

# Globalisation and deglobalisation in emerging market economies: facts and trends

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## Abstract

This paper discusses different facts and trends with regard to globalisation in emerging market economies (EMEs). It focuses primarily on the real (as opposed to financial) side of the economy over the last 2-3 decades, and highlights important similarities and differences across countries with respect to trade, global value chains, foreign direct investment, and migration. It concludes with a discussion of the recent slowdown in the growth of global trade.

Keywords: Globalisation, international trade, migration, global value chains, foreign direct investment.

JEL classifications: F02, F15, F22

## 1. Introduction

Emerging market economies (EMEs) have become much more integrated into the world economy over the last few decades along several dimensions. Trade volumes, measured by exports plus imports in relation to GDP, more than doubled between early 1970 and 2016, due in part to declines in tariffs and transportation costs (Graph 1, left-hand panel). Financial integration followed with a delay, gaining momentum in the early 1990s.

Tighter trade and financial integration have increased the importance of EMEs in the global economy. But globalisation extends well beyond the flow of goods and services. Perhaps the most debated aspect of globalisation is the flow of people, at least in some advanced economies (AEs). But while migration (inward and outward) surged in several EMEs (eg Malaysia, Mexico, Saudi Arabia, Thailand and the United Arab Emirates) in recent decades, it fell in others. Overall, the share of migrants in the population has increased only slightly since 1960s (Graph 1, right-hand panel). Less tangible flows not easily captured by data, such as those in ideas and information, have also boosted integration substantially.<sup>1</sup>

This note discusses the various facets of globalisation from an EME perspective, focusing primarily on the real (as opposed to financial) side of the economy, especially in the last two decades.<sup>2</sup> The emphasis is on summarising facts and trends and on differences across EMEs. A second note (**Note 2**) discusses the economic impact of globalisation and policy responses.

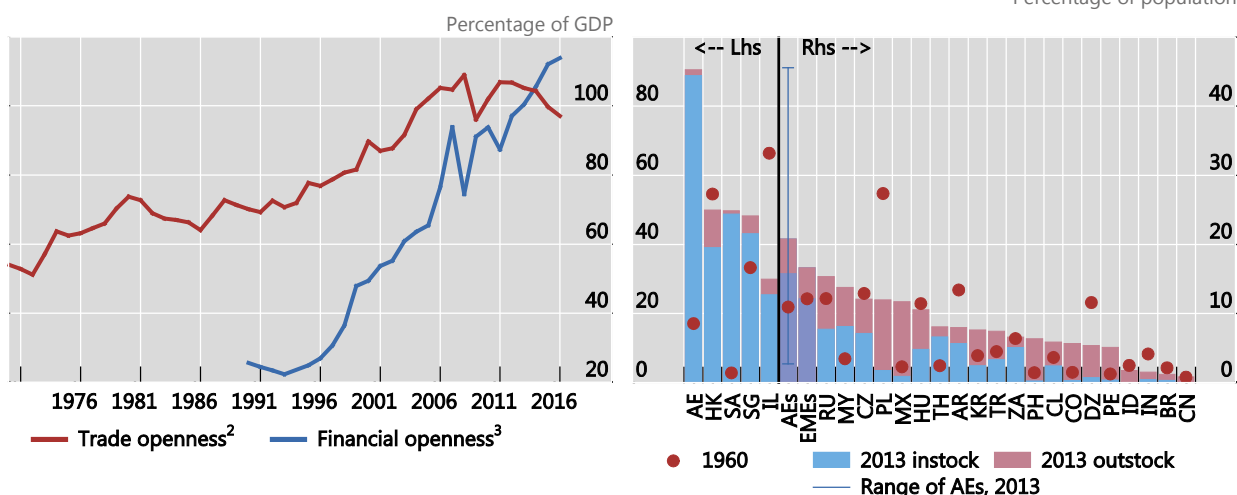
The remainder of the note is structured as follows. Section 2 discusses issues pertaining to trade globalisation and the rise of global value chains (GVCs). Section 3 provides an overview of trends in foreign direct investment. Section 4 describes migration flows and investigates their determinants. Section 5 discusses the main long-term determinants of globalisation in EMEs and explores possible reasons behind the recent slowdown.

<sup>1</sup> See Baldwin (2016). He argues that even if foreign trade may have peaked relative to GDP and GVCs have stopped growing, this less tangible form of globalisation will arguably continue, with important consequences for economic structures and welfare and for cross-border capital flows.

<sup>2</sup> A first wave of globalisation finished with World War I and the Great Depression. Trade and financial openness of the major economies more than doubled from around 1800 to the end of that century. For a more detailed account, see BIS (2017), Chapter VI, which also discusses the interconnections between the real and financial aspects of globalisation.

Trade and financial globalisation trend upwards in EMEs<sup>1</sup>

Migrant stocks



AE = United Arab Emirates; AR = Argentina; BR = Brazil; CL = Chile; CN = China; CO = Colombia; CZ = Czech Republic; DZ = Algeria; HK = Hong Kong SAR; HU = Hungary; ID = Indonesia; IL = Israel; IN = India; KR = Korea; MX = Mexico; MY = Malaysia; PE = Peru; PH = Philippines; PL = Poland; RU = Russia; SA = Saudi Arabia; SG = Singapore; TH = Thailand; TR = Turkey; ZA = South Africa.

<sup>1</sup> Unweighted averages of AE, AR, BR, CL, CN, CO, CZ, DZ, HK, HU, ID, IL, IN, KR, MX, MY, PE, PH, PL, RU, SA, SG, TH, TR, ZA. <sup>2</sup> Sum of exports and imports of goods and services. <sup>3</sup> Sum of FDI inward and outward stocks.

Sources: UNCTAD; World Bank; Datastream; BIS calculations.

## 2. Trade

The share of EMEs in world trade has risen substantially in the last five decades, reflecting a pickup in their overall growth rate as well as tighter integration into the world economy (Graph 2, left-hand panel). While there has been a strong increase in overall trade openness in EMEs, there is a high degree of variation across countries (right-hand panel). Notably, Hong Kong SAR and Singapore have been by far the most open for a long time. The note by Hong Kong mentions how, driven by the economic and political environment, Hong Kong has long been a globalised economy. Singapore’s note mentions that due to the lack of natural resources and a natural economic hinterland, Singapore has had to depend on global markets, free trade and free capital flows.

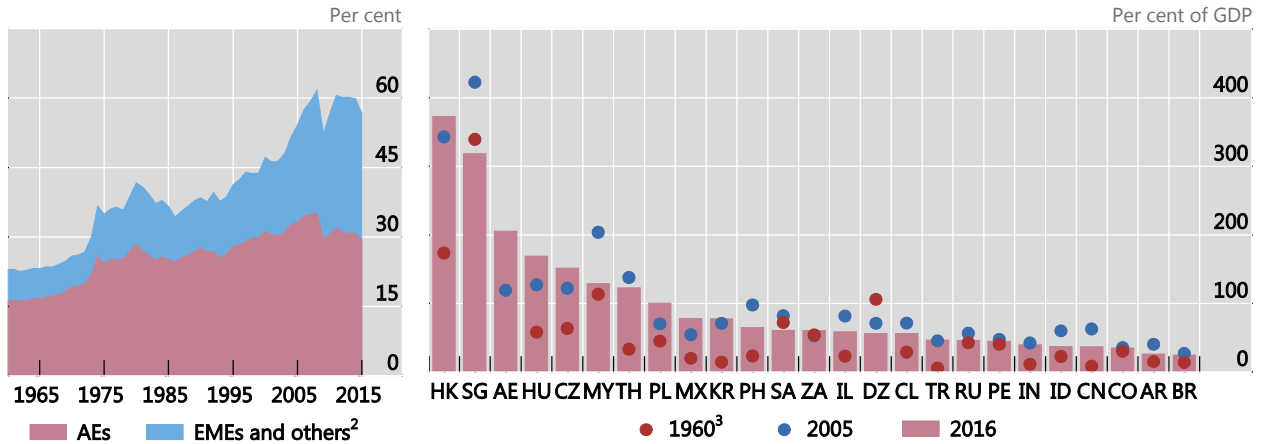
Varying integration momentum across countries is another reason behind differing degrees of trade openness. EMEs in Southeast Asia have increased their trade openness rapidly, as most of them have long pursued an export-led growth model. In central and eastern Europe (CEE), integration into the global economy coincided first with the transition from a planned to a market economy and, later, with accession to the European Union (see note by Poland). Several EMEs in Latin America remain relatively closed even today (eg Argentina and Brazil) despite some liberalisation in the 1990s. In China, trade openness has increased rapidly since the

late 1970s, but because of the low starting point and the economy's large size trade still accounts for a relatively small part of domestic output.

Large cross-country variation despite general integration into the global economy Graph 2

Contributions to world trade openness<sup>1</sup>

Openness in EMEs varies



See Graph 1 for definitions of country codes.

<sup>1</sup> Exports plus imports of country group divided by world GDP. <sup>2</sup> World total less the share of advanced economies. <sup>3</sup> For Czech Republic and Poland, 1990; for Hong Kong SAR, 1961; for Hungary, 1991; for Russia, 1989; for Saudi Arabia, 1968.

Sources: World Bank, *World Development Indicators*; Datastream; BIS calculations.

Despite more liberal trade policies and decreasing trading costs, distance and regional effects remain the key determinants of trade volume, in line with the gravity models of trade. For example, trade as measured by exports (imports) between AEs and EMEs in Europe is 3.1% (2.7%) of regional GDP, while that between AEs in Europe and EMEs in other regions is below 2% of the respective regional GDP. The same regional pattern holds for all EMEs (diagonal elements in left-hand panel of Table 1).<sup>3</sup> Similarly, examining the relationship within different country pairs, Appendix 2 investigates the strength of bilateral trade linkages among different major EMEs, as captured by the ratio of total trade in the combined GDP of each country pair. It confirms that the gravity model of trade may be alive and well, and that physical distance still plays an important role in explaining cross-country trade patterns.

<sup>3</sup> The negative impact of physical distance between countries on bilateral trade (as well as financial flow) intensity has not declined over time. This remains somewhat of a puzzle in the academic literature. See eg Brei and von Peter (2017).

