New databank of Mudan Model Based on the 2002 I-O Table of China

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2002 I-O table of China was published on August, 2006 because waiting for results of the first national economic census. After then, we planed to develop a new databank of Mudan model based on 2002 I-O table.

The first-generation of Mudan was completed in June 1993. The Model, which we called MUDAN I, was based on the 1987 33-sector I-O table. The model we are running now is Mudan IV, which is based on 1997 59-sector I-O table. The sample range is from 1985 to 2000.

The reasons for updating the databank of Mudan are as follows.

- (1) Sample range needs to be expanded to the nearest year we can get data. China's national economy has changed a lot both in total and on the structural in recent years.
- (2) New industrial classification standard, which we call GB2002, was issued and carried out, and the sector statistical caliber was different between the year 2002 and previous years.
- (3) The first national economic census was carried out in 2004. Following the issue of census data, some statistical data of previous years were adjusted in 2006.
 - (4) 2002 I-O table of China was published.

All of these provide us a better data base to update the MUDAN model. Therefore, in order to make the model more accurately to reflect China's economy, we began to work on the new databank of MUDAN model in April 2007.

We redefined sector classification of Mudan based on GB2002. Although the model is still in a framework of the 59 I-O sectors, but the 59 sectors based on 2002 I-O table is not exactly the same as that in Mudan IV. On the basis of the framework of the 59 I-O sectors, time series data was collected and processed. The samples range was expanded to 2005(from 1985 to 2005).

This paper describes the work we have done on the new databank of Mudan model.

1. New sector classification of Mudan model based on GB2002

1.1 Features of New National Standard of Industrial Classification (GB2002)

Two national standards of industrial classification were issued in 1980s and 1990s. The first one was issued in 1984, we call it GB84 (national standard 84 of industrial classification). The second one was issued in 1994, we call it GB94 (national standard 94 of industrial classification). They were widely used in statistics, planning, financial accounting, business, tax management and other fields. But with the continuous development of economy and industrial structure adjustment, many new tertiary industries emerged, such as information techniques, resources and environmental protection, intellectual property rights, and so on. The old standards were unable to classify these sectors.

There are two main deficiencies in the old national standards of industrial classification: Firstly, the statistical standard is unsuitable. There are more or less differences between China's current industrial classification and international standard, which greatly affects the international comparability of statistical data. Secondly, the system of statistical indicators is unsuitable. Some of China's statistical indicators differ from those of international standards in name, definition, coverage and way of calculating. These differences significantly influence the usability and comparability of China's statistical data.

To solve these problems, a new national standard of industrial classification, which we call GB2002, was issued on May 10, 2002, and implemented in the 2002 statistical yearbook..

There are 20 categories, 95 large sub-categories, 396 medium sub-categories, 913 small sub-categories in the new industrial standard. Comparing with GB94, there are 4 categories added, 3 large sub-categories added, 28 medium sub-categories added and 67 small sub-categories added. The new standard basically reflects the current industrial structure of China. The paragraphs below will introduce the main differences between the new and the old standard of industrial classification in detail.

• The adjustment of categories

According to the status of national social and economic development, the new standard increases six categories. They are "telecommunication, computer services and software ", "accommodation and food serving services", "rental and business services", "water conservancy, environmental resources and public facilities management ", "education services ", "international organizations".

There are also some changes both in the name and the content of categories. They are "mining", "transport, storage and post services", "wholesale and retail trade services", "finance", "resident and other services "," health, social security and welfare "," cultural, sporting and recreational services "and" public administration and other sectors".

Refer to the international industrial classification, the new standard removes two categories: "geological, geophysical and other prospecting services, water conservancy" and "other business".

According to the principle of homogeneity, the category "geological, geophysical and other prospecting services" and "scientific research, technical services" are combined as "scientific research, technical services and geological prospecting".

The following are the 20 categories in the new standard (GB2002).

