



# Economic Premise

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## East Asia and the Pacific Confronts the “New Normal”

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*Developing East Asia is leading the global economic recovery, although performance varies across the region. In some countries, the monetary stance is already being tightened in light of emerging inflationary pressures; but it is premature to withdraw the fiscal stimulus until the global recovery is on a firmer footing. Fortunately, most countries in the region have adequate fiscal space and relatively low debt burdens. To ensure that the momentum of the recovery transitions into sustainable and inclusive growth over the medium term, the governments in the region must once again focus their attention on medium-term structural reforms. This means different policy priorities in different countries—especially given the diversity of the region. In addition, the region faces two common priorities—regional economic integration and climate change. Making progress on both fronts will be critical to the region’s medium-term prospects.<sup>1</sup>*

### From Crisis to Recovery

The developing countries of East Asia and the Pacific are leading the world out of the global economic and financial crisis. Although the region’s GDP growth slowed from 8.5 percent in 2008 to 7.0 percent in 2009, the region is expected to bounce back to 8.6 percent in 2010. But in an unusually diverse region, averages mask wide differences across countries. China, boosted by its unprecedented fiscal and monetary stimulus package, registered 8.7 percent GDP growth in 2009—down from 9.5 percent in 2010, but still an exceptional performance in a contracting global economy. Remove China from the East Asia aggregate, however, and the rest of the region grew by only 1.3 percent in 2009, much lower than South Asia and just higher than Sub-Saharan Africa (table 1).

The reality is that East Asia’s performance was decidedly mixed in 2009. Indonesia, the Lao People’s Democratic Republic, Papua New Guinea, Timor-Leste, and Vietnam did

well to maintain robust growth rates (see table 2). But the upper-middle-income economies of Malaysia and Thailand and the low-income economies of Cambodia, Fiji, and Mongolia contracted in 2009. The Philippines barely registered positive growth.

**Table 1. Regional Year-on-Year Changes in GDP Growth**

Percent

Region/country group	2007	2008	2009
Developing East Asia	11.4	8.5	7.0
Developing East Asia, excluding China	6.2	4.7	1.3
Europe and Central Asia	7.1	4.3	-6.2
Latin America and the Caribbean	5.5	3.9	-2.6
Middle East and North Africa	5.3	5.8	2.9
South Asia	8.5	5.7	5.7
Sub-Saharan Africa	6.5	4.9	1.1
High-income countries	2.6	0.4	-3.3

Sources: World Bank (2009); World Bank staff estimates and projections.

**Table 2. Year-on-Year and Forecast Changes in GDP Growth Rates**

Percent

Region/country group	2008	2009	2010 <sup>a</sup>	2011 <sup>a</sup>	Forecasts for 2009	
					Nov 2008	Dec 2009
Developing East Asia	8.5	7.0	8.7	8.0	6.7	6.7
Cambodia	6.7	-2.0	4.0	6.0	4.9	-2.2
China	9.6	8.7	9.5	8.7	7.5	8.4
Fiji	-0.1	-2.5	2.0	2.2	1.1	-0.3
Indonesia	6.1	4.5	5.6	6.2	4.4	4.3
Lao PDR	7.5	6.7	7.7	7.8	6.0	6.4
Malaysia	4.6	-1.7	5.7	5.3	3.7	-2.3
Mongolia	8.9	-1.6	7.3	7.1	7.5	0.5
Papua New Guinea	6.6	4.5	6.8	5.1	5.0	3.9
Philippines	3.8	0.9	3.5	3.8	3.0	1.4
Thailand	2.6	-2.3	6.2	4.0	3.6	-2.7
Timor-Leste	12.8	7.4	7.5	7.4	1.4	7.4
Vietnam	6.2	5.3	6.5	6.5	6.5	5.5
<i>Memoranda</i>						
Developing East Asia						
Low-income countries	6.3	4.3	6.3	6.4	6.1	4.5
Middle-income countries	8.6	7.2	8.7	8.0	6.8	6.9
Excluding China						
Developing East Asia	4.7	1.3	5.5	5.2	4.1	1.1
Middle-income countries	4.5	0.9	5.4	5.1	3.8	0.7
G-3 countries	0.3	-3.5	1.7	2.0	-0.4	-3.5
Global trade volumes	3.0	-14.4	4.3	5.3	-2.1	-11.4

Sources: Datastream; World Bank Development Economics Development Prospects Group; World Bank staff estimates and projections.

a. Forecast.

Even so, most countries in the region had resumed robust growth by the end of 2009, and many had reached their pre-crisis peaks in industrial production and GDP. Strong growth in private consumption, resumption of export growth, and inventory accumulation drove GDP growth sharply upward in the fourth quarter of 2009. Important to note, the economies of the region are emerging from the crisis with manageable fiscal deficits, relatively low government and external debt burdens, and benign rates of inflation.

