

Routes for Asia's trade

Developing Asia has a huge stake in maintaining an open global system of trade and investment. The integration of the region into the world economy has been largely driven by market forces, particularly by private foreign direct investment and the related rise of intra-industry trade. Asia's dependence on demand in European and North American markets is increasing, but the dynamics of integration are changing. Countries in Asia and in other regions are increasingly experimenting with preferential trade agreements, and on a bilateral basis. The danger lies in the emergence of crisscrossing agreements, which may lead to "hub-and-spoke" systems benefiting large trading hubs but obstructing market access among trading spokes, and which may complicate the commercial environment through restrictive rules of origin.

This part of the *Asian Development Outlook 2006* illustrates the risks and opportunities of bilateralism and seeks out means to ensure that the rising tide of bilateral free trade agreements leaves, in its wake, building blocks to global trade liberalization, not stumbling blocks.

Introduction

Rising prosperity in the global economy has been closely associated with vibrant growth of international trade (Maddison 1995). History attests that when nations erect high walls against international trade and turn their economies inward, stagnation and decline typically follow.

Over the past 30 years, international trade has also been closely associated with rising incomes and falling poverty in Asia. Throughout most of this period of rapid Asian economic growth, growth of exports and imports has outpaced growth of income. Although debate remains about the exact nature of the links between trade and growth, rapid expansion of trade, particularly merchandise trade in manufactures, has usually occurred in tandem with large investments in capital, technological upgrading, and the acquisition of new skills and knowledge—all of which have boosted productivity.

Fast expansion of trade has brought wider benefits. In particular, the social impacts of trade-led growth have generally had positive effects on employment, labor-force participation rates of women, and jobs for new entrants to the labor force. Expansion of international commerce has also been an important channel through which competition and choice have been enhanced. Although differences of opinion exist about the appropriate pace and scope of trade liberalization, the experiences of East Asia, and Southeast Asia, and then the People's Republic of China (PRC) have had a powerful effect in persuading others of the potential benefits of reducing protection and better gearing their economies to trade. India, for example, has now embarked on a liberalization effort aimed at reducing its high tariffs to East Asian levels and is also allowing up to 100% foreign equity in industrial enterprises.

In this part of the *Asian Development Outlook 2006*, future opportunities for Asia's trade are explored.¹ These opportunities will be shaped by a variety of factors. At a global level, prospects for the world economy and the outcome of the Doha Round (Part I of *Asian Development Outlook 2006*) will obviously be important as, of course, would any future initiatives for multilateral liberalization. At a regional level, programs and agreements intended to forge closer cooperation and deepen integration could prove influential. Motivated by a variety of interests, a number of countries within the region are now also pursuing bilateral trade (and investment) agreements, often with partners outside the region. A looming challenge will be to minimize inconsistencies and frictions among multilateral, regional, and bilateral agreements.

Outside the arena of formal trade agreements are other important factors driving trade expansion. For example, increasing trade integration within East and Southeast Asia has been closely associated with changes in industrial organization and the spread of international production sharing, or the fragmentation of vertically integrated supply chains. The attractiveness of East and Southeast Asia as production and investment platforms has been enhanced by a variety of measures that reduce the frictions and costs of trade, such as investments in port and other infrastructure, the establishment of special zones and bonded industrial warehouses, and duty drawback schemes. These arrangements have allowed investors to take advantage of economies of scope and specialization and have resulted in a burgeoning cross-border trade in manufactured parts and components and in assembly of final goods.

In the next section, *The drivers of trade and integration in Asia*, the growth of Asia's trade is chronicled. The roles of policy, technology, and markets in influencing growth of trade and patterns of regional integration are examined. A key conclusion is that technological change, markets, and the private sector, particularly multinational firms, have been crucial in deepening integration. To date, regional trade agreements have had only a limited impact on integration; the most significant liberalization efforts have been unilateral.

The rise of bilateralism, the subsequent section, considers relevant institutional factors. An enumeration and classification of free trade agreements (FTAs) involving one or more developing member country of the Asian Development Bank (ADB) suggests not only that bilateralism is on a strong upswing but that it crisscrosses regions. Asia's "noodle bowl" is not only expanding, but is becoming increasingly enmeshed with elaborate agreements in other parts of the world. This section points to the risks that a proliferation in bilateralism entails in terms of trade diversion. There is also a risk that bilateralism could polarize opportunities, favoring large trading "hubs" at the expense of more isolated trading "spokes."

Trade scenarios: Potential benefits and risks examines the welfare implications of multilateral, regional, and bilateral trade liberalization scenarios using an Asian-focused computable general equilibrium model of the global economy (GEMAT). Full global liberalization of merchandise trade provides an ideal against which the impacts of partial liberalization in a hypothetical Asian Free Trade Area—with most-favored-nation (MFN) tariffs—and Asian "bilateral hub and spoke"

systems are compared. Given the limitations of computable general equilibrium models and the likelihood that they underestimate benefits from trade liberalization, the relative rather than absolute magnitude of the welfare impacts are of most interest.

Recognizing that global free trade is a long-term ambition, the penultimate section, *An agenda for trade and integration in Asia*, asks what developing Asia can do to position itself to maximize the future benefits of trade. Steps to mitigate the potential damage arising from the noodle bowl problem and hub-and-spoke trading configurations are set out. These may require extending technical assistance and cooperation to poor countries where capacities and institutions are weak. Beyond ensuring that bilateral agreements are designed to mitigate trade diversion problems, it is argued that bilateralism may provide a springboard for “deeper integration,” either through measures that go beyond World Trade Organization (WTO) agreements, or through reductions in behind-the-border frictions. To the extent that bilateral agreements can do this, the gains from bilateralism may offset any losses entailed by discrimination. For example, bilateral agreements that help reduce trade transaction costs or liberalize cross-border investment present the opportunity for sizable income gains.

The *Conclusions* section summarizes the key messages. The now familiar—but crucial—point is restated that further progress on multilateral liberalization will limit the potential harmful effects of bilateral agreements by reducing the scope for discrimination through narrowing margins of preference.

The drivers of trade and integration in Asia

Developing Asia’s trade performance in the last two decades has been remarkable. From 1984 to 2004, its exports expanded almost 10-fold. Over the same period, world exports grew just fivefold (Figure 3.1). As a consequence, developing Asia’s share of world exports almost doubled over the same period, and by 2004 had reached 21.3%. This mushrooming of trade was in substantial measure due to the performance of East Asia, but was also supported by steady expansion in South and Southeast Asia. Central Asia’s trade expanded rapidly over the last several years, and has even outpaced that in other subregions, but this was from a low base after the acute contraction that occurred with the breakup of the Soviet Union.

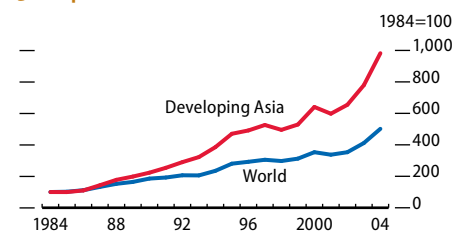
Arguably, trade expansion has been a significant contributory factor in the strong growth performance of many of Asia’s developing countries (Box 3.1). Fast growth of trade has also been associated with rising intraregional trade shares. For example, in 2004, intraregional trade in developing Asia was about 40% of total exports, up from just 22% in 1980. Despite this steep rise, intraregional shares in Asia are still lower than comparable shares in North America (46%) and the European Union (EU) (64%).³

Trade and integration in developing Asia

What are the forces driving the growth of trade in Asia and what explains evolving patterns of trade integration?

On the demand side, a progressive reduction of trade barriers

3.1 Export index



Source: International Monetary Fund, *Direction of Trade Statistics*, February 2006.

3.1 Trade and growth

Economic theory suggests that a reduction in trade frictions should contribute positively to incomes and, possibly, economic growth, and—provided that income distribution is not too adversely affected—reduce poverty. Potentially, trade influences—and is influenced by—growth through a variety of channels. Classical trade theory emphasizes the role that liberalization of border trade has for trade creation, but there are many other routes through which trade and growth may be connected. For example, the availability of lower cost imported capital goods may lift accumulation and contribute to growth through capital deepening, and related productivity gains. Openness and trade efficiency (meaning low trade costs due to efficient customs, ports and infrastructure, and absence of “behind-the-border” obstacles to trade) would also appear to be important factors in attracting foreign direct investors.

In addition to the direct impacts that such investments have on output and exports, foreign direct investment can add to potential output through skill creation and knowledge transfer. Increased competition and expanded choice for consumers and producers are additional avenues through which benefits may accrue to countries that open their borders to international commerce. Liberal trade policies and trade growth can also trigger or lock-in other beneficial reforms, or may amplify their impact. Trade openness imparts market discipline thereby alleviating government failures.

However, the empirical evidence on the contribution of trade to economic growth is by no means clear cut. Long-run historical research by Maddison (1995) certainly shows that trade expansion accompanies periods of sustained world economic growth (such as in the post-Second World War period) and that periods of depression are accompanied by the stagnation or contraction of world trade. In recent decades, the volume of world trade

expansion has typically been two or three times as great as growth in real incomes, and income growth has been high by historical standards. Studies by Dollar (1992), Sachs and Warner (1995), Asian Development Bank (1997), and Edwards (1998) would also appear to support the view that “openness” promotes growth. Berg and Krueger (2003) observe that there has been no economy that has sustained fast growth that has not undertaken a significant degree of trade liberalization.

Many have pointed out that although a positive relationship between trade and growth may have theoretical merit, identifying such a link empirically is fraught with difficulty, partly because of the problems that exist in measuring “openness” and unraveling the direction of causation (Rodriguez and Rodrik 2001). For example, since most empirical studies have used trade barrier measures that represented either macroeconomic imbalances or bad institutions, not actual trade restrictions, it is not possible to attribute growth to “openness.” Rodrik (1999) has argued that investment and sound macroeconomic policy, not openness per se, are the most reliable and important mechanisms for sustaining economic growth, and that institutions matter most.

It should not be a surprise that the country evidence linking growth to openness is mixed and it would be naïve to suggest that openness to trade guarantees fast growth. Variations in growth performance need to be explained by a broader range of factors including a country’s initial conditions, such as its size, geography, and economic structure, as well as its performance on a much broader set of policies and institutions. In weighing up competing arguments and contradictory evidence, Winters (2004) concludes that trade liberalization generally has had a positive effect on growth which, although possibly temporary, may turn out to be long lasting.

resulting from trade liberalization through successive multilateral trade negotiating rounds under the General Agreement on Tariffs and Trade (GATT) and, more recently, the World Trade Organization (WTO) is thought to have played an important role in boosting trade at a global level, though evidence on this point is mixed.⁴ Asian countries that adopted outward-looking policies appear to have benefited disproportionately from this broader global trend.

On the supply side, technological advances that have lowered transportation costs are another factor that has spurred Asia’s trade. Indeed, increases in trade efficiency and reductions of “trade costs” may have had a more powerful effect on trade than trade liberalization itself (Engman 2005). Improved trade efficiency has occurred through application and diffusion of informatics and improved telecommunications in international transactions, the development of

port and other “behind-the-border” infrastructure, improvements in customs procedures, and a variety of other measures that have reduced frictions to trade.

Important institutional and policy changes have also helped gear developing Asia’s economies for greater trade openness. Asia has often moved ahead of WTO obligations. Unilateral trade liberalization, including the early elimination of tariffs on capital and intermediate goods and the reduction of nontariff barriers, played a prominent role in igniting and then sustaining growth of trade. Later, the net of trade liberalization was widened. For example, in 1995, Indonesia adopted a medium-term program of tariff reform aimed at lowering almost all tariffs for manufactured goods on an MFN basis to a maximum range of 5–10% by 2001.⁵

Institutional innovations, some pioneered in developing Asia, such as special export processing zones and bonded industrial warehouses, as well as duty drawback schemes, have also propelled trade (ADB 1997, Petri 2006). The world’s first export processing zone for manufacturing was established in Kaoshing in Taipei, China in 1966. By the 1970s, the Republic of Korea had established two large export processing zones and had over 200 bonded warehouses. By 1980, 74% of Malaysia’s total exports came from export processing zones. Elsewhere, in Indonesia (Batam Island), the PRC (Shenzen), and the Philippines (Subic Bay and Clark) special economic zones were also created, providing conditions that mimicked “free trade for exporters.” A later challenge for governments was to extend these experiments from limited areas to the economy as a whole, as is now being attempted in the PRC and Indonesia.

More recently, regional cooperation efforts, such as those in the Greater Mekong Subregion (GMS), which have focused on investments that improve physical connections between neighboring countries, have opened up new opportunities for trade and have helped deepen integration within the region. Initiatives within GMS to improve customs procedures and reduce legal and policy barriers to the cross-border movement of goods and people engaged in legitimate commercial activity complement investments in physical infrastructure. Other cooperation initiatives are being carried out in South Asia (South Asia Subregional Economic Cooperation—SASEC), Central Asia (Central Asia Regional Economic Cooperation—CAREC), the Pacific Islands, and among Brunei Darussalam, Indonesia, Malaysia, and the Philippines (the East ASEAN Growth Area or BIMP-EAGA). These and other experiments in cooperation are helping strengthen links within and between subregions (ADB 2002).

There is, however, a question mark over the impact that preferential trade agreements (PTAs) have had in promoting growth of regional trade and regional integration. It is certainly true that intraregional trade in developing Asia has grown at a faster pace than the rate of growth of world trade in most years since 1980 (Table 3.1). But in addition to the technological, policy, and institutional factors cited above, rising intraregional trade shares are, to some extent, a direct consequence of fast regional economic growth itself. Other things equal, trade among countries that are growing fast will tend to rise more quickly than trade among countries where growth is slower. ADB (2002a) concluded that,

while at a worldwide level PTAs have probably increased trade, their impact on the Asia and Pacific region has been quite small. Intrabloc trade within the Association of Southeast Asian Nations (ASEAN) Free Trade Area (AFTA) would appear to be no larger than it would be without the agreement.

Petri (2006) has analyzed Asian trade integration over a long historical period. His analysis shows that after a protracted period in which the economies of East and Southeast Asia became more closely tied to the rest of the world, an increasing bias toward intraregional trade can be observed from the mid-1980s. This turning point coincides with a boom in intraregional foreign direct investment, following the Plaza Accord and an appreciation of the yen against the US dollar (Kawai 2005). It also occurred at a time of concerted unilateral trade liberalization in some countries of East and Southeast Asia (Thee 1991 and 2003). Interestingly, the onset of the trend toward increasing regional trade integration predates any formal initiatives to promote trade integration within the region through PTAs.

