

Evaluating intermediate goods trade flow in the new century: stylized facts for explaining vertical specialization*

Entendiendo el flujo de bienes intermedios en el nuevo siglo: hechos estilizados para explicar la especialización vertical

Comprendre la circulation des biens intermédiaires dans le nouveau siècle: faits stylisés pour expliquer la spécialisation verticale

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Abstract

Global trade has shown steady growth rates for the last 30 years. The globalization process and market entry of new economies as in the case of China has given a new dynamic of trade to the system. This has had implications in many spheres of the economical and political world and many have accused China of having "excessive" competitiveness in its products, which in turn has affected other economies. This paper tries to analyze the flow of intermediate goods between several economies with the aim to provide a benchmark for measuring trade integration. Results show that China's main export destination for intermediate goods still remain to be its Southeast Asian partners, although their share in the total amount has been reduced. Latin America has had the biggest gains in terms of intermediate goods from China while Japan has lost much of its vitality.

Keywords: China, Intermediate goods, Exports.

Resumen

El comercio mundial ha mostrado tasas de crecimiento constante durante los últimos 30 años. El proceso de globalización y la entrada al mercado de nuevas economías, como en el caso de China, ha dado una nueva dinámica del comercio en el sistema. Ésto ha tenido repercusiones en muchos ámbitos del mundo económico y político, muchos han acusado a China de tener competitividad "excesiva" en sus productos, que a su vez ha afectado a otras economías. Este trabajo analiza el flujo de bienes intermedios entre varias economías con el objetivo de proporcionar un punto de referencia para la medición de la integración comercial. Los resultados muestran que el principal destino de las exportaciones de China, para los bienes intermedios, aún queda para sus socios del sudeste asiático, aunque su participación en el total se ha reducido. América Latina ha tenido las mayores ganancias en términos de bienes intermedios procedentes de China, mientras que Japón ha perdido gran parte de su vitalidad.

Palabras clave: China, Bienes intermedios, Exportaciones.

Résumé

Le commerce mondial a montré des taux de croissance stables au cours des 30 dernières années. Le processus de la Mondialisation et l'entrée des nouvelles économies comme la Chinoise au



marché a apporté une nouvelle dynamique commerciale au système. Ce fait-ci a eu des implications dans des nombreux domaines du monde économique et politique ; et on a eu beaucoup d'accusations sur la Chine d'avoir une concurrence «excessive» dans ses produits et par conséquence d'avoir affecté d'autres économies. Cet article tente d'analyser le flux ou circulation de biens intermédiaires entre plusieurs pays afin de fournir un point de référence pour mesurer l'intégration commerciale. Les résultats montrent que la principale destination des exportations de la Chine pour les biens intermédiaires reste chez ses partenaires en Asie du Sud, bien que sa part dans le total a été réduite. L'Amérique latine a eu les plus grands bénéfices en termes de biens intermédiaires en provenance de Chine, tandis que le Japon a perdu beaucoup de sa vitalité.

Mots-clés: La Chine, exportations, biens intermédiaires.

Introduction

China's place in international trade has become more a more prominent as years pass. The pace of integration has affected global trade and triggered tensions in the political and economic sphere (Bussière & Schnatz, 2006). The effects of such trade have created a new global division of labor affecting the employment situation in partner countries.

One important component of trade in the last decades has been the growth of intermediate goods relative to total trade. The internationalization process of companies in the current globalization force has expanded the exchange of goods that are used as components of the production process. Until recent, more than half of goods trade is made up of intermediate inputs and trade in services is even more of an intermediate type with about three quarters of trade flows being comprised of intermediate services (Miroudot, Lanz, & Ragoussis, 2009).

The choice of foreign inputs over domestic inputs is a not only a practical issue for management within enterprises, but also has relevance for the economic development of countries. Policies such as Foreign Direct Investment (FDI), tariffs, infrastructure, wages, currency and education have a direct impact in the competitive level of a country and the higher these indicators are, the higher the likelihood of its products to be higher in the value chain.

How has China's intermediate goods trade transformed in the past years with its main partners? The aim of this present paper is to understand the flow of intermediate goods among China and its main trade partners by using data obtained by the United Nations Comtrade

website (China against all trading partners), but also of bilateral trade integration (between China and each of its trading partners).

With this purpose in mind, the paper is divided into 4 sections, being this short introduction the first one. The second section analyzes bilateral trade of intermediate goods between China and a set of selected economies from 1995 to 2010. The third section analysis the main 8 components that make the group of intermediate goods in Broad Economic Categories with the aim of distinguishing if China is moving up the value chain for its intermediate goods exports. Finally, the fourth section is a set of concluding remarks.

1. Bilateral trade stylized facts

In order to better understand the process by which China exports and trades with multiple countries in intermediate goods, we have built a series of Figures with 2 basic indicators: the share of China in the export of intermediate goods for respective countries and the share of such countries in the exports of Chinese exports of intermediate goods.

Data was collected from the United Nations Comtrade database and included over 181.000 pairs of observations for exports ranging for 1995 to 2010. From the complete database of Comtrade one can filter for intermediate goods using the classification of Broad Economic Categories (BEC). There are three basic classes of goods in SNA in the categories of BEC. These are as follows:

(i) Capital goods

41* Capital goods (except transport equipment).521* Transport equipment, industrial.

(ii) 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).

53* Parts and accessories of transport equipment.

(iii) Consumption goods

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.

63* Consumer goods not elsewhere specified, non-durable.

After compiling the intermediate goods data we have the following graphic.

Graphic 1. Key stylized facts on China's exports of intermediate goods and selected economies, 1995–2010



Source: Own elaboration based on UN Comtrade, 2013.

From this graphic, four key insights can be derived:

(i) China's exports of intermediate goods is heavily concentrated with its closes neighbors from Southeast Asia. Even though in the last 15 years the trend of exporting intermediate goods from



the selected Southeast Asian countries has shown a decline of nearly 17 percentage points, they still have China as a main destination of intermediate goods (Miroudot, et al., 2009).