## Bilateral trade links are widely spread

Inter-regional bilateral trade as a percentage of region-wide GDP

Table 1

		Trade links						Changes in trade links						
2015		Importers						Change between 2001 and 2015						
		AE	OA	EE	EA	LA	AME	Importers		Exporters				
Exporters	AE	20.9	1.4	2.7	1.5	0.6	1.5	AE	0.3	0.1	1.2	0.4	0.1	0.5
	OA	1.0	7.7	0.2	1.9	1.3	0.5	OA	-0.1	-0.4	0.1	0.3	0.3	0.2
	EE	3.1	0.2	9.0	0.6	0.2	1.0	EE	1.5	0.1	2.6	0.1	0.1	0.6
	EA	1.9	2.8	0.8	12.0	1.0	1.6	EA	0.4	0.6	0.3	4.1	0.5	0.7
	LA	0.5	1.5	0.2	0.7	3.5	0.3	LA	0.1	0.3	0.1	0.4	0.2	0.1
	AME	1.1	0.6	0.4	2.0	0.2	5.4	AME	0.0	-0.0	0.1	0.5	0.0	2.5

Weaker link Stronger link

**AEs:** AE = advanced Europe; OA = other AEs.

**EMEs:** AME = Africa and Middle East; EA = emerging Asia; EE = emerging Europe; LA = Latin America.

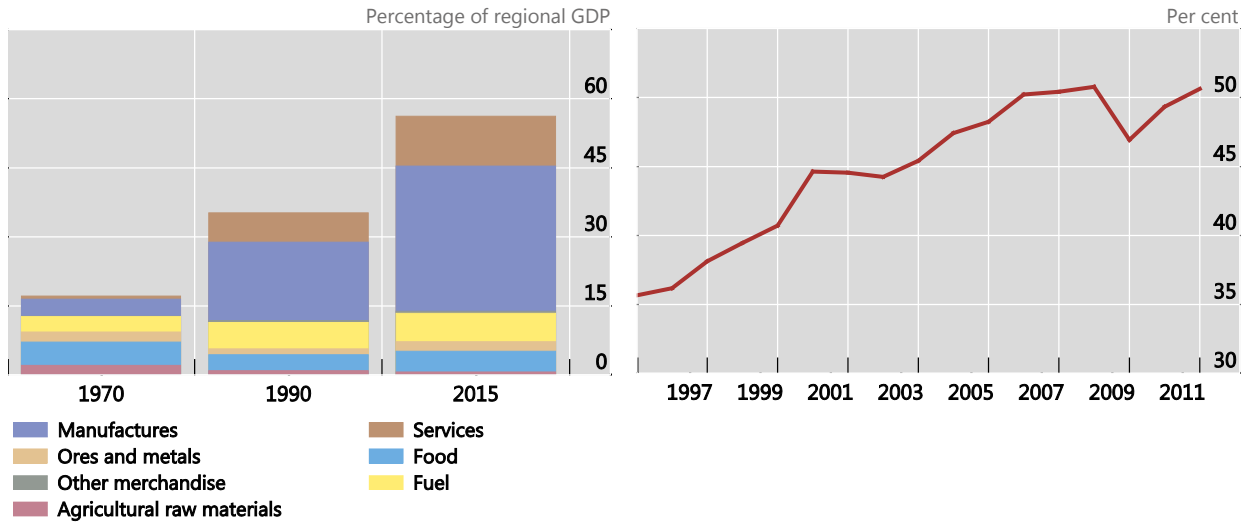
In each cell, the numerator is calculated as the sum of individual countries' bilateral trade links; the denominator is equal to the combined GDP of the two regions, adjusted to exclude any missing bilateral links.

Sources: IMF, *Direction of Trade Statistics*; UNCTAD, BIS calculations.

Along with the considerable rise in its total volume, the composition and nature of trade have also changed substantially. In 1970, primary commodities accounted for approximately four fifths of total trade for a sample of EMEs. Manufactured goods made up much of the remaining quarter, while services were minuscule (Graph 3, left-hand panel). Some 45 years later, the picture has changed completely. While trade in primary commodities accounts for a similar proportion of GDP, it has been dwarfed by the growth in trade in manufactured goods and services. Together, in 2015 these two categories accounted for about 80% of total trade in EMEs. As trade volumes in manufactures grew, the nature of the goods also changed. EMEs have become much more integrated in international production networks and GVCs (right-hand panel). The next section discusses this phenomenon.

Composition of trade for EMEs<sup>1</sup>

GVC<sup>2</sup> participation has increased in EMEs



<sup>1</sup> Trade between EMEs and the rest of the world. EMEs: Bulgaria, Brazil, China, Chinese Taipei, Croatia, the Czech Republic, Hungary, India, Indonesia, Korea, Mexico, Poland, Romania, Russia, Turkey. <sup>2</sup> GVCs: sum of foreign value added content of exports and domestic value added sent to third economies, as a share of gross exports. Simple average of the countries.

Sources: OECD; World Bank; Datastream; BIS calculations.

## Global value chains

A prominent feature of trade globalisation has been the rise of GVCs, at least until the Great Financial Crisis (GFC). Declining trade barriers and advances in communication and transportation technologies have allowed firms to split up production processes into various stages and locate them around the world to exploit differences in factor endowments and comparative advantage. This has resulted in long production chains that span multiple sectors over many countries, with intermediate goods shipped several times before finally becoming embodied in final goods for consumption. As discussed below, newly developed GVC metrics allow a more granular decomposition of domestic and cross-border production activities, shedding considerable light on the phenomenon.

The participation of EMEs in GVCs varies significantly across regions (Graph 4, left-hand panel).<sup>4,5</sup> EMEs in CEE are even more integrated into GVCs than the average advanced economy, followed by those in Asia and Latin America.<sup>6</sup> Complex GVC

<sup>4</sup> Several recent studies have attempted to model the causes behind the differences in GVC participation and positions across countries (see eg Antràs and de Gortari (2017)). The note by the central bank of Russia also points out several factors such as location and unit costs that are positively related to GVC participation.

<sup>5</sup> These numbers are based on the most recent release of the World Input-Output database, which covers 2000–14 at annual frequency.

<sup>6</sup> As shown in Appendix 1, the higher levels of GVC participation and production lengths in CEE EMEs (discussed below) are not mere artefacts of their small size and large trade openness.

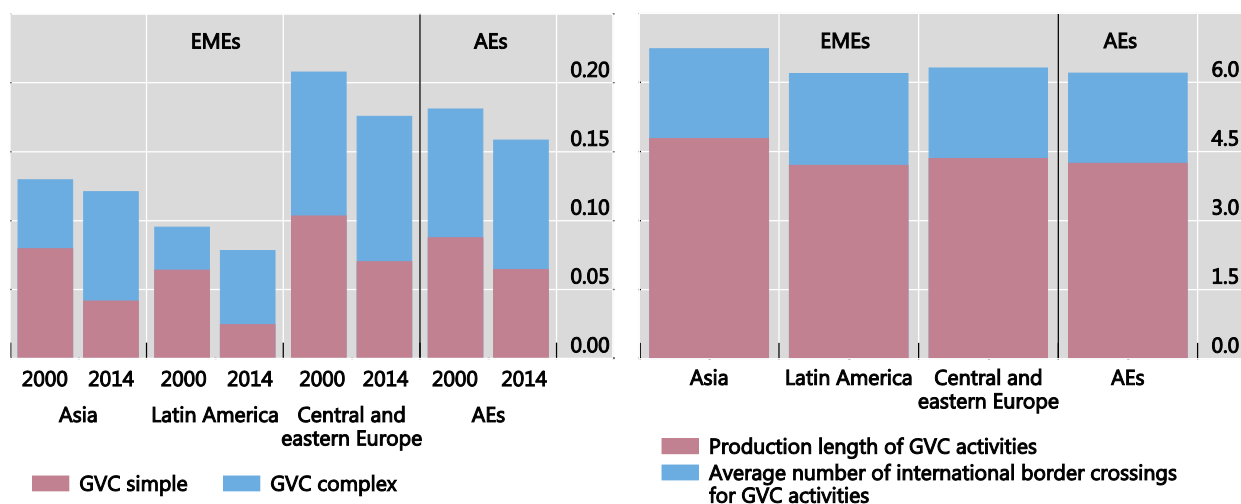
participation (involving more than one border crossing) rose markedly across all regions between 2000 and 2014 (same graph), although the overall share of GVC-related trade has fallen.<sup>7</sup>

## GVCs and production length

Graph 4

GVC participation<sup>1</sup>

Average production length,<sup>2</sup> 2014



<sup>1</sup> Simple GVC participation involves one border crossing; complex GVC participation involves more than one border crossing. <sup>2</sup> Red bars denote production length of GVC activities (goods crossing national borders for production purposes). Blue bars show the average number of border crossings involved in a typical GVC in the country group.

Sources: Wang et al (2017a,b); World Input-Output database; BIS calculations.

GVCs have also become longer, especially in Asia (Graph 4, right-hand panel).<sup>8</sup> While GVCs in Asia involve the same number of border crossings as elsewhere, more of the processing stages take place within national borders.<sup>9</sup> Longer GVCs are usually a sign of increasing specialisation and efficiency gains, but they can also be a source of vulnerability stemming from higher dependence on external finance (see box).

<sup>7</sup> Although the fact that GVC data are available with a significant lag prevents a detailed examination into the causes behind this fall, it is likely that the decline in the 2014 numbers is at least in part due to cyclical factors in the aftermath of the GFC and subsequent fall in commodity prices.

<sup>8</sup> The length of GVCs can be measured in both a forward- and a backward-looking way. As an example, consider a three-country supply chain in which Japan exports raw materials to China, which combines them with its own labour and exports the final product to the United States. In this case, the forward-looking production length for Japan will be 2, and that for China is 1. Likewise, the backward-looking production length for the United States is 2. The graph plots the average of the two measures.

<sup>9</sup> These patterns are robust to controlling for GDP and overall trade openness. See Appendix 1.