Helping this quick recovery were four factors. First, most East Asian economies entered the crisis from positions of strength—rapid growth, low fiscal and external debt, external current account surpluses, large external reserves, low inflation, and well-capitalized banks with little or no exposure to toxic assets. Second, policy makers took quick action to counter the forces of contraction emanating from the advanced countries, with virtually every East Asian country introducing fiscal and monetary stimulus packages. Third, China's rapid growth sucked in imports from around the world

(including East Asia), thereby providing much-needed external demand. By end-2009, China's import growth was an astonishing 56 percent (year-on-year),<sup>2</sup> helping lower the trade balance to 4.0 percent of GDP (down from 6.7 percent of GDP in 2008) (CEIC databases). Fourth, remittances to many countries in the region remained remarkably resilient.

The crisis slowed the pace of poverty reduction in the region, but did not stop it. Our simulations suggest that the number of poor people in the region increased by 9 million, compared with the counterfactual of continued trend growth; but that still represents a decline in the number of poor people from an estimated 508 million in 2008 to 477 million in 2009 (in China alone, 200 million of the 477 million).<sup>3</sup> These aggregate numbers, however, underestimate the welfare consequences of the crisis on the poor and near-poor populations in the region. Evidence taken from surveys of households and firms from several countries shows that whereas formal wages and unemployment remained virtually unchanged, furloughs and cuts in overtime reduced take-home pay (especially in export firms and small and medium-size enterprises), forcing labor to seek work in the informal sector or in unskilled agriculture. Wages in the informal sector inevitably declined—for example, construction wages in Cambodia fell by a third and off-farm rural wages in China declined by approximately 13 percent (Huang et al. 2010).

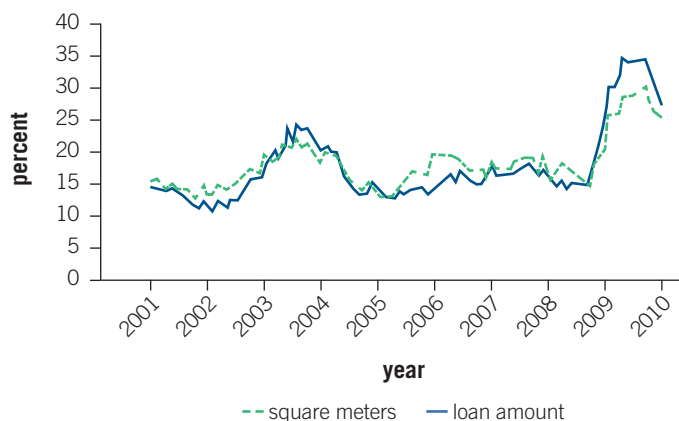
## A Key Challenge in the Short Term

Now that the region's economies are moving at a rapid clip, the attention of policy makers is naturally turning toward tightening the monetary and fiscal policies that proved so effective in boosting economic activity during the crisis. Indeed, signs of rising inflation in some countries have already prompted central banks to tighten credit growth. Indonesia has raised reserve requirements, and Malaysia and Vietnam have raised policy rates.

But the world's focus is on China's monetary policy. There, a large part of the stimulus was delivered through a 30 percent expansion in credit growth. The inflation rate became positive in November 2009 and has been inching up since (reaching 2.7 percent in early 2010). More important, property sales climbed 75 percent in value and 42 percent in space during 2009. Urban property prices increased 10.7 percent (year-on-year) in end-February 2010, with prices rising in all 70 cities and reaching 50 percent in Hainan Island. In response to these rising prices, construction activity surged after September 2009; and in the first two months of 2010, it climbed 37 percent (World Bank 2010a).

In October 2009, China's central bank started mopping up excess liquidity (through open-market operations and foreign exchange swaps); raised the required reserve ratio twice; and introduced selective credit controls, especially for

**Figure 1. China's Year-on-Year Changes in Credit Growth**



Source: CEIC Data Company.

the real estate sector. As a result, credit growth is slowing, although it still remains relatively high (figure 1). Further tightening is expected.

