

# Structural Change in Composition of India's Exports and Imports

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## Abstract

The main objective of the paper is to analyse the structural change in the composition and direction of India's trade. The paper takes into consideration both the merchandise trade as well as services trade. The period under consideration is of the last two decades i.e. from 2001 to 2018. The composition of merchandise exports has been analysed both product wise as well as Industry wise. It is found that the structure of India's exports has changed over the time, the share of agricultural and resource based products has decreased whereas the share of mineral products, Chemical and Allied industries, as well as Machinery, has increased. There has not been much change in the structure of India's import. 'Software services' is the most important component of India's services exports whereas 'Business services' is the most important component of India's services imports with the highest share. India has highest merchandise trade deficit with China. It has been suggested that India should strengthen its manufacturing sector by bringing changes in its policies and laws. It is also being suggested that India should properly assess all the implications of joining RCEP before signing any deal, as India is already being in a huge trade deficit with China.

Key Words: Merchandise Trade, Services Trade, Deficit

## 1. Introduction

India's exports have recorded significant growth over the years (Hosamane et al. 2006). Classical and Neo-classical economists have also argued in favour of international trade as an engine of economic growth. Over time, third world countries have also started realizing the fact that the protectionist approach to international trade would limit their ability to exploit resource endowments and the prospect of economic growth. Hence the promotion of foreign trade particularly exports has been prioritized in many developing countries, many developing countries have opted for import liberalization and export promotion over time.

In 1991, India adopted the policy of privatisation-liberalisation-globalisation with emphasis on the external sector wherein the tariff rates were reduced and the restrictive import licensing regime was simplified. Import licensing was abolished in a few key sectors like – machinery, equipment, and manufacture intermediate products (Matore et al., 2015). This has turned out to be a path shifting policy wherein focus has shifted from import substitution to more outward-oriented policy to place the economy on the path of export-led growth.

The economic reforms introduced in 1991 has enabled increasing integration of the Indian economy with the rest of the world, the growth rate of India is now increasingly dependent on international trade, especially exports. India's trade has come a long way from the time of independence. Indian economy and foreign trade have shown progress post-liberalization (Sinha, M.K., 2016). The composition and direction of foreign trade have also undergone substantial changes over time, especially post-liberalization.

However, India's trade with the rest of the world is growing over time, one major problem the country is facing is of rising trade deficit with the rest of the world. The study highlights change in the pattern of international trade in terms of composition and direction with a view to suggest policy changes to curb the trade deficit. The study has taken the time frame of the last two decades for the analysis i.e. from 2001 to 2018. The study is based on secondary data, taken from various sources like- RBI- Handbook of statistics on the Indian economy, World Bank- World Development Indicators, UN-Comtrade WITS database, IMF, Ministry of Commerce and Industry, etc.

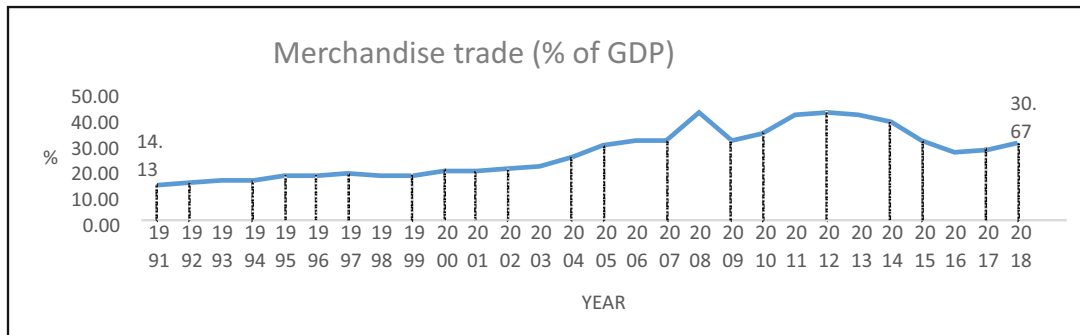
The paper consists of four sections including this introduction part. The second section studies various aspects of Indian foreign trade, Conclusion forms the third section and the last section is the Policy Recommendations.

## 2. Empirical Analysis

### 2.1. The openness of the Indian Economy

India is a fairly open economy with overall trade (exports plus imports) as a percentage of GDP being 31 percent in 2018 (Figure 1). It has grown steadily from around 14 percent in 1991 to around 31 percent in 2018. Openness is expected to have a positive impact on the growth of an economy.

