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Abstract

This paper examines the changing relationship between trade policy, production networks, and economic growth in Asia. It traces East Asia's rise to the coveted "Factory Asia" league with rapid growth over several decades through trade policy anchored on outward-oriented industrialization strategies, including a voluntary liberalization approach under the Asia-Pacific Economic Cooperation (APEC) and a multilateral approach under the General Agreement on Tariffs and Trade (GATT)/World Trade Organization (WTO) system. It explores the implications of various stresses to the performance of Factory Asia such as the consequences of the global financial crisis, the risk of protectionism, the persistence of residual behind-the-border regulatory barriers, the failure to conclude ambitious WTO multilateral trade negotiations, and the relative exclusion of small and medium-sized enterprises (SMEs). Next, it examines the evolving trade policy response in major East Asian economies centered on free trade agreements (FTAs) to support the functioning of Factory Asia and key policy challenges posed by FTAs, including the insufficient depth of FTAs, the risk of an Asian noodle bowl of multiple rules of origin, the potential for raising use of FTA preferences, and the emergence of mega-regional FTA negotiations. Finally, it considers policy implications at the national, regional, and global levels for supporting Factory Asia and growth in Asia.

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1. INTRODUCTION

Over the last 3 decades, the East Asian economies have substantially liberalized foreign trade and direct investment (FDI) regimes within the frameworks of the General Agreement on Tariffs and Trade (GATT)/World Trade Organization (WTO) and the Asia-Pacific Economic Cooperation (APEC).¹ The resulting expansion of trade and FDI has become the engine of economic growth and development in East Asia. Traditional trade and FDI flows have been increasingly replaced by a new form of industrial organization centered on global production networks and supply chains (hereafter referred to as production networks) (Baldwin 2012). The slicing of production stages across geographical space in cost-effective locations has spurred East Asia's global rise to the converted "Factory Asia" league with rapid growth over a long period. Factory Asia has made East Asia more prosperous than ever before and is transforming the world economy.

In recent years, however, various stresses to the performance of Factory Asia have emerged. These include the consequences of the global financial crisis of 2008–2009, the risk of protectionism, the persistence of residual behind-the-border regulatory barriers, the failure to conclude ambitious WTO multilateral trade negotiations, and the relative exclusion of small and medium-sized enterprises (SMEs). Following the Asian financial crisis of 1997–1998, East Asian economies have embarked on various initiatives for economic integration and cooperation in the areas of trade and investment. The crisis prompted the regional economies, which were becoming increasingly interdependent, to realize the importance of economic cooperation among themselves and to make efforts to institutionalize such interdependence. An important aspect of East Asia's policy response concerns an evolving trade policy centered on free trade agreements to support the functioning of Factory Asia. Concerns have been expressed that FTAs have resulted in several new policy challenges which could pose new risks for the performance of Factory Asia.

This paper examines the changing relationships between trade policy, Factory Asia, and economic growth in Asia with a view to exploring policy implications. Section 2 briefly reviews the literature on trade, economic integration, and growth. Section 3 discusses the creation of Factory Asia, growth, and trade policy, as well as stresses to Factory Asia's performance. Section 4 examines East Asia's evolving FTA-led trade policy to support Factory Asia and policy challenges posed by FTAs. Section 5 considers policy implications at the national, regional, and global levels for supporting Factory Asia and growth in Asia. Section 6 concludes.

2. TRADE, ECONOMIC INTEGRATION, AND GROWTH

A rich literature exists that attempts to examine the effects of economic integration on economic growth. One of the challenges is how to measure the degree of economic integration, particularly regional economic integration.² The simplest definition of economic integration is a degree of economic exchanges (such as the movement of goods, services, capital, and people) between countries. A more policy-focused definition would be an arrangement in which countries agree to coordinate their trade and other policies. Economic integration can be prompted by a process where barriers

¹ East Asia is defined as the Association of Southeast Asian Nations (ASEAN)-10; the PRC; Japan; the Republic of Korea; Hong Kong, China; Taipei, China; and India.

² Capanelli, Lee, and Petri (2009) provide a good overview on the indicators of economic integration.

to trade in goods, services, and capital are reduced or eliminated in order to facilitate such trade among nations or regions. There are varying degrees of economic integration ranging from participation at the WTO or preferential trade agreements to the formation of a monetary and economic union by a group of countries.

2.1 Trade Openness as a Measure of Integration

Trade integration can refer to trade openness in general or to membership in specific groupings of countries, such as the World Trade Organization (WTO) or specific free trade agreements (FTAs). Both aspects are considered here. Berg and Krueger (2003) define the openness of an economy as "the degree to which nationals and foreigners can transact without artificial (that is, governmentally imposed) costs (including delays and uncertainty) that are not imposed on transactions among domestic citizens." This of course is not easily observable, so researchers have used empirically tractable definitions such as measures of barriers to trade—including both tariff and non-tariff barriers—and the size of trade relative to gross domestic product (GDP).

Measurement of trade barriers typically starts with estimates of average tariff rates. These are subject to well-known downward biases, since items with high tariff rates tend not to be traded much. Also, there may be considerable leeway for officials to reclassify goods into higher-tariff categories to offset cuts in nominal rates. Non-tariff barriers are even more difficult to quantify. The ratios of exports or total trade to GDP are commonly used as the measure of trade openness. Of course, trade shares reflect other "natural" factors as well, including geographical distance and income, so an appropriate approach would be to correct for these factors by using, for example, "gravity" models. Moreover, since many studies attempt to analyze the effect of trade openness on output, this raises important issues of endogeneity that need to be addressed.

Studies of regional trade integration examine measures of relative concentration of trade within the region versus trade with outsiders. The two measures that are commonly used to examine the extent of regional interdependence are the share of intraregional trade over total trade, or intraregional trade share, and the intensity with which a region trades with itself compared with its trade with the rest of the world, or intraregional trade intensity. Another measure of the extent to which national markets are integrated regionally and globally is given by foreign direct investment (FDI).³

2.2 Empirical Studies

There have been a large number of studies aimed at untangling the relationship between trade openness—defined either by trade ratios or measures of trade barriers—and the level or growth of per capita income. Empirical work of the last 15 years has concentrated on cross-country and panel regression analyses. Many papers have concluded that openness to trade is a significant explanatory variable for the level or the growth rate of real GDP per capita. Several studies have found positive and significant effects of trade on productivity and growth, and shown that openness to trade induces convergence in income per capita and total factor productivity across countries (cited in Singh [2010]).⁴ Berg and Krueger (2003) conclude that "while there are deep problems with the measurement of openness, and while establishing causality from openness to growth is difficult, the weight of the evidence, from a variety

³ However, unlike trade data, FDI data are less comparable over time and across countries.

⁴ Some of the more notable studies are Sachs and Warner (1995), and Frankel and Romer (1999).

of sources, is strong to the effect that (trade) openness is an important element explaining growth performance."⁵

Studies of the benefits of regional trade integration have had greater difficulty producing evidence of significant impacts. Rose (2004) used a gravity model of bilateral merchandise trade and a large panel dataset covering over 50 years and 175 countries, and estimated the effects of multilateral trade agreements—GATT/WTO and the Generalized System of Preferences—on trade. He found little evidence that the countries joining or belonging to GATT/WTO had different trade patterns from the outsiders. On the other hand, he found that membership in the OECD was consistently associated with a strong positive effect on trade, while the comparable evidence is weaker for GATT/WTO and especially IMF membership.

Henrekson, Torstensson, and Torstensson (1997) conducted a cross-country analysis of OECD and other high-income countries for the period 1976–1985. ⁶ Results suggested that European Community (EC) and European Free Trade Association (EFTA) memberships had a positive and significant effect on economic growth, and that there was no significant difference between EC and EFTA membership. In a sample restricted to OECD members the estimated effect was still significantly positive, but smaller than in the full sample. In the full sample with public finances or possible threshold effects controlled for, again the estimated coefficient was of a more plausible magnitude. The basic conclusion was that there was a fairly robust association between European integration and growth, and that regional integration in Europe not only affected static efficiency but also had economically and statistically significant growth effects.

