

China's Changing Trade and the Implications for the CLMV Economies

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Executive Summary

The most remarkable development in global trade during the past two decades has been the emergence of China as an export powerhouse. Rising from a negligible level, Chinese exports now account for 12 percent of the global total. This export performance has driven sustained, rapid growth and helped to bring hundreds of millions of people out of poverty.

Now, like Japan, Taiwan Province of China, Korea, and the emerging market Association of Southeast Asian Nations (ASEAN) nations before it, China is seeing its trade patterns evolving. While it started in light manufacturing and in the assembly of more sophisticated products as part of global supply chains, China is now moving up the value chain, onshoring the production of higher-value-added upstream products and moving into more sophisticated downstream products as well. At the same time, with its wages rising, it has started to exit some lower-end, more labor-intensive sectors. This exit has been slower than it was in Japan and other forebears—perhaps testament to China’s large scale and the continued presence of cheap labor in rural areas—but the trend has clearly begun. These changes are taking place in the broader context of China’s rebalancing—away from exports and toward domestic demand, and within the latter, away from investment and toward consumption—and as a consequence, demand for some commodity imports is slowing, while consumption imports are slowly rising.

The evolution of Chinese trade, investment, and consumption patterns offers opportunities and challenges to low-wage low-income countries, including China’s neighbors in the Mekong region. Cambodia, Lao P.D.R., Myanmar, and Vietnam (the CLMV) are heterogeneous, but they are all open economies that are highly integrated with China. Rebalancing in China may mean less of a role for commodity exports from the region, but at the same time, the CLMV’s low labor costs suggest that manufacturing assembly for export could take off as China becomes less competitive, and as China itself demands more consumption items.

Labor costs, however, are only part of the story. The CLMV will need to strengthen their infrastructure, education, governance, and trade regimes, and also run sound macro policies in order to capitalize fully on the opportunities presented by China’s transformation. With such policy efforts, the CLMV could see their trade and integration with global supply chains grow dramatically in the coming years.

Introduction

China has become the world's largest trading nation and the center of the global supply chain. A negligible player in global trade just a few decades ago, China now accounts for more than 12 percent of world exports and 10 percent of world imports, more than any other single country. Nominal exports grew by 17 percent on average each year from 1990 to 2012, receiving a particular boost after China's accession to the World Trade Organization in 2001. Imports—particularly of input parts, materials, and energy—rose in tandem, and China is now the world's largest importer of intermediate goods and the anchor of the global supply chain trade. The number of China's major trading partners rose several-fold over the same period (World Trade Report 2014), and as trade grew, so also did foreign direct investment, of which China is now the world's largest recipient (as well as an increasingly important source).

Figure 1. Global Export Market Share
(Percent; top five exporters)

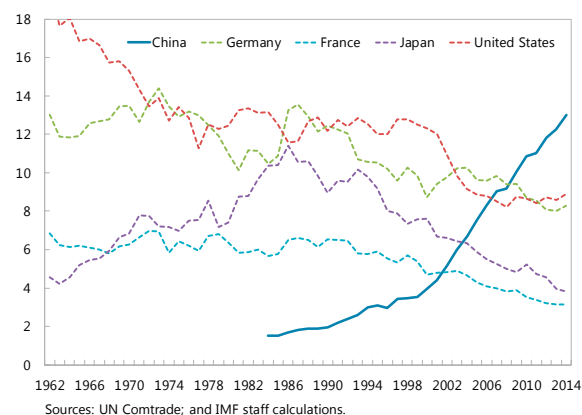
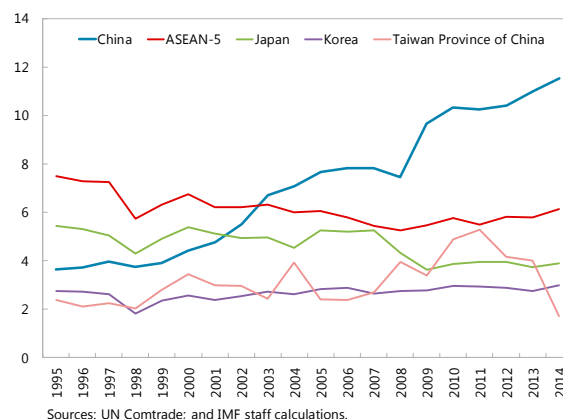


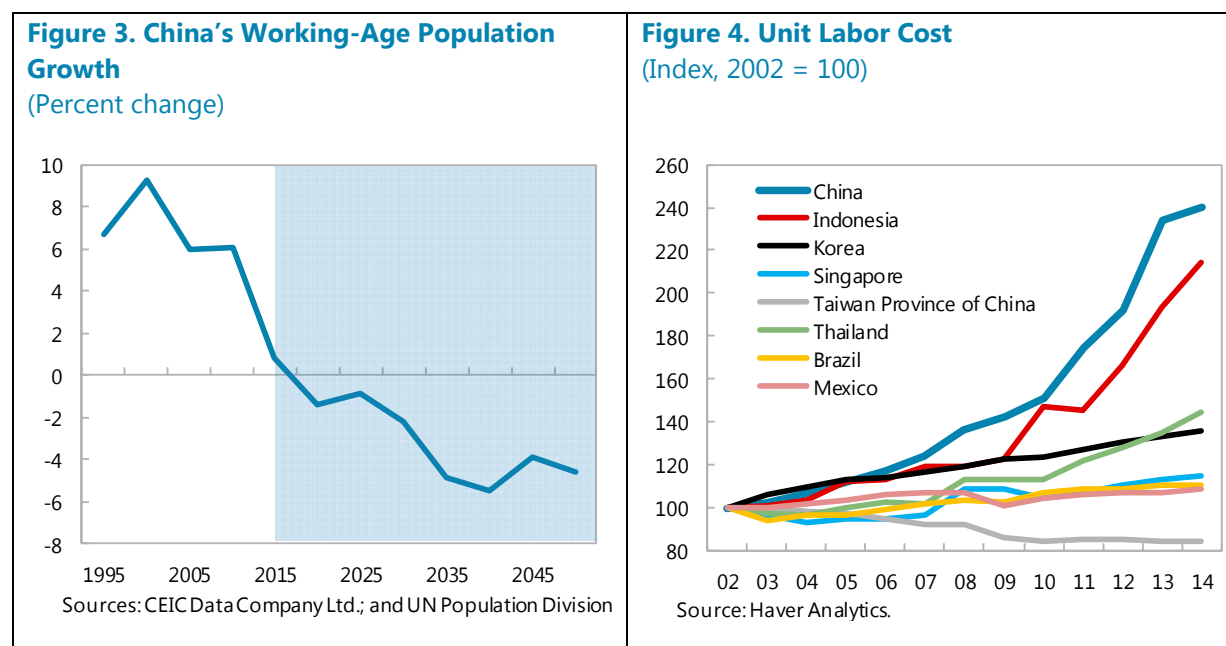
Figure 2. Share of World's Intermediate Exports by Destination
(Percent of total intermediate exports to world)



Abundant labor has long been a key factor behind China's export success. Chinese exporters have enjoyed considerable advantages, including a currency that was undervalued for many years as well as low interest rates, but the country's abundant supply of cheap labor was perhaps the most important factor of all. It has been estimated that there are 270 million migrant workers in the 10 coastal provinces that account for 90 percent of China's exports, and millions more remain in Chinese inland provinces and rural areas.

The era of cheap labor, however, may be ending, and China may be losing competitiveness in labor-intensive production. The working-age population has already started declining and is projected to shrink rapidly in the years to come, with the country expected to

reach the Lewis turning point by 2025 (Das and N’Diaye 2013). Over the past decade, private sector wages across the country have risen by close to 15 percent per year. In 2005, some inland provinces had wage levels comparable to those in neighboring low-income countries (LICs) such as Cambodia, Lao P.D.R., Myanmar, and Vietnam (the CLMV), but now China’s wages are higher by nearly 50 percent. Wages in the coastal provinces are higher still—more than double those in the interior. While productivity has been rising, it has not kept up with wages; unit labor costs have risen sharply, and patterns of manufacturing and trade have thus started to adapt.

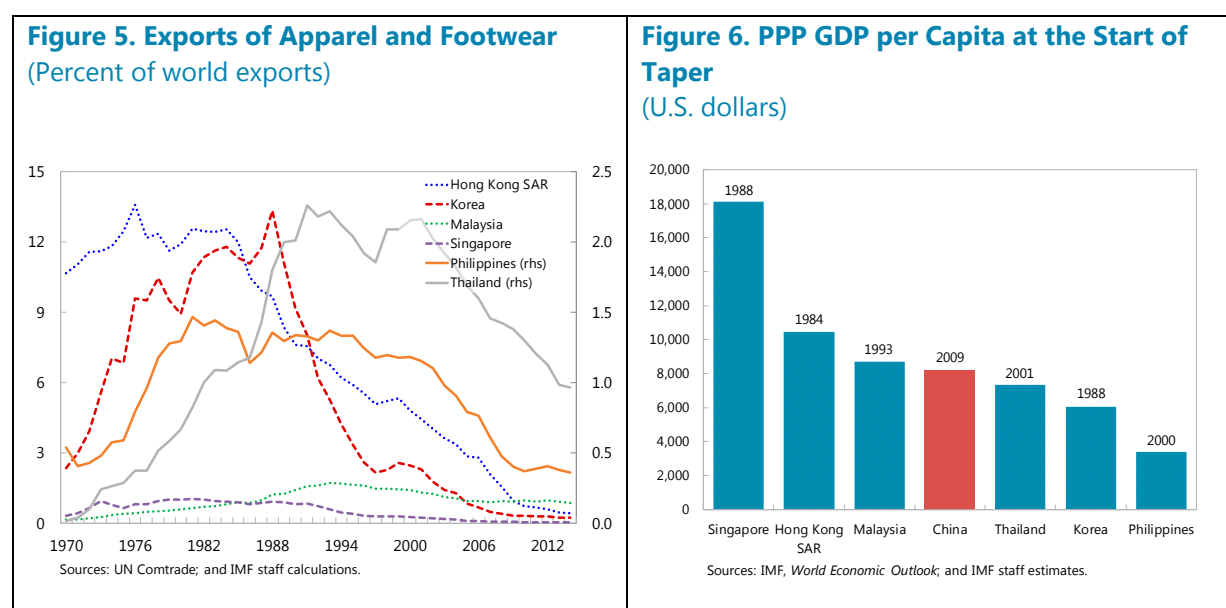


The country faces other challenges as well, as the economy rebalances to a more sustainable growth model. China’s growth was long driven by exports, with the current account surplus peaking at over 10 percent of GDP in 2008. But as consumption in advanced economies has moderated in the wake of the global financial crisis, China has increasingly had to turn to domestic demand. In 2008–09, the authorities introduced a large package of government stimulus to bolster short-term growth. An investment boom resulted, and the current account surplus fell sharply, declining to 2 percent of GDP in 2014, supported by substantial real appreciation of the yuan. China’s substantial progress on external imbalances, however, came at the cost of creating a large domestic imbalance—that is, excessive investment fueled by credit. A more sustainable growth model will involve both a shift within domestic demand, from investment to consumption, and a productivity-driven move in the external sector, from lower-value-added labor-intensive exports to higher-value-added, and often more capital-intensive, exports. Both shifts are underway but are still in early stages.

These trends could have profound implications for other countries. This holds both for those countries collaborating with China in global supply chains and those competing with it. If increasing labor costs are pushing China out of labor-intensive light manufacturing and

assembly, this should open up space that could be exploited by LICs in Asia and beyond. At the same time, moves up the value chain to more sophisticated products—including onshore production of the input components China currently imports—could offer competition to the richer countries that currently dominate these sectors.¹ Finally, commodity and machinery exporters may see reduced demand as China rebalances away from investment, while those capable of producing consumption goods likely to be demanded in China could benefit.

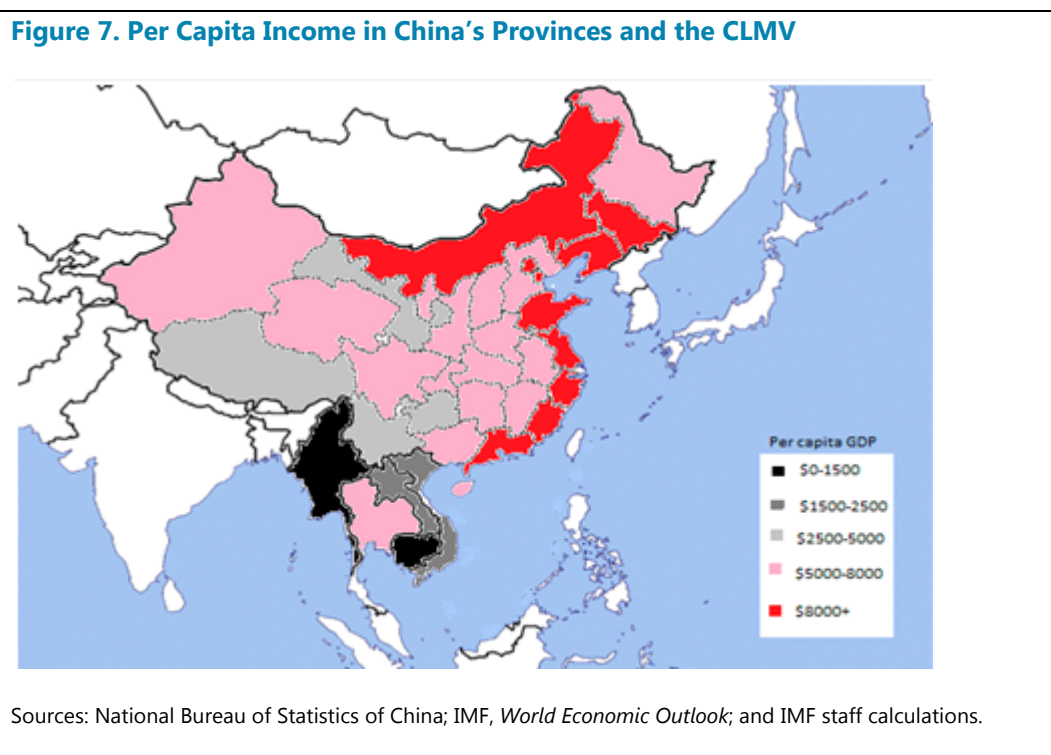
Earlier export powerhouses successfully managed transformations away from labor-intensive exports. Japan first, followed next by Taiwan Province of China and Korea, and then by several ASEAN countries, have experienced rapid trade and GDP growth for decades. As these economies matured, light manufacturing shifted to less advanced peers. In this “flying geese” model (Akamatsu 1961, 1962; Okita 1985), countries averted sharp contractions in growth by keeping research and development and knowledge-intensive production onshore while moving lower-value-added tasks—like assembly and processing—abroad. Over time, more and more emerging and developing economies were integrated into the regional trade system in this manner, leading to a proliferation of competence in manufacturing and assembly. Such shifts occurred both as lower-wage producers were able to out-compete their predecessors in labor-intensive work, and as firms from the more advanced economies chose to set up subsidiaries overseas to take advantage of cost differentials. It is worth noting that China is now at an income level around where its predecessors saw such shifts occurring.



China’s very large scale and regional heterogeneity, however, may mean that things will unfold differently. In particular, even as China moves into higher-value-added activities, it may be able to retain existing activities, perhaps by transferring these inland, where wages are

¹ Helbling et al. (2016) takes up the implications of China’s transformation for advanced upstream countries.

considerably lower. Such a pattern was simply not possible in Korea or Taiwan Province of China, given their much smaller size and factor endowments. If different areas within China capture markets all along the supply chain, then the next wave of “geese” may not see traditionally expected opportunities opening up. And similarly, even as China succeeds in rebalancing toward consumption, it could be that this increased demand is satisfied by production from within China, and not from other countries. Finally, the “geese” may not fly at all—low-value-added activities could conceivably remain in coastal China on account of network effects (agglomeration of suppliers), extremely efficient logistics, increasing automation, or other factors.



This paper seeks to document the evolution of China’s trade, investment, and consumption patterns and analyze the implications for the Mekong region. In terms of trade, several recent IMF papers have looked in detail at China, including through analysis of value-added trade data.² While this paper does make use of value-added data, it also seeks insights on China’s evolving trade by digging deeper into the gross trade data, which are available at higher

² Duval and others (2015) use value-added data to show that dependence on Chinese final demand amplifies the international spillovers and synchronizing impact of growth shocks in China. Cheng and others (2016) also use value-added data and look at which Asian countries are benefiting most from the global value chain and how they can increase their participation. The spring 2016 *Regional Economic Outlook* for Asia and the Pacific contains two chapters on China spillovers—Arslanalp and others (2016), which considers trade and financial spillovers, and Helbling and others (2016), which focuses on trade links and examines spillovers from China on advanced upstream economies as well as on commodity exporters and commodity markets. Other relevant papers include Rafiq (2016) and Dizioli and others (2016), which analyze China’s spillovers to Southeast Asia.

frequency and in greater detail. As far as the focus on the CLMV, this paper seeks to expand the broader work on China's outward spillovers to a group of lower-income economies on China's border. While not a homogeneous group, they provide examples of a broad suite of issues facing commodity and manufacturing exporters that hope to compete in China's orbit.

The structure of the paper is as follows: Chapter 1 takes a detailed look at the basic trade and other data to understand how exactly China is changing. Fundamental transformations in the world's second-largest economy will naturally have global implications, and the IMF's spillover reports and other policy research explore some of these broader themes. This report, however, focuses on the impact likely to be felt by the LICs of the Mekong region—Cambodia, Lao P.D.R., Myanmar, and Vietnam. As documented in Chapter 2, the CLMV are highly open, already well-integrated with China, and thus form a natural cluster of countries to study.³ Chapter 3 offers policy recommendations to help the CLMV to exploit most effectively the opportunities arising from China's transformation, and to deal with new challenges.

The paper shows that China's trading patterns have already started to change:

- First, there is a clear move up the value chain by onshoring more sophisticated production, and this has been happening for a number of years.
- Second, China appears to be at an inflection point with respect to lower-value-added labor-intensive products. After a three-and-a-half-decade rise, market shares have started to plateau and even decline in some key sectors like garments, footwear, toys, and furniture. Labor-intensive goods had already been falling as a share of total exports for some time, on account of China's boom in capital- and research-intensive sectors. But China's global market shares in these goods had remained resilient until only recently. Many argue that this resilience was a function of an increase in production inland, where wages are lower, but the data suggest that exports are still produced almost exclusively on the coast.
- Third, there is mixed evidence on rebalancing. Imports of certain commodities, like coal and copper, are clearly declining, but others, like oil, food, and agricultural commodities remain strong.⁴ While Chinese consumption is on an upswing, imports of consumption goods and services remain modest except for tourism (which is not a focus of this report).

The CLMV stand to be affected by these changes in important ways and cannot rely on low wages alone to succeed in global trade. As China continues to exit labor-intensive light

³ To narrow the scope of analysis, the paper does not focus on other countries that also will face opportunities and challenges as China changes—Bangladesh, Nepal, and Sri Lanka come to mind, as do a number of countries in Africa and Latin America. The paper also does not focus on trade in services.

⁴ Helbling and others (2016) also analyzes the implications of China's transformation for commodity exporters and commodity markets more generally.

manufacturing, there may be opportunities for the Mekong countries to enter. Vietnam and Cambodia are already established manufacturing countries and could benefit, as could Myanmar which is still at the beginning of its economic opening but is blessed with a large labor force. These countries may also find opportunities in exporting consumption items to China (and in marketing their tourism offerings to Chinese visitors). On the other hand, as China's commodity demand slows, Lao P.D.R. and Myanmar, in particular, may see their energy and materials exports declining. The CLMV countries all benefit from low wages, but the earlier literature and our own econometric analysis suggest that success in trade depends on many structural factors as well. In particular, improvements in education, infrastructure, governance, the business climate, and trade openness are important priorities for these countries.

Chapter 1: China's Changing Patterns of Trade

This chapter takes a close look at China's trade data to document how patterns of trade are changing. It starts with the background behind China's rise as an export powerhouse and provides an overview of the structure of Chinese trade. It then examines the question of whether China is moving up the value chain, and whether any such moves are also being accompanied by an exit from labor-intensive light manufacturing, as was seen in previously dominant export economies. Finally, it examines rebalancing, and in particular the implications for the composition and size of China's imports. Findings in these areas suggest opportunities and challenges for other countries, including in the Mekong region, and these issues are taken up in subsequent chapters.

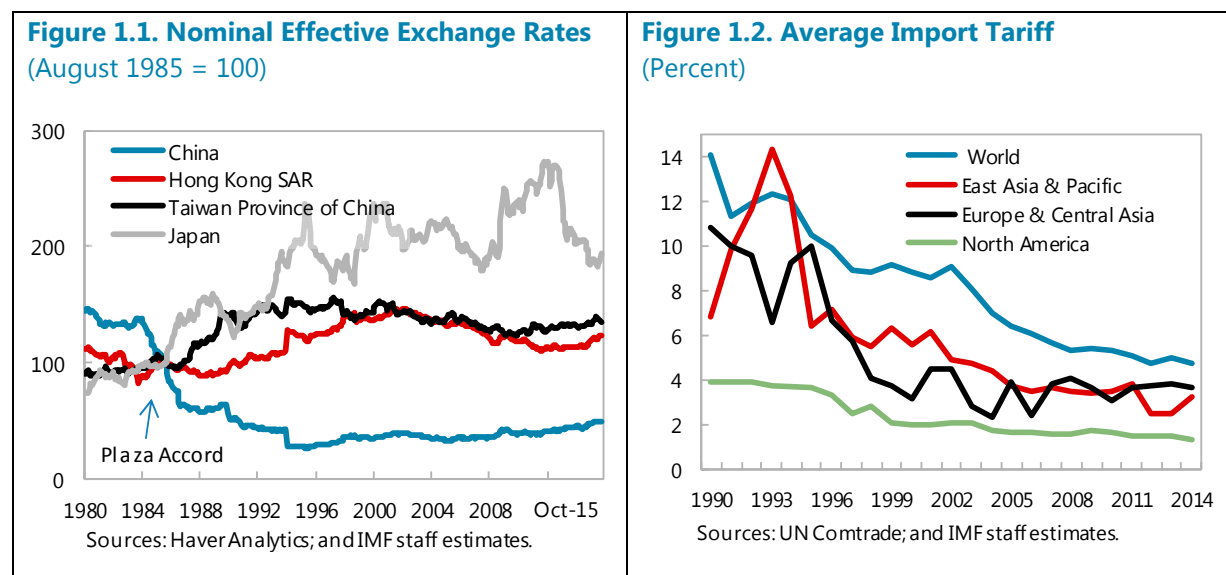
Background

China has followed an export-led growth strategy since its “reform and opening up” started in the late 1970s. As part of the decision to increase the role of market mechanisms, one of the first reforms implemented was to open up trade with the outside world. This decision was soon followed by the 1979 law on Sino-Foreign Equity Joint Ventures, officially welcoming the foreign direct investment (FDI) needed to create a manufacturing sector in what was then a heavily agricultural economy.⁵ In 1980, the first four special economic zones (SEZs) were created—in Zhuhai, Xiamen, Shenzhen, and Shantou—to help kick-start FDI, and then 14 coastal cities and three regions (the Yangtze, Min Jiang, and Pearl River Valleys) were designated “open areas” for foreign investment, with limited red tape and generous tax incentives. Further trade reforms, including significant tariff reductions that reduced the cost of critical imported inputs, continued throughout the 1990s and 2000s.

China also benefited from a series of favorable external developments. First, the East Asian exporters that had dominated global manufacturing in the 1970s and 1980s were faced with sharply rising wages and land prices, reflecting their relatively limited factor endowments. Indeed, the initial surge in manufacturing investment in China occurred as ethnic Chinese entrepreneurs from Hong Kong SAR and Taiwan Province of China sought to take advantage of lower production costs on the mainland (Gereffi 1999). Second, the prevailing exporters' currencies appreciated significantly after the Plaza Accord in 1985, while the renminbi depreciated. Third, the prevailing manufacturing Asian powers generally faced quotas in the

⁵ FDI was, however, permitted in only certain parts of the country. It was not until 1994 that FDI was permitted in all parts of China.

West that constrained their access to key consumer markets; China’s rise as an exporter, by contrast, coincided with, and was reinforced by, a global move toward trade liberalization. While China also faced quotas, it nonetheless managed to increase export earnings by upgrading quality and diversifying into non-quota items, and it benefited from World Trade Organization (WTO) accession in 2001 as well as the 2005 expiration of the Multifiber Agreement.



China’s initial focus in the 1980s and early 1990s was on the labor-intensive light manufacturing of simple consumer goods. China specialized in goods with short production chains and low unit-value inputs—goods like apparel, footwear, furniture, and toys were dominant, just as they had previously been for Taiwan Province of China, Korea, and Japan (Riad and others 2011). By the early 1990s, labor-intensive light manufacturing accounted for more than 40 percent of China’s exports, consistent with the country’s factor endowments. Even though such industries were characterized by relatively low wages and unskilled work, these early forays into manufacturing had what were then surprising levels of performance in terms of job creation and foreign earnings (Scott 2006).

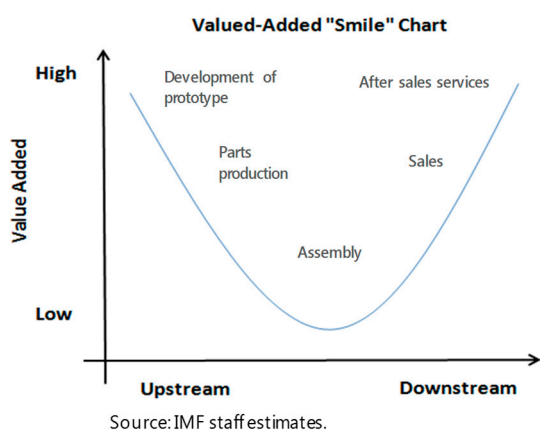
While market share in such segments continued to grow, China increasingly moved toward the assembly of electronic goods and machinery. At first, this was still labor-intensive manufacturing, but these new sectors involved sophisticated and costly inputs that China could not produce domestically. The country thus began to integrate into global supply chains (see Box 1.1). This so-called “processing trade” initially looked like a “triangle” of production. First, Western firms would export high-tech parts and components to Japan, Korea, and Taiwan Province of China, where skilled workers would convert them into sophisticated, technology-intensive intermediate and capital goods. Second, these would be exported to China, where producers would also import raw materials, accessories, and even packaging materials, all in bond, into SEZs. Third, simple, labor-intensive processing or assembly of these inputs would take place, and finished products would be re-exported, typically to advanced economies (Gereffi

1999). Over time, this simple model became more complex, both because production chains grew longer and more specialized and because the producing economies' comparative advantages evolved.