Figure 1 India's Merchandise trade as a percent of GDP



Source : World Bank WDI

### 2.2. Trade Deficit

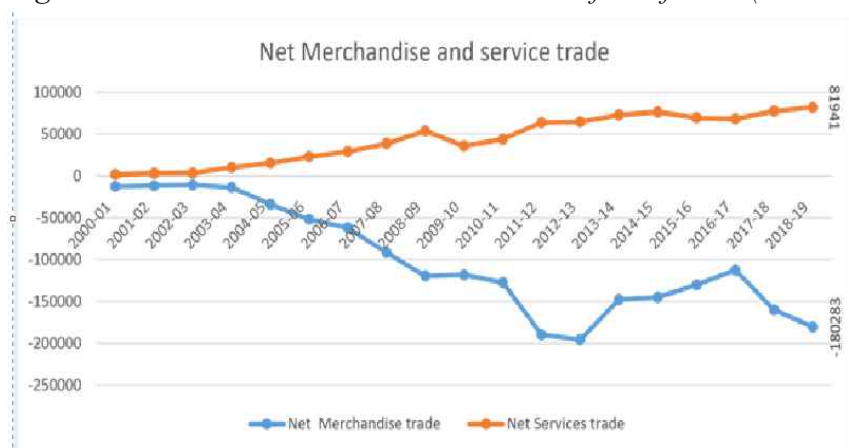
The trade deficit, particularly the merchandise trade deficit is a problem being faced by many developing countries with the underdeveloped industrial sector. Looking at the trend of merchandise trade deficit of India, it can be seen that trade deficit has increased from the US \$12 billion in 2000-01 to the US \$1,80 billion in 2018 (Table 1). The merchandise trade deficit has worsened in India over time whereas the surplus in service trade is a relief but the service trade surplus is not large enough to compensate for merchandise trade deficit which results in an increasing current account deficit (Figure 2). It has been argued that trade deficit is not the result of economic reforms initiated in 1991, rather it is the result of structural change in demand in favour of capital goods like aircraft, telecom equipment, etc. Manufacturing base of India couldn't develop enough to manufacture these goods in India over time. Underdevelopment of capital good industries is the main reason behind rising trade deficit in India (Chaudhuri, S., 2013).

Table 1 Net Merchandise and service trade of India (in Millions dollar)

Year	2000-01	2004-05	2008-09	2012-13	2016-17	2017-18	2018-19
Net Merchandise trade	-12460	-33702	-119520	-195656	-112442	-160036	-180283
Net Services trade	1692	15426	53916	64915	68345	77562	81941

Source: RBI

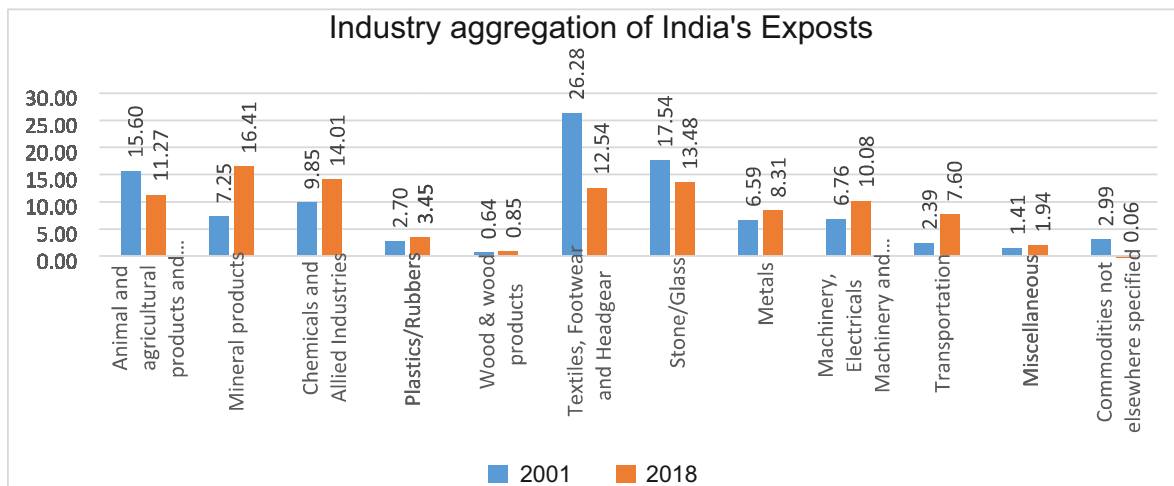
Figure 2 Net Merchandise and Service trade deficit of India (in Millions dollar)



