

Chicago Fed Letter

Comrades or competitors? On trade relationships between China and emerging Asia

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What are the implications of China's economic growth for its neighboring economies? Do the mutual benefits outweigh the costs of intensifying competition in emerging Asia? Recent research on trade between Asia and the U.S., as well as among the Asian economies, highlights the changing nature of these relationships and the attendant costs and benefits for all parties.

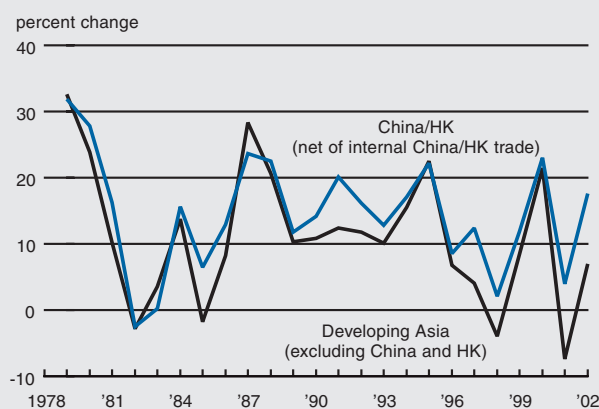
Discussions of trade flows in Asia highlight two opposing views on the nature of trade links between China and emerging Asia.² One view is that these economies are comrades. They share mutual

benefits from the growing incomes of Chinese consumers and from the potential of greater integration of product lines across the region, both of which are reflected in the expanding intra-regional trade in Asia. The other view sees China and emerging Asia as competitors: These economies specialize in producing goods that are relatively close substitutes and, hence, they are locked in competition for market share in

right in stressing many of the beneficial effects of China's growth on the rest of Asia. China's tremendous growth has translated into skyrocketing imports from the rest of Asia, particularly since its World Trade Organization accession was completed in December 2001. In addition, as China continues its rapid development, other economies in the region have an incentive to try to move up the value chain as their comparative advantage shifts to higher value-added, less labor-intensive industries. Taiwan, for example, is attracting more investment in high-tech research facilities as opposed to pure manufacturing, and Singapore and (to a lesser extent) Malaysia are trying to broaden the scope of their manufacturing sectors to include bio-technology and other emerging technologies.

But the other view is also right in claiming that China's increased integration into the global economy has meant that such sectoral transitions in other Asian economies are likely occurring at a faster pace than would otherwise have been the case. For example, manufacturing appears to be moving from elsewhere in Asia to China, in large part to take advantage of low labor costs and a

1. Exports from China and emerging Asia

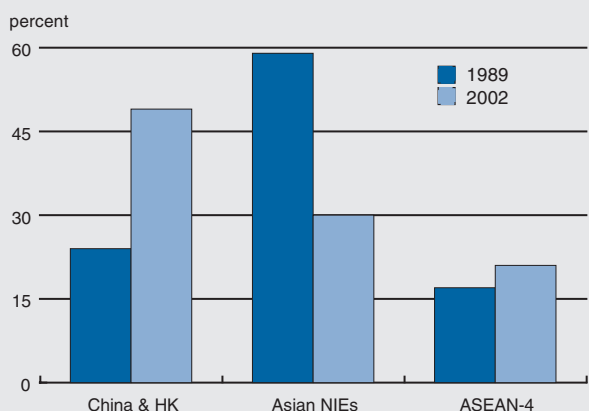


NOTES: The black line shows recorded imports by all countries in the world from either China or Hong Kong, excluding China's imports from Hong Kong and Hong Kong's imports from China. The blue line shows imports by all countries in the world from developing Asian economies other than China or Hong Kong.
SOURCE: International Monetary Fund's Direction of Trade Statistics.

major export markets such as the United States.³

This *Chicago Fed Letter* reports on recent research that shows that elements of both views are right.⁴ The first view is

2. Asian NIEs' share of U.S. exports, 1989–2002



NOTES: The sum of the three groups is 100%.
SOURCE: International Monetary Fund's Direction of Trade Statistics.

growing domestic market. Asian economies therefore need to take steps to ease the transition of their labor force into other sectors, perhaps including the provision of social safety nets to ease the costs of adjustment.

Growing together?

Figure 1 shows that exports by China and by other Asian economies tend to move together.⁵ This striking co-movement suggests that common factors, particularly demand from developed economies, are probably more important determinants of Asian exports than is competition with China. The similarity in growth rates also points to the increasing vertical integration of many product markets in Asia. As an illustration of this, take the example of a small electronic device like a DVD player. The manufacturing of some components—e.g., motherboards, memory—might be handled in one or several of the ASEAN economies or the NIEs. Those components are then exported to, say, China, where they are assembled into the DVD player. The DVD player is then shipped to its final destination. Several economies in the region might thus provide value-added to a single device. Hence, as demand for DVD players fluctuates, one would expect export growth to be positively correlated across countries.