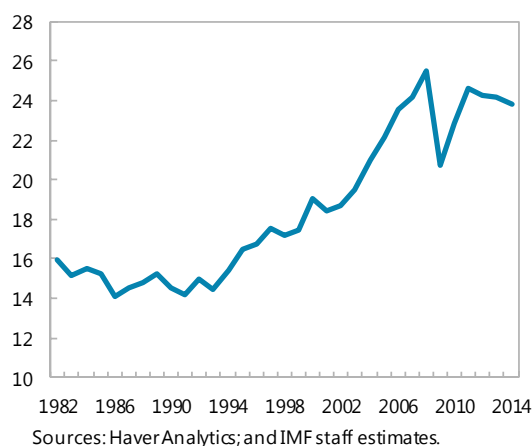
Box 1.1. Global Value Chains in International Trade

International trade has become increasingly dominated by global value chains (GVCs). Thanks to improved logistics and technology, production has been broken into component parts, allowing economies to focus on the stage(s) at which they are most competitive. Goods like electronics lend themselves to supply chain trade as they are lightweight, have robust components, and feature an assembly process that can easily be broken into a series of standardized components. This has facilitated the entry of new countries into global manufacturing and trade. Advanced economies generally participate in GVCs in high-value-added activities—both upstream, in research and development (R&D) and the production of sophisticated components, and far downstream, in the branding, marketing, and distribution of final products. In between are lower-value-added activities such as processing and assembly, where emerging and developing economies have increasingly played a role—this pattern is captured in the well-known value-added “smile” schematic. GVCs also promote technology transfer and productivity gains, and over time countries usually move to higher-value-added activities.

Box Figure 1.1. Value-Added “Smile” Chart



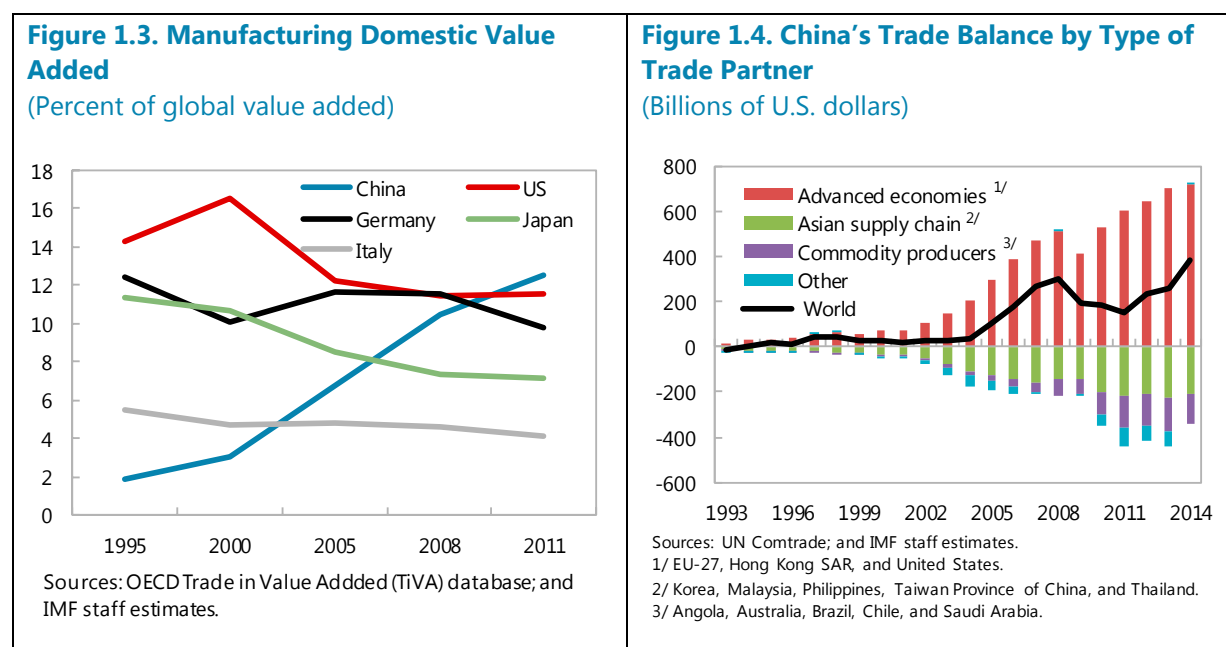
Box Figure 1.2. World Trade to GDP (Percent)



The rise of GVCs has deepened the interdependency of trading nations and had dramatic implications for the global economic landscape. The original “triangle” of production has become substantially more complex. Many countries have moved up the value chain, and Korea and Taiwan Province of China now produce many of the first-stage parts and components that previously came from Europe, Japan, and the United States. Moreover, production has become further fragmented, with unfinished goods typically crossing national borders multiple times before reaching their final destinations. This helps explain the fact that global trade grew faster than GDP over much of the past two decades (Baldwin and Lopez-Gonzales 2013). In addition, because GVCs facilitate the entry into manufacturing, by breaking up complex goods into simple production steps, it also explains the massive growth in trade by developing countries: more than half of developing-country value-added exports involve GVCs, and their share of global trade in components has quadrupled since the mid-1980s. These developments underscore the importance of looking beyond gross trade data and examining the value-added contributed by each country, as is possible in the OECD’s Trade in Value Added dataset.

As processing trade grew increasingly important, China emerged as the primary assembly point of the Asian supply network. By the early 2000s, processing trade rose to 60 percent of

China's total trade (though it has since declined), and even outside the processing trade, manufacturers increasingly relied on imported inputs, such that the share of foreign value added (FVA) in China's total exports was as high as 50 percent—"Made in China" was only halfway true. Nonetheless, even in value-added terms, China has become the world's largest exporter. FDI inflows from Japan and ASEAN surged, and bilateral trade balances evolved such that China went into substantial surplus with the United States, Europe, and Japan while it went into deficit with Asian neighbors that were upstream in the Asian supply chain (notably Malaysia, Taiwan Province of China, Korea, Philippines, and Thailand) as well as with commodity producers (Australia, Brazil, Saudi Arabia, Russia, Angola, Iran, and Indonesia). China now accounts for about two-thirds of Asia's imports of intermediate goods, 25 percent of capital goods exports from Japan and Korea, and nearly 50 percent of the region's exports of intermediate goods.



Somewhat curiously for a still low-income, labor-abundant country, electronics—and, to a lesser extent, machinery—became China's principal exports. The bundle of goods exported by China increasingly resembled the bundles exported by richer countries. In particular—and perhaps as a legacy of central planning—China produced and exported a higher share of capital-intensive products, such as machinery and transport equipment, than countries with similar levels of per capita income (Rodrik, Hausmann, and Hwang 2006; Rodrik 2006; Schott 2008). The apparent sophistication of the Chinese export mix led some to predict a surge in GDP growth as income “caught up” to the country's export dynamism. Though income did in fact grow rapidly, the magnitude of the final goods overstated China's contribution, which was initially labor-intensive and low in sophistication. Still, participation in supply chains, even at this labor-intensive stage of production, helped China develop a level of manufacturing competence that set

the stage for later developments—the first step was simply bringing production inside the borders (Gaulier, Lemoine, and Kesenci 2007; Baldwin and Lopez-Gonzales 2013).

China's export success and participation in supply chains brought increasing attention to value-added, rather than gross, trade data. As noted by Ravenhill (2014), the economics profession was late in appreciating the economic impact of global value chains, holding its first major symposium on the subject only in 2001. Over the subsequent years, a few key stylized facts emerged from the studies in this area. First, gross data on bilateral trade offered a misleading picture of relative competitiveness (Johnson and Noguera 2012); for example, according to the OECD Trade in Value Added (TiVA) database, as of 2011, the U.S. bilateral trade deficit with China was 35 percent smaller in value-added terms than in gross terms. Second, adjusted for value added, global trading patterns were once again well explained by factor endowments, as per standard Heckscher-Ohlin trade theory. And third, given the increasingly large import component of exports, growth had become less sensitive to export dynamics and to exchange rate movements than would be expected in a non-supply-chain world (IMF 2014, 2015).^{6,7}

Given the nature and extent of China's trade, the country's rapid growth has had important spillovers to the rest of the world. China's imports have fueled growth in Asian neighbors, as well as in commodity exporters worldwide, and there have also been conscious attempts to strengthen economic ties, as with the Free Trade Agreement between ASEAN and China (IMF 2011; IMF 2012). Arora and Vamvakidis (2010) show empirically that the spillover effects of China's growth have increased significantly in recent decades. While China's dramatic gains did increase pressure on other Asian economies to seek areas of comparative advantage (Ahearne and others 2006), for the most part, China did not increase its exports at the expense of other Asian economies—what Asian economies lost in market share in the United States and Europe, they more than gained in exports of higher-value-added intermediate goods to China (Kim, Kim, and Lee 2006). Put another way, complementarities thus far have been more important than competition for Asia on the whole. Either way, China's recent difficulties and its attempts to rebalance to slower, consumption-led growth are being watched closely across the world.

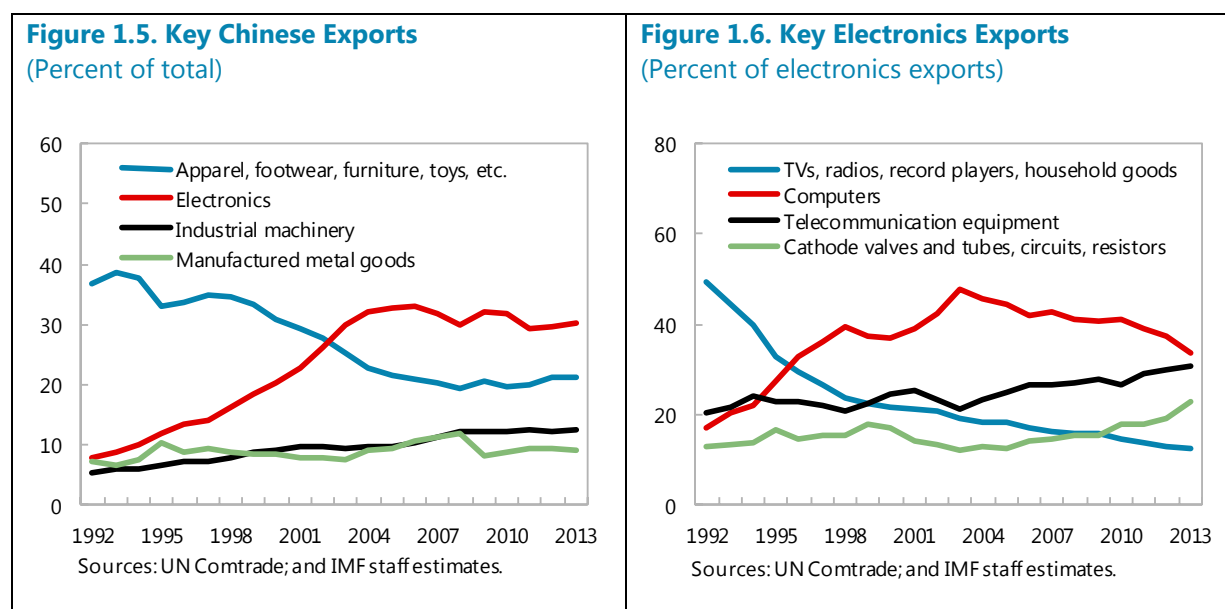
⁶ Chapter 3 of the October 2015 *World Economic Outlook* nonetheless finds ambiguous evidence on the claim that the elasticity of trade to real effective exchange rates has fallen.

⁷ Other stylized facts emerged as well. For instance, while countries at all income levels purchased both low-tech and high-tech goods from China, high-tech imports were relatively more important for richer countries, and as a result, China's exports to advanced economies typically tended to have lower domestic value added than its exports to poorer countries. Also, multinationals tended to rely more heavily on foreign inputs, and thus have a lower domestic value-added ratio, than do domestic Chinese firms (Koopmen, Wang, and Wei 2008, Baldwin and Lopez-Gonzales 2013).

China's trade structure

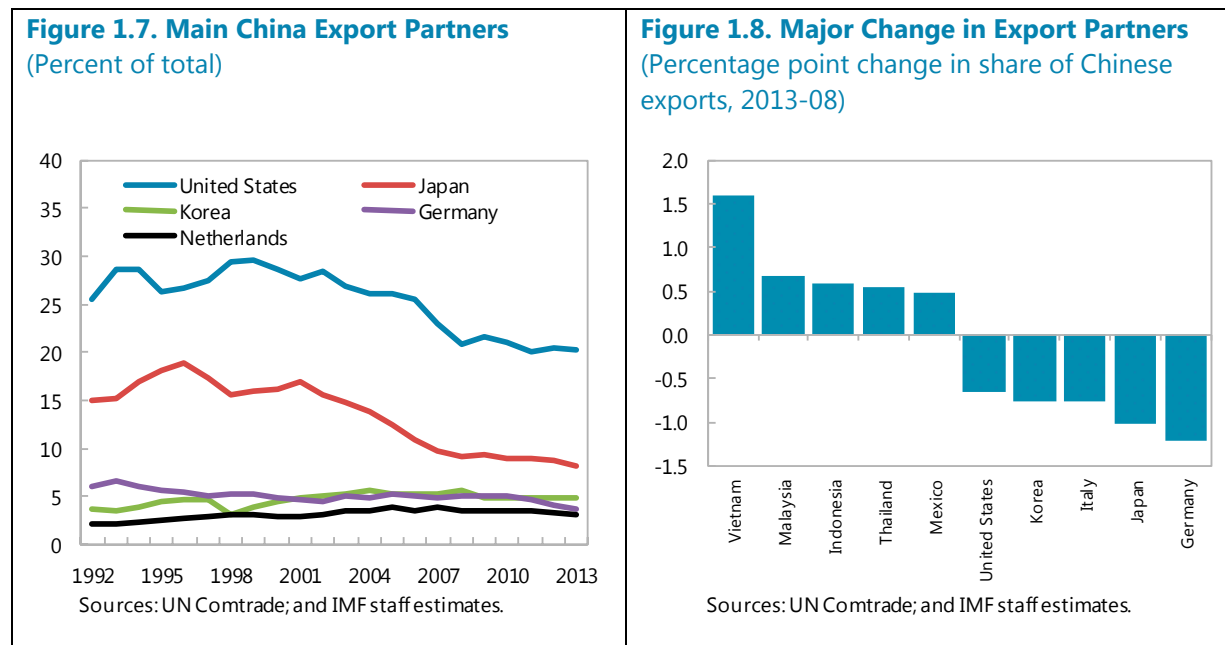
Exports

As suggested above, the composition of Chinese exports has evolved over time. Four basic categories—clothing and plastic toys, electronics, industrial machinery, and manufactured metal goods—have consistently accounted for 60–70 percent of total exports. During the 1990s, the share of electronics and machinery in the total grew sharply, while the share of garments and footwear has fallen. (As discussed below, however, in absolute terms and as a share of world exports, China remains a major garment and footwear exporter.) There have been sharp changes within electronics as well, with China moving from simple TVs, radios, and white goods, such as refrigerators and washing machines, in the early 1990s to computers in the early 2000s, and mobile phones and valves and tubes in more recent years. One constant, however, is that China has remained primarily an exporter of final goods rather than intermediates; final goods account for roughly 60 percent of total exports, much the same as in the 1990s. This does not, however, imply that China is still involved only in assembly—rather, as discussed below, China in many cases now produces intermediate goods and assembles them into final goods exports.



In terms of export partners, advanced economies still dominate but the broad trend is toward an increasing role for emerging markets. The United States and Japan used to receive 45 percent of Chinese exports, but this is now down to about 30 percent—20 percent for the United States and 10 percent for Japan—and another 15 percent of Chinese exports go to Korea, Germany, and the Netherlands. Emerging markets are less important but have increased their share materially since 2008—this is particularly true of Vietnam, Malaysia, Indonesia, Thailand, and Mexico. The rise in emerging market demand for Chinese exports is most pronounced in

final goods—phones and computers, in particular—in line with rising incomes in those economies.⁸



Imports

Imports are less concentrated than exports and their composition has evolved even more significantly. Five categories—electronics, energy, industrial machinery, raw ore/metal scrap, and vehicles—currently account for about 60 percent of total imports. Machinery dominated China’s import needs as it initially industrialized. As processing trade grew, electronics imports started growing rapidly, though recently, energy and commodity imports have grown even faster, reflecting both the surge in domestic (investment) demand and the rise of global commodity prices as markets adjusted to the scale of China’s appetite for raw materials. Within electronics, China mostly imports relatively sophisticated intermediate goods such as circuits, resistors, and semiconductors. Unlike with exports, imports are dominated by intermediate goods, which account for 70 percent of the total. As with exports, however, this composition has been stable since the 1990s—China continues to produce most of its own final goods and does not yet have substantial imports of sophisticated final goods from abroad.

⁸ Hong Kong SAR remains the second-largest export partner of China, but most of this trade is intended for re-export.

Figure 1.9. Key Chinese Imports
(Percent of total)

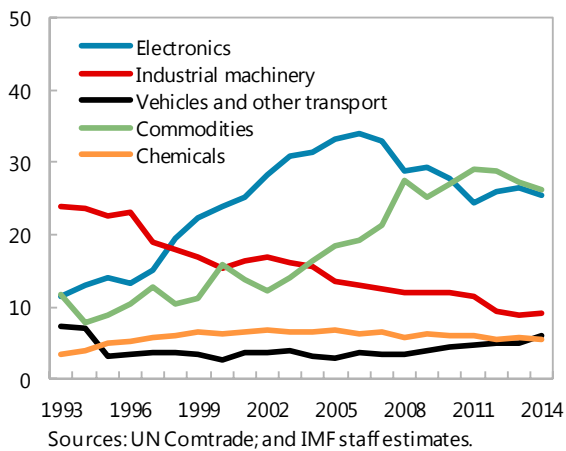
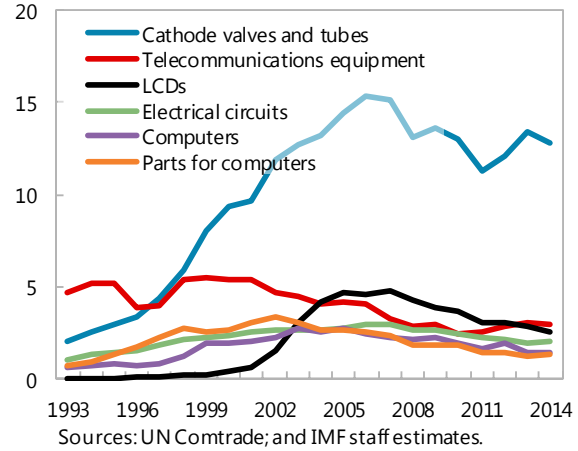


Figure 1.10. Key Electronics Imports
(Percent of electronics exports)



There have also been major changes in the origin of China's imports over the past two decades. Japan has seen the greatest change, with its share falling from almost 25 percent in the early 1990s to under 10 percent today. By contrast, Korea's share grew, and by 2013, that country had become the biggest source of imports into China. Commodity exporters, such as Australia (iron ore), South Africa (metals), Iraq (oil), and Switzerland (gold), also grew in importance, especially since 2008. "China" itself emerged as a major location of imports in the early 2000s, but this includes the way goods that are exported to Hong Kong for light processing and then re-imported into China are recorded.

Figure 1.11. Top Chinese Import Partners
(Percent of total, China reported)

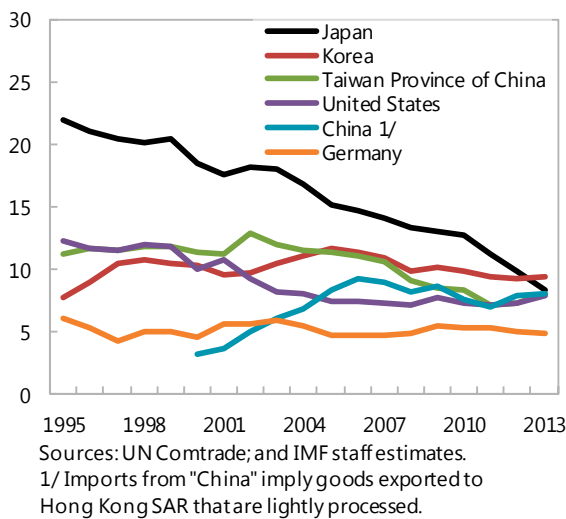
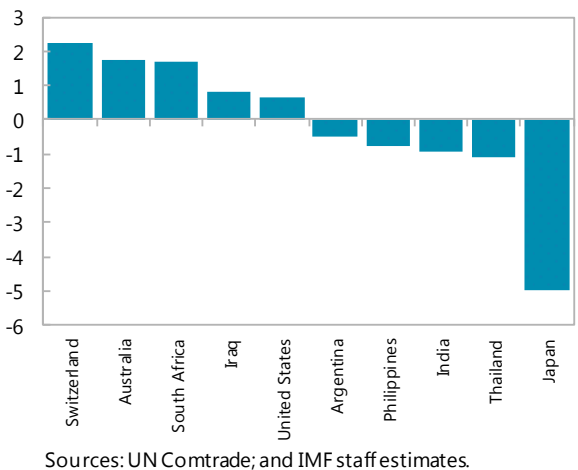


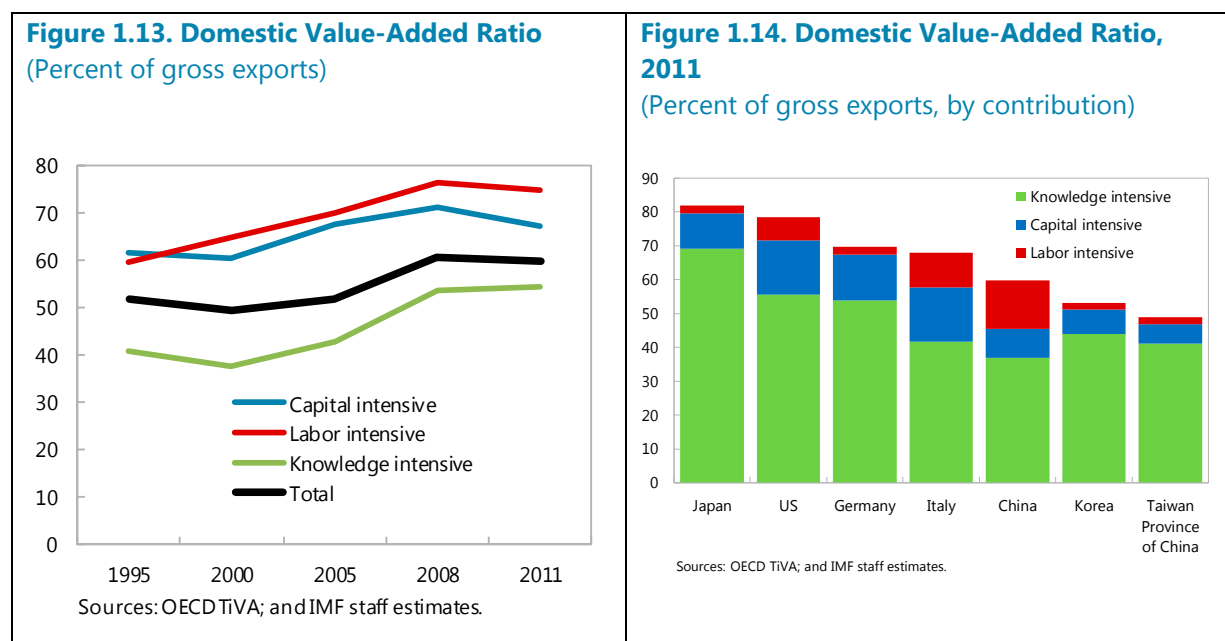
Figure 1.12. Change in Share of China's Imports
(Percentage points, 2013–08)



Moving up the value chain

This section presents a number of pieces of evidence that together demonstrate that China has moved into higher-value-added activities over time.

China’s domestic value-added (DVA) ratio has risen over time and now exceeds those of Korea and Taiwan Province of China. Any investigation of whether a country is moving up the value chain must surely start with its DVA ratio, or the share of the value of its final exports that is produced domestically. This can be obtained from the TiVA dataset, but not for every year, and with a substantial lag—the latest observation is for 2011.⁹ China’s DVA ratio has risen over time, though the rate of increase has flattened out after 2008. Perhaps surprisingly, the ratio now exceeds those of Korea and Taiwan Province of China, though China still lags Japan, the United States, and Germany.



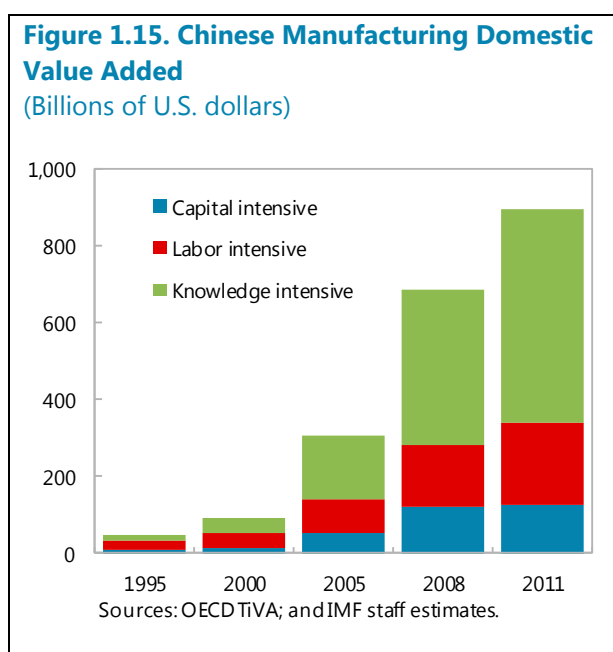
The “aggregate” DVA ratio can mask significant developments within each sector and should be complemented with other evidence. Figure 1.13 reveals that, in each year, “knowledge-intensive” production has had lower domestic value-added content than “capital-intensive” and “labor-intensive” production¹⁰—this is as expected, because sectors like electronics and machinery typically rely on complex imported inputs, often from more advanced

⁹ The OECD TiVA database is not the only source of information on value-added ratios. Kee and Tang (2015), for instance, find that the domestic value-added ratio went from 65 percent to 70 percent between 2000 and 2007.