The trade-FDI nexus and regional integration in developing Asia

The growth of multinational enterprises and foreign direct investment (FDI) has, in recent decades, provided a boost to Asian trade, both intraregional (parts and components, assembly operations) and interregional (imports and exports of capital goods, intermediate goods, and final products). The additional trade and production resulting from the lowering of trade costs, liberalization of trade, and emergence of international production sharing have provided Asia with new sources of income and employment gains. Manufacturing exports in particular have expanded quickly with FDI (Hill 1988, Dobson and Chia 1997).

International production sharing—the fragmentation of vertical supply chains according to location-specific advantages within production networks—has been associated with a high and rising degree of intraregional trade in parts and components that are produced and assembled into final goods within Asia, particularly in East and Southeast Asia. Outward FDI to the PRC and Southeast Asia, particularly from Japan and the newly industrialized economies of Hong Kong, China; Korea; Singapore; and Taipei, China has played a significant role in the development of Asian production networks (Figure 3.2) (Kojima 1990, Kawai 2005). Development of Asian production networks has also been stimulated by FDI from European and North American multinational firms that have found Asia to be a low-cost and efficient location for production and assembly operations (Caves 1996, Dobson and Chia 1997).

The multinational enterprises that have invested in affiliates located in Asia or that have linked up with Asian contract component suppliers have global distribution and marketing capabilities that are among these firms' most valuable intangible assets. The extensive marketing abilities of

3.1 Intraregional trade shares (%)

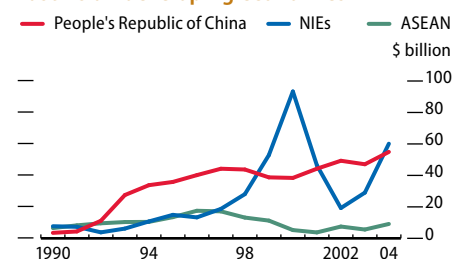
Region	1980	1985	1990	1995	2000	2001	2002	2003
East Asia, including Japan	34.7	40.2	45.6	55.5	54.0	55.4	57.3	54.0
Developing East Asia	21.6	29.1	36.4	43.7	43.4	45.6	47.5	44.1
NIEs	7.7	10.7	14.3	18.1	16.4	17.5	17.1	16.1
ASEAN	18.0	20.3	18.9	24.1	25.7	24.1	24.4	24.0
NAFTA	33.8	38.7	37.9	43.2	48.7	49.0	48.3	46.0
European Union 15	52.4	52.5	58.6	56.8	62.2	62.1	62.4	64.4

ASEAN = Association of Southeast Asian Nations, NAFTA = North American Free Trade Agreement.

Notes: East Asia comprises Japan, ASEAN, PRC, newly industrialized economies (NIEs) of Hong Kong, China; Korea; Singapore; and Taipei, China. Developing East Asia excludes Japan.

Source: Kawai 2005.

3.2 Foreign direct investment inflows into East Asian developing economies



NIEs = Hong Kong, China; Republic of Korea; Taipei, China; and Singapore; ASEAN = Indonesia, Malaysia, Philippines, Thailand, and Viet Nam.

Sources: International Centre for the Study of East Asian Development, 2006; International Monetary Fund, *Balance of Payments Statistics*, 1990–2004 Yearbooks and December 2005 CD-ROM, Washington, DC.

multinational firms are another reason that explains why foreign-owned enterprises tend to have higher export-output ratios than firms that are domestically owned (Box 3.2) (Ngoc and Ramstetter 2004, James and Ramstetter 2005, Ramstetter 1999). The fact that multinational firms have plants located in more than one country also allows multinational parents to easily conduct international transactions with their affiliates. Although no reliable data are available on the size or share of intrafirm trade in Asia, some idea of the importance of such trade may be inferred from the growing role of foreign-owned enterprises in exports from the PRC and other developing Asian countries.

Advances in computer and information processing technologies, and in telecommunications, have dramatically lowered the cost of dividing up production along the supply chain in production-sharing networks (Box 3.3) (Petri 2006). The ease of conducting intrafirm or intra-industry trade (in the case of contract component suppliers and assemblers) has also facilitated the fragmentation of production processes along lines of comparative advantage, sometimes including local input suppliers and contractors.

The rise in production sharing has become particularly noticeable since the mid-1980s and has now been extensively documented (among others, Ng and Yeats 1999). For example, developing Asia's share of world trade in parts and components rose from 16% in 1992 to 32% in 2003, exceeding the share of the North American Free Trade Agreement (NAFTA) and equaling the share of the EU in 2003 (Athukorala and Yamashita 2005). Despite the significant volume of trade in parts

3.2 Foreign ownership shares and exports in manufacturing

Many East Asian and Southeast Asian developing countries have encouraged multinational affiliates to enter their markets through foreign direct investment (FDI). Multinationals tend to prefer to invest in locations where they are allowed to exercise control over their affiliates by holding at a minimum a majority ownership share (over 50%) with many seeking to hold 100% of equity. Hong Kong, China; Indonesia; Malaysia; Singapore; Thailand; and Viet Nam have relaxed controls on ownership and have sought to encourage inward FDI.

They recognize that allowing foreign investors to exercise their ownership preferences brings substantial benefits, as foreign affiliates with high shares of foreign ownership tend to export a larger share of sales. Indeed, by some estimates, about 60% of the PRC's manufactured exports are generated by foreign-owned firms (Barboza 2006). In the cases of Malaysia (73%) and Singapore (86%), foreign firms accounted for even greater shares of manufactured exports than is the case in the PRC (Ramstetter 1999). Although Malaysia imposed export requirements on foreign affiliates, Singapore had no such requirements. Since 1994, such performance requirements have been phased out under the World

Trade Organization's Trade-Related Investment Measures agreement.

Estimates of export-sales ratios of manufacturing establishments distinguished by foreign ownership have been made in Indonesia, Thailand, and Viet Nam (for example, Ngoc and Ramstetter 2004, James and Ramstetter 2005, Ramstetter 1999). These studies control for firm characteristics, such as industry affiliation, firm size, age, and capital intensity. The findings confirm that export propensities tend to be significantly higher in affiliates with foreign ownership shares of 90% or more in these three countries compared with establishments with lower foreign ownership or no foreign ownership. Export propensities of firms with 90% or greater foreign ownership shares exceed 50% in all three countries. In contrast, local firms tend to export an average of less than 10% of sales, and firms with intermediate foreign ownership shares export about 25% of sales. Productivity and remuneration (salaries and benefits) tend to be higher in establishments with foreign ownership as well. Hence, removing restrictions on ownership can confer substantial benefits on employees of manufacturing companies. In recognition of this, India now allows up to 100% foreign equity in manufacturing firms.

3.3 Vertical intra-industry trade and Japanese foreign direct investment

Asian developing countries have taken advantage of the trend toward vertical specialization or “fragmentation” of production by multinational enterprises from the United States, Japan, Europe, and other Asian countries themselves. They have attracted foreign direct investment (FDI) by foreign firms seeking out low-cost venues for various operations such as production of components or assembly of products. In general, “vertical intra-industry trade (VIIT) oriented FDI” (Fukao et al. 2003) in East Asia has been attracted to locations with inexpensive labor, clusters of enterprises capable of flexible production and timely delivery with few or no defects, access to infrastructure such as efficient ports, and policies that make it inexpensive to import intermediate goods (like duty-drawback schemes).

VIIT is trade involving items that are in the same nine-digit Harmonized System tariff line but that have price

differentials of more than 25%, implying trade in items of different quality within the same statistical category. VIIT allows developing countries to participate in global and regional production networks by attracting FDI that makes use of relatively abundant factors of production, including labor of varying skill levels.

Such trade accounted for over 43% of East Asian trade with Japan in electrical machinery in 2000, up from only 31% in 1996. In the case of Indonesia, such trade rose from zero percent of trade with Japan in electrical machinery in 1988 to over 40% in 2000 (Fukao et al. 2003). This trade is largely conducted between Japanese multinational parents and affiliates located in Association of Southeast Asian Nations countries and the People’s Republic of China. The differences in factor endowments and large differences in factor prices are key drivers in the rapid expansion of VIIT in East Asia, including Japan.

and components within developing Asia, the ultimate destination for most final assembled products remains outside the region, chiefly in the markets of the EU and US. In fact, recent empirical research demonstrates that developing Asia is growing more, not less, dependent on these large markets for final consumption of the outputs of the Asian production networks.⁶

It would seem that PTAs have had very little if any influence on these investment decisions. In some cases, the margin of preference offered by tariff concessions in the PTAs in the region has been too small to compensate firms for the costs of complying with the rules of origin that are necessary to enforce these agreements.⁷ For example, less than 10% of all intra-ASEAN trade is under the ASEAN Free Trade Area’s common effective preferential tariff (CEPT) scheme (*The Economist* 2004). Obtaining an AFTA certificate of origin is apparently difficult in terms of paperwork and costly because it necessitates face-to-face meetings with customs officials, so many ASEAN businesses just elect to pay the MFN tariff. Multinationals in high-tariff sectors (automobiles, for example) may find it worthwhile to obtain the certificate of origin but this is not the case in sectors where tariffs are low or duty drawback is available for imported inputs that are used to produce products for export (e.g., electronics and office equipment). Preferential agreements in South Asia (SAARC Preferential Trading Arrangement) have failed to create much intraregional trade for similar reasons.

The availability of tariff preferences in nearby markets has not deterred US- and EU-based multinationals from investing in nonpreferential markets in Asia. In fact, many US multinationals have preferred to locate in Asian countries despite the FTAs that the US Government has negotiated within North America (NAFTA) and Central America (CAFTA). The profit motive has led multinational firms to seek locations with cost advantages, and many of these locations have been in Asia. Decisions by many nonregional multinationals to locate

manufacturing production facilities in Asia reveal their preference for locations that have abundant supplies of skilled and semiskilled labor, less expensive nonproduction managerial workers and engineers, and growing potential domestic markets. The economic stability and predictable business environments found in locations such as Malaysia, Singapore, and Thailand have also attracted investment. The expansion of FDI and FDI-related intra-industry and intrafirm trade that has led to increased integration within Asia, like the growth of intraregional trade, all began well before the recent explosion of PTAs involving Asian developing countries.

In summary, technological changes and market forces unleashed by policy initiatives to unilaterally open up Asia to foreign investment and trade have thus far played the crucial role in deepening regional economic integration and in linking Asia to the largest global markets of the EU and US. This would appear to be in contrast to the formal institutionalization of regional integration in Europe and, more recently, in the Americas, where tariff preferences have played a major role. However, there are clear signs that this dynamic may be changing and that, going forward, more formal institutional trade agreements may be important in shaping the future of Asian trade.

The rise of bilateralism

Frustration with the slow and halting speed of multilateral trade negotiations conducted under the auspices of WTO has been one factor that has led impatient trading partners to consider liberalizing trade on a reciprocal basis. The limited mandates and explicitly mercantilist negotiating modalities in WTO, which have threatened Doha liberalization ambitions (Part I), have also encouraged some countries to look to bilateral opportunities for liberalization that serve their interests. It is readily apparent from the proliferation of new bilateral agreements since the completion of the Uruguay Round that negotiations between two or several parties are simpler and can go farther more quickly than can negotiations involving all 149 members of WTO. The advantage of bilateralism over multilateralism lies in its speed and scope. Viewed from a strategic perspective, bilateral agreements allow “like-minded” countries to make more progress on a wider range of issues in a shorter period of time than is possible in the diverse and complex WTO environment. For this reason, some countries that had long shunned a bilateral approach are now actively pursuing bilateralism as a competitive strategy for broad-based trade liberalization.

But the “rules of origin” that delimit free trade in bilateral agreements are inherently discriminatory. They put third parties, which do not qualify under the rules of origin, at a disadvantage. In Asia, bilateral deals, which emphasize closed reciprocity rather than the “open regionalism” espoused in the past, are now on a strong upswing. Bilateral PTAs (a form of FTAs) are being negotiated with increasing frequency by developing Asian countries—particularly India, Korea, Pakistan, Singapore, and Thailand.

The proliferation of bilateral agreements is a very recent phenomenon in developing Asia. Before 1995, only three of them involved developing

member countries (DMCs) of the Asian Development Bank as notified to WTO. By 2005, over 27 agreements had been notified, with a much bigger number of other agreements in negotiation or under consideration. Tables 3.2 and 3.3 chart the proliferation of preferential trade (and economic cooperation) agreements involving Asian developing countries. Table 3.2 presents a list of those agreements that have been notified to WTO. A total of 36 agreements have now been formally notified and appear on the WTO regional trade agreements gateway (available through www.wto.org). These agreements range from minimalist agreements that simply exchange partial tariff preferences or extend tariff concessions from more to less developed countries to “full-blown” FTAs that go well beyond agreements on tariff reductions. From Table 3.2, it can be seen that full-blown FTAs are becoming increasingly common. It also can be seen that agreements notified under the enabling clause (between developing countries) tend to be less comprehensive than agreements notified under GATT Article XXIV. In recent years, full-blown FTAs tend to extend coverage to services, which must be notified separately under GATS Article V. An attempt is made to classify agreements as “shallow” or “deep” integration and according to whether the agreements go beyond countries’ WTO commitments. (That is, are they “WTO+”, including, for example, investment or environmental clauses?)

Table 3.3 goes beyond Table 3.2 by identifying new agreements that have been signed and/or have already entered into force but have not yet been notified to WTO. This greatly expands the list. Table 3.3 documents 46 non-notified agreements that have been agreed by at least one DMC and a further 42 that are being negotiated (and suggests a potential avalanche of such agreements in years to come). In addition, at least another 55 potential new agreements are being studied or have ongoing consultations (but not formal negotiations).

As the tables show, many of the new agreements that developing Asian countries are pursuing are with countries outside the region. These agreements may be referred to as “cross-regional agreements.” Asia’s emerging giants, the PRC and India, are also seeking to link up in some way. The fact that many of the new PTAs extend beyond the Asian region itself underscores the importance for Asian trade, and particularly for the export of final products, of markets external to the region. These cross-regional agreements are driven by a variety of concerns such as energy security, access to minerals and other natural resources, and efforts by countries to “lock in” reforms by making them part of a formal trade treaty with a major developed country or region. Many of these agreements are politically motivated, as countries seek to cement diplomatic alliances by providing economic benefits to partners. Hence, the new tendency toward PTAs involving developing Asia cannot readily be construed as an intention to create an Asian trade bloc to compete with the EU or North America.