Badinger (2005) for the first time compiled an index of economic integration that accounts for global (GATT) as well as regional (European) integration of the European Union (EU) member states. Then, a test for permanent and temporary growth effects in a growth accounting framework was conducted by using a panel of 15 EU member states over the period 1950–2000. While the author found that the null hypothesis of permanent growth effects was strongly rejected, he found sizeable level effects—though not completely robust to controlling for time-specific effects. Generally, GDP per capita of the EU-15 would be approximately one-fifth lower today if no integration had taken place since 1950.

Regarding preferential trade agreements, Clausing (2001) found that the Canada– United States FTA had substantial trade creation effects, with little evidence of trade diversion. Lee, Park, and Shin (2008) used a panel dataset of 175 countries (1948– 1999) and examined the effects of regional trading blocs on global trade. The authors concluded that on average, they increased global trade by raising intra-bloc trade, without damaging extra-bloc trade.

⁵ Micro studies seem to show causality runs from productivity to exports rather than vice versa. That is, efficient firms tend to "self-select" themselves to enter export markets rather than "learning by doing" by entering export markets (Singh 2010). Since exporting firms are more productive than non-exporting ones, they grow faster while less efficient firms exit the market, thereby raising overall productivity (Berg and Krueger 2003). Access to imports in particular supports productivity growth.

⁶ Several important control variables were incorporated to isolate the effects of integration and not simply capture other omitted effects. Investment and inflation equations were introduced in an attempt to examine whether there was an indirect effect of integration affecting investment and whether the macroeconomic policies undertaken in the European Community (EC) had a positive effect on growth. Further, since investment and human capital could have different effects on growth after European integration, the investment variable was allowed to interact with the integration dummy.

Cheung, Yiu, and Chow (2009) studied trade integration among 15 selected Asian and Oceanic economies using factor models and the data after the 1997 Asian financial crisis.⁷ Their model focused on factors that would affect the general degree of trade integration of these economies as a group. The analytical framework was based on the premise that trade integration would be driven by common factors that would affect all economies and that there were also economy-specific, idiosyncratic forces. The principal component analysis was employed to extract the common factor that would drive the degree of trade integration of the selected economies. They found that the common trade integration factor was significantly associated with the economic growth and trade barriers of the 15 economies. Based on this analysis, the authors suggested that strengthening the degree of trade integration could enhance economic efficiency and coordination among these economies.

3. EMERGENCE OF AN INTEGRATED FACTORY ASIA AND RECENT STRESSES

East Asia's ascent from a poor, underdeveloped agricultural backwater to become the global factory over a 50-year period is widely regarded as an economic miracle (World Bank 1993; Stiglitz 1996). Figure 1 shows East Asia's shares of world exports and imports for selected years between 1985 and 2013. By 1985, the region had already accounted for 19% of world exports (largely manufactures) and this figure increased to 25% in 1995 and further to 30% in 2013. Similarly, the region's share of world imports increased from 16% in 1985, to 23% in 1995, and further to 30% in 2013. Japan's industrial rise had a catalytic effect on neighboring economies and the first generation of newly industrialized economies (NIEs), including the Republic of Korea; Hong Kong, China; Singapore; and Taipei,China emerged. A second generation soon followed including middle-income ASEAN countries and the PRC. With the gradual spread of Factory Asia to South Asia, a third generation (including India) seems to be emerging. A combination of factor endowments, favorable initial conditions, national policies, and firm-level strategies helped East Asia's emergence as the global factory.

Until the 2000s, outward-oriented development strategies, high domestic savings rates, the creation of strong infrastructure, and investment in human capital were key domestic policy ingredients behind Asia's successful economic performance. A booming world economy hungry for labor-intensive imports from East Asia, falling tariffs in developed country markets, inflows of trade-related FDI, generous foreign aid flows, and supplies of inexpensive and productive labor all favored outward-oriented growth in East Asian economies. These economies were also geographically close to an expanding high-income Japan, with efficient multinational corporations (MNCs) seeking to relocate production to less costly economies in East Asia.

⁷ The sample economies included Australia; the PRC; Hong Kong, China; India; Indonesia; Japan; the Republic of Korea; Malaysia; Macao, China; New Zealand; the Philippines; Singapore; Taipei, China; Thailand; and Viet Nam.



Figure 1: East Asia's Share of World Trade

Note: East Asia is defined as ASEAN-10; the PRC; Japan; the Republic of Korea; Hong Kong, China; Taipei, China; and India.

Source: IMF Direction of Trade Statistics (accessed 3 June 2014).

This success of East Asian growth has been accompanied by market-driven integration through trade and FDI, while embracing a multilateral liberalization framework under the GATT/WTO and unilateral liberalization through APEC. The region has avoided discriminatory trade practices. FDI flows to the East Asian economies, driven initially by Japanese MNCs after the Plaza Accord in the mid-1980s, have generated vertical intra-industry trade within the region and have contributed to deeper economic integration. More recently, NIEs and some middle-income ASEAN countries have become active as investors, particularly in the PRC, whose rise as a large trading nation has also strengthened trade—particularly intra-industry trade and FDI has naturally formed production networks and supply chains within East Asia.

3.1 Regional Trade Integration in Parts and Components

The degree of regional integration through trade in East Asia has been rising fast over the last 30 years. Figure 2 summarizes changes in the share of intra-regional trade for East Asia, the North American Free Trade Agreement (NAFTA) members and the European Union over the period 1985–2013. The figure demonstrates that intra-regional trade as a share of total trade has risen from 38% in 1985 to 50% in 2013. East Asia's figure is above that for NAFTA (41%) though it remains lower than that in the EU (64%), but the gap has been narrowing rapidly over time.



Figure 2: Intraregional Trade: Share in Trade with the World

EU = European Union, NAFTA = North American Free Trade Agreement.

Note: East Asia is defined as the ASEAN-10; PRC; Japan; Republic of Korea; Hong Kong, China; Taipei, China; and India. Intra-regional trade share is the percentage of intra-regional trade to total trade of the region, calculated using trade data. It is calculated as: Tii/Ti, where T_{ii} is exports of region *i* to region *i* plus imports of region *i* from region *i* and T_i is total exports of region *i* to the world plus total imports of region *i* from the world. A higher share indicates a higher degree of dependency on regional trade.

Source: IMF Direction of Trade Statistics (accessed 3 June 2014).

Even though intra-regional trade for Asian countries has been rising as a share of their total trade, it is now well known that most of intra-regional trade is that of parts and components, reflecting the nature of Factory Asia. That is, Asia as a whole is a factory linked by a complex web of production networks and as a result trades large amounts of intermediate goods (mostly parts and components).

According to ADB (2008) estimates (see Table 1), in the pre-global financial crisis period, about two-thirds of Asian trade was ultimately exported as final goods to outside the region and only one-third of Asian trade was within Asia. This means that Asian trade was heavily dependent on external demand, particularly demand in the US and Europe. Strong demand in these advanced economies helped expand Asian exports to these economies and enabled Asian countries to grow. Essentially, East Asian economies assembled final products for export to the US and/or Europe, and for this purpose they traded intermediates with each other. Since the global financial crisis, the East Asian economies have been forced to depend less on the US and European markets and more on other economies both within and outside Asia.

Total Asia's exports = 100.0%								
Inside	Asia = 51.8%		Outside Asia = 48.2%					
of which to			of which to					
final demand	production		final demand	production				
16.5%	35.3%		23.2%	25.0%				
+	of wh final demand inside Asia 15.1%	ich to final demand outside Asia 20.2%	+	of wh final demand inside Asia 0.9%	ich to final demand outside Asia 24.1%			
16.0%	↓	ţ	44.3%					
=			=					
Total final demand			Total final demand					
inside Asia			outside Asia					
32.5%			67.5%					

Table 1: Final Demand Composition of Asia's Export in 2006

Source: ADB (2008).

