IV. Is China Rebalancing? Implications for Asia

As the recovery in advanced economies is suffering new setbacks, the need for economic rebalancing in Asia has assumed even greater urgency. At the same time, China's trade surplus is declining faster than previously anticipated, raising hopes that the much-needed shift of global demand to major surplus economies is finally taking place. Against that background, this chapter first explores recent trends in China's trade balance and assesses the extent to which a sustained reduction in China's external surplus is taking place. Based on an assessment of the factors determining recent changes in China's trade surplus, the chapter will then present the implications for regional trading partners.

The main findings can be summarized as follows:

- It appears increasingly likely that persistent forces are weighing on China's trade surplus. Externally, these include an apparent secular deterioration in China's terms of trade and sustained strength in imports, particularly of commodities and capital goods. Robust imports in turn are linked to strong demand centered on a heavy reliance on investment, which raises the concern that new domestic imbalances may be growing, even as the external imbalances retreat.

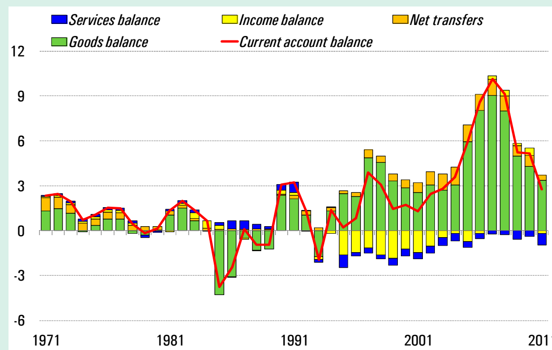
- For its Asian trading partners, which have benefited from China's strong demand for commodities and capital goods, rebalancing in China offers benefits that would be larger and more lasting if these partners are able to successfully expand their direct and indirect access to Chinese consumers. On the other hand, if the rapid growth of Chinese exports slows, then Asian trading partners will face significant headwinds due to their downstream supply linkages with China, a situation that would be exacerbated if China were to "on-shore" a larger chunk of regional supply chains.

Note: The main authors of this chapter are Ashvin Ahuja, Nigel Chalk, Adil Mohommad, Malhar Nabar, Papa N'Diaye, Olaf Unteroberdoerster, and Jade Vichyanond. The chapter presents key findings from recent research papers by IMF staff on temporary and permanent factors driving China's trade surplus (Ahuja and others, forthcoming) and the rapidly changing trade networks in the Asia region (Mohommad, Unteroberdoerster, and Vichyanond, forthcoming).

A. Is China Rebalancing?

China's current account surplus declined from a precrisis peak of 10.1 percent of GDP in 2007 to 2.8 percent of GDP in 2011. The compression in the trade balance (from 9 percent of GDP in 2007 to around 3.3 percent in 2011) accounts for most of the decline, but the income balance also appears to have deteriorated more recently (Figure 4.1).

Figure 4.1. China: Current Account Balance and Components
(In percent of GDP)



Sources: CEIC Data Company Ltd.; and IMF, WEO database and staff calculations.

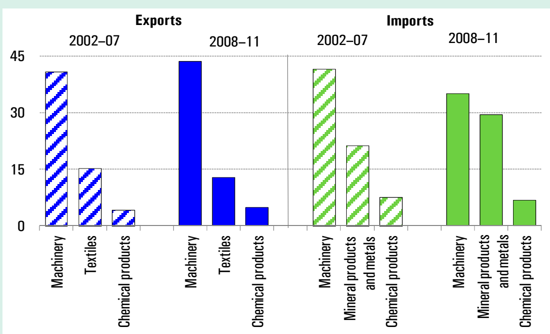
These developments are related, in part, to cyclical forces, but the sustained downward trend may also reflect structural realignments (both external and domestic) that could have a bearing on China's external balances beyond the eventual recovery in the cycle. To that end, this section identifies factors that may be contributing to the recent developments and assesses the prospects for the external balances.

Patterns in China's External Trade

Disaggregated data suggest that there are important realignments in China's external trade patterns.

