

CHINA: THE PRICE OF COMPETITIVENESS

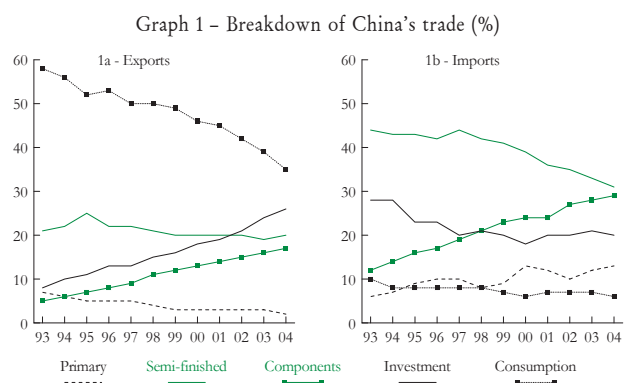
China has become the world's largest export production platform and is now the hub of an intensified regional segmentation of production processes, as evidenced by the surge of intra-Asian trade in parts and components. However, Asian exports of final goods still heavily depend on markets outside the region. Also, the unit values of China's exports and imports show the limits its price competitiveness. China is exporting standardized goods subject to stiff price competition and which incorporate more and more sophisticated inputs. This trend, combined with the rise in world prices for primary products, is strongly deteriorating China's terms of trade. This is one of the adverse effects of an outward-oriented and extensive growth strategy that is now being criticized openly even in China.¹

■ A global production platform

Since the early 1990's, firms have enhanced the international fragmentation of the production chain to reap the benefit of comparative advantages that various countries offer. They have set up subsidiaries abroad and/or developed subcontracting operations with local producers.² In these production networks, developing countries are low-cost suppliers in the labor-intensive production stages. Thanks to its infrastructures, to the quantity and quality of its labor force, China has become the world's largest export production platform. Its outwards-oriented firms now form an essential link in the worldwide chain of value-added.³ In 2005, more than half of Chinese exports come from assembly and processing of semi-finished products and imported components, essentially carried out (for more than 80%) by subsidiaries of foreign companies. China's surplus in assembly trade has tripled since 2001 (more than 145 billion in 2005) and shows the acceleration of outsourcing. This surplus represents nearly one fifth of the industrial value added of China and more than 60% of that of foreign subsidiaries.⁴ The local content of assembly exports ("added value" in China plus local inputs) increased between 1993 and 2001, from 18% to 36%, but has stagnated around 33% since then.

Assembly activities thus seem to remain apart of the phenomena of "moving to upstream stages of production" by foreign subsidiaries in China.

China exports mainly final goods and most of them are still consumer goods (graph 1a) for which its share of the world market is steadily climbing (from 8% to 11.4% between 1993 and 2004). But its exports of final goods consist more and more of investment goods⁵ for which its surge in the world market has been especially remarkable (from 1.7% to 11.5%). This transformation of exports goes hand in hand



Source: BACI database, authors' calculations.

1. This letter summarizes the main findings of the study of G. Gaulier, F. Lemoine & D. Unal-Kesenci (2006), "China's Emergence and the Reorganisation of Trade Flows in Asia," CEPII working paper, no. 2006-05, March.

2. H. Boulhol & L. Fontagné (2006), "Deindustrialisation and the fear of relocations in the industry," CEPII working document, no. 2006-07, March.

3. G. Gereffi & T. J. Sturgeon (2004), "Globalization, Employment and Economic Development: a Briefing Paper", <http://www.globalvaluechains.org/>

4. This tends to indicate that foreign investment in the manufacturing industry in China is distributed almost equally between production for the domestic market and production for export.

5. The scissor effect between consumer goods and investment goods is accentuated by the fact that all computer hardware (except components) is classified under investment goods.

with a change in the kind of intermediate products imported: relatively less semi-finished products and a spectacular rise in parts and components (graph 1b).