- A. Agriculture, forestry, animal husbandry, and fishery
- B. Mining
- C. Manufacture
- D. Electricity, gas, water production and supply
- E. Construction
- F. Transport, storage and post services
- G. Telecommunication, computer services and software
- H. Wholesale and retail services
- I. Accommodation and food serving services

- J. Finance and insurance
- K. Real estate
- L. Rental and business services
- M. Scientific research, technical services and geological prospecting
- N. Water conservancy, environmental resources and public facilities management
- O. Residents services and other services
- P. Educational services
- Q. Health, social security and welfare
- R. Cultural, sporting and recreational services
- S. Public administration and other sectors
- T. International organizations

• The adjustment of large sub-categories

According to the principle of homogeneity, there are some changes in the large sub-categories of new standard. Put the "logging and transport of timber and bamboo" from the original "mining" into" agriculture, forestry, animal husbandry and fishery"; put the "the city public transport" from the original "social services" into" transport, storage and post services".

In the old standard GB94, "social services" includes many heterogeneous large sub-categories. But in the new standard GB2002, "hotel", "travel agency, tour operator and tourist guide services", "rental and business services", "recreational services", "information, counseling services" and "computer services" are transferred to "accommodation and food serving services", "rental and business services", "cultural, sporting and recreational services ", "telecommunication, computer services and software " respectively.

Considering that some high-tech, environmental protection, financial services and marketing services are developing rapidly in recent years, the new standard adds some large sub-categories, such as "recycling of waste resources and waste materials", "information transmission services", "software", "securities ", "business services", "technology exchange and promotion of the service" and "environmental management".

• The adjustment of medium and small sub-categories

In order to transfer between GB2002 and international standard ISIC, some medium and small sub-categories are added. At the same time, some are combined and adjusted.

1.2 The 59-sector classification of the new databank

As explained above, national standard of industrial classification had been revised several times in the past 20 years, so the existent input-output tables are based on different national standards of industrial classification. For example, 1987 table and 1992 table are based on national standard 84, 1997 table based on national standards 94. On the other hand, the 2002 table is based on national standard 2002.

Therefore, there exists inconsistency on sector classification among these input-output tables.

This situation greatly influences the developing of the model's databank. There are three industrial classification standards across the model sample period (1985-2005), so the original data of each sector maybe not consistent even if we use the same 59 sector classification for the whole period. We had to solve this problem and the approach is building series input-output tables [Pan Sheng, Feng Yuan, Zhou Lingyao, 2005].

Our objective is to adjust and transfer 1987, 1992, 1997 and 2002 tables to series input-output tables with the same sector classification. We call them series input-output tables of base years. In order to make series input-output tables more valuable, we follow two principles in adjusting and transferring tables:

- (1) To ensure the sector classification of series tables as detailed as possible, we use original tables whose sector classification are most detailed (117 sectors in 1987 table, 118 sectors in 1992 table, 124 sectors in 1997 table, 122 sectors in 2002 table).
- (2) Sector classification of the series tables should be based on the Industrial Classification of National Standard 2002. In this way, we can ensure the series tables are consistent in sector classification according to the newest standard.

On the basis of this, we got a 59-sector classification for Mudan model. Then according to the 59-sector classification, we convert time series data of three different ranges (1985-1993, 1994-2001 and 2001-2005) to 59-sector data. Finally we get time series data which is consistent in the whole sample period. The correspondence among the 59 sector classification and 1992, 1997, 2002 I-O tables and GB2002, GB94, GB84 is shown on appendix.

Compared with the databank of Mudan IV based on 1997 I-O table, there are a lot of changes in the new databank. Following are sectors of the model which have relatively big changes.

• Textiles (14)

Sector 14 corresponds to large sub-category 17 of GB2002 except medium sub-category 171 (fiber preliminary processing) which were transferred to "technical services of agriculture forestry, livestock and fishing".

In GB94, sector 14 corresponds to medium sub-category 17 and small sub-category 2851 (fishing gear used wire manufacturing), small sub-category 2852 (fishing gear used wire building industry), small sub-category 2851 (fishing gear with a rope manufacturing), small sub-category 2852 (fishing net manufacturing) of large sub-category 28, small sub-category 1890 (other fiber products manufacturing) of large sub-category 18.

• Metal products (31)

The sector corresponds to large sub-category 34 of GB2002.

In GB 94, it corresponds to large sub-category 34, but the small sub-category 3486 (skill manufacturing), 3487 (gas appliances manufacturing), 3434 (mold manufacturing), 3420 (cast iron pipe manufacturing) were transferred to sector 29, 32, 38 respectively.