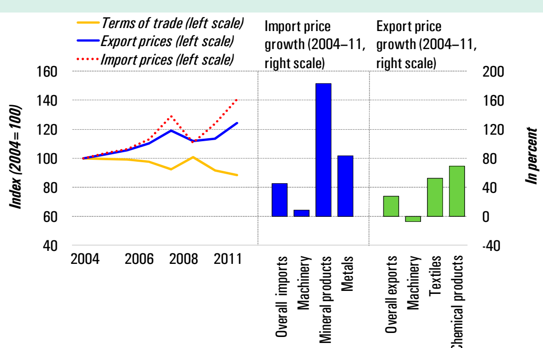
- *Terms of trade.* China's exports have become increasingly weighted toward machinery goods, while its imports have shifted toward commodities and minerals (Figure 4.2). Combined with the decline in the relative price of machinery and capital goods, this has meant that China's terms of trade have been steadily deteriorating (Figure 4.3). The experiences of other economies that have witnessed export-oriented growth (for example, Japan and Korea) suggest that the terms-of-trade decline is likely to persist, and is likely to exert a significant drag on the trade surplus going forward.

Figure 4.2. China: Composition of Exports and Imports
(In percent of total)



Sources: CEIC Data Company Ltd.; and IMF staff calculations.

Figure 4.3. China: Export and Import Prices, and Terms of Trade



Sources: CEIC Data Company Ltd.; and IMF, WEO database and staff calculations.

- *Strong imports.* These have also been an important factor behind the sustained compression in the trade surplus since 2007. Some of the surge in imports, particularly of key minerals, was tied to the infrastructure build-out during the 2008–09 stimulus package (Figure 4.4). But the persistent strength in imports also reflects other investment spending, such as capacity building in new growth industries and the inland relocation of manufacturing facilities in traditional industries. The worsening terms of trade and the persistent strength of imports tied to investment spending have had a substantial impact on China's current account surplus. IMF staff estimates suggest that close to two-thirds of the decline in the current account surplus since 2007 can be accounted for by the deterioration in the terms of trade and the acceleration in investment (see Ahuja and others, forthcoming; and Box 1.3 of the April 2012 *World Economic Outlook*, IMF, 2012c).

- *Exports.* China has successfully sustained the pace of export market share growth, even following the global financial crisis. However, China's share of global exports is already higher than the levels at which other export-oriented economies, such as Japan and Korea, began struggling in their efforts to gain market share. Although China may continue to increase its export market share, particularly as its export basket rotates toward higher-end manufacturing, the pace at which this occurs may well moderate in the coming years.

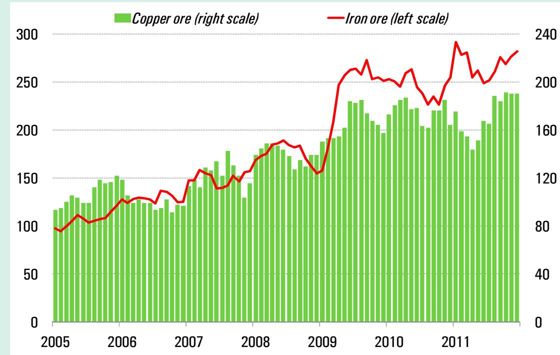
Patterns in China's Domestic Economy

Accompanying these shifts in the composition of exports and imports are important changes in domestic spending patterns and cost pressures that may offer insights into the durability of the compression of China's trade surplus.

- *Domestic demand.* One possible sign of a durable turnaround is if consumption growth is picking up. Available official data, which cover the period until the end of 2010, do not yet indicate that private consumption is rising as a share of GDP (Figure 4.5). Investment continues to be the most important component of domestic demand, and it increased further as a share of GDP in the latest available data (to close to 50 percent). Trade data also confirm the importance of investment in domestic demand. A breakdown of imports into consumer, intermediate, and capital goods shows that, although the volume of consumer goods imports has increased rapidly since 2009, capital goods imports have risen even faster (Figure 4.6). China is increasingly becoming a source of final consumer demand for the world economy, but its imports of consumer goods continue to grow at a slower pace than its imports of machinery and equipment. In part, the import of capital goods is tied to investment in export sectors. But if structural reforms to strengthen the social safety net, boost wages, and improve access to low-income housing (as outlined in the 12th Five Year Plan) successfully catalyze Chinese consumer spending, then this capacity could increasingly be deployed domestically and the economy would achieve the handoff from investment- to consumption-led growth. However, a rebalancing of this kind need not entail a large increase in consumer goods imports (discussed in more detail in Section B of this chapter).

