KEY POINTS

- After decades of rapid growth, developing Asia’s exports have slowed in line with global trends since the global financial crisis. In volume terms, annual average export growth in developing Asia was 4.7% per year in 2011–2015 compared with 11.2% in 2001–2010. The export slowdown is also visible in relation to gross domestic product growth.
- The export slowdown in the region reflects a combination of weak import demand for Asian goods in advanced economy markets, structural transformation and reduced import demand in the People’s Republic of China (PRC), and the possible impact of increasing nontariff measures.
- It is overdone to speculate that this slowdown marks the end of the era of export-led growth in Asia.
- Much of the weak import demand from the advanced economy markets is likely to be temporary and partially reversed as their recovery gathers momentum. More proactive fiscal policy and structural reforms would help to sustain growth in advanced economies.
- The PRC is moving up in global value chains (GVCs), which implies the development of more technologically sophisticated regional value chains in East Asia that can propel a new phase of trade growth. Continuing reforms would enable market forces to play a more decisive role in the PRC economy.
- Some of the PRC’s labor-intensive GVC production stages are migrating to lower-cost locations in the region. Recipient economies should make greater efforts to improve their investment climate, implement reforms dealing with behind-the-border barriers, upgrade skills, enhance finance for small and medium-sized enterprises, and invest in trade-related infrastructure and digital infrastructure.
- Greater participation by small and medium-sized enterprises in GVCs and services (both commercial and digital services) are also potential engines of trade expansion in developing Asia.
- Developing Asia should continue to liberalize trade and resist protectionism.

Changing Patterns of Trade and Global Value Chains in Postcrisis Asia

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INTRODUCTION

Export-led growth has powered developing Asia’s rise and prosperity in the past several decades. The switch from inward-oriented to outward-oriented development strategies in the 1960s and 1970s catalyzed rapid growth of manufactured exports and created jobs in newly industrializing economies in East Asia like Hong Kong, China; the Republic of Korea; Singapore; and Taipei, China.1 Subsequently, Southeast Asia economies and the People’s Republic of China (PRC) also adopted outward-oriented strategies. More recently, sophisticated and geographically dispersed global value chains (GVCs) have emerged as an important feature of the region’s economic success, particularly in East Asia.

The global financial crisis of 2008–2009 marked a turning point in global and regional trade. Global trade was growing twice as fast as global gross domestic product (GDP) before the crisis, after which trade growth slowed such that it currently just keeps pace with growth in global output.2 The underlying causes of the global trade slowdown have attracted increasing attention, and there is an ongoing debate on the relative contributions of cyclical and structural factors.3 There is also interest in the role of GVCs in the global trade slowdown.

2 International Monetary Fund. 2016. World Economic Outlook. Washington, DC.
Regional exports have slowed in line with the global trend since the crisis.\textsuperscript{2} 2015 was a difficult year for regional exports and has prompted a bout of export pessimism. However, 2016 will likely see a modest upturn in developing Asia’s exports. Policy makers need to know the explanations for the export slowdown in developing Asia, and whether it is likely to become a new normal for the region; as well as what policies could foster new trading opportunities.

This brief examines changing patterns of trade and GVCs in developing Asia, focusing on the period since the crisis. It analyzes the export slowdown in real terms and in relation to real GDP growth for the region and for major economies. It then attempts to explain the export slowdown. Finally, it considers emerging new trading opportunities in the region and policy suggestions.

### TRENDS AND OUTLOOK FOR EXPORTS

Developing Asia’s exports grew rapidly in real terms at an annual rate of 11.2% in 2001–2010 (Figure 1). Except for a brief rebound in 2010, the region’s export volume growth has slowed since the crisis to 4.7% annually in 2011–2015. A major concern is that developing Asia’s exports declined by 0.8% in 2015, which was a particularly bad year for world trade. But a projection suggests a modest upturn in developing Asia’s exports to growth of 1.5% in 2016.\textsuperscript{3} While this figure is below the average growth of the region’s exports since the crisis, the upturn is nonetheless a somewhat encouraging sign.