In large measure, the mushrooming of bilateralism globally—some measures suggest that about 300 bilateral agreements may be in force by the end of 2006—is being driven by a race for competitive advantage. The conclusion of a bilateral FTAs between two trading partners can often act as a strong incentive for third countries interested in protecting their market shares to negotiate similar agreements. The upshot is an

3.2 Regional and bilateral preferential trade agreements involving ADB developing member countries notified to WTO

Agreement	Date of entry into force	GATT/WTO notification date	Related provisions	Type of agreement	Cat. WTO+		Notes and comments
Bangkok Agreement	17-Jun-76	02-Nov-76	Enabling Clause	PTA–regional	1	N	Originally comprises Bangladesh, India, Korea, Lao PDR, and Sri Lanka. PRC acceded 1-Jan-02, notified 29-Jul-04
SPARTECA	01-Jan-81	20-Feb-81	Enabling Clause	PTA–regional	1	N	Includes the Pacific DMCs except Rep. of Palau and Dem. Rep. of Timor-Leste
ECO	1985	22-Jul-92	Enabling Clause	PTA–regional	1	N	Includes Afghanistan, Azerbaijan, Kazakhstan, Kyrgyz Republic, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan
GSTP	19-Apr-89	25-Sep-89	Enabling Clause	PTA–South-South	1	N	Includes Bangladesh, India, Indonesia, Korea, Malaysia, Myanmar, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, and Viet Nam
AFTA ^a	28-Jan-92	30-Oct-92	Enabling Clause	PTA–regional	1	N	Includes the Southeast Asian DMCs
Armenia-Russia	25-Mar-93	27-Jul-04	GATT Art. XXIV	FTA–bilateral	1	N	Armenia became a DMC in 2005
Kyrgyz Republic-Russia	24-Apr-93	15-Jun-99	GATT Art. XXIV	FTA–bilateral	1	N	
MSG	22-Jul-93	07-Oct-99	Enabling Clause	PTA–regional	1	N	Comprises Fiji Islands, Papua New Guinea, Solomon Islands, and Vanuatu
Kyrgyz Republic-Armenia	27-Oct-95	04-Jan-01	GATT Art. XXIV	FTA–bilateral	1	N	
Kyrgyz Republic-Kazakhstan	11-Nov-95	29-Sep-99	GATT Art. XXIV	FTA–bilateral	1	N	
SAPTA	07-Dec-95	25-Apr-97	Enabling Clause	PTA–regional	1	N	Comprises the South Asian DMCs except Afghanistan
Armenia-Moldova	21-Dec-95	27-Jul-04	GATT Art. XXIV	FTA–bilateral	1	N	
Armenia-Turkmenistan	07-Jul-96	27-Jul-04	GATT Art. XXIV	FTA–bilateral	1	N	
Georgia-Azerbaijan	10-Jul-96	21-Feb-01	GATT Art. XXIV	FTA–bilateral	1	N	
Kyrgyz Republic-Moldova	21-Nov-96	15-Jun-99	GATT Art. XXIV	FTA–bilateral	1	N	
Armenia-Ukraine	18-Dec-96	27-Jul-04	GATT Art. XXIV	FTA–bilateral	1	N	
Kyrgyz Republic-Ukraine	19-Jan-98	15-Jun-99	GATT Art. XXIV	FTA–bilateral	1	N	
Kyrgyz Republic-Uzbekistan	20-Mar-98	15-Jun-99	GATT Art. XXIV	FTA–bilateral	1	N	
Georgia-Armenia	11-Nov-98	21-Feb-01	GATT Art. XXIV	FTA–bilateral	1	N	
Georgia-Kazakhstan	16-Jul-99	21-Feb-01	GATT Art. XXIV	FTA–bilateral	1	N	
Georgia-Turkmenistan	01-Jan-00	21-Feb-04	GATT Art. XXIV	FTA–bilateral	1	N	
New Zealand-Singapore	01-Jan-01	19-Sep-01	GATT Art. XXIV GATS Art. V	FTA–bilateral	2	Y	Services agreement included
Lao PDR-Thailand	20-Jun-01	29-Nov-91	Enabling Clause	PTA–bilateral	1	N	
India-Sri Lanka	15-Dec-01	27-Jun-02	Enabling Clause	FTA–bilateral	1	N	
Armenia-Kazakhstan	25-Dec-01	27-Jul-04	GATT Art. XXIV	FTA–bilateral	1	N	
Japan-Singapore	30-Nov-02	14-Nov-02	GATT Art. XXIV GATS Art. V	FTA–bilateral	2	Y	Services agreement included
EFTA-Singapore	01-Jan-03	24-Jan-03	GATT Art. XXIV GATS Art. V	FTA–cross-regional	2	Y	Services agreement included
ASEAN-PRC	01-Jul-03	21-Dec-04	Enabling clause	PTA–regional	1	N	
Singapore-Australia	28-Jul-03	01-Oct-03	GATT Art. XXIV GATS Art. V	FTA–bilateral	2	Y	Services agreement included
PRC-Hong Kong, China	01-Jan-04	12-Jan-04	GATT Art. XXIV GATS Art. V	FTA–bilateral	2	Y	Services agreement included
PRC-Macao, China	01-Jan-04	12-Jan-04	GATT Art. XXIV GATS Art. V	FTA–bilateral	2	Y	Services agreement included
US-Singapore	01-Jan-04	19-Dec-03	GATT Art. XXIV GATS Art. V	FTA–bilateral	2	Y	Services agreement included
Korea-Chile	01-Apr-04	19-Apr-04	GATT Art. XXIV GATS Art. V	FTA–bilateral	2	Y	Services agreement included
Thailand-Australia	01-Jan-05	05-Jan-05	GATT Art. XXIV GATS Art. V	FTA–bilateral	2	Y	Services agreement included
Thailand-New Zealand	01-Jul-05	02-Dec-05	GATT Art. XXIV GATS Art. V	FTA–bilateral	2	Y	Services agreement included
Korea-Singapore	02-Mar-06	24-Feb-06	GATT Art. XXIV GATS Art. V	FTA–bilateral	2	Y	Services agreement included

AFTA = ASEAN Free Trade Area; ASEAN = Association of Southeast Asian Nations; Cat. = Category; ECO = Economic Cooperation Organization; EFTA = European Free Trade Association; GATS = General Agreement on Trade in Services; GATT = General Agreement on Tariffs and Trade; GSTP = Global System of Trade Preferences; MSG = Melanesian Spearhead Group; SAARC = South Asian Association for Regional Cooperation; SAPTA = SAARC Preferential Trading Arrangement; SPARTECA = South Pacific Regional Trade and Economic Co-operation Agreement; WTO+ = agreement goes beyond countries' WTO commitments.

^a AFTA supersedes ASEAN 1967, which is a non-notified regional PTA among Indonesia, Malaysia, Philippines, Singapore, and Thailand; other members acceded later: Brunei Darussalam (1984), Viet Nam (1996), Myanmar and Lao People's Democratic Republic (1997), and Cambodia (1998).

Notes: Category 1 = "shallow integration", category 2 = "deep integration." "N" denotes that agreements are not WTO+, and "Y" signifies that they have WTO+ features.

Source: World Trade Organization, available: http://www.wto.org/english/tratop_e/region_e/summary_e.xls, downloaded 24 March 2006.

3.3 Preferential trade agreements involving ADB developing member countries not notified to WTO

Signed preferential trade agreements involving ADB DMCs			Preferential trade agreements in negotiation involving ADB DMCs		
Agreement	Signed/entered into force	Notes	Agreement	Notes	
Kazakhstan-Russia	1992	FTA-bilateral	ASEAN-CER	ASEAN plus FTA-cross-regional	
Uzbekistan-Russia	1992	FTA-bilateral	ASEAN-India	ASEAN plus FTA-regional	
Uzbekistan-Belarus	1993	FTA-bilateral	ASEAN-Japan	ASEAN plus FTA-regional	
Armenia-Tajikistan	1994	FTA-bilateral	ASEAN-Korea	ASEAN plus FTA-regional	
Kazakhstan-Ukraine	1994	FTA-bilateral	Azerbaijan-Russia	FTA-bilateral	
Tajikistan-Russia	1994	FTA-bilateral	Azerbaijan-Turkmenistan	FTA-bilateral	
Uzbekistan-Ukraine	1994	FTA-bilateral	Bangladesh-India	FTA-bilateral	
Bhutan-India	1995	FTA-bilateral	Bangladesh-Sri Lanka	FTA-bilateral	
Azerbaijan-Ukraine	1995	FTA-bilateral	PRC-Australia	FTA-bilateral	
Azerbaijan-Moldova	1995	FTA-bilateral	PRC-Chile	FTA-bilateral	
Kazakhstan-Moldova	1995	FTA-bilateral	PRC-New Zealand	FTA-bilateral	
Kazakhstan-Tajikistan	1995	FTA-bilateral	Hong Kong, China-New Zealand	FTA-bilateral	
Uzbekistan-Georgia	1995	FTA-bilateral	India-Chile	FTA-bilateral	
Uzbekistan-Moldova	1995	FTA-bilateral	India-Egypt	FTA-bilateral	
India-Nepal	1996	FTA-bilateral	India-Pakistan	FTA-bilateral	
Azerbaijan-Uzbekistan	1996	FTA-bilateral	Indonesia-Australia	FTA-bilateral	
Tajikistan-Uzbekistan	1996	FTA-bilateral	Japan-Indonesia	FTA-bilateral	
Turkmenistan-Uzbekistan	1996	FTA-bilateral	Japan-Philippines	FTA-bilateral	
Kazakhstan-Belarus	1997	FTA-bilateral	Japan-Korea	FTA-bilateral	
Kazakhstan-Uzbekistan	1997	FTA-bilateral	Japan-Thailand	FTA-bilateral	
India-Sri Lanka	1998	FTA-bilateral	Korea-Canada	FTA-bilateral	
Tajikistan-Belarus	1998	FTA-bilateral	Korea-Mexico	FTA-bilateral	
Azerbaijan-Kazakhstan	1999	FTA-bilateral	Korea-US	FTA-bilateral	
PACER	2001	^a	Malaysia-New Zealand	FTA-bilateral	
Thailand-Bahrain	2002	FTA-bilateral	Malaysia-Pakistan	FTA-bilateral	
India-Afghanistan	2003	FTA-bilateral	Malaysia-US	FTA-bilateral	
Thailand-India	2003	FTA-bilateral	Singapore-Canada	FTA-bilateral	
Thailand-PRC	2003	FTA-bilateral	Singapore-Kuwait	FTA-bilateral	
PICTA	2003	^b	Singapore-Mexico	FTA-bilateral	
BIMSTEC	2004	^c	Singapore-Pakistan	FTA-bilateral	
Singapore-Jordan	2004	FTA-bilateral	Singapore-Panama	FTA-bilateral	
Sri Lanka-Iran	2004	FTA-bilateral	Singapore-Peru	FTA-bilateral	
Taipei,China-Panama	2004	FTA-bilateral	Singapore-Qatar	FTA-bilateral	
Azerbaijan-Belarus	2004	FTA-bilateral	Singapore-Sri Lanka	FTA-bilateral	
Azerbaijan-Kyrgyz Republic	2004	FTA-bilateral	Sri Lanka-Egypt	FTA-bilateral	
Pakistan-Sri Lanka	2005	FTA-bilateral	Taipei,China-Honduras	FTA-bilateral	
PRC-Pakistan	2005	FTA-bilateral	Taipei,China-Nicaragua	FTA-bilateral	
Korea-Singapore	2005	FTA-bilateral	Thailand-US	FTA-bilateral	
Singapore-India	2005	FTA-bilateral	PRC-GCC	FTA-cross-regional	
Taipei,China-Guatemala	2005	FTA-bilateral	PRC-SACU	FTA-cross-regional	
Thailand-Peru	2005	FTA-bilateral	India-SACU	FTA-cross-regional	
Japan-Malaysia	2005	FTA-bilateral	Korea-EFTA	FTA-cross-regional	
Trans-Pacific SEP	2006	^d	Thailand-EFTA	FTA-cross-regional	

ASEAN = Association of Southeast Asian Nations; BIMSTEC = Bay of Bengal Initiative for Multi-sectoral Technical and Economic Cooperation; CER = (Australia and New Zealand) Closer Economic Relations; DMC = developing member country; EFTA = European Free Trade Association; GCC = Cooperation Council for the Arab States of the Gulf; PACER = Pacific Agreement on Closer Economic Relations; PICTA = Pacific Island Countries Trade Agreement; SAARC = South Asian Association for Regional Cooperation; SACU = Southern African Customs Union; SEP = Strategic Economic Partnership.

^a Nonreciprocal PTA: Australia and New Zealand extend tariff preferences to Pacific Island Forum countries, FTA between CER and Pacific Island Forum countries by 2011 (ADB DMC members include Cook Islands, Fiji Islands, Kiribati, Nauru, Papua New Guinea, Samoa, Solomon Islands, Tonga; non-ADB DMC members include Niue). DMCs Palau, Marshall Islands, Tuvalu, and Vanuatu have signed but not ratified the agreement. ^b Limited PTA among Pacific Island Forum countries as identified above, to become FTA by 2010 for Forum Island Countries and by 2012 for small island states and least developed countries. To date, PICTA members include Cook Islands, Fiji Islands, Kiribati, Papua New Guinea, Niue, Nauru, Samoa, Solomon Islands, Tonga, and Vanuatu. Tuvalu has signed but not ratified. Niue is not an ADB DMC. ^c FTA-regional: Thailand, Myanmar, Bangladesh, Bhutan, India, Nepal, and Sri Lanka. BIMSTEC is a Thai initiative aimed at linking SAARC and ASEAN for the countries in the Bay of Bengal area. ^d FTA-cross-regional: Brunei Darussalam, Chile, New Zealand, and Singapore.