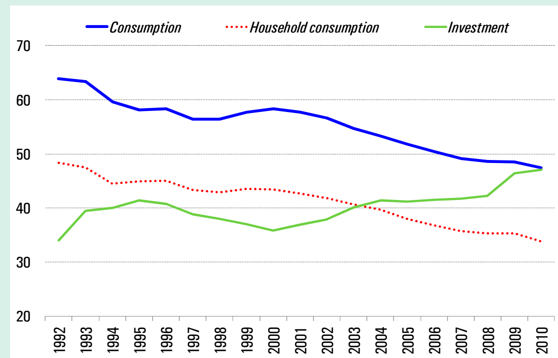
- *Composition of investment.* Some of the elevated investment is due to the 2008–09 stimulus efforts and the more recent emphasis on social housing, but a closer look at the data shows that investment and capacity building continue to be particularly strong within relatively higher-end manufacturing. The shifting composition of manufacturing is also seen in changes in the employment shares, with the high-end manufacturing share of employment growing (Figure 4.7). The growth in capacity in these areas could lead to future increases in exports as China pushes the capacity onto global markets. Some of the capacity building has already begun to show up in new growth areas for exports as

Figure 4.4. China: Mineral Import Volumes
(Index, 2005:Q1 = 100, three-month moving average)



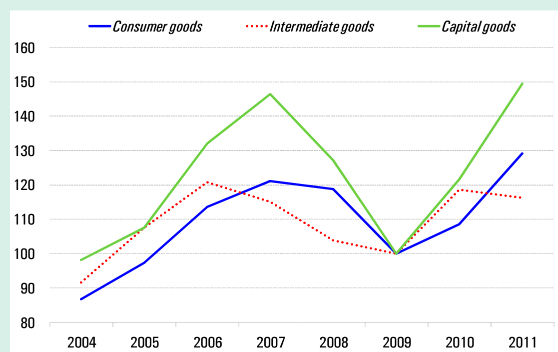
Sources: CEIC Data Company Ltd.; and IMF staff calculations.

Figure 4.5. China: Domestic Demand
(In percent of GDP)



Sources: CEIC Data Company Ltd.; and IMF staff calculations.

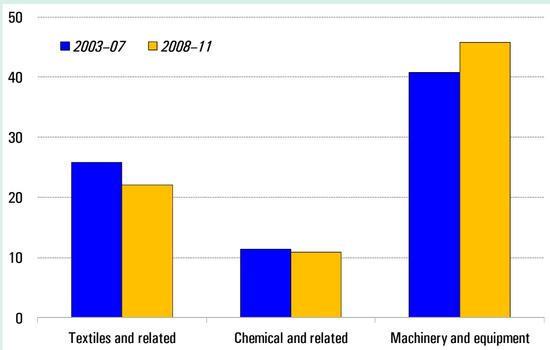
Figure 4.6. China: Import Quantum Index
(2009 = 100)



Sources: CEIC Data Company Ltd.; and IMF staff calculations.

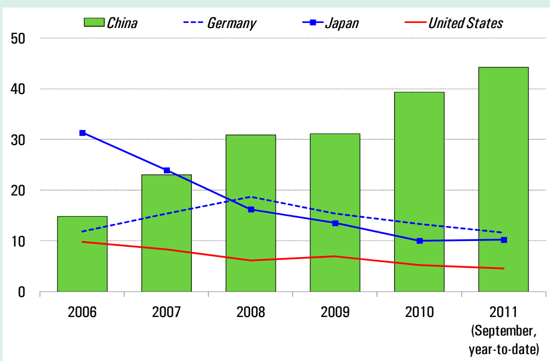
China makes a concerted push into higher-value-added segments typically dominated by Germany, Japan, Korea, and the United States. Prominent examples of the new growth areas are wind turbines, solar panels, automobiles, shipbuilding, and semiconductor devices (Figure 4.8).

Figure 4.7. China: Number of Employees
(In percent of downstream employment)



Sources: CEIC Data Company Ltd.; and IMF staff calculations.

Figure 4.8. Global Shares in Photosensitive Semiconductor Devices Exports
(In percent of global exports of same category; value)



Sources: CEIC Data Company Ltd.; and IMF staff calculations.

- *Cost pressures.* In recent years, there has been a greater policy emphasis on market-based pricing of factor inputs and the scaling back of subsidies (for details see Ahuja and others, forthcoming; and IMF, 2011c). Official data also suggest that nominal wages are rising at close to 15 percent per year. So far at least, despite significant anecdotal evidence of rising costs in China, these changes have not manifested themselves in tighter margins, or other apparent signs of distress in lower-end manufacturing. Profit ratios have been rising, and the share of loss-making enterprises has been declining in textiles and traditional areas, similar to developments in high-end manufacturing. Cost pressures do not seem more acute in the lower segments: if anything, they seem to have subsided along with the pressures on the higher-end segments (Figure 4.9). And this does not seem to be simply a result of rationalization or the weeding out of weaker enterprises at a relatively faster rate in textiles since the *total* number of enterprises has continued to grow in these segments.