Regional trends follow the lead of export growth in the PRC, which contributes about 40% of developing Asia’s export value. The PRC’s export growth slowed from an annual average of 18.3% in 2001–2010 to 6.4% in 2011–2015, falling further to 2.1% in 2015. With the PRC’s importance in the region’s exports, that the PRC’s exports are expected to grow only at 1.9% in 2016 is significant.

The slowdown in developing Asia excluding the PRC was less pronounced as growth halved from 8.0% in 2001–2010 to 4.1% in 2011–2015, and increased marginally in 2015 at 0.8%. The growth of exports in developing Asia excluding the PRC is expected to slightly increase to 1.3% in 2016.

The export slowdown in developing Asia since the crisis is also visible in relation to GDP growth. Figure 2 shows the ratio of real export growth to real GDP growth for developing Asia, the PRC, and developing Asia excluding the PRC for pre-crisis and post-crisis periods (panel a) and by decade (panel b). The ratio of export growth to GDP growth in real terms halved from 1.5 in 2001–2010 to 0.7 in 2011–2015. A more starkly different picture appears upon comparing a shorter period before the crisis with the past few years, which shows the ratio of export growth to GDP growth plunging twice as quickly, from 2.1 in 2003–2006 to 0.5 in 2012–2015. The ratio of export growth to GDP growth was expected to fall further to 0.3 in 2016.

The slowdown since the crisis has meant that developing Asia’s export growth in 2011–2015 was at 4.1%, similar to the 4.3% averaged by other developing economies and not much higher than the 3.6% of the advanced economies—two groups that developing Asia has historically outperformed in export growth.

Figures 3 and 4 show bubble charts for the region’s major economies comparing real export growth for different periods with the size of the bubble representing a given economy’s share of regional exports. The export slowdown between 2001–2010 and 2011–2015 was pervasive across developing Asia (Figure 3). Of 36 developing economies in Asia for which data were available, 22 had slower export volume growth in 2011–2015 compared to 2001–2010. This includes most of the region’s largest traders: the PRC; the Republic of Korea; India; Kazakhstan; Malaysia; Pakistan; Singapore; Thailand; Taipei, China; and Hong Kong, China, respectively. Meanwhile, Cambodia, Indonesia, the Philippines, Sri Lanka, and Viet Nam showed stronger export growth.

On the positive side, a broad-based upturn in exports across the region is expected between 2015 and 2016 (Figure 4). Of the 36 developing economies in Asia, 23 are likely to have better export volume growth in 2016 than in 2015. This includes several of the region’s largest traders including the PRC; Hong Kong, China; India; Indonesia; Kazakhstan; the Republic of Korea; the Philippines; Sri Lanka; and Taipei, China. However, Malaysia, Pakistan, Singapore, Thailand, and Viet Nam may see worse export growth.

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\textsuperscript{2} Export growth in this policy brief refers to the growth of export volume.

\textsuperscript{3} Projections for 2016 for the region, the PRC, and developing Asia excluding the PRC were calculated using data from the International Monetary Fund on export volume growth for individual Asian economies in 2016. These were weighted with 3-year annual average shares of goods and services in constant 2005 US dollars from the World Bank.

![Figure 1: Annual Volume Growth of Goods and Services Exports (%)](image-url)

\( F = \text{forecast}, PRC = \text{People’s Republic of China} \)

Note: The forecast is estimated using 3-year annual average weights of exports of goods and services in constant 2005 United States dollars, and the volume growth of goods and services from the International Monetary Fund (October 2016). Developing Asia refers to the developing member countries of the Asian Development Bank.

Figure 2: Annual Export and Gross Domestic Product Growth

a. Precrisis and Postcrisis

b. Decades

ADB = Asian Development Bank; excl = excluding; F = forecast; PRC = People’s Republic of China.