■ Hub of the division of labor in Asia

The bulk of Chinese imports of intermediate goods comes from Asia.⁶ The opening up of China has given a new impetus to the international division of labor in the region, as is shown by the intensification of trade in parts and components (P&C): between 1993 and 2004, their weight went from 18% to 29% in total intra-Asian trade.

The geography of regional trade in P&C has been deeply remodeled. China is by far the most dynamic regional market and supplier: in the intra-Asian trade of P&C, its share rose 11 points in exports and 16 points in imports between 1993 and 2004, the essential being acquired in its trade with the Dragons (table 1). In regional exports, Japan has lost ground (-22 points), mainly to the benefit of China but also to the Dragons and Tigers.

Table 1 – Structure of intra-Asian trade in parts and components for 2004 in percent, and changes in percent points compared to 1993 (exports in rows, imports in columns)

	Japan	Dragons	Tigers	China	Asia*
Japan		11 -14	5 -8	7 +3	25 -22
Dragons	4	15	6 -2	15 +9	41 +7
Tigers	2	7 -1	2 +1	4 +4	16 +4
China	3 +2	10 +7	2 +1		16 +11
Asia*	10 +3	44 -8	15 -7	25 +16	100

* included India and the other countries of Asia-Oceania.
Source: BACI database, authors' calculations.

All in all, China is now Asia's major commercial power, ahead of Japan. In the intra-regional trade of manufactured products, its weight has practically doubled since 1993, reaching 23% in 2004. China has largely surpassed Japan in imports (22% against 15%) and has caught up with it in exports (23%).

The emergence of China as a production and export platform has led to a reorganization of trade for Japan and the Dragons. The most dynamic Japanese exports are parts and components directed to China, while its exports of investment goods to North America and Europe have relatively fallen off, as these markets are now served by production bases located in China. For Japan, North America and Europe have lost their dominant position as suppliers of investment goods, which now come in increasing proportion from China, mainly in the form of computer hardware (table 2). The Dragons are logging an analogous

reorganization of their foreign trade: acceleration of the trade in P&C with China and relative weakening of trade with Japan and North America.

Table 2 – Reorientation of Japanese trade

	1993	2004	1993	2004
	Investment goods		Parts and components	
Exports to:				
Dragons & Tigers	27	27	36	37
China	5	13	3	15
Europe & North America	47	41	51	40
World	100	100	100	100
Imports to:				
Dragons & Tigers	21	23	30	42
China	4	32	4	20
Europe & North America	73	42	64	35
World	100	100	100	100

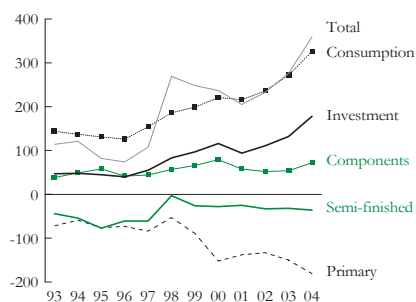
Source: BACI database, authors' calculations.

So, the reallocation of industrial production in Asia has weakened the trade among developed countries and strengthened their trade with China, based on strong complementarity along the production chain. However, the rising power of China does not seem to have affected notably the position of the emerging countries of Asia (Malaysia, the Philippines, and Thailand). These countries have rather strengthened their position in manufactured exports both to the world and to the region. In electronics, their weight in world exports rose from 6.5% to 9% over the decade.

Over the last ten years, the weight of Asia, taken as a whole, in world trade has varied little. In 2004, it is slightly above 29% of world exports and at 25% of imports. However, the region more than tripled its trade surplus between 1993 and 2004 (from about \$110 to \$360 billion). Following the macro-economic policies instituted during the Asian financial crisis in 1997-1998 to put a brake on domestic demand and re-establish the balance of external payments, most countries in the region have resumed an economic growth drawn up by exports rather than by domestic consumption.⁷ Graph 2 shows that Asia makes the bulk of its trade surplus from exports of final goods: consumer goods (+326 billion in 2004) and also, more and more, investment goods (178 billion). Despite an increasing trade integration, Asia thus still appears to be dependent on markets outside the region for its exports of final goods. The final demand which, at the end of the day, is pulling the division of labor in the region is located in America and Europe. China has, it is true, opened its domestic market; but it has not (yet?) created an independent engine for trade and the economies of the region.