Bilateral production length, 2014

Table 2

	BR	MX	CN	ID	IN	KR	CZ	HU	PL	RU	TR	AEs
BR	1.6	4.1	5.1	4	4	4.8	5.6	4.8	4.8	4.5	4.2	4.3
MX	4.0	1.4	5.8	5.1	3.9	4.6	4.6	4.4	5.1	5.2	4.2	4.5
CN	5.4	5.1	2.7	5.1	5.6	5.4	5.3	5.1	5.5	5.4	5.4	5.5
ID	4.1	4.5	5.5	1.7	3.9	4.4	5.4	5.1	4.9	4.6	4	4.7
IN	4.3	4.4	5.8	3.9	1.6	4.8	4.7	4.7	4.6	4.6	3.9	4.4
KR	4.2	3.8	5.2	4	4.5	1.8	4.5	4	4.3	4.4	4.2	4.9
CZ	4.7	4.2	5.7	4.8	4.9	5	1.7	3.4	3.8	4	4	4.1
HU	4.5	3.7	5.6	5.3	5.2	4.6	3.4	1.4	3.6	4.1	3.8	3.8
PL	4.9	4.4	6.0	5.3	5.2	4.8	3.6	3.5	1.7	4	4	4.1
RU	5.4	5.7	6.3	5.1	5.3	5.5	4.2	4.7	4.0	1.8	4.3	4.7
TR	4.4	4.3	6.4	4.2	4.8	5.6	4.3	3.8	4.1	3.8	1.6	4.3
AEs	4.4	4.4	5.8	4.8	4.9	4.9	4.4	4.1	4.3	4.6	4.3	1.6



The numbers along a row can be interpreted as production lengths in a forward-looking sense, and those in the columns as production lengths in a backward-looking sense. See Graph 1 for definitions of country codes.

Sources: Wang et al (2017b); World Input-Output database; BIS calculations.

Truly global production chains, ie those that span regions, tend to be longer and more complex than those covering only one region or country. Table 2 provides a snapshot of production lengths between major EMEs and an aggregate advanced economy group. These numbers are generated from input-output tables based on the framework proposed in Wang et al (2017b), using a 56-sector classification in the World Input-Output Database. The numbers along a row can be interpreted as production lengths in a forward-looking sense, and those in the columns as production lengths in a backward-looking sense. For example, it takes 5.05 production stages on average before output from a Brazilian sector is embodied in final goods produced by an average Chinese sector (first row, third column), and 5.37 stages before Chinese output is embodied in Brazilian final goods (second row, first column). This is longer than the 4.06 (forward) and 3.95 (backward) stages involved in production chains with Mexico or the 1.63 of purely domestic chains.

The factor content of value added exports from EMEs tends to be more capital- and (low-skill) labour-intensive than that from AEs (red and yellow areas in Graph 5). Conversely, that of high-skill labour (blue areas) tends to be significantly lower. But there are a few notable exceptions. Korea and Hungary, for instance, have a high-skill share in line with that in advanced economies.<sup>10</sup>

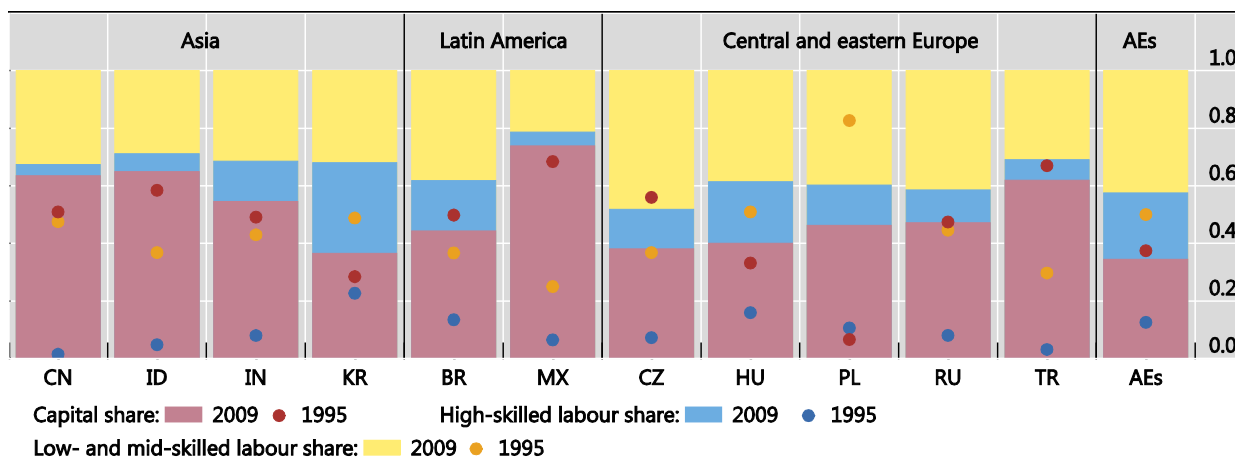
<sup>10</sup> In the case of Mexico, the high capital share reflects energy exports.



## Factor content in exports<sup>1</sup>

Share of capital and different labour components in the value added of exports

Graph 5



See Graph 1 for definitions of country codes.

Sources: Wang et al (2017a); World Input-Output Database; BIS calculations.

## Financial shocks and GVCs

Long production chains are more efficient but may be more susceptible to shocks. Production processes involving multiple shipments of goods across borders tend to take more time and require larger inventories at any point in time. This can make them vulnerable to disruptions, for instance to financial shocks that affect the availability of credit and working capital. Indeed, theoretical work by Bruno et al (2018) indicates that longer production chains are particularly sensitive to changes in financial conditions.

This box investigates the sensitivity of long production chains to financial factors by using sector-level measures of GVC production lengths developed by Wang et al (2017b). Production length is measured on a simple average count basis. As an example, consider a three-country supply chain in which Japan exports raw materials to China, which combines them with its own labour and exports the final product to the United States. In this case, the average forward-looking production length for Japan is 2 and that for China is 1. Likewise, the average backward-looking production length for the United States is 2. Wang et al (2017b) generalise and formalise this idea to compute the different components of average production lengths described in columns (2) and (3) in Table A.

We estimate the following panel regression to quantify the impact of a tightening of financial conditions on different measures of production lengths

$$Y_{c,s,t} = \beta EMBI_{c,t} + \gamma X_{c,s,t} + \partial_{c,s} + \theta_t + \varepsilon_{c,s,t}$$

$$Y_{c,s,t} = \beta DollarREER_t + \gamma X_{c,s,t} + \partial_{c,s} + \theta_t + \varepsilon_{c,s,t}$$

$Y_{c,s,t}$  denotes an average production length measure for sectors in country  $c$  at time  $t$ .  $EMBI_{c,t}$  is the country-specific EMBI spread,  $DollarREER_t$  denotes the broad dollar index, given by the US real effective exchange rate. Both serve as proxies for global financial conditions.  $X_{c,s,t}$  is a vector of control variables that includes the share of capital, high-skill and medium-skill labour in total production, the GDP deflator and CPI inflation (current and lagged value), the policy rate (contemporaneous and first difference), real GDP (level and growth rate) and value added and gross output (level and growth rate). The regressions also include country-sector fixed effects [ $\partial_{c,s}$ ] and time fixed effects [ $\theta_t$ ]. The results are robust to the inclusion of additional controls, such as sectoral value added exports (to control for the overall impact of financial conditions on trade) and various GVC participation measures.

The sample is annual and covers the period 1995–2009. It includes 35 sectors in 10 EMEs (see Table A notes for details). Column (2) in Table A summarises the sample mean for each measure of production length (taken to be the average of the respective forward- and backward-looking measure).

Response of production lengths to financial tightening				Table A	
(1)	(2)	(3)	(4)		
			Response to 1 % pt increase		
Length of production activities	Sample mean	Sample mean of yearly changes (modulus)	EMBI spread	dollar REER	
Total	2.11	0.035	<b>-0.0028*</b>	<b>-0.0000</b>	
Domestic	1.76	0.037	<b>-0.0035**</b>	<b>-0.0004</b>	
Traditional trade	1.92	0.044	<b>-0.0060***</b>	<b>0.0011</b>	
GVC	4.04	0.053	<b>-0.0088***</b>	<b>-0.0022**</b>	

The annual sample from 1995 to 2009 includes 35 sectors in 10 EMEs (Brazil, China, Hungary, India, Indonesia, Korea, Mexico, Poland, Russia and Turkey). See World Input-Output Database ([www.wiod.org](http://www.wiod.org)) for details on sectoral classification. Traditional trade includes goods produced domestically without using imported inputs, and shipped to a foreign country for final consumption, while GVC activities involve goods crossing national borders for production purposes. The production length measures used in the regressions are a simple average of the corresponding forward- and backward-looking production lengths (see Wang et al (2017b) for details). All left hand-side variables are winsorised at the 1% and 99% level to reduce the influence of outliers. “EMBI spread” denotes the country specific EMBI spread. “dollar REER” denotes the US real effective exchange rate.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 (based on robust standard errors clustered at the country level). The list of controls includes share of capital, high-skill and medium-skill labour, GDP deflator and CPI inflation (current and lagged value), policy rate (contemporaneous and first difference), real GDP (level and growth rate), sectoral value added and gross output (level and growth rate), policy rate (level and first difference). Country-sector fixed effects and time fixed effects are also included in each regression.

As shown in column (4) of Table A, measures of production length contract significantly in response to a worsening in financial conditions as measured by a rise in EMBI spreads. Moreover, this pattern is evident for all the segments of production, including those for traditional trade (goods produced domestically without using imported inputs, and shipped to foreign country for final consumption) as well as GVC activities (goods crossing national borders for production purposes). Due to the lack of variation within a year, the results are less strong if the US dollar effective exchange rate is used as a proxy for financial conditions (the sample is only 15 years), but the contraction in GVC length is still significant. In terms of magnitude, the impact of a 1 percentage point rise in the EMBI spread is about a 10th of the average yearly change (comparing columns (3) and (4)). Since the EMBI spread increased on average by about 9 percentage points across the countries in the sample between 2006 and 2009, financial factors alone can account for up to one third of the average change in production lengths according to these results. (The fact that the data end in 2009 precludes a more detailed analysis of the impact of the GFC on lengths of production chains, which continue to rise rather than fall through the sample period in this database. The limited sample (10 years) also precludes an analysis of the long-run implications of these results.)

To summarise, the empirical analysis above offers evidence indicating that production chains shorten in response to a tightening in financial conditions. Overall, these results highlight an important source of vulnerability stemming from long production chains in EMEs, and corroborate the results of Bruno et al (2018).