(ii) China's exports of intermediate goods to mature economies such as USA and Europe have had different behavior. For the case of the United States, China exported 11.75% of its intermediate goods with a value of \$5,5 billion, but in 2010 even though that figure was of \$78,1 billion, it only represented 17.77% of all Chinese intermediate goods exports.

Europe on the other hand not only grew in share from 7.41% to 12.36% for the same time period, but its value increased from \$3,5 billion to \$54,4. Despite of being of smaller magnitude, its relevant increase of share in the total exports of Chinese intermediate goods is a testament of the role Europe as a whole has for Chinese exporting industry.

Japan is the worst performer of Chinese intermediate goods exports (Anukoonwattaka, 2011). Its share in 1995 was of 21.37% while by 2010 it had reduced to half of that number (10.79%). Several explanations may uphold for such a phenomena, but most apparent is the political difficulties these two countries have had in recent years were conflict over borders and history have directly affected bilateral trade.

(iii) In terms of incremental gains, Latin America is by far the winner. Its share in terms of total exports of intermediate goods from China passed from 0.98% in 1995 to 13.53% in 2010. In terms of value, the amount was \$360 million at the beginning of the period, and by the end the sum had surpassed the \$20,9 billion¹.

(iv) India's share of intermediate goods as a destination for Chinese producers changed from 1.33% to 6% (Anukoonwattaka, 2011). Even though it is an important number, the proximity of such massive markets should have undermined the growth of other regions (in particular Latin America). This could be interpreted that India is a manufacturer by itself of intermediate goods and actually competes with China for the international market of these kinds of products.

¹ This sum is actually undervalued as the sample only contains Brazil and Mexico. Future research including economies such as Argentina, Chile, Colombia, Peru and Venezuela would give a better perspective of the role of Latin America in the trade of Chinese intermediate goods.



2. Is China moving up the value chain

In this section we will try to analyze in more detail the components of intermediate goods in broad terms. These Figures should be able to identify with better precision which sectors that export intermediate goods in China have had better results than others. For that reason we have aggregated the data for the 8 categories that compose intermediate goods according to BEC, these are:

- (i) Food and beverages, primary, mainly for industry
- (ii) Food and beverages, processed, mainly for industry
- (iii) Industrial supplies not elsewhere specified, primary
- (iv) Industrial supplies not elsewhere specified, processed
- (v) Fuels and lubricants, primary
- (vi) Fuels and lubricants, processed (other than motor spirit)
- (vii) Parts and accessories of capital goods (except transport equipment)
- (viii) Parts and accessories of transport equipment

As in the same fashion of Graphic 1, the left side of the Figure shows how big China is in term of global market recipient of intermediate goods while the right side represents the amount of China's exports to the respective country.



Graphic 1. Food and beverages, primary, mainly for industry data





The first result we get from Graphic 2 is that in 1995 the selected economies represented 99.9% of all exports of intermediate goods for China (sum of column (f)). By 2010, other economies had managed to reduce that figure to 96.4% (sum of column (j)), which doesn't sound as much in terms of percentage but when you take into consideration that the value of China's exports in 2010 of primary food and beverages had a value of over \$1,27 billion those extra 3.2% represent and addition \$40 million plus of new markets for this sector (Anukoonwattaka, 2011).

Second is the predominance of Southeast Asia as China's main partner (Miroudot, et al., 2009). In 1995 almost ³/₄ of all exports of intermediate goods went to its close neighbors, which is a result that makes sense since these types of primary products have low added value and are subject to short expiration dates. Of these partners, Hong Kong and Korea were the most important (Anukoonwattaka, 2011).

Third, mature economies have had different results. USA has had an impressive growth as a destiny of Chinese F&B of primary intermediate goods passing from a mere \$7,8 million in 1995 to a whopping \$77,3 million market in 15 years. Nonetheless this result, Germany is still over 2 times bigger as a market for Chinese producers for this sector.

Fourth, China is a great destination for producers of these kind of products from the USA, and Latin America (Miroudot, et al., 2009). These regions or countries sold 45.21% and 29.52% respectively of its F&B primary to China.

Fifth, Southeast Asia is sending less and less of these products to China as time passes by. This might have several explanations:

(i) Chinese producers are searching for more recognized suppliers of these products around the world

(ii) Transport costs and tariffs for these kind of products have become less of a barrier when exporting to China by geographically distant economies such as Brazil.

(iii) Despite Europe being a big trade partner to China, most of its exports do not include F&B primary intermediate goods.

(iv) Canada and France had the biggest losses in terms of market share to China as their values went from 44.27% and 17.53% in 1995 to 3.82% and 0.27% by 2010 (See Graphic 3).

Graphic 3 shows F&B but processed goods. Such goods have higher added value but still represent around 60% of the market of F&B intermediate goods for China. The dynamism of this sector reflects the same pattern of Graphic 2. Southeast Asia is the biggest trading partner for Chinese producers while USA, Japan and Europe are of relevance. Most important is that Brazil has taken a clear lead and became an important destination for Chinese exports of intermediate goods in F&B processed. Brazil has overtaken USA and Europe as destination of these types of products.



Graphic 2. Food and beverages, processed, mainly for industry data

Source: Own elaboration based on UN Comtrade, 2013.

For primary industrial supplies, as Graphic 4 depicts, Japan is the most important partner of China with over 1/4 of all exports in 2010 finding midway in Japanese lands. These values have remained relatively during the last 15 years hovering around 32.64% to 25.86%. This means that this sector is apparently "politics' proof" and not affected by the problems these 2 countries have had in recent years.