Where Next for China?

Assuming that (i) global demand recovers as projected in the April 2012 *World Economic Outlook* (IMF, 2012c), (ii) China continues to gain global market share at the average pace of the past decade, (iii) its terms of trade deteriorate by about ½ percent per year, and (iv) its domestic investment remains close to current levels, then it is unlikely that China's current account surplus will rise above 4–4½ percent of GDP over the medium term. Furthermore, if China continues to appreciate its currency in real effective terms from current levels (either due to faster nominal appreciation or due to a sustained increase in domestic cost pressures that translate into larger inflation differentials relative to trading partners), the surplus is likely to fall even below that range.

So far, however, this decline in China's external surplus has been largely accomplished through higher investment, and the evidence does not yet indicate that household consumption is rising as a share of GDP. This investment has led to capacity building in a range of manufacturing areas in which China has previously not had a foothold. Nevertheless, the policy thrust of the 12th Five Year Plan is very much focused on raising household income, boosting consumption, and facilitating an expansion of the service sector. In the coming years, if these ongoing structural reforms to catalyze consumer spending are successful, the decline in

China's external imbalances would ultimately prove more sustainable.

B. What Are the Implications for Asia?

This section looks at the implications of the changes in China's current account for other Asian economies, for which China can be a market for final goods, a supply chain hub, and a potential competitor.

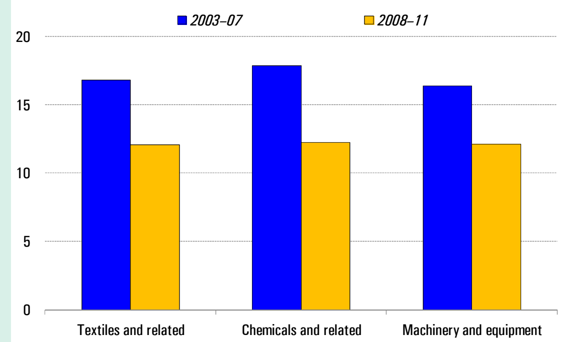
China as Source of Regional Final Demand

Which economies in Asia will benefit from more domestic demand-led growth in China? As highlighted in section A, it is important to distinguish between investment- and consumption-led growth. Indeed, while China has become a growing source of demand for other economies in Asia, its demand for investment goods has risen more sharply than its demand for consumer goods, generally by a ratio of two to one (Figure 4.10).[1] The traditional capital goods exporters in Asia—Japan and Korea—have been particularly exposed to China's investment demand.

However, while high investment ratios in China may not be sustainable from a domestic perspective, these ratios might also fall if China's export growth were set to slow permanently. There is a close relationship between China's investment and its exports. First, both exports and manufacturing fixed-asset investment have been shifting from low- to high-tech products. Second, China's major sources of foreign direct investment are aligned with its major import sources in the manufacturing process (Figure 4.11), which is a result of growing vertical trade integration that has fueled China's rise as a leading exporter (see below). Were China to rebalance through consumption-led growth, ASEAN economies appear well positioned to benefit, given their relative strength in consumer

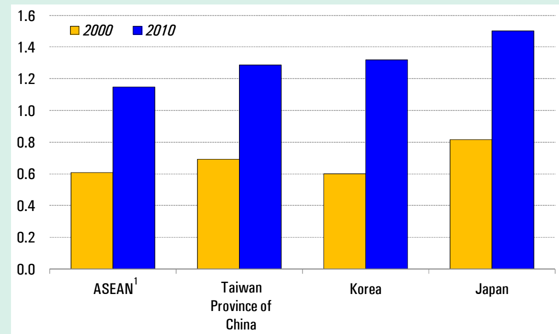
[1] This is estimated based on value-added-based trade flows, which net out intermediate goods exports destined for third markets other than China.

Figure 4.9. China: Loss-Making Enterprises
(In percent of total in each sector)



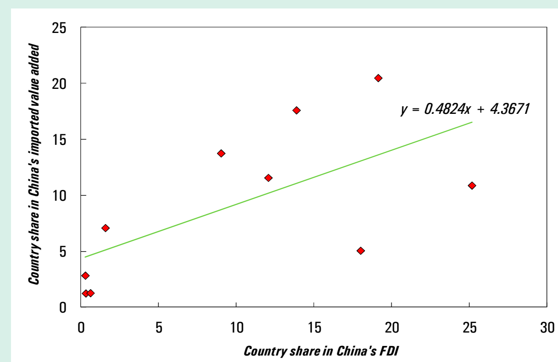
Sources: CEIC Data Company Ltd.; and IMF staff calculations.