• Machinery (32)

There are quite big changes in this sector. The sector corresponds to large sub-category 35, 36 of GB2002.

In GB94, it corresponds to large sub-category 35, 36, 39, and the small sub-category 4243 (weighing instrument manufacturing), 3434 (mold manufacturing), 4091 (welding machine manufacturing), 4092 (industrial furnace manufacturing), but not including the small sub-category 3532 (AIDMO vehicle manufacturing), 3654 (medical materials and medical supplies manufacturing).

In GB84, it corresponds to large sub-category 53, 54, 55, and the small sub-category 6370 (weighing instrument manufacturing), 5134 (mold manufacturing), 5891 (MACHINE Machine Manufacturing), 5892 (industrial furnace manufacturing), but not including the small sub-category 5333 (AIDMO vehicle manufacturing), part of 546 (medical equipment manufacturing) 547 (cultural and office machinery manufacturing), 5481 (bicycle manufacturing), 5483 (manufacture of watches), 5484 (camera manufacturing).

• Real estate, utilities and residents services (55)

The sector corresponds to large sub-category 66, 72, 73, 74, 80, 81, 82, 83 of GB2002.

In GB94, it corresponds to large sub-category 72,73,74,75,76,77,78,79, 80,82,84, and the medium sub-category 991 (business management), 936 (Environmental Protection), part of 939 (other integrated technical services), small sub-category part of 3582 (auto repair services), 4280 (instrumentation and Cultural office equipment repair services), part of 3783 (motorcycle repair industry), 4243 (weighing instrument manufacturing), but the small sub-category part of 7590 (Other public services), small sub-category 7560 (scenic area management services), medium sub-category 751 (city public transport services), small sub-category part of 7550 (municipal project management industry) are not included.

• Scientific research and integrated technology services (58)

The sector corresponds to large sub-category 05, 61, 62, 75, 76, 77, 78, 79 of GB2002.

In GB 94, it corresponds to large sub-category 05, 50, 51, 83, 92, 93 and the medium sub-category 019, 171 (initial fiber raw materials processing industry), small sub-category 4183 (electronic computer repair services), part of 7590 (other public services), 7560 (Scenic Area Management), 8560 (drug testing, Room), but the medium sub-category 936 (Environmental Protection), part of 939 (other integrated technical services), small sub-category part of 9340 (technical supervision), 8330 (databank services) are not included.

• The executive (59)

The sector corresponds to large sub-category 93, 94, 95, 96, 97 of GB2002.

In GB94, it corresponds to large sub-category 94, 95, 96, 97, 98, 99 and the small sub-category part of 9090 (other cultural and arts industry), part of 9340 (technical supervision), part of 7590 (Other public total services), but the medium sub-category 991 (business management) is not included.

2. Time series data collection and processing

The next step is collecting and processing time series data, including data of output, consumption, investment, exports and imports, employment, wages, price indexes and so on. The sample range is from 1985 to 2005.

Output

The output data is 59-sector data, all of them come from "China Statistical Yearbook" and "China Statistical Yearbook of the industrial economy". As there are differences among the industrial classification standards, we need to carry out some necessary processes, such as aggregating and dividing. Following are some examples.

• The output of food processing and manufacturing

In the period 1985 to 1993, the output of "cold beverage manufacturing goods" is transferred to "food processing and manufacturing".

In the period 1985 to 2001, the output of "the additives manufacturing" is transferred to "the food processing and manufacturing".

• The output of beverage manufacturing

In the period 1985 to 1993, the output of "cold beverage manufacturing goods" is transferred to "the food processing and manufacturing".

• The output of textiles

In the period 1994 to 2001, the output of "fishing gear used wire manufacturing", "fishing gear used wire building industry", "fishing gear used rope manufacturing", "fishing net manufacturing and "other fiber products manufacturing" is transferred to this sector, the output of "fiber preliminary processing" is transferred to "scientific research and integrated technical services".

In the period 1985 to 1993, the output of "other sewing" is transferred to this sector, but the output of "fiber preliminary processing" is transferred to "scientific research and integrated technical services".

• The output of wearing apparel

In the period 1994 to 2001, the output of "the other fiber products" is transferred to "textiles".