Nonetheless, Southeast Asia is still a major destination of these sort of products for China (in the year 2000, over half of all of Chinese exports of primary industrial supplies were directed to its close neighbors with Korea covering nearly of 30% of such demand). In recent years these sector has lost dynamism in the area for traditional partners. Others such as Indonesia and

Thailand have nearly doubled its market share as destination for Chinese producers of primary industrial supplies.

Another important message from this graphic is that China less of a market for the USA and some Southeast Asian economies. Japan has maintained its share of the market in China, while Australia and Latin America have made important gains. In 2010, Australia exported nearly \$38 billion of such products to China, while Brazil exported \$14.3 billion.

India showed tremendous gains by 2005 passing from a \$130 million in 1995 to an impressive \$4.3 billion by 2005. In 2010, India exported to China nearly \$8.6 billion of primary industrial supplies, which represented a mere 6.34% of the Chinese market.



Graphic 3. Industrial supplies not elsewhere specified, primary data

Source: Own elaboration based on UN Comtrade, 2013.

Graphic 5 shows processed industrial supplies of intermediate goods. In here we can see that most Southeast Asian economies find its exports to arrive to China. In 1995 66.58% of all exports in this sector where directed to China with 51.24% coming directly from Hong Kong. By 2010 Hong Kong only exported 16.89% of its processed industrial supplies to China with a value of over \$43 billion. This figure has remained relatively's graphic during the past 15 years where it was over \$29 billion in 1995 rising to \$36.9 billion by 2005.





Graphic 4. Industrial supplies not elsewhere specified, processed data

Source: Own elaboration based on UN Comtrade, 2013.

USA exported a value of over \$21.3 billion of processed industrial supplies to China in 2010, while Japan exported more than double that figure (\$45.4 billion) for the same period. Other regions have more or less kept the same market shares in China with the exception of Russia which actually lost some of it.

Graphic 6 is probably one of the most difficult to construct as fuel and lubricants tend to be not declared by several economies as they belong to sensitive industries that fall within the scope of energy security. Nonetheless, graphic 6 tells us interesting results. As in previous cases, Southeast Asia exports find China as an important market although its relevance has wavered in recent years. In 1995, countries like Indonesia exported \$738.2 million of primary fuel and lubricants to China which represented nearly almost half of the demand of these intermediate products at the moment. By 2010 that value had surpassed the \$5 billion but the demands of China increased so much that that only represented 9.53% of all exports of these type of intermediate goods.

Russia, Australia and Latin America have found newer markets in China to sell these kinds of products. Russia passed from providing a mere 1.01% of the demand in 1995 to 15.39% by 2010. The value in 1996 of Russias exports to China in this sector were \$15.2 million and by 2010 that figure increased to a whopping \$8.24 billion (since 2001, the exports of Russia to China in this sector have basically doubled yearly).

Australia's numbers are similarly impressive: in 1995 they exported \$52.8 million and in 2010 that figured had grown to \$6.15 billion. Brazil follows this same path with 0 exports in 1995 to \$4 billion by 2010.



Graphic 5. Fuels and lubricants, primary data

Source: Own elaboration based on UN Comtrade, 2013.







Source: Own elaboration based on UN Comtrade, 2013.

Graphic 7 shows the processed fuels and lubricants sector. Several things to notice:

(i) 1995 almost all exports of these type of products came from Hong Kong, Singapore, and Korea. By 2010 the demand had fallen to 1/4 of the market from this economies, and the dynamics where that those 3 countries (or regions) lost large portions of its market in China and other economies found a larger share. Hong Kong in 2010 only had 5.7% of its export destined to China, while Singapore and Korea 0.36% and 2.25% respectively. Here the winners seem to be Malaysia and Indonesia and actually Germany.

(ii) One very particular result is the case of Brazil. In 1995 China exported 3.06% of it processed fuel and lubricants intermediate goods to this country, but by 2010 Brazil represented 11.29% of all of Chinese exports in this sector. This is a very important gain for the South American country in terms of market share and it's a testament in the growth of relations between China and the region. In 1995 the exports from China to Brazil were \$48.3 and in 2010 this figure had increased to \$277 million.

Graphic 8 is one of the most important Figures at it depicts intermediate goods that are higher in the value chain. An important observation from this Figure is that Southeast Asian countries have maintained a rather Figure share of the market to and from China. Hong Kong is the most important source and destination of capital goods for China. Nearly half of all exports in this category from this Special Administrative Region went to China, while China exported in average 35% of all its capital goods to Hong Kong. Besides Hong Kong, Korea is also worthy of mention as its share of exports to China surged from 2,89% (\$98 million in 1995 to 12.41% in 2010 which this last figure represents nearly \$8 billion.

Table 1 shows that the biggest market for transport capital goods are USA, Southeast Asia and Latin America. This last partner is the interesting one as it has gained momentum as China's intermediate good partner. In 1995 its share as destiny of exports for China was a mere 1.78% while by 2010 that share had grown until 15.27%. In terms of value, those dates represented passing for \$40 millions in 1995 to \$1.1 billion by 2010. This is clear picture about the relevance of both regions in terms of trade of intermediate goods and how they are becoming production centers for many types of products.



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Graphic 7. Parts and accessories of capital goods (except transport equipment) data

Source: Own elaboration based on UN Comtrade, 2013.



Graphic 8. Parts and accessories of transport equipment data

Source: Own elaboration based on UN Comtrade, 2013.



		111	121	21	22	31	322	42	53
2010	Import	18.62%	8.19%	29.42%	9.02%	10.38%	3.46%	18.06%	5.35%
	Export	1.38%	1.09%	1.46%	9.38%	0.39%	1.97%	14.02%	7.04%
	Import	12.11%	5.81%	17.39%	7.24%	5.10%	3.11%	13.99%	2.94%
2005	Export	2.00%	0.87%	2.34%	6.57%	0.93%	3.18%	8.53%	3.82%
2000	Import	6.24%	2.62%	6.83%	5.53%	3.33%	2.86%	5.53%	1.39%
2000	Export	1.86%	0.57%	3.05%	3.58%	0.94%	3.23%	2.90%	1.52%
1995	Import	4.18%	8.00%	4.36%	3.57%	1.05%	2.51%	2.92%	0.87%
	Export	2.09%	1.01%	2.35%	2.63%	2.05%	2.04%	1.46%	0.70%

 Table 1. China's participation in world trade of intermediate goods, 1995-2010

Source: Own elaboration based on UN Comtrade, 2013.