### 2.3.Composition of India’s exports of Goods

India's Merchandise exports has increased from US\$ 43 billion in 2001 to US\$ 330 billion in 2018. Export composition is analysed in two ways- Industry Aggregation (Appendix Table-1) and Product type aggregation (Appendix Table-2). Industry type composition has been analysed based on HS -1996, 2-digit data whereas Product type composition is analysed based on BEC code extracted from the United Nations Statistical Division. Industrial Sectors have been grouped based on sector grouping scheme (2008) . It can be seen from Figure -3 that the composition has changed over the time. Share of "Animal and agricultural products and foodstuff", "Textile, footwear and Headgear", "Stone/Glass" has decreased significantly over the time whereas the share of "Mineral products", "Chemicals and Allied industries", "Machinery, Electrical machinery, and parts" and "Transportation" has registered significant growth in India’s export composition from 2001 to 2018.

Figure 3 Industry aggregation of India's Exports



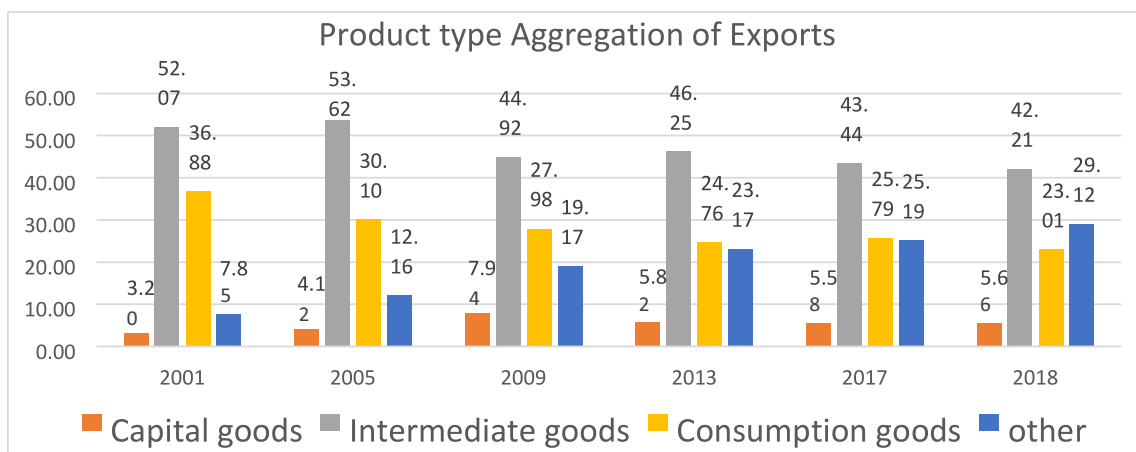
Source: UN-Comtrade WITS database

Following Figure 4 reveals that in the product type aggregation, intermediate goods form the largest part of India's exports, though its share has been decreasing over the period of time.

HS Code (Harmonized System Codes), 2008, the Sector Grouping Scheme [online; cited November 2008]. Available from: <http://www.foreign-trade.com/reference/hscod.htm>.

The share of capital goods has increased moderately in India’s export composition. Consumption goods also form a significant part of India’s exports but its share is also decreasing over the time.

Figure 4 : Product type Aggregation of Exports



Source: UN Comtrade database

### 2.4.India’s exports of Services

The composition of exportable services has also changed between 2001 and 2018, the share of travel exports has decreased, the travel sector is a significant source of foreign exchange earnings from the rest of the world, whereas the share of business services has increased significantly. Software services are consistently forming a significant part of services export from India, accounting for a 40 percent share in total service exports from India. Software services is the most important category of services export, followed by Business service and travel.