In the period 1985 to 1993, the output of "other sewing" is transferred to "textiles".

• The output of logging and transport of timber and bamboo

In the period 1985 to 1993, the part output of "the forestry chemical products manufacturing" is transferred to this sector.

• The output of printing

In the period 1985 to 2001, part output of "the cultural sporting goods manufacturing" is transferred to this sector.

• The output of cultural sporting goods manufacturing

In the period 1994 to 2001, part output of "the cultural sporting goods manufacturing" is transferred to "the printing", and part output of "the sports equipment manufacturing" is transferred to "the ship manufacturing", but the output of "other fishing gear manufacturing" is transferred to this sector.

In the period 1985 to 1993, part output of "the cultural sporting goods manufacturing" is transferred to "the printing", and part output of "the sports equipment manufacturing" is transferred to "the ship manufacturing".

• The output of petroleum processing, coking and nuclear fuel processing

In the period 1985 to 2001, the output of "radiotherapy chemical products manufacturing" is transferred to this sector, and part output of "other rare metal smelting" transferred to this sector.

• The output of nonferrous metal smelting

In the period 1985 to 2001, part output of "the other rare metal smelting and the other rare metal rolling" is transferred to "petroleum processing, coking and nuclear fuel processing".

Consumption

The original consumption data is classified by the consumer goods and services, in which consumption of rural residents is divided into 10 categories; consumption of urban residents is divided into 24 categories. All of consumption data comes from the "China Statistical Yearbook". Through consumption bridge matrix, they are transferred to 59-sector data. There are 206 consumption time-series in the databank.

As the change of the sector classification does not influence consumption original data, what we need to do is to extend the sample range of consumption time series data to 2005. However, it should be noted that the changes of the sector classification does influence consumption bridge matrix, so we should re-estimate the consumption bridge matrix based on 1987, 1992, 1997 and 2002 I-O tables.

Fixed investment

The data of fixed investment is classified by the investor sectors, in which the fixed investment is divided into 52 sectors. All of investment time series data comes from "China Statistical Yearbook", "China's fixed asset investment statistics Code 1950-2000", and "China fixed assets investment Yearbook". Through investment bridge matrix, they are transferred to 59-sector data. There are 1015 investment time-series in the databank. As the changes of the sector classification does not influence the original investment data, what we need to do is to extend the sample range of investment data to 2005. However, it should be noted that he change of the sector classification does influence investment bridge matrix, so we should re-estimate the investment bridge matrix based on 1987, 1992, 1997 and 2002 I-O tables.

Import and export

There are 145 time-series of import and export data in the databank. All of the import and export data comes from "China Customs Statistics Yearbook". The data is classified by types of products, not by sectors, so we have to integrate different products into the 59 sectors. Now collection and processing of import and export data is ongoing.

Employment and wage

The data of employment, wages is 52-sector data, and the data sources, processing methods is as the same as the Mudan IV.

Macroeconomic data

In the new databank, the macroeconomic data includes GDP, final consumption expenditures, gross capital formation, net exports of goods and services, household consumption expenditures, consumption of rural residents, consumption of urban residents, government consumption, gross fixed capital formation, change in inventories, output of primary industry, output of industry, output of construction, output of tertiary industry, output of transport, storage and post, output of wholesale and retail trades, output of finance and insurance by expenditure approach, and their deflator index. We have done the work of data collection. It should be noted that part of the macroeconomic data is adjusted after the first national economic census in 2004.

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Appendix

The Correspondence among the 59 Sector
Classification of Mudan and 1992, 1997, 2002 I-O
Tables and GB2002, GB94, GB84