Figure 4.10. Selected Asia: Value Added Linked to China's Final Demand
(Investment demand relative to consumption demand)



Sources: United Nations, *Comtrade* database; and IMF staff calculations.
[1] ASEAN includes Indonesia, Malaysia, the Philippines, Singapore, and Thailand.

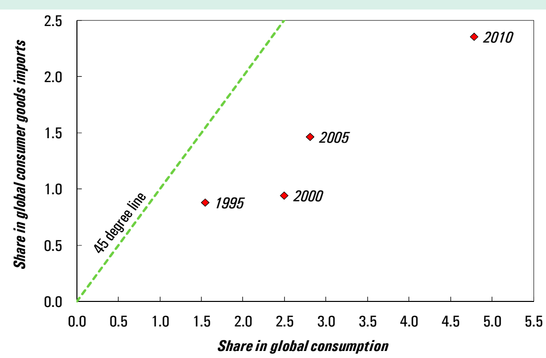
Figure 4.11. China: Distribution of FDI and Imported Value Added



Source: IMF staff calculations.

goods exports. However, the benefits for regional trading partners might be small. First, despite rapid growth, China's role as an importer of consumer goods is still marginal, as it accounts for only 2 percent of global consumer goods imports. Second, its share in global consumer goods imports has increased less since 1995 than its share in global consumption (Figure 4.12). In other words, Chinese consumers have turned increasingly toward domestically produced goods. This may reflect the inability of foreign producers to overcome implicit barriers, such as setting up large retail and distribution networks, increased competitiveness from domestic producers, and differences in consumer preferences as well as the need to be closer to the customer. Whatever the reasons for the relative decline in imports, a shift in global demand shares toward China would not automatically imply a commensurate shift in global import demand, resulting in a demand gap for exporters.

Figure 4.12. China: Share in Global Consumption versus Share in Global Consumer Goods Imports
(In percent of total)



Sources: United Nations, *Comtrade* database; and IMF staff calculations.

China as a Supply-Chain Hub

How would potentially slowing export growth in China affect the rest of Asia? The rise of China as a leading exporter has been closely linked to the rapid growth of supply chain networks in Asia that are centered on China. Based on direct and indirect trade flows for intermediate goods, and on data from Asian input-output tables, China's share in all intra-Asian imports of intermediate goods increased substantially between 1995 and 2010 (Figure 4.13). China now accounts for about 50 percent of all intraregional intermediate imports, making it the center of Asia's supply chain.

The effect of vertical trade integration appears to dominate export-demand relationships between China and its Asian trading partners.

- Overall, intermediate goods exports have accounted for about 70 percent of the annual export growth in Asia over the last decade, more than double the contribution of final (consumer and capital) goods.
- As a result of greater vertical integration, the correlation of Asian economies' exports to China with Chinese exports has increased for most economies over the last decade (Figure 4.14).
- Regression estimates suggest that a 1 percentage-point drop in Chinese export growth would lower the growth of exports of other Asian economies to China by about ⅔ percentage point.[2]
- At the same time, for most Asian economies whose exports are mainly in manufactured goods as opposed to commodities, exports to China are mainly a function of Chinese exports, rather than Chinese domestic demand, which would be suggested by standard trade models. By contrast, for those few economies in the region which predominantly export commodities, exports to China are determined by Chinese domestic demand (Table 4.1).

China as a Competitor

Because of vertical trade integration, shifts in export (and import) market shares do not fully capture China's changing role as a competitor to other Asian economies. In fact, the increase of

[2] Based on a country-fixed-effects panel regression (1995–2010) of countries' exports to China on the real bilateral exchange rate, Chinese real domestic demand, and Chinese real exports.

China's share in leading markets (using gross exports based on direction of trade statistics) overstates its share on a value-added basis with direct and indirect inputs from other Asian economies netted out. In the case of the United States, for example, China's direct share of gross imports of final goods from Asia has increased to 62 percent in 2010, whereas, on a value-added basis, China's share is less than 50 percent (Figure 4.15). In other words, greater vertical specialization has so far mitigated the impact of horizontal competition.