Sources: United Nations Development Programme (2005); Asian Development Bank (forthcoming). See also <http://www.bilaterals.org>.

uncoordinated and crisscrossing set of agreements that carry with them substantial costs and risks (Sutherland 2004). Those countries that are first movers or that enjoy strong bargaining power on account of their size, may gain, but other countries, many of them poor developing countries, risk losing. The burgeoning number of bilateral agreements globally has the potential to add greatly to the complexity of international trade and to the potential costs of trade. For example, instead of simply choosing locations that minimize costs, firms must now factor into their investment calculations the trade-off between tariff preferences made available through direct investment and the preferences they can receive by contracting out to local suppliers under multiple rules of origin. Customs administration can also become complex quickly, and opportunities for corruption and malfeasance expand, when there are overlapping and inconsistent rules of origin.

To avert such problems, “harmonization” of the rules of origin in the context of regional trade agreements has been suggested. At a multilateral level, the “harmonization” program in nonpreferential rules of origin at WTO has dragged on for more than 10 years and is still not close to being realized. There is little hope that rules of origin in preferential agreements will ever be harmonized between the major hub-and-spoke systems.⁸ Even if the hub countries could agree in principle, the special interests created within industry and trade unions would produce formidable political opposition to such an exercise in rationality.

An alternative might be to pursue “harmonization” under the auspices of regional agreements where a regional hub, such as the EU, has an FTA with spoke countries such as those on the Mediterranean rim and members of the African, Caribbean, and Pacific (ACP) grouping. But in practice, under this approach, the hub typically designs product-specific rules of origin to suit its own domestic interests. Consequently, different hubs are likely to have different rules. For example, in EU rules of origin pertaining to textiles and clothing, a “double-transformation” rule applies. Given the absence of capacity to spin yarn and to knit and weave fabric in most of the spoke countries, this rule in effect requires spoke countries to use fabric originating in the hub (i.e., the EU) in their clothing exports to qualify for preferential tariff treatment. In the Americas, the US hub requires an even more stringent rule than in Europe. The US imposed a “triple-transformation” rule, which goes so far as to require the spoke countries (Mexico, Peru, etc.) to use yarn produced by the hub; fabric that is spun, knit, or woven from such originating yarn; and to cut and sew the originating clothing parts into the final product to receive preferential tariff treatment. In addition, very specific value-added rules exist for “sensitive” products that are custom designed for the interests of the industries in question. Not only are the rules product specific, but the interpretation of accounting procedures is also idiosyncratic to each hub. In practice, rules of origin are not simply a technical issue but, in a very real sense, are viewed by interest groups as a useful, indeed, indispensable *instrument of commercial policy* (James 2005b, Vermulst and Waer 1990).

Beyond the issue of rules of origin, the structure of bilateral agreements needs careful consideration. Potentially, PTAs that subsume and go beyond the WTO agreements and disciplines are likely to do least

damage in terms of trade diversion. But the development of a parallel structure of bilateral trade agreements with different rules and different coverage from WTO may also put the entire multilateral system at risk. The possible costs of bilateralism will be considered in the following section, through simulation experiments that compare and contrast the gains from multilateral, regional, and bilateral trade liberalization scenarios.

Trade scenarios: Potential benefits and risks

The global tide of bilateralism on which Asian countries are being carried could pose significant risks to the multilateral trading system. At one level, these risks stem from rules of origin that confer preferences and complicate investment and trade decisions. At another level, bilateralism could jeopardize multilateralism as countries refocus their energies on reaching reciprocal deals with their trading partners, to the exclusion of others. And where bilateralism coexists with high MFN tariffs, bilateralism may raise administered protection through, for example, the use of antidumping measures (James 2000). Whether bilateralism turns out to be a building block or a stumbling block to trade will ultimately depend on the underlying motivations and ambitions of the countries concerned, and how these shape individual agreements.

In this section, an attempt is made to compare multilateral liberalization scenarios with the status quo, and with the possible trajectory of trade and income in a world where the dynamics of bilateralism lead to the emergence of hub-and-spoke configurations. Of course, there is much that can be done to protect against the threats posed by bilateralism and, as is argued in the section *An agenda for trade and integration in Asia*, below, bilateral agreements have the potential to act as a catalyst for deeper integration.

Trade scenarios

The following subsections examine the potential income repercussions of several trade liberalization scenarios. The scenarios compare the impacts of possible reductions in tariff or tariff-equivalent barriers to *merchandise* trade at multilateral, regional, and bilateral levels. However, tariff barriers on merchandise trade are but one part of a broader integration agenda. Other ingredients could prove to be more significant, some of which may be more easily advanced on a regional and bilateral basis rather than in a multilateral setting. For example, there is reason to think that the liberalization of trade in services and cross-border investment, trade facilitation, and the movement of persons could all have a more pronounced impact on trade integration and income than a reduction in merchandise trade protection per se. The political economy of liberalization may also exercise an important influence on outcomes. If, for example, regional or bilateral agreements strengthen the bargaining position of exporters and “weed out” domestic protectionist influences, they may accelerate a more expansive liberalization agenda.

In theory, an upper bound on gains from liberalization of merchandise trade would occur in a world in which all tariff and tariff-equivalent barriers have been completely eliminated. Though probably

naïve politically, a cooperative multilateral process that ends in *global free trade* is generally considered a “first best” solution and as such provides a useful benchmark against which other scenarios can be assessed. In the scenarios considered here (Box 3.4), it is assumed that all tariff barriers on merchandise trade are eliminated by 2025, with initial reductions (over baseline) starting in 2007.

This “perfect scenario” is contrasted with an “intermediate” scenario that postulates that “open regionalism” germinates in Asia. Open regionalism is represented by the *Asian free trade* scenario. As trade within Asia is liberalized, barriers to non-Asian partners are brought down in step, but barriers elsewhere in the global economy are unchanged. Again, it is assumed that moves toward the establishment of this hypothetical Asian Free Trade Area start in 2007, and are completed in 2025.

These multilateral and regional liberalization scenarios are compared with a scenario in which *bilateralism* proliferates. The basic dynamic is set out by Baldwin (2002). Essentially, it is assumed that the costs of not having a bilateral FTA with a trading partner increases as more competitor countries have them. Exporters that suffer losses tilt the political equilibrium in favor of a new FTA, triggering a “domino” or ripple effect in other countries. Since the political forces favoring liberalization are more likely to concentrate their energies on opening large markets (“hubs”), and protectionist forces are more likely to have success in resisting free trade with smaller, peripheral markets (“spokes”), the pattern that emerges is likely to have an overlapping “hub and spoke” configuration (Zhai 2005). Bilateralism leads to a point where large countries (hubs) have multiple FTAs with smaller trading partners (spokes), but the spokes tend not to liberalize among themselves. Such hub-and-spoke systems would contain multiple layers of discrimination, usually codified in complex rules of origin. Further, they may place the spokes at a disadvantage over time as free trade in the hub country favors

3.4 Scenario assumptions

Baseline. This scenario covers the period from 2006 to 2025, and assumes that there is no cut in tariff and tariff-equivalent trade barriers or in trade costs. However, the baseline incorporates the trade reforms that took place over the period 2001–2004, including the accession of the People’s Republic of China and Taipei, China to the World Trade Organization; European Union enlargement; and the cessation of quotas under the Agreement on Textiles and Clothing. The baseline scenario provides the benchmark against which the impacts of the liberalization scenarios are measured. Although the baseline envisages no further reductions in the level of protection, it rules out backsliding on liberalization that some fear could be precipitated by failure of the Doha Round.

Global free trade. This assumes that all import tariffs, tariff-equivalent nontariff barriers (NTBs), and export

subsidies worldwide gradually decline to zero over the period 2007–2025.

Asian free trade. This scenario assumes that Asian countries move ahead and establish their own agenda for trade liberalization. The scenario eliminates all import tariffs, tariff-equivalent NTBs, and export subsidies on merchandise trade within Asia over the period 2007–2025, and extends most-favored-nation treatment to the rest of the world. This represents a hypothetical Asian Free Trade Area that espouses open regionalism.

Asian hub and spokes (bilateralism). This assumes that all bilateral tariffs, tariff-equivalent NTBs, and export subsidies between the assumed hub and all Asian spokes are eliminated over the period 2007–2025, but that there is no liberalization among the spokes. Under these assumptions, the hub and spoke scenarios entail partial liberalization compared to the Asian free trade scenario.

the location of investment there but not in the spokes, as hubs gain more in terms of market access (Puga and Venables 1997, Baldwin 2002).

Precisely where bilateralism will lead is difficult to predict (as discussed in the previous and following sections). Two illustrative scenarios are considered. These are not intended as a prediction of likely future trading agreements within Asia, but rather to illustrate what the implications of hub-and-spoke systems might be relative to alternative multilateral and regional liberalization scenarios. Two-hub, multiple-hub, and overlapping-hub-and-spoke configurations could emerge, but here attention is confined to two stylized scenarios in which ASEAN and the PRC emerge as single Asian hubs. In each scenario, the hub gradually eliminates tariff and tariff-equivalent barriers with all other Asian countries over the period 2007 to 2025, but the spokes do not liberalize with each other.

Embedded in all scenarios are a number of common assumptions. First, it is assumed that conditions in the global economy remain generally benign, with industrial economies growing broadly in line with their potential rates. Although negative “shocks” are probable, their impacts are assumed to be quickly reversed. Also, any turbulence originating within the region is assumed to be short-lived. On a longer view, the structural transformations—for example, the massive population shift from countryside to towns that is likely to occur in Asia—that both cause and are a consequence of growth may themselves pose risks, and may eventually constrain or even derail progress. Each scenario assumes that institutions and policies adapt to new circumstances and that underlying transitions are successfully navigated. The associated challenges are undoubtedly serious and complex, but they are not of primary interest here.

A global “computable general equilibrium” model (GEMAT, Box 3.5)⁹ is used to trace the numerical impact of each scenario. Although computable general equilibrium approaches have their limitations, they are generally considered to be the best tool available for analyzing trade policy issues. To some extent, limitations are mitigated as the major interest here is the relative, rather than absolute, magnitude of impacts. The particular model used here embodies the most recent description of the structure of the global economy, including a comprehensive description of trade protection and preferences, i.e., the Global Trade Analysis Project (GTAP) release 6 dataset (Dimaranan and McDougall 2006). One important feature of this database is that its import protection data incorporate tariff preferences under PTAs such as the Everything But Arms initiative, under which Bangladesh’s textile and clothing exports enter the EU market.

Baseline

The baseline scenario represents the status quo in terms of the global trade regime, but illustrates some of the more pronounced transformations that could occur over the next two decades in developing Asia. Although uncertain and contingent, these transformations echo earlier experiences of robust growth and economic catch-up in East Asia. Similar transitions are implied by the other scenarios.

In the baseline, per capita incomes in developing Asia continue to

3.5 Asian computable general equilibrium model (GEMAT)

GEMAT is an applied general equilibrium model of the global economy, with a focus on Asia. It extends the LINKAGE model developed at the World Bank (van der Mensbrugghe 2005). GEMAT has strong micro-foundations and captures detailed interactions among industries, consumers, and governments, across the global economy. It is ideally suited for the analysis of structural changes over periods that are sufficiently long to allow markets to adjust and rigidities to work themselves out. The dynamics of GEMAT are driven by changes in population and the labor force, and by aggregate (partly endogenous) productivity changes. Capital accumulation is governed by the availability of savings (domestic and foreign), and capital is allocated among production activities so that profit rates in different industries converge.

In GEMAT, producers in each industry are assumed to maximize profits, and a representative household in each country or region maximizes its utility. In each (annual) period, the model solves for the (relative) prices that equate demand for and supply of all goods and factors of production—given technology, taste, and substitution parameters, and the characterization of the trade regime. Mobile factors of production are allocated in a way that promotes equalization of factor prices across sectors. Labor is immobile across countries as is capital, once it is invested. For fixed foreign savings, external balance is assured by adjustment of the real exchange rate. Lump-sum taxes on households compensate for any fiscal impacts of liberalization. Finally, domestic investment is determined by the availability of domestic and foreign savings. GEMAT models only the “real” economy and does not explain nominal variables such as inflation.

The model extends the LINKAGE framework to incorporate features thought to be important in the study of trade. Product differentiation among sectors and differentiation among firms generates two-way trade between countries and regions in the same product group. GEMAT allows for increasing returns to scale, and firms that have differentiated productivity may enter and leave industries. Entry and exit is a function of firms’ productivity and of the fixed costs they incur for production and for exporting. In some sectors, firms are price setters, but markups are fixed. Finally, GEMAT captures “variety effects,” which are a source of potential increases in consumer welfare or firm productivity.

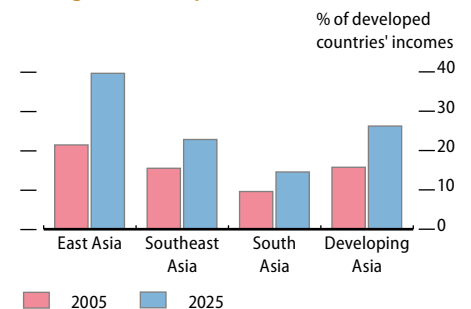
Trade costs are explicitly modeled. Some trade costs provide income to the suppliers of trade and distribution services. But GEMAT also includes frictional trade barriers that “burn” (waste) resources without generating income. This can happen, for example, when goods for which the timing of delivery is important are held up in ports due to customs inefficiencies or poor infrastructure. In GEMAT, this idea is captured by the “iceberg” specification of trade costs. This discounts deliverable quantities as if some portion had virtually perished between the point of production and delivery. These trade costs are different from tariff costs, which entail a reallocation of resources and inefficiency, but, in the absence of rent seeking, no direct resource losses.

GEMAT is calibrated to the latest Global Trade Analysis Project (GTAP) database (version 6, which has a 2001 base year). GEMAT aggregates the world economy into 19 regions (including 14 Asian countries or regions), 17 economic activities, and 4 primary factors (capital, labor, land, and other natural resources).

close the gap with developed-country averages. But given the wide gaps to start with, per capita incomes for most countries continue to lag far behind developed-country averages by 2025 (Figure 3.3). By 2025, baseline per capita income in the PRC is just 25% of that in developed countries, but this compares favorably to a starting ratio of 15% in 2005 (measured in constant 2001 purchasing power parity [PPP] terms). In terms of the PRC’s aggregate income (also in PPP terms), the baseline suggests that it could become the largest national economy in the world in around 2015.¹⁰ If incomes are instead measured at market exchange rates, the PRC retains its momentum but its economic mass is downsized. At market exchange rates, the PRC could rank as the third-largest national economy in the world by 2025, after the US and Japan. With rapid economic growth, developing Asia’s share in world GDP would increase steadily over the period from 28% to over 40% in constant 2001 PPP terms (Figure 3.4).