Mudan	I-0 1992	I-0 1997	I-0 2002	GB02	GB94	GB84
	01101、01109	0101001	01001	01	011	011
1 Farming	01400PT					019PT
	01200	0102002	02002	021	02	03
2 Forestry				023		
3 Livestock	01300	0103003	03004	03	03	04
4 Fishing	01500	0104004	04005	04	04	05
5 Coal mining	02100、02200	0206006	06007	06	06	08
6 Crude petroleum and natural gas	02100 02200	0207007 0207009	07009	07	07	00
production	03100、03200	0307007、0307008	07008	07	07	09
7 Ferrous ore mining	04100	0408009	08009	08	08	10
8 Non-ferrous ore mining	04200	0409010	09010	09	09	11
9 Non-metal minerals mining and	05100	0510011	10011	10	10	12
mining, n.e.c.	05200	0510012	10012			13
				11	11	14
10 Logging and transport of timber	05300	0512013	02003	022	12	15
and bamboo	03300	0312013	02003	022	12	10
	06101-06109、	0613014-0613017、	13013-13019	13	13	17
11 Food processing and	06400	0614018		13	10	11
manufacturing				14	14	18
montal do val 1115	06209PT					1934
			1226043PT		2677	21
12 Beverages	06201、06209	00615019、0615020	15020、15021	15	15	19
12 Develages	[06209PT]					[1934]
13 Tobacco manufacture	06300	0616021	16022	16	16	20
	07001-07009	0717022-0717027	17023-17027	17	17	22
		1228045PT			2851	
		1228045PT			2852	
14 Textiles		1228045PT			2851	
		1228045PT			2852	
	08100PT	0818028PT			1890	2490
	[07009PT]	[0717027PT]			[171]	[221])
15 Wearing apparel	08100	0818028	18028	18	18	24
10 wearing apparer	[08100PT]	[0818028PT]			[1890]	[2490]
16 Leather, fur and their products	08200	0819029	19029	19	19	25
17 Sawmills and bamboo etc.	09100	0920030、0921031PT	20030	20	20	26
products	14109PT	1226043PT			2673PT	3750PT
18 Furniture	09200	0921031PT	21031	21	21	27
19 Paper and paper products	10100	1022032	22032	22	22	28
20 Printing industries	10200	1023033	23033	23	23	29
ZU Frinting industries	10300PT	1024034PT			2413	3013
21 Cultural, education, sports	10300	1024034、1024035	24034、24035	24	24	30
articles	[10300PT]	[1024034PT]			[2413]	[3013]

		1028045PT			2859	
	[10300PT]	[1024035PT]			[2423PT]	[3033PT]
	12000	1125036、1125037	25036、25037	25	25	34
	13001	1120000 1120001	200001 20001	20	20	351
22 Petroleum refineries and coking	[12000PT]					[3489PT]
products	14104PT	1026043PT			2676	3669PT
P	16200PT	1433059PT			3349PT	4969PT
	1020011	1433060PT			3387PT	100011
	14101-14109	1226038-1226043	26038-26044	26	26	36
	14101 14103	1220030 1220043	20030 20044	20	20	37
23 Chemical industries	[14104PT]	[1026043PT]			[2676]	3669PT
25 Chemical industries	[1410411]	[1226043FT]			[2677]	300911
	[14109PT]	[1226043FT]			[2673PT]	[3750PT]
	14200	1227044	26045	27	27	38
24 Medicines	18006PT	1636066PT	20040	21	3654	546PT
	14300	1228045	26046	28	28	40
25 Chemical fibres	14500	[1228045 [1228045PT]	20040	20	[285]	40
	14401、14402	1229046	26047	29	29	41
26 Rubber products	14401、14402	1229040	20047	29	29	
	14501 14500	1920047	90049	30	30	42
27 Plastic products	14501、14502	1230047	26048	30	30	43
	15001 15000	1221040 1221054	21040 21052	21	21	44
28 Building materials and	15001-15009	1331048-1331054	31049-31053	31	31	45
non-metallic mineral products,	[15004DT]					46
n. e. c.	[15004PT]					[4552]
00 D	[15004PT]	1400055 1400050	20054 20055	0.0	00	[4553]
29 Primary iron and steel	16100	1432055-1432058	32054-32057	32	32	48
manufacturing	17001PT	1534061PT			3420	5120
30 Primary non-ferrous metals	16200	1433059、1433060	33058、33059	33	33	49
manufacturing	[16200PT]	[1433059PT]			[3349PT]	[4969PT]
		[1433060PT]			[3387PT]	
	17001、17002	1534061	34060	34	34	51
						52
	[17002PT]	[1534061PT]			[3486]	[5211]
31 Metal products		[1534061PT]			[3487]	[3489PT]
	[17001PT]	[1534061PT]			[3434]	[5134]
	[17001PT]	[1534061PT]			[3420]	[5120]
						3489PT
	[17002PT]					[5215]
32 Machinery	18001-18009、	1635062-1635064、	35061-35063、			
	23000PT	1636065、1636066、	36064-36065	35	35	53
		2138082PT				
				36	36	54
					39	55