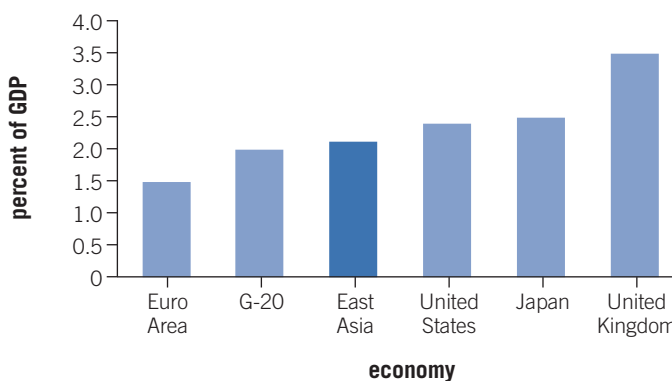
The authorities in the region have been more reluctant to tighten fiscal policy—and rightly so. Thanks to fiscal stimulus measures that compared favorably with even the advanced countries (figure 2), economic activity in East Asia moderated by less than many other developing regions. Nevertheless, the pressure on labor markets remains high, and recovery in global markets is not ensured. Moreover, most countries have the fiscal space to continue with expansionary fiscal policy—at least through the remainder of 2010—and then to assess the need for changes in the fiscal stance in light of domestic and global developments. At the same time, governments need to guard against the view that the world soon will return to precrisis conditions and to design their fiscal policies accordingly. The reality is that precrisis growth in the global economy was unsustainable and that the “new normal” will be quite unlike the old.

### Confronting the New Normal: Structural Reforms for Rapid Growth in the Medium Term

Projections describing global economic conditions over the medium term—the new normal—have been revised downward significantly since the crisis. The key reason is expected lower growth in the Euro Area, Japan, and the United States (which together account for three quarters of global GDP) as a result of high public debt burdens, continued rehabilitation of bank balance sheets, increased risk aversion, policy uncertainty about proposed financial reforms, and periodic macroeconomic aftershocks of the crisis. For the developing countries, this will mean slower-growing export markets, costlier international finance, and a difficult trading environment.

The most important question confronting East Asian policy makers is whether, despite those conditions, their

**Figure 2. Comparison of EAP's Fiscal Stimulus Measures with Those of Selected Economies**



Source: Estimates from national authorities and World Bank staff.

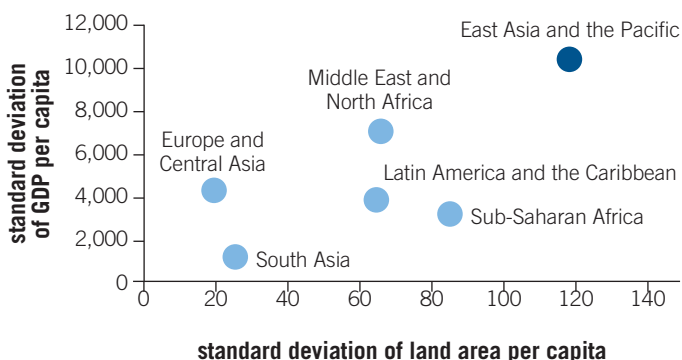
economies can resume the rapid growth rates they achieved over the last three decades. We believe the answer is *yes*—but it depends on key structural reforms in countries and at the regional level.

### Country-Level Structural Reforms

East Asia is the most diverse developing region in the world—whether measured by size, per capita income, or production structures (figure 3). From China (2008 population 1.33 billion) to Palau (population 20,000),<sup>4</sup> the region includes areas with some of the highest population densities in the world (Java in Indonesia) and some of the lowest (Mongolia); from manufacturing powerhouses to commodity-dependent economies, the region includes the second-highest number of fragile states in the world (after Africa).

No common structural agenda could possibly fit such a diverse group. But it does help to consider the key challenges confronting five subgroups: China, middle-income and low-income countries, commodity exporters, and the Pacific Islands.

**Figure 3. Relative Diversity of Developing Regions, by Size and Per Capita Income, 2008**



Source: World Bank Development Data Portal, <http://ddp.worldbank.org/dp/home.do>.

## China

China deserves to be a subgroup all by itself. In China, the biggest reform challenge is “rebalancing”—and it is not surprising that doing so is identified as a central objective in the country’s 11th Five-Year Plan. It is now broadly accepted in China that although capital-intensive, industry-led, export-oriented growth has been spectacularly successful in increasing incomes, the resulting pattern of production is energy intensive and environmentally unsustainable, does not create enough jobs, has generated increased inequality, and is heavily dependent on external demand (figure 4). To correct this situation, China is seeking to rebalance its growth pattern, with domestic demand (especially consumption) as the main driver and services as the leading sector. This rebalancing, in turn, is expected to better balance economic growth with resource conservation, energy efficiency, and environmental protection; and to help mitigate the urban-rural divide, promote more balanced regional development, and improve basic public services (especially social protection, health, and education).