As productivity growth lifts income, the baseline suggests that there

3.3 Ratio of per capita income to the average of developed countries



Note: Developed countries here refer to the United States, European Union, Japan, Australia, and New Zealand.
Source: Staff estimates.

3.6 Capturing the benefits of trade liberalization in computable general equilibrium models

Trade liberalization can influence income and welfare through several channels. The first is through a reallocation of resources favoring activities in which a country enjoys a comparative advantage. This is the traditional “trade creation” effect as production of tradable goods moves from higher- to lower-cost production locations. This effect is also referred as a “trade volume effect,” since it leads to an expansion of trade (see Baldwin and Venables 1995).¹

A second channel is through changes to a country’s terms of trade. Changes in tariffs induce changes in relative goods prices. Hence, net exporters of goods, whose price increases, gain as they can now buy a larger quantity of imports for a given quantity of exports. The reverse occurs for countries specialized in producing goods whose (relative) price falls. For example, if export subsidies are removed on a commodity, importing countries may experience deterioration in their terms of trade and income losses.

A third source of potential income and welfare changes is through the effect that reduced tariffs have on scale and on the variety of goods available to consumers (who derive utility from greater choice) and to producers (for whom variety is a source of productivity gains as it offers more

options in terms of inputs). For exporting industries, a larger market size induced from trade liberalization allows firms to spread fixed costs over more output, allowing more output to be produced for the same input (i.e., scale effect). The larger market size also motivates more firms to enter the market, resulting in a positive variety effect. In the domestic market, although trade liberalization can have salutary effects on competition—reducing markups over cost and expanding output—this mechanism is not present in GEMAT as it assumes a “large group” market structure.

Finally, there are gains linked to investment and capital accumulation. If trade liberalization adds to the stock of capital (through raising income and saving), this will raise the level of capital and output per worker over the long run (but not the underlying growth rate). Additionally for many developing countries, trade liberalization will lower the relative price of capital goods (which are often imported), thereby stimulating investment and raising future consumption and welfare.

¹ Where domestic distortions exist, the trade-induced resource reallocation may have an indeterminate effect on domestic allocative efficiency.

them to capture better opportunities and influence positively their willingness to liberalize. Of course, if the political economy is such that those who stand to lose from liberalization can impede it, the scenario design is questionable. But from a narrow economic accounting perspective, adjustment costs, which are fixed and may be spread out over time, are likely to be dominated by the recurrent benefits of liberalization.

With global free trade, Southeast Asian economies such as Malaysia, Singapore, Thailand, and Viet Nam are major winners. By 2025, their real incomes rise by 3.5–5.5% of their GDP. Percentage income gains in South Asia are smaller. The income gain is 1.8% of baseline GDP in Sri Lanka, and 1.0% in India, but Bangladesh benefits only marginally. In part, the muted impact for Bangladesh reflects an assumption that it bears losses when its preferences in EU and other markets are ended. If, in reality, developed-country importers capture a large portion of the rents conferred by preferences, or complicated rules of origin deter exports (see *The rise of bilateralism*, above),¹³ the losses borne by countries like Bangladesh on the erosion of preferences may be more limited and their gains from liberalization commensurately larger. More generally, however, the limited scale of benefits in some South Asian countries illustrates some fundamental weakness of exporting sectors in these countries, suggesting the importance of structural and institutional reforms (as well as international development cooperation) in gearing them to trade and increasing their openness. The benefits from trade liberalization would be magnified by such reforms. Likewise, steps to improve infrastructure and to lower trade costs that lift trade volumes would also intensify

3.4 Welfare gains from global trade liberalization (change compared to baseline in 2025)

	Real income	
	\$ billion	% of GDP
Asia including Japan	194.92	1.08
Japan	42.12	0.65
Developing Asia	152.80	1.31
PRC	12.22	0.22
Hong Kong, China	7.43	1.80
Korea	51.36	4.87
Taipei, China	8.73	1.29
Indonesia	7.43	1.42
Malaysia	10.93	3.72
Philippines	1.95	0.82
Singapore	7.27	3.50
Thailand	18.05	4.57
Viet Nam	7.08	5.21
Bangladesh	0.08	0.06
India	19.48	1.04
Sri Lanka	0.79	1.80
Non-Asia		
United States	9.56	0.05
Europe 19	82.70	0.61
Australia & New Zealand	7.16	0.80
Latin America	9.26	0.21
Rest of the world	37.84	0.53
World	341.44	0.53

Europe 19 = EU 15 plus Iceland, Liechtenstein, Norway, and Switzerland.

Source: Staff estimates.

the benefits of liberalization (see the section *An agenda for trade and integration in Asia*, below).

Trade volumes and patterns undergo some significant shifts in the global liberalization scenario. By 2025, global merchandise trade expands by 10% over the baseline. Yet in developing Asia, the expansion is more pronounced due to its relatively high initial level of protection: merchandise trade expands by 20.1%, raising the weight of the region in world trade by 2.4 percentage points. Agriculture, food, and textiles and clothing emerge as major sources of export growth in developing Asia, reflecting the existence of large initial trade policy distortions in these sectors and the geographic locus of comparative advantage.

Notably, however, liberalization does not benefit electronics in Asia, perhaps the most dynamic sector of the last decade. Electronics exports from the region decline relative to the baseline. This is because the sector is already highly globalized, with complex international production-sharing agreements and geographically fragmented supply chains. Even today, electronics trade is dominated by the intra-industry shipments of intermediate goods, including parts, components, and semifinished products. Trade costs associated with logistics, customs clearance, and time delays are the binding constraints to growth for the electronics sector, not tariff distortions.

Box 3.7 explains the composition of gains at an aggregate regional level in terms of their static and dynamic components.

Asian free trade

Table 3.5 summarizes results for the Asian free trade scenario. The estimated benefits from free trade in Asia (with the extension of MFN to the rest of the world) are nearly as large as those from global free trade. It is also of note that no country or global region loses under the assumptions of Asian free trade. This result reflects the nondiscriminatory nature of the liberalization that is assumed in this

3.5 Welfare gains from Asian free trade (change compared to baseline in 2025)

	Real income	
	\$ billion	% of GDP
Asia including Japan	170.87	0.95
Japan	37.69	0.59
Developing Asia	133.18	1.14
PRC	5.93	0.11
Hong Kong, China	7.75	1.88
Korea	44.14	4.19
Taipei, China	6.39	0.95
Indonesia	4.19	0.80
Malaysia	11.21	3.82
Philippines	2.53	1.07
Singapore	4.99	2.40
Thailand	16.28	4.12
Viet Nam	6.85	5.04
Bangladesh	1.21	0.84
India	21.44	1.15
Sri Lanka	0.27	0.61
Non-Asia		
United States	10.58	0.05
Europe 19	23.30	0.17
Australia & New Zealand	4.34	0.49
Latin America	1.85	0.04
Rest of the world	17.62	0.25
World	228.56	0.35

Europe 19 = EU 15 plus Iceland, Liechtenstein, Norway, and Switzerland.

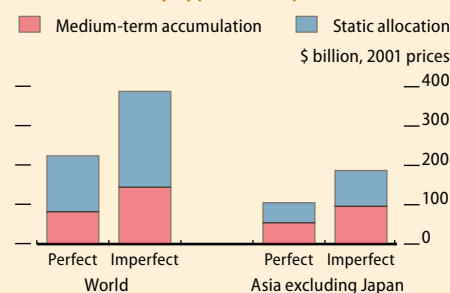
Source: Staff estimates

3.7 Sources of gains

The payoff from trade liberalization includes both static gains, following a reallocation of resources (“trade creation”), and “dynamic” gains associated with additional capital accumulation. In GEMAT, there are also gains that accrue from scale and variety effects that are important when markets are imperfectly competitive.

The box figure provides a breakdown of estimated gains. In a straightforward model of perfect competition (with no scale or variety effects), estimated global income gains are just 60% of those estimated in the presence of such effects. Irrespective of the nature of competition, just over one third of global gains are attributable to accumulation effects on future consumption percolating from higher investment rates, which are lifted by higher income and saving. But for developing Asia, the dynamic gains account for about half the estimated gains. These larger gains from accumulation reflect higher propensities to save in Asia.

Changes in welfare under global trade liberalization, by type of competitive model



Source: Staff estimates.

experiment. Tariffs are lowered for exports from all countries to Asia in step with the reduction of tariffs within Asia.

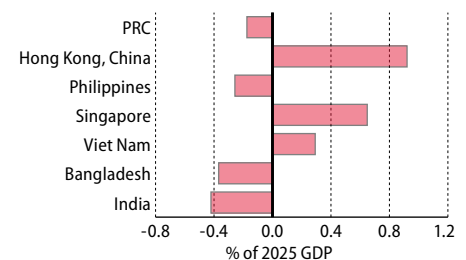
A comparison of Asian free trade gains with those of the global free trade scenario shows that, for most developing countries in Asia, the bulk of gains from global liberalization originates from free trade within Asia. The point has already been made that for many countries, especially for South Asian countries and Viet Nam, the major benefit from liberalization comes from lowering their own tariff barriers, so this result should come as no surprise. For those countries that tend to have large intraregional trade shares, such as most ASEAN countries, the gains are larger still. But for Indonesia, its gains from Asian free trade are relatively small in comparison with those from global free trade, even though it has a high intraregional export share. This reflects the difference in commodity structure of exports between Indonesia and other major ASEAN countries, which results in higher tariff barriers faced by Indonesia in nonregional markets and, consequently, larger gains from global free trade for that country. For the PRC and Sri Lanka, the gains from Asian free trade are less than half those from global free trade. This reflects the PRC's strong trading links with markets outside the region, as well as both countries' small gains from unilateral liberalization due to their already low import protection.

In the case of Bangladesh and the Philippines, the Asian free trade assumptions generate estimated gains that exceed those from global free trade (Figure 3.5). Under the Asian free trade assumptions, Bangladesh retains preferential access for its garment exports to EU markets, which it loses in the global simulation. A similar story applies to the Philippines, which enjoys reduced or zero preferential tariff rates in the EU market in some sectors such as electronics, machinery, and other manufactured goods.

In spite of overall gains, the simulation suggests that Asian free trade could lead to a significant deterioration in the terms of trade for Asia's two mammoth economies, the PRC and India. Both these countries' major trading partners are outside Asia. The elimination of import tariffs on an MFN basis raises the PRC's and India's demand for goods produced in other parts of the world, but now there is no compensating increase in the demand for their exports outside Asia. This asymmetry lifts import prices relative to export prices, creating terms-of-trade losses.

In terms of the direction of trade, Asian free trade would increase regional integration on some traditional measures. The share of intra-Asian trade in global trade in 2025 rises to 19.3% compared to 15.3% in the baseline. But the "double-relative" measure of trade intensity presented in Table 3.6 suggests that the intensity of trade within Asia would decline slightly. However, this result has no welfare implications.

3.5 Effects of terms-of-trade changes on real income in selected developing Asian economies under Asian free trade



Source: Staff estimates.

3.6 Estimated trade intensity index with Asian free trade by 2025

	Baseline	Asian free trade
Intra-Asia	1.67	1.60
Intra-East Asia	1.70	1.65
Intra-Southeast Asia	3.05	2.83
Intra-South Asia	1.71	1.22
East Asia–Southeast Asia	1.58	1.58
East Asia–South Asia	0.70	0.75
Southeast Asia–South Asia	1.58	1.51

Note: The double-relative measure of trade intensity attempts to normalize trade flows for differential growth of regional nodes. If one region is growing more quickly than others, then even on a random assignment of trade flows, it would be expected that its intraregional trade would increase. The double-intensity measure compares actual trade flows to those that would occur with a random assignment based on the size of each regional node. An index value greater than one signifies actual flows greater than the randomly generated flows, and suggests that there is more trade between the nodes in question than would be expected on the basis of their size alone. See, for example, Petri (2006).

Source: Staff estimates.

Asian hub and spokes (bilateralism)

Two hub-and-spoke configurations in Asia are simulated. The “PRC hub” configuration assumes that the PRC is a hub of Asian bilateral FTAs, and that all other Asian countries (including Japan) are the spokes of these FTAs. The “ASEAN hub” configuration assumes that ASEAN countries act as a hub collectively; also that ASEAN establishes its own free trade area and negotiates bilateral FTAs with other Asian countries as a whole. Implicitly, if ASEAN became a platform for bilateral agreements, it would connect some of the spokes that remain separated in the other bilateral hub configuration.

In both Asian hub-and-spoke configurations, all bilateral distortions—including tariff, tariff-equivalent nontariff barriers, and export subsidies—are phased out between hub and spokes over the period 2007–2025. Trade barriers are retained between spokes. As GEMAT does not include the impacts of rules of origin that can have high compliance costs and result in reduction of preference margin, other things equal, the simulation results may overestimate the welfare gains of these overlapping bilateral FTAs.

These two simulations forcefully illustrate the potential downside of bilateralism. Compared to the Asian free trade scenario that extends MFN status to countries outside Asia, the Asian hub-and-spoke scenario generates somewhere between one fifth and one quarter of the global gains. Within developing Asia, too, hub-and-spoke systems are inferior to regional free trade and to multilateral liberalization initiatives (Table 3.7). A PRC hub generates just over half the benefits of Asian free trade for Asian developing countries, and an ASEAN hub, which implicitly entails the removal of more trade distortions, about 70% of the benefits.

The inferiority of hub-and-spoke systems for Asian developing countries is most evident from the welfare impacts for South Asian countries, which gain very little or nothing from the hypothetical bilateral FTAs with hubs in East Asia and Southeast Asia. This result reflects a high level of own import protection in the countries of South Asia and their limited trade linkages with East Asia and Southeast Asia.

Only Korea appears to capture most of the benefits that might otherwise accrue from Asian free trade or global free trade through a bilateral agreement with the PRC. This is both because the PRC is one of Korea’s most important export markets, and because their trade structures are largely complementary.