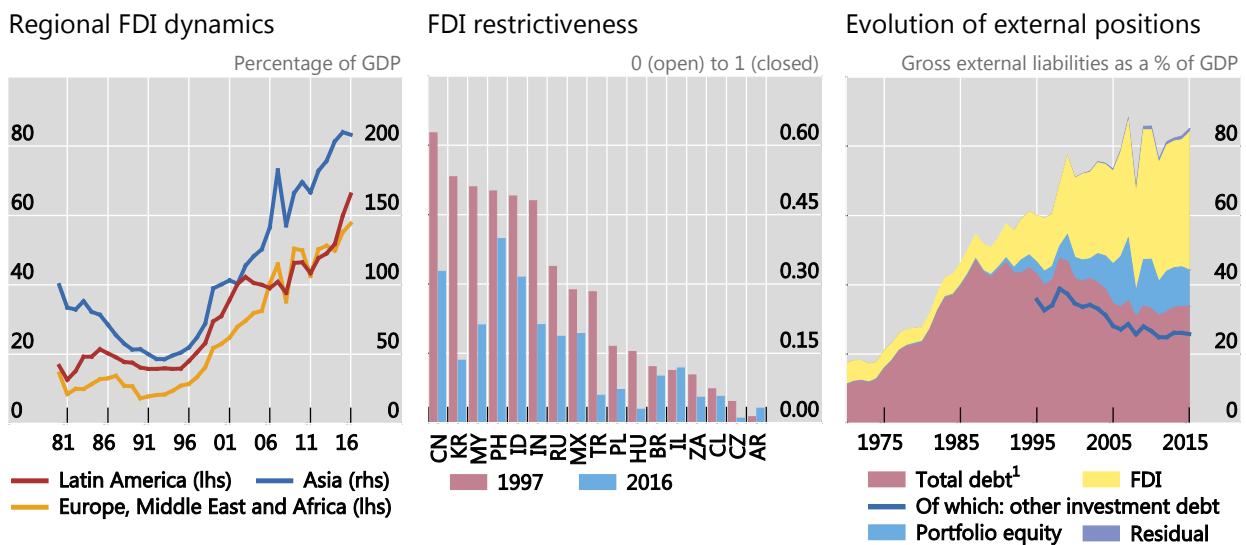
### 3. Foreign direct investment

Foreign direct investment (FDI) has surged since the mid-1990s in EMEs in all major regions (Graph 6, left-hand panel), increasing both as a ratio of GDP and as a share

of total gross external liabilities (right-hand panel). Improvements in institutional quality and governance as well as better long-run macroeconomic conditions have been particularly important, and lighter regulation is also likely to have played a major role (Graph 6, centre panel). In general, countries with larger markets are more likely to attract FDI (IMF (2003)). While EMEs on average are net recipients, more recently outward FDI from EMEs has also become sizeable (around 15% of total FDI flows).<sup>11</sup>

## FDI has been growing rapidly

Graph 6



See Graph 1 for definitions of country codes.

<sup>1</sup> For the time periods in which “other investment debt” is plotted, the difference between total debt and other investment debt is primarily “portfolio debt”, although there is also a small unallocated debt residual.

Sources: Lane and Milesi-Ferretti (2017); OECD, *FDI Regulatory Restrictiveness Index*; UNCTAD; BIS calculations.

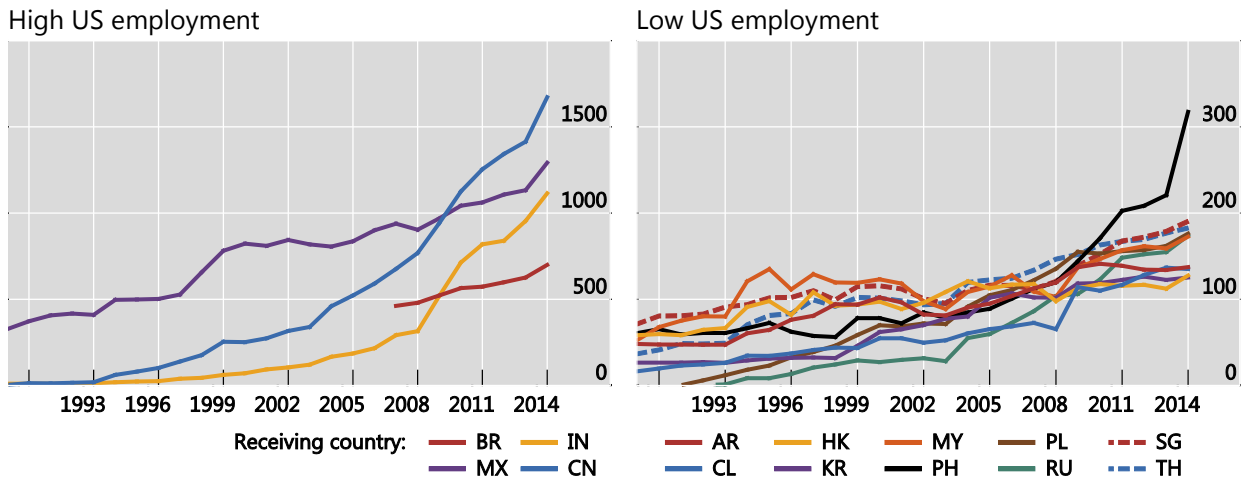
<sup>11</sup> The note by the central bank of Chile points out how the limited size of the domestic market led Chilean firms to expand abroad.

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## EME employment growth in US multinationals has been strong

In thousands of employees

Graph 7



See Graph 1 for definitions of country codes.

Sources: OECD; BIS calculations.

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FDI is perhaps the most praised aspect of globalisation. It is regarded as a major driver of growth and development in EMEs (see eg the notes by Poland and Russia).<sup>12</sup> But in practice FDI does not just cover greenfield investment, where a foreign firm sets up an affiliate and (ideally) transfers capital and skills to the new establishment. FDI flows also include purchases of domestic firms by foreigners and lending to affiliates.<sup>13</sup> A large part of the recent rise in FDI reflects positions vis-à-vis financial centres (Avdjiev et al (2014); Gruić et al (2014)), so that the increase should be interpreted with caution (Lane and Milesi-Ferretti (2017)). That said, FDI measures that relate more to non-financial flows still suggest strong momentum. One such measure is employment in multinational companies (Graph 7). Since the early 1990s, employment growth in US multinational companies has been particularly strong in China, India and the Philippines, and robust in others as well.

## 4. Migration

The increasing flow of migrants across countries over the past few decades has perhaps been the most controversial aspect of globalisation. Many factors have

<sup>12</sup> It also tends to be the most stable source of external financing for most EMEs, one that is also less sensitive to business cycle fluctuations (Loungani and Razin (2001)).

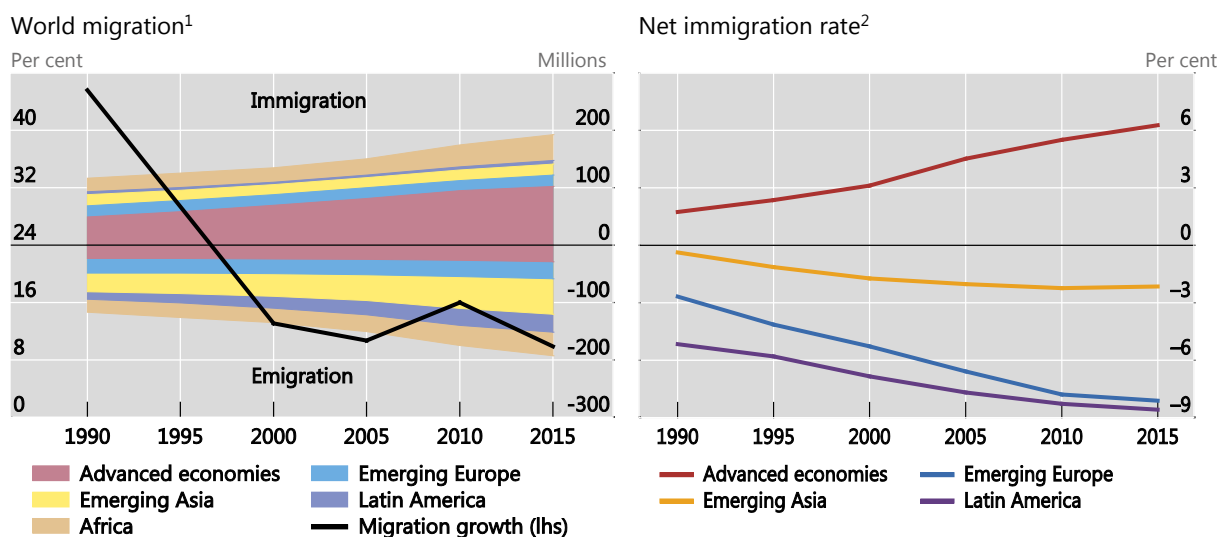
<sup>13</sup> Balance of payments statistics consider intra-company loans as FDI. The rationale is that this kind of debt does not come with hard obligations, as when the promise is made to an external party. While this share is typically small for EMEs (less than a third of total FDI), Avdjiev et al (2014) show that for some large EMEs like Brazil, China and Russia, this share is larger, and is comparable to the size of total portfolio inflows.

facilitated migration. Prominent ones include: differences in economic conditions; geopolitical developments; lower travel cost; less stringent visa requirements and border controls; and tighter trade and financial linkages. According to the United Nations, the total number of immigrants across the world has more than doubled in the last three decades, from 104 million in 1985 to 234 million in 2015 (Graph 8, left-hand panel). And the official data likely substantially underestimate the scale and possibly the growth of immigration, as it does not cover the large number of undocumented immigrants. Nonetheless, there are signs that the growth in migration has slowed in the last decade. A narrowing gap in economic prospects between the recipient and source countries as well as rising anti-globalisation and anti-immigration sentiment may have contributed to this trend.

Migration flows have been unbalanced across the world, with EMEs mostly experiencing net emigration and advanced economies net immigration (Graph 8, left-hand panel). The scale of immigration to EMEs was comparable to that to AEs in 1990, but it has barely increased in the last three decades. In the meantime, EMEs saw faster growth in population outflows, leading to a rise in net outward migration from 2.7% to 6.3% of the population between 1990 and 2015. Among different regions, emerging Latin America and Europe experienced higher net outflows than emerging Asia (with the Philippines being an important exception), in part reflecting high growth and rising living standards in the latter group (right-hand panel).

EMEs saw net migration outflows

Graph 8



<sup>1</sup> Immigration is shown as positive values and emigration as negative values. <sup>2</sup> Net immigrants as a percentage of the population in the country of origin.

Sources: United Nations; World Bank.