The critical nature of this transition toward a more balanced economy cannot be overemphasized. If recent energy consumption patterns continue for another 20 years, China will consume 87 percent of the present-day world energy output. The authorities have moved forcefully to boost energy efficiency and improve environmental sustainability. For example, about a third of the stimulus package is for “green investments,” a share three times larger than in the United States. Similarly, in 2009 China doubled yet again its installed wind power capacity, a pace three times faster than the world as a whole. China now accounts for a third of global capacity and is just behind the United States.

Although the stimulus package may have helped accelerate public investments in areas important for rebalancing

(environment, health, education), other policy reforms in support of rebalancing have been delayed by the crisis—reforms such as removing distortions in the tax structure and in the price of capital, energy, natural resources, land, and the environment; and scrapping regulatory barriers that impede services development. It is important that these reforms are once again given the priority they deserve.

## Middle-Income Countries

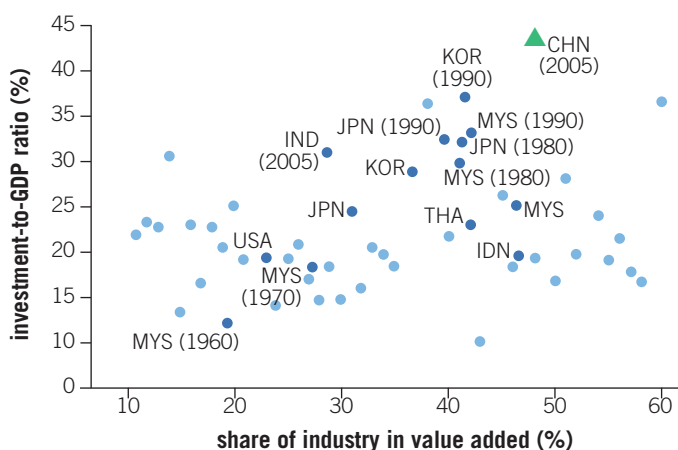
The middle-income countries in East Asia—Indonesia, Malaysia, the Philippines, and Thailand—face the medium-term challenge of raising investment in physical and human capital, with the intention of moving up the value chain. Following initial export successes (Malaysia and Thailand more than Indonesia and the Philippines), the pattern of labor-intensive production and exports in these countries has remained broadly unchanged for two decades. With the rise of China and India as favored investment locations for labor-intensive manufacturing, the middle-income countries of East Asia have to reinvent themselves if they are to grow rapidly. Put simply, these countries could be caught in a middle-income trap—unable to remain competitive as high-volume, low-cost producers, but unable to move up the value chain and achieve rapid growth by breaking into fast-growing markets for knowledge- and innovation-based products and services.

Moving up the value chain requires investment—in infrastructure, machinery and equipment, education, skills, information technology, and so on. But investment in all these countries *declined* in the decade after the Asian financial crisis; and it currently falls well short of levels that existed in Japan, the Republic of Korea, and Singapore when they were at similar per capita income levels. The slowdown in investment does not stem from a lack of savings—indeed, domestic saving in all these countries exceeds domestic investment, resulting in external current account surpluses. According to CEIC Data Company, an extreme example is Malaysia, where the current account surplus was 17 percent GDP in 2008 and 2009.

In fact, there is no single reason for low levels of private and public investment in middle-income countries. In Malaysia, rigidities in the labor market and entry barriers tend to discourage private investors; in Indonesia, public infrastructure appears to be a binding constraint; in Thailand, internal political strife has raised risk and uncertainty; and in the Philippines, it is probably a combination of these reasons.

Resolving these problems is a priority for rapid growth to be sustained over the medium term. The new economic model announced recently by Malaysia is representative of the reforms needed—empowerment of state and local authorities, development of cluster- and corridor-based economic activities (to capture economies of scale), attraction of local and foreign talent, removal of labor market restrictions, creation of incentives supporting innovation and risk

**Figure 4. Share of Industry and Investment in GDP, Selected Countries, 2001 unless otherwise indicated**



Sources: World Development Indicators (various years); National Bureau of Statistics of China, World Bank staff estimates



taking, and a shifting of market orientation from the G-3 countries (the Euro Area, Japan, and the United States) to Asia and the Middle East. In Indonesia, urgent attention is being given to the core issue of infrastructure connectivity to lower transport costs and crowd-in private investment. And in all countries, improving access to education and raising its quality—particularly secondary and tertiary education (because primary education is already universal)—will be central to developing the skilled labor force needed to move up the value chain.

#### Low-Income Countries

The low-income countries of East Asia—Cambodia, Lao PDR, and Vietnam—are confronted with the task of “breaking into” the production networks of East Asia. They have already made a remarkably successful start. For their level of per capita income, they are among the countries with the world’s highest share of manufacturing relative to GDP. In Cambodia, value added in industry almost tripled over the last two decades (albeit from a low base), and so did the number of workers. And Vietnam is a favored destination of foreign investors seeking high returns from investments in labor-intensive production (10 percent of GDP in 2008) (CEIC Data Company).