Although the two hypothetical hub-and-spoke configurations represent an inferior option toward trade liberalization in terms of global or regional gains, they generally induce larger benefits for the hub countries. The PRC’s welfare gain from a regional FTA hub position is almost four times that from Asian free trade. ASEAN countries as well are

3.7 Bilateral liberalization configurations (change compared to baseline in 2025), real income

	PRC hub		ASEAN hub	
	\$ billion	% of GDP	\$ billion	% of GDP
Asia including Japan	82.48	0.46	100.76	0.56
Japan	9.07	0.14	5.62	0.09
Developing Asia	73.41	0.63	95.14	0.82
PRC	23.16	0.41	4.13	0.07
Hong Kong, China	4.42	1.07	1.01	0.25
Korea	31.92	3.03	17.44	1.65
Taipei, China	3.79	0.56	1.07	0.16
Indonesia	1.21	0.23	9.76	1.86
Malaysia	2.22	0.76	13.50	4.60
Philippines	0.12	0.05	3.37	1.43
Singapore	1.52	0.73	11.62	5.60
Thailand	7.36	1.86	24.26	6.14
Viet Nam	1.93	1.42	7.92	5.84
Bangladesh	0.20	0.14	-0.47	-0.32
India	-4.43	-0.24	1.56	0.08
Sri Lanka	-0.01	-0.03	-0.03	-0.06
Non-Asia				
United States	-3.81	-0.02	-3.81	-0.02
Europe 19	-3.20	-0.02	-3.33	-0.02
Australia & New Zealand	-0.90	-0.10	-1.38	-0.15
Latin America	-0.58	-0.01	-0.50	-0.01
Rest of the world	-3.58	-0.05	-2.70	-0.04
World	70.41	0.11	89.05	0.14

Europe 19 = EU 15 plus Iceland, Liechtenstein, Norway, and Switzerland.

Source: Staff estimates.

better off as a hub than under the Asian free trade scenario. Therefore, potential hubs may have little incentive to pursue broader regional trade liberalization.

An agenda for trade and integration in Asia

The multilateral, regional, and bilateral trade liberalization scenarios illustrated in the previous section make the point that uncoordinated bilateral liberalization risks sacrificing gains, which could be captured either through cooperative multilateral approaches or through nondiscriminatory (open) regional agreements. The potential for trade diversion, as opposed to trade creation, is greater in a system of overlapping bilateral agreements. Crisscrossing bilateral agreements also risk marginalizing peripheral countries with small markets. Investment decisions are not easily reversible, and can have a cumulative influence on economic advantages. Therefore, even if bilateral preferences were to eventually give way to multilateral liberalization, the polarizing impacts of bilateralism could be long lasting (Baldwin 2002).

The proliferation of bilateral regional trade agreements in Asia reflects countries' strategic and political interests as well as their commercial interests in institutionalizing market-driven integration processes. But the pursuit of overlapping bilateral, regional, and plurilateral FTAs by Asian countries has resulted in multiple agendas for integration. Harmonizing these agendas to tap the potential of nondiscriminatory approaches to liberalization, and to expand the reach of integration, constitutes a significant challenge.

In this section, the practical question is addressed as to how bilateral FTAs might be best designed so as to maximize their potential leverage on the growth of trade and economic integration. At a minimum, FTAs should be consistent with the principle of not, on average, raising barriers to imports from nonmembers. They should also strive to be trade creating by actually lowering barriers to nonmembers. There are working examples of agreements that are pushing liberalization forward in "nontraditional" areas and moving outward the frontiers of economic integration into areas beyond WTO's jurisdiction. For example, Singapore's FTA with New Zealand provides more flexibility on rules of origin than traditional FTAs, leaving firms some choice in compliance and so lowering the costs of compliance. In addition, full-blown FTAs extend liberalization into new areas, such as investment.

Bilateral trade agreements as building blocks for integration

Asia's "noodle bowl" is already quite full and is spilling over regional boundaries. An important question is how to mitigate the damage that may be caused by a knot of agreements that differ in terms of their coverage, treatment, and ambitions, and that may contradict one another. On the ground, the problems associated with bilateral trade agreements have little to do with esoteric theories of the second best, and everything to do with bread and butter commercial decisions. As observed in *The rise of bilateralism*, above, rules of origin with high compliance costs may simply mean that businesses prefer to pay an MFN tariff, rather than attempting to establish that their goods qualify for preferences.

Likewise, customs administration can quickly become bogged down when products have components that are assembled in multiple locations. Where administrative structures are weak, gray areas heighten incentives and opportunities for corruption, punishing honest businesses and leading to significant leakage of public revenues. For investors, decisions also become much more complex as cost considerations must now be weighed against current and expected future margins of preference all along the supply chain. However, these are not inevitable consequences of bilateral agreements, and steps can be taken to mitigate distortions and inefficiencies.

As Plummer (2005) points out, the scope for reducing distortions will depend critically on the “inclination” of bilateral accords. If they are intended to protect special interest groups and to turn countries inward, they are likely to act as a stumbling block to broader liberalization. Against this—and there is evidence that bilateral agreements are moving in this direction (*The rise of bilateralism*, above)—if they aim at deepening integration, they may present additional opportunities to those currently accommodated within the multilateral framework. Given these conditions, Plummer advocates a number of specific steps that, together, could constitute an approach to a “first best” solution (Box 3.8).

The WTO agreements impose relatively few requirements on member countries who wish to negotiate bilateral FTAs. Agreements between

3.8 Suggested guidelines for bilateral trade agreements

Bilateral trade agreements should ensure:

- Wide coverage of goods with few exclusions. Agriculture and manufacturing tariffs and nontariff barriers should be eliminated on a clear and fast timetable.
- Wide coverage of services and coverage of all modes of service delivery. Harmonization of regulatory regimes may or may not be required, depending on whether an agreement is extended to competition policy.
- Symmetrical and simple rules of origin based on a positive standard or test. They should have transparent and consistent implementing regulations (e.g., accounting practices, paperwork for certification of origin) that are chosen at the minimum level needed to prevent trade deflection.
- Even-handed and transparent customs procedures. Valuation should be transparent, offering few or no chances for corruption (use of electronic data interchange).
- Enforcement of intellectual property rights in a nondiscriminatory manner. This should be consistent with the World Trade Organization (WTO) Agreement on Trade-Related Intellectual Property Rights, reinforcing international conventions on copyrights, patents, etc.
- National treatment embodied in foreign direct investment regulations and investment provisions. Any performance requirements should be based on a “negative-list” approach and should provide protection in law for foreign investors to prevent expropriation or unwarranted actions against such investors’ interests.
- Establishment of dispute-settlement provisions, to adjudicate conflicts in a timely and fair fashion by using objective panels of experts. Antidumping findings should be subject to review by such panels with proceedings held in a fair and transparent manner.
- Open competition and nondiscrimination among members for government procurement and as little discrimination against nonmembers as possible.
- Transparent and nondiscriminatory competition laws and regulations. To the extent possible, they should be harmonized among members to eliminate use of antidumping (as distinct from antimonopoly) measures.
- Clear and simple codes that guide technical barriers to trade, such as product standards and phytosanitary standards to protect public health and safety (based on the WTO agreements on standards). Likewise, agreements that cover environmental and labor standards should embrace the rights of partners to establish and implement their own laws and regulations in conformity with existing international obligations in the areas of environmental protection and labor rights and conditions.

Source: Plummer (2005).

developing countries that are notified under the “Enabling Clause” have only to be formally notified to WTO. For industrial countries, there is the requirement under Article XXIV of GATT that an agreement: (i) covers substantially “all” trade in goods; (ii) does not raise barriers on average to nonmembers; and (iii) is notified to WTO. There are also limits of 10 years imposed on the time frame for implementation and, for any agreement that includes services, there is a notification requirement under the General Agreement on Trade in Services (GATS). WTO also conducts reviews of notified agreements to ensure that they are implemented in accord with the above requirements.

Full-blown FTAs are often designed to push liberalization between members beyond the limits of the WTO agreements. These “WTO+” FTAs are typically agreements between the advanced industrial economies, but increasingly involve middle- or upper-income developing countries. Plummer (2005) provides a checklist of features for such FTAs (Box 3.8 above). He also attempts to grade some recent FTAs involving Asian or Pacific countries accordingly.

From a developing country’s perspective, some of Plummer’s requirements appear onerous. A lack of capacity and technical expertise, missing institutions and laws, and weak enforcement mechanisms may seriously constrain what agreements can really deliver. In the case of agreements involving a developed-country partner, technical cooperation and assistance may gradually relax some of these constraints. The EU’s experience shows that the deepening of trade agreements is a process that takes time, patience and, above all else, political commitment.

Connecting the spokes

The experiments outlined in *Trade scenarios: Potential benefits and risks*, above, underline the point that bilateralism resulting in many unconnected and isolated “spokes” poses the greatest risks, particularly to the spokes themselves. In a hub-and-spoke configuration, investors are likely to limit their interests to large hubs, with spokes benefiting only to the extent that they provide margins of preference, net of the compliance costs of rules of origin. As many countries have now learned, investors in search of preference margins can leave as quickly as they arrive.

Processes that connect the spokes are likely to be superior for overall trade creation and for the leveling of opportunities. In developing Asia, this suggests that there would be advantages to building a network or association of agreements around subregional hubs (ASEAN, SAARC). The “ASEAN+” agreements have this potential, as would plurilateral agreements between subregional alliances. But building such a network may be politically difficult, in view of the heterogeneity within such groupings and their asymmetric interests. The creation of separate bilateral agreements between an outside country and different countries within an emerging free trade area magnifies potential distortions. Customs unions are superior to FTAs in that they could further reduce distortions, but they require members to surrender their autonomy in trade policy. Hence, most countries choose FTAs so as to retain some independence in trade policy toward nonmembers.

It is also clear, however, that within existing regional groupings some countries are better prepared than others to make strides toward

full-blown “WTO+” trade agreements as outlined above. This will make it difficult to move at a uniform pace and in a coordinated way. Indeed, Singapore has already closed deals along those lines with Australia, European Free Trade Association, Japan, Korea, New Zealand, and US. Likewise, Malaysia and Thailand are better positioned than Indonesia, Philippines, or Viet Nam, let alone the smaller, poorer countries like Cambodia and the Lao People’s Democratic Republic.

Technical assistance, capacity building, and increased “aid for trade”

The binding constraints on the negotiation and practical implementation of full-blown FTAs involving DMCs reside precisely in the weak institutions and limited technical capacity of DMC governments and private sectors. Customs departments are often ill-equipped, their staff underpaid and prone to corruption, and lacking expertise both in valuation, and, of course, for efficient implementation of rules of origin and other complex facets of a full-blown FTA. Legal coverage and institutions are too frequently slow and weak, and this will not only pose limits on what agreements can do in terms of attracting investment, but will make dispute resolution fraught with uncertainty. In addition, lack of business experience with the accounting practices required to document production costs and purchases according to source, which are necessary to obtain certificates of origin, may result in paper agreements that are ignored in practice. Taking the “easy option” of paying the MFN tariff makes sense if the compliance costs of attaining certificates of origin are too high.

Similarly, talk of extending agreements to competition policy is meaningless in countries where systems for entry and exit of firms are opaque, where modern bankruptcy laws may not exist, or where bankruptcy proceedings are routinely used to expropriate legitimate and profitable firms (while shoring up loss-making state enterprises). The practical capability of small and low-income countries to negotiate beneficial agreements with numerous parties on the long list of technical matters raised above is negligible. Immediate efforts to build capacity to not only negotiate with partners, but also to “sell” such agreements to the private sector, bureaucracy, legislature, and public at large, are needed. These efforts must also be continued, determinedly, for several years if these agreements are to be worth more than the paper they are written on.

Ultimately, winners and losers will emerge from these agreements, and so there must be a way to make the adjustment process politically palatable. This is where “aid for trade” comes in. Provision of technical assistance by the more advanced to the less advanced partner is one obvious means of addressing the political economy problems. Producers in countries entering into FTAs with industrial countries or advanced developing countries could be given technical assistance to improve the quality of their products and to reduce unit costs. These producers still have to adjust, but they will become more competitive as a result.

Compilation of “best practices” with practical examples could provide officials responsible for negotiations with a tool that will serve them well in future trade talks. Enabling them to have a better understanding of WTO law and practice in numerous areas of trade and trade policy, particularly customs valuation, standards, intellectual property rights,

government procurement, services, and agriculture would also provide valuable intellectual capital to the smaller countries in the region.

Reducing trade costs

One area in which bilateral agreements, especially if accompanied by technical and other assistance, may be able to promote deeper integration is through initiatives that help improve trade efficiency, thereby reducing trade costs. These measures help exporters get their goods to market more quickly and cheaply. Initiatives that help reduce trade costs are particularly attractive because they are nondiscriminatory and can generate “win-win” outcomes.

A constellation of factors may influence trade costs including: access to and the quality of infrastructure; port handling procedures; customs regulations and efficiency; the availability of trade credit; licensing, inspection, and regulatory requirements; and the efficiency of information and logistics networks. Trade costs include direct monetary

3.9 Trade costs

For modern international business, trade policies are only part of the overall costs of trade. Institutional, logistical, and regulatory barriers are often more costly than tariffs. Trade costs are expansive and complex. They involve direct monetary outlays associated with tariffs, freight insurance, and distribution charges, as well as tacit costs such as order and shipment times, uncertainty, and the difficulties of transacting in unfamiliar places or conditions. Some of these costs are fixed in character, others variable. For instance, with just-in-time production and international supply networks, time has become an increasingly important factor in costs. Also, fractionalization of supply chains means that intermediate products may cross borders several times in the production of a final good, raising the share of trade costs in the basic price.

Hummels (2001) estimated that for imports into the United States, the time cost of 1 day in transit is equivalent to an ad valorem tariff rate of 0.8%. These costs are likely to be most pronounced for goods that have a “perishable” quality, or for which demand may change fast (such as clothing), or for which the costs of delayed shipments are large. Unreliable trade services are likely to encourage large inventory holdings for which the financing costs can be significant. A study by the Organisation for Economic Co-operation and Development (Engman 2005) cites a cost disadvantage in west coast United States markets to textile producers in India of 37% relative to producers in Shanghai, due to delays and inefficiencies in Indian ports. An Asian Development Bank technical assistance study found that clothing producers in Bangladesh might earn 30% more if inefficiencies were removed at Chittagong port (ADB 2003). World Bank (2000) survey information identifies customs and foreign trade regulations as major

Representative trade costs of industrial countries

	Tariff rate equivalent (%)
International trade costs	74
Border-related trade barriers	44
Policy	8
Language	7
Currency	14
Information cost	6
Security	3
Transportation cost	21
Freight	11
Time	9
Retail and wholesale distribution costs	55

Source: Anderson and van Wincoop (2004).

impediments to trade cited by nearly 80% of respondents in South Asia.