This last table gives a good picture of the role of China in world's trade of intermediate goods since 1995. Most interesting is that China still imports a large part of primary goods that are still low in the value chain. If we compare the behavior of growth of the different sectors we can see a general trend of reducing or maintaining exports in primary or low value intermediate goods, but a dramatic increase in the import of the same type of products. Most gains were reported in the Capital Goods sector (not including transport) where China now accounts for worldwide imports of 18.06% and exports of 14.02% in 2010, while in 1995 that share was only 2.92% and 1.46% respectively.

Conclusions

The analysis of the above information has shown an important result about recent trends in world trade and China's role as a source of intermediate products for the rest of the world: vertical specialization has become more and more apparent between regions and its composition has changed through time. The concept of Factory China has become more relevant but the sectors in which China has a leading role in world trade have changed through time.

The concept of gravitational centers of production within the International Production Networks still seem to be influenced in great part by distance and market size. One important exception to this rule is the great importance Latin America has gained in the last decade as a trading partner of China. As globalization fosters economic interdependency, the rate by which trade of intermediate goods are exchanged among countries also follows the same trend. In the case of China, there is evidence that its overall participation in the trade of intermediate goods



has gained important relevance, but its biggest gain in recent years have been in the capital goods and maintained or reduced its participation in industrial goods and food and beverages.

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Annex

Table A9. Key stylized facts on China's exports of intermediate goods and selected economies,

1995-2010												
	Share of	China in of count	intermedia ry in (a)	te goods	Share of country in (a) in Chinese intermediate goods trade							
	1995	2000	2005	2010	1995	2000	2005	2010				
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)				
Southeast Asia	58.87%	54.50%	48.79%	41.13%	54.36%	47.58%	46.93%	41.60%				
Hong Kong	44.45%	36.84%	27.10%	21.27%	33.99%	27.68%	26.06%	21.79%				
Indonesia	1.64%	1.81%	1.57%	1.89%	2.10%	2.34%	2.16%	2.33%				
Malaysia	1.76%	1.74%	1.92%	2.63%	1.64%	1.94%	2.73%	2.59%				
Philippines	0.27%	0.37%	0.80%	0.34%	n.a.	n.a.	n.a.	n.a.				
Singapore	2.33%	2.48%	3.61%	3.26%	3.62%	3.85%	3.81%	2.97%				
Korea	7.50%	9.70%	12.27%	10.02%	10.50%	9.55%	9.90%	9.45%				
Thailand	0.92%	1.55%	1.52%	1.73%	2.52%	2.22%	2.27%	2.47%				
USA	7.94%	6.60%	7.24%	8.18%	11.75%	17.91%	20.06%	17.77%				
Japan	14.16%	15.24%	14.13%	12.42%	21.37%	18.76%	14.28%	10.79%				
Europe	7.66%	6.35%	6.70%	7.34%	7.41%	8.36%	8.74%	12.36%				
Belgium	0.00%	0.64%	0.69%	0.69%	n.a.	n.a.	n.a.	n.a.				
France	1.24%	1.21%	0.96%	0.89%	0.98%	1.33%	1.25%	1.73%				
Germany	4.59%	3.09%	3.35%	4.05%	3.60%	3.80%	4.09%	5.76%				
Italy	1.01%	0.80%	0.81%	0.75%	2.06%	2.24%	2.14%	3.49%				
Netherlands	0.51%	0.37%	0.55%	0.64%	n.a.	n.a.	n.a.	n.a.				
Spain	0.30%	0.23%	0.35%	0.32%	0.77%	0.99%	1.26%	1.38%				
Latin America	1.19%	0.87%	1.92%	4.23%	0.98%	1.86%	3.20%	13.53%				
Brazil	1.15%	0.68%	1.66%	3.80%	0.81%	1.05%	1.91%	11.64%				
Mexico	0.04%	0.19%	0.27%	0.42%	0.17%	0.81%	1.29%	1.89%				
Russia	3.55%	2.31%	2.33%	2.05%	n.a.	n.a.	n.a.	n.a.				
Australia	1.59%	1.90%	2.39%	6.06%	n.a.	n.a.	n.a.	n.a.				
UK	0.75%	0.97%	0.82%	0.71%	1.89%	2.60%	2.62%	2.40%				
Canada	2.26%	1.46%	1.25%	1.43%	n.a.	n.a.	n.a.	n.a.				
India	0.30%	0.38%	1.74%	2.09%	1.33%	1.76%	2.68%	6.00%				