Note: The forecast is estimated using 3-year annual average weights of exports of goods and services in constant 2005 United States dollars, and the volume growth of goods and services from the International Monetary Fund (October 2016). Developing Asia refers to ADB developing member countries.


Figure 3: Annual Export Growth, 2001–2010 versus 2011–2015 (%)

BAN = Bangladesh; CAM = Cambodia; HKG = Hong Kong, China; IND = India; INO = Indonesia; KAZ = Kazakhstan; KOR = the Republic of Korea; KYR = the Kyrgyz Republic; MAL = Malaysia; PAK = Pakistan; PHI = the Philippines; PRC = the People’s Republic of China; SIN = Singapore; SRI = Sri Lanka; TAP = Taipei,China; THA = Thailand; VIE = Viet Nam.


Figure 4: Annual Export Growth, 2015 versus 2016 (%)

AZE = Azerbaijan; BRU = Brunei Darussalam; BAN = Bangladesh; CAM = Cambodia; HKG = Hong Kong, China; IND = India; INO = Indonesia; KAZ = Kazakhstan; KOR = the Republic of Korea; MAL = Malaysia; PAK = Pakistan; PHI = the Philippines; PRC = the People’s Republic of China; SIN = Singapore; SRI = Sri Lanka; TAP = Taipei,China; THA = Thailand; VIE = Viet Nam.

EXPLAINING THE EXPORT SLOWDOWN

Three main factors can explain the export slowdown in developing Asia since the crisis. But so far it is difficult to untangle the factors and weigh their individual influences on Asia’s export slowdown.

First, weak import demand for Asian goods in advanced economy markets since the global financial crisis has had a lingering effect. Figure 5 shows real growth in goods imports from developing Asia to the European Union (EU), Japan, and the United States (US) from 2001 to 2015. The growth in total US imports from developing Asia remains strong and stable, growing annually at 5.1% in 2001–2010 and 5.8% in 2011–2015. But total imports from the EU and Japan has declined significantly. The annual average growth in the EU’s imports from developing Asia declined from 7.2% in 2007–2010 (a shorter period for lack of import price indexes) to 0.7% in 2011–2015. Meanwhile, growth in Japan’s total imports from developing Asia slowed from 8.1% in 2001–2010 to 1.2% in 2011–2015.

Second, in recent years, the problems of advanced economies have become entangled with the PRC’s structural transformation, which has meant slower growth for Asia’s largest economy. Two trends accompanying the PRC’s structural transformation have implications for Asian trade. One is the PRC’s shift away from an export-driven and investment-driven growth model toward domestic consumption and services. The other is its moving up GVCs as wages rise.

These trends have reduced demand for imports from the rest of Asia. Fueled by expanding middle-class consumers, the PRC continues to import consumables from across Asia.6 However, imports of capital goods and raw materials have declined. Accordingly, the annual average growth of the PRC’s total imports from developing Asia fell from 18.2% in 2001–2010 to 4.7% in 2011–2015 (Figure 5).

The PRC has also reduced trade in parts and components, which contain higher value addition than simply assembling products. The ratio of the PRC’s intermediate goods imports to manufactured exports, which represents a crude proxy for GVC trade, fell from 63% to about 38% between 2000 and 2015 (Figure 6).7 The Republic of Korea’s ratio also fell from 49.5% to 39.6%. Accordingly, developing Asia’s ratio of intermediate goods imports to manufactured exports fell from 60.6% to 51.0%.

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6 Our estimates using UN Comtrade data for different commodity groupings deflated by the PRC’s import price index from the Federal Reserve Bank of St. Louis suggest that annual average real growth of the PRC’s consumer goods grew at 18.7% in 2004–2010 and 17.5% in 2011–2015. During the same subperiods, the annual real growth of its capital goods imports declined from 17.5% to 1.2%, and intermediate goods imports from 18.4% to 4.9%.