The global financial crisis has not broken East Asia's increasingly sophisticated production networks. This is visible in an increase in intraregional trade in intermediate goods. East Asia's intraregional exports of intermediate goods accounted for 30% of East Asia's total exports in 2013, up from 26% in 2000. Figure 3 shows a breakdown of East Asia's exports by stage of production to different markets in 2000 and 2013. There are clear indications of the growth in interregional demand in intermediate goods—East Asia's share of intermediate goods exports increased from 53% in 2000 to 58% in 2013. Growth in intraregional demand has spread to the complementary sector of capital goods where East Asia's share of capital goods increased from 33% to 43%. The share of East Asia's consumer goods also rose but only modestly from 31% to 33%. Meanwhile, there has been a decline in the importance of the US and Europe as sources of external demand for all types of goods, even final consumption goods, while the role of the rest of world has grown.



Figure 3: Destination of East Asia's Exports by Stage of Production

(% of total)

EU = European Union, ROW = rest of the world, US = United States.

Notes: Asia is defined as ASEAN-10; the PRC; Japan; the Republic of Korea; Hong Kong, China; Taipei, China; and India.

Based on broad economic categories which classify traded goods by stages of production; primary goods include food and beverage, fuel, lubricants, and primary industrial supplies for industry; intermediate goods include processed goods mainly for industry and parts and components for capital goods and transport equipment; capital goods include machinery and equipment used by producers as inputs for production; and consumption goods are household goods and government final product purchases. These definitions of stages of production are quoted from ADB's *Asian Economic Integration Monitor*.

Source: Authors' calculations using UN Comtrade data (accessed 3 June 2014).

3.2 Impact of Factory Asia on Growth

Taking a more macroeconomic perspective, participation of East Asian economies in production networks has facilitated industrialization, trade, growth, and prosperity. Table 2 shows the mean values of key economic indicators for East Asian economies engaged in production networks and the rest of the developing world (those not or very little in production networks) along with their t-values. The results are shown separately for the pre-global financial crisis period (1980–2007) and the global financial crisis period and after (2008–2013). Several findings are noteworthy.

Average annual manufacturing sector growth in East Asian economies (8%) is twice as fast as other developing economies (4%) in the pre-crisis period and the result is statistically significant. Furthermore, the share of manufacturing in GDP in East Asian economies (21%) is significantly larger than that of other developing countries (13%) in the pre-crisis period. Underlying the link between industrialization and trade, the share of high-technology exports in manufactured exports in East Asian economies (26%) is also five times higher than that in other developing countries (5%) and significantly so.

Rapid industrialization and trade in East Asian economies spurred fast economic growth and higher per capita incomes. Mirroring manufacturing growth, average annual GDP growth in East Asian economies (6%) is twice as fast as that of other developing economies (3%) in the pre-crisis period and significantly so. Additionally, per capita GDP in East Asia (\$9,000) is nearly five times higher than other developing countries (\$2,000) in the pre-crisis period and significantly so.

Table 2: T-test on Key Economic Indicators for East Asia and the Rest of theDeveloping World

		East Asia	Rest of Developing World	East Asia	Rest of Developing World
		Pre-Global Financial Crisis: 1980-2007		Global Financial Crisis and After: 2008-2013	
Manufacturing value added	Mean	7.5	3.8	4.3	3.3
(% annual growth)	Standard deviation	7.4	12.1	8.3	9.6
	t-test	8.14***		1.0	
Manufacturing value added	Mean	20.9	13.1	19.7	11.5
(% of GDP)	Standard deviation	8.1	7.3	8.8	6.7
	t-test	17.61***		7.24***	
High-tech exports	Mean	25.6	5.4	23.2	6.1
(% of manufacturing exports)	Standard deviation	19.9	8.4	17.4	9.8
	t-test	14	.63***	7.5	52***
GDP growth	Mean	5.6	3.2	4.5	3.9
-	Standard deviation	4.3	7.1	3.7	4.8
	t-test	9.52***		1.41*	
GDP per capita	Mean (\$ 000)	8.9	2.0	11.7	2.7
	Standard deviation	11.3	2.0	13.6	2.5
	t-test	11	.78***	5.5	56***

ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product, PRC = People's Republic of China.

Notes: East Asia is defined as ASEAN-10; the PRC; Japan; the Republic of Korea; Hong Kong, China; Taipei, China; and India.

The rest of the developing world includes all developing economies as classified by the World Bank (<u>http://data.worldbank.org/about/country-classifications/country-and-lending-groups</u>) excluding the East Asian economies as defined above.

Manufacturing value added (% of annual growth), captures the annual growth rate for manufacturing value added based on constant local currency. Aggregates are based on constant 2005 US dollars.

Manufacturing value added (% of GDP) refers to industries belonging to International Standard Industrial Classification (ISIC) divisions 15–37. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs.

High-tech exports (% of manufacturing exports) are products with high research and development (R&D) intensity, such as in aerospace, computers, pharmaceuticals, scientific instruments, and electrical machinery. GDP growth (annual %), captures the annual percentage growth rate of GDP at market prices based on

constant local currency. Aggregates are based on constant 2005 US dollars. GDP per capita is gross domestic product divided by midyear population. Data are in current US dollars.

GDP per capita is gross domestic product divided by midyear population. Data are in current US dollars.

Source: World Bank World Development Indicators (accessed 3 June 2014).

The negative impact of the global financial crisis on East Asian economies is reflected in the data. Average annual manufacturing growth in East Asian economies slowed down sharply to 4%, just above that of other developing countries (3%) in the global financial crisis period and after but not statistically significantly so. Bolstered by past industrial achievements and capacity, the manufacturing-to-GDP ratio and the share of high technology exports in East Asian economies experienced a slight correction in the global financial crisis period and after but these figures remain well above those of other developing countries. Average annual GDP growth in East Asian economies also slowed down in the global financial crisis period and after, to 5%, but remained faster than other developing economies (4%), though only with marginal significance. Increased connectivity through participation in global production networks has made countries and firms more economically interdependent with implications for Factory Asia's performance. There is an increased risk that unexpected global, national, and even local events can disrupt production networks and cause a domino effect leading to system-wide failure (OECD 2013). Various sources of stresses to the performance of Factory Asia have been identified and can be mentioned briefly below.

First, as discussed above, Factory Asia economies were more exposed to the effects of the global financial crisis than other economies due to exposure to the interdependent, geographically dispersed production network. Interestingly, the growth differentials between Factory Asia economies and others largely disappeared. The effects of the crisis were transmitted to the Factory Asia economies through the international trade and financial channels (ADB 2012). A fall in external demand, particularly in the US and EU, caused a sharp contraction throughout the dense network of interdependent production networks in East Asia. The disruption to production and trade in East Asia was amplified by financial shocks in the form of a credit crunch, which saw a fall in bank lending and trade credit to businesses. Furthermore, banks tended to favor more creditworthy multinational enterprises and large firms at the expense of SMEs. A critical issue for future research is whether this downturn is a temporary phenomenon or a new normal equilibrium of a permanent era of slower growth.

Second, there have been occurrences of serious supply shocks due to natural disasters which have disputed global production networks in East Asia. Recent events include the East Japan earthquake and tsunami in March 2011, the Thai floods in July 2011, and the grounding of the Boeing 787 Dreamliner aircraft in January 2013 (ADB and ADBI 2013; Punter 2014). These unexpected events exposed the fragility of geographically dispersed, just-in-time inventory systems and single sourcing patterns, and resulted in production slowdowns.