	[18009PT]	[1635064PT]			[3532]	[5333]
	22000PT	2042080PT			4243	6370
	17001PT	1534061PT			3434	5134
	[18006PT]	[1636066PT]			[3654]	[546PT]
	20009PT	1840075PT			4091	5891
	20009PT	1840075PT			4092	5892
	[18006PT]	101001011			1002	[547]
	[18005PT]					[5481]
	[18005PT]					[5483]
	[18005PT]					[5484]
	19001	1737067	37066	371	371	561
33 Railroad equipment	18009PT	1635064PT	31000	3/1	3532	5333
33 Karrioad equipment	23000PT	2138082PT			3781	5681
	19002	1737068	37067、37068	272	3781	562
	23000PT	2138082PT	210017 21000	372	3782PT	562 5682PT
34 Motor vehicles	19009PT	2138082FT 1737072PT			3782P1 3750	5640
	23000PT	2138082PT			3784	5683
			27000	275		
	19003	1737069	37069	375	376	565
	10300PT	1024035PT			2423PT	3033PT
35 Shipbuilding	23000PT	2138082PT			3785	5684
	24101PT	2243084PT			4391PT	661PT
	1000007	[1737069PT]			[3765]	E GOD#
	19009PT	1737072PT	0505105	27.5	3791	569PT
36 Aircraft	19004	1737070	37071PT	376	377	567
	23000PT	2138082PT	0505475		3786	5685
	19009PT	1737072PT	37071PT	373	373	563
	18005PT	1737071PT		374	374	5481
37 Transportation equipment,	19009PT	1737072PT		379	379	569
n. e. c.	23000PT	2138082PT			3789	5689PT
		2138082PT			3783PT	
	[19009PT]	[1737072PT]			[3791]	[569PT]
	20001、20002、	1840073-1840075、	39072-39074	39	40	58
	20009、23000PT	2138082PT				
38 Electric machinery and	17002PT	1534061PT			3486	5211
equipment	_	1534061PT			3487	3489PT
	[20009PT]	[1840075PT]			[4091]	[5891]
	[20009PT]	[1840075PT]			[4092]	[5892]
	21001、21002、	1941076-1941079、	40075-40080	40	41	60
39 Electronic and communication	21009、23000PT	2138082PT				
equipment						61
	[21002PT]	[1941077PT]			[4173]	[6163]
	[23000PT]	[2138082PT]			[4183]	[6183]
40 Instrument, meters and other	22000	2042080	41081	41	42	63

measuring equipment				[415]	[425]	
	[22000PT]	[2042080PT]			[4243]	[6370]
	15004PT	2043084PT			4353	4553
					[4280]	[6380]
	18005PT					5483
	18005PT					5484
			41082、42083、			
	18006PT	2042081	42084、43085	415	425	547
	24101、24102	2243083、2243084		42	43	66
	24200PT	2343085PT		43	6290PT	
						31
41 Manufacture, n.e.c.		[2243084PT]			[4353]	
,	[24101PT]	[2243084PT]			[4391PT]	[661PT]
	21002PT	1941077PT			4173	6163
	17002PT					5215
	15004PT					4552
	13002PT					3530PT (
42 Electricity, steam and hot						
water production and supply	11000	2444086、2444087	44086	44	44	33
43 Gas production and supply	13002PT	2545088	45087	45	45	352
44 Production and supply of water	05400	2646089	46088	46	46	16
	30200PT	3575109PT			7550PT	8140PT
	25000	2749090	47089	47	47	69
				48	48	70
45 Construction				49	49	71
				50		
		1737069PT			3765	
	26101、29001	2852091、3252102	51090、51091	51	52	731
46 Railway transportation		2858096PT		57PT	575PT	736PT
		2858096PT			579PT	
	26102、29002	2853092、3253103	52092、53093PT	52	53	732
		2858096PT			571	
		2858096PT		57PT	575PT	736PT
47 Highway transportation		2858096PT			579PT	
	30200PT	3575109PT		53PT	751PT	811PT
		2858096PT			58PT	
	26103、29003	2856094、3256104	54094、53093PT	54	55	734
48 Water transportation		2858096PT			572	
		2858096PT			573	
		2858096PT		57PT	575PT	736PT
		2858096PT			579PT	
	30200PT	3575109PT		53PT	751PT	811PT
		2858096PT			58PT	