In a survey paper, Anderson and van Wincoop (2004) estimated the tariff equivalent of “representative” trade costs to be as high as 170% of trade value for industrial countries, including 74% international trade costs and 55% retail and wholesale distribution costs. The costs are not simply additive, but rather multiplicative ($1.70=1.74 \times 1.55-1$). A breakdown of these costs suggests that 21% are for transport and 44% are border related. More detailed components of “representative” international trade costs are listed in the box table. For many developing countries, trade costs are likely to be significantly larger than those of industrial countries. Inferior infrastructure, inefficient regulation, and underdeveloped domestic insurance, finance, and logistics sectors all raise costs, as does corruption.

costs associated with moving goods across borders as well as any indirect costs, including time costs. Time costs can be particularly important for perishable or other goods where delivery deadlines are important (Box 3.9).

A number of studies have attempted to assess the welfare impact of trade transactions costs. These studies estimate that for each 1% reduction of trade transaction costs, world income could increase by \$30 billion–\$40 billion (Francois et al. 2005, OECD 2003, APEC 2002). Typically, the benefits for developing countries are larger than for developed countries as the former are generally less efficient in trade. Case study evidence suggests that customs modernization programs can significantly increase trade flows and government revenues, as “lost” tariffs and duties are recouped. Hertel et al. (2001) analyze the impact of customs automation in the context of a bilateral FTA between Japan and Singapore and find that it would result in global gains of US\$9 billion annually, with 70% of it accruing to Japan. A reduction in trade costs could also have a positive impact on foreign direct investment, but there would appear to be little direct empirical evidence for this (Engman 2005).

In Table 3.8, the results of an experiment are reported in which it is assumed that there are gains in trade efficiency in Asia. These gains may be compared with the tariff liberalization exercises reported above in *Trade scenarios: Potential benefits and risks*. For high-income countries in

3.8 Impact of assumed trade cost reductions, 2025

	Real income gain (\$ billion)	Real income gain (% of GDP) (A)	Direct efficiency gain (% of GDP) ^a (B)	Trade cost reduction (% of trade value) ^b	Multiplier (A/B)
Asia including Japan	673.45	3.72	1.32		2.82
Japan	54.23	0.84	0.43	2.50	1.97
Developing Asia	619.22	5.32	1.93		2.76
PRC	165.20	2.93	1.41	5.00	2.07
Hong Kong, China	45.74	11.09	3.15	2.50	3.52
Korea	35.39	3.36	1.24	2.50	2.71
Taipei, China	29.70	4.40	1.59	2.50	2.76
Indonesia	41.42	7.90	2.27	5.00	3.48
Malaysia	61.15	20.83	6.52	5.00	3.19
Philippines	22.12	9.36	3.21	5.00	2.92
Singapore	38.04	18.32	4.74	2.50	3.86
Thailand	55.92	14.16	3.94	5.00	3.59
Viet Nam	21.85	16.10	5.96	10.00	2.70
Bangladesh	7.10	4.91	2.33	10.00	2.10
India	91.72	4.90	1.45	10.00	3.39
Sri Lanka	3.86	8.82	4.77	10.00	1.85
Non-Asia					
United States	26.23	0.12	0.16	0.00	0.77
Europe 19	31.91	0.24	0.23	0.00	1.05
Australia & New Zealand	4.71	0.53	0.32	0.00	1.66
Latin America	4.90	0.11	0.13	0.00	0.85
Rest of the world	25.57	0.36	0.27	0.00	1.33
World	766.76	1.18	0.49		2.40

^a Direct efficiency gains are calculated as the product of a country's imports in 2025 under the baseline and the assumed reduction in its import trade costs.

^b Refers to trade cost reduction by exporters or importers. The bilateral trade cost reduction is calculated as the sum of cost reductions by exporters and importers.

Europe 19 = EU 15 plus Iceland, Liechtenstein, Norway, and Switzerland.

Source: Staff estimates.

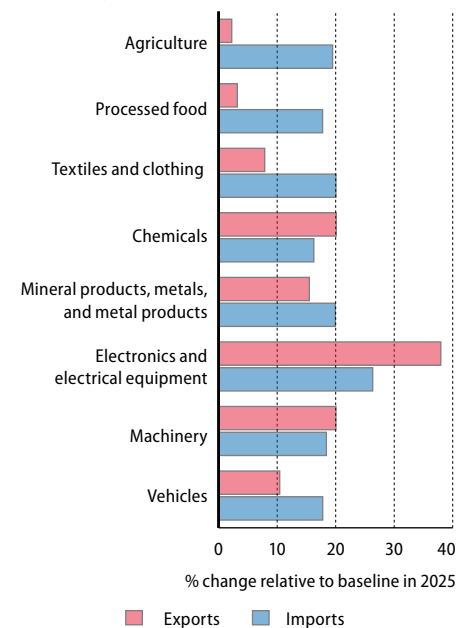
Asia, trade efficiency gains are assumed to be modest, but for low-income countries larger gains are assumed in recognition of lower initial levels of efficiency and enhanced opportunities for improvement and “catch-up.” Between 2007 and 2025, frictional trade costs, i.e., the component that generates no counterpart income, are assumed to fall by 10% of baseline trade values in the lowest-income developing Asian countries, by 5% for middle-income developing Asian countries, and by 2.5% in higher-income countries in Asia. These cost reductions are applied to both exports and imports. It is assumed that reductions in the costs of exports are passed through to importers who now pay less for a given volume. Consequently, importers outside as well as inside Asia benefit from the assumed improvement in trade efficiency. The direct efficiency gains (or savings) to importers are shown in data column 3 of Table 3.8. These terms-of-trade gains then trigger adjustments in demand, supplies, trade flows, and relative prices across countries and regions. The upshot in terms of final changes in real income, measured relative to base, is summarized in data columns 1 and 2 of Table 3.8.

As a percentage of the baseline estimate of GDP, estimated impacts of the trade cost reduction scenario appear large. But a substantial portion of the gains is due to the assumed size of the disturbance (data column 4), which varies across countries and regions. Low-income countries, and countries with large initial trade shares, are most affected by a reduction in trade costs and have most to gain. A 10% reduction in the costs of trade is very large for an economy where trade accounts for over 100% of GDP. A more useful measure of the possible benefits of an increase in trade efficiency, which controls for the size of the disturbance, is the total income generated by each dollar saved on trade costs. For the global economy, each dollar reduction in trade costs raises income by \$2.40, including the original direct saving of \$1, as this constitutes the recovery of resources that were previously wasted. The additional \$1.40 is generated by multiplier effects and by induced accumulation. In Asia, which is the assumed source of efficiency gains, each dollar saved in trade costs generates total income of \$2.80. However, these estimates of the gains from improved trade efficiency are sensitive to model assumptions. For example, at a global level, if constant returns to scale better characterize technology, the estimated gains are \$1.90 for each \$1 of trade costs saved; if no accumulation accompanies rising income, this estimate falls to \$1.20.

These results demonstrate the nondiscriminatory nature of increased trade efficiency. Despite the assumption that reductions in trade costs are confined to Asia, all regions benefit. This is a “win-win” outcome. Both Hong Kong, China and Singapore, for whom assumed reductions in trade costs are modest, also clearly benefit from improvements in trade efficiency of their major partners. Within Asia, the most significant benefits are seen for ASEAN. Although impacts on income are more modest in South Asia, because the subregion is not as open as East Asia and Southeast Asia, the additional income generated by each dollar saved is large. For example in India, a dollar reduction in trade costs generates total income of \$3.40, partly because this reduction generates terms-of-trade gains for the country, adding significantly to the benefits of lower protection levels.¹⁴

Lower trade costs would likely change patterns of trade. One route

3.6 Export and import growth with trade efficiency gains



Source: Staff estimates

would be further fragmentation of production across national borders to exploit economies of specialization and scale. Figure 3.6 shows growth of exports and imports in the current experiment. Reductions in trade costs induce greater trade expansion in modern manufacturing sectors such as chemicals, electronics, and machinery. The most striking change occurs in electronics. In the Asian free trade scenario, electronics exports from Asia decline relative to the baseline. But with the assumed reduction in trade costs, Asia's electronics trade (exports plus imports) rises by 70%. Asia's trade in electronic goods is largely driven by international vertical specialization and involves a large amount of "back and forth" trade in parts and components. Even moderate improvement in trade efficiency can substantially cut the costs of international supply chains, encourage the expansion of regional production networks, and boost intra-industry trade. Also, if trade efficiency can be improved in the Asian region, intraregional trade will play an increasingly important role in supporting long-term income growth. Under current assumptions, the estimated share of intra-Asian trade in global trade rises to 38.3% by 2025.

Conclusions

Trade has been an important ingredient in the mosaic of factors that has contributed to rapid economic catch-up in parts of developing Asia. Although it would be naïve to suggest that trade liberalization alone can ignite and sustain growth, the balance of evidence (Winters 2004) provides a strong "presumption" that trade liberalization has been an important element in a broader package of factors that has helped lift productivity and incomes, and perhaps accelerated growth. The direction of causation between growth and trade is difficult to disentangle, but one possible reason for the link is that trade openness stimulates investment by expanding markets abroad and reducing the cost of imported machinery. Another is that trade liberalization may help stimulate or lock in other beneficial institutional and policy changes. Significant trade protection, in contrast, has never been associated with sustained fast economic growth.

So far, the closer trade integration that has taken shape in East and Southeast Asia over the past two decades has been propelled largely by market forces, rather than by PTAs. The private sector in developing Asia has benefited from access to developed-country markets sponsored under successive rounds of multilateral liberalization, and countries have done much to help themselves by reducing tariffs, frequently on a unilateral basis. However, a rising tide of bilateralism is sweeping across the global trading system and Asia is being carried along by it (discussed in *The rise of bilateralism*, above). Estimates confirm both the potential costs of bilateralism in terms of trade diversion and the promise of initiatives that could go beyond WTO agreements to deepen integration. The simulation results summarized in this part of the *Asian Development Outlook 2006* (and echoed in many other studies) underscore the principle that the more open and nondiscriminatory the trade agreement, the better it is. It is also demonstrated that agreements that attempt "deep integration"—by reducing trade costs through behind-the-border reforms—could be potentially much more beneficial than traditional PTAs.

The movement toward regional and bilateral agreements is a reality and is motivated by noneconomic, as well as commercial, considerations. Asia's agreements tend to be very young, but during the time that they are implemented they will start making their mark on regional and global trade and investment flows. Therefore, it is essential that the dynamics of bilateralism are guided in such a way that they support, rather than contradict, the openness that to date has been a hallmark of Asia's trade expansion and integration. Many of the PTAs that Asian countries are entering into extend beyond the region. This underscores the importance to Asia of non-Asian markets.

The political economy of bilateralism is complex. Baldwin (2002), for example, sees an opportunity to leverage bilateralism to work for, and not against, multilateralism. His point is that special and differential treatment of low-income countries within the context of multilateral liberalization efforts has inadvertently fortified protectionist pressures. Bilateral agreements with developed countries that already have negligible protection, such as Japan, would under GATT Article XXIV require the virtual elimination of tariffs and indirectly pit protectionist interests in developing countries against international competition. As a consequence, protectionist influences would likely shrink, and the influence of exporters and those favoring liberalization expand. Such a shift, Baldwin argues, would help change attitudes to multilateral negotiations, as well as their mood.¹⁵ Others have contributed to the "building blocks versus stumbling blocks" debate (e.g., Frankel 1998). They emphasize that bilateral FTAs are more likely to cause damage if they fail to address behind-the-border barriers and focus narrowly on preferential reduction of tariffs. Bilateralism also runs the risk of establishing hub-and-spoke systems that marginalize small trading spokes and concentrate gains in the larger hub countries, unless governments make conscious efforts to link the spokes. Associations of bilateral agreements can help in this linking, but this would present considerable harmonization problems. In principle, if such associations become sufficiently large, include countries with complementary factors, and extend preferences on an MFN basis to outsiders, they would help increase opportunities for gains.

The "building/stumbling blocks" literature tends to focus merely on what might emerge endogenously out of bilateral and regional trade agreements. But it would be useful if a format could be established whereby these accords would *have to be* building blocks. Currently, the Doha Development Agenda is exploring means to ensure that bilateral and regional trade agreements will be consistent with WTO principles, i.e., to give more "teeth" to its Article XXIV, but only modest policies are being considered, such as improving transparency. Much more is needed. Possible "guidelines" to good practice in bilateral and regional trade agreements are set out in *An agenda for trade and integration in Asia*, above. Adoption and effective implementation of these 10 basic principles (Box 3.8 above) would help minimize the potential damage from bilateral agreements and, at the same time, allow for trade creation, investment creation, and efficient behind-the-border reforms. While this sort of approach would be best adopted at the multilateral/WTO level, it will be difficult to do so without strong political support. Asia could play a significant leadership role by adopting these principles and

by incorporating them in its bilateral and regional trade agreements. Leading by example would not only have significant economic benefits but would also strengthen the profile of Asia in the global trading system.

The least-developed countries in Asia have, perhaps, the most at stake in this process. As they move forward with economic reform and commercial policy liberalization, it is of the essence that international markets remain open to them. If market access is effectively closed off by a web of preferences favoring others, it will be extremely difficult for them to succeed in their reform process. It is also important that the poorest countries are helped in developing the technical and physical capacity to take advantage of global markets. Many low-income countries remain at a competitive disadvantage in getting their goods to market (Box 3.9 above). Assistance for trade facilitation and the easing of behind-the-border trade barriers will likely prove critical to their success.

Ultimately, Asia's growth and prosperity will be a function of the health of the global trading system, of which the region is an important part. Asia has a significant interest in a strong, healthy, ambitious multilateral agenda. After all, Asia's trade interests overwhelmingly lie in having unfettered access to the largest markets of the US and EU. Intraregional trade integration through production sharing actually reinforces Asia's interests in keeping open access to industrial-country markets. This is because these markets are the ultimate destination of most exports of final goods assembled from parts and components traded in Asia. Thus, WTO and the Doha Development Agenda are critical. A substantive, comprehensive result in the Doha talks would mitigate any potential negative effects of preferential trade agreements. It would also emphasize that the multilateral system, generally governed by WTO, forms the core of the system. Asia has much riding on this result, and needs to take an active leadership role in the Doha talks.