Rising wages and other factor costs are encouraging a deepening of industrialization in the country, one aspect of which is GVCs growing more local technological roots. Figure 7 shows a breakdown in the PRC’s value-added share of gross manufactured exports into foreign and domestic value added. Structural shifts have occurred in the value-added content of gross exports since 2000. After an initial fall, there was a steady rise in domestic value added thereafter, indicating that more intermediate goods are being produced domestically rather than imported. Thus, the share of domestic value added in gross manufacturing exports fell from 81% to 72% between 2000 and 2005 following the PRC’s membership of the World Trade Organization in 2001. Between 2008 and 2015, this figure rose from 76% to 82%. The PRC’s economic rebalancing and moving up GVCs is creating new trading opportunities for the PRC itself and other developing economies, which are discussed below.

Third, increasing nontariff measures (NTMs) are expected to have an impact.8 While decades of import liberalization have resulted in historically low import tariffs of about 8% in developing Asia, evidence indicates that opaque NTMs have acted as a drag on the region’s trade.9 Figures 8 and 9 show the number of NTMs imposed on developing Asia by non-Asian countries to the region and the numbers imposed by developing Asia on non-Asian countries. The

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8 These include antidumping actions, quantitative restrictions, countervailing duties, sanitary and phytosanitary rules, and technical barriers to trade.

9 ADB. 2016. Asian Economic Integration Report 2016: What Drives Foreign Direct Investment in Asia and the Pacific? Manila. ADB suggests that NTMs have become major obstacle to trade in the postcrisis period. The numbers of NTMs have been rising with generally negative effects on developing Asia’s trade. Gravity model estimation was done using fixed effects to measure the impact of sanitary and phytosanitary (SPS) and technical barriers to trade measures on developing Asia’s trade. The findings suggest that Asia’s global exports are hurt by SPS measures of importing economies particularly in agricultural products but technical barriers to trade measures have a somewhat positive impact on exports. Thus, agricultural trade was especially susceptible to the adverse impact of SPS measures.
number of NTMs imposed on developing Asia by outsiders more than tripped from 2,263 in 2000 to 7,190 in 2015 (Figure 8). Those measures imposed by outsiders in 2015 were dominated by a few major types of NTMs such as sanitary and phytosanitary measures (28.5%), technical barriers to trade (23.4%), and tariff rate quotas (15.5%). In the same period, the number of NTMs imposed by developing Asia more than quadrupled from 534 to 2,217 (Figure 9). While sanitary and phytosanitary measures (26.6%) were also prominent among NTMs deployed by developing Asia in 2015, other measures such as quantitative restrictions (24.5%) and antidumping measures (21.4%) were important.

HOW ASIA CAN CONTINUE TO LEAD GLOBAL TRADE

Developing Asia’s exports have slowed since the crisis but a modest upturn is expected in 2016. To speculate that this marks the end of Asia’s era of export-led growth is clearly overdone. On the other hand, the export slowdown in the region does need responses, and the right responses depend on the causes.

Much of the weak import demand from the advanced economy markets for Asian goods is likely to be temporary and partially reversed as recovery in advanced economies particularly the US gathers momentum. Monetary policy easing has certainly worked in lifting advanced economies out of recession and ending deflation, and should stay to support growth. But monetary policy alone is not sufficient, and should be complemented by more proactive fiscal policy and structural reforms to address constraints to and generate new sources of growth in advanced economies.

Moderation in the PRC’s growth is driven partly by cyclical factors (related to the weak global recovery) and partly by structural factors (such as a declining working-age population and the forces of convergence) as the economy moves up the technological ladder and shifts toward a more sustainable growth model. It is critical for the PRC to continue with structural reforms to enable market forces to play a decisive role in resource allocation, and to promote greater efficiency and productivity growth. The government is emphasizing improvement of the performance of state-owned enterprises; deepening financial sector development; streamlining administrative procedures affecting business; and undertaking fiscal reforms, including rationalizing local and central government finance. Efforts are also being made to improve labor productivity through more effective vocational and technical education, and encouraging research and development to facilitate the transition to a knowledge-based economy.

There are four emerging trading opportunities in the region that could be profitably nurtured.