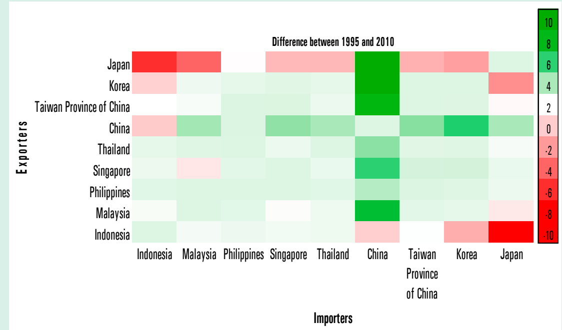
For more-advanced economies in Asia, the increase in competition as China's exports shift increasingly toward high-tech goods will thus also depend on China's ability to capture a larger share of the value chain. While the imported content in Chinese exports gradually increased through the mid-2000s, it has started falling in recent years.[3] These trends could be reinforced by China's rapid buildup in physical and human capital, allowing it to capture large parts of the technology-intensive value chain. In addition, rising fuel and transportation costs could also lead to a partial reversal of vertical trade integration by reducing the number of locations in a production chain. On the other hand, China's industrial upgrading could create room for low-income countries in the region to expand.

C. Conclusion

What does the recent sharp decline in China's external trade surplus reflect? In the main, it is a product of a secular worsening of China's terms of trade as well as robust import growth fuelled by investment demand. Moreover, prospects for China to sustain the high export growth of the past decade remain uncertain. Taken together, while China's external imbalances retreat, there is a concern that new domestic imbalances may be emerging. As a result, Asian trading partners that have benefitted

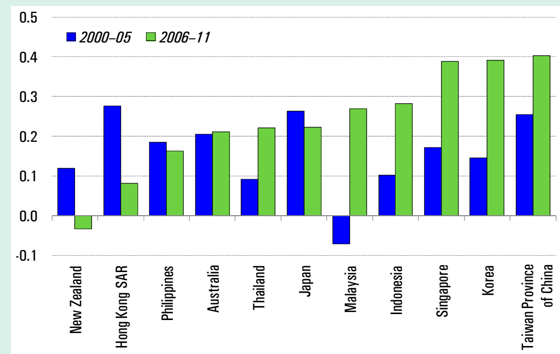
3 IMF staff estimates based on Asian input-output tables suggest that the domestic value added in Chinese manufactured goods fell from about 90 percent in 1995 to 75 percent in 2005, but has increased since then to about 80–85 percent in 2010.

Figure 4.13. Selected Asia: Change in Intermediate Goods Flows
(Change in percent share in regional flows)



Sources: Institute of Development Economics, Japan External Trade Research Organization, *Asian Input Output Tables*, 2000; United Nations, *Comtrade* database; and IMF staff calculations.

Figure 4.14. Selected Asia: Correlation of Exports to China with China's Exports
(One-quarter lag)



Source: IMF staff calculations.

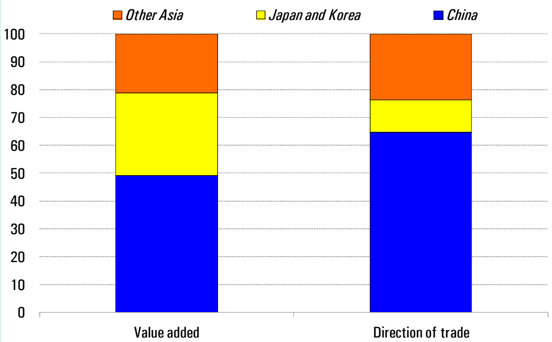
Table 4.1. Determinants of Asian Exports to China[1]

	Chinese domestic demand	Chinese exports
Commodity exporters	Australia (1.79) Indonesia (0.68) New Zealand (1.66)	
Manufacturing exporters		India (1.03) Hong Kong SAR (0.81) Japan (1.28) Korea (1.18) Malaysia (0.90) Philippines (2.95) Singapore (1.78) Thailand (1.37)

Source: IMF staff estimates.

1 Numbers in parentheses denote elasticity of exports to China at 5 percent level of significance. Shaded areas indicate no significance at 5 percent level.

Figure 4.15. U.S. Imports from Asia for Final Demand, 2010
(Percent market share by source)



Source: IMF staff calculations.

from investment-led growth in China may face growing headwinds to their exports. Given the importance of vertical supply chain links with China, they would also be hurt if China's exports were to slow. By contrast, increasing direct and indirect access to the Chinese consumer goods markets could offer lasting benefits for Asian trading partners.