Third is the risk of protectionism in the post-global financial period and the persistence of behind-the-border regulatory barriers to trade in East Asia. Slower growth in the post global financial crisis period has triggered concerns about rising unemployment and protectionist tendencies. According to the Global Trade Alert database, murky non-tariff protectionist measures are on the rise in Asia and such measures increased from 105 to 330 between 2009 and 2012.⁸ Some examples include clauses in stimulus packages that confine spending to domestically produced goods, use of health and safety regulations to restrict imports, export taxes on food items to restrict exports, and green protectionism in the form of subsidies for domestic green manufacturers. At the same time, behind-the-border regulatory barriers and restrictions on services trade in Asia remain quite high in the region.

Fourth, there is a need for more inclusion of SMEs in production networks in East Asia. Amidst sluggish regional economic growth, concerns about inequality and social instability have re-emerged as important political issues in the post-global financial

⁸ The Global Trade Alert reports on all protectionist measures imposed by governments including non-tariff measures (NTMs) that have a discriminatory impact on trading partner country. The 23 protectionist measures covered are: bail out/state aid measures; trade defense measures (anti-dumping, countervailing duties, and safeguard); tariff measured; non-tariff barriers (not otherwise specified); export taxes or restrictions; investment measures; migration measure; export subsidies; public procurement; import bans; trade finance; import subsidies; quotas (including tariff rate quotas); state-controlled companies; competitive devaluation; state trading enterprises; sub-national government measures; sanitary and phytosantiary measures; intellectual property protection; consumption subsidy; local content requirements; other service sector measures; and technical barriers to trade. The database can be accessed at: http://www.globaltradealert.org/network/centre-economic-policy-research

crisis era in Asia. SMEs are widely seen as the backbone of employment and economic activity in many East Asian economies but appear to have a limited presence in the region's trade and production networks. A recent study found that in ASEAN, for example, the share of SMEs participating in production networks varies between 6% and 46% depending on the country (Wignaraja 2013b).

4. THE FORMATION OF FREE TRADE AGREEMENTS AND CHALLENGES POSED

4.1 Shift to Free Trade Agreement Policies

Toward the end of the 20th century, market-driven trade policy was altered by a change in the nature of East Asia's international trade policy toward free trade agreements (FTAs). Alongside multilateralism, in the late 1990s Asian economies began emphasizing FTAs as a trade policy instrument, and today the region is leading the world in FTA activity (Baldwin 2006; Kawai and Wignaraja 2009, 2013; WTO 2011). In 2000, only three FTAs were in effect in East Asia, including the ASEAN Free Trade Area (AFTA), and another 10 were in various stages of preparation. However, in just a decade, the number of FTAs in the region increased more than tenfold. By the end of 2013, East Asia had emerged at the forefront of global FTA activity, with 77 concluded FTAs and another 51 or so in various stages of preparation. Underlining East Asia's commitment to open regionalism, many agreements are with partners outside East Asia.

Figure 4 shows the number of FTAs concluded by major Asian economies. The region's largest economies are increasingly the leading players in the spread of FTAs. Japan has concluded 13 FTAs, the PRC 14 FTAs, and the Republic of Korea 11 FTAs. Perhaps even more significant, these three economies have some 47 agreements in the pipeline. With the exception of Singapore, the smaller economies of Southeast Asia have only recently been aggressive in forging FTAs, mainly by taking collective action through ASEAN. Having implemented FTAs with the PRC, the Republic of Korea, and Japan from 2005 to 2008, ASEAN has also implemented a comprehensive FTA with Australia and New Zealand, and an FTA on goods with India. The individual ASEAN economies are also negotiating with the EU on an ASEAN–EU FTA.



Figure 4: Number of Concluded Free Trade Agreements in Asian Economies

FTA = free trade agreement, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Note: Concluded FTAs include those that are in effect and those that have been signed but are not in effect.

Source: ADB's Asia Regional Integration Center (ARIC) FTA Database (www.aric.adb.org), data as of December 2013.

Box: Explaining East Asia's Free Trade Agreement Proliferation

Four main factors underlie the recent spread of FTA initiatives in East Asia:

- First among these is market-driven economic integration through trade, FDI, and the formation of East Asian production networks. An increasing number of East Asia's policymakers believe that FTAs, if given wide scope, can support the growth of trade and FDI through further elimination of cross-border impediments. Thus, FTAs can be regarded as part of a supporting policy framework for deepening production networks formed by global MNCs and emerging East Asian firms.
- Second, European and North American economic regionalism—including the EU's expansion into central and eastern Europe and the Baltic countries, the creation of a European monetary union, and the success of the North American Free Trade Agreement (NAFTA) have motivated East Asian FTAs. Increasingly, the region's governments have realized the need for stepping up integration to (i) improve international competitiveness through exploitation of scale economies, (ii) strengthen their bargaining power, and (iii) raise their voice on global trade issues.
- Third, the 1997–1998 Asian financial crisis made it clear that East Asia needed to address
 common challenges in the areas of trade and investment in order to sustain growth and
 stability. This need has not yet been fulfilled by Asian initiatives to strengthen the regional
 economic architecture or by national efforts to strengthen fundamentals. Once the largest
 economies in the region—Japan and the PRC—began to undertake FTA initiatives, other
 economies started to bandwagon on these efforts out of fear of exclusion.
- Finally, slow progress in the 13 years of talks for the WTO Doha Development Round (DDR) negotiations encouraged countries to consider FTAs as an alternative approach. After difficult negotiations, the Ninth WTO Ministerial Conference in Bali, Indonesia in

December 2013 adopted the Bali Package aimed at streamlining trade facilitation procedures hindering global trade. But this is only a first step toward a Doha deal. The unfinished agenda includes developing a post-Bali work program for the WTO and reform of the WTO to strengthen its role in global trade governance. Meanwhile, pro-business Asian countries are emphasizing bilateral and plurilateral FTAs for the continued liberalization of trade in goods and services, as well as the adoption of the Singapore issues—trade facilitation, investment, government procurement, and competition policy—which remain beyond the current scope of the WTO.

Various concerns about Asia's evolving FTA-centric trade policy have been raised in the growing literature on Asian FTAs (e.g., Banda and Whally [2005]; Bhagwati [2008]; Drysdale and Armstrong [2010]; and Manchin and Pelkmans-Balaoing [2007]). These concerns are examined under the following headings (i) limited trade liberalization, (ii) insufficient WTO-plus elements, (iii) low use of FTA preferences, and (iv) an Asian "noodle bowl" of multiple rules of origin.

4.2 Limited Services Trade Liberalization

A major concern is limited services trade liberalization in Asian FTAs. Services account for more than half the GDP of most Asian countries, and trade in services has grown rapidly (Hoekman and Mattoo 2011). Studies suggest that impediments to trade in services, particularly regulatory restrictions on foreign services and service providers, exist across Asia (Findlay, Ochiai, and De 2009). Such impediments may occur in ownership rules, technical regulations, licensing, and qualification requirements.

A lack of data on trade in services makes it hard to estimate the value of the services trade covered by an FTA. There also seems to be limited consensus on the meaning of "substantial sectoral coverage" in services trade and an assessment of "national treatment" (i.e., treating service suppliers from the FTA partner country as nationals) requires detailed subsector analysis. Furthermore, varying liberalization approaches to services (e.g., positive, negative, or hybrid approaches to General Agreement on Trade in Services [GATS] negotiations) and an absence of disaggregated data on trade in services makes it difficult to quantify substantial sector coverage.

A practical way forward is to focus on the first requirement of the GATS and to interpret "substantial sectoral coverage" to mean that a high-quality FTA should cover key services sectors.⁹ The GATS classification list of 12 service sectors is a useful input for creating a simple threefold classification of Asian FTAs as follows:

- Comprehensive coverage of services. An FTA covers the five key sectors of the GATS—business and professional services, communications services, financial services, transport services, and labor mobility/entry of business persons. Coverage of other sectors may also be included. The five sectors were chosen as the yardstick because they are the main sectors in terms of the value of services trade in Asia and are also subject to multiple regulatory barriers on foreign services and service providers.
- 2. Excluded or limited coverage of services. An FTA either excludes services trade liberalization or provides only general provisions thereof, or covers only one of the five key sectors in addition to some other sectors.