These countries undoubtedly will be helped by regional and global forces in the future—a rapidly growing neighborhood; a continued global trend toward specialization in tasks; and quickly rising labor costs in middle-income countries, including China. Thus far, however, Vietnam alone has been able to link to production networks—and only in a limited way. The challenges and opportunities confronting Cambodia and Lao PDR will be to upgrade physical and human capital and embrace regional integration. The development of regional and national infrastructure to improve connectivity and reduce transport costs across Southeast Asia is a critical step in this direction. This development will need to be complemented by “soft infrastructure”—namely, measures to fa-

cilitate trade, such as efficient transit arrangements, common border regulations, national single-window facilities for importers and exporters, and customs modernization.

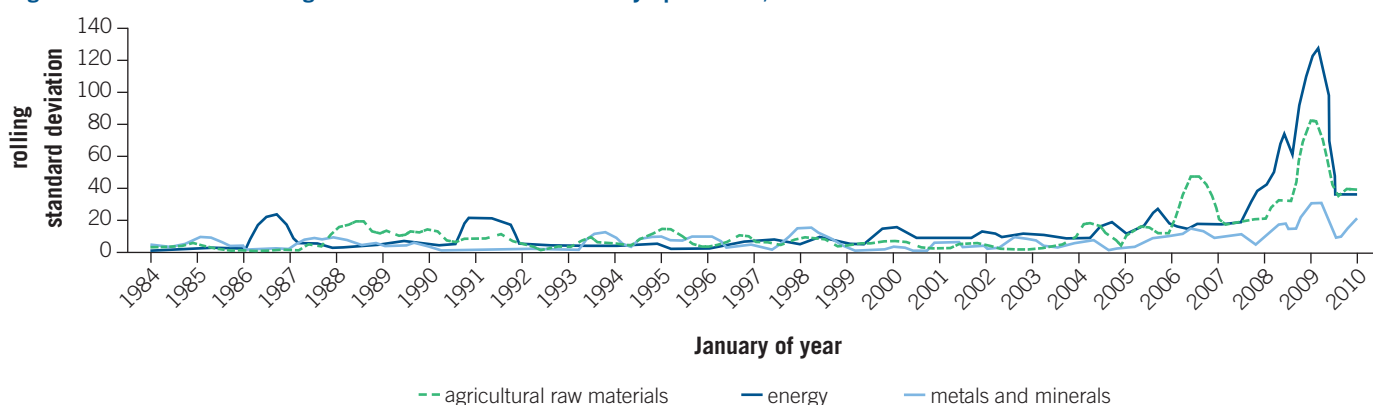
#### Commodity Exporters

The commodity exporters of the region—Mongolia, Papua New Guinea, and Timor-Leste—need to harness volatile export revenues for sustainable long-term growth. It is interesting that two of the three (Papua New Guinea and Timor Leste) had adopted fiscal rules prior to the crisis, and so sustained rapid growth in 2009 despite the global downturn. Mongolia, on the other hand, implemented expansionary fiscal and monetary policies before the crisis on the back of the commodity boom. When the crisis hit in late-2008, its economy went into a tailspin and encountered a severe fiscal and financial sector crisis. Mongolia’s parliament is now considering a fiscal stability law, but the recent rise in commodity prices (especially copper prices) may make political passage of the bill difficult.

The volatility of commodity prices increased substantially prior to the crisis and is unlikely to abate soon (figure 5). This makes the adoption of fiscal rules and a robust fiscal framework all the more important in these countries.<sup>5</sup> Unfortunately, the track record of countries in this regard has been mixed. Even Papua New Guinea, under pressure from the crisis, allowed a budget deficit greater than the limit set by the fiscal rule. In doing so, the country was not unique. Governments invariably find reasons to abandon or circumvent fiscal rules as they become binding.

Although difficult to maintain in good times and equally difficult to defend in bad times, fiscal rules and a sound fiscal framework are essential prerequisites for transforming boom-bust cycles into sustainable revenue streams that can be used productively for long-term development. Recently emerging best practice in this regard is to combine a medium-term fiscal framework with a fiscal risk statement that reveals the risks attached to particular fiscal trajectories and

**Figure 5. Twelve-Month Rolling Standard Deviation of Commodity Spot Prices, 1984–2010**



Source: World Bank staff estimates.

flags the quantitative impact that known contingent liabilities will have. Such risk statements can be persuasive in convincing the authorities of the dangers of departing from a fiscal rule.