¹⁰ See Annex 1.1 for alternative trade classifications and definitions of terms.

countries, while sectors like garments, toys, and furniture either have inputs that have a less important share of the final output value or are relatively simple (for example, a lightly processed raw material) and can be produced locally. And this is why the aggregate DVA ratio can be misleading—China’s shift “across sectors”—for example, from simple, but high-value-added activities like light manufacturing to more complex, but nonetheless lower-value-added electronics assembly—may be masking moves “within sectors”—for example, from simple T-shirts to complex jackets made of high-performing materials.

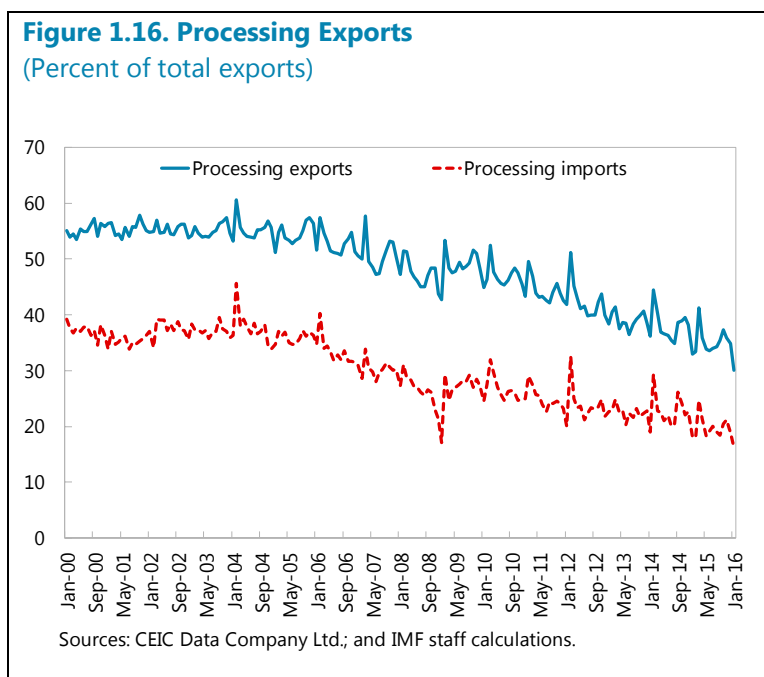
In absolute terms, domestic value added has grown sharply, and especially so in “knowledge intensive” production. An increase in value added is, by definition, GDP growth, and the sharp increase in total value added shown in Figure 1.15 was a key driver behind China’s rapid GDP growth during the period. The figure also shows that growth was especially pronounced in “knowledge-intensive” sectors, such as electronics, chemicals, machinery and equipment, electrical and optical equipment, and transport equipment. Indeed, these sectors now account for close to two-thirds of China’s total value added. This more rapid growth in knowledge intensive value added is prima facie evidence that China is “moving up the value chain,” even if the aggregate DVA ratio is relatively flat.



It is also striking that since 2010, processing trade¹¹ has sharply declined in importance. As noted above, processing trade accounted for more than half of total Chinese exports in the early

¹¹ Processing trade refers to the business activity of importing all, or part of, the required inputs (raw and auxiliary materials, parts and components, accessories, and packaging materials) and re-exporting the finished products after processing or assembly by domestic enterprises. Processing-trade exports tend to have a far higher imported content than regular exports.

2000s, but this segment of trade has stagnated over the past five years while other exports have continued to grow. The share of processing trade has now fallen to about one-third of the total. Since processing exports, by definition, are more reliant on foreign value-added than other exports are, the relative decline of this sector strongly suggests that China is moving up the value chain by replacing its reliance on sophisticated imported inputs with domestic production.



Consistent with such developments, import intensity in key export sectors is falling. Without highly technical knowledge of both manufacturing processes and industrial classification codes, it is not easy to identify, from a country's gross trade data, which imports relate to inputs used for the production of particular exports. Nonetheless, the granular classification of traded products provided by the Standard International Trade Classification, referred to as SITC, allows this matching exercise for some of China's key export sectors (computers and TVs, radios, phones, and capital goods more broadly) because it clearly specifies the codes for both the final good and the intermediate parts that relate to it. As shown in Figures 1.17 and 1.18, such ratios suggest that the value of imported parts required to produce these exports has declined over time. Barring secular declines in the relative prices of such parts—which we have no reason to believe have occurred—this evidence suggests that China has started moving upstream, producing some of the inputs it needs onshore, and thus moving up the value chain. In fact, these data likely understate the degree of onshoring, given that some of the imported inputs are used for final use domestically in China. This process appears to be continuing for computers, but for the other sectors, import intensity started to flatten out around the time of the global financial crisis.

Figure 1.17. Import Intensity of Select Sectors
(Ratio of imported parts to exports of final goods)

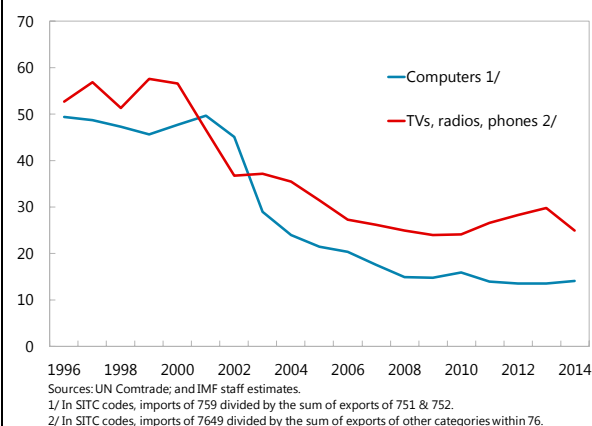
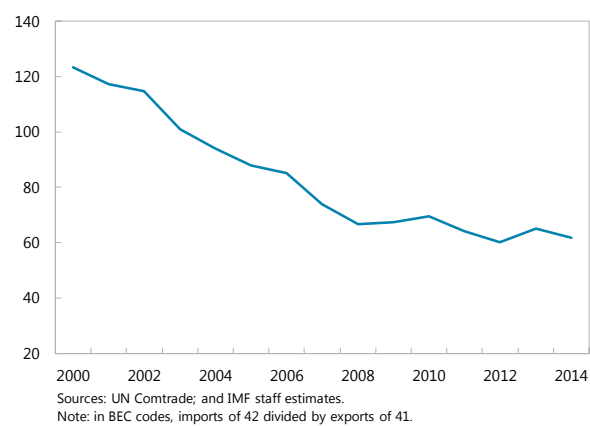


Figure 1.18. Import Intensity of Capital Goods
(Capital goods parts imports/capital goods exports)



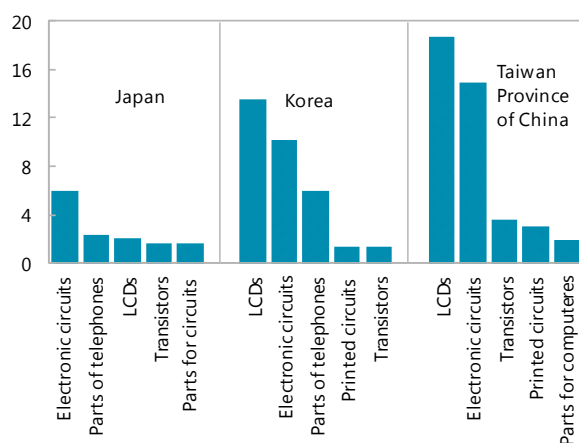
China also increasingly appears to be producing sophisticated, upstream parts and components onshore. As China integrated into global supply chains, its imports of sophisticated inputs from Korea and Japan grew sharply. The top five products (at the three-digit level of industrial classification), including such items as electrical circuits, LCD screens, and valves/tubes, are shown in Figure 1.19. These goods are all intermediate goods (specifically “parts and accessories,” under the Broad Economic Classification [BEC] used in UN Comtrade data), and they are also classified as “difficult-to-imitate research-intensive goods,” using the definition in Hufbauer and Chilas 1974 and Yilmaz 2002. Over the course of the past decade, China has been gaining export market share in the sophisticated products that it earlier exclusively imported. The exact pattern depends on the good in question, but with LCDs, for example, China moved upstream by onshoring more sophisticated production that previously took place in Japan, then Taiwan Province of China, and more recently Korea, as shown in Figure 1.20.¹² Another example—a certain type of transistor—is shown in Figure 1.21. In short, China has moved up the value chain.¹³

¹² China is now the world’s largest exporter of LCD screens, but it is not clear that these exports are going to a new assembly-hub country. It may be that the goods are being exported to Hong Kong SAR, lightly processed, and then sent back to China to satisfy domestic demand. Even if this is the case, however, we have clear evidence that China is at least producing these sorts of sophisticated, upstream parts.

¹³ It is worth noting that this analysis is all at the level of the country, without any comment on the ownership of the export facilities in question. China’s exports of LCD screens, for instance, may be growing because Korean producers have set up factories in China—in such a case, China’s export success may directly yield Korean income gains, but China also benefits, and it is still valid to say that China, as a country, has succeeded in moving up the value chain. In addition, there are many cases in which Chinese-owned firms have come to dominate sophisticated sectors—Huawei, for instance, now has a larger share of the global smartphone market than LG does. Box 2.1 discusses FDI and ownership issues further.

Figure 1.19. Top Five Electronics Exports to China

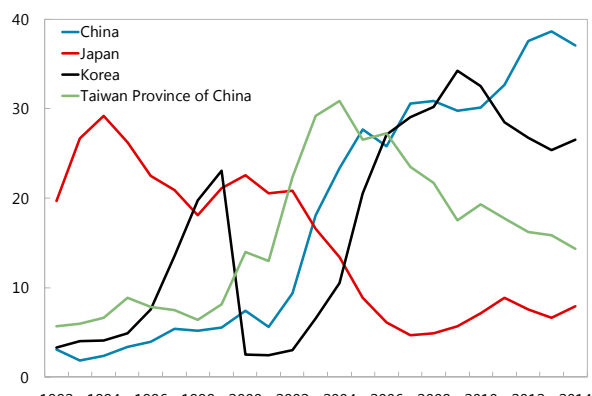
(Share of total exports to China, 2014)



Sources: UN Comtrade; and IMF staff estimates.

Figure 1.20. LCD Screens

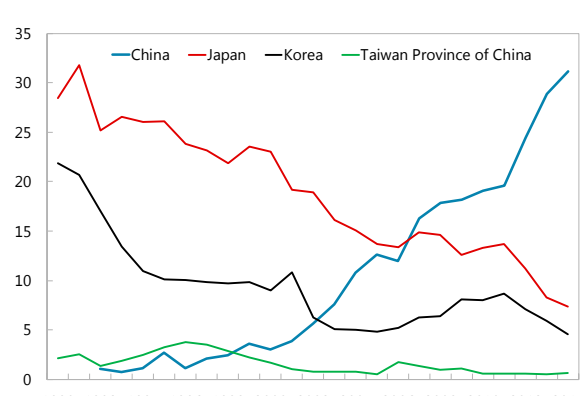
(Export market share)



Sources: UN Comtrade; and IMF staff estimates.

Figure 1.21. Transistors (<1 watt)

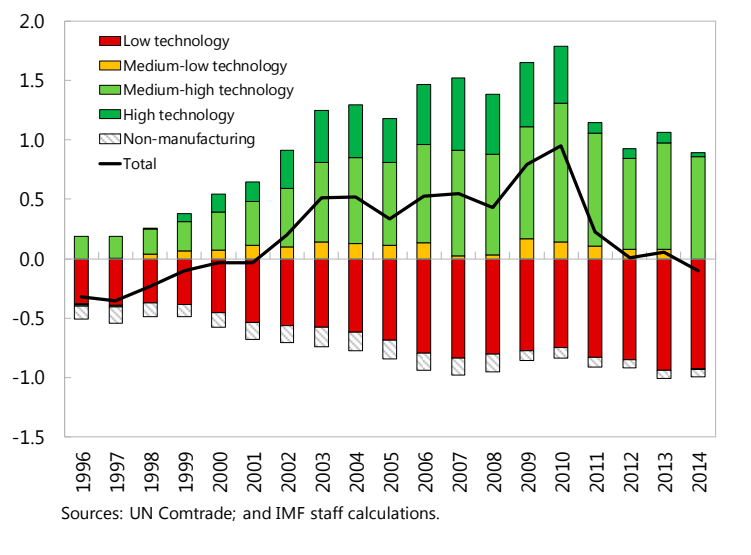
(Export market share)



Sources: UN Comtrade; and IMF staff calculations.

Finally, China’s move up the value chain is reflected in the evolution of bilateral trade balances. Advanced North Asia for many years ran a large collective trade surplus with China. While China exported low-technology goods to Japan, Korea, and Taiwan Province of China, these flows were outweighed by China’s import of relatively high-technology goods from these countries—many of these were parts intended for assembly and then export to the rest of the world. The trade surplus decreased sharply after the global financial crisis, and most of the decline has occurred in relatively high-technology sectors. This may suggest that China is now producing these parts onshore. At the same time, China continues to export low-tech goods—as discussed below, it is not exiting these sectors in any dramatic manner.

Figure 1.22. Advanced North Asia's Trade Balance with China
(Percent of GDP)



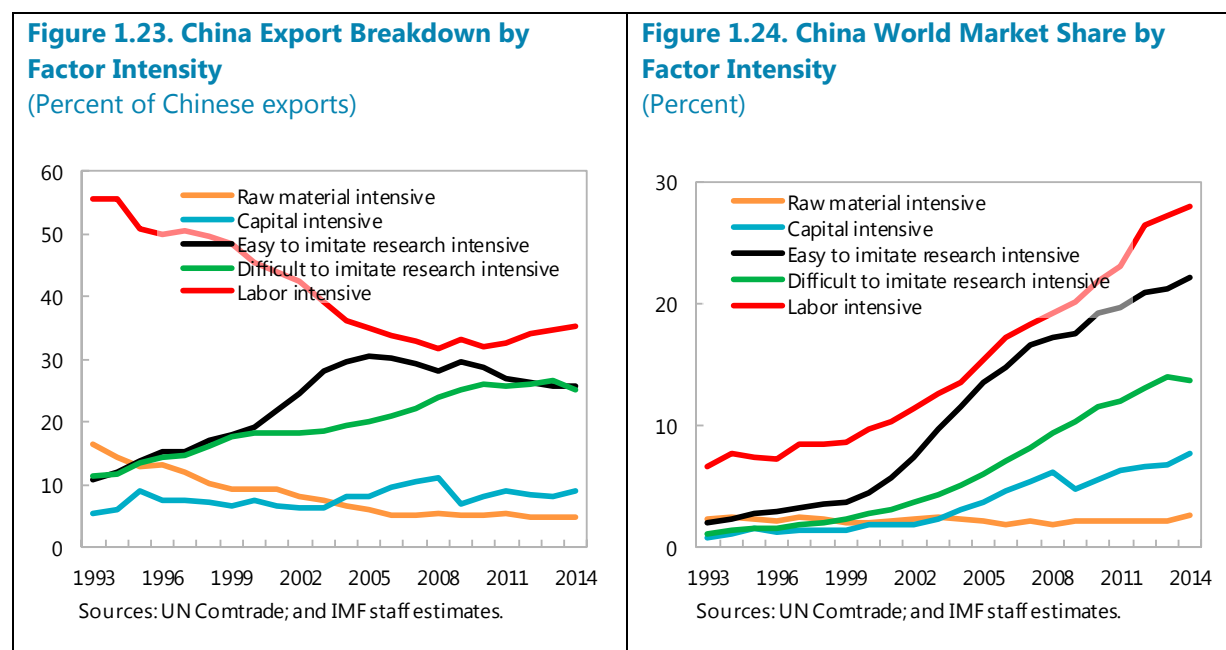
All of these pieces of evidence combine to paint a clear picture of China's moving up the value chain in several different ways. As China has gained more manufacturing experience and as its labor productivity has risen, it has gradually moved into the production of more sophisticated goods. The processing trade has become less important, and even within regular trade, China has become less reliant on imported inputs in producing these goods. And reflecting these changes, China's value-added ratio has risen and its bilateral trade deficits with Asian neighbors have decreased materially. These developments suggest that China is increasingly competing with advanced economies like Japan, Korea, and Taiwan Province of China.

Existing labor-intensive production

The rapid growth of China's export market share naturally raises questions about whether it can be sustained. Even as China is gaining share in an increasing number of sophisticated areas, as highlighted above, there are growing questions about its competitiveness in the lower-end, labor-intensive sectors where it began. One issue is that the excess-labor dividend may be in its twilight. The working-age population is expected to start shrinking this year before contracting deeply over the coming decades.¹⁴ Such demographic issues along with other factors such as falling demand for factory jobs by Chinese youth have put sharp upward pressure on China's wages, which have risen considerably faster than productivity, and faster than wages in competing countries (albeit from a very low level).

¹⁴ Some contend that the difficult demographics could be materially delayed with policy changes such as an increase in the retirement age or a change in the pension policy to reduce an implicit penalty on late retirement.

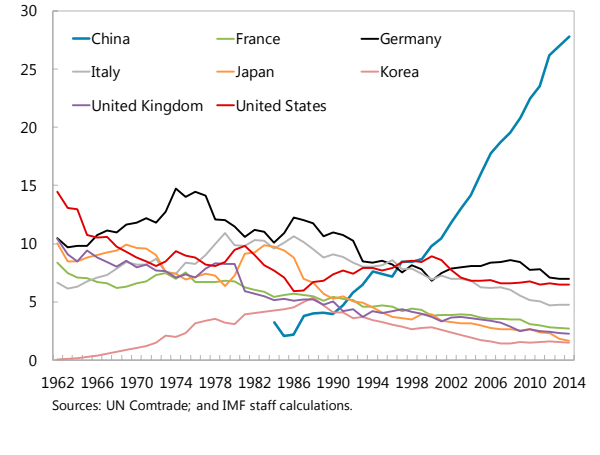
As China has moved up the value chain, the relative importance of labor-intensive production has declined. Figure 1.23 shows that the share of labor-intensive goods in China’s total gross exports started declining as early as the early 1990s. At the same time, both the “difficult to imitate” and “easy to imitate” varieties of research-intensive production have increased in relative importance. Since the global financial crisis, there has been some reversal in these trends but it remains too soon to determine whether this trend persists as global output returns to potential.



Somewhat surprisingly, China still appears to be highly competitive in labor-intensive goods overall. As shown in Figure 1.24, China’s world market share in labor-intensive production is higher than its share in any other sector and has been increasing steadily over the years, with only recent evidence of some plateauing. Figure 1.25 complements these messages by showing that China is by far the most important global exporter of labor-intensive goods, and again, its share is just beginning to flatten out.

Figure 1.25. Global Export Market Share in Labor Intensive Goods

(Percent of world exports in labor-intensive goods)



But while there is not yet evidence of a marked shift out of labor-intensive production in aggregate, the beginnings of decline are seen in some key sectors. As shown in Figure 1.26, light manufacturing sectors all appear to be at an inflection point—global market shares seem to have plateaued in many of these categories and are even dropping for furniture. There is also some plateauing in final electronic goods, but the evidence of such a transition is far less pronounced: there is some flattening in simple white goods and computers but continued sharp growth in the market share of telephones.¹⁵

¹⁵ A plateauing, or even an exit from some labor-intensive sectors, is more apparent if one examines not export data reported by China, but rather import data from its partners.

Figure 1.26. Export Market Share: Simple Consumer Goods
(Percent)

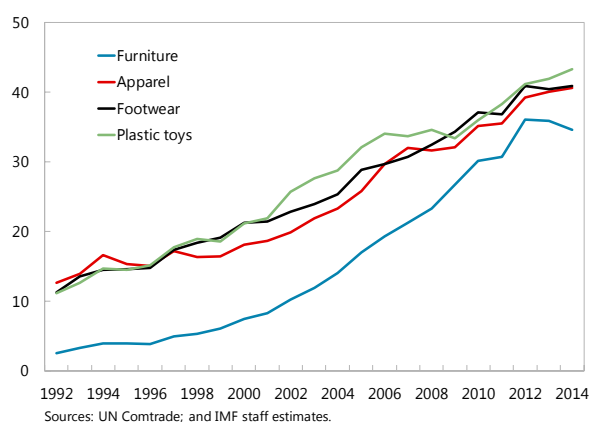
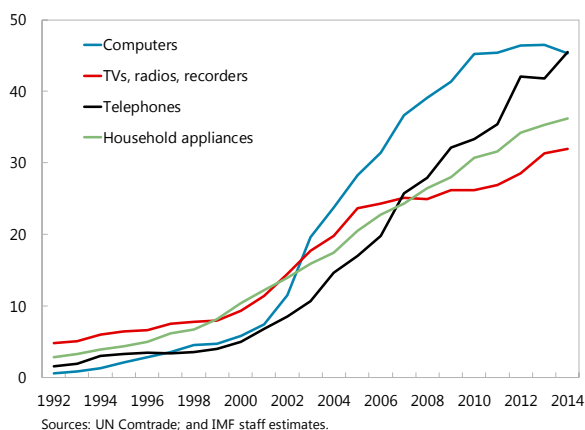


Figure 1.27. Export Market Share: Consumer Electronics
(Percent)



The durability of China’s success in labor-intensive production is striking, but also difficult to explain. As shown in Introduction, earlier exporters’ success in sectors such as garments was relatively short-lived; declines in market share set in after less than a decade, and occurred quite sharply, with countries like Korea almost completely exiting garments within a space of 15 years. Such a transition may yet be seen in China—firms in other countries may out-compete Chinese producers, or Chinese producers may invest abroad (outward FDI) and move their manufacturing to foreign subsidiaries. These processes are already happening to some degree, particularly in certain sectors, but overall it is remarkable that China has remained competitive in labor-intensive production for so long.

China’s inland provinces may be a possible reason for the sustained performance of the Chinese labor-intensive sectors, but this is not obvious in the data. Part of the explanation of China’s continuing strength in labor-intensive exports stems from the size of China’s labor force and the ability to draw cheap labor to coastal production areas. In addition, some argue that production moves inland as wages on the coast lose competitiveness (the popular example being Foxconn). This story, however, is not clear in the data. While the inland production of basic manufactures has risen and the share of FDI going inland has reached 50 percent, the share of total exports produced by inland provinces has not risen; production for export has remained mostly on the coast, where wages are still the highest (Figures 1.28–31). Moreover—and perhaps somewhat counterintuitively—inland provinces have seen greater increases in the production of high-tech goods than in light manufacturing. Inland production may indirectly have helped to sustain coastal exports, but it may also be that the extreme efficiencies, network effects, and other factors associated with exporting from China’s coastal provinces have caused the “geese” to stop flying.

Figure 1.28. Foreign Exports by Location of Producer
(Trillions of U.S. dollars)

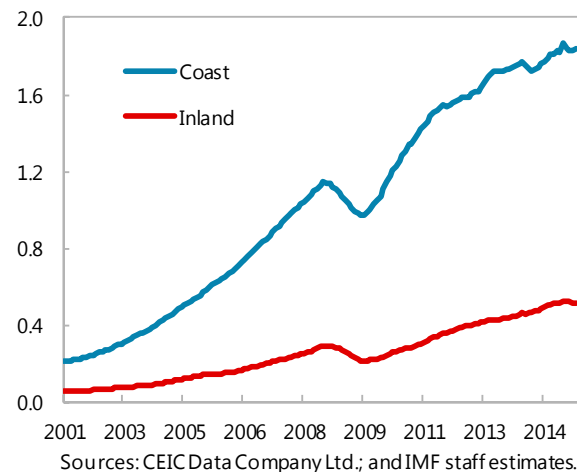


Figure 1.29. Industrial Production of Inland Provinces
(Percent of national total)

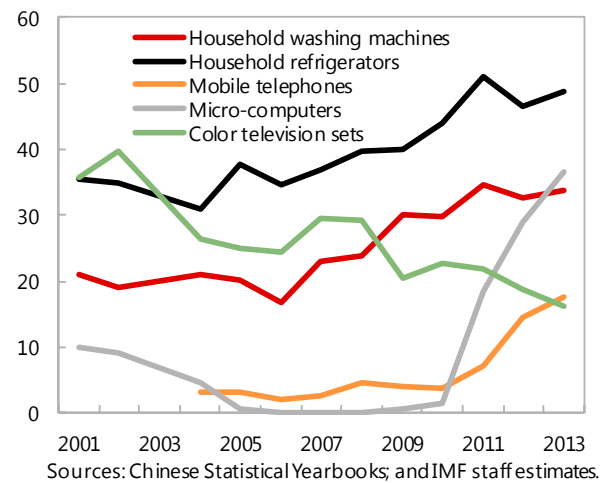


Figure 1.30. FDI by Region
(Percent of total)

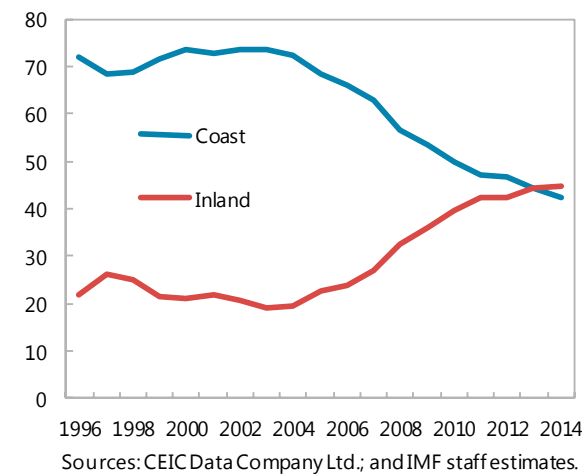
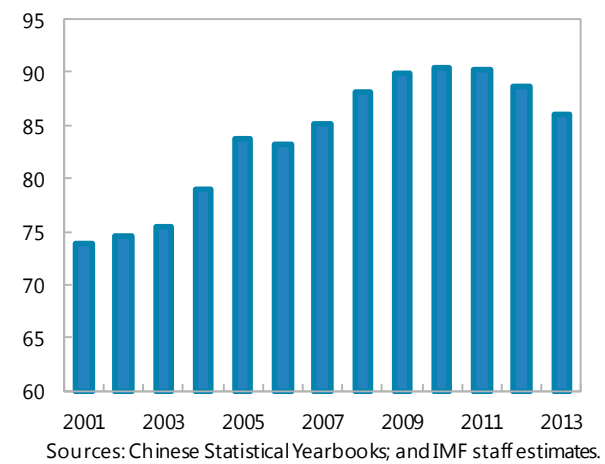


Figure 1.31. Inland Wages as Share of Coastal Wages
(Percent)



In sum, after two decades of sharply rising wages, there is initial evidence of some plateauing of China's dominance in labor-intensive goods. But this evidence is not yet a clear trend and is occurring at levels of market share far above where previous manufacturing powers lost competitiveness. The thrust of this information is suggestive of advantages to Chinese manufacturing that go beyond purely labor-related competitiveness, such as network effects or economies of scale. Building on the findings in the previous section, if firms in China are moving the production of imported inputs onshore, they may find that they can keep assembly and control the entire production process. This is a reversal of the move captured in Hummels,

Rapoport, and Yi (1998) toward “vertical specialization”—importing inputs and exporting outputs—toward the “horizontal specialization” in which countries trade in goods produced largely in one country.