Economic incentives as well as physical proximity between the source and destination countries are the major determinants of bilateral migration. Consistent with this, migration most commonly takes place within the same region, both among economies with similar levels of economic development and from EMEs to AEs (Table 3, bottom left-hand panel, row 3). Cross-regional movements tend to reflect

migration from EMEs to AEs as well as between AEs. By contrast, there is limited migration from AEs to EMEs even in the same region, and even less between regions.

The net outflows from EMEs to AEs are primarily driven by economic factors, although social and geopolitical factors are also important. For instance, unrest in some Middle Eastern countries in recent years has led to large-scale migration to Europe. More recently, the economic crisis in Venezuela has triggered large flows of migrants to the neighbouring economies and the Southern Cone.

Bilateral migration flows display a positive correlation with trade and financial linkages (Tables 1 and 3, left-hand panels).<sup>14</sup> In addition, the intensities of trade, financial and migrant flows are all higher within a region than across regions, pointing to the importance of gravity factors (including distance, shared language and culture).

That said, there are also some important differences in patterns with regard to the three types of links – goods, finance and people. Trade flows are more diffuse and balanced than financial and migration flows, reflected by the often comparable sizes of imports and exports between regions (Table 1, left-hand panel). By contrast, while two-way financial flows also take place between EMEs, they principally occur between AEs and from AEs to EMEs. Migration flows are even less diffuse and balanced than financial flows, and have shown little change in the past two decades (Table 3, right-hand panel).

<sup>14</sup> See BIS, *87th Annual Report, 2017*, Chapter VI for detailed discussions on trade and financial links.

## Migration linkages are less balanced than trade and financial linkages

Table 3

		Financial links												
2015		Change between 2001 and 2015												
Lenders		Borrowers												
		AE	OA	EE	EA	LA	AME							
	AE	86.2	23.6	7.6	4.5	5.9	5.3	AE	31.5	8.4	4.8	2.6	1.9	2.6
	OA	20.5	31.0	0.7	4.1	4.1	2.1	OA	7.7	17.9	0.4	2.3	1.7	1.4
	EE	2.1	0.3	1.8	0.2	0.1	0.0	EE	1.6	0.1	1.2	-0.0	0.1	-0.0
	EA	0.9	1.7	0.3	2.4	0.3	0.8	EA	0.3	1.0	0.3	0.2	0.2	0.6
	LA	0.7	1.0	0.0	0.0	1.5	0.0	LA	0.6	0.7	0.0	0.0	0.6	0.0
	AME	3.5	2.0	0.5	0.5	0.3	5.5	AME	2.2	1.7	0.4	0.5	0.3	4.4

		Immigration												
2015		Change between 2001 and 2015												
Origin		Destination												
		AE	OA	EE	EA	LA	AME							
	AE	1.4	0.5	0.2	0.0	0.1	0.0	AE	0.2	-0.1	0.0	0.0	0.0	0.0
	OA	0.2	0.3	0.0	0.0	0.1	0.0	OA	0.0	0.0	0.0	0.0	0.0	0.0
	EE	2.0	0.4	1.5	0.1	0.0	0.0	EE	0.8	0.0	-0.1	0.0	0.0	0.0
	EA	0.2	0.4	0.2	0.3	0.0	0.4	EA	0.1	0.1	0.0	0.0	0.0	0.2
	LA	0.4	2.0	0.0	0.0	0.4	0.0	LA	0.3	0.3	0.0	0.0	0.1	0.0
	AME	0.6	0.2	0.1	0.0	0.0	0.9	AME	0.1	0.1	0.1	0.0	0.0	0.0

Weaker link Stronger link

**AEs:** AE = advanced Europe; OA = other AEs.

**EMEs:** AME = Africa and Middle East; EA = emerging Asia; EE = emerging Europe; LA = Latin America.

For trade and financial links, in each cell, the numerator is calculated as the sum of individual countries' bilateral (financial or trade) links; the denominator is equal to the combined GDP of the two regions, adjusted to exclude any missing bilateral links.

Sources: IMF, *Coordinated Portfolio Investment Survey* and *Direction of Trade Statistics*; United Nations; UNCTAD, *Foreign Direct Investment Statistics*; BIS locational banking statistics; BIS calculations.

## 5. Determinants of globalisation

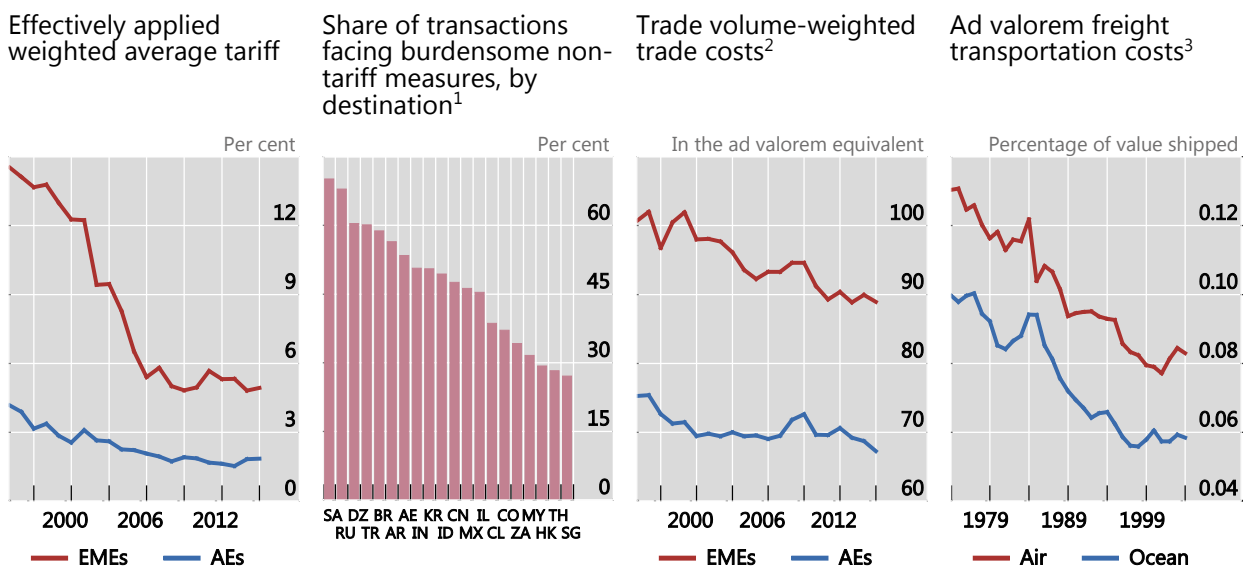
What are the main factors that explain the trends in globalisation in EMEs in the past few decades as documented above? Has globalisation reached its limits? Why does the degree of integration vary so much across countries?

Probably the most important factor behind globalisation has come from the reduction in protectionist measures. Indeed, several central bank notes point to a consensus that export-led growth models have outperformed import substitution

ones (eg the notes by Argentina, Chile and Peru). Many EMEs in Asia adopted export-led growth models as far back as the early 1960s, opening their economies and experiencing high growth rates. By contrast, trade liberalisation in Latin America came relatively late. Chile radically liberalised its foreign trade (and other parts of the economy) as early as 1975, but partly reversed course after the severe crisis in the early 1980s (see note). Trade liberalisation attempts in other Latin American countries also stalled after the debt crisis, and most Latin American economies liberalised their economies only in the late 1980s/early 1990s, triggering large increases in foreign trade. These varied experiences suggest that removal of regulatory barriers has probably been the primary source of globalisation.

Trade barriers have declined

Graph 9

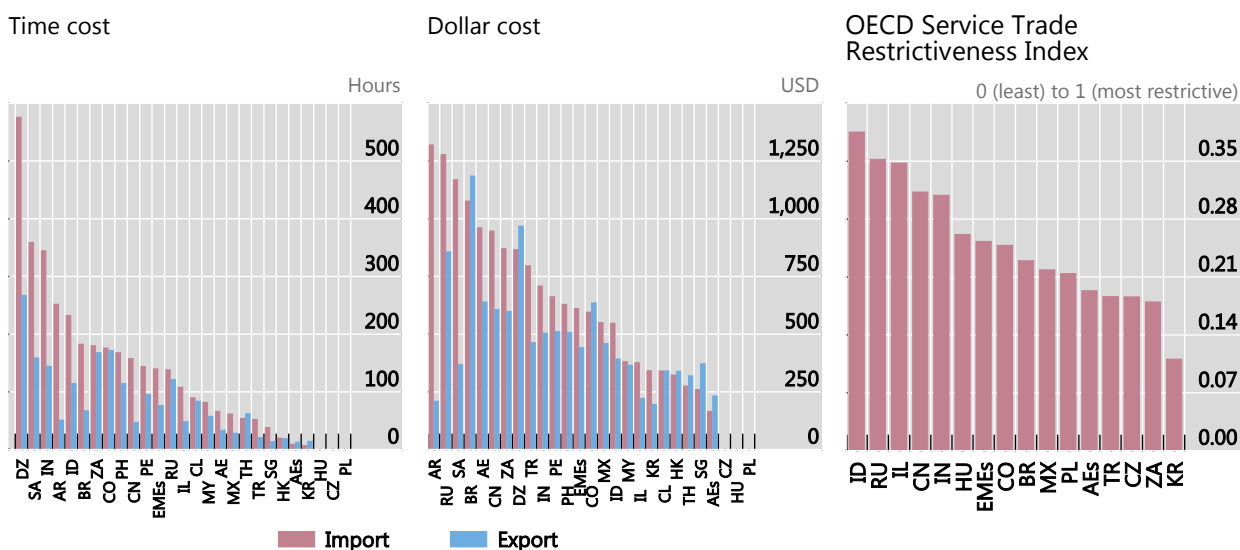


<sup>1</sup> A transaction is a pair of exported product (at HS6 level) and partner country for a company based on a survey of 8,100 companies from across 26 sectors in the EU's 28 member states. <sup>2</sup> Includes all costs involved in trading goods internationally with another partner relative to those involved in trading goods domestically. In addition to transport costs and tariffs this covers direct and indirect costs associated with differences in languages, currencies as well as cumbersome import or export procedures (see Anderson and van Wincoop (2004)). <sup>3</sup> Fitted ad valorem rate derived from a regression, controlling for changes in the mix of trading partners and products traded.

Sources: Hummels (2007); International Trade Centre and European Commission (2016); IMF, *Direction of Trade Statistics*; UN ESCAP; BIS calculations.