6. "Asia" includes all the countries of Asia-Oceania: Japan, the Dragons (Hong Kong, South Korea, Taiwan, Singapore), the Tigers (Malaysia, the Philippines, Thailand) and China in 2004 achieved 88% of the intra-Asiatic trade flows on the export side and 94% of imports (table 1).
7. Asian Development Outlook 2005, Asian Development Bank.

Graph 2 – Trade balance of Asian countries (\$ billions)



Source: BACI database, authors' calculations

Price competitiveness

As an export platform combining very low wage costs with technology and capital from abroad, China has based its export successes on strong price competitiveness.

Analysis of international trade by price brackets (unit values) shows that China is strongly specialized in the export of products situated in the low price range.⁸ In 2004, 72% of its exports were in this range, with only 17% in the medium range and 12% in the top bracket. In the exports of the Tigers, the corresponding proportions are 48%, 28% and 23%, and in those of India 49%, 28% and 23%.

The structure of exports from China appears biased downwards even in the high-technology products which are exported mainly by subsidiaries of foreign firms. Thus, in the early 2000's, three-quarters of Chinese exports of high-technology electronic products were achieved in the lowest price bracket and only 8% in the highest – proportions that have varied little since the middle of the 1990's. By contrast, exports from the Tigers in high-tech electronic products include a higher proportion of products with high unit value (42%) than products with low unit value (34%).

The low unit values of Chinese exports can be explained in several ways. First, it is possible that the products exported from China are of lower quality; but that would suppose that the quality standards applied by the multinationals for their production in China are not as high as those in force in their other subsidiaries. It may be rather thought that China's specialisation in low price products reflects the price competitiveness of Chinese exports due to its low production costs. Chinese products, for equal quality, would have a lower price level and the other producers would stand up to the competition thanks to the advantages of geographic proximity (for just-in-time provisioning or restocking), to the concern for diversification of suppliers, to the inertia of customer-supplier contracts, etc.

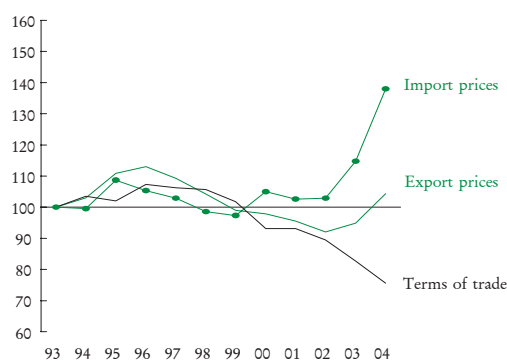
However, the most plausible explanation for the unit value differences is that a 6-digit nomenclature (about 5000 products) is insufficient for capturing the differentiation of the products: in each product category, the Chinese exports doubtless include less sophisticated varieties with lower unit values. For these standard varieties, Chinese producers have often crowded out producers of the industrialized countries, which now occupy niches where they can emphasize their non-price competitiveness. In this respect, the comparison of the composition by product of China's exports with the industrialized countries observed at this level of nomenclature would be partly misleading.

Lastly, it cannot be excluded that the unit values of the products exported by China also reflect the transfer price practice (foreign firms wanting to minimize the amount of profit their subsidiaries make in China) or under-invoicing intended to bypass exchange controls. It is well known that a major capital outflows occurred this way between 1997 and 2002.

Deterioration of terms of trade

It would be expected that export prices of an industrializing country like China would gradually catch up and thus improve its terms of trade. This is not the case. China's terms of trade have been sharply degraded over recent years (-18% between 1998 and 2004) due to a scissor effect between export prices and import prices (graph 3).