Rebalancing

China’s export-led model and its resulting current account surpluses generated substantial global attention. In addition to a number of underlying advantages such as abundant labor, the Chinese authorities made several explicit policy choices including heavy intervention, capital controls, financial repression, and low returns to labor. From a domestic perspective it was a very successful strategy that led to dramatic increases in per capita income and total factor productivity without obvious evidence of overheating (Blanchard and Giavazzi 2005). In the initial years, growth was highly imbalanced across the provinces and skill levels, but this improved over time as infrastructure reached deeper into the Chinese interior. The model was nonetheless subject to two critiques—first, domestically, there was inadequate development of health and other services, excessive precautionary savings as a result of weak safety nets, and a misallocation of investment; and second, other countries saw themselves facing a sharp—and, in their view, unfair—loss of competitiveness, particularly in labor-intensive industries.

China has made important progress in reducing external imbalances since the global financial crisis. The weakening of external demand during the crisis was offset in large part by government stimulus that drove the share of investment in GDP from 40 to almost 47 percent, thereby preventing a sharp fall in growth. Without a corresponding increase in savings, this additional investment reduced the current account surplus from 10 percent of GDP in 2008 to just 2 percent today. Moreover, the growth contribution from net exports fell from 0.5 percentage points in 2001–07 to –0.8 percentage points in 2008–14. In this context, reserve accumulation, a key proxy for the broader imbalance, ceased, and foreign exchange sales began in 2014–15.

Figure 1.32. Investment and Saving Balances
(Percent of GDP)

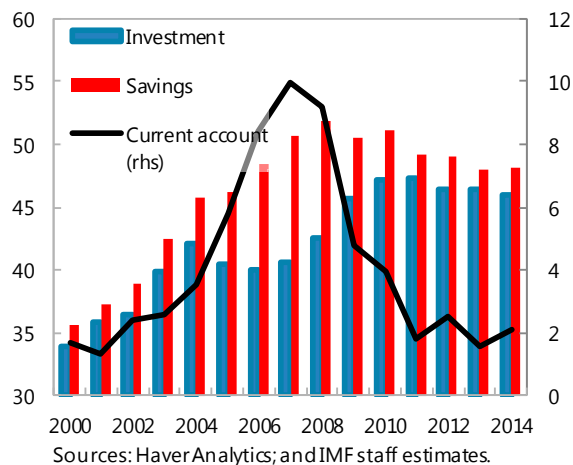
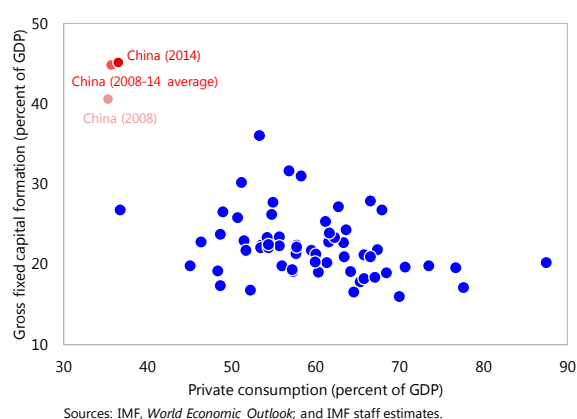


Figure 1.33. Private Consumption and Investment

(Industrial countries and emerging markets; average, 2008–14)



The progress in external rebalancing, however, has come at the cost of a large increase in domestic imbalances. The source of excessively large current account surpluses before the crisis was not overly low investment, but rather excessive savings. Thus, responding with an investment-led stimulus resulted in the current excesses in capacity, particularly in the manufacturing and real estate sectors. Moreover, the easy credit conditions that helped finance the investment boom have given rise to financial sector vulnerabilities.

In more recent years, China has had some initial success in addressing these imbalances and moving toward a more sustainable growth model. The authorities are attempting to move toward consumption- and services-led growth and away from investment and manufacturing. Services have been on a steady upward march since 2011 and overtook manufacturing as the largest share of GDP in 2012. Meanwhile, consumption, which fell from 62 percent of GDP in the late 1990s to 49 percent at the start of the global financial crisis, has plateaued and started to increase marginally. Nonetheless, as shown in Figure 1.33, China remains a major outlier on both consumption and investment. Progress could speed up if the authorities advance on key structural reforms outlined during the Third Plenum in 2013.

Figure 1.34. Rebalancing—Supply Side
(Percent of GDP)

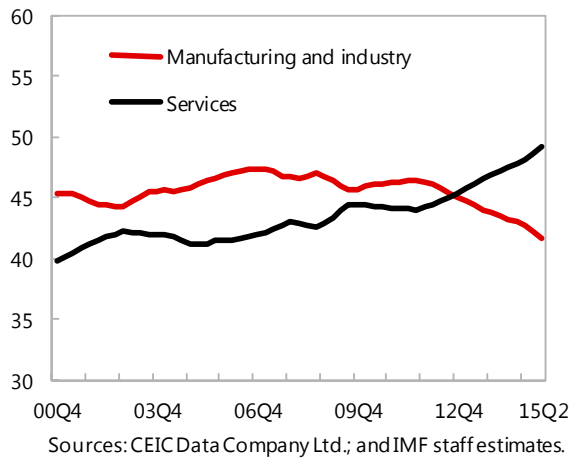
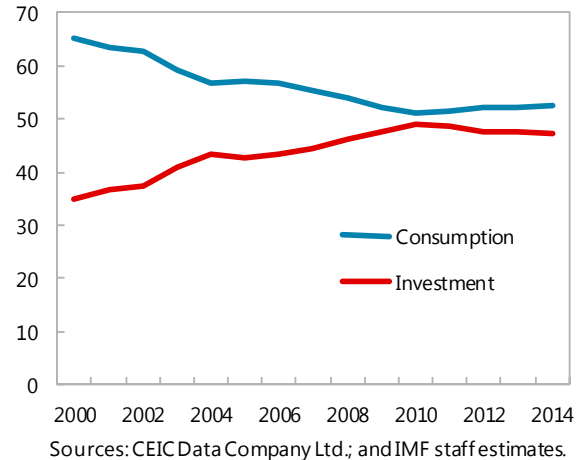


Figure 1.35. Rebalancing—Demand Side
(Percent of GDP)



Rebalancing will likely have important implications for China’s trading partners. Input-output tables suggest that consumption is currently only half as import-intensive as investment (Figure 1.36), and rebalancing toward consumption could thus imply lower overall imports, at least during a transition period; over the longer run, however, one would expect the import intensity of consumption to rise as China’s relative prices adjust. In addition, there will be a material shift in the composition of China’s trade partners as a result of rebalancing, with significant effects on those countries that export investment-related goods, but not consumption goods, to China. And all of this is on top of the trend, described above, toward onshoring the production of upstream inputs, which will also directly lower imports.

Figure 1.36. Import Intensity in GDP Components
(Percent of GDP, 2011)

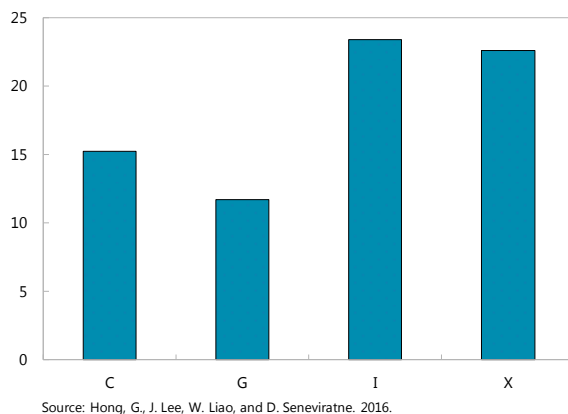


Figure 1.37. China's Primary Goods Imports
(Percent of total China imports)

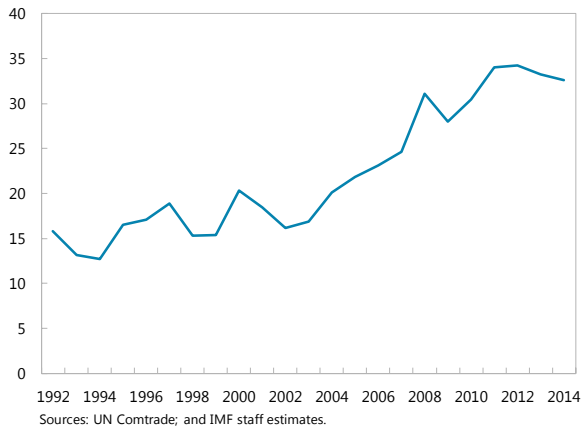
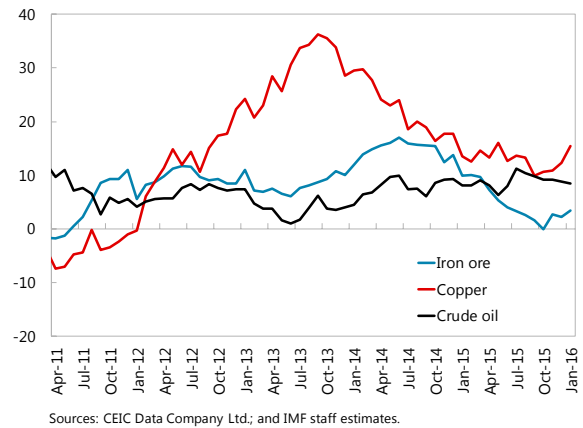


Figure 1.38. Real Commodity Imports Growth
(Year-on-year percent change of 12-month rolling sum)



Rebalancing has already had an important impact on investment-related goods, including commodities. Since 2005, real import demand for commodities has outpaced that for imports more broadly, and China now accounts for about 15 percent of global commodity imports. Petroleum, iron ore, and copper are particularly important to China, with other metals and coal also significant. In the most recent data, while petroleum demand has remained robust, real demand for iron ore has weakened with the slowdown in infrastructure and real estate investment, as has demand for copper (though this is relative to 2012–13). The clearest weakness is in coal, which is down by almost 50 percent. Potentially even more important than the quantity effects are the impacts on prices, as the elasticity of commodity prices to Chinese commodity demand has historically been far above unity. China has also contributed to weakening global commodity markets by increasing supply. Finally, quantities and prices of imported machinery and other investment inputs have also declined.¹⁶

¹⁶ Helbling and others (2016) examine in further detail the implications of changes in China for commodity exporters and commodity markets more generally. One finding is that China's demand for food and agricultural commodities has grown faster than would have been predicted in recent years.

Figure 1.39. China—Metals Consumption
(Percent of world total)

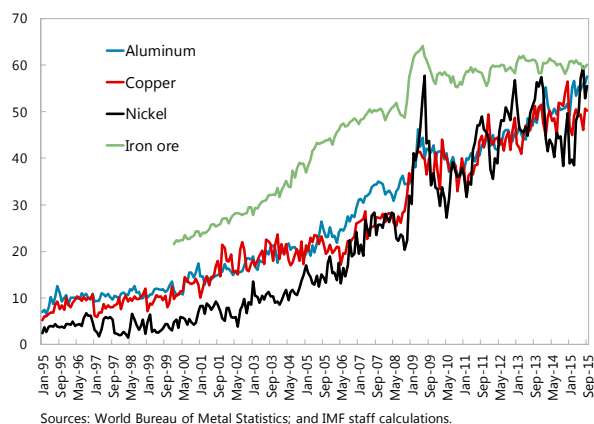
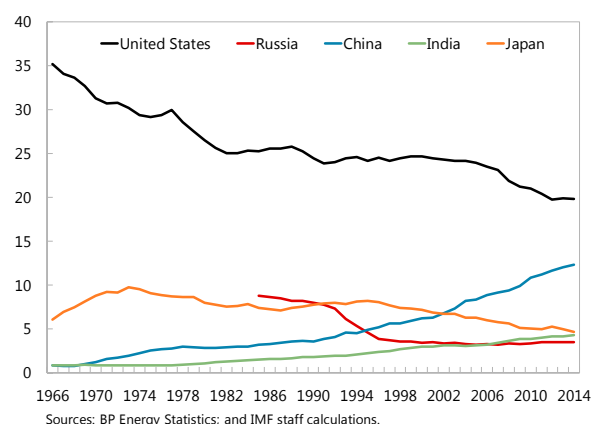


Figure 1.40. China—Oil Consumption
(Percent of world total)



Meanwhile, the slow increase in China’s consumption so far has yielded only a modest increase in consumption imports. Indeed, an increase in imports may not materialize in a substantial way if Chinese consumers’ needs are met from domestic production.¹⁷ Up to now China’s share of world consumption imports has increased, particularly since 2008, but that share is still very small, in part because of weakening consumption growth rates in the recent period. Moreover, consumption goods make up a far smaller share of China’s imports than is the case in other countries. China’s main goods imports have been passenger cars, and in terms of services, outward tourism has increased sharply.

¹⁷ Looking directly at consumption imports may understate the impact. Some items that a casual observer would consider consumption items are officially classified as capital goods (for example, telephones—SITC code 764.11—are classified as BEC code 41, which is for capital goods). Moreover, higher consumption could induce higher imports of intermediate goods, which are then domestically assembled into final consumer goods.

Figure 1.41. Consumption Imports
(Percent of respective total imports)

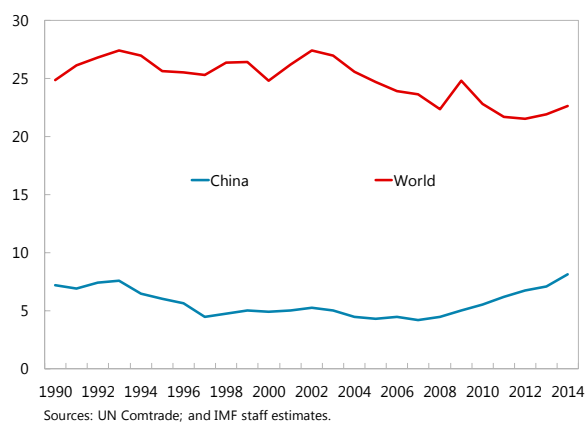
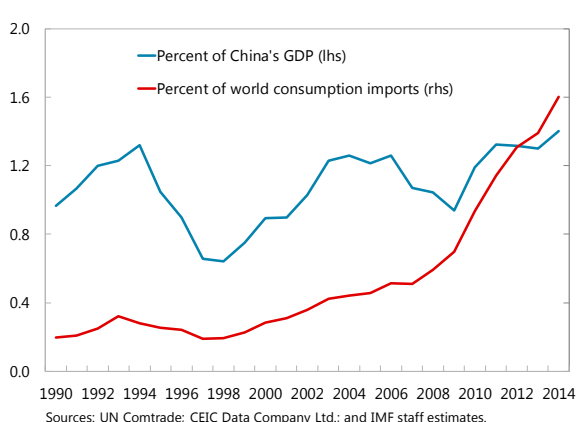


Figure 1.42. China Consumption Imports



Going forward, the expectation is that Chinese external and internal rebalancing will continue. The process may not be monotonic, as progress on domestic rebalancing may temporarily reverse external rebalancing on account of the less import-intensive nature of consumption. But over time, the aggregate impact of reforms—including greater exchange rate flexibility, financial sector liberalization, reduced capital controls, and a smaller role for the state—should reduce the current account surplus and increase the sustainability of domestic demand. Trading partners will need to adjust appropriately as changes in the contours of Chinese demand are likely to be long-lasting.

Conclusion

China's trading patterns have already started to change. There is a clear move into higher-value-added activities, and this has been happening for a number of years. Somewhat surprisingly, there has been no obvious exit from labor-intensive production in aggregate, but it appears to be starting to plateau, with slight declines evident in some key sectors like garments, footwear, toys, and furniture; in other words, China may be at an inflection point with respect to labor-intensive goods. However, while inland production has picked up, this appears mostly to be to service domestic demand in China; exports are still produced almost exclusively on the coast. Finally, there is mixed evidence on rebalancing—imports of machinery and certain commodities, like coal and iron ore, are clearly declining, but others, like oil, continue to grow; at the same time, while Chinese consumption is increasing, this has so far translated into just a modest increase in imports of consumption goods (though Chinese outbound tourism has picked up more sharply).

Annex 1.1. Taxonomy of Trade Classifications

1. Technology Intensity (ISIC Rev. 3) – Classification of manufacturing industries into categories based on R&D intensities. See OECD.

High-technology industries: Aircraft and spacecraft; pharmaceuticals; office, accounting, and computing machinery; radio, TV, and communications equipment; medical, precision, and optical instruments

Medium-high-technology industries: Electrical machinery and apparatus, not elsewhere classified (n.e.c.); motor vehicles, trailers, and semi-trailers; chemicals excluding pharmaceuticals; railroad equipment and transport equipment, n.e.c.; machinery and equipment, n.e.c.

Medium-low-technology industries: Building and repairing of ships and boats; rubber and plastics products; coke, refined petroleum products, and nuclear fuel; other non-metallic mineral products; basic metals and fabricated metal products

Low-technology industries: Manufacturing, n.e.c.; recycling; wood, pulp, paper, paper products, printing, and publishing; food products, beverages, and tobacco; textiles, textile products, leather, and footwear.

2. National Accounts and Broad Economic Categories

Final Goods

Consumer Goods

112 – Food and beverages, primary, mainly for household consumption

122 – Food and beverages, processed, mainly for household consumption

522 – Transport equipment, non-industrial

51 – Passenger motor cars

61 – Consumer goods not elsewhere specified, durable

62 – Consumer goods not elsewhere specified, semi-durable

63 – Consumer goods not elsewhere specified, non-durable

Capital Goods

41 – Capital goods (except transport equipment)

521 – Transport equipment, industrial

Intermediate Goods

111 – Food and beverages, primary, mainly for industry

121 – Food and beverages, processed, mainly for industry

21 – Industrial supplies not elsewhere specified (n.e.s.), primary

22 – Industrial supplies, n.e.s., processed

31 – Fuels and lubricants, primary

321 – Fuels and lubricants, processed (motor spirit)

322 – Fuels and lubricants, processed (other than motor spirit)

42 – Parts and accessories of capital goods, (except transport)

53 - Parts and accessories of transport equipment

3. Trade by Factor Intensity

Raw-Material-Intensive Goods

SITC 0 Food and live animals

SITC 2 Crude material, inedible, except fuels (excluding 26)

SITC 3 Mineral fuels, lubricants, and related materials (excluding 35)

SITC 4 Animal and vegetable oils, fats and waxes

SITC 56 Fertilizers

Labor-Intensive Goods

SITC 26 Textile fibers

SITC 6 Manufactured goods classified chiefly by material (excluding 62, 67, 68)

SITC 8 Miscellaneous manufactured articles (excluding 88, 87)

Capital-Intensive Goods

SITC 1 Beverages and tobacco

SITC 35 Electric current

SITC 53 Dyeing, tanning, and coloring materials

SITC 55 Essential oils and resinoids and perfume materials; cleansing preparations

SITC 62 Rubber manufactures, n.e.s.

SITC 67 Iron and steel

SITC 68 Non-ferrous metals

SITC 78 Road vehicles

Easy-to-Imitate Research-Intensive Goods

SITC 51 Organic chemicals

SITC 52 Inorganic chemicals

SITC 54 Medicinal and pharmaceutical products

SITC 58 Plastics in non-primary forms

SITC 59 Chemical materials and products, n.e.s.

SITC 75 Office machines and automatic data-processing machines

SITC 76 Telecommunications and sound apparatus and equipment

Difficult-to-Imitate Research-Intensive Goods

SITC 57 Plastics in primary forms

SITC 7 Machinery and transport equipment (includes semiconductors/excludes 75, 76, 78)

SITC 87 Professional, scientific, and controlling instruments and apparatus, n.e.s.

Source: Yilmaz (2002) based on earlier work by Hufbauer and Chilas (1974).

4. OECD Factor Intensity Breakdown

Capital-Intensive

Food, beverages, tobacco

Wood, paper, and publishing

Basic metals and fabricated metals

Labor Intensive

Textiles, textile products, leather, and footwear

Manufacturing n.e.c., recycling

Knowledge Intensive

Chemicals and non-metallic mineral products

Machinery and equipment

Electrical and optical equipment

Transport equipment

Chapter 2: Evolution of the CLMV's Trade

Having documented the changes in China's trading patterns, the paper now turns to a close look at the CLMV and their trading patterns. It starts with a basic description of the region and offers additional detail on each of the four countries. It examines the sectoral composition of each country's exports and imports and the main trading partners, using both gross and value-added trade data sets. Finally, it examines the degree of integration between these countries and China. The chapter establishes that the CLMV are open, export-dependent economies that are increasingly integrated with China and thus stand to be affected by changes in that country.

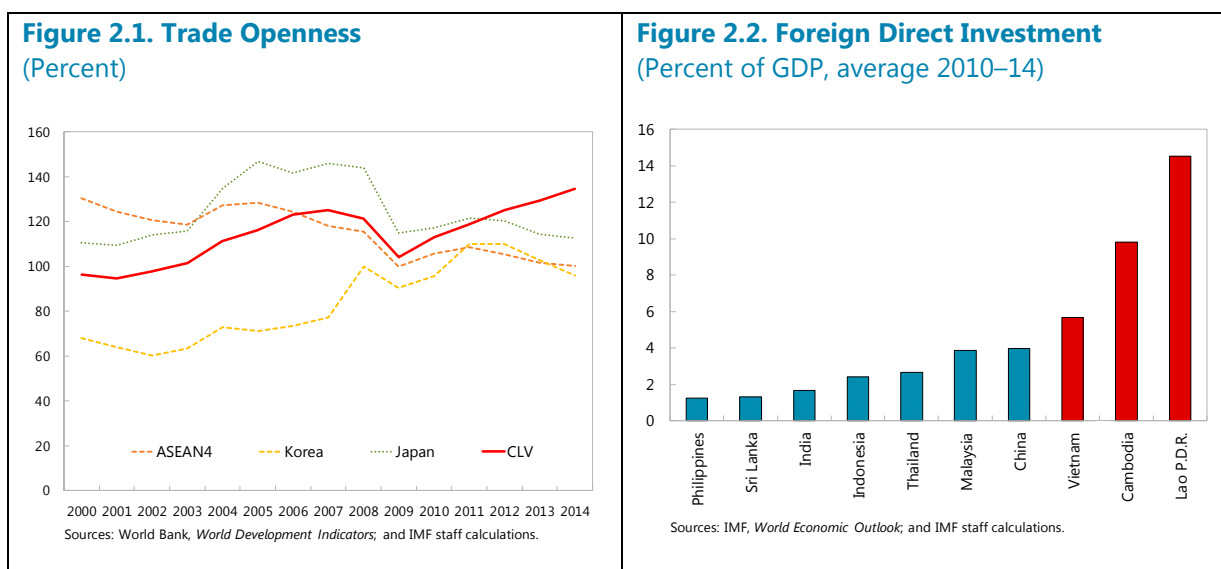
Overview

The CLMV are very heterogeneous. Cambodia and Lao P.D.R. have populations of less than 20 million and are geographically small, while Myanmar boasts a population of some 50 million, and Vietnam more than 90 million, along with much larger landmasses. Vietnam is clearly the most dynamic trading nation in the group—it is well diversified and is a major participant in global supply chains for electronics. The other three countries are at an earlier stage of trade development. Cambodia has long been a major garments exporter (to the United States and Europe) but has not gone much beyond this sector, while Lao P.D.R. and Myanmar focus on natural resources and energy, exported largely to ASEAN and China. Myanmar is just at the start of its economic liberalization and could witness a major transformation in its trade over the coming years. The Appendix to this paper offers more detailed profiles of the countries.

At the same time, the four countries share many common features. All four countries are China's close neighbors to the southwest and are in close proximity to Asian supply chains. All four are poor—in fact, the poorest nations in Southeast Asia—and continue to have low wages. All were originally centrally planned economies and are at different stages of transitioning away from that model. And all are now following an export-led growth strategy that has seen them becoming an attractive destination for foreign investors and integrating into global and regional trade at an impressive pace over the past decade. Regional integration has been a key driver for the CLMV—Asia is the destination for between 30 percent (Cambodia) and 80 percent (Lao P.D.R.) of these countries' exports—and the reshaping of trade patterns via bilateral, multilateral, and plurilateral agreements will have significant implications for the four countries' future trade and growth.