Differences in the degree and nature of liberalisation policies are evident across countries. For instance, the notes by Malaysia, Peru, the Philippines and Russia identify free trade agreements as the major factor. Large tariff reductions outside trade agreements have also contributed to trade integration in a big way (see eg the notes by Chile and Peru). Average tariffs declined from around 20% in the early 1990s to less than 5% in the last decade (Graph 9, first panel). That said, tariff rates vary significantly across countries: from above 8% in Algeria and Brazil to almost zero in Singapore. Non-tariff measures were lowered as well, and vary across countries (second panel).





See Graph 1 for definitions of country codes.

Sources: OECD, Service Trade Restrictiveness Index; World Bank, Doing Business Indicators.

Declining trade costs have no doubt been another major driver of globalisation. Ad valorem trade costs fell by about 10% between 1995 and 2006 in both EMEs and AEs (Graph 9, third panel). Data on earlier periods are sketchier but also point to falling trade costs. Data from France, the United Kingdom and the United States show an average 15% decline from 1950 to 1995 (Jacks et al (2008)). An important component is transportation costs, which have declined sharply since the late 1970s. In the mid-1970s, freight costs accounted for 13% of the value of goods shipped into the United States by air; by the late 1990s, this had fallen below 8%.<sup>15</sup> Over the same period, the share of ocean freight costs fell from 10% to less than 6% (Graph 9, fourth panel). While these large cost reductions may still not be big enough to fully explain the increase in trade, they do not include others, for instance the quicker delivery and improved reliability linked to the containerisation of transportation (Baldwin (2016)).<sup>16</sup>

Despite large declines, EME trade barriers are still higher on average than those of AEs, suggesting scope for further reductions. One example relates to border and documentary compliance (Graph 10). In EMEs, on average, the time cost of border and documentary compliance is more than 100 hours, much higher than in AEs (left-hand panel). Similarly, the associated dollar cost in EMEs is more than twice that in AEs (centre panel).<sup>17</sup> There is also large variation across countries. In addition, exporting costs are lower than importing costs, implying an implicit export subsidy.

<sup>15</sup> It should be reasonable to assume that the decline in transportation costs for AEs also reflects a similar decline in transportation costs for EMEs.

<sup>16</sup> Despite improvements, Hummels (2007) estimates that goods imported into the United States by sea spend 20 days on a vessel.

<sup>17</sup> Domestic transportation costs (both time and dollar) are also large for some countries. These are not reported as they are not comparable across countries.

While services trade has increased substantially, regulatory restrictions remain a roadblock. The OECD Services Trade Restrictiveness Index compiles a series of restrictions for 22 sectors in 44 countries.<sup>18</sup> Overall, both EMEs and AEs have widespread restrictions on services trade (scores between 0.2 and 0.3 represent quite significant restrictions). But EMEs have more restrictions than AEs, and there is considerable variation among them (Graph 10, right-hand panel).

Most of the factors mentioned in this section relate directly to trade but have indirect effects on other aspects of globalisation. For instance, a boost in trade due to such policies will probably increase financial flows (BIS (2017)). Besides, the removal of some restrictions on trade has coincided with that of restrictions on other aspects. For example, Chilean and Russian experiences mentioned in those countries' notes suggest that lower tariffs were implemented together with lower restrictions on FDI.

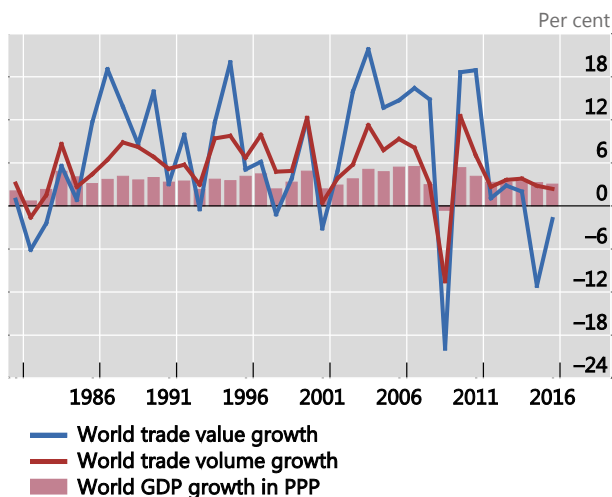
### What explains the recent trade slowdown?

Trade volumes appear to have plateaued after recovering from their GFC-induced collapse, although there are signs of a recent pickup (WTO (2017) and Graph 11, left-hand panel).<sup>19</sup> This represents a stark reversal of the long-standing trend of trade growth consistently outpacing GDP growth from the mid-1800s, with only a handful of exceptions such as the world wars and the interwar years. Initially, the trade growth slowdown was accounted for by AEs, especially in the euro area, but more recently it has been mainly concentrated in EMEs (Graph 11, right-hand panel).

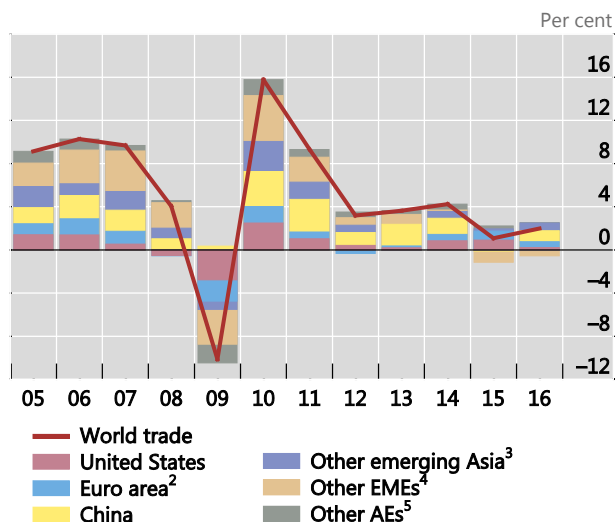
<sup>18</sup> These restrictions include limits on foreign equity, nationality of board of directors, licensing requirements, cross-border mergers and acquisitions, capital controls, work permit requirements, entry visa quotas, duration of stay for foreign persons providing services as intra-corporate transferees, etc.

<sup>19</sup> Many studies analyse the fall and subsequent weakness in trade, including Baldwin (2009), Constantinescu et al (2015, 2017), ECB (2016), Hoekman (2015), IMF (2016) and Haugh et al (2016).

World trade growth and GDP growth



World import growth decomposition<sup>1</sup>



<sup>1</sup> Weighted average of the economies cited, based on GDP and PPP exchange rates; IMF WEO forecasted values for 2016. <sup>2</sup> Euro area 19. <sup>3</sup> Chinese Taipei, Hong Kong SAR, India, Indonesia, Korea, Malaysia, the Philippines, Singapore and Thailand. <sup>4</sup> Argentina, Brazil, Chile, Colombia, the Czech Republic, Hungary, Mexico, Peru, Poland, Russia, Saudi Arabia, South Africa and Turkey. <sup>5</sup> Australia, Canada, Denmark, Japan, Norway, Sweden, Switzerland and the United Kingdom.

Sources: IMF, *World Economic Outlook*; OECD, *Economic Outlook*.

There could be several reasons for the post-crisis slowdown in global trade values.<sup>20</sup> First, it could reflect temporary (cyclical) factors like weak aggregate demand (eg Ollivaud and Schwellnus (2015) and Veenendaal et al (2015)). If this were the case, both trade and demand should recover as the economic outlook brightens. A related issue is the slower recovery of (trade-intensive) investment with respect to (less trade-intensive) consumption around the world. There is some evidence for these factors playing a role in AEs, but they cannot explain what has happened in EMEs (Graph 12, left-hand panel). That said, recent data and upgrades to forecasts of trade growth by the World Trade Organization do offer some support for the view that the slowdown is largely cyclical in nature (WTO (2017))

Weakness in global trade could also reflect a more structural decline in the elasticity of trade values with respect to demand, a factor observed in EMEs as well as in the world (Graph 12, centre panel).<sup>21</sup> This trend, in turn, can be linked to long-term changes in production technologies or consumer preferences (Constantinescu et al (2015)). One possible example is the structural shift from manufacturing to services, which are less trade-intensive. In fact, in some countries like China an integral part of the policy agenda is to accelerate this transition. Another possibility, stressed by Kee and Tang (2016), is that the build-up of physical and human capital is allowing

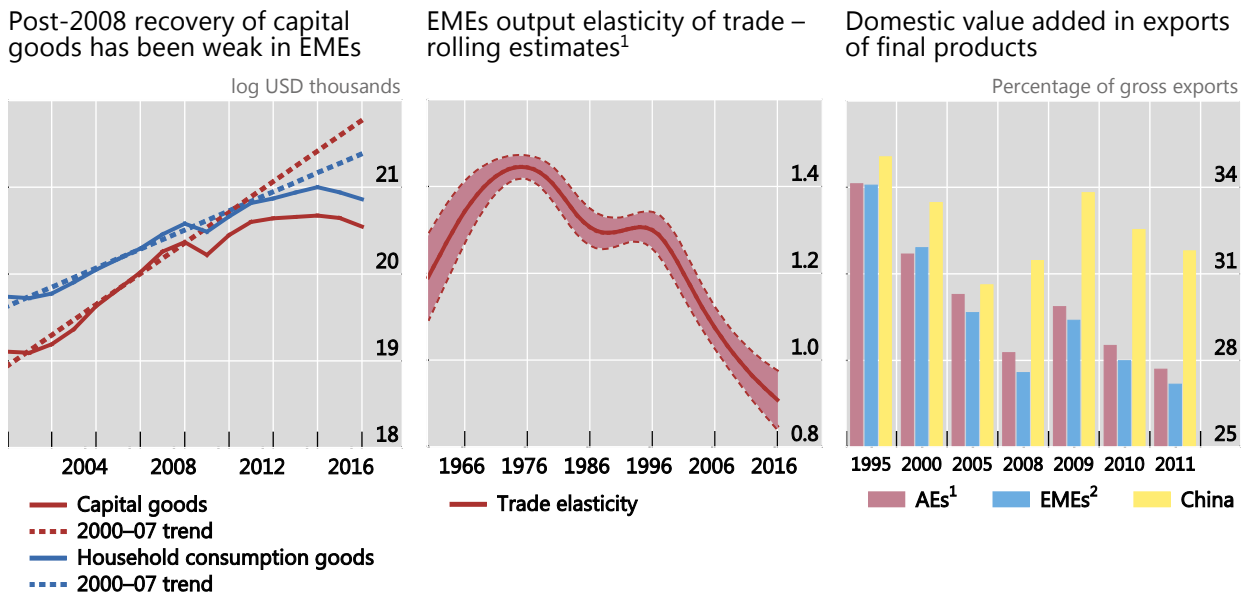
<sup>20</sup> See, for example, the 2016 IMF *World Economic Outlook*.