Table 2 India's exports of services

Sr. No.	Year / Item	2000-01	2004-05	2008-09	2012-13	2016-17	2017-18	2018-19
1	Travel	21.5	15.41	10.28	12.36	14.16	14.53	13.67
2	Transportation	12.6	10.83	10.67	11.90	9.65	8.94	9.36
3	Insurance	1.7	2.01	1.34	1.53	1.34	1.28	1.28
4	G.n.i.e.	4	0.93	0.37	0.39	0.36	0.34	0.29
5	Miscellaneous	60.3	70.82	77.34	73.82	74.49	74.90	75.40
	a) Software Services	39	40.93	43.69	45.21	45.28	39.64	40.13
	b)Non-Software services of which	21.3	29.89	33.64	28.61	29.21	35.26	35.27
	(i) Business Services	2.1	11.95	17.56	19.53	20.06	19.14	18.80
	(ii) Financial Services	2.1	1.18	4.18	3.40	3.11	2.65	2.34
	(iii) Communication Services	7	3.20	2.17	1.16	1.45	1.08	1.23
	Total Service Export	100	100.00	100.00	100.00	100.00	100.00	100.00

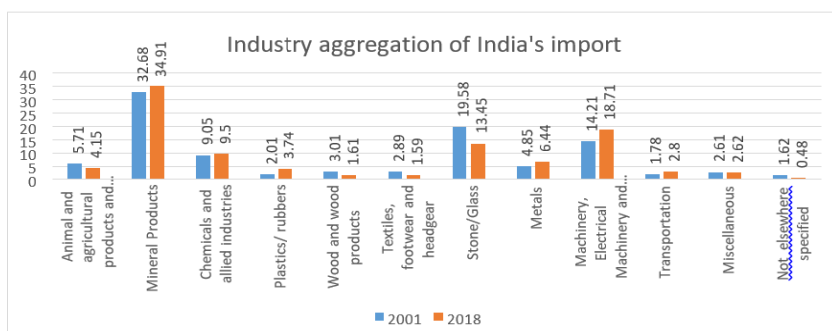
Source: RBI Handbook of Statistics

### 2.5.Composition of India’s imports of Goods

The import of merchandise commodities has increased from \$51 billion in 2000-01 to \$514 billion in 2018-19. Import composition is analysed in two ways- Industry Aggregation (Appendix Table-1) and Product type aggregation (Appendix Table-2). Industry type composition has been analysed based on HS -1996, 2-digit data whereas Product type composition is analysed based on BEC code extracted from the United Nations Statistical Division. Industrial Sectors have been grouped based on the sector grouping scheme (2008). Imports are growing at a significant rate over time. Looking at the composition, Figure 5 reveals that "Mineral products" form the most significant part of imports. Its share has increased from around 33 percent of total imports to 35 percent of total imports from 2001 to 2018, it consists of Iron ore, cement, coal, etc. "Machinery, electrical machinery, and parts" comes second, its share has also marked significant growth from 14 percent to 19 percent of total imports from 2001 to 2018.

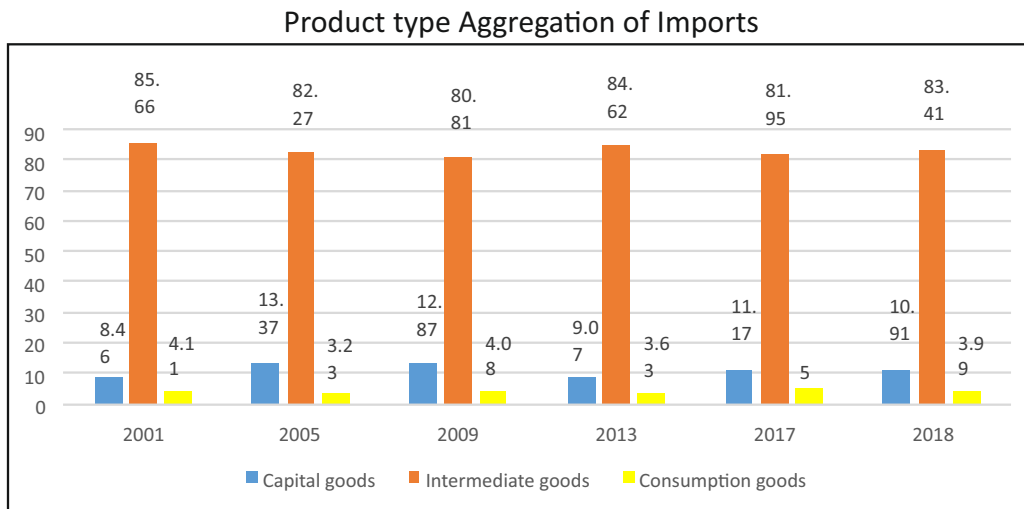
Machinery, electrical machinery, and parts mainly consists of "nuclear reactors, boilers, machinery, and mechanical appliances; parts thereof" and "Electrical machinery and equipment and parts thereof like- sound recorders and reproducers, television image and sound recorders and reproducers, and parts, etc.". "Stone/Glass" ranks top third in 2018 imports, though its share in total imports has decreased over time still it forms a significant part of India's imports.