CLMV trade has grown rapidly. Starting in the late 1980s, Cambodia, Lao P.D.R., and Vietnam put trade and investment at the center of their respective development strategies. Trade barriers were lowered, bilateral Free Trade Agreements (FTAs) negotiated, structural reforms

passed to attract FDI, and SEZs established. Vietnam was the first among the CLMV to join ASEAN in 1995, followed by Lao P.D.R. and Myanmar two years later, and Cambodia in 1999. All four countries are WTO members. The CLMV also benefited from the China-ASEAN, Korea-ASEAN, and other free trade agreements. All these contributed to a substantial increase in trade openness, and in recent years, the countries have also seen substantial FDI inflows from China, Japan, and Korea.



With the exception of Vietnam, the CLMV are poorly diversified and focused on exporting goods of low technological sophistication. Benefiting from low wages, the countries initially focused on labor-intensive sectors such as garments. Lao P.D.R. has since shifted its primary focus to hydro power and mining, and Myanmar, given its rich natural resource endowments, has become heavily dependent on natural gas, gems, and lumber exports, mostly to neighboring countries like Thailand and China. Cambodia remains almost exclusively focused on garments. Vietnam is well diversified—it depends heavily on labor-intensive manufacturing, including not only garments but also electronics, as the country has become an important player in global supply chains; but at the same time, Vietnam also maintains a strong position in a variety of agricultural sectors, including coffee, rice, and farmed seafood.

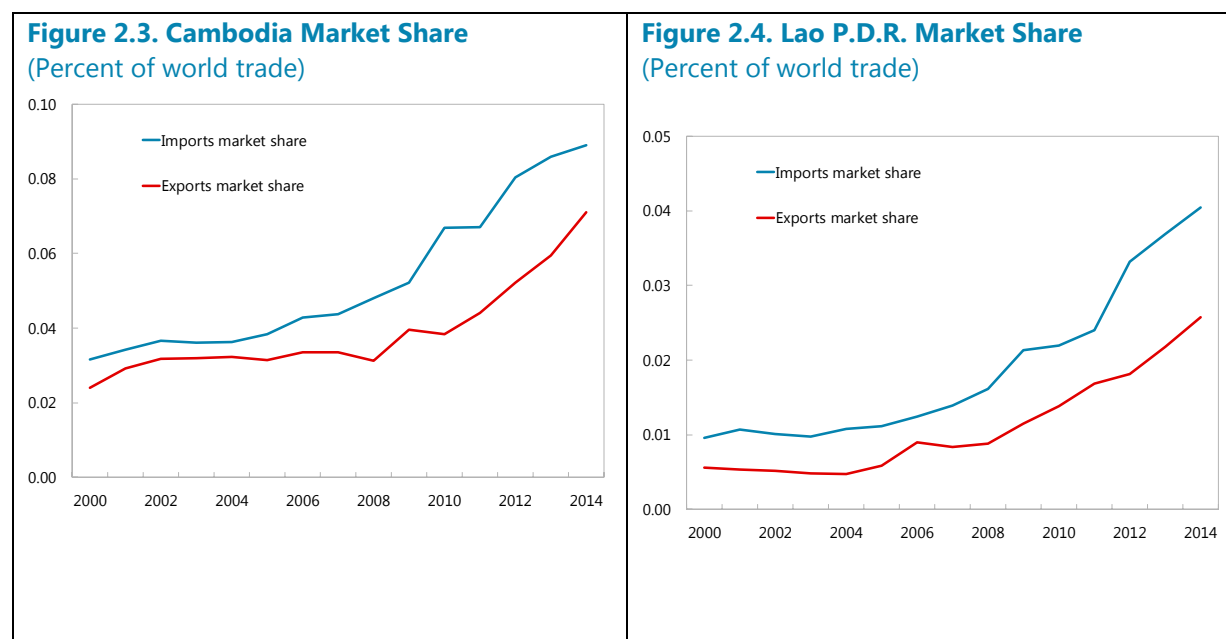
Most of the CLMV countries have increased their participation in GVCs. Such participation can offer opportunities to move up the value chain, to diversify the export portfolio, and to promote economic growth (OECD 2013b). Value-added trade data suggest that Cambodia and Vietnam are participating in the final stages of GVCs, doing relatively simple processing and assembly work with low value-added. Nonetheless, prospects exist for moving upstream, at least eventually. Lao P.D.R. and Myanmar are less involved in GVCs.

The CLMV and China are increasingly integrated and thus form a natural cluster to study. Trade linkages have increased faster than those between China and other regions. Lao

P.D.R. and Myanmar are exposed to China’s commodity demand, Cambodia and Vietnam receive substantial imports from China, and Vietnam also competes with China in certain segments. Finally, exports of consumption goods from Vietnam to China have boomed in recent years. Going beyond the scope of this paper, Chinese outbound tourism, including to Southeast Asia, has also grown substantially. These strong ties imply that the CLMV are exposed to changes in China and may thus face both opportunities and challenges as China rebalances.¹⁸

Basic Facts of CLMV Trade

The CLMV are growing rapidly as buyers from, and sellers to, the world.¹⁹ All four countries have been gaining global export and import market share since 2000, though since they are small economies, these market shares remain small in absolute terms. Vietnam has quadrupled its share of world exports from 0.2 percent in 2000 to 0.9 percent in 2014. Lao P.D.R. has also seen its export market share roughly quadruple to 0.025 percent in 2014. Cambodia has more than tripled its world export market share (to 0.07 percent), while Myanmar has doubled its share (to 0.06 percent). At the same time, global import shares across the region have grown roughly fourfold—faster than the growth of exports, on average, possibly consistent with the increase in GVC integration (see below). Following a temporary deceleration in 2009 during the global financial crisis, trade growth has rebounded and continues to strengthen.



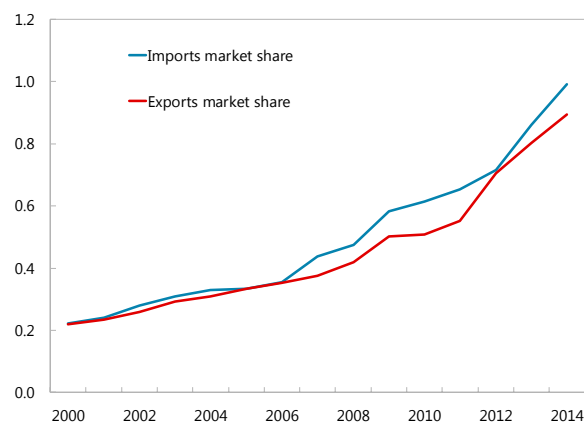
¹⁸ The CLMV also trade heavily with other ASEAN nations, with Thailand playing a particularly important role. These nations too will face important changes as China’s trading patterns transform, and these changes in turn could have important indirect implications for the CLMV. Analysis of these links, however, is not presented in this report.

¹⁹ Given the limited availability of official trade statistics in Cambodia, Lao P.D.R. and Myanmar, we conduct trade analysis using the gross trade “mirrored” data in the UN Comtrade database (i.e., data reported by trading partners). See OECD 2013a for further details.

Figure 2.5. Myanmar Market Share
(Percent of world trade)



Figure 2.6. Vietnam Market Share
(Percent of world trade)



Sources: UN Comtrade; and IMF staff estimates.

These gains in trade are roughly in line with predictions of a gravity model, with only Vietnam appearing to be an outlier. The gravity model shown in Table 2.1, estimated using global trade data for 187 countries over the period 2001–12, attempts to explain bilateral trade volumes by countries’ economic size and their distance from one another.²⁰ These two factors alone explain a large proportion of the variation in trade volumes. The levels of trade in Cambodia, Lao P.D.R., and Myanmar are broadly in line with—and sometimes even below the levels suggested by—their size and distance from partners, but Vietnam appears to be exceptionally open.

²⁰ Distance here is measured between two trading countries’ capital cities. While other measures are possible—for example, the distance between geographical centers, or the distance between the most populous cities—Boisso and Ferrantino (1997) suggest that the results should be similar regardless of which measure is employed.

Table 2.1. Trade Gravity Regressions¹

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
GDP source	1.066*** (140.923)	1.067*** (140.836)	1.066*** (140.915)	1.066*** (140.842)	1.066*** (140.896)	1.066*** (140.871)	1.066*** (141.164)	1.065*** (140.909)	1.066*** (140.942)	1.066*** (141.113)	1.066*** (141.149)
GDP destination	1.092*** (169.915)	1.091*** (170.260)	1.091*** (170.061)	1.092*** (170.017)	1.092*** (170.057)	1.092*** (169.865)	1.091*** (169.145)	1.091*** (169.864)	1.092*** (169.522)	1.090*** (169.238)	1.091*** (169.841)
Distance pairwise	-1.219*** (-73.908)	-1.220*** (-73.974)	-1.220*** (-73.975)	-1.219*** (-73.915)	-1.220*** (-73.900)	-1.219*** (-73.913)	-1.218*** (-73.568)	-1.222*** (-74.073)	-1.220*** (-73.840)	-1.219*** (-73.819)	-1.218*** (-73.725)
Dummy CLMV source		0.441 (1.622)									
From VNM			0.993*** (2.812)								
From KHM				0.119 (0.187)							
From LAO					-0.680 (-0.783)						
From MMR						0.022 (0.046)					
Dummy CLMV destination							-0.237** (-2.027)				
To VNM								1.016*** (5.083)			
To KHM									0.017 (0.084)		
To LAO										-0.872*** (-4.147)	
To MMR											-1.206*** (-6.043)

Sources: IMF *World Economic Outlook*; World Bank, *World Development Indicators*; UN Comtrade; and IMF staff estimates.

¹ These trade gravity regressions assess the intensity of trade between a pair of countries from a global sample, given those countries' economic size and the geographical distance between them. The baseline regression in column (1) is as follows:

$$trade_{i,j,t} = \alpha_i + \alpha_j + \beta_1 GDP_{i,t} + \beta_2 GDP_{j,t} + \gamma distance_{i,j} + \varepsilon_{i,j,t}$$

Columns (2) – (11) include dummy variables for the CLMV—as a group, individually, and as both source and destination of trade. Country abbreviations are: KHM = Cambodia; LAO = Lao P.D.R.; MMR = Myanmar; VNM = Vietnam

Trade patterns have changed substantially in recent years. This is particularly true of Vietnam, which started as a commodity exporter 20 years ago, and then added garments and, more recently, electronics. In fact, Vietnam is the country gaining the most market share in major light manufactures worldwide in recent years, especially apparel and footwear, while China has been losing in this category (Figure 2.11). In electronic goods Vietnam is the second biggest gainer of market share, surpassed only by China (Figure 2.12). Vietnam also has the most diversified set of export markets in the CLMV. Myanmar is another striking case—in 1990, the economy was essentially closed off, but imports have grown sharply in recent years, and the country has become a substantial exporter of commodities, especially natural gas; while 40 percent is directed to ASEAN, China's share is growing rapidly. Lao P.D.R. too is a commodity exporter, though the country's reliance on commodities is a recent phenomenon, with machinery (assembly of motorbike kits) and apparel accounting for more than half of exports as recently as 2005 (Figure 2.8). Cambodia remains focused on garments but has lost share in the U.S. market while gaining in the European Union (EU), partly on account of preferential trade access, and continues to gain global market share in this segment (Figure 2.11).

Figure 2.7. Composition of Exports: Cambodia
(Percent of total)

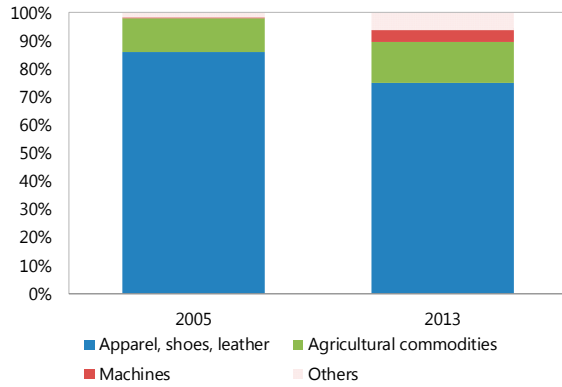


Figure 2.8. Composition of Exports: Lao P.D.R.
(Percent of total)

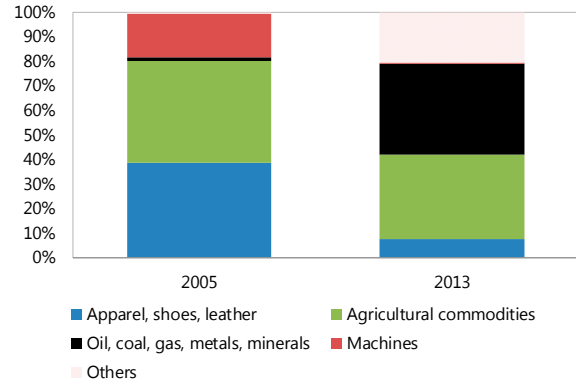


Figure 2.9. Composition of Exports: Myanmar
(Percent of total)

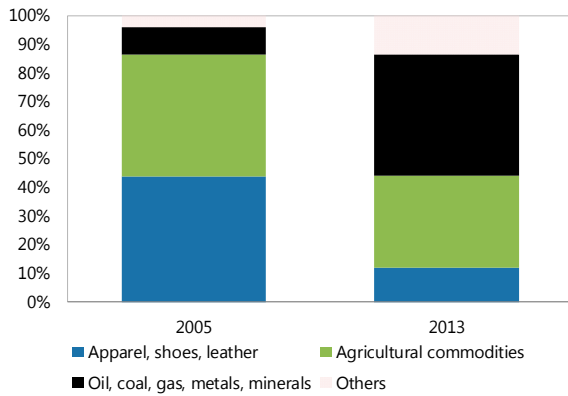


Figure 2.10. Composition of Exports: Vietnam
(Percent of total)

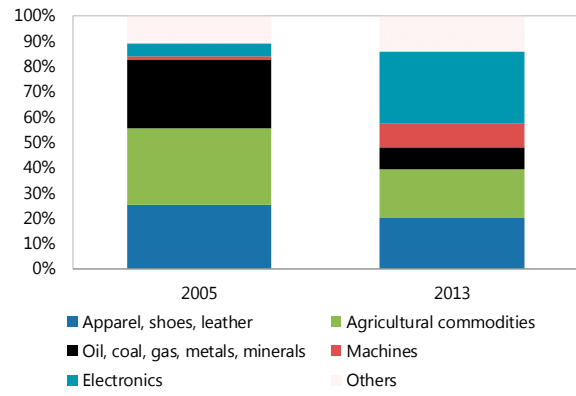


Figure 2.11. Change in Market Share in Major Light Manufactures
(Percentage point, 2014–10; five largest and smallest changes)

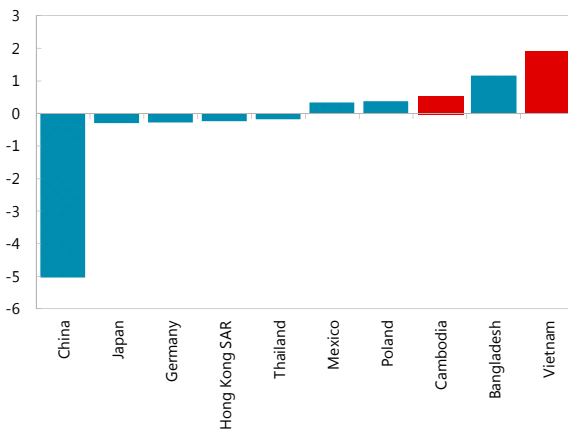
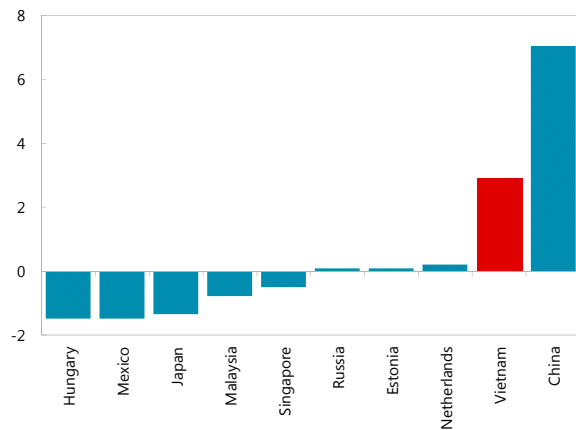
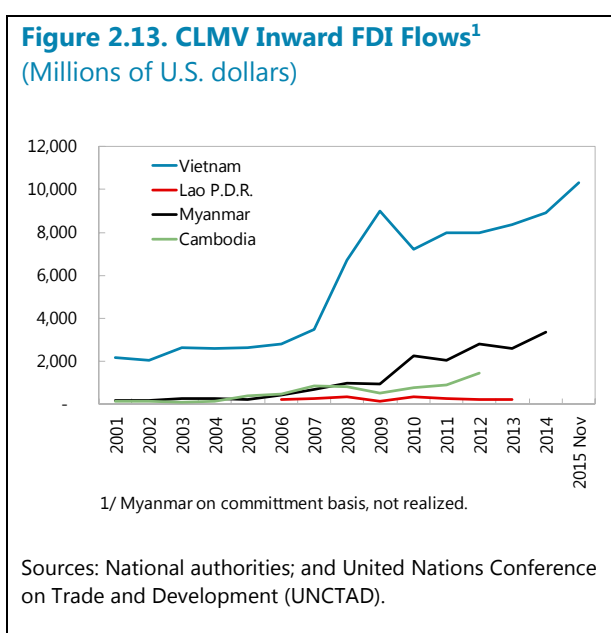


Figure 2.12. Change in Market Share in Final Electronic Goods
(Percentage point, 2014–10; five largest and smallest changes)



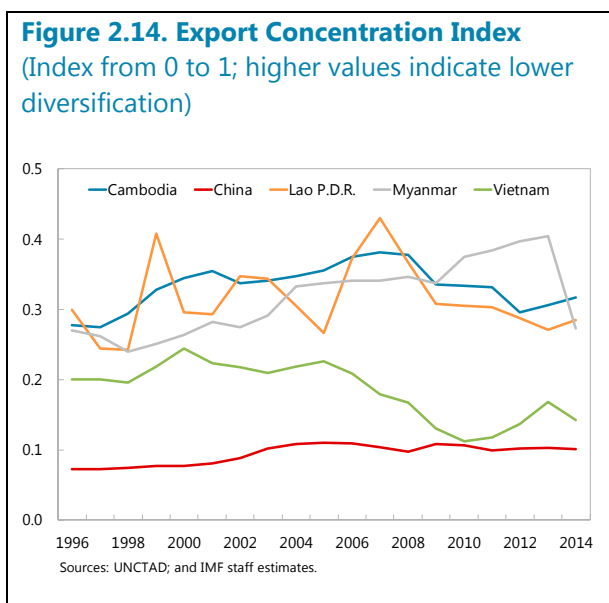
Sources: UN Comtrade; and IMF staff estimates.

FDI has played a crucial role in the CLMV. In Cambodia, the rapid expansion of FDI-driven garments exports has become a major source of employment and income for female workers, reducing poverty and helping narrow the urban–rural income gap. Recently, FDI has begun expanding into other labor-intensive export industries, such as shoes, toys, and wood products. In Lao P.D.R., foreign investment in hydroelectric power and mining is boosting GDP growth and employment. Myanmar has not seen much FDI yet in the manufacturing sector, but this is likely to change given the liberalization and transformation the economy is undergoing—in particular, the establishment of special economic zones. In Vietnam, FDI—which at times approached 10 percent of GDP—played and still plays a central role in transforming the economy; inflows went first to light manufacturing, including garments, but more recently have gone into electronics and machinery manufacturing. In fact, Vietnam has turned into a major production center for several of the largest global technology manufacturers, leveraging its open investment climate and low-cost but skilled labor force. FDI flows from Korea to Vietnam have risen as those to China have fallen, suggesting that Vietnam is offering some competition to China in supply chain trade. (See Box 2.1 on the importance of foreign ownership in the exports of the CLMV, with implications on spillovers and growth.)



Aside from Vietnam, the CLMV have not been impressive in terms of export diversification or sophistication. Hausman, Hwang, and Rodrik (2007) emphasize the productivity and growth benefits associated with specializing in more “sophisticated” and “complex” products. Using their measure for sophistication, it appears that while Vietnam has managed to move increasingly into more sophisticated products, Cambodia, Lao P.D.R., and Myanmar have not advanced much. Lack of export diversification has been a challenge for many LICs, and while the empirical evidence on the causal relationship between diversification and economic growth is mixed (see, for instance, Cadot and others 2011a, and IMF 2014),

diversification does, as expected, help countries manage shocks. Using a Hirschman index of export concentration, we find that Vietnam has improved and caught up with the level of diversification of China, while the rest of the CLMV have stagnated or even deteriorated in recent years.



Diversification in terms of partners, which can also help in insulating a country from external shocks, has been mixed across the CLMV. Vietnam has expanded its portfolio of both import and export partners, although the reliance on China for intermediate inputs and investment goods has increased. The other three CLMV countries are increasingly reliant on a narrow set of partners in the region. Cambodia is amply diversified in its export destinations (mostly within the OECD), but inputs for Cambodian garments have come increasingly from regional partners—in 2014, China, Thailand, and Vietnam accounted for more than 60 percent of imports by Cambodia, up from just over 31 percent in 2000. Lao P.D.R. and Myanmar rely heavily on regional partners for both exports and imports—China and Thailand together account for more than 55 percent of Lao P.D.R.’s exports and 82 percent of imports, and over 60 percent of Myanmar’s exports and imports.

Figure 2.15. Cambodia Export Partners, 2014
(Percent)

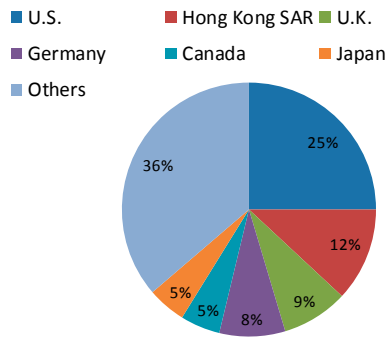


Figure 2.16. Lao P.D.R. Export Partners, 2014
(Percent)

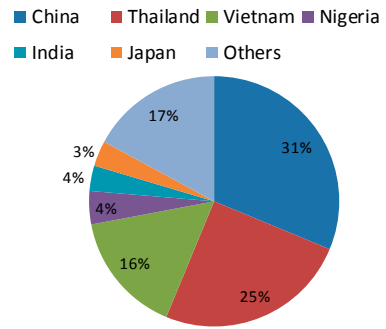


Figure 2.17. Myanmar Export Partners, 2014
(Percent)

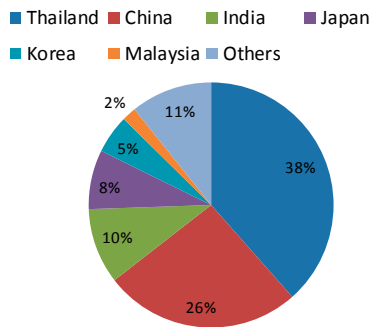
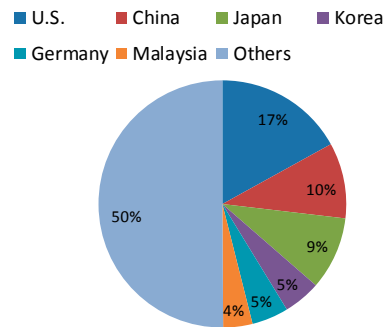
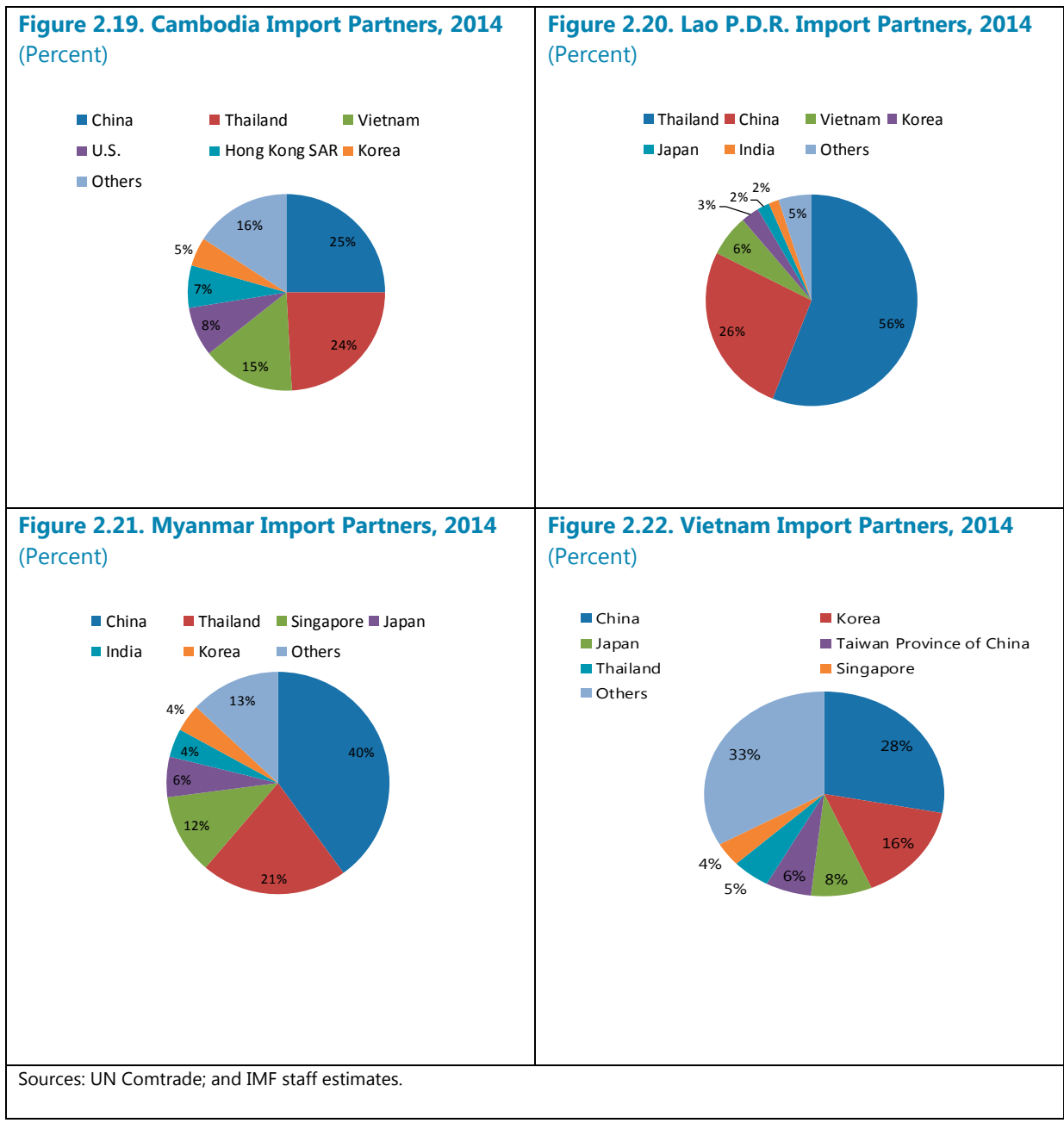


Figure 2.18. Vietnam Export Partners, 2014
(Percent)



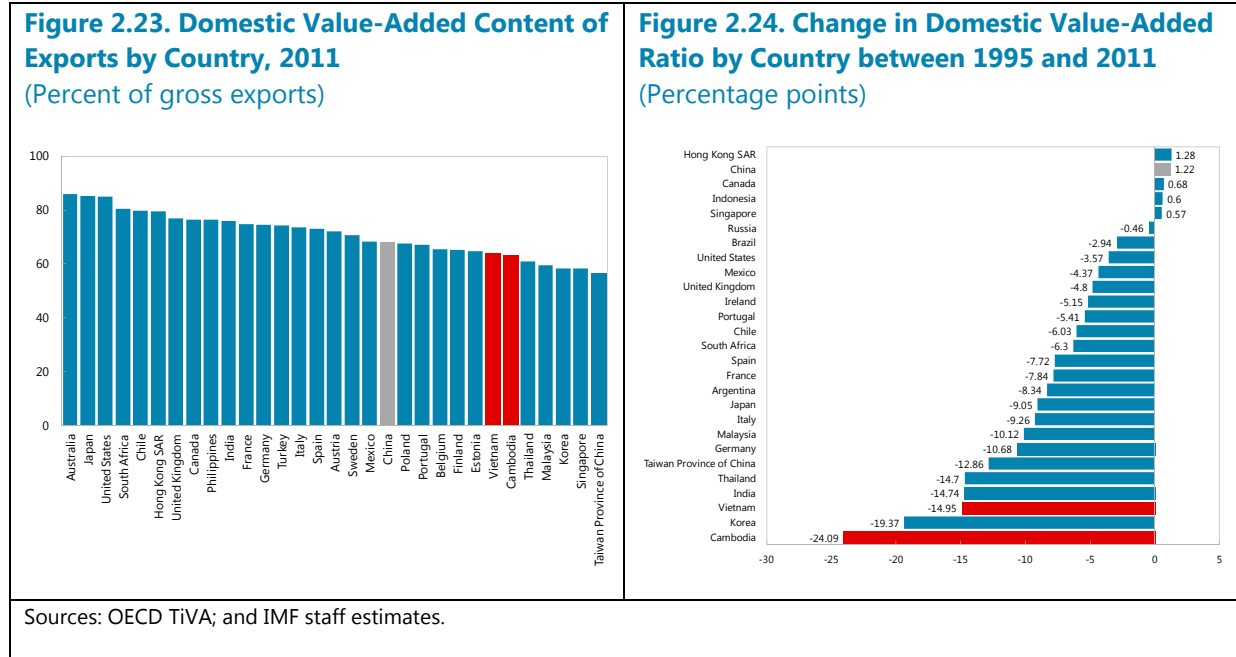
Sources: UN Comtrade; and IMF staff estimates.