### *The Pacific Islands*

The Pacific Islands face unusually difficult development and policy challenges, given the small size of their economies and populations, the significant distance to large markets, and the exceptionally high dependency of their economies on single sectors. The Pacific Islands have a population of about 2 million—a tenth that of Jakarta—and yet stretch across an area of ocean that covers one seventh of the world's surface (World Bank 2010c). Not only do their small economies make them vulnerable to external economic shocks, but diseconomies of size make the unit cost of public service delivery unusually high. As if that were not enough, the fact that many are low-lying islands make them vulnerable to climate change, and their locations make them prime targets for natural disasters (earthquakes, tsunamis, and hurricanes). Finally, to make matters worse, several Pacific Island states are prone to conflict and political instability. Therefore, it is hardly surprising that, despite being heavily dependent on aid to make ends meet, most Pacific Island countries are off track in their quest to meet the Millennium Development Goals.

Although there are many long-term challenges confronting this subregion, it is worth highlighting three challenges for which potential solutions are feasible. The first challenge is aid coordination and predictability. The Cairns Compact on Strengthening Development Coordination in the Pacific is an important step toward implementing the Paris Declaration on Aid Harmonization and Effectiveness.<sup>6</sup> The compact calls for frequent collective review of progress in strengthening development coordination, regular peer review of national development plans and budget allocation processes, and annual reports on efforts to reduce aid fragmentation and lower administration costs. In addition, it is important that aid is predictable if it is to support long-term development efforts, and that catastrophic risk insurance instruments are available to provide resources when natural disasters hit.

The second challenge is to overcome the costs of distance and isolation by facilitating the quiet telecommunications revolution taking place in the Pacific, which is reducing costs of transactions, information flows, and service delivery. Long-distance learning through the Internet has taken off, enabling students in the Pacific Islands to obtain degrees at a fraction of the cost of attending in person. Similarly, medical diagnoses can now be made on the basis of images transmitted from the islands to advanced hospitals around the world. Accelerating this process requires additional investments in telecommunications and greater coordination and integration of national efforts within the subregion.

The third challenge is the importance of subregional economic integration. Significant progress has been made in this regard, but much more can be done. Most important among these are efforts to (1) implement subregional agreements on the management, conservation, and development of fisheries; (2) develop regional arrangements for marine mineral resource management; and (3) implement key regional agreements to promote the freer movement of goods and services. There is also considerable potential for deepening integration with the nearest large market, which for the Pacific Islands mostly means integration with Australia and New Zealand. Most recently, temporary migration schemes with Australia and New Zealand have been at the forefront of this agenda. New Zealand now runs a Recognized Seasonal Employer Program that allows up to 8,000 temporary migrants from the Pacific Islands to work in the country's horticulture sector.<sup>7</sup> Such efforts can be expanded, particularly given Australia's need for large numbers of temporary agricultural laborers.

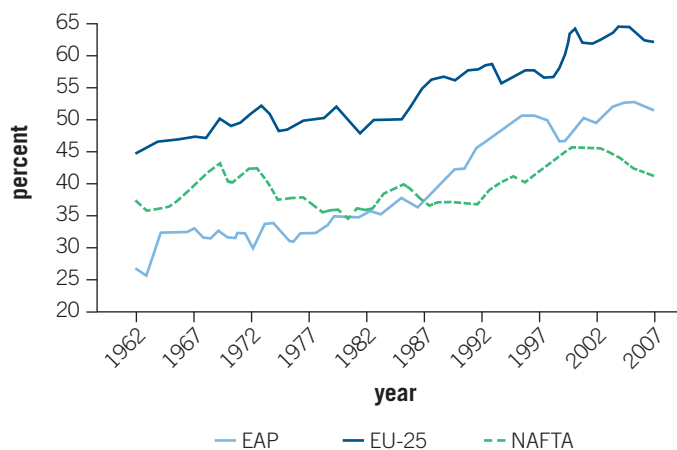
### *A Common Regional Agenda*

In addition to structural reforms needed at the country level (and in the case of the Pacific Islands, at the subregional level), there are many reforms and actions that cut across countries and need to be taken at the regional level. Fortunately, East Asia is served by two active and effective regional organizations—the Association of Southeast Asian Nations (ASEAN) and Asia-Pacific Economic Cooperation (APEC). ASEAN, in its various manifestations (ASEAN+3, ASEAN+6, the East Asia Summit) covers most of East Asia, and APEC broadens East Asia's partnership to the North American continent and Latin America. Highlighted here are two high-priority items on the regional agenda that both these organizations are promoting—regional economic integration and climate change.