	Share of China in intermediate goods of country in (a)				Share of country in (a) in Chinese intermediate goods trade			
	1995	2000	2005	2010	1995	2000	2005	2010
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Southeast Asia	2.88%	1.63%	0.63%	0.33%	74.03%	64.52%	45.79%	53.49%
Hong Kong	1.16%	0.82%	0.10%	0.03%	55.12%	50.05%	31.14%	31.39%
Indonesia	0.63%	0.46%	0.37%	0.23%	7.94%	1.38%	0.36%	1.44%
Malaysia	0.86%	0.02%	0.00%	0.00%	1.47%	1.30%	0.89%	1.39%
Philippines	0.00%	0.01%	0.00%	0.01%	n.a.	n.a.	n.a.	n.a.
Singapore	0.21%	0.13%	0.01%	0.01%	1.47%	0.74%	0.41%	0.41%
Korea	0.02%	0.03%	0.00%	0.01%	7.58%	10.86%	12.04%	14.78%
Thailand	0.01%	0.16%	0.14%	0.04%	0.47%	0.20%	0.95%	4.09%
USA	27.31%	37.27%	35.19%	45.21%	0.86%	1.36%	5.63%	6.07%
Japan	0.04%	0.04%	0.02%	0.01%	19.39%	23.72%	27.20%	13.87%
Europe	17.53%	3.60%	1.45%	0.42%	4.64%	6.51%	13.70%	17.36%
Belgium	0.00%	0.00%	0.28%	0.10%	n.a.	n.a.	n.a.	n.a.
France	13.23%	2.91%	1.10%	0.27%	0.54%	0.56%	0.44%	0.95%
Germany	3.84%	0.56%	0.05%	0.01%	2.37%	3.38%	9.27%	12.36%
Italy	0.00%	0.00%	0.00%	0.01%	0.90%	1.04%	1.09%	0.85%
Netherlands	0.18%	0.09%	0.01%	0.02%	n.a.	n.a.	n.a.	n.a.
Spain	0.28%	0.05%	0.00%	0.00%	0.84%	1.54%	2.90%	3.19%
Latin America	0.00%	11.93%	25.73%	29.52%	0.02%	0.46%	1.50%	2.17%
Brazil	0.00%	11.92%	25.73%	29.51%	0.00%	0.00%	0.05%	0.52%
Mexico	0.00%	0.01%	0.00%	0.00%	0.02%	0.45%	1.44%	1.65%
Russia	0.80%	0.30%	0.00%	0.01%	n.a.	n.a.	n.a.	n.a.
Australia	0.01%	11.85%	2.34%	1.63%	n.a.	n.a.	n.a.	n.a.
UK	1.55%	0.14%	0.03%	0.00%	0.83%	2.54%	3.42%	3.08%
Canada	44.27%	13.06%	6.14%	3.82%	0.00%	0.00%	0.00%	0.00%
India	0.03%	0.04%	0.18%	0.19%	0.08%	0.02%	0.02%	0.35%

Table A10. Food and beverages, primary, mainly for industry data



	Share of China in intermediate goods of country in (a)				Share of country in (a) in Chinese intermediate goods trade			
	1995	2000	2005	2010	1995	2000	2005	2010
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Southeast Asia	50.07%	66.84%	57.74%	59.28%	75.09%	70.65%	60.93%	55.46%
Hong Kong	9.54%	11.43%	1.38%	0.40%	71.13%	50.89%	25.14%	14.65%
Indonesia	1.99%	15.68%	19.40%	23.78%	0.18%	4.74%	6.57%	6.76%
Malaysia	25.87%	34.91%	33.85%	31.89%	1.52%	0.71%	6.87%	7.02%
Philippines	0.44%	1.60%	0.07%	0.97%	n.a.	n.a.	n.a.	n.a.
Singapore	0.49%	0.82%	1.42%	1.54%	0.46%	2.99%	2.82%	3.42%
Korea	0.03%	0.55%	0.16%	0.22%	1.43%	8.19%	16.73%	16.25%
Thailand	11.70%	1.86%	1.45%	0.49%	0.37%	3.14%	2.81%	7.35%
USA	11.14%	4.68%	2.39%	6.30%	7.88%	13.83%	12.69%	10.04%
Japan	0.15%	1.41%	0.52%	0.14%	7.78%	12.25%	19.67%	8.80%
Europe	9.98%	6.05%	2.49%	2.76%	1.26%	1.14%	3.18%	5.18%
Belgium	0.00%	0.47%	0.30%	0.16%	n.a.	n.a.	n.a.	n.a.
France	0.72%	2.95%	1.11%	0.77%	0.48%	0.27%	1.04%	2.07%
Germany	7.63%	0.84%	0.11%	0.50%	0.54%	0.65%	0.10%	2.46%
Italy	0.00%	0.01%	0.04%	0.06%	0.18%	0.09%	1.33%	0.09%
Netherlands	1.48%	1.66%	0.88%	1.23%	n.a.	n.a.	n.a.	n.a.
Spain	0.15%	0.11%	0.05%	0.05%	0.06%	0.13%	0.71%	0.56%
Latin America	23.75%	1.98%	4.18%	12.82%	0.01%	0.03%	0.64%	10.49%
Brazil	23.75%	1.98%	4.18%	12.82%	0.01%	0.02%	0.64%	10.25%
Mexico	0.00%	0.00%	0.01%	0.00%	0.00%	0.01%	0.01%	0.24%
Russia	0.09%	0.19%	0.00%	0.02%	n.a.	n.a.	n.a.	n.a.
Australia	0.24%	1.71%	0.79%	1.36%	n.a.	n.a.	n.a.	n.a.
UK	0.08%	0.27%	0.10%	0.06%	0.65%	1.69%	1.49%	1.15%
Canada	0.44%	0.90%	2.42%	8.72%	n.a.	n.a.	n.a.	n.a.
India	0.01%	0.14%	0.15%	0.08%	0.91%	0.09%	0.22%	1.74%