<sup>21</sup> The world's output elasticity of trade has declined about 40% from its peak, similar to the magnitude observed in EMEs. The graph displays short-run elasticity. Long-run elasticity (not reported) shows a similar pattern. See Constantinescu et al (2015) for similar inference on the decline of trade elasticity.

China (and some other EMEs) to substitute imported for locally produced parts (Graph 12, right-hand panel). Slower expansion of GVCs might also help to explain the decline in global trade.

Cyclical and structural factors drive weak global trade

Graph 12



<sup>1</sup> The elasticity of world trade to world GDP is estimated with the following regression:  $\Delta \ln(\text{trade})(t) = \alpha + \beta \ln(\text{GDP})(t-1) + \delta \ln(\text{trade})(t-1) + \lambda \Delta \ln(\text{GDP})(t) + \varepsilon(t)$ , where the short-run elasticity is given by  $\lambda$  and the long-run elasticity is given by  $-\beta / \delta$ . Dashed lines show the 90% confidence bands. Time variation in the coefficients is obtained by running for each year to a regression using observations weighted by a Gaussian distribution centred on year  $y$ . <sup>2</sup> Simple average of Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom and the United States. <sup>3</sup> Simple average of Argentina, Brazil, Bulgaria, Cambodia, Chile, Chinese Taipei, Colombia, Costa Rica, Croatia, the Czech Republic, Hong Kong SAR, Hungary, India, Indonesia, Israel, Korea, Malaysia, Mexico, the Philippines, Poland, Romania, Russia, Saudi Arabia, Singapore, South Africa, Thailand, Tunisia, Turkey and Vietnam.

Sources: OECD, *Economic Outlook*; OECD, STAN; OECD, *Trade in Value Added*; US FFIEC; BIS calculations.

There may be several reasons behind stalling GVC lengths. Efficiency gains from fragmenting production may be nearing their limits, and wage increases in EMEs may have decreased the benefits of doing so. In addition, as argued earlier, in recent years transportation costs have increased and the reduction in trade tariffs has slowed. This may prevent the opening of new markets for final goods, and at the same time make it harder to reconfigure existing GVCs towards developing countries with abundant labour and lower wage costs. In addition to these structural causes, escalation of financial frictions in the aftermath of the GFC may also have been an important factor behind the decline in GVC lengths, as shown in the box. However, since this trend is relatively recent, and GVC data are only available with a significant lag, the jury is still out.<sup>22</sup>

<sup>22</sup> As Brazil mentions in its country note, further expansion of GVCs could help revive trade if the digital revolution allows small and medium-sized enterprises to access global markets and expand global services trade.

Still, it is not clear that these structural changes are able to explain the full extent of the sharp post-crisis trade slowdown. One possibility is that the rapid trade growth before the GFC itself represented a bubble, made possible by ample global liquidity which encouraged longer GVCs. If this is true, what we are seeing now is just the return to something more normal.

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## Appendix 1: Global value chain integration – the role of size and overall trade openness

Table A1 reports the residuals from the following panel regression of different GVC measures on real GDP and trade openness.

$$GVC_{measure\ i,t} = \alpha + \delta \ln\left(\frac{trade}{GDP}\right)_{i,t} + \beta \ln(GDP)_{i,t} + \varepsilon_{it}$$

A positive number indicates that the particular GVC measure for the recipient country group is higher than what would be predicted solely based on its overall size and trade openness; a negative number indicates the opposite. As is clear from the bottom row, measures of GVC integration are higher for central and eastern European countries even after accounting for their smaller size (with the exception of GVC production lengths).

Difference between actual and predicted GVC indicators				Table A1
	GVC simple	GVC complex	Production length total	Production length GVC
Advanced economies	-0.03	-0.21	-2.82	-4.18
<b>EMEs</b>				
Asia	-0.42	-0.09	6.8	28.52
Latin America	-1.21	-1.43	-20.67	-22.45
Central and eastern Europe	0.57	0.88	6.74	-5.26

## Appendix 2: Bilateral trade as a percentage of region-wide GDP

In basis points, 2016

		Partner																													
		DZ	AR	BR	CL	CN	HK	CO	CZ	HU	IN	ID	IL	KR	MY	MX	PE	PH	PL	RU	SA	SG	ZA	TH	TR	AE	Adv	EU	World		
Exporter	DZ		0.6	9.2	..	0.3	0.0	0.0	0.0	0.0	2.0	2.8	..	1.5	2.2	0.4	..	0.0	0.3	0.1	0.1	4.2	0.0	3.3	12.7	0.4	4.9	10.3	3.9		
	AR	15.4		39.1	29.7	3.5	2.8	6.7	1.1	0.2	7.9	7.9	2.5	5.0	10.6	4.5	12.1	4.1	6.3	2.5	6.3	0.6	8.8	6.3	3.3	2.4	3.8	5.2	7.6		
	BR	5.4	57.3		20.0	27.0	10.7	10.7	0.2	1.0	6.8	8.1	2.0	9.0	8.8	13.5	9.8	2.1	1.9	7.5	10.2	13.5	5.6	7.8	5.4	10.4	15.9	18.3	23.9		
	CL	0.1	9.3	14.5		14.9	1.9	14.0	0.2	0.3	5.6	0.5	1.5	24.8	1.6	9.3	34.5	1.0	1.1	3.4	1.3	1.3	1.7	4.7	2.1	1.3	6.2	4.5	7.9		
	CN	6.8	6.2	17.0	11.3		254.5	6.0	7.1	4.8	44.0	27.0	7.2	75.8	34.2	26.5	5.3	26.3	13.0	30.1	16.6	41.2	11.3	32.9	14.0	26.6	247.2	124.1	246.7		
	HK	6.4	7.4	6.0	11.6	216.8		8.3	14.0	38.7	58.2	21.5	33.2	40.2	56.9	26.3	9.8	52.3	16.4	12.6	11.2	128.0	15.3	84.9	8.5	102.3	30.2	25.4	61.1		
	CO	0.0	2.1	4.8	12.7	1.0	1.7		0.1	0.0	0.9	0.1	4.6	2.4	1.6	7.0	22.0	0.2	0.9	0.5	0.1	1.1	0.7	0.7	6.6	0.5	3.6	2.4	4.1		
	CZ	4.0	1.2	1.3	1.7	1.7	5.4	0.7		146.0	2.5	1.4	18.9	2.7	3.8	5.6	0.9	2.0	141.2	20.8	5.3	4.9	9.7	2.4	20.6	14.6	28.2	81.8	21.5		
	HU	2.3	0.8	0.9	2.3	1.4	6.6	0.9	135.2		0.8	0.5	7.8	2.7	2.7	5.0	0.8	0.3	72.8	11.1	1.4	4.2	4.3	1.8	17.1	4.3	16.9	50.1	13.5		
	IN	3.6	1.8	5.7	2.6	6.6	51.2	3.0	2.2	1.6		9.8	11.3	9.7	16.4	10.2	2.8	5.8	4.2	5.1	17.3	29.6	12.7	11.1	14.3	117.1	26.2	24.7	33.7		
	ID	1.2	1.5	4.0	0.2	13.8	17.1	1.0	1.0	0.6	31.6		0.8	29.9	13.4	4.1	1.4	42.6	2.6	5.7	8.4	96.5	5.9	40.3	5.7	12.6	16.1	8.3	17.9		
	IL	..	1.3	3.5	2.4	2.9	69.5	1.5	2.5	2.7	9.3	1.0		3.4	9.5	2.8	1.5	1.8	2.9	3.9	..	7.3	4.4	5.6	11.0	..	9.2	9.4	7.9		
	KR	7.7	4.2	14.0	9.6	98.4	188.9	5.0	13.5	6.2	31.0	28.0	7.4		44.8	39.3	7.4	42.6	15.5	17.7	27.4	75.1	5.8	35.7	23.5	34.2	44.7	26.0	64.6		
	MY	2.7	2.3	3.4	3.0	20.6	146.9	1.4	6.6	6.7	30.1	54.2	..	32.2		14.1	2.5	54.7	3.7	3.4	8.6	464.7	11.8	151.0	14.9	47.0	23.6	11.5	24.9		
	MX	1.5	8.9	10.7	13.5	4.4	4.3	23.1	1.7	2.5	6.4	0.3	1.5	10.2	3.3		11.3	0.6	1.6	0.8	0.8	6.3	..	3.4	1.2	..	73.3	11.0	48.9		
	PE	0.0	1.7	6.0	22.8	7.4	2.4	14.9	0.1	0.0	3.8	0.4	0.2	8.7	2.2	3.7		3.2	0.2	0.6	0.1	0.8	2.1	1.0	0.3	7.9	4.2	3.4	4.9		
	PH	0.1	0.9	0.4	0.7	5.4	105.2	0.2	2.2	3.5	1.2	4.8	0.9	12.2	19.8	4.0	0.6		1.0	0.3	0.9	61.5	1.9	29.9	0.3	4.6	9.3	4.1	7.4		
	PL	4.8	0.8	1.6	1.3	1.6	4.8	1.3	200.0	89.7	2.4	0.8	7.3	2.7	2.0	3.5	0.8	0.8				32.9	6.6	8.1	7.3	2.2	23.3	8.0	35.8	95.2	26.7
	RU	27.5	0.9	5.8	0.3	22.4	4.3	1.3	18.2	18.8	15.0	1.8	9.2	37.2	6.2	4.5	1.4	0.9	52.1			1.8	11.4	1.2	3.6	63.7	5.9	32.9	73.6	37.3	
	SA	3.7	0.3	5.0	0.2	20.4	2.3	0.3	0.1	0.1	61.5	11.5	..	82.1	15.7	0.0	0.6	13.6	4.8	0.0		82.9	35.8	35.2	10.8	86.1	18.9	8.8	23.0		
	SG	1.0	2.0	4.3	1.2	36.6	669.3	1.9	6.6	7.0	38.1	210.3	11.7	84.4	585.2	9.1	1.9	108.6	2.8	5.0	8.6		6.9	183.5	4.1	59.6	33.7	17.8	43.7		
	ZA	0.9	2.0	1.8	1.0	6.0	28.9	0.5	3.1	1.9	12.5	2.1	5.4	7.8	8.3	1.0	0.5	0.9	1.8	1.8	4.1	7.7		7.0	3.1	22.6	7.1	10.2	9.9		
	TH	2.1	10.2	6.8	8.3	20.3	156.6	2.8	11.8	7.8	19.2	60.7	9.3	22.3	135.9	19.3	6.3	89.3	4.4	3.4	20.9	116.2	29.8		8.4	37.8	24.2	12.9	28.2		
	TR	17.0	0.9	1.3	2.0	1.9	3.4	1.6	7.6	8.4	2.1	1.4	25.0	2.3	2.8	2.3	0.8	0.9	19.9	8.1	21.0	3.6	3.5	1.3		44.6	16.3	39.5	18.7		
	AE	6.0	0.3	1.6	1.2	8.1	55.2	0.2	1.0	0.1	69.6	9.7	..	38.7	34.1	..	1.3	8.9	1.4	1.6	72.3	100.1	16.6	75.0	28.8		14.4	5.7	25.0		
	Adv	5.9	4.7	16.8	6.1	179.2	54.3	5.0	21.8	15.4	28.6	15.7	9.5	40.7	21.7	65.0	3.4	11.7	36.3	20.1	15.8	28.7	8.0	20.2	22.2	23.0	698.0	629.2	803.2		
	EU	13.6	5.5	18.7	5.7	67.8	23.1	3.6	66.5	43.4	22.3	6.6	13.9	27.3	8.7	21.4	2.4	4.1	93.5	45.1	21.9	20.8	15.2	8.9	49.8	30.1	653.0	1,045.8	585.7		
	World	6.4	6.9	18.6	7.4	159.6	80.2	5.5	17.9	12.4	44.7	18.4	8.9	52.6	22.9	47.0	4.4	14.6	28.2	23.3	16.9	36.6	10.8	23.7	23.5	30.1	826.6	572.0	1,049.7		