Regional economic integration has been instrumental in driving much of East Asia's growth over the last three decades. Intraregional trade has grown faster here than in any other region in the world and is gradually approaching levels achieved in the European Union (figure 6). ASEAN member-countries have made significant progress in cutting tariff and other barriers at the border in line with the Common Effective Preferential Tariff Scheme. However, per capita income in East Asia is much more dispersed than in Europe, suggesting that there remains considerable scope for more integration (figure 7).

The agenda for further economic integration can be advanced along five fronts. First, improvements in logistics and behind-the-border reforms are a priority. Logistics in the region cost twice as much as in the advanced countries. For example, in terms of averages for all products, logistics account for about 8 percent of landed costs from East Asia, compared with roughly 4 percent in the developed world

**Figure 6. Intraregional Trade in EAP as a Share of Total Trade, 1962–2007**

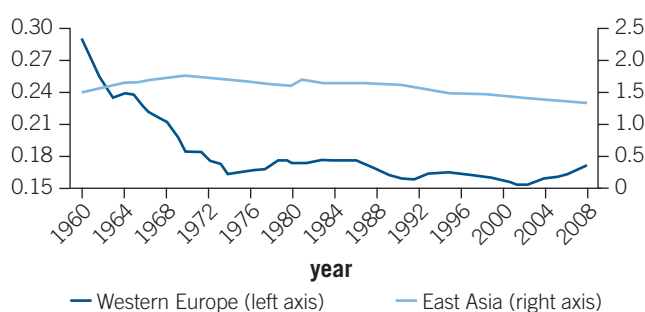


Source: Alavi, Nehru, and van Dorn 2008.

Note: EAP = East Asia and the Pacific; EU = European Union; NAFTA = North American Free Trade Agreement.

**Figure 7. Income Disparity in East Asia and in Western Europe, 1960–2008**

Coefficient of variation in per capita income



Source: Alavi, Nehru, and van Dorn 2008.

(ADB/JBIC/World Bank 2005). Similarly, behind-the-border procedures and rules need to be simplified and made more predictable. These efforts include streamlining documentary requirements for import and export transactions, reducing the number of border agencies with which firms must interact, and eliminating hidden trade barriers. Such reforms will increase predictability, reduce the cost of doing business, lower export and import delays, remove uncertainty surrounding unofficial payments, and discourage favoritism in administrative decision making.

Second, barriers to investment need to be lowered. Contrary to expectations, barriers to foreign direct investment in East Asia are the highest in the world. This outcome is surprising, given the role of foreign direct investment in advancing intraregional trade. Removing such barriers will enhance competition and productivity gains from higher foreign direct investment; encourage the use of the region's large sav-

ings for investments within the region; and support the spread of new technologies, including green technologies.

Third, the region needs to promote trade in services. The benefit of doing so could be many times that of reducing barriers to trade in goods. For example, static gains from trade arising from services trade liberalization for developing East Asia and Korea are estimated at about US\$270 billion (10 percent of income) by 2015 (World Bank 2002). It is interesting that gains in services trade liberalization tend to accrue largely to the country implementing the reforms. This is because improvements in the efficiency of the services sector not only promote growth in services, but also encourage growth in other sectors that use services as a key input. As regional production networks become the basis for manufacturing strength and competitiveness, weaknesses in the availability of services can become a serious obstacle.

Fourth, the region is moving rapidly toward greater financial integration. The launch of the Multilateralized Chiang Mai Initiative (CMIM) in March 2010 is a significant move toward addressing balance-of-payments and short-term liquidity difficulties in the region, supplementing existing international financing arrangements. The priority now is to establish an independent regional surveillance unit to monitor and analyze member-economies and support CMIM decision making. Similarly, the Asian Bond Market Initiative seeks to develop local currency-denominated bond markets and thereby encourage private savings to be used for regional development. The priority now is to promote the demand and issuance of local currency-denominated bonds and develop the associated infrastructure and regulatory framework. In addition, the ASEAN+3 Finance Ministers' Meeting in Bali in May 2009 endorsed the establishment of the Credit Guarantee and Investment Mechanism as a means to further encourage regional bond markets.

Fifth, addressing key issues associated with intraregional migration could prove to be a win-win-win proposition. Host countries worry about the influx of unskilled migrants potentially depressing effects on wages and employment opportunities and about the resulting burden on public finance and services. Source countries are concerned about brain drain, exploitation of workers, adverse cultural and social effects, and growing dependence on remittance earnings. These issues reached a crescendo during the global crisis and its immediate aftermath. Progress in resolving them should help contribute to regional integration and help reduce labor shortages in some countries and excess labor supply in others. And migrants in manufacturing, especially in companies integrated within production networks, may learn valuable skills that are transferable home where production networks may be making initial inroads.