⁹ This approach, which draws on Wignaraja and Lazaro (2010) and Wignaraja et al. (2013), can be readily applied to large population of Asian FTAs. Future research can extend Fink and Molinuevo's (2008) more detailed review of key architectural choices in East Asian FTAs with a services component (e.g., scheduling commitments, treatment of investment, movement of natural persons, and dispute settlement) to analyzing the 69 Asian FTAs.

3. Some coverage of services. An FTA is not otherwise classified as comprehensive, excluded, or limited. Such an FTA would typically cover between two and four key sectors of the GATS and some minor sectors.



Figure 5: Services Coverage of Asian Free Trade Agreements

FTA = free trade agreement.

Notes: The data cover 77 FTAs in Asia. "Comprehensive" means an FTA covers the five key sectors of the GATS—business and professional services, communications services, financial services, transport services, and labor mobility/entry of business persons. "Excluded/limited" means an FTA either excludes services trade liberalization or provides only general provisions thereof, or covers only one of the five key sectors in addition to some other sectors. Coverage of other sectors may also be included. "Some coverage" refers to those in between excluded/limited and comprehensive.

Source: Kawai and Wignaraja (2013), data as of December 2013

A sector is considered as covered if at least one party includes its GATS and GATSplus commitments, regardless of the number of subsectors, volume of trade affected, or the four modes of supply.¹⁰ This classification system was applied to Asian FTAs during 2000–2013 (see Figure 5). The evidence indicates a trend in Asian FTAs toward progressively liberalizing the services sectors of participants and providing for deeper regulatory cooperation in services over time. In the early 2000s, the majority of FTAs had limited or some coverage of services. By 2005, 10 FTAs¹¹ (45%) were deemed to be comprehensive in covering at least five key services, 5 (23%) provided coverage of between two and four key sectors, and 7 (32%) had little or no coverage. Thereafter, most new FTAs typically incorporated either comprehensive or some coverage of services. Of the 77 FTAs in 2013, 35 (45%) were comprehensive and another 25 (33%) had some coverage. Only 17 (22%) had limited or no coverage.

Many Asian FTAs adhere to key GATS principles such as market access (quota elimination); national treatment (equal treatment of local and foreign service providers); most favored nation (MFN) treatment (service suppliers of an FTA member will automatically receive benefits given to other future FTA parties); reasonable, impartial,

¹⁰Namely, cross-border trade in services (mode 1), consumption abroad (mode 2), commercial presence (mode 3), and temporary movement of natural persons (mode 4).

¹¹Six FTAs, which involve Singapore, typically cover the 5 key services. A similar approach was followed in the Taipei, China–Panama FTA, the Japan–Mexico FTA, and the Thailand–Australia FTA. The ASEAN Framework Agreement on Services (AFAS) was signed in 1995–1996 and the protocol to amend AFAS was launched in 2003. Thereafter, several rounds of negotiations have aimed at deepening AFAS.

and objective domestic regulations; transparency; and mutual recognition agreements (MRAs). MRAs enable the qualifications of professional services suppliers to be mutually recognized by signatory member states, thereby facilitating the easier movement of professional services providers among the member countries.

Several Asian FTAs also provide for GATS-plus commitments meaning that the FTA liberalization goes beyond WTO commitments in relation to subsectors or regulations. The Japan-Singapore agreement is particular comprehensive, with each side expanding its commitments in more than 130 sectors focusing on national treatment. Additional comprehensive disciplines for financial and telecommunications services are imposed through two separate annexes. In the EU-Republic of Korea FTA, the Republic of Korea commits to liberalize more than 100 sectors, including the telecommunications, environmental, transport, construction, financial, postal and express delivery, professional services such as legal, accounting, engineering, and architectural services sectors. Finally, in the ASEAN-Australia-New Zealand Free Trade Agreement (AANZFTA), the six original ASEAN members expanded the liberalization of their telecommunications services to additional subsectors, while four of them (Indonesia, Malaysia, the Philippines, and Singapore) went even further with their commitments in financial services. Australia and New Zealand have also made GATS-plus commitments covering modes 1-3 in a number of sectors, including business and financial services.

Although there is variation across Asian FTAs in terms of coverage of services, more emphasis is being placed on services trade liberalization than before. Newer agreements, particularly those between developed and developing countries, typically encompass the five key sectors of the GATS (business and professional services, communications services, financial services, transport services, and labor mobility/entry of business persons).

4.3 Insufficient WTO-Plus Elements

A second concern relates to insufficient coverage of Asian FTAs of new issues which go beyond the WTO framework. The WTO system that emerged from the Uruguay Round in the mid-1990s consisted of substantive agreements on goods and services. The subsequent WTO Doha Development Round initiated in 2001 has focused on liberalization in agricultural and non-agricultural market access. The four Singapore issues (competition policy, investment, trade facilitation, and government procurement) were conditionally included in the work program for the Doha Round, but were dropped at the WTO Ministerial Conference in Cancun in 2004. WTO-plus agreements and "new age" FTAs, which are comprehensive and address the Singapore issues, are becoming more common globally (Fiorentino, Crawford, and Togueboeuf 2009; Freund and Ornelas 2010). An increase in WTO-plus elements in the landscape of Asian FTAs has been identified as a pressing challenge for economies. Studies suggest that Asian FTAs vary considerably in their scope with some sophisticated agreements alongside limited FTAs (Banda and Whalley 2005; Plummer 2007).¹² Yet, systematic crosscountry evidence on the scope of Asian FTAs is lacking, particularly with regard to more recent agreements.

¹² An early review of 11 Asian agreements concluded that "modern FTAs in Asia, some of which are the most sophisticated in the world, have tended to be more comprehensive in terms of coverage and of the building block rather than the stumbling block type, though there are some (minor) exceptions in terms of certain components" (Plummer 2007: 1795). The study suggested a set of best practices to guide future FTAs.

Figure 6 shows the scope of all concluded Asian FTAs by economy for 2013 according to (i) narrow agreements that deal with goods and/or services; (ii) somewhat broader agreements covering goods, services, and some Singapore issues (partial WTO-plus); and (iii) comprehensive agreements covering goods, services, and all four Singapore issues (comprehensive WTO-plus). (ii) and (iii) can be considered WTO-plus FTAs. The scope of concluded agreements reflects a combination of economic interests, economic strength, and negotiation capacity. The pattern is striking. The early Asian FTAs seemed to be concerned largely with goods and services. From the mid-2000s onward, however, significantly more emphasis was given to broad agreements with many WTO-plus elements. By 2013, 20 (26%) were goods and/or services only FTAs, 39 (51%) were partial WTO-plus FTAs, and 18 (23%) were comprehensive WTO-plus FTAs.

Three leading participants in Asian FTAs—Japan, Singapore, and the Republic of Korea—strongly favor a WTO-plus approach to FTAs and are increasingly emphasizing comprehensive agreements (see Figure 6). All of Japan's agreements and most of Singapore's and the Republic of Korea's are WTO-plus. Likewise, Thailand, Malaysia, Brunei Darussalam, Indonesia, Philippines, and Viet Nam largely follow a WTO-plus format.

Figure 6: Scope of Concluded Free Trade Agreements in Asia: Number of Free Trade Agreements with Narrow and World Trade Organization-Plus Coverage by Economy



FTA = free trade agreement, Lao PDR = Lao People's Democratic Republic, WTO = World Trade Organization.

Note: The data cover 77 FTAs in Asia.

Source: ADB ARIC FTA database (www.aric.adb.org); data as of December 2013.