Figure 4 Industry Aggregation of India's Imports



Source: UN-Comtrade WITS database

Figure 5 Product Type Aggregation of Imports



Source: UN- Comtrade WITS database

HS Code (Harmonized System Codes), 2008, the Sector Grouping Scheme [online; cited November 2008]. Available from: <http://www.foreign-trade.com/reference/hscode.htm>.

### 2.6. India’s Imports of services

Imports of services has become important in recent years reaching US\$ 126 billion in 2018 from US\$13 billion in 2001. Business services is the most important category of services imports, accounting for 32 percent of total import in 2018 followed by Travel and transportation services. The share of business services in total imports has increased over time from 7 percent of total imports in 2000-01 to around 32 percent in 2018. The share of travel in total imports has moreover remained the same, whereas the share of transportation services has decreased.

Table 3 India's imports of services

Sr. No.	Year / Item	2000-01	2004-05	2008-09	2012-13	2016-17	2017-18	2018-19
1	Travel	19.24	18.87	18.11	14.64	17.16	16.61	17.22
2	Transportation	24.41	16.31	24.63	18.33	14.74	14.98	16.29
3	Insurance	1.53	2.59	2.17	1.74	1.56	1.45	1.42
4	G.n.i.e.	2.19	1.48	1.52	1.01	0.63	0.68	0.88
5	Miscellaneous of which-	52.63	60.75	53.56	64.28	65.91	66.29	64.19
	(i) Software Services	4.05	2.88	4.93	2.93	3.74	4.37	4.61
	(ii) Business Services	7.00	26.30	29.43	37.58	33.72	31.17	32.06
	(iii) Financial Services	13.50	2.99	5.68	5.74	6.11	4.71	2.77
	Total Service Import	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Un-Comtrade WITS database

### 2.7.Direction of Exports

The United States of America has been the most important export destination for India over the time comprising around 15 percent of India's total exports in 2018, UAE stands second and China comes third with a moderate share of 5 percent of India's total exports in 2018.

Table 4 Top ten export markets for India based on 2018 exports share

Countries	Exported value in 2001	Exported value in 2005	Exported value in 2009	Exported value in 2013	Exported value in 2017	Exported value in 2018
United States of America	19.15	16.48	10.82	12.46	15.57	15.97
United Arab Emirates	5.86	8.39	14.38	10.09	10.14	8.98
China	2.10	7.16	5.87	4.88	4.22	5.08
Hong Kong, China	5.51	4.42	4.05	4.06	5.08	4.09
Singapore	2.11	5.41	3.86	4.22	3.91	3.23
United Kingdom	5.01	4.94	3.69	3.14	3.03	3.03
Germany	4.07	3.47	3.31	2.40	2.79	2.78
Bangladesh	2.42	1.71	1.23	1.78	2.44	2.71
Netherlands	1.95	2.39	3.66	2.72	1.84	2.68
Nepal	0.43	0.83	0.75	0.94	1.87	2.26

Source: Un-Comtrade WITS database

### 2.8.Direction of Trade Deficit

India has largest trade deficit with China, accounting for around 29 percent of India’s total trade deficit, followed by Saudi Arab and Iraq in 2018 (Table 5). India mainly imports “machinery, nuclear reactors, electrical machinery and parts” and “organic chemicals” from China. Whereas from Saudi Arab and Iraq, India mainly imports “mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes”. In absolute terms trade deficit with China has increased multiple times from US \$1 billion in 2001-02 to US \$51 billion in 2016-17 and around \$54 billion in 2018-19. Trade deficit has increased from US \$14 billion in 2016-17 to around US \$23 billion in 2018-19 with Saudi Arab, similarly trade deficit with Iraq has increased from US \$10 billion in 2016-17 to US \$20 billion in 2018-19.