Table A11. Food a	and beverages, proce	ssed, mainly for	industry data



	Share of China in intermediate goods of country in (a)				Share of country in (a) in Chinese intermediate goods trade			
	1995	2000	2005	2010	1995	2000	2005	2010
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Southeast Asia	33.03%	25.88%	13.05%	9.05%	39.54%	50.66%	45.38%	34.74%
Hong Kong	24.87%	17.99%	6.02%	2.59%	18.66%	5.63%	5.50%	6.89%
Indonesia	0.99%	0.56%	1.37%	2.26%	2.47%	6.37%	1.59%	4.51%
Malaysia	1.69%	2.16%	1.78%	1.10%	1.55%	7.50%	2.24%	1.80%
Philippines	0.36%	0.28%	0.16%	0.31%	n.a.	n.a.	n.a.	n.a.
Singapore	1.15%	0.71%	0.53%	0.24%	2.87%	0.53%	0.82%	1.22%
Korea	0.67%	0.75%	0.88%	0.44%	11.02%	27.93%	33.69%	17.23%
Thailand	3.29%	3.44%	2.31%	2.11%	2.97%	2.71%	1.55%	3.10%
USA	27.13%	13.00%	15.28%	11.27%	11.89%	12.05%	14.74%	14.47%
Japan	2.00%	4.02%	4.78%	2.82%	32.64%	23.27%	23.48%	25.86%
Europe	1.55%	9.84%	6.57%	4.44%	11.74%	7.18%	9.17%	13.69%
Belgium	0.00%	4.39%	2.07%	0.87%	n.a.	n.a.	n.a.	n.a.
France	0.26%	0.91%	0.54%	0.42%	1.23%	0.68%	0.80%	1.40%
Germany	0.43%	2.83%	1.47%	1.02%	6.38%	3.98%	5.69%	7.59%
Italy	0.18%	0.34%	0.46%	0.46%	3.27%	2.03%	1.96%	2.79%
Netherlands	0.66%	0.98%	1.37%	1.10%	n.a.	n.a.	n.a.	n.a.
Spain	0.03%	0.38%	0.67%	0.56%	0.86%	0.50%	0.72%	1.91%
Latin America	2.57%	3.89%	6.10%	11.76%	0.62%	0.48%	0.71%	6.03%
Brazil	2.57%	3.59%	5.44%	10.59%	0.51%	0.12%	0.29%	4.52%
Mexico	0.00%	0.30%	0.67%	1.16%	0.11%	0.36%	0.43%	1.52%
Russia	2.10%	4.69%	3.99%	1.84%	n.a.	n.a.	n.a.	n.a.
Australia	14.79%	15.92%	16.82%	28.03%	n.a.	n.a.	n.a.	n.a.
UK	0.68%	0.86%	1.66%	1.34%	2.10%	1.41%	1.98%	1.23%
Canada	1.44%	2.48%	2.46%	1.90%	0.00%	0.00%	0.00%	0.00%
India	1.84%	1.98%	10.14%	6.34%	1.02%	3.21%	2.68%	3.65%

Table A12. Industrial supplies not elsewhere specified, primary data



		Share of China in intermediate goods of country in (a)				Share of country in (a) in Chinese intermediate goods trade			
		1995	2000	2005	2010	1995	2000	2005	2010
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Se A	outheast sia	66.58%	60.52%	48.29%	40.77%	58.12%	47.02%	42.00%	35.55%
	Hong Kong	51.24%	40.72%	25.33%	16.89%	36.58%	29.02%	21.03%	13.03%
	Indonesia	1.27%	1.87%	1.46%	1.40%	2.00%	2.20%	2.68%	3.41%
	Malaysia	1.18%	1.04%	1.37%	1.74%	1.82%	1.43%	1.86%	2.76%
	Philippines	0.18%	0.16%	0.15%	0.21%	n.a.	n.a.	n.a.	n.a.
	Singapore	1.36%	1.71%	2.45%	2.91%	2.97%	2.47%	2.23%	2.19%
	Korea	10.86%	13.94%	15.75%	14.69%	11.59%	9.86%	11.22%	10.79%
	Thailand	0.49%	1.08%	1.79%	2.91%	3.17%	2.04%	2.97%	3.38%
U	SA	5.54%	4.82%	6.67%	8.35%	10.59%	18.51%	20.87%	18.31%
Ja	apan	14.87%	16.82%	18.61%	17.71%	17.93%	16.37%	14.25%	11.27%
E	urope	6.08%	4.58%	7.35%	8.26%	7.81%	9.61%	10.00%	11.82%
	Belgium	0.00%	0.47%	0.90%	1.33%	n.a.	n.a.	n.a.	n.a.
	France	0.55%	0.68%	0.86%	0.85%	0.91%	1.28%	1.32%	1.82%
	Germany	4.16%	2.07%	3.42%	3.96%	3.64%	3.92%	3.64%	4.54%
	Italy	0.74%	0.74%	1.12%	0.93%	2.39%	3.03%	3.16%	3.56%
	Netherlands	0.35%	0.39%	0.64%	0.79%	n.a.	n.a.	n.a.	n.a.
	Spain	0.27%	0.23%	0.42%	0.39%	0.86%	1.38%	1.89%	1.90%
La A	atin merica	0.35%	0.40%	1.32%	1.37%	0.75%	1.69%	3.20%	14.15%
	Brazil	0.29%	0.32%	1.03%	1.10%	0.64%	0.83%	1.83%	12.41%
	Mexico	0.06%	0.08%	0.29%	0.27%	0.12%	0.86%	1.37%	1.74%
R	ussia	5.57%	3.43%	2.73%	1.80%	n.a.	n.a.	n.a.	n.a.
A	ustralia	0.63%	0.65%	0.75%	0.96%	n.a.	n.a.	n.a.	n.a.
U	К	0.54%	0.55%	0.76%	0.66%	2.12%	2.79%	2.88%	2.97%
С	anada	1.33%	1.46%	1.85%	2.02%	n.a.	n.a.	n.a.	n.a.
Ir	ndia	0.29%	0.48%	1.63%	2.90%	1.52%	2.04%	4.02%	8.19%