	26104、29004	2856095、3256105	55095、55096	55	56	735
		2858096PT			574	
49 Air transportation		2858096PT		57PT	575PT	736PT
		2858096PT			579PT	
50 Transport, n.e.c.	26105	2854093	56097	56	54	733
	26200	2960098、2960099	59099、60100	59、60	60	74
	31302PT	3584114PT			8330	917PT
51 Communications	31202PT	3791119PT			911PT	89PT
	31202PT	3791119PT			913PT	89PT
	27100、27201、					
	27202	2859097、3065100	58098、63102	58	59	75
				63	61	78
** 0.0				65	62	79
52 Commerce					63	
					64	
					65	
	24200PT	2343085PT			6290PT	
53 Restaurants	28000	3167101	67104	67	67	77
54 Finance and insurance	32001、32002	3368106、3370107	68105、70106	68、69、71	68	93
54 Finance and Insurance				70	70	94
		3474108、3575109、	66103、72107、	66,72,73,	72,73,74,	
	30100、30200、	3576110、3578111、	72108、74109、	74.80.81.	75、76、77、	80、81、82,
	30300	3580112、3584114	74110、80115、	82、83	78、79、80、	83
		00001121	82116	021 00	82、84	
	33000PT	4099124PT			991	98
	31302PT	3993121PT			936	916
55 Real estate, and social	31302PT	3993121PT			939PT	919PT
services	[30200PT]	[3575109PT]			[7590PT]	[8190PT]
	23000PT	2138082PT			3782PT	5682PT
	[30200PT]	[3575109PT]			[7560]	[812PT]
	[30200PT]	[3575109PT]			[751]	[811]
	23000PT	2138082PT			4280	6380
	23000PT	2138082PT			3783PT	5689PT
	[30200PT]	[3575109PT]			[7550PT]	[8140PT]
56 Health care, sports and social	31101、31102、	3685115、3686116、	85118、86119、	85、86、87、	85、86、87	84、85、86
welfare	31103	3687117	91121	91		
	[31101PT]	[3685115PT]			[8560]	[8470]
	31201、31202	3581113、3789118、	84117、88120、	84、88、89、	81,89,90,	87、88、89
57 Education, culture, arts,	F	3791119	92122	90、92	91	
radio, film and television	[31202PT]	[3791119PT]			[911PT]	[89PT]
	[31202PT]	[3791119PT]			[913PT]	[89PT]
	[31202PT]	[3791119PT]			[9090PT]	[8890PT]
58 Scientific research and	31301 31309	2802120 2002121	05006 61101	05 61 69	05 50 51	06 07 76

		3905122、3950123	75111、76112、	75、76、77、	83、92、93	90、91
			78113、79114	78、79		
	01400PT	0101005			019	019PT(其
						它农业)
	07009PT	0717027PT			171	221
	23000PT	2138082PT			4183	6183
polytechnical services	[31302PT]	[3993121PT]			[936]	[916]
	[31302PT]	[3993121PT]			[939PT]	[919PT]
	30200PT	3575109PT			7590PT	8190PT
	30200PT	3575109PT			7560	812PT
	31101PT	3685115PT			8560	8470
	[31302PT]	[3993121PT]			[9340PT]	[9140PT]
	[31302PT]	[3584114PT]			[8330]	[917PT]
	33000	4099124	93123	93、94、95、	94、95、96、	95、96、97、
	33000	4099124	93123	96、97	97、98、99	99
59 Public administration and	[33000PT]	[4099124PT]			[991]	
others	31202PT	3791119PT			9090PT	8890PT
	31302PT	3993121PT			9340PT	9140PT
	30200PT	3575109PT			7590PT	8190PT

Note:

- 1. PT is short of part of the industry, for example, 131PT shows part of the industry 131.
- 2. The sub-industry in the square brackets means to be removed from the industry.