Table 5 Top fifteen markets in terms of share of India's trade deficit based on 2018-19 share.

S.No.	Country	2016-2017 (%)	2017-2018 (%)	2018-2019 (%)
1	China P Rp	47.11	38.90	29.11
2	Saudi Arab	13.70	10.28	12.46
3	Iraq	9.77	9.97	11.19
4	Switzerland	15.00	11.01	9.19
5	Sint Maarten (dutch Part)	6.53	4.61	8.85
6	Installations In International Waters	12.30	10.12	8.61
7	Korea Rp	7.69	7.34	6.55
8	Indonesia	9.16	7.70	5.75
9	Iran	7.49	5.22	5.44
10	Australia	7.55	6.16	5.22
11	Qatar	6.32	4.28	4.95
12	Japan	5.45	3.85	4.30
13	Nigeria	5.43	4.47	4.28
14	Venezuela	5.02	3.57	3.86
15	Germany	4.06	2.84	3.40

Source: Ministry of Commerce and Industry of India

### 3. Conclusion

India’s exports are increasing at a decreasing rate but the imports are increasing at an increasing rate resulting in an increasing trade deficit. It has been found that the share of agriculture and allied commodities, as well as resource base commodities, has decreased in India's total exports whereas the share of capital-intensive commodities has

increased over time. Composition of exportable services has also changed, the share of Travel exports has decreased, whereas the share of Business Services has increased significantly over the period of time. USA is the most important destination for India's exports followed by UAE. The structure of imports has not changed much. Mineral products form the largest share of India's imports followed by "Machinery, electrical machinery, and parts". Whereas share of Import composition of services has changed over time, the share of Business Services in total service imported has increased significantly whereas the share of Transportation has decreased. India has largest trade deficit with China which forms 29 percent of the total trade deficit of India in 2018-19, the major commodity imported from China is "machinery, nuclear reactors, electrical machinery and parts" which accounted for 30 percent of total imports from China in 2018.

#### 4. Policy Recommendations

1. India needs to make suitable changes in various policies and laws like labour laws, land laws, and corporate laws to make India a more attractive destination to foreign producers in order to strengthen the manufacturing sector. This will help in keeping a check on manufacturing imports and will promote manufacturing exports from India.
2. Share of labour-intensive commodities like Textiles, footwear, and headgear, Agricultural food products is decreasing in India's exports, India being a labour intensive country should focus on improving the competitiveness of these sectors to be able to utilise its labour endowment.
3. India is already in a huge trade deficit with China, a serious analysis needs to be made before joining RCEP, as it will open our economy to all the member countries including China. It could result in heavy losses to Indian industries.

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**Appendix:**

Table -1 Sector Grouping Scheme (HS Codes, 2008)

2-digit HS          Descriptions (Abbreviation)

01–24,41–43	Animal and Agricultural Products and Foodstuffs
25–27	Mineral Products
28–38	Chemicals & Allied Industries
39–40	Plastics / Rubbers
44–49	Wood & Wood Products
50–67	Textiles, Footwear and Headgear
68–71	Stone / Glass
72–83	Metals
84–85	Machinery, Electrical Machinery and Parts
86–89	Transportation
90–97	Miscellaneous
98–99	Services

Source: United Nations Statistical Division

Table-2 Product type Aggregation

SNA Basic Class	BEC code	Description
1.Capital goods	41*	Capital goods (except transport equipment)
	521*	Transport equipment, industrial
2.Intermediate goods	111*	Food and beverages, primary, mainly for industry
	121*	Food and beverages, processed, mainly for industry
	21*	Industrial supplies not elsewhere specified, primary
	22*	Industrial supplies not elsewhere specified, processed
	31*	Fuels and lubricants, primary
	322*	Fuels and lubricants, processed (other than motor spirit)
	42*	Parts and accessories of capital goods (except transport equipment)
3.Consumption goods	53*	Parts and accessories of transport equipment
	112*	Food and beverages, primary, mainly for household consumption
	122*	Food and beverages, processed, mainly for household consumption
	522*	Transport equipment, non-industrial
	61*	Consumer goods not elsewhere specified, durable
	62*	Consumer goods not elsewhere specified, semi-durable
4.Other	63*	Consumer goods not elsewhere specified, non-durable
	321*	Motor spirit
	51*	Passenger motor cars
	7*	Goods not elsewhere specified

Source: Yao (2009)