First, the PRC’s economic rebalancing and moving up GVCs are opening up new trading opportunities for the PRC itself. Data on the PRC’s production confirms that it is following the model of higher domestic value added and the building of innovation capability, as was seen first in Asia through Japan, and subsequently in the Republic of Korea.

This entails the development of more technologically sophisticated regional value chains and related services in East Asia, which can propel a new phase of regional and global trade growth. The spread of robotics, advances in miniaturization, developments in internet connectivity, process-centered research and development, and various organizational innovations are increasingly likely to feature in GVCs in this new phase of trade growth.

Second, the development of more technologically sophisticated value chains in East Asia will also bring opportunities to other lower-cost countries in the region. For instance, another shift is that some of the PRC’s GVC production stages—particularly labor-intensive ones—are beginning to migrate from the PRC to lower-cost locations, as evidenced by a rise in the PRC’s outward-oriented foreign direct investment (FDI) in manufacturing in developing Asia. The value of the PRC’s outward-oriented manufacturing greenfield FDI into developing Asia nearly doubled from $26.6 billion in 2005-2010 to $50.2 billion in 2011-2016. As Figure 10 shows, developing Asia’s share of the total rose from 40.1% to 48% between these subperiods. The major developing Asia recipients of the PRC’s manufacturing greenfield FDI in 2011–2016 include Indonesia (18.9%), India (7.5%), Malaysia (4.1%), Thailand (2.6%), and Cambodia (1.1%).

The PRC’s increased manufacturing FDI into the region has translated to a rise in the ratio of intermediate goods imports to total manufactured exports for other regional economies, from 62.9% to 73.4% between 2000 and 2015 (Figure 6). For these developing Asian economies to benefit from these changes in GVCs, they should make greater efforts to improve their investment climate; implement structural reforms dealing with behind-the-border barriers; upgrade skills; enhance finance for small and medium-sized enterprises (SMEs); and invest in trade-related infrastructure (like sea ports and logistics), as well as digital infrastructure.

Third, SMEs are another potential engine of export expansion. SMEs are the largest generators of jobs in developing Asia, and appear to be underrepresented in GVC trade. Data on the contribution of SMEs to GVCs directly as exporters, or indirectly as suppliers or subcontractors to large firms, is rare. However, findings of recent research estimating the contribution of SMEs in the global supply chain trade in five economies of the Association of Southeast Asian Nations (ASEAN) using a large-scale, multicontry, multienterprise survey is provided in Figure 11. This study suggests that only 22% of all SMEs in ASEAN economies participate in supply chain trade, compared with 72.1% of all large enterprises. Furthermore, more developed ASEAN economies such as Malaysia and Thailand have a higher representation of SMEs in supply chain trade, compared with other ASEAN economies.

Small and medium-sized enterprises have the potential to play a greater role in the region’s GVCs and services trade, either indirectly as suppliers to large firms and eventually as direct exporters. Such firms 10 For a discussion on the related issue of why growth pessimism in Asia is not warranted, see J. Zhuang and G. Wignaraja. 2016. Asia Growth Pessimism is Not Warranted. OECD Insights Blog. 29 May. https://oecdinsights.org/2016/05/29/asia-growth-pessimism-is-not-warranted/
Figure 10: Share of PRC Manufacturing Greenfield Foreign Direct Investment Abroad by Destination (%)

Note: FDI Markets is a comprehensive online database of available cross-border greenfield investments covering all countries and sectors worldwide. Data coverage is up to August 2016 only.

Figure 11: Small and Medium-Sized Enterprises and Large Firms in Global Supply Chain Trade in Asia

Note: Data cover direct exporters and tier 1 suppliers only. Tier 2 suppliers are excluded.

are typically hampered by lack of access to finance from commercial banks, gaps in technological capabilities, and cumbersome bureaucratic regulations relating to business startup and operation. Improving credit assessment for SMEs, reforming collateral laws, improving institutions for providing quality and productivity services for SMEs, providing incentives for research and development, and streamlining bureaucratic procedures for business are useful ways to encourage SME participation in supply chain trade in developing Asia.