Statistical tests confirm that the positive association between China's export growth and that of other Asian

economies shown in figure 1 is difficult to shake off. Ahearne, Fernald, Loungani, and Schindler (2003) estimate real export growth equations for Asian economies of the kind typically estimated in the literature, where real exports are assumed to depend on foreign demand and real exchange rates. When China's real export growth is added to these equations, the estimated coefficient

associated with this variable turns out to be positive. Allowing for changes over time in the impact of China's export growth on the export growth of other Asian economies does not change this conclusion.

Digging deeper

It may be that effects of export competition manifest themselves not at the aggregate level but in particular geographic markets and in particular industries. Nowhere is export competition among Asian economies likely to be as intense as in the U.S. market. How have the market shares of exports of the various Asian economies changed over time? For this analysis, we classified Asian economies into one of three country groups: China (China and Hong Kong), the NIEs (Korea, Singapore, and Taiwan), and the ASEAN-4 (Indonesia, Malaysia, Philippines, and Thailand). We classified exports into 48 industries, at

the three-digit industry level, using data from the U.S. Department of Commerce's Bureau of Economic Analysis (BEA).

Figure 2 illustrates the dramatic changes in export shares for the three country groups between 1989 and 2002. In 1989, China and Hong Kong together accounted for about a quarter of total exports to the United States from the three groups. By 2002, their share had doubled. Conversely, the share of the Asian NIEs halved from nearly 60% of the total to 30%. The ASEAN-4 have held their own, though their share has see-sawed, rising from 17% in 1989 to 25% in 1999 before falling back to 21% in 2002.

Industry-level data shed further light on the micro patterns behind this transformation in overall market shares. First, there is no doubt that China has emerged as a significant exporter across virtually the entire spectrum of industries: Its share has increased in 42 of the 48 industries. In contrast, there are only five industries in which the NIE share was higher in 2002 than in 1989, and these are all in the industrial supplies and materials category (one-digit code "1").⁶ In addition, there is one industry, new and used passenger cars (industry code 300), in which the NIEs have maintained a 100% share of U.S. imports from emerging Asia since 1989. But with foreign direct investment in China's auto sector growing rapidly, it may not be too long before China starts exporting autos. Second, market share increases for the ASEAN-4 are also quite prevalent—in 26 of the 48 industries. This means that cases in which the shares of both China and the ASEAN-4 have increased are just as likely as cases in

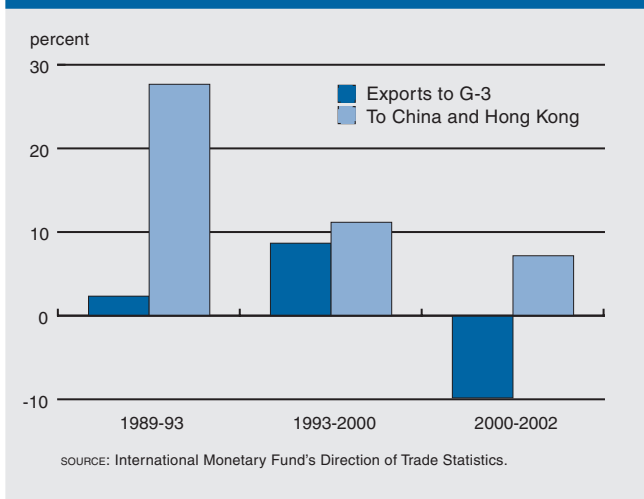
3. China and ASEAN-4 shares in major export industries

Industry	1989			2002			US \$ billion
	China & HK	NIEs	ASEAN-4	China & HK	NIEs	ASEAN-4	
213	7	72	21	24	42	34	67.8
400	36	52	12	69	12	20	41.1
410	24	66	10	67	22	11	38.8
411	38	57	5	84	11	6	19.4
412	19	64	18	53	17	30	17.1

NOTES: NIEs are Korea, Singapore, and Taiwan. ASEAN-4 countries are Indonesia, Malaysia, the Philippines, and Thailand. HK is Hong Kong. For the five largest industries ranked by total value of imports from Asia, figure shows shares in the U.S. market by region. For each year and each industry, shares sum to 100%.

SOURCE: International Monetary Fund's Direction of Trade Statistics.

4. Asian NIEs' export growth



which their shares have moved in opposite directions.