Table A13. Industrial supplies not elsewhere specified, processed data
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	Share of China in intermediate goods of country in (a)				Share of country (a) in Chinese intermediate goods trade			
	1995	2000	2005	2010	1995	2000	2005	2010
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Southeast Asia	53.65%	17.92%	9.03%	11.55%	24.37%	39.99%	55.28%	60.35%
Hong Kong	0.00%	0.02%	0.00%	0.00%	1.57%	7.74%	4.58%	21.62%
Indonesia	49.18%	14.38%	6.31%	9.53%	2.71%	6.02%	10.17%	1.45%
Malaysia	4.45%	2.57%	0.39%	1.52%	0.05%	0.17%	3.78%	1.94%
Philippines	0.00%	0.00%	0.09%	0.29%	n.a.	n.a.	n.a.	n.a.
Singapore	0.00%	0.00%	0.00%	0.00%	2.75%	2.23%	3.95%	1.05%
Korea	0.01%	0.00%	0.00%	0.00%	17.16%	19.86%	32.40%	30.86%
Thailand	0.00%	0.95%	2.23%	0.20%	0.14%	3.97%	0.40%	3.43%
USA	0.00%	0.01%	0.05%	1.15%	10.02%	11.26%	7.22%	7.16%
Japan	0.00%	0.00%	0.00%	0.00%	62.94%	44.28%	32.51%	30.25%
Europe	0.00%	0.00%	0.00%	0.00%	2.02%	0.78%	0.48%	0.00%
Belgium	0.00%	0.00%	0.00%	0.00%	n.a.	n.a.	n.a.	n.a.
France	0.00%	0.00%	0.00%	0.00%	1.42%	0.42%	0.03%	0.00%
Germany	0.00%	0.00%	0.00%	0.00%	0.11%	0.00%	0.08%	0.00%
Italy	0.00%	0.00%	0.00%	0.00%	0.48%	0.23%	0.00%	0.00%
Netherlands	0.00%	0.00%	0.00%	0.00%	n.a.	n.a.	n.a.	n.a.
Spain	0.00%	0.00%	0.00%	0.00%	0.00%	0.12%	0.37%	0.00%
Latin America	0.00%	0.56%	2.21%	8.93%	0.01%	1.97%	0.30%	9.73%
Brazil	0.00%	0.56%	2.21%	7.58%	0.01%	1.97%	0.28%	9.73%
Mexico	0.00%	0.00%	0.00%	1.35%	0.00%	0.00%	0.01%	0.00%
Russia	1.01%	4.08%	11.92%	15.39%	n.a.	n.a.	n.a.	n.a.
Australia	3.52%	4.76%	2.26%	11.49%	n.a.	n.a.	n.a.	n.a.
UK	1.92%	1.78%	0.00%	0.00%	0.18%	0.19%	0.12%	0.00%
Canada	0.00%	0.00%	0.25%	2.14%	n.a.	n.a.	n.a.	n.a.
India	0.01%	0.01%	0.00%	0.02%	0.38%	3.12%	3.98%	0.00%

Table A14. Fuels and lubricants, primary data



	Share of China in intermediate goods of country in (a)				Share of country in (a) in Chinese intermediate goods trade			
	1995	2000	2005	2010	1995	2000	2005	2010
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Southeast Asia	94.25%	74.46%	52.95%	25.39%	64.32%	48.49%	31.17%	46.30%
Hong Kong	53.50%	10.82%	9.31%	5.70%	37.15%	45.47%	28.07%	35.16%
Indonesia	0.39%	6.00%	30.50%	7.76%	0.60%	0.33%	0.18%	0.30%
Malaysia	1.00%	12.99%	4.64%	9.17%	0.24%	0.61%	0.15%	0.53%
Philippines	3.88%	2.96%	0.21%	0.10%	n.a.	n.a.	n.a.	n.a.
Singapore	18.84%	4.51%	2.25%	0.36%	10.99%	0.04%	0.22%	0.11%
Korea	16.24%	15.77%	1.22%	2.25%	13.28%	1.70%	2.14%	9.53%
Thailand	0.40%	21.41%	4.82%	0.04%	2.07%	0.34%	0.42%	0.66%
USA	0.76%	2.47%	2.16%	4.18%	8.87%	8.86%	11.20%	1.24%
Japan	10.39%	3.51%	3.62%	7.66%	6.21%	16.60%	23.80%	10.15%
Europe	0.73%	3.91%	3.71%	6.35%	9.53%	8.03%	8.92%	0.25%
Belgium	0.00%	0.03%	0.11%	0.38%	n.a.	n.a.	n.a.	n.a.
France	0.11%	0.66%	0.59%	0.85%	0.98%	3.63%	3.76%	0.02%
Germany	0.39%	2.54%	2.03%	3.93%	3.65%	2.37%	2.41%	0.17%
Italy	0.20%	0.23%	0.25%	0.33%	2.65%	2.03%	2.75%	0.01%
Netherlands	0.02%	0.34%	0.44%	0.55%	n.a.	n.a.	n.a.	n.a.
Spain	0.01%	0.11%	0.29%	0.31%	2.24%	0.00%	0.00%	0.05%
Latin America	0.01%	0.01%	0.47%	0.01%	6.44%	6.33%	9.49%	14.60%
Brazil	0.00%	0.01%	0.47%	0.00%	5.21%	5.25%	8.49%	14.57%
Mexico	0.01%	0.00%	0.01%	0.01%	1.23%	1.09%	1.00%	0.02%
Russia	0.63%	0.46%	0.28%	2.41%	n.a.	n.a.	n.a.	n.a.
Australia	0.00%	6.90%	3.80%	3.39%	n.a.	n.a.	n.a.	n.a.
UK	0.23%	0.42%	0.08%	0.26%	1.10%	1.58%	2.68%	0.12%
Canada	0.07%	0.01%	0.04%	0.06%	n.a.	n.a.	n.a.	n.a.
India	0.00%	0.05%	0.07%	0.03%	5.44%	10.98%	8.47%	9.10%