Participation of the CLMV in Global Value Chains

TiVA data—which are not available for Lao P.D.R. or Myanmar—suggest increasing integration of Cambodia and Vietnam in global and Asian value chains. High foreign value added in key noncommodity sectors for both Vietnam and Cambodia suggests that both countries do a lot of low-value-added processing. FVA accounts for about 60 percent of Vietnam’s and Cambodia’s gross exports of electronics, garments and footwear, and machinery, among the highest in the data sample. For Vietnam, declining import intensities

in some electronic product categories (for example, cell phones) suggest that more production steps and increasing value added take place in Vietnam. This is not the case, however, for garments, where both Vietnam and Cambodia continue to heavily rely on Chinese fabric imports.



Vietnam and Cambodia exhibit very strong backward linkages, though forward linkages are weak—that is, FVA accounts for a large share of the value of Vietnamese and Cambodian exports, while Vietnamese and Cambodian value-added do not figure prominently in the value of other countries’ exports. Such a pattern supports the view that both countries are still mostly engaged in final-assembly manufacturing. Other countries with high FVA in these industries are central European countries integrated with the German supply chain (IMF 2013) and middle-income ASEAN countries. China tends to internalize a higher share of value in its exports in these industries than do Vietnam or Cambodia.

Figure 2.25. Foreign Value-Added Content: Apparel and Footwear, 2011
(Percent of gross exports)

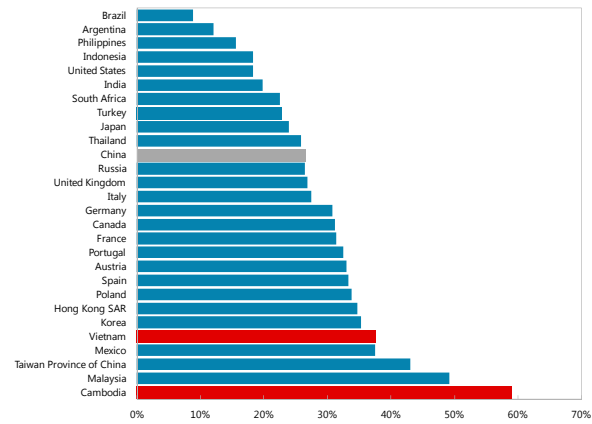
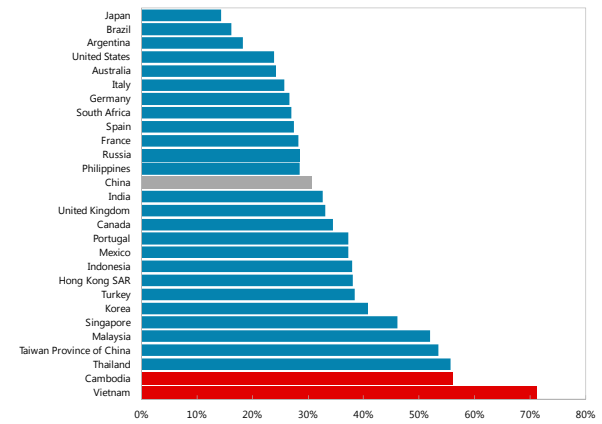
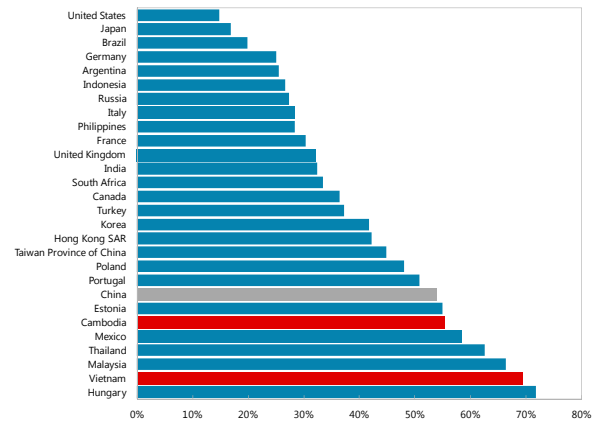


Figure 2.26. Foreign Value-Added Content: Machinery and Equipment, 2011
(Percent of gross exports)



Sources: OECD TiVA; and IMF staff estimates.

Figure 2.27. Foreign Value-Added Content: Electrical and Optical Equipment, 2011
(Percent of gross exports)



Sources: OECD TiVA; and IMF staff estimates.

Lao P.D.R. and Myanmar are not heavily involved in supply chain relationships. As noted above, both economies focus largely on commodity and energy exports to the rest of Asia. It seems evident, however, that Myanmar, with its large population and landmass, will have opportunities to get further into manufacturing in years to come, and supply chain integration seems a likely result.

Integration with China

China and the CLMV have grown increasingly integrated and form a natural cluster of countries to study jointly. All four CLMV countries import substantially from China, Myanmar and Lao P.D.R. depend heavily on Chinese demand for their commodity exports, and Cambodia and Vietnam are interdependent with China on account of supply chain linkages in garments and electronics. China is also the main supplier of investment goods to the CLMV. Moreover, China's trade links with the CLMV have grown more rapidly than those with most other regions. China supplies 25 percent of the CLMV's imports and demands between 10 and 25 percent of their exports (Cambodia is an exception, with almost all of its garments going to the United States and Europe). On the other side, while, as small countries, the CLMV naturally account for a small share of China's total imports and exports, the share of imports has risen fourfold since 2000, and the share of exports has more than tripled. These gains have been driven mostly by Vietnam, which in fact since 2008 has seen the largest dollar increase in Chinese imports of any country in the world (see Figure 1.8).

China is an important supplier of goods to the CLMV. About 15 percent of China's exports to CLMV are consumption items, 28 percent are capital goods like machinery, and 57 percent are intermediate inputs like iron/steel and fabrics/yarn. And viewed from another angle, 14 percent of CLMV's consumption imports come from China, 17 percent for capital goods, and 68 percent for intermediate inputs. These patterns vary across countries, with intermediate inputs relatively more important in Cambodia and Vietnam—as one would expect given their substantial assembly/manufacturing activities—and China a relatively more important source country for Myanmar than for the rest of CLMV. Fabric and other textile materials accounted for about 60 percent of China's exports to Cambodia, but in Myanmar and Lao P.D.R., machinery and vehicles were much more important. Vietnam imports predominantly investment goods (machinery, equipment, steel) and intermediate inputs (electronic components and fabric) from China.

China's imports from the CLMV are quite diversified. The CLMV accounts for only a small share of China's total imports—just 1½ percent in 2014, though this is up sharply from 2000. These relatively small flows relate mainly to raw materials such as wood, rubber, and fresh food (all four CLMV countries), mining products (Lao P.D.R. and Myanmar), natural gas and gems (Myanmar), garments (Cambodia, Vietnam), and consumer electronics (Vietnam). Vietnam's main exports to China are electronics, followed by agricultural products and garments. China's demand for raw materials will continue along with rapid industrial expansion, though this may moderate for some commodities (and rise for others) as the economy rebalances (Helbling and others 2016).

Figure 2.28. Share of CLMV in China's Exports (Percent)

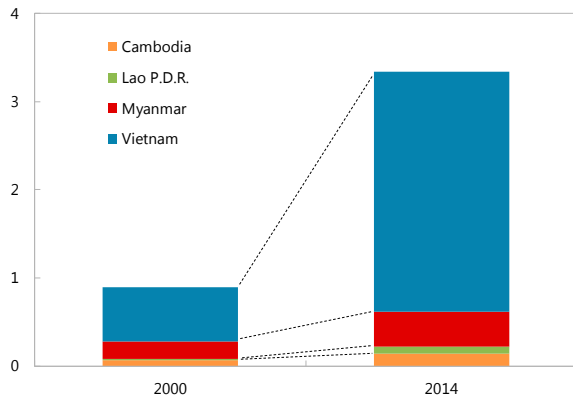
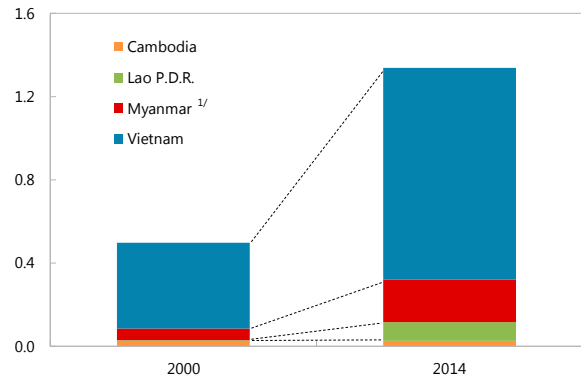


Figure 2.29. Share of CLMV in China's Imports (Percent)



1/ 2014 Myanmar exports figure comes from CEIC Data Company Ltd.

Figure 2.30. Composition of Exports to China: Cambodia (Percent of total)

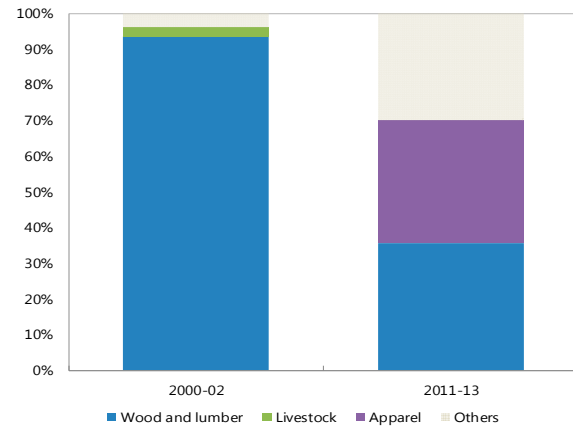
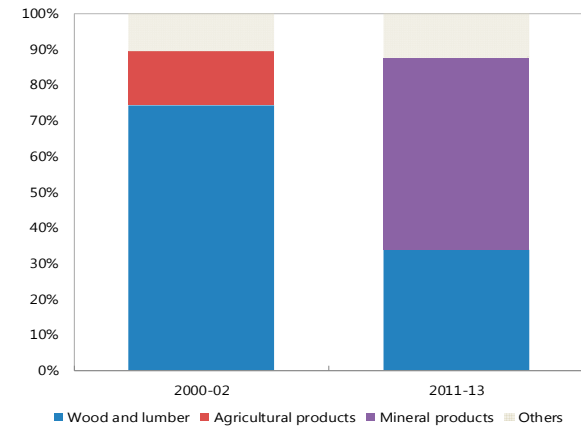
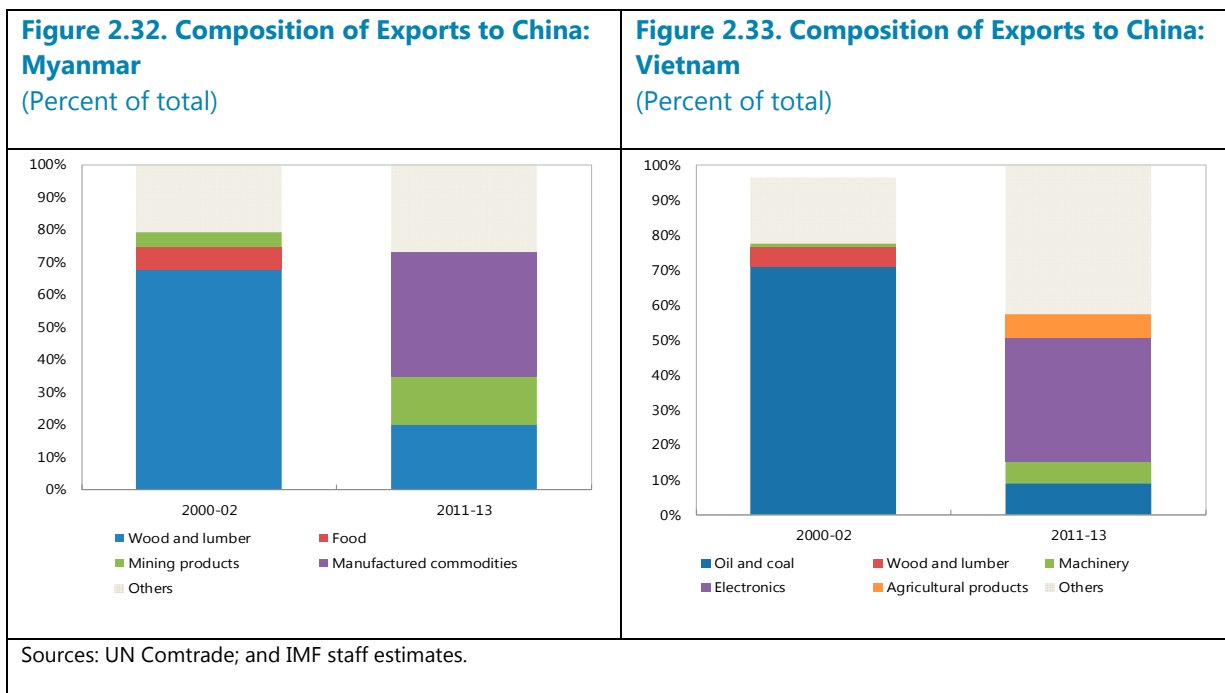


Figure 2.31. Composition of Exports to China: Lao P.D.R. (Percent of total)





In aggregate, the CLMV continues to run a large trade deficit with China. While both exports to and imports from China have surged, each CLMV country maintains a bilateral trade deficit with China. Gravity equations confirm that the close trade connections between China and the CLMV go beyond what would be expected based on country size and location alone. By contrast, CLMV trade with ASEAN is *not* stronger than size and distance would suggest.

Trade links between China and the CLMV are complemented by investment links, which presage continued deepening of trade relationships in the future (World Economic Forum 2013). China is an increasingly important investor in Cambodia, Lao P.D.R., and Myanmar. For Vietnam, however, Chinese FDI does not play a big role, while other upstream countries, such as Japan and Korea, are more important—Vietnam is, in this sense at least, more a competitor with China than a collaborator. In the rest of the CLMV, the main interest of Chinese investors has been in the primary sector—forest development, timber processing, power, and farming, plus textiles in Cambodia; energy and mining in Lao P.D.R.; and natural gas in Myanmar.

China’s rebalancing may have major implications for the CLMV. First, a decline in demand for intermediate goods used for investment will affect countries that rely heavily on their raw material exports to China, such as Lao P.D.R. and Myanmar.²¹ Second, while some of the increased demand for (imported) consumption goods in China may be oriented toward

²¹ Against this, there may be increasing scope to supply food and agricultural commodities to China.

high-end or luxury goods, and thus may mostly benefit producers in advanced economies, the general trend toward increased consumption goods imports can offer opportunities for the CLMV to export—indeed, there is already evidence that the CLMV, and in particular Vietnam, have increased their penetration of Chinese consumption goods markets substantially. And looking beyond the goods trade, Chinese tourism, including to Southeast Asia, has grown substantially.

Integration has benefited from formal regional agreements. To support its economic development and also enhance its role in the region, China initiated the ASEAN-China FTA, and the Framework Agreement of the FTA, which laid out a timetable for tariff reduction, was signed in November 2002. Another initiative that has shaped China-CLMV economic ties is the Greater Mekong Sub-region program, proposed by the Asian Development Bank in 1992. Supported by China’s official assistance, the program has promoted the integration of trade, tourism, transport, and power between China’s western areas and the CLMV.

The value-added trade data also confirm the region’s increasing integration with China. Cambodia and Vietnam appear to be downstream assemblers and processors of Chinese inputs, in both garments and electronics. China’s value added in the exports of Cambodia and Vietnam (for whom these data are available) has increased sharply, outpacing the growth of China’s value added in world exports in general. And in level terms, China is now more important than Korea or Japan as a supplier of production inputs. Yin (2012) notes that the import intensity of Cambodian garment exports increased significantly from 2006 to 2010, with almost all of those imports coming from China; similarly, in Vietnam, the import intensity of the electrical machinery sector grew dramatically as well.

Figure 2.34. Chinese Value Added in Vietnam, Cambodia, and World Exports
(Percent of respective total exports)



Figure 2.35. Japanese Value Added in Vietnam, Cambodia, and World Exports
(Percent of respective total exports)

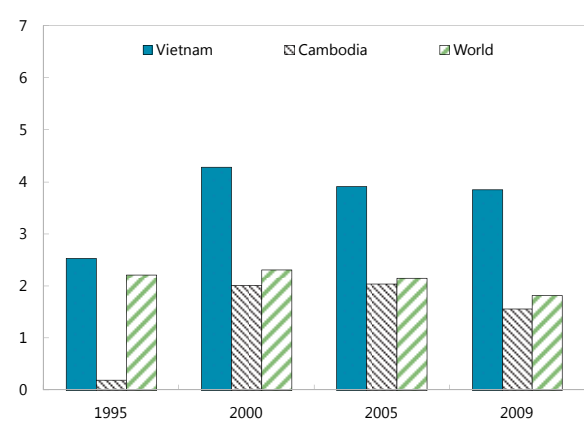


Figure 2.36. Korean Value Added in Vietnam, Cambodia and World Exports
(Percent of respective total exports)

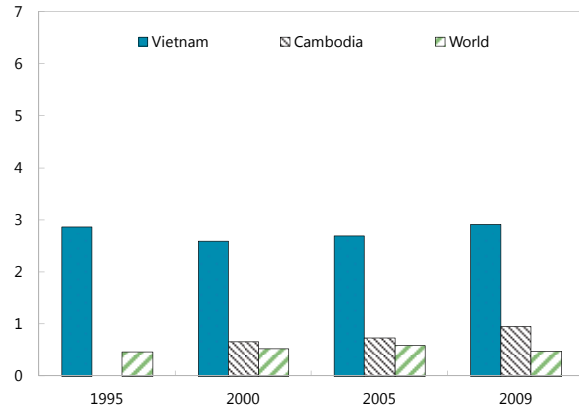
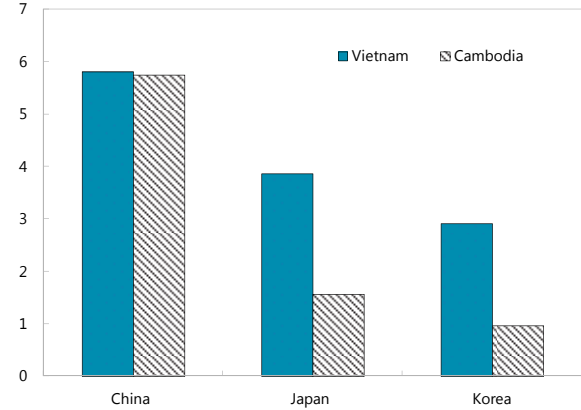


Figure 2.37. Chinese, Japanese, and Korean Value Added in Vietnam and Cambodia Exports, 2009
(Percent of respective total exports)



Sources: OECD TIVA; and IMF staff estimates.

China’s supply chain relationships with Cambodia and Vietnam are qualitatively different from each other. China and Cambodia are more clearly collaborators, with Chinese textiles stitched in Cambodia into garment exports.²² But while Chinese inputs go into Vietnam’s production too, Vietnam’s products compete directly with those of China on the world market; for example, Samsung phones assembled in Hanoi from Chinese parts are sold in the United States alongside Huawei phones assembled in Guangdong. More recently, there is evidence of a two-way supply chain relationship between China and Vietnam in electronics, with Vietnam exporting components to China. As Vietnam’s export profile becomes more similar to China’s, with increasing overlap of target markets, the trade linkages between Vietnam and China are not only within a single supply chain, but also across different supply chains led by different upstream countries. And with the advent of the Trans Pacific Partnership (TPP), which includes Vietnam but not China, supply chain relationships may evolve further—in particular, rules of origin might stimulate a move of more intermediate goods production from China to Vietnam.

²² Although those garments could then compete with China’s own exported garments, in practice they are protected through preferential treatment in the US and EU markets.

Box 2.1. FDI, Foreign Ownership, and Development in the CLMV

The CLMV have become an attractive destination for foreign direct investment. In relation to their economic size, they have received more FDI than most other Asian economies in recent years. As a result foreign enterprises contribute significantly to growth, employment, and exports in the CLMV. This box briefly summarizes the literature on the effect of FDI and foreign ownership on development. It then proceeds to discuss Cambodia's and Vietnam's experience in recent years.

The cross-country evidence for the role of FDI in development is mixed. The literature finds fairly consistently that openness to trade is associated with higher GDP growth (Sachs and Warner 1995; Frankel and Romer 1999). It is also true that there have been many successful cases of domestic spillovers from FDI—in manufacturing more than in natural resources—though the literature here is more mixed (see Baltabaev 2014 for a recent review). Export-led growth strategies, however, do not necessarily require foreign investment. In Asia, China and many Southeast Asian countries have encouraged and received large FDI, while Korea, Japan, and Taiwan Province of China followed development strategies in which foreign ownership and investment played no role and was even discouraged (Perkins 2013). In the latter, domestic enterprises developed into successful exporters, often supported by government policies that encouraged exports.

The impact of FDI on export diversification/sophistication is ambiguous (Iwamoto and Nabeshima 2012; Banga 2006). FDI can increase export diversification/sophistication by allowing host countries to enter new export categories; for example, Vietnam's rapid rise as an electronics exporter is due to foreign enterprises. However, if primarily directed at sectors that are already dominating a host country's exports—for example, commodities (Lao P.D.R., Myanmar)—FDI can increase export concentration and hamper diversification by drawing scarce domestic resources toward these sectors.

The presence of foreign firms and FDI can help countries to move into higher-value production, enhance human capital, and support technology diffusion. OECD (2013b) identifies FDI as a key enabler for low-income countries to link into global value chains, which supports growth and technological upgrading. However, while there exists ample evidence that foreign-owned firms are more efficient than domestic firms (Caves 1974; Djankov and Hoekman 2000; Sabirianova, Svejnar, and Terrell 2012), the evidence on positive FDI spillovers to local firms and the local economy remains mixed. A number of studies find spillovers to domestic firms, especially in joint ventures and through supplier relationships (Cheung and Lin 2004; Liu 2008), while other studies suggest that spillover effects regarding wages, technology, and productivity are not present or even negative (See, for example studies of Morocco by Haddad and Harrison (1993); Mexico by Aitken, Harrison, and Lipsey (1996); Venezuela by Aitken and Harrison (1999); Bulgaria and Romania by Konigs (2001); Czech Republic by Kosova (2010); China by Abraham, Konings, and Slootmaekers (2006); Malaysia by Cherif and Hasanov (2015). Firm-level evidence points to the importance of absorptive capacity by domestic firms to create positive spillovers from FDI (Keller 2004).