Endnotes

- 1 The analysis here builds on and extends Part 3 of ADB (2002a). A particularly significant development since then has been the rise of bilateral free trade agreements.
- 2 Hubs are usually large countries that are the center of preferential trading regions such as the United States in the western hemisphere and the European Union in Europe and the Mediterranean rim. Spokes are smaller, often developing, countries that opt to join the hub through an FTA. Whereas hubs automatically have preferential access to all the spokes in the system, the converse is not always true. Spokes may be linked to one another through their own FTAs. However, rules of origin may inhibit trade between the spokes. One solution to this problem is for hubs to allow "diagonal cumulation" (as in the Euro-Med Free Trade Agreement rules of origin) so that content from several spokes can count cumulatively toward the originating value added and will help make products eligible for duty-free treatment in the hub (Cadot et al. 2006).
- 3 Kawai (2005) reports East Asia (comprising members of the Association of Southeast Asian Nations, PRC, newly industrialized economies of Hong Kong, China; Korea; Singapore; and Taipei, China) having an intraregional trade share of 44%. However, if South Asia is included, this share will fall somewhat.
- 4 For example, see Rose (2004). Rose uses a standard gravity model and finds little evidence that trade patterns of members of the GATT/WTO system differ from those of outsiders once standard variables have been taken into account. He concludes that if GATT/WTO

membership does not account for the fact that trade growth has led income growth in the post-Second World War era, membership in regional trade agreements (e.g., EU, NAFTA) may be an alternative explanation. That East Asian countries attained even more rapid growth in trade than other regions of the world without resort to discriminatory trade preferences for several decades would appear to contradict such a conclusion.

- 5 The program was largely successful as it reduced Indonesia's simple average import tariff from 20% in 1994 to about 7% by the end date. See James (2005a).
- 6 Data from Athukorala and Yamashita (2005) show increase from 66% to 70% between 1992 and 2003.
- 7 Compliance costs fall typically in the range of 3–5% of the cost, insurance, freight import price and these costs (arising from paperwork and documentation procedures in customs and ports) discourage firms from applying for tariff preferences (Productivity Commission 2003).
- 8 This is in fact why Sutherland et al. (2004) recommended that the deepest possible cuts be made in MFN tariffs in the Doha Round negotiations—as the only practical way to undo the “spaghetti bowl” problem in the context of proliferation of discriminatory trade agreements.
- 9 For an earlier version of GEMAT, with an assumption of constant returns to scale and perfect competition, see Roland-Holst et al. (2005).
- 10 The calculation here does not take into account the recent revision of GDP statistics in the PRC, which raises the GDP figure of 2004 by 16.8%.
- 11 Technically, the changes in real income are measured as Hicksian equivalent variation, which represents a money metric of welfare change. It is defined as the amount of income that, if given to the consumers at baseline prices, would be equivalent in terms of their level of utility to the effects of policy changes.
- 12 They estimate gains of 0.7% of world GDP by 2015 but their scenario assumptions imply quicker liberalization than those used here. The coarser regional disaggregation for the non-Asia region in GEMAT also partly accounts for the smaller estimate of global gains.
- 13 Rules of origin are not captured in GEMAT.
- 14 In the global trade liberalization scenario, India suffers a terms-of-trade deterioration.
- 15 Baldwin cautions that, to avoid the possibility of transnational protectionist alliances, the exclusion of sectors from FTAs should be considered case by case. Agreements to exclude them on a consistent basis risk creating strong constituencies in favor of protectionism.

References

- Anderson, James E., and Eric van Wincoop. 2004. “Trade Costs.” *Journal of Economic Literature* 42(3):691-751.
- Anderson, Kym, Will Martin, and Dominique van der Mensbrugge. 2006. *Doha Merchandise Trade Reform: What's at Stake for Developing Countries?* World Bank Policy Research Working Paper 3848. February. Washington, DC: The World Bank.
- Asian Development Bank. 1997. *Emerging Asia: Changes and Challenges*. Manila.
- . 2002a. *Asian Development Outlook*. Part 3. “Preferential trade Agreements in Asia and the Pacific.” Manila.
- . 2002b. *Empowering Nations Through Regional Cooperation*. Theme Paper No. 10. Reprinted from Asian Development Bank Annual Report 2001:14-28. Manila.
- . 2003. “Technical Assistance of the People's Republic of Bangladesh for Preparing the Chittagong Port Trade Facilitation Project.” TAR:BAN 36105. July.

- . Forthcoming. *Central Asia: Increasing Gains from Trade Through Regional Cooperation in Trade Policy, Transport, and Customs Transit*. Manila.
- Asia-Pacific Economic Co-operation. 2002. "The Benefits of Trade and Investment Liberalization and Facilitation in APEC." APEC Economic Committee. Bangkok.
- Athukorala, Prema-chandra and Nobuaki Yamashita. 2005. *Production fragmentation and trade integration: East Asia in a global context*. Working Paper in Trade and Development no. 2005/07. Canberra: Division of Economics, Research School of Pacific and Asian Studies, Australian National University.
- Baldwin, Richard E. 2002. "Asian Regionalism: Promises and Pitfalls." Paper presented at the Korea Institute for International Economic Policy Conference on Prospects for Economic Cooperation in East Asia. Seoul. 27 September.
- Baldwin, Richard E. and Anthony J. Venables. 1995. "Regional Economic Integration." In Gene M. Grossman and Kenneth Rogoff, eds. *Handbook of International Economics, Vol. III*. Amsterdam: North-Holland, section 1.2.
- Barboza, David. 2006. "Made in China labels don't tell whole story." *The New York Times and International Herald Tribune*. 9 February.
- Berg, Andrew and Anne O. Krueger. 2003. *Trade, Growth, and Poverty: A Selective Survey*. IMF Working Paper No. 03/30. February. Washington, DC: International Monetary Fund.
- Cadot, Olivier, Antoni Esteveadoral, Akiko Suwa, and Thierry Verdier. 2006. *The Origin of Goods: Rules of Origin in Regional Trade Agreements*. London: Oxford University Press.
- Caves, Richard E. 1996. *Multinational Enterprise and Economic Analysis* (2nd edition). Cambridge: Cambridge University Press.
- Dimaranan, Betina V. and Robert A. McDougall, eds. 2006. *Global Trade, Assistance, and Production: The GTAP 6 Data Base*. West Lafayette, Indianapolis: Center for Global Trade Analysis, Purdue University.
- Dobson, Wendy and Chia Siow Yue, eds. 1997. *Multinationals and East Asian Integration*. Ottawa: International Development Research Centre.
- Dollar, David. 1992. "Outward-Oriented Developing Economies Really Do Grow More Rapidly: Evidence from 95 LDCs, 1976-1985." *Economic Development and Cultural Change* 40(3):523-44.
- Economist, The*. 2004. "Free Trade in South-East Asia." July 29.
- Edwards, Sebastian. 1998. "Openness, Productivity and Growth: What Do We Really Know?" *Economic Journal* 108(2, March):383-98.
- Engman, Michael. 2005. *The Economic Impact of Trade Facilitation*. OECD Trade Policy Working Paper No. 21. October. Paris: OECD Trade Directorate.
- Francois, Joseph, Hans van Meijl, and Frank van Tongeren. 2005. "Trade Liberalization in the Doha Development Round." *Economic Policy* 20(42):349-91.
- Frankel, Jeffrey. 1998. *The Regionalization of the World Economy*. Chicago: University of Chicago Press.
- Fukao, Kyoji, Hikari Ishido, and Keiko Ito. 2003. "Vertical Intra-Industry Trade and Foreign Direct Investment in East Asia." *Journal of the Japanese and International Economies* 17(4):468-506.
- Hertel, Thomas W., Terrie L. Walmsley, and Ken Itakura. 2001. "Dynamic effects of the new age free trade agreements between Japan and Singapore." *Journal of Economic Integration* 16(4, December):446-84.
- Hill, Hal. 1988. *Foreign Investment and Industrialisation in Indonesia*. Singapore: Oxford University Press.

- Hummels, David. 2001. *Time as a Trade Barrier*. West Lafayette, Indianapolis: Purdue University Economics Department.
- International Centre for the Study of East Asian Development (ICSEAD). 2006. "Recent Trends and Prospects for Major Asian Economies." *East Asian Economic Perspectives* Special Issue 17(1, February).
- International Monetary Fund. *Balance of Payments Statistics*. 1990-2004 Yearbooks and December 2005 CD-ROM, Washington, DC.
- . 2006. *Direction of Trade Statistics*. February.
- James, William E. 2000. "The Rise of Antidumping and Regionalism: An East Asian Perspective." *Asian-Pacific Economic Literature* 14(2):13-26.
- . 2005a. "Trade Policy, the World Trading System and the Competitiveness of Indonesian Non-Oil Products: Toward a Strategy for the 21st Century." Paper presented at the University of Gadjah Mada 50th Anniversary Conference. Yogyakarta. October.
- . 2005b. "Rules of Origin and Rules of Preference and the World Trade Organization: the Challenge to Global Trade Liberalization." Vol. 2 of P. Macrory, A. Applegate, and M. Plummer (eds.). *The World Trade Organization: Legal, Economic and Political Perspectives* (3 Volumes). New York: Springer.
- James, William E. and Eric D. Ramstetter. 2005. *Trade, Foreign Firms and Economic Policy in Indonesian and Thai Manufacturing*. ICSEAD Working Paper Series No. 05-01, Kitakyushu, Japan.
- Kawai, Masahiro. 2005. "East Asian economic regionalism: progress and challenges." *Journal of Asian Economics* 16(1):29-55.
- Kojima, Kiyoshi. 1990. *Japanese Direct Investment Abroad*. International Christian University. Social Science Research Institute Monograph Series 1. Mitaka, Tokyo.
- Maddison, Angus. 1995. *Monitoring the World Economy 1820-1922*. Paris: OECD Development Studies Centre.
- Ng, Francis and Alexander Yeats. 1999. *Production Sharing in East Asia: Who Does What for Whom and Why?* World Bank Policy Research Working Paper Series No. 2197. Washington, DC: The World Bank.
- Ngoc, Phan Minh and Eric D. Ramstetter. 2004. *Foreign Ownership Shares and Exports of Multinational Firms in Vietnamese Manufacturing*. ICSEAD Working Paper Series No. 04-32, Kitakyushu, Japan.
- Organisation for Economic Co-operation and Development. 2003. *Quantitative Assessment of the Benefits of Trade Facilitation*. TD/TC/WP(2003)31/FINAL. Paris.
- Petri, Peter A. 2006. "Is East Asia Becoming More Interdependent?" Paper presented at the American Economic Association and American Committee for Asian Economic Studies. Boston. January 8.
- Plummer, Michael G. 2005. "Toward Win-Win Regionalism in Asia: Issues and Challenges in Forming Efficient Trade Agreements in Asia." Paper prepared for the Asian Development Bank. Manila. November.
- Productivity Commission. 2003. *Rules of Origin under the Australia-New Zealand CER Trade Agreement*. Interim Research Report. Canberra.
- Puga, Diego and Anthony Venables. 1997. "Preferential Trading Arrangements and Industrial Location." *Journal of International Economics* 43(3-4):347-68.
- Ramstetter, Eric D. 1999. "Comparisons of Foreign Multinationals and Local Firms in Asian Manufacturing over Time." *Asian Economic Journal* 123(2):163-203.
- Rodriguez, Francisco and Dani Rodrik. 2001. "Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-national Evidence." In B. Bernanke and K.S. Rogoff, eds. *NBER Macroeconomics Annual 2000* 261-324. Cambridge MA: MIT Press.

- Rodrik, Dani. 1999. *Making Openness Work: The New Global Economy and Developing Countries*. Washington, DC: Overseas Development Council.
- Roland-Holst, David, Jean-Pierre Verbiest, and Fan Zhai. 2005. "Growth and Trade Horizons for Asia: Long-term Forecasts for Regional Integration." *Asian Development Review* 22(2):108-125.
- Rose, Andrew K. 2004. "Do We Really Know That the WTO Increases Trade?" *American Economic Review* 94(1, March):98-114.
- Sachs, Jeffrey D. and Andrew M. Warner. 1995. "Economic reform and the process of global integration." *Brookings Papers on Economic Activity* 1:1-118.
- Sutherland, Peter, Jagdish Bhagwati, Kwesi Botchwey, Niall FitzGerald, Koichi Hamada, John H. Jackson, Celso Lafer, and Thierry de Montbrial. 2004. *The Future of the WTO: Addressing institutional challenges in the new millennium*. Report by the Consultative Board to the Director-General Supachai Panitchpakdi. Geneva: World Trade Organization.
- Thee, Kian Wie. 1991. "The Surge of Asian NIC Investment into Indonesia." *Bulletin of Indonesian Economic Studies* 27(3, December):55-60.
- . 2003. "Export-oriented Industrialization and Foreign Direct Investment in the ASEAN Countries." In M. Nissanke (ed.), *Asia and Africa in the World Economy*. Tokyo: United Nations University. September.
- United Nations Development Programme. 2005. *The Great Maze: Regional and Bilateral Free Trade Agreements in Asia*. Colombo.
- van der Mensbrugge, Dominique. 2005. *LINKAGE Technical Reference Document*. Economic Policy and Prospects Group, The World Bank, Washington DC. Processed. Available: <http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1100792545130/LinkageTechNote.pdf>.
- Vermulst, Edwin and Paul Waer. 1990. "European Community Rules of Origin as Commercial Policy Instruments." *Journal of World Trade* 24(3, June):55-100.
- Winters, L. Alan. 2004. "Trade Liberalisation and Economic Performance: An Overview." *The Economic Journal* 114(493, February):F4-F21.
- World Bank. 2000. World Business Environment Survey (WBES) 2000 Webtool Interactive. Available: <http://info.worldbank.org/governance/wbes/>.
- Zhai, Fan. 2005. "Preferential Trade Agreements in Asia: Alternative Scenarios of Hub and Spoke." Paper prepared for the Experts' Meeting on Long-term Scenarios of Asia's Growth and Trade. Asian Development Bank. Manila. 10-11 November.