Real estate acquisition tax and urban planning tax are treated as indirect taxes with the same reason.

(4) Some portion of car tax (50% of tax amount for convenience) are born by households, and another 50% goes to indirect taxes.

(Notes)

(1) In the 2011 I-O Tables, business tax is subtracted from indirect tax and included in "9211-000 Operating surplus."

(2) Special local consumption tax was abolished as of March 31, 2000, but deferred payment of such tax exists afterwards. With regard to this issue, as with the 2000 and 2005 I-O Tables, costs for amusement, eating and drinking, lodging, etc. are included in final consumption expenditure inclusive of tax, and at hotels and eating and drinking establishments, etc., sales that include tax are counted, and special local consumption tax is considered as being an indirect tax where the column sectors bear the amount.

Column Code	Row Code	Sector Name
	9511-000	(less) Current subsidies

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope of current subsidies is current grants that fulfill the following three conditions: (1) paid in relation to industries, (2) granted for the purpose of covering ordinary expenditures of industries, (3) considered as lowering the market price of goods and services.

At the same time, current grants to private non-profit institutions serving households and to households are handled as current transfers of other types (current transfers n.e.c.) based on the government, rather than as subsidies, and are not targeted in Input-Output Tables. In addition, transfers that are carried out in relation to industries for the purpose of loss compensation of investments, or capital assets or operating assets, are categorized as capital transfers, rather than subsidies, and thus are not targeted in Input-Output Tables.

(Changes)

The definition and scope of this sector shall be the same as in the System of National Accounts.