In Cambodia, the garment industry is the major recipient of FDI inflows, accounting for a quarter of the total FDI stock (UNCTAD 2013). Cambodia's economy is heavily reliant on garments; the sector accounts for 9.1 percent of GDP, more than 70 percent of export revenues, and 27 percent of manufacturing employment. The sector relies mostly on foreign investment from Asia.

So far, the FDI-driven garment sector in Cambodia has remained concentrated in low-value-added activities. The sector has contributed to growth and employment over the past two decades, but Cambodian garment factories are mostly engaged in cut-make-trim processes. Design and higher-level production, export, and management decisions are predominantly made at the headquarters of the foreign parent companies, and technology spillovers have been limited to date.

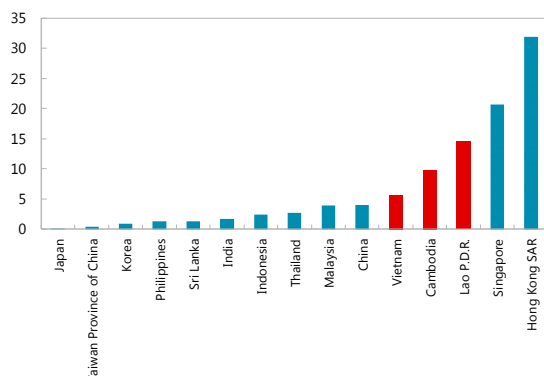
FDI and foreign companies have transformed Vietnam's exports over the past decade. Vietnam has moved from being a commodity exporter to exporting a diversified set of products, with electronics being the biggest category. Foreign companies account for close to 70 percent of exports, mostly in electronics manufacturing and apparel. In recent years, the foreign sector has generated substantial trade surpluses that more than offset

the structural trade deficit of the domestic economy. FDI continues to be strong, with companies from Korea, Japan, and Singapore among the largest investors. In electronics, some of the largest global firms, including Samsung, Intel, and Foxconn, have built up significant production capacity in Vietnam. Samsung alone employs over 100,000 people in Vietnam and generates close to US\$30 billion in exports. Vietnam’s increasing stock of FDI is mirrored by rising payments to foreign firm headquarters, resulting in increasing income debits in Vietnam’s balance of payments.

Vietnam has greatly benefited from the vibrant FDI sector through growth and employment, but technology and growth spillovers to domestic industry remain limited so far. Domestic value added in the key export sectors of electronics and apparel is among the lowest worldwide, suggesting that most foreign firms use Vietnam as a manufacturing base for final assembly while importing most high-value-added inputs. Domestic private businesses generally lack the technological capacity and scale to form supplier relationships with the FDI sector. State-owned enterprises continue to play a large role in Vietnam’s economy but remain relatively inefficient. The domestic private sector faces structural headwinds including from a weak banking sector, and competition from state-owned enterprises with preferential access to resources. Property rights and the enforcement of antitrust policy need to be strengthened to encourage domestic private firms to scale up and join the formal sector. Tax incentives to attract FDI are limiting direct state revenues from foreign enterprises.

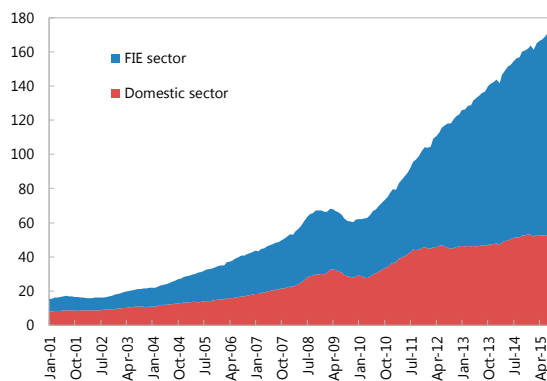
Government policy can help to attract FDI and influence the effects of FDI on host countries. FDI can bring positive effects (market access, technology, finance, skills), but these are not automatic for host countries. Governments can support positive spillovers from foreign companies through policies including local research and development requirements and by undertaking structural reforms and by improving the business environment for domestic firms, which enhances their absorptive capability and ability to partner with foreign firms (OECD 2001). Policy efforts to improve the business environment will also clearly help to attract FDI in the first place. In the case of Vietnam, substantial foreign investments in non-apparel manufacturing have occurred only in the past decade, and stronger links between the FDI sector and domestic industry may yet form. For Cambodia, the more immediate challenge is to diversify and upgrade its exports from apparel and attract FDI to support this transition.

Box Figure 2.1. Foreign Direct Investment
(Percent of GDP, average 2010–14)



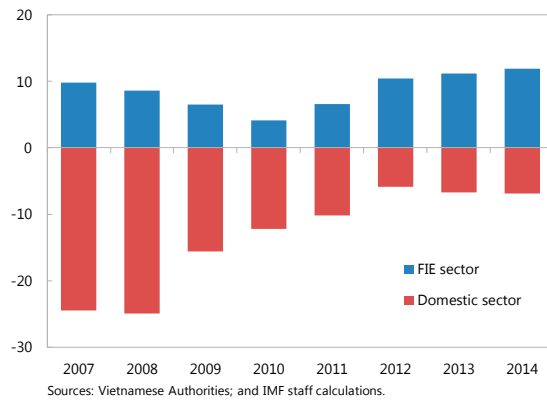
Sources: IMF, *World Economic Outlook*; and IMF staff calculations.

Box Figure 2.2. Vietnam Exports: Domestic and Foreign Invested Enterprise (FIE) Sector
(Rolling 12-months, billions of U.S. dollars)

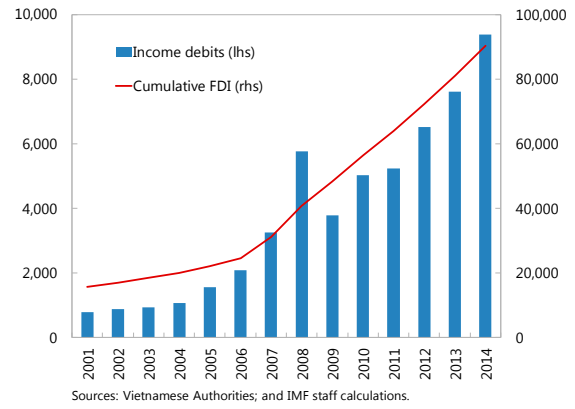


Sources: Vietnamese Authorities; and IMF staff calculations.

Box Figure 2.3. Vietnam Trade Balance: Domestic and FIE Sector
(Percent of GDP)



Box Figure 2.4. Vietnam Inward FDI and Income Debits
(Billions of U.S. dollars)



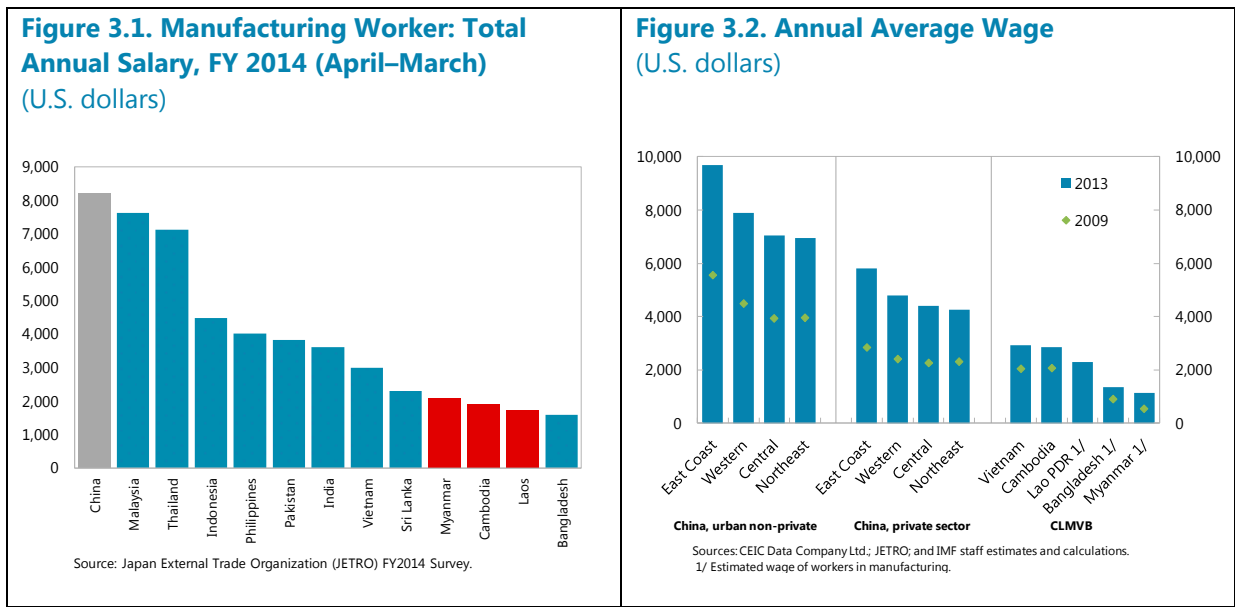
Chapter 3: Policy Implications for the CLMV

This chapter tries to draw out what the preceding analysis means for CLMV policies. So far, we have seen that China is indeed moving up the value chain and bringing upstream activities onshore, and we have found some evidence that China may be beginning to exit downstream, labor-intensive activities. At the same time, China's rebalancing will likely challenge commodity exporters like Lao P.D.R. and Myanmar, while it provides new markets for manufactured goods as well as service exports.²³ How can the CLMV—open, export-driven economies that are increasingly integrated with China—best capitalize on the opportunities, and deal with the challenges, presented by China's transformation? This chapter starts by examining the drivers of trade growth and GVC participation—both what the literature has found before, and what we uncover in new econometric work. It then goes on to benchmark the CLMV—how well do these countries do in terms of the factors that are found to be most important for fostering trade? It concludes with some general policy recommendations that apply to all four countries in the region, followed by some lessons tailored to each of the countries.

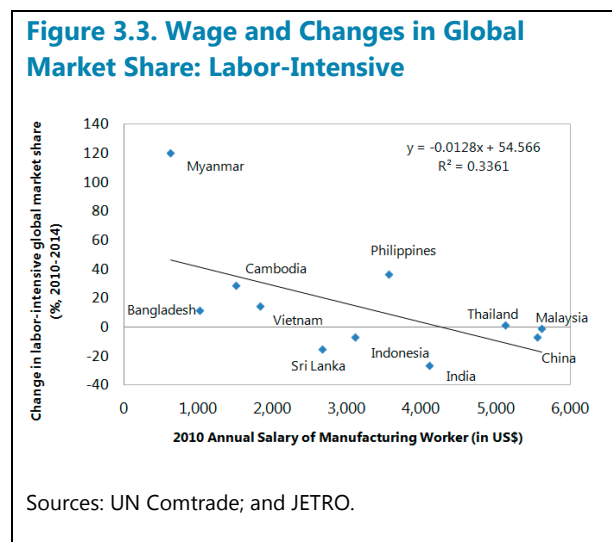
Low Labor Cost in the CLMV

Low wages have been an important factor in attracting foreign investments to the CLMV. Labor costs in the CLMV are below even those in China's poorer inland regions. The wage gap between the CLMV and China has opened up since 2009; in the same time period Vietnam saw increasing foreign investment in manufacturing. CLMV wages are also below those of Asian emerging market economies including Thailand and Malaysia, and comparable to other Asian LICs. Among the CLMV, Vietnam and Cambodia have the highest wage levels, while labor in Myanmar is very cheap, which may attract labor-intensive manufacturing in the coming years.

²³ Indeed, consumption exports from Vietnam to China have grown substantially in recent years, as have Chinese tourism flows to Southeast Asia.



Will low wages alone make the CLMV competitive? Unit labor costs are clearly an important factor. Countries with low wages, adjusted for productivity, typically have an advantage in labor-intensive production, as has certainly been the case for the CLMV. As steep wage increases have occurred in the coastal region of China, Cambodia and Vietnam have been among the biggest beneficiaries. Success in labor-intensive light manufacturing can, in turn, be a gateway to moving into more sophisticated goods, as shown by the so-called Asian tigers, referring to Hong Kong SAR, South Korea, Singapore and Taiwan Province of China. But more may be needed than just low wages.



The importance of fundamentals in trade

There is a large literature, going back decades, that tries to explain why some countries are successful in trade. Some studies look at export growth, others look at export diversification, and yet others look at the sophistication of exports. Distance and income level—which often proxies for wage costs—are almost universally found to be significant, and exchange rate measures also frequently matter. Many structural variables are also important—Cadot and others (2013), in surveying the literature, identify infrastructure, education, and institutional quality as particularly important. Agosin and others (2012) look at export sophistication and come up with a similar list of relevant variables, though the real effective exchange rate is found not to be significant, nor is the degree of financial development. Cadot and others (2013) find that FDI is also important, consistent with Iwamoto and Nabeshima (2012) and Banga (2006), but inconsistent with other papers that note that FDI targeted at already important sectors can lead to further concentration and lack of diversification.

We complement the literature by running cross-country panel regressions of our own. The results highlight the importance of structural and institutional factors, aside from labor costs, that are crucial in the growth of trade in general, and in improving export sophistication. Aside from labor cost, economic and institutional fundamentals are found to be key determinants of the performance of labor-intensive sectors in the global market. We group industries at the SITC two-digit level into five groups (raw material intensive goods, labor-intensive goods, capital-intensive goods, easy-to-imitate research-intensive goods and difficult-to-imitate research-intensive goods).

Table 3.1. What Explains Export Market Shares (EMS)?¹

VARIABLES	(1) Global EMS Capital Intensive	(2) Global EMS Difficult Research	(3) Global EMS Easy Research	(4) Global EMS Labor Intensive	(5) Global EMS Apparel	(6) Global EMS Electronics
Infrastructure	0.171*** (0.049)	0.155*** (0.045)	0.085 (0.066)	0.043 (0.033)	0.064 (0.058)	0.234*** (0.064)
Education	2.702*** (0.526)	3.138*** (0.486)	1.685** (0.715)	1.461*** (0.353)	2.661*** (0.627)	2.591*** (0.690)
Governance	0.209*** (0.061)	0.159*** (0.057)	0.156* (0.084)	0.077* (0.041)	0.369*** (0.073)	0.144* (0.081)
Labor Reg.	-0.055 (0.044)	-0.034 (0.041)	-0.091 (0.060)	-0.118*** (0.030)	-0.235*** (0.053)	-0.081 (0.058)
Free Trade	0.191*** (0.027)	0.186*** (0.025)	0.113*** (0.036)	0.136*** (0.018)	-0.018 (0.032)	0.213*** (0.035)
Observations	694	694	694	694	694	694
R-squared	0.387	0.353	0.128	0.224	0.505	0.169

Sources: UN Comtrade; World Bank, *World Development Indicator*; Heritage Foundation; and IMF staff estimates.

¹ The panel is detrended and includes country and time fixed effects for 48 countries from 1995 to 2011. The control variables used are as follows: "infrastructure" is the first principal component of infrastructure, following Seneviratne and Sun (2013); "education" is years of schooling from World Development Indicators data; "governance" is from the World Bank's governance database, extracting the principal component of all the subindices; "labor regulation" is from the International Institute for Management (IMD) world competitiveness database; and "free trade" is the number of preferential trading agreements from the WTO (<http://rtais.wto.org/UI/PublicMaintainRTAHome.aspx>).

Infrastructure, education, governance, and trade freedom all contribute positively toward export market share, and are particularly important for more sophisticated goods. Using an unbalanced panel of 48 countries over the period 1995–2011, we estimate a model to explain a country's share in world exports in a given sector by various institutional variables. A lack of comparable panel data on unit labor costs or even on wages prevents inclusion of such measures. We find that the openness of trade, infrastructure, education, and governance are strongly positively correlated with export performance at all levels of technology sophistication. Moreover, as an industry requires more technological sophistication, these structural factors increases become even more important for performing better in the global market—for example, education is more important to difficult-to-imitate research industries than in easy-to-imitate research or labor-intensive industries.

These findings are consistent with the literature. Several papers, for instance, highlight the importance of human capital and R&D and institutional quality (Henn, Papageorgiou, and Spatafora 2012) in allowing a country to improve export quality and

sophistication. Empirically, education and export sophistication are important determinants of growth (Hausman, Hwang, and Rodrik 2007; Cherif and Hasanov 2015). Eichengreen, Park, and Shin (2013) show that countries with high levels of secondary and tertiary education as well as a large share of high-technology exports are less likely to experience growth slowdowns.

Benchmarking the CLMV

The CLMV still fall short on many of the institutional variables associated with export success. In particular, further progress in education, governance, infrastructure, and the trade regime will benefit the CLMV. These countries have improved on production technologies, structural determinants, the cost of inputs, and trade policy (World Bank 2014). But except for Vietnam, which fares on par with China on many of the structural factors including education, cost of export, and some measures of infrastructure, the CLMV need to make further progress in order to benefit from the changing landscape of trade.

Further improvements in basic education are needed, especially in Cambodia, Myanmar, and Lao P.D.R. While the CLMV have seen improvements in school enrollment and literacy rates, as well as declining pupil–teacher ratios, more progress is needed. Business surveys indicate that skill shortages and mismatches continue to hamper industrial activity and impede private investment in these countries. Cambodia has relied on low-skilled manufacturing and services to support growth. Significant progress has been made in primary school enrollment, but secondary and tertiary school enrollment remain low. Furthermore, education spending in Cambodia is very low compared with such spending in peer countries. The situation is similar in Lao P.D.R. and Myanmar, where education spending remains very low, and low vocational and tertiary education enrollment limit the supply of high-skilled workers. Of course, increasing education spending presents budgetary challenges and needs to be embedded in an appropriate fiscal framework. In Vietnam, relatively high spending on primary and secondary education has paid off, with Vietnamese students scoring above the OECD average in the Program for International Student Assessment (PISA) study, but tertiary education and vocational training are lagging.

Trade openness is another crucial factor in boosting trade activities at all levels of export goods sophistication. Ongoing revisions to trade-related laws and regulations to meet WTO and ASEAN Economic Community (AEC) commitments are likely to support international trade integration by reducing trade tariffs, improving the business climate, and promoting private investment and institutional reform. The CLMV have made major strides in reducing trade costs, but tariff liberalization is far from complete—for instance, the CLMV were given extra time to comply with agreed tariff reduction under the ASEAN Free Trade Agreement. The CLMV—and Vietnam in particular—have also participated actively in preferential trading arrangements, mostly within Asia. The TPP is also expected to significantly boost exports from Vietnam (the sole CLMV party to the agreement), as is a recently signed comprehensive trade agreement with the European Union. In addition to free

trade in goods, increased openness in services trade is important for the competitiveness of the goods sector, especially for higher-value-added activities.

While the investment climate and infrastructure have improved, considerable infrastructure gaps remain. According to the 2015 World Bank Doing Business Index, Lao P.D.R.'s cost to export is the highest in the region. Inland transportation and handling make up 70 percent of this cost, indicating that investments to improve transportation infrastructure are crucial to promoting further trade. For Cambodia, the high cost of electricity is one of the major concerns among firms.²⁴

For Myanmar, improvements in transport infrastructure, transit corridors, and power generation and supply are top priorities. A study by the Asian Development Bank (ADB) estimates that the country needs to invest as much as US\$80 billion to address major infrastructure gaps by 2030. Myanmar is ranked low in the quality of infrastructure index among LICs. In particular, high transport costs have hampered trade integration. Lack of reliable electricity supply has been a major impediment to investment.

The high cost of doing business also contributes to higher dependence on natural resources in Lao P.D.R. In a poor investment climate, the very high returns associated with natural resource investments are viable and compensate investors for the high costs of doing business, while the lower or more uncertain returns to non-natural-resource investments limit diversification.

Reducing impediments to lower the cost of doing business can help stimulate further private investment. Although Cambodia has one of the most liberal investment regimes in developing Asia, there is still considerable room for improving the business climate. Improving transparency and predictability, as well as streamlining bureaucratic procedures, should be the main focus for improvement.

The CLMV all need to strengthen public sector financial and project management, given limited fiscal space to increase spending in infrastructure. In general, the efficiency of capital spending in the CLMV is very low (see Dabla-Norris and others 2011). In a broad sample of low-income and middle-income countries, the CLMV score is in the lowest quartile in project selection, project management and implementation, and project evaluation and audit. Thus, strengthening public sector financial and project management would help improve the basic processes and controls that are likely to yield efficient public investment decisions.

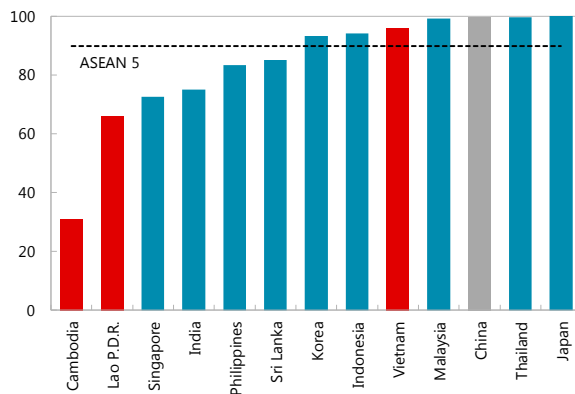
Lack of diversification translates into more vulnerability to external shocks. This is a common concern for these countries, with the exception of Vietnam. Exports from the

²⁴ Cambodia ranks 139 out of 189 in getting electricity and scores lowest among its Asian peers (Doing Business 2015, World Bank).

CLMV are still concentrated in a small number of goods and markets. For instance, while the garments industry in Cambodia accounts for the bulk of exports, its competitiveness remains weak and is driven largely by preferential access to key markets. As there is no local fabric and yarn industry, Cambodia is subject to volatile input prices from China. Thus a key priority should be upgrading skills and infrastructure so as to create conditions for diversification.

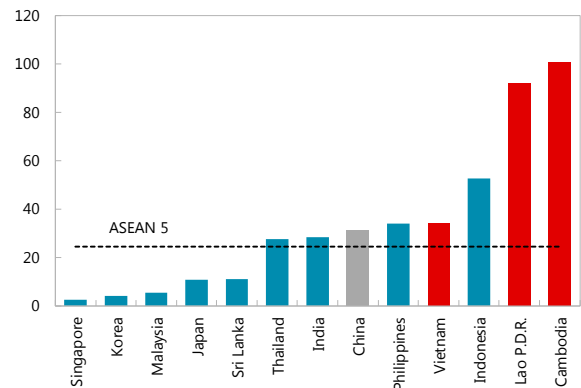
Apart from the diversification of the type of exporting goods, there may also be a need to diversify export markets. During the global financial crisis, countries with high exposure to advanced economies as export destinations were adversely affected by the reduction in the external demand. Cambodia, for instance, saw its exports drop by 10 percent in 2009. In this regard, further integration into regional trade may offer the promise of a new source of demand and growth in the future. Estrada and others (2010) and Asian Development Bank (2009) highlight that strengthening intraregional trade would enable the region's economies to exploit potentially large, but yet under-realized, gains from trade.

Figure 3.4. Access to Electricity, 2010
(Percent of population)



Sources: World Bank, *World Development Indicators*; and IMF staff calculations.

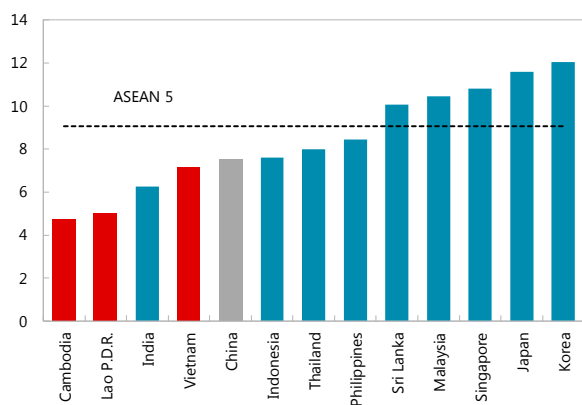
Figure 3.5. Time Required to Start a Business, 2014
(Days)



Sources: World Bank, *World Development Indicators*; and IMF staff calculations.

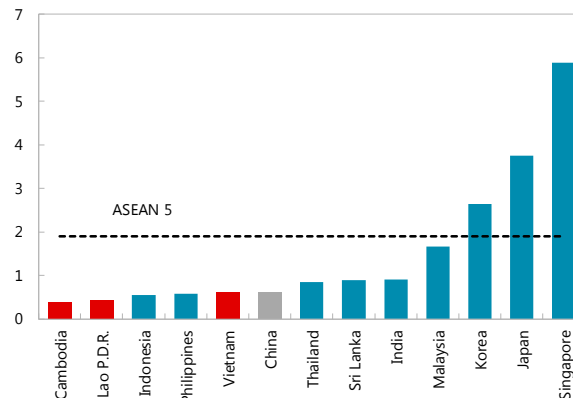
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Figure 3.6. Years of Schooling, 2010
(Years)



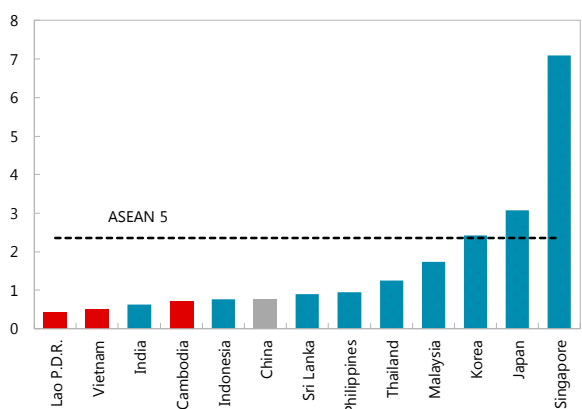
Sources: Barro, R. and J. Lee (2013); and IMF staff calculations.

Figure 3.7. Rule of Law, 2012
(Index; higher values = better rule of law)



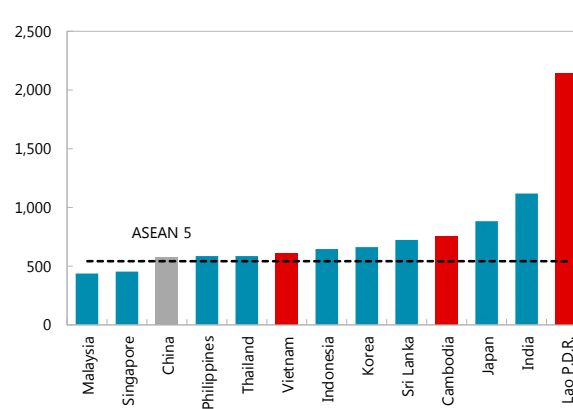
Sources: World Bank, *Worldwide Governance Indicators*; and IMF staff calculations.