Graph 3 – China's terms of trade (1993 = 100)



Source: BACI database, authors' calculations.

Export prices dropped more than 15% between 1995 and 2002. This drop affected all production stages but was particularly pronounced in P&C⁹. It corresponds to a decline of domestic prices and results both from very high productivity gains in the manufacturing industry and from competition among producers, both on the domestic and foreign markets. Starting in 1999, import prices have

8. The harmonized data of the BACI base, in current prices and in quantity, are used to calculate the unit values of the traded products. The three brackets, each grouping about a third of world trade, are defined from the world distribution of unit values of trade for each of the 5000 product categories (see <http://cepii.fr/francgraph/bdd/baci.htm>).

9. There are two possible and non-exclusive explanations for the upswing in export prices for manufactured products starting in 2003: the fact that companies tried to pass on the rise in production costs (due to increasing cost of inputs) and/or an over-billing of exports intended to facilitate the entry of capital speculating on the upvaluing of the yuan.

exhibited an especially strong rise for P&C (nearly doubling between 1998 and 2004), but affecting also consumer and investment goods. Beyond the effects of appreciation of the yen and euro with respect to the dollar (+16% for the yen and +32% for the euro between 2002 and 2004), this price rise certainly reflects, in large part, an increase in the quality of imported products since it concerns industries for which world prices are rather stable.

China is thus exporting standardized goods subject to stiff price competition and that incorporate more and more sophisticated inputs. Mass market computer products are exemplary in this respect. Thus, China's steady trade expansion is based on a continued mobilization of low-wage labor in the export sector and especially on the winning-over of new markets. This outwards-oriented and extensive growth is sustainable with a growing international market, but is a source of vulnerability. In particular, the degradation of the terms of trade since 2003 is accentuated by the rise in prices for primary products, as China is subject to the rise in world prices that it is contributing to by its increased import needs.

This deterioration of terms of trade brings out certain adverse effects of China's insertion into the international division of labor. It can also be explained by a growth model which has created surplus capacities in many sectors. Initially restricted to downstream sectors (consumer goods), over-production is spreading to upstream sectors (aluminum, cement, steel) in 2005 and results in a slowdown in the growth of profits which is putting many companies in difficulty.¹⁰ The acceleration of investment in the first quarter of 2006 indicates that these trends are continuing.

The debates that went along with the adoption of the 11th five-year plan show that the growth model followed over these last years is subject to criticism even in China. The takeoff of outwards-oriented industries is bringing regional

disparities as well as social inequalities. It implies an industrial growth that gobbles up energy and raw materials and is harmful to the environment.

The political authorities are advocating a more balanced development in the future, but everything seems to point toward this being a slow change. First of all, until 2010, the demographic trend will continue to put a downward pressure on wages, with the arrival on the labour market of the numerous generation of youths from 20 to 24 years of age (+16 million), and will continue to favor labor-intensive industries and exports based on price competitiveness. It is only after 2015 that the decrease of the working age population and its ageing will be more favorable to a rise in wages. The authorities are planning to extend the social safety net, both in cities and countryside, in order to reduce households' precautionary savings and increase the available income for consumption expenditures. But considering the low income level of the great majority of the population, this reorientation toward the domestic market can only be gradual.¹¹

Finally, the energy constraint is what might force a change in the growth model over the coming years. That is, the increase in energy intensity (energy consumption/GDP) since 2002 implies an energy demand trend that will be difficult to sustain over the medium and long term. The government's objective of reducing energy intensity by 20% between now and 2010 cannot be achieved only by efficiency gains. Structural changes will be necessary that will make growth less dependant on heavy industries and more on services.

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10. National Development and Reform Commission, NEWS 2006-04-05; Asian Development Outlook, 2006, Asian Development Bank.

11. See "Reform: Myths of the five-year plan", *China Economic Quarterly*, vol. 9, Issue 4, 2005.

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