See Graph 1 for definitions of country codes.

Number in each cell denotes sum of bilateral exports divided by sum of GDP. Numbers are scaled by 100.

Sources: IMF, *Direction of Trade Statistics* and *World Economic Outlook*.



In basis points, change between 2001 and 2016

		Partner																											
		DZ	AR	BR	CL	CN	HK	CO	CZ	HU	IN	ID	IL	KR	MY	MX	PE	PH	PL	RU	SA	SG	ZA	TH	TR	AE	Adv	EU	World
Exporter	DZ		0.1	-6.8	..	..	0.0	..	0.0	-0.1	1.7	-8.4	..	0.0	2.2	-1.5	..	0.0	0.3	0.0	-0.6	3.5	0.0	..	-24	-6.7	-0.9	-2.7	-1.6
	AR	10.8		-34	-49	-3.4	0.6	1.9	1.0	-0.1	2.4	6.9	0.4	0.3	3.2	-0.3	0.6	1.3	5.6	0.1	5.1	-0.2	1.2	-1.1	2.1	-0.2	0.5	0.1	-0.2
	BR	4.7	-1.5		-1.5	17	4.2	1.5	-0.4	-0.2	4.1	5.2	0.0	2.2	6.3	-1.0	5.1	0.8	-0.4	-4.9	2.5	10.2	-0.6	4.7	3.2	3.8	2.7	1.4	6.6
	CL	..	-6.0	1.3		7.7	0.4	-0.3	0.2	0.2	3.6	-1.2	1.2	15.7	-0.2	-1.0	-4.4	-2.8	0.7	2.9	-0.9	-0.2	-0.1	2.3	-0.6	-0.6	1.7	-0.6	2.4
	CN	5.3	2.7	9.9	5.5		-52.8	4.6	3.3	-2.6	34	8.2	1.6	9.0	11.9	17.7	4.1	14.9	6.4	13.9	7.7	0.7	4.1	16	9.6	10.2	167	80.8	170.3
	HK	5.9	1.6	-2.7	-5.5	-246		4.9	8.9	23	40	-3.0	11.6	-7.1	-3.1	13.4	7.3	-26.0	10.7	8.4	1.8	-18.6	-0.6	21	2.4	61	-8.4	-5.5	4.8
	CO	0.0	1.2	2.2	2.7	0.9	1.0		0.0	0.0	0.8	0.0	1.2	1.7	1.6	3.9	3.5	-0.1	0.7	-0.7	-0.1	0.6	0.4	0.4	6.6	0.4	0.7	0.5	0.5
	CZ	1.7	0.9	0.7	1.2	1.1	1.7	-0.2		..	1.3	0.8	15.2	2.0	1.7	5.2	0.4	1.3	74	8.5	3.1	-0.4	8.7	0.1	15.8	..	17	50.5	11.9
	HU	1.3	0.6	0.0	2.0	0.6	5.0	0.8	90		0.3	0.1	3.0	2.0	-0.7	4.0	0.8	-4.5	48	-1.2	-0.3	-6.2	2.5	0.9	11.3	2.2	6.8	21.7	4.5
	IN	3.1	0.8	3.5	1.1	1.6	14.9	2.2	1.5	0.9		2.8	5.0	5.3	3.3	8.3	2.2	1.8	2.6	-4.8	5.8	14.0	7.5	1.4	11.4	74	16.5	13.9	21.1
	ID	-0.8	-0.1	1.3	-3.3	-0.7	-20.4	-0.2	0.5	-1.2	15.8		..	-23	-52	1.6	0.5	10.1	0.4	4.5	-5	-107	0.5	4.2	1.0	-	-0.5	-0.4	1.3
	IL	..	-0.2	-2.1	0.2	0.5	28	-0.8	0.8	-1.5	1.7	0.2		-1.5	-17	1.0	0.6	-10	-0.7	0.1	..	-4.6	-2.2	-7.5	1.3	..	0.5	0.3	-0.7
	KR	5.1	0.5	-0.7	0.1	1.5	54	1.5	12	2.3	17	-18	0.6		3.3	22.2	4.2	1.0	10.8	6.8	9.7	9.5	-0.7	7.4	14.0	0.1	9.6	3.6	20.5
	MY	0.7	0.9	0.9	-1.7	-5.9	-4.1	0.9	1.4	-3.5	3.6	-2.8	..	-15		6.3	1.7	-19	1.7	0.3	-3.4	-325	0.2	-1.7	2.7	5.9	-3.1	-2.2	-1.2
	MX	1.3	6.5	6.2	8.8	3.0	3.0	17.0	1.5	1.9	5.1	0.2	1.0	7.7	2.5		9.1	0.4	1.6	0.6	0.7	3.4	..	2.7	1.2	..	17.1	5.5	2.7
	PE	-0.7	1.1	2.3	-0.3	4.4	1.5	4.8	0.0	-0.1	3.1	-1.4	-0.1	6.8	1.3	2.1		1.6	-0.1	-0.2	0.0	0.2	1.7	-3.1	-0.1	6.5	2.4	1.4	2.9
	PH	-0.2	0.7	-0.2	-0.2	-0.2	41	0.1	1.8	-0.7	0.0	-0.5	-0.8	-4.9	-43.4	2.0	-0.2		0.8	..	-0.4	-77.9	0.4	-39.2	0.0	-0.7	-1.3	-2.9	-2.1
	PL	0.5	0.4	0.4	1.1	0.4	3.7	1.1	145	59	1.1	0.6	5.6	2.3	0.9	2.4	0.7	0.6		12.6	5.7	6.2	6.6	0.7	19.8	6.6	24.2	63.3	16.0
	RU	24.1	0.7	3.7	-0.2	-1.6	1.8	0.9	-18.8	-36	6.5	1.2	1.1	27.5	0.1	3.6	0.5	-0.2	-23.9		0.5	-5.8	1.1	2.1	7.4	0.8	12.8	21.8	13.0
	SA	-2.2	-0.1	-2.7	-0.1	-54	-0.7	..	..	0.0	-62	-12	..	-28	-8.7	0.0	..	-9.7	-1.9	0.0		-51	-16	-22	-9	-53	3.4	1.2	-1.1
	SG	0.4	0.3	0.3	-1.0	-0.5	251	0.7	4.3	-8.0	-8.9	..	3.0	9.1	..	0.1	0.9	-77.8	1.2	1.9	-2.8		-5.4	-70	0.0	0.1	6.4	-1.0	7.5
	ZA	-2.7	0.5	-1.0	-2.0	3.0	17.5	-0.3	2.6	1.7	6.3	-1.5	-21	0.5	-2.5	-0.3	-0.1	-1.1	1.6	1.4	-0.3	-8.6		0.5	2.5	17.4	1.1	0.5	1.1
	TH	0.2	8.4	4.5	4.9	0.7	43	1.0	9.4	-0.1	11.3	14.3	-8.9	3.4	12.2	14.3	5.5	30.4	2	1.6	9.5	-136	17		5.4	9.3	5.5	1.0	8.9
	TR	0.4	0.4	0.1	1.2	0.6	-0.6	1.3	3.5	1.7	1.0	0.5	0.7	1.4	1.6	1.8	0.5	0.5	13.7	-9.4	8.0	0.0	1.1	0.1		32	8.2	20.4	9.4
	AE	4.6	-0.4	0.0	1.2	5.2	32	0.2	..	0.0	55	3.8	..	-30	27	..	1.3	-23.0	0.8	1.5	52	33	12	11	27		5.5	3.1	12.9
	Adv	2.6	0.9	1.8	2.8	112	12.1	2.3	10.7	5.8	19.0	7.8	0.3	10.3	-1.1	17.8	2.2	-0.2	21.8	7.8	5.9	4.9	0.9	5.6	13	14	11	45.1	30.5
	EU	5.9	0.6	1.3	2.0	41.3	1.8	1.5	34.4	17.5	10.1	2.2	-0.7	12.4	-0.6	7.3	1.4	-0.5	54.6	14.8	8.7	5.8	2.8	1.3	28.5	16.3	66.1	113.1	4.9
World	3.2	1.6	1.3	2.8	94.3	28.4	2.3	7.8	3.1	30.0	9.1	0.0	14.3	1.1	7.4	2.6	2.8	14.4	7.6	6.9	3.9	2.7	7.0	12.2	18.0	37.1	-3.1	130.5	

See Graph 1 for definitions of country codes.

Sources: IMF, *Direction of Trade Statistics* and *World Economic Outlook*.