Climate change and environmental sustainability are global issues that must also be tackled at the regional (and country) level. East Asia's rapid economic development, in-

cluding its accelerating urbanization, has resulted in a tripling of energy consumption over the last three decades—with projections for a further doubling over the next two decades (World Bank 2010b). Unfortunately, the pattern of production and the technologies adopted for energy generation, transport, and infrastructure have resulted in sharp increases in greenhouse gas emissions. And although energy consumption and greenhouse gas emissions per capita are well below levels in advanced economies, developing East Asia has some of the world's most-polluted cities. Under unchanged policies, the World Bank projects that greenhouse gas emissions and local air pollutants will double for all the larger countries in the region by 2030. At the same time, these large increases in greenhouse gas emissions are accelerating global climate change, often with detrimental effects for the region. Whether associated with climate change or not, catastrophic events such as floods, droughts, and storms (especially for countries in Indonesia, the Mekong Delta of Vietnam, the Pacific Islands, and the Philippines) appear to be growing in frequency and becoming more deadly.

Mitigation and adaptation measures, therefore, are key priorities for the medium term. Our proposition is that East Asia can make these measures work in support of sustainable growth—and the measures actually can help accelerate it. In other words, East Asian economies have an opportunity to turn the challenge of climate change into growth. With investment rates in the region higher than in most developed countries and many developing ones, a significant portion of the capital stock can embed green technologies within a few years. Already there is growing evidence that although new green technologies are being created in the advanced countries, they are being applied increasingly in developing countries, especially in East Asia. Over a third of China's stimulus package was devoted to green investments, compared with just 10 percent in the U.S. stimulus package. China is devoting US\$88 billion to high-speed rail, compared with US\$8 billion in the United States (Strand and Toman 2010). China, Japan, Korea, and Singapore are already at the forefront of developing energy-efficient and renewable technologies and products, including photovoltaic cells, wind power, bio-fuels, and hydroelectricity. With the right policies, application of such technologies will gradually spread, leading also to familiarity and eventually mastery. Just as East Asia did in the application of other technologies (such as information and communications technology) [in the past, it has the capacity to do so now by leapfrogging over the advanced countries to reach the green-technology frontier quite quickly. Such a move could give the region a competitive advantage in a sector poised for rapid global growth.

Given the far-ranging adverse impacts of climate change, adaptation must be an integral component of an effective strategy to address climate change—along with mitigation. The Irrawaddy Delta in Myanmar was devastated by Cy-

clone Nargis in May 2008; and late in 2009, Cambodia, Lao PDR, the Philippines, Thailand, and Vietnam were hit by Typhoon Ketsana (named “Ondoy” in the Philippines), suffering floods, landslides, and loss of life and property. Densely populated coastal areas are susceptible to the adverse effects of climate-related events. The Irrawaddy, Mekong, and Red River delta regions, for example, and the urban centers of Bangkok, Jakarta, and Manila are extremely vulnerable and are designated as “climate hot spots.”

Adaptation is about building resilience and reducing vulnerability. To build resilience, development is an imperative. In this sense, the rapidly growing economies of East Asia are better positioned than are some other developing regions. Not only does development make economies less reliant on climate-sensitive sectors, such as agriculture; it also increases incomes; improves health and education; expands the capacity of households to adapt; improves institutional infrastructure; and enhances the ability of governments to assist their citizenry. Countries with high levels of investment also hold an advantage because adaptation requires new technologies, such as drought- and flood-tolerant crops and climate-proof infrastructure.

When catastrophic natural disasters have struck the region, countries have pulled together to help the devastated areas and subregions. But, in each case, support was coordinated in a relatively ad hoc fashion. Because such disasters may increase in intensity and frequency, regional coordination frameworks are necessary for responding to climate-change effects and natural disasters. ASEAN is leading this process in East Asia, and it recently approved a declaration on climate change that sets out a framework for international cooperation.

## Notes

1. This note is a shortened version of World Bank (2010c).
2. Admittedly, imports were at their nadir in December 2008.
3. Numbers are calculated using the US\$2-a-day (in terms of purchasing power parity) international poverty line.
4. World Bank Development Data Portal, <http://ddp.worldbank.org/dp/home.do>.
5. A robust fiscal framework includes but is not limited to a good taxation regime for the natural resource sector; comprehensive government budgets; thorough costing of all government programs; budget and spending transparency; stronger medium-term fiscal and expenditure frameworks; and a healthy regime for public investment planning, execution, and monitoring. Fiscal rules are an integral part of the framework.
6. See the final communiqué of the 40th Pacific Islands Forum, held in Cairns, Australia, on August 5–6, 2009.



7. Immigration New Zealand: Recognized Seasonal Employer Policy, <http://www.immigration.govt.nz/community/stream/employ/rse/>.

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