Table A15. Fuels and lubricants, processed (other than motor spirit) data

	Share of of countr	China in ry in (a)	intermedi	ate goods	Share of country in (a) in Chinese intermediate goods trade				
	1995	2000	2005	2010	1995	2000	2005	2010	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	
Southeast Asia	54.00%	61.66%	69.98%	69.75%	54.50%	52.66%	56.77%	51.63%	
Hong Kong	46.42%	45.01%	43.87%	45.30%	39.91%	32.21%	37.02%	34.49%	
Indonesia	0.01%	0.11%	0.06%	0.08%	1.47%	1.36%	1.08%	1.19%	
Malaysia	0.43%	2.00%	2.23%	3.89%	1.96%	2.53%	3.99%	2.51%	
Philippines	0.06%	0.73%	1.87%	0.53%	n.a.	n.a.	n.a.	n.a.	
Singapore	3.96%	4.57%	6.70%	6.44%	5.32%	7.75%	6.39%	4.31%	
Korea	2.89%	7.51%	14.23%	12.41%	4.58%	6.10%	6.47%	7.58%	
Thailand	0.23%	1.75%	1.02%	1.09%	1.25%	2.70%	1.83%	1.55%	
USA	7.23%	6.76%	5.35%	5.24%	14.24%	16.53%	17.48%	14.89%	
Japan	19.62%	17.24%	14.15%	13.50%	20.97%	18.56%	11.95%	8.88%	
Europe	9.94%	8.02%	6.39%	7.13%	6.50%	6.71%	7.34%	13.39%	
Belgium	0.00%	0.34%	0.31%	0.24%	n.a.	n.a.	n.a.	n.a.	
France	2.31%	1.91%	0.99%	0.88%	1.01%	1.38%	1.05%	1.51%	
Germany	3.75%	4.16%	3.68%	4.67%	3.89%	3.59%	4.69%	7.25%	
Italy	2.29%	1.10%	0.81%	0.83%	1.18%	1.21%	0.99%	3.76%	
Netherlands	0.97%	0.27%	0.37%	0.37%	n.a.	n.a.	n.a.	n.a.	
Spain Latin	0.63%	0.24%	0.22%	0.14%	0.41%	0.53%	0.61%	0.87%	
America	0.13%	0.39%	0.26%	0.14%	1.27%	2.17%	3.28%	11.11%	
Brazil	0.13%	0.04%	0.09%	0.06%	0.98%	1.24%	1.99%	9.18%	
Mexico	0.00%	0.35%	0.17%	0.08%	0.30%	0.93%	1.30%	1.94%	
Russia	0.25%	0.07%	0.13%	0.06%	n.a.	n.a.	n.a.	n.a.	
Australia	0.40%	0.10%	0.07%	0.09%	n.a.	n.a.	n.a.	n.a.	
UK	1.16%	1.41%	0.61%	0.44%	1.71%	2.67%	2.45%	1.57%	
Canada	1.38%	0.31%	0.23%	0.16%	n.a.	n.a.	n.a.	n.a.	
India	0.02%	0.03%	0.07%	0.12%	0.54%	0.62%	1.03%	4.00%	

Table A16. Parts and accessories of capital goods (except transport equipment) data



	Share of China in intermediate goods of country in (a)				Share of country in (a) in Chinese intermediate goods trade			
	1995	2000	2005	2010	1995	2000	2005	2010
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Southeast Asia	36.16%	23.95%	31.70%	27.42%	31.89%	26.16%	27.91%	22.67%
Hong Kong	32.45%	17.38%	7.62%	4.68%	15.55%	16.43%	14.85%	8.02%
Indonesia	0.01%	0.16%	0.29%	0.16%	3.97%	3.03%	1.96%	1.79%
Malaysia	0.05%	0.54%	0.31%	0.32%	1.16%	0.93%	2.11%	2.36%
Philippines	0.03%	0.16%	0.15%	0.21%	n.a.	n.a.	n.a.	n.a.
Singapore	1.43%	2.33%	1.67%	2.07%	5.86%	2.15%	2.29%	1.24%
Korea	2.08%	3.07%	21.19%	19.35%	3.97%	3.16%	5.60%	7.56%
Thailand	0.12%	0.32%	0.48%	0.63%	1.38%	0.46%	1.10%	1.69%
USA	7.42%	11.49%	9.81%	3.85%	39.14%	35.45%	36.57%	33.14%
Japan	21.59%	28.34%	29.69%	31.19%	12.71%	17.42%	15.59%	13.63%
Europe	26.89%	21.02%	17.28%	27.19%	7.49%	13.10%	10.23%	12.11%
Belgium	0.00%	0.25%	0.16%	0.43%	n.a.	n.a.	n.a.	n.a.
France	2.39%	3.66%	3.99%	4.30%	1.45%	2.19%	2.02%	2.75%
Germany	22.13%	14.93%	11.45%	19.07%	4.57%	7.24%	5.02%	5.68%
Italy	1.95%	1.56%	0.76%	1.66%	0.89%	2.47%	2.20%	2.59%
Netherlands	0.33%	0.34%	0.20%	0.91%	n.a.	n.a.	n.a.	n.a.
Spain	0.08%	0.29%	0.72%	0.82%	0.58%	1.19%	0.99%	1.09%
America	1.78%	0.68%	1.18%	0.53%	1.78%	1.78%	3.71%	15.27%
Brazil	1.77%	0.23%	0.73%	0.20%	1.74%	0.92%	2.28%	12.33%
Mexico	0.01%	0.45%	0.45%	0.32%	0.04%	0.86%	1.43%	2.94%
Russia	1.48%	1.97%	1.98%	1.25%	n.a.	n.a.	n.a.	n.a.
Australia	0.31%	0.06%	0.56%	0.24%	n.a.	n.a.	n.a.	n.a.
UK	1.57%	2.92%	2.74%	2.16%	2.81%	3.79%	2.83%	4.03%
Canada	2.79%	6.05%	1.52%	0.38%	n.a.	n.a.	n.a.	n.a.
India	0.01%	0.05%	0.11%	0.17%	0.10%	0.31%	1.19%	4.57%

Table A17. Parts and accessories of transport equipment data