Overall, the results are suggestive of a “flying geese” pattern, in which China and the ASEAN-4 move into the product space vacated by the NIEs. This conclusion is only reinforced if one looks at the five largest industries ranked by the dollar amounts of U.S. imports in 2002. As shown in figure 3, in each of these industries, the shares of China and the ASEAN-4 have moved in the same direction. So, contrary to some popular perceptions, China’s gains in market share have not come about primarily at the expense of the labor-intensive ASEAN-4 economies. Instead, China has displaced the NIEs in industries that these more advanced economies were relinquishing, particularly apparel, footwear, and household products. This is a healthy, rather than disturbing, development. It mimics an earlier period, when the NIEs moved into the industries relinquished by a more advanced Japan.

While the analysis here is focused on competition in the U.S. market, similar patterns of displacement of the NIEs by China and the ASEAN-4 are also emerging in the major export markets of Europe and in Japan.⁷

Closing the circle

The analysis thus far has shown that the Asian NIEs are losing market shares in the U.S. (and other) markets in almost all categories of goods, but that their

overall export growth has remained quite robust. This raises an obvious question: “Where are exports from the NIEs going?” The answer, of course, is that China itself has emerged as a major *importing* power, taking in products from the NIEs at robust rates of growth. Figure 4 compares the average annual growth of NIE exports to the Group of 3 (the G-3, or the U.S., the Euro area, and Japan) with that of their exports to China. In the early years following the opening up of the Chinese market, growth in NIE exports to the country exceeded 25% a year compared with a rate of 2% growth in exports to the G-3. The difference is accentuated both by the fact that exports to China were starting off from a very low base and that there was a recession in the United States over this period. But even over the period 1993 to 2000, when the effects of both these factors had worn off, NIE exports to China continued to grow at a double-digit annual rate and outstripped growth in exports to the G-3. The contrast in the recent period, 2000–02, is remarkable. In this period, which again was marked by a global slowdown, NIE exports to the G-3 declined, while NIE exports to China grew at a 7% annual rate. Clearly, China bolstered the performance of the Asian NIEs at a time when there were few other bright spots. This evidence also indicates that the shifting of production facilities to China from the NIEs likely has boosted NIE exports of intermediate products to China for processing and export of the finished goods.⁸

Conclusion

Industry-level data clearly show that China is displacing the other countries of emerging Asia, particularly the Asian NIEs, in major export markets such as the United States. The changes in

market shares are so sharp in many cases that it is quite likely that they require actual shifts in resource allocations, which can often be painful for those who lose out. From this perspective, China and emerging Asia are competitors. The appropriate policy response, however, would be to take steps to smooth the flow of resources across sectors. But the story doesn’t end there. There are two reasons why China and emerging Asia are also comrades. First, China itself has emerged as a major importer of goods from the countries of emerging Asia. Second, Asian countries are organizing production of goods in a way that increases the efficiency with which they can export to the markets of the industrialized countries.

¹ The views expressed are the authors’ and should not be interpreted as those of the International Monetary Fund.

² “Emerging Asia” is used here to refer to the newly industrialized economies (NIEs) of Korea, Singapore, and Taiwan and the so-called ASEAN-4, Indonesia, Malaysia, the Philippines, and Thailand. “China” refers to China and Hong Kong. The labels “Hong Kong” and “Taiwan” are used to refer to “People’s Republic of China—Hong Kong Special Administrative Region” and “Taiwan Province of China,” respectively.

³ See Diwan and Hoekman (1999), “Competition, complementarity and contagion in East Asia,” in *The Asian Financial Crisis: Causes, Contagion and Consequences*, Pierre-Richard Agénor, Marcus Miller,

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David Vines, and Axel Weber (eds.), New York: Cambridge University Press, chap. 10.

⁴ See Ahearne, Fernald, Loungani, and Schindler (2003), "China and emerging Asia: Comrades or competitors?," Federal Reserve Bank of Chicago, working paper, No. WP 2003-27.

⁵ The figure shows export growth (measured in dollar values) to the world from China (defined to include Hong Kong) and from the rest of developing Asia, using trading partner statistics. Fernald, Edison, and Loungani (1999) ("Was China the

first domino? Assessing links between China and the rest of emerging Asia," *Journal of International Money and Finance*, Vol. 18, pp. 515–535) argue that it makes economic sense to combine data for China and Hong Kong even in the period preceding formal unification, since many goods use Chinese labor and Hong Kong management and distribution skills. It makes statistical sense to use trading-partner statistics, to avoid double-counting Chinese and Hong Kong exports.

⁶ They are 100 (petroleum and products), 123 (other agricultural products and textile supplies), 140 (unmanufactured steel-making and ferro-alloying materials), 142 (crude and semifinished nonferrous metals), and 160 (unfinished nonmetals).

⁷ See Fernald, Edison, and Loungani (1999).

⁸ For a detailed discussion of the rise in intraregional trade in Asia, see Zebregs (2003), "Intraregional trade in Asia," International Monetary Fund, policy discussion paper.