4.4 Low Use of Free Trade Agreement Preferences

Low preference use at the firm level is a third concern associated with Asian FTAs. Well-designed and comprehensive FTAs provide numerous benefits, including preferential tariffs, market access, and new business opportunities. One might assume that firms would desire to avail of such benefits once a given FTA is in effect. Previous studies at the country and industry levels, however, suggest that FTA preference

utilization rates—based on the proportion of exports using preferences—are low in Asian countries and that FTAs are underutilized (Baldwin 2006; World Bank 2007; Drysdale and Armstrong 2010; Ravenhill 2010). This is mainly due to the increasing number of zero MFN tariff lines. Accordingly, Asian FTAs are often viewed as discriminatory and a drain on scarce trade negotiation capacity in developing countries (Bhagwati 2008).

Information on certificates of origin, based on databases of customs authorities or business associations, covers all the users of FTA preferences in a given country. One of the difficulties in investigating the evolution of FTA preferences is that most Asian countries do not publish official information and a regional initiative to create a database on FTA use is absent. Fortunately, Thailand is an exception and publishes official FTA use information in Thai language which was obtained from secondary sources (JETRO 2010, 2012). Data for the Republic of Korea, Malaysia, and Viet Nam, which are not published, were obtained from secondary or official sources. Table 3 shows annual FTA use data for 2008–2011 for the four countries.

Table 3: Share of Export Value with Free Trade Agreement Preferences, 2008–2011

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	2008	2009	2010	2011
Republic of Korea	48.3	53.2	51.1	49.4
Thailand	26.8	37.5	37.2	42.2
Malaysia	10.3	28.3	22.7	23.5
Viet Nam	11.3	35.0	24.3	32.7
Four-Country Average (Non-Weighted)	24.2	38.5	33.8	37.0

(%)

Sources: Republic of Korea (Korea Customs Services), Malaysia and Thailand (JETRO 2010 and 2012), and Viet Nam (Tran 2012).

Several findings are worth highlighting. First, average FTA use in the four countries is higher than expected from previous studies. Strikingly the four-country average FTA use rose markedly from 24% to 39% between 2008 and 2009. After a modest decline between 2009 and 2010, this figure reached a respectable 37% in 2011.

Second, all countries show notable levels of FTA use since 2008 but the pattern varies by country. The Republic of Korea is an outlier for having achieved particularly high FTA use of 53% in 2009, which declined slightly to 49% in 2011. The Republic of Korea's 2011 figure was slightly higher than in 2008. Other countries show significant increases in FTA use over the same period—Thailand's FTA use rates rose from 27% to 42%, Malaysia's more than doubled from 10% to 24%, and Viet Nam's trebled from 11% to 33% all during 2008–2011.

Third, country-level FTA use varies by trading partner.¹³ Some examples are useful. In the case of the Republic of Korea, the most used were the US–Republic of Korea FTA (69%), the EU–Republic of Korea FTA (79%) and the Republic of Korea–Chile FTA (99%). Meanwhile, other agreements like the Republic of Korea–India FTA (16%) and the ASEAN–Republic of Korea FTA (33%) were used less. In Thailand's case, the agreements with high use include the ASEAN–Republic of Korea FTA (49%), the Thailand–Australia FTA (59%), and the ASEAN–India FTA (80%), while the less used

¹³ Data for the Republic of Korea–US FTA and Republic of Korea–EU FTA are for 2012. The rest are for 2011.

ones were the ASEAN–PRC FTA (35%), AFTA (28%), and the Japan–Thailand FTA (25%). In Viet Nam, the ASEAN–Republic of Korea FTA had the highest use (91%) while the ASEAN–India FTA had the lowest use (7%). In Malaysia, the ASEAN–Republic of Korea FTA (51%) had the highest use, the ASEAN–Japan FTA reasonable use (31%), and the ASEAN–Australia–New Zealand FTA the lowest use (14%). Underlining the role of FTAs in facilitating market access, some agreements with major markets appear to have higher FTA use than others (e.g., the US–Republic of Korea FTA and EU–Republic of Korea FTA). More attractive tariff preferences for key products and more simplified rules of origin may help explain why bilateral FTAs are often more attractive to firms than plurilateral agreements.

While certificate of origin data comprehensively cover FTA users, they do not highlight the characteristics of FTA users nor impediments to using FTAs. Accordingly, more micro-level analysis using firm surveys in several countries is required to highlight these issues. Six comprehensive surveys of manufacturing exporting firms conducted in 2007–2008 by ADB, ADBI, and several partner researchers in Japan, the PRC, the Republic of Korea, Singapore, Thailand, and the Philippines shed light on the use of FTA preferences (see Kawai and Wignaraja [2011b], and Wignaraja [2010]). In addition, surveys of Indonesia and Malaysia were conducted by ADB and ADBI in 2011 and 2012 respectively (see Wignaraja [2013a]). The surveys yielded a sample of 1,281 Asian sample firms and the details of the firm survey methodology are provided in Kawai and Wignaraja (2011b).¹⁴

The reasons that the majority of Asian sample firms do not currently use FTA preferences are not widely known. The ADB and ADBI surveys generated responses on the reasons for non-use of FTA preferences and some of these results are shown in Table 4. Surprisingly, a lack of information on FTAs was the most significant reason for non-use of preferences as reported by 56% of firms surveyed in the Philippines, 51% in Malaysia, 45% in the PRC, 40% in Indonesia, and 34% in the Republic of Korea. Low margins of preference and delays in handling documents and administrative costs associated with rules of origin were the second and third most common reasons cited. Other reasons for non-use included: not being interested in trading with FTA partners; use of other schemes such as export processing zones and the Information Technology Agreement for exporters, which also provide incentives for exporters; and non-tariff measures in partner countries that inhibit exports and, hence, use of FTA preferences.

¹⁴ In essence, experienced teams of researchers used a common questionnaire and random sampling methods to collect the firm-level data. The firm surveys of each country contained a mix of firms of different ownership (foreign and local) and size classes (large firms and SMEs), which were broadly representative of national industrial structures. The firms were drawn from the region's largest industries (such as electronics, automotives, and textiles and garments) as well as an industry of national importance in each country (such as metals and machinery in the Republic of Korea and food in the Philippines).

(// 01/00/00/00/00/00/						
Impediments	PRC	Rep. of Korea	Philippines ^a	Indonesia	Malaysia	
Lack of Information	45.1	34.2	55.5	39.8	50.9	
Use of EPZ schemes of ITA	8.8	-	20.0	14.6	15.0	
Delays and administrative costs ^b	10.6	10.8	21.9	11.7	20.9	
Small preference margins	14.2	35.8	5.8	3.9	26.1	
Too many exclusions	4.4	-	9.0	-	-	
Rent seeking	5.3	-	12.9	10.7	23.1	
NTMs in FTA partners	6.2	4.2	3.9	3.9	3.4	
Confidentiality of information required ^b	10.6	-	7.1	-	-	
Not interested in trading with FTA partners	-	-	-	9.7	30.3	
Number of respondents ^c	226	120	155	206	234	

Table 4: Impediments to Using Free Trade Agreements (% of respondents)

EPZ = export processing zone, FTA = free trade agreement, ITA = Information Technology Agreement, NTM = non-tariff measures, PRC= People's Republic of China.

Note: - indicates the category was not included in the survey for the country under consideration.

^a AFTA only

^b Rules of origin requirement

^c Multiple responses were allowed.

Source: Author's calculations based data reprinted in Kawai and Wignaraja (2011a) and Wignaraja (2013a).