Figure 3.8. Regulatory Quality, 2012
(Index; higher values = better quality)



Sources: World Bank, *Worldwide Governance Indicators*; and IMF staff calculations.

Figure 3.9. Cost to Export, 2012
(U.S. dollars per container)



Sources: World Bank, *World Development Indicators*; and IMF staff calculations.

Country-Specific Policy Recommendations

Cambodia

Cambodia needs to take several steps to take full advantage of opportunities arising from China's potential exit from labor-intensive industries. It should improve the business climate and enhance competitiveness by upgrading infrastructure, improving the quality of labor, and strengthening governance. Specific recommendations include the following:

- *Upgrading infrastructure to reduce logistics costs*—Cheaper, more reliable, and more accessible electricity remains a top priority. This, along with highway and secondary road development, is needed to reduce operation/transportation costs and to improve competitiveness. Strengthening the legal framework for public-private partnership projects could facilitate infrastructure investment—both foreign and domestic.

- *Improving human capital to increase productivity and capture higher-value-added production*—Rapidly increased elementary school enrollment is encouraging, but the quality of elementary education needs to be lifted. Addressing skill gaps would require work on multiple fronts: vocational and industry-led training, better dissemination of market information on skills shortages, and apprenticeship programs to explore “learning by doing” and “learning by earning.”
- *Streamlining red tape in doing business*—More transparent and predictable customs procedures and permit and authorization requirements would expedite cross-border flows of goods and integration with regional supply chains. Encouraging small medium enterprises (SMEs) to enter the formal sector, by simplifying registration and accounting standards, would help SMEs flourish and better integrate with China’s supply chains.

Lao P.D.R.

Despite substantial progress, future productivity growth will depend in part on further improvements in human capital. Significant progress has been made in education, as reflected in the increase in school enrollment and literacy rates and declining pupil–teacher ratios. However, low vocational and tertiary education enrollment limits the supply of high-skilled workers, and there is some evidence that this has constrained the benefits from trade integration. Additionally, education spending in Lao P.D.R. remains low compared with that of its peers. Government budget spending increases in recent years have mainly gone to public sector wages. In the face of limited fiscal resources, reallocation of budget resources and securing more donor support for education remain high priorities. As the country develops toward a more sophisticated economic base, it will require more high-skilled labor to sustain its rapid growth and to be competitive in a more integrated world.

Accelerating trade integration and increasing social spending would build on existing strengths, and promote competitiveness and growth inclusiveness. Ongoing revisions to trade-related laws and regulations to meet WTO and AEC commitments will support international trade integration, reduce trade tariffs, improve the business climate, and promote private investment and institutional reform. Increasing social spending, in particular improved social safety nets for vulnerable workers, including those with less formal work arrangements, would offer the potential to bring more workers into productive employment and make growth broader-based and more inclusive.

A high regulatory burden has hindered trade development. Evidence suggests that exporters in Lao P.D.R. continue to face a higher regulatory burden than non-exporters (World Bank 2010). A regulatory environment that minimizes transactions costs and levels the playing field for all types of investors needs to be put in place to support existing and new exporters.

While the investment climate has improved in recent years, further work remains, particularly for investments to promote economic diversification. As noted earlier, Lao P.D.R.'s cost to export is the highest in the region. Inland transportation and handling make up 70 percent of this cost, indicating that investments to improve transportation infrastructure are crucial to promoting further trade. In a poor investment climate, high returns associated with natural resource investments compensate investors for the high costs of doing business, while lower and more uncertain returns, coupled with the high cost of domestic credit, tend to limit diversification to non-natural-resource investments. There is evidence that high-value perishable agricultural products, on which Lao P.D.R. might focus for export growth, are disproportionately affected by high trade costs. Lowering such costs might therefore have a large impact on the export of new products.

Strengthening public sector financial and project management is also a priority, given the limited fiscal space to increase spending on infrastructure. An IMF study assesses the efficiency of capital spending in Lao P.D.R. to be very low (Dabla-Norris and others 2011). In a broad sample of low-income and middle-income countries, Lao P.D.R. scores in the lowest quartile in project selection, project management and implementation, and project evaluation and audit. Thus, strengthening public sector financial and project management would help improve the basic processes and controls that are likely to yield efficient public investment decisions. This would allow capital spending to be more in line with comparators, particularly as grants (currently 40 percent of public investment spending) are expected to decline.

Myanmar

The following policy steps to increase trade and FDI would be helpful:

- Moving ahead with the AEC initiative could help facilitate trade liberalization through dismantling tariff and nontariff barriers while promoting integration with regional and global value chains. For instance, the commercial tax on exports should be phased out. Tariffs, especially on intermediate input imports, should be reduced—empirically there is a strong, negative correlation between intermediate good tariff rates and GVC participation.
- Creating conditions for export diversification and increasing sophistication should be a policy priority. Labor-intensive manufacturing and commodity-related sectors could be potential candidates for diversification—these would include final assembly of electronics, garments, footwear, and lumber processing.
- Improving the business climate, particularly through regulatory reform, could help to attract FDI in strategically important areas, including manufacturing and infrastructure.

Improving infrastructure, particularly for transport and electricity, should be a priority. Myanmar is now opening itself to the outside world, and building physical connectivity is a prerequisite for the desired regional and global integration, and for capitalizing on its advantage as a natural bridge between South and Southeast Asia. Myanmar is ranked low in the overall logistics performance index by the World Bank and urgently needs infrastructure development, especially in the areas of transport and electricity generation. The regional physical connectivity initiative under the AEC initiative, if successfully implemented, is expected to reduce trade costs and enhance trade competitiveness as well as enhance mobility. Developing the energy and information technology infrastructure is also a major priority.

Human capital formation must also be promoted. This is a longer-term priority that will eventually position Myanmar to move upstream in the GVCs that it hopes to enter in the future. Despite recent increases, government spending on health and education remains low compared with other low-income countries. Strategic increases in investment in these sectors with corresponding improvement in absorptive capacity would help strengthen Myanmar's long-term competitiveness.

Finally, sound governance is critical. Stable and transparent business conditions, based on political and social stability and sound legal and institutional frameworks, are particularly important for Myanmar and will contribute to greater GVC participation. Myanmar can also make better use of its natural resource rents to help upgrade its infrastructure and human capital. This can usefully be pursued through continued efforts under the Extractive Industries Transparency Initiative and by reviewing its fiscal regime for extractive industries.

Vietnam

Vietnam needs to work on several policy fronts to further strengthen its already impressive export performance. Vietnam remains a relatively poor country, with per capita GDP only slightly above US\$2,000, and while growth has been admirable, it has lagged that of East Asia's most successful countries when they were at a similar stage of development. In addition, it is on track to become one of the world's fastest-aging societies, and the working-age population ratio has already started to decline, which could become a drag on growth. Growing exports have been driven by the FDI sector (70 percent of exports), while domestic manufacturing has lagged.

Boosting total factor productivity growth, which has declined since the mid-2000s, is essential. The potential for productivity gains from reallocation of labor is still large, with almost half the workforce in agriculture and three-quarters employed at the household level, both with very low productivity. In addition, boosting productivity in domestic manufacturing and, in particular, in state-owned enterprises (SOEs), which absorb a significant amount of capital, is important. Output per worker in domestic manufacturing, which includes SOEs, stands at around twenty percent in foreign-owned enterprises.

Integration between the FDI sector and domestic suppliers needs to be deepened to achieve productivity spillovers and to internalize more production value.

Structural reforms, stronger governance, and policies to strengthen the private sector are critical for raising Vietnam's long-term growth potential. They are also needed for Vietnam to take full advantage of new FTAs, including TPP. Improvements to the business environment are essential to develop domestic private business. Although improving consistently, Vietnam still ranks just 90th in the World Bank's Doing Business report and scores low on most indices of governance quality. Property rights and the enforcement of competition policy need to be strengthened to encourage domestic private firms to scale up and join the formal sector. Reform of the SOE sector needs to be accelerated, including governance reform, privatization, divestment from noncore business areas, and the creation of a level playing field with the private sector by curtailing SOEs' preferential access to credit and other resources. Spending on research and development, which is very low compared with that in peer countries, would support further moves up the value chain. Higher and more efficient public investment to strengthen infrastructure is also needed. Investment in human capital is paying off, but weaknesses remain in vocational and tertiary education.

Summary

Changes in China present significant opportunities to the CLMV, but also challenges, and with the right policies, the region should have a bright future. The CLMV cannot rely on low wages alone—especially given China's high productivity and the presence of low-wage inland provinces. Rather, structural reforms are needed to improve along the various dimensions that are typically associated with success in trade. And, of course, macroeconomic policies must be kept prudent in order to provide stable conditions. Rebalancing may lead to declining demand for commodities, which will be a challenge for Lao P.D.R. and Myanmar, but with reforms of the type discussed in this report, new export opportunities will emerge.

APPENDIX: COUNTRY PROFILES

CAMBODIA

Cambodia has become one of the world's fastest-growing frontier economies. Growth averaged nearly 8 percent during the past two decades, and GNI per capita quadrupled during this period, reaching US \$1,010 in 2014, and the country should soon achieve middle-income status. The economy is highly open and dependent on exports to the European Union and the United States, as well as on foreign direct investment (mostly from China). Nonetheless, this growth relies on a narrow economic base of garment exports and tourism, and Cambodia is exposed to external shocks, particularly as key materials for production, such as fabric, are imported.²⁵ Garments—growing by an average of 12½ percent during the past five years, and accounting for more than three-quarters of total exports—benefits from low wages and preferential market access to the European Union. Recent FDI trends point to early signs of diversification into other manufacturing products including electronics, as regional producers attempt to diversify their supply chain.

Cambodia's economy is closely linked to China's. China is the principal source of fabric imports into Cambodia, and trade between the two countries rose eightfold between 2000 and 2013.²⁶ By 2013, almost one-third of Cambodia's imports, valued at US\$3.7 billion, came from China. Chinese tourist arrivals also continue to grow strongly, with China now the second largest source of tourists. China is Cambodia's largest source of FDI, having invested a total of US\$1.4 billion by 2012 or 19 percent of the total FDI (10 percent of GDP),²⁷ mostly in garments, tourism, agriculture, power plants, and mining. Finally, China remains Cambodia's biggest source of official loans, accounting for \$2.4 billion or 43 percent of the total debt stock and about 90 percent of bilateral debt disbursement during 2012–14. Cambodia has been using these funds to build roads and bridges, helping to improve its infrastructure.

Cambodia's garment industry is dominated by foreign-owned firms, the majority of which are from China, Taiwan Province of China, and Hong Kong SAR. Production, export, and management decisions are mostly made at the headquarters of the parent companies, which are likely to be transnational manufacturing companies sourcing to global buyers. The link with international buyers has provided Cambodia's garments industry an important link into the global value chain, which has contributed to growth and employment over the past two decades.

²⁵ The standard deviation of growth for Cambodia is 3 percent while that of the average Asian LIC is 2.4 percent.

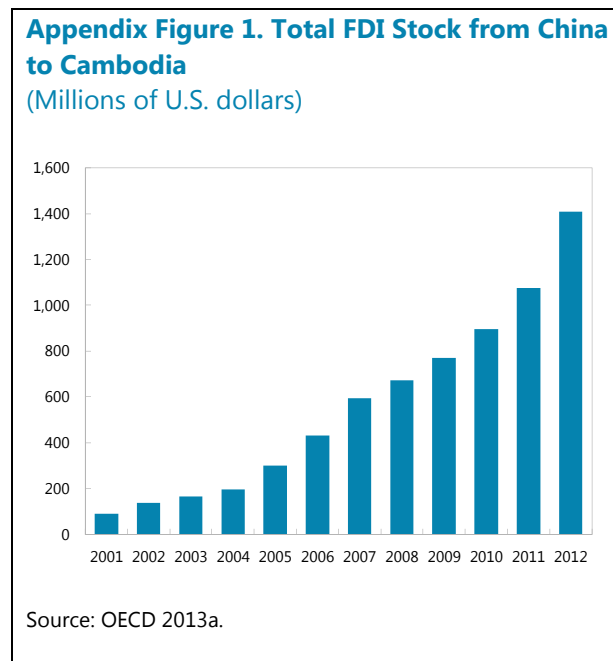
²⁶ UN COMTRADE data, sum of export and import.

²⁷ UNCTAD database.

The competitiveness of Cambodia’s garments industry remains weak and is driven largely by the preferential access to key markets. The local textiles industry is non-existent and hence there is a high import dependence on inputs, mainly from China, subjecting Cambodia to volatile input prices. High transportation and electricity costs have resulted in overall higher cost despite lower wages relative to its peers. Furthermore, though wages are low, labor productivity also is low,²⁸ reducing Cambodia’s overall competitiveness.

This reliance on a narrow production and export base has many downsides. A majority of Cambodian garment factories concentrate on cut-make-trim processes, which are at the bottom of the value chain and also a small part of the overall production. As a result, firms in Cambodia have limited leverage and autonomy in terms of strategic decisions. These companies tend to have many other subsidiaries around the globe with substitutable products and are less likely to invest in upgrading capacity in Cambodia.

In the near term, Cambodia’s garment sector needs to accelerate diversifying its export destinations to mitigate concentration risks. Productivity improvement, such as reducing production lead times, is crucial to maintaining competitiveness and capturing opportunities to further participate in value chains via upgrading in products, processes, and functions.



²⁸ Cambodia’s garment productivity ratio to China is only 68 percent (China = 100) whereas that in Bangladesh is 77 percent, Pakistan 88 percent, and India 92 percent (McKinsey & Company 2011).

Lao P.D.R.

Lao P.D.R. was one of the most dynamic frontier economies in the past decade, but its narrow economic base constitutes an important vulnerability. Despite weaker global growth and external uncertainties, real GDP grew at an average of about 8 percent in the past decade, driven by investments in hydropower, infrastructure, real estate construction, and increasingly, domestic consumption. Mining production rose significantly from the operation of new gold, copper, and silver mines and the expansion of existing minerals projects. As a result, per capita income doubled to about US\$2,900 in purchasing power parity terms and the poverty rate fell from about 33 percent in 2002/3 to 22 percent in 2012/13. The government remains committed to achieving middle-income country status by 2020, but has lowered its medium-term growth target to 7.5 percent per year, citing the need for better-quality growth with macroeconomic stability. Growth remains largely driven by FDI inflows into resource and construction sectors.

China's economic ties with Lao P.D.R. have increased dramatically in recent years. In 2013, China became the biggest foreign investor in Lao P.D.R., with a cumulative stock of US\$5.4 billion, edging out Thailand and Vietnam. This number corresponds to about a third of total investments in the country, including in agriculture, electricity, mining, and services. The Lao government has also announced a plan to build a controversial railroad linking China's Yunnan Province to the Lao capital of Vientiane, and then to Thailand, at a cost of US\$6 billion, equivalent to 50 percent of the Lao GDP. China will finance the majority of the investment (about 70 percent) and extend loans to the Lao P.D.R. government to finance its equity share.

Bilateral trade between Lao P.D.R. and China has skyrocketed in the past five years, making China Lao P.D.R.'s biggest trade partner. From 2008 to 2014, China's share in Lao P.D.R. imports increased from 8 to 26 percent. Similarly, Lao P.D.R.'s exports to China increased eightfold, with China's share growing from 10 percent to 35 percent.

Lao P.D.R.'s largest stock of official bilateral debt is with China, and China's financing role has increased rapidly in the past five years. China's official loans to Lao P.D.R. have risen from about 25 percent of all bilateral debt in 2008 to about 50 percent in 2013. This is equivalent to 26 percent of Lao P.D.R.'s total external debt. These official loans have financed a large part of the government's capital expenditures, concentrated mostly in hydropower plants and other large infrastructure projects.

Recent efforts to promote economic diversification, such as agreements to facilitate trade, are commendable. Fifteen years after it first sought membership, Lao P.D.R. became the 158th member of the World Trade Organization (WTO) in February 2013. Accession to the WTO provides Lao P.D.R. with more market opportunities to diversify trading partners, realize gains from trade, and enhance investor confidence. As part of the process, Lao P.D.R. opened its economy to foreign access in several sectors, the most important being services. Progress was also achieved on structural reforms as the national assembly enacted more than

90 laws and regulations, including those related to import licensing, custom valuation, investment, sanitary and phytosanitary measures, technical barriers to trade, and intellectual property rights, in order to better align its laws and regulations with international norms.

Recent reforms to improve the business climate also seek to promote economic activity in the nonresource sector. Some of these measures include (1) efforts to simplify business startup procedures, notably with the establishment of a one-stop shop to coordinate the application for foreign investment; (2) modernizing electronic data interchange systems to better facilitate cross-border trade; and (3) establishing the Lao trade portal to facilitate international trade and enhance transparency of transactions. The authorities believe that these initiatives will help create a more favorable business climate conducive to broad-based and inclusive growth.

While labor productivity remains low in Lao P.D.R. compared with higher-income ASEAN neighbors, productivity growth is among the highest in the region. This reflects good progress over many years in opening product and labor markets, and improving health and education. Finance, real estate, business services, transport and communication, and construction are leading contributors to productivity growth. Maintaining growth in productivity, however, will require further investments, particularly in education, infrastructure, and institutional reform.

Myanmar

Myanmar is rapidly emerging from a long period of isolation. The government is pursuing comprehensive economic reforms to open the country to the global economy, boost growth, and reduce poverty. Since economic liberalization in 2011, economic growth has been accelerating, led by gas production, construction, tourism, and manufacturing, and reached almost 8½ percent in 2013/14.

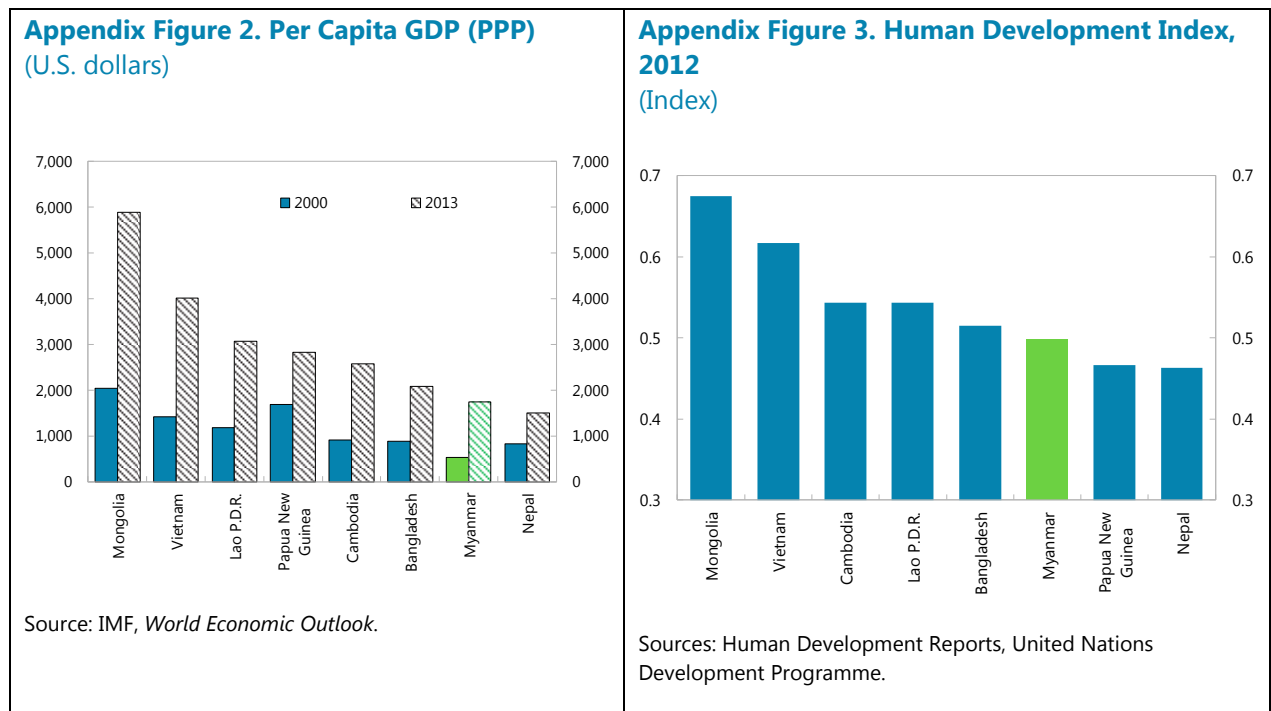
Myanmar faces important development challenges, but it has significant economic potential. Living standards in Myanmar remain among the lowest in the region, as measured by per capita GDP (PPP), while social well-being, measured by the Human Development Index, is also much lower than that in regional peers (ranked 149 out of a total 186 countries). However, the country has a young and large labor force, low wages, and a strategic geographic location, which could facilitate entry into Asian supply chains. To take advantage of these conditions, Myanmar needs to push forward with reforms to raise productivity, including through improvements in business environment and infrastructure.

Myanmar is not as open to trade as its neighbors, but trade is growing. Partly reflecting economic sanctions by traditional development partners, the country's trade openness ratio (ratio of exports plus imports to GDP) has been much lower than that of most other Asian countries. Exports are also highly concentrated, in terms of both products and trading partners, and that concentration is increasing as a result of rising natural gas exports. Historically, foodstuffs—primarily pulses and rice—and nonfuel crude materials—mostly

teak and other hardwoods—were Myanmar’s main export earners. The garments industry developed rapidly and by the early 2000s, had become a significant export sector for the country, but since then, mineral fuels have taken the top slot. On the import side, the composition has been rather stable, with manufactured goods, including machinery and transport equipment, accounting for the bulk of imports. Overall, trade is growing rapidly—indeed the fastest among the CLMV (albeit from a low base).

China has emerged as the largest trade partner both in exports and imports, mainly through cross-border trade. China is now a major supplier of consumer and capital goods to Myanmar, while Myanmar supplies timber and natural gas to China. Border trade represents the lion’s share of the bilateral trade, in both directions. Myanmar and China also have considerable economic cooperation in the areas of infrastructure and energy involving state-owned enterprises.

Myanmar continues to face significant challenges, but the authorities have embarked on a comprehensive reform path. In 2013, they introduced their Framework for Economic and Social Reforms, a long-term strategy for achieving sustainable economic growth and reducing poverty. If implemented as planned, sustained and stable growth should be possible over the mid-to-longer term. Regional integration could also help, including through the ongoing establishment of the ASEAN Economic Community.



Vietnam

Growth averaged over 7 percent in the years before the global financial crisis. This was led mainly by increasingly intensive agricultural production, rapidly expanding state-owned enterprise (SOE) investment, financial services, and labor-intensive manufacturing driven by foreign direct investment. The global financial crisis laid bare the weaknesses of the state-led growth model based on expanding inefficient public and SOE investment, which eventually led to a slowdown in growth, high inflation, a weakening currency, large trade deficits, and dwindling foreign exchange reserves.

The external sector has been the driver of growth in recent years, while the domestic economy has been burdened by slow progress with SOE and banking sector reform. The authorities succeeded in stabilizing the economy from 2011 onward, but growth remained below crisis levels at an annual average of 5¾ percent. The economy faces structural challenges that create a headwind for growth (SOE reform, banking sector weakness, and diminishing fiscal space for bank and SOE restructuring costs and countercyclical policies). FDI manufactured exports have been a bright spot. Production has increasingly moved toward more sophisticated products, from commodities and garments to computer components, cell phones, and other electronic components.

Today, Vietnam is a very open economy, exporting a broad mix of products to a diversified set of trade partners. With trade amounting to more than 150 percent of GDP, Vietnam is among the world's most open economies. The country has rapidly gained world export market share, which has increased from about 0.2 percent in 2000 to close to 1 percent of world exports in 2014. In the first phase of export growth following the economic Doi Moi reforms in the late 1980s to the early 2000s, exports of agricultural products, oil and gas, and apparel were the main export product categories. In the past decade, export growth has been particularly strong in manufacturing of electronics and apparel. As a result, Vietnam's export product mix has shifted from a high share of agricultural commodities and crude oil to cell phones, other electronics, and garments. At the same time, the agricultural sector has continued to perform well in absolute terms, cementing Vietnam's strong global position in agricultural products ranging from seafood to rice and coffee. Measures of export diversification show substantial increases in diversification over the past two decades.

Strong FDI inflows in the manufacturing sector have enabled Vietnam's manufacturing export growth. FDI inflows accelerated in the run-up to Vietnam's WTO accession in January 2007 from an annual average of \$2.5 billion over 2000–05 to an annual average of \$8.4 billion over 2008–14. FDI has been increasingly concentrated in manufacturing, with major inflows from Korea, Japan, Singapore, and Taiwan Province of China. Companies such as Intel, Nokia/Microsoft, and Samsung have shifted significant parts of their production to Vietnam over the past decade, and through these investments, Vietnam is embedded in global and Asian supply chains. The FDI sector's share in Vietnam's total exports has reached 60 percent. Vietnam's attractiveness to foreign investors results from a variety of factors, including government policies encouraging FDI, openness to trade, a

geographic location near major supply chains, political stability, abundant labor resources, and tax incentives.

China is Vietnam's most important supplier, accounting for one-third of imports, but FDI from China is limited. Vietnam has a large bilateral trade deficit with China. China is a major supplier of consumption and capital goods and, more recently, has become a source of intermediate goods for final assembly in Vietnam as final production in Vietnam has expanded. Import duty reductions under the ASEAN-China free trade agreements starting in 2015 could help boost bilateral trade between Vietnam and China.

Going forward, TPP and new FTAs present opportunities for further export growth. Among the current TPP signatories, Vietnam—as the economy with the lowest per capita GDP—has unique comparative advantages, particularly in labor-intensive manufacturing. In addition, in 2015 Vietnam concluded FTA negotiations with important trading partners: The European Union who accounts for a fifth of Vietnamese exports, Korea, the largest source of FDI to Vietnam, and the Eurasian Economic Union.

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