Fourth, services constitute the largest economic sector in most economies in developing Asia but are less traded than goods. Figure 12 graphs the shares of services in GDP and share of service exports in total exports for developing Asian economies for which data are available in 2011–2014. On average, services account for 55% of GDP in developing Asia but only 33% of exports. Services underperform in trade relative to their contribution to GDP in nearly all the developing Asian economies. The low level of services trade in the region can be attributed to factors like trade restrictions on services trade, skills gaps, and problems with internet connectivity and security. GVC-related services, digital trade, professional services, and financial services are areas with potential for trade growth. The PRC is likely to further expand its role as an exporter and importer of services (Constantinescu et al. 2016). India is also likely to expand its trade in information technologies services and witness the emergence of other commercial services exports. ASEAN and South Asian economies have opportunities to further develop tourism, including from markets in other regional economies, and other commercial services exports.

THE ROLE OF TRADE AGREEMENTS

Growing trade protectionism needs greater efforts on trade liberalization by reducing residual import tariffs where possible and instituting better surveillance of NTMs particularly in areas such as sanitary and phytosanitary measures and technical barriers to trade. More capacity building and training would enable less developed Asian economies to make better use of the World Trade Organization’s (WTO) Dispute Settlement Mechanism and support a rules-based multilateral trading system. Likewise, ratification of the WTO’s Trade Facilitation Agreement would help reduce the region’s trade costs, as only 19 of developing Asia’s economies have done so to date. The WTO Trade Facilitation Agreement contains measures for speeding up customs clearance and for goods in transit, promoting greater cooperation in trade facilitation and customs compliance, and technical assistance for developing countries to effectively implement the agreement.

Concluding megaregional trade agreements involving regional economies can contribute toward lower import tariffs, new market access in services, and spread good regulatory practices for members. On the downside, they pose risks of trade diversion and transactions costs from rules of origin. Computable general equilibrium model-based studies suggest large gains for Asia from megaregional trade agreements such as the Trans-Pacific Partnership (TPP) and a Regional

14 The WTO estimates that the full implementation of the Trade Facilitation Agreement can reduce trade costs among WTO members by an average of 14.3%, with a larger reduction of 18% expected for manufactured goods compared to 10.4% for agricultural goods. Notable gains are expected for developing Asia from the Agreement, particularly those involved in GVCs. WTO. 2015. World Trade Report 2015—Speeding Up Trade: Benefits and Challenges of Implementing the WTO Trade Facilitation Agreement. Geneva, Switzerland: WTO Publications.
Comprehensive Economic Partnership (RCEP).\textsuperscript{15} However, ratification of the TPP agreement involving 12 economies from the Asia and Pacific region seems very unlikely.

Meanwhile, negotiations are intensifying in Asia for RCEP with the participation of 10 ASEAN members, Australia, the PRC, Japan, the Republic of Korea, and New Zealand. While arguably not as deep as TPP, RCEP can bring notable benefits to its members. Upon its entry into force, RCEP is likely to reduce import tariffs and make rules of origin more consistent across members, thereby facilitating GVC trade. Moreover, RCEP is expected to reduce trade barriers between the PRC and India—which lack a bilateral trade deal—as well as open up services trade and investment to members.

Although a longer-term prospect, discussions are also occurring on a Free Trade Area of Asia and the Pacific (FTAAP) under the umbrella of the Asia Pacific Economic Cooperation forum. Initial steps include the launching of a road map for FTAAP during the APEC Summit in Beijing in 2014, and the preparation of a collective strategic study in 2016.

Trade agreements—the WTO’s Trade Facilitation Agreement, RCEP, bilateral agreements, and eventually FTAAP—can support further trade liberalization and lay the foundation for trade growth in developing Asia. Meanwhile, providing adjustment assistance to losing sectors, restructuring for workers, and ensuring social safety nets are vital to maintain public support for trade liberalization in developing Asia.