4.5 An Asian "Noodle Bowl" of Multiple Rules of Origin

Rules of origin (ROOs) are another potential concern for Asian FTAs. These are devices to determine which goods will enjoy preferential tariffs in order to prevent trade deflection among FTA members. An influential strand of literature argues that Asian FTAs have complicated ROOs, sparking concerns about what the attendant rules and administrative procedures would imply for the cost of doing business (Manchin and Pelkmans-Balaoing 2007; Tumbarello 2007). With the rapid spread of FTAs throughout Asia, this literature further suggests that multiple ROOs in overlapping FTAs pose a severe burden on SMEs, which have less ability to meet such costs. Originally termed a "spaghetti bowl" of trade deals (Bhagwati 1995), this phenomenon has become widely known as the "noodle bowl" effect in Asia.¹⁵

To what extent are multiple ROOs perceived as a problem by businesses in Asia? ADB and ADBI firm surveys provide interesting insights into this issue.¹⁶ The evidence suggests that multiple ROOs impose a limited burden on firms in Asia. Of the 1,281 firms that responded to the question on this issue, 362 firms (28%) said that multiple ROOs do significantly add to business costs. Meanwhile, the bulk of the sample firms did not think that they were a problem at present. However, aggregate figures masks interesting country-level variations in perceptions (see Figure 7). Malaysian firms had the most negative perceptions of multiple ROOs (46%), while PRC firms from Singapore, Japan, the Philippines, Thailand, and the Republic of Korea. National FTA strategies,

¹⁵ Others suggest that the depiction of Asian FTAs as a complicated noodle bowl is misleading. On the contrary, it has been argued that Asian FTAs may be creating an order of a different sort by building the foundation for a stronger regional trading system (Petri 2008; Chia 2010).

¹⁶ Data for Malaysia and Indonesia were from the ADB and ADBI firm surveys (see Wignaraja 2013a), while data for other countries can be found in Kawai and Wignaraja (2011b).

industrial structures, and the quality of institutional support may underlie differences in perceptions of ROOs across Asian countries.





PRC = People's Republic of China.

Source: Authors' computation based on ADB/ADBI survey data. See Kawai and Wiganaraja (2011b) and Wignaraja (2013a)

The surveys also suggest that larger firms in Asia have more negative perceptions of multiple ROOs than SMEs, which was an unexpected finding. The relationship between firm size and concerns about multiple ROOs presents an interesting puzzle for research. Econometric analysis to resolve the puzzle shows that large established firms tend to export to multiple markets and change their business plans in response to FTAs. Therefore, they are more likely to complain about issues of multiple ROOs (Kawai and Wignaraja 2009). In contrast, smaller firms tend to export to a single market and hence do not have much basis for complaining. While inter-country and intra-firm size variations exist, there does not seem to be much variation in perceptions across sectors.

5. POLICY IMPLICATIONS ARISING FROM ASIAN FREE TRADE AGREEMENTS

Asia's evolving trade policy architecture is likely to be increasingly anchored on FTAs for the foreseeable future. There are three reasons for this prediction. First, the multilateral negotiating function at the WTO seems broken as there is little end in sight for the long-standing WTO Doha Round trade talks. Second, the momentum for further unilateral liberalization in Asia seems to have run out of steam with import tariffs reaching historic lows by the early 2000s. Third, almost all Asian economies are currently pursuing FTAs to sustain the momentum for liberalization and to attempt to reduce more difficult behind-the-border regulatory barriers.

As the number of FTAs grows and as firms increasingly use FTA preferences, we may expect more concerns about Asian FTAs to arise in the future. Like with all economic policy choices, however, there are costs and benefits associated with the formation of FTAs. Accordingly, a realistic and pragmatic approach would be to encourage Asian economies to design and implement FTAs in such a way as to maximize benefits and

minimize potential costs. This would involve complementary actions at the national, regional, and global levels.

5.1 National Level

Important elements of a realistic and pragmatic approach at the national level include the following actions.

Facilitating services trade liberalization. Radical liberalization of trade in services via the WTO or Asian FTAs seems unlikely in the foreseeable future for political economy reasons. With limited appetite for multilateral service trade liberalization, a modest way forward is for all future Asian FTAs to cover the five key sectors of the GATS (business and professional services, communications services, financial services, transport services, labor mobility/entry of business persons). Furthermore, such coverage should adhere at least to GATS principles (such as market access, national treatment, transparency, and mutual recognition agreements) and contain only limited exemptions. Over time, sectoral coverage can be expanded and further GATS-plus commitments can be considered particularly in agreements encompassing more developed economies.

Increasing WTO-plus elements. The inclusion of WTO-plus provisions—particularly the four Singapore issues—would be desirable in all future Asian FTAs. For example, competition policy and investment provisions are integral ingredients in facilitating FDI inflows and the development of production networks. Inclusion of provisions on trade facilitation and logistics development would help lower transactions costs in conducting trade. Cooperation provisions—along the line of the APEC economic and technical cooperation (ECOTECH) agenda—would stimulate technology transfer and industrial competitiveness. In their FTA negotiations, the US and EU prefer a single undertaking and the inclusion of these WTO-plus provisions. The US–Singapore, US–Republic of Korea and EU–Republic of Korea agreements are cases in point. The ASEAN Comprehensive Agreement on Investment, which came into effect on 29 March 2012, is in line with the goal of achieving an ASEAN Economic Community by 2015.

Improving use of FTA preferences. Use of FTA preferences can be encouraged by raising awareness of (i) FTA provisions, including the phasing out of tariff schedules; (ii) margins of preference at the product level; and (iii) administrative procedures for rules of origin (ROOs). Business associations and governments could make information on how to use FTAs more transparent, particularly for SMEs. Practical ideas include frequent seminars with SMEs, television programs directed at businesses, and dedicated websites and telephone helplines. More generally, institutional support systems for businesses, particularly for SMEs, need to be improved. Existing support systems for exporting under FTAs are of varying quality and take-up rates. Significant public and private investment is required in Asia to improve coverage of support services. upgrade service quality, and reduce bureaucratic impediments to service use. Business and industry associations will have to play a greater role in providing members with support services for exporting under FTAs. Upgrading SME technical standards, quality, and productivity could be useful so that they can participate more fully in regional production networks driven by large firms. Furthermore, a region-wide database on FTA use needs to be established and maintained so that FTA use can be tracked over time.

Tackling the Asian noodle bowl of ROOs. The finding of a limited burden imposed by multiple ROOs does not mean that policymakers should be complacent about the issue. As the number of concluded FTAs increases, it is possible that multiple ROOs may become more of a problem for firms. Supportive measures—such as encouraging

rationalization of ROOs and upgrading their administration—are needed to mitigate the negative effects of the Asian noodle bowl in the future. Widespread gains are possible from pursuing a simplified approach to ROOs in Asia involving harmonized ROOs, cumulation of value contents, and coequality of ROOs.¹⁷ Likewise, it would be useful to adopt international best practices in ROO administration. These may include introducing a trusted trader program, as in the case with NAFTA, that would allow successful applicants to self-certify their own certificates of origin, switching to business associations issuing certificates of origin for a fee, increasing use of information technology-based systems of ROO administration, and training SMEs to enhance their capacity to use FTAs.

5.2 Regional level

Multilateralization of regional FTAs—through liberal cumulation rules and eventually a merger of various overlapping FTAs in Asia into a large region-wide agreement—would provide notable economic benefits (Chia 2010; Baldwin and Kawai 2013). These include: greater market access for goods, services, skills, and technology; larger market size permitting increased specialization and realization of economies of scale; easier foreign direct investment and technology transfer by multinational corporations and SMEs; simpler trade and investment rules; inclusion of small, low income economies in the region's wider trade agreement; and insurance against protectionist sentiments.

A region-wide FTA in Asia could arise from a series of linked agreements covering varied issues and participants (Cheong and Tongzon 2013; Kawai and Wignaraja 2013. Two competing processes are emerging as the future basis for a region-wide FTA: a Regional Comprehensive Economic Partnership (RCEP) among the ASEAN+6 countries (the 10 ASEAN economies plus Australia, the PRC, India, Japan, the Republic of Korea, and New Zealand); and the Trans-Pacific Strategic Economic Partnership (Trans-Pacific Partnership, or TPP) agreement among 12 economies (Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the US, and Viet Nam) currently under negotiation.

To realize the RCEP, a trilateral FTA among the PRC, Japan, and the Republic of Korea should first be concluded and then be connected with the existing ASEAN+1 FTAs—that is, ASEAN's five FTAs with Australia and New Zealand, the PRC, India, Japan, and the Republic of Korea. The TPP aims to achieve a high-quality agreement and includes four ASEAN members and Japan, from Asia. These two mega FTAs are key processes in creating a larger Asia-Pacific FTA, which would however require successfully addressing the difficult task of forging a US–PRC agreement.

These two processes are not mutually exclusive and will likely prove to be complementary. The changing center of global economic gravity—given the rapid economic rise of the PRC and India—suggests that the RCEP is attractive to many Asian economies, including developing ones. Countries that are ready to accept high standards required for the TPP and wish to strengthen existing ties with the US will likely join the TPP.

¹⁷ Harmonized ROOs means the same ROO is applied across FTAs. Co-equal ROOs means alternative ROOs for the same product are available in an FTA and firms are free to choose between them. Cumulation allows the use of non-domestic inputs from a specific country or group of countries (with such inputs taken as originating in the FTA partner country claiming origin) as determining the products origin. See Baldwin and Kawai (2013) and Kawai and Wignaraja (2011b).

Whatever paths are taken, it will be important to accelerate the liberalization of goods and services trade and investment, reduce behind-the-border barriers, and pursue domestic reforms. A harmonious Asia and the Pacific would likely see a convergence of the two processes being considered. This would be a win–win solution for the Asia and Pacific community.

Asia's next step would be to strengthen its trade relationships with other parts of the world, starting with Europe. A mega Asia–Europe FTA would be another important building bock, along with the Asia-Pacific FTA, to connect Asia with the global economy and support global trade integration in a way to complement the WTO Doha Round trade talks.

5.3 Global Level

International trade rules and institutions can have profound effects on the shifts of trade relationships in Asia and globally. The responsibility of global trade governance has rested with the WTO since its creation in 1995, and its membership grew to 159 countries in early 2013. The WTO's central function is to provide a forum for international trade negotiations that results in WTO agreements. The WTO's other functions include administering WTO agreements, monitoring national trade policies, and providing technical assistance and training for developing countries.

The slow progress in the WTO Doha Round trade talks means that new multilateral trading rules will take time to evolve amid calls for WTO reforms. Successful conclusion of comprehensive global trade talks would be an invaluable contribution to global, including Asian, prosperity (see Hoekman, Martin, and Mattoo [2009]; Bhagwati and Sutherland [2011]; and WTO [2011]). The small Bali Package agreed in December 2013 is a useful step toward restoring the credibility of the WTO as a trade rule-making institution. However, the outcome of the current Doha Round trade talks remains uncertain and the eventual result may be a significantly limited agreement.

The narrow negotiating agenda and slow progress of the WTO Doha Round may be partly due to the nature of the WTO's decision-making mechanism and its underlying principles of consensus and single undertaking. In this vein, an important initiative at the global level may be greater use of plurilateral agreements (which focus on rule making and liberalization on a single trade or sectoral issue) within the WTO framework. An example is the Information Technology Agreement (ITA) with an open accession clause. Plurilateral agreements permit interested parties to freely choose the issue for an agreement and voluntarily participate in the negotiations. Well-designed, issue-based plurilateral agreements can serve the needs of like-minded developed and developing countries alike, enhance the spread of FDI-driven global supply chains, and complement WTO and FTA rule making. Services, trade facilitation, and electronic commerce may be candidates for future issue-based plurilateral agreements.

In the medium term, a WTO agenda on supply chains and FTAs would be necessary to encourage convergence of regional and global trading rules. Such a WTO agenda would tackle behind-the-border issues relevant to fragmented production systems and supply chains, particularly trade facilitation, investment policy and non-tariff barriers. It would also encompass relevant rules in FTAs particularly those relating to the Singapore issues (investment, trade facilitation, competition, and government procurement). It has been argued that the WTO has not kept up with the need for new rules governing the intertwining of trade, investment, intellectual property and services (Baldwin 2011). Bringing these rules to the multilateral level needs the creation of a new international organization—a "WTO 2.0."

6. CONCLUSIONS

This paper has analyzed the changing relationships between trade policy, production networks, and economic growth in East Asia. The region's rapid rise as the global factory through successive waves of newly industrializing economies is an unprecedented historical achievement. Many factors (including initial conditions and factor endowments) helped the creation of Factory Asia. But there is little doubt of the central role played by outward-oriented development strategies in facilitating trade promoting FDI and market-led integration, which naturally formed sophisticated production networks within East Asia. The region's globalization of trade and FDI has been accompanied by regionalization characterized by rising intraregional trade shares and increasing amounts of intermediate goods trade. Nonetheless, East Asia still remains heavily dependent on external demand.

From a broader perspective, participation of East Asian economies in production networks has fostered rapid industrialization, trade, and growth in the region during the pre-global financial crisis period. Ironically, however, the very interdependence built up through a complex web of production networks meant that the negative impacts of the global financial crisis were also transmitted rapidly to East Asian economies through the trade and finance channels. East Asian economies reliant on Factory Asia were more affected than the rest of the developing world and saw the disappearance of differentials in industrial and economic growth in the global financial crisis period and after. Apart from the consequences of the global financial crisis, recent years have also seen the emergence of various stresses to the performance of Factory Asia including the risk of protectionism, the persistence of residual behind-the-border regulatory barriers, the stalled WTO Doha Round trade talks, and the need for more inclusion of SMEs.

The evolving trade policy response in major East Asian economies has focused on FTAs. The region's largest economies and Singapore are key to the growing Asian FTA activity while ASEAN, as an organization, is emerging as an integration hub for such efforts. The trade coverage of Asian FTAs has increased, and broader issues than simple trade liberalization have been addressed.

With the large number of FTAs concluded and under negotiation, Asian FTAs are here to stay. Maximizing the benefits of these Asian FTAs while minimizing their costs would be highly pragmatic. Given the observations of this study, this paper suggests a coherent approach to concordance of national, regional, and global trade rules.

Some key elements of pragmatic responses to Asian FTAs at the national and regional levels may include:

- facilitating gradual increases in liberalizing services-trade policies through emphasis on key GATS sectors;
- including WTO-plus provisions—particularly the four Singapore issues—in all future Asian FTAs;
- increasing the use of FTAs through improved awareness and strengthened institutional support, particularly for SMEs, and creating a regional database on FTA use;
- addressing the Asian noodle bowl through greater rationalization of ROOs and upgrading ROO administration to best-practice levels; and
- facilitating the creation of a region-wide agreement in Asia—through an eventual convergence of RCEP and/or TPP and then eventual

convergence—with appropriate sub-sequencing and support for development gaps among members.

To strengthen global trade governance, such national and regional level actions might be accompanied by actions at the multilateral level including the following:

- Building on the Bali small package, eventually concluding the WTO global trade talks would be a critical step toward restoring the credibility of the WTO as a trade rule-making institution. However, the outcome of the current Doha Round trade talks remains uncertain and the eventual result may be a limited agreement.
- Additional key actions for the WTO are enhancing surveillance of non-tariff measures to reduce tendencies toward protectionism in the global economy and a WTO agenda on supply chains and FTAs to foster convergence of global and regional trading rules.

Actual developments may well not be as orderly, neat, or rational as those described above. The reality could easily become substantially more complex. The convergence between national, regional, and global trade rules will take some time. Nonetheless, how Asia thinks and acts on these issues will likely influence the world economy. As Pascal Lamy (former Director-General of the WTO) reminded us recently (Lamy 2013: 18):

"Asia has been a successful model of development through trade, which has inspired many others around the world. There is no doubt that the region will continue to inspire the trade community in the next decades to come... With its significant economic and trade weight in the global economy, Asia is expected to shoulder more responsibilities and take the lead in the global trading system in the future."

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