

### III. New Risks Add to Old Challenges

Developed economies are settling into a low growth scenario, and the possibility of a disorderly adjustment in the Eurozone cannot be ruled out. In East Asia, the region's middle-income countries enter this period of heightened uncertainty in a relatively strong position: holding sizeable reserves, relatively low debt, and experiencing comparatively robust domestic demand. However, they remain vulnerable to trade and capital flows reversals, and to commodity price shocks. Reversals of portfolio flows, as well as a possible sudden stop in banking sector credit from Europe are the two largest risks. Short-term worries, however, should not distract East Asian policymakers from their long-term agendas to increase investment, develop human capital, boost productivity, and reduce poverty.

### A challenging global environment

Developed economies are adjusting to the “new normal” with growth rates over the medium-term projected to be—at most—half of what they experienced before the crisis. Limited fiscal space in these economies makes it unlikely that a public sector stimulus will be implemented. Among those developed economies that do have the fiscal space, some lack the political consensus to use it as part of a strategy that would include future fiscal consolidation. Assuming that authorities in advanced economies manage the adjustments needed to calm market sentiment and problems in the peripheral Eurozone countries are resolved, growth in the advanced economies could amount to 1-2 percent a year in 2012 and 2013. Monetary accommodation should help keep interest rates low and, given ample unused capacity, inflation in advanced countries should moderate, resulting in low long-term rates in the most credit-worthy borrowers.

**Risks, however, are on the downside, even with a deal reached on the Greek debt in Europe at the end of October.** Although there have been improvements in the stock markets, investors still do not fully discount

the possibility of a disorderly sovereign debt restructuring in the advanced economies. Should such an event occur, it may well trigger another recession in Europe. Spillovers to developing East Asia will be substantial, through trade, financial flows, remittances, and consumer and investor sentiment. The ongoing European debt crisis will negatively impact countries in East Asia in any case, especially if European banks start deleveraging to adjust their balance sheets for a lower value of Greek bonds and the higher capital cover required by mid-next year. Although European banks have a modest exposure to East Asia, any liquidity shock would have a substantial effect and result in larger outflows of capital by investors trying to cover losses or meet margin calls.

**In October 2011, European leaders agreed on a plan to resolve the region’s debt crisis.** However, the deal did not help Europe to completely regain the confidence of markets (see Box 5). As part of the plan to increase capital in the European Financial Stability Facility (EFSF), China and Japan, that have already purchased EFSF bonds, were asked to contribute additional resources.

**Despite this uncertainty and a global growth slowdown, we still project that real GDP in developing East Asia will increase by 8.2 percent in 2011 and by 7.8 percent in 2012.** China is expected to grow by 9.1 percent and 8.4 percent in 2011 and 2012 respectively, less than its average of 10.5 percent during 2000-2007 (Table 1). East Asia excluding China is expected to grow by 4.7 percent and 5.3 percent in these two years respectively. Slower growth reflects weaker demand from advanced economies, which will be only partially offset by higher domestic demand. Resource-rich countries are expected to grow faster than average.

**Table 1.** Growth in developing East Asia is projected to slow in 2011 and 2012

	Annual growth, percent			
	2009	2010	Forecast 2011	Forecast 2012
<b>East Asia</b>	<b>4.9</b>	<b>9.3</b>	<b>7.1</b>	<b>6.7</b>
<b>Developing East Asia</b>	<b>7.5</b>	<b>9.7</b>	<b>8.2</b>	<b>7.8</b>
China	9.2	10.4	9.1	8.4
Indonesia	4.6	6.1	6.4	6.3
Malaysia	-1.6	7.2	4.3	4.9
Philippines	1.1	7.6	4.2	4.8
Thailand	-2.3	7.8	2.4	4.0
Vietnam	5.3	6.8	5.8	6.1
Cambodia	0.1	6.0	6.0	6.5
Fiji	-1.3	0.3	1.4	1.5
Lao PDR	7.6	8.5	8.0	7.5
Mongolia	-1.3	6.4	14.9	15.1
Papua New Guinea	5.5	7.5	10.0	6.0
<b>Developing EAP excl. China</b>	<b>1.3</b>	<b>7.0</b>	<b>4.7</b>	<b>5.3</b>
<b>Assumptions about the external environment:</b>				
<i>World</i>	-2.4	4.0	2.7	2.8
<i>High-income countries</i>	-3.8	2.9	1.6	1.7
<i>Other developing countries</i>	-1.0	6.0	4.7	4.9

Source: World Bank.

### Box 5. The European debt and banking crisis: better?

The resolution to the debt crisis in Europe hinges on the successful implementation of the recently-achieved deal between European leaders and the private sector. The agreement proposes to expand the European Financial Stability Facility (EFSF) bailout fund to around US\$1.4 trillion, and to write down 50 percent of the value of the Greek bonds on private sector balance sheets. The larger bailout fund can then be used to recapitalize European banks with (US\$146 billion). The banks will also be required to establish a minimum core Tier 1 capital ratio of 9 percent, an increase from the current requirements. The fund would finance the Greek bailout to the tune of US\$146 billion in 2012, as well as provide support for other distressed countries if the need arises.

This scheme is an improvement over the two previous deals, but concerns have been raised about the lack of details regarding how exactly it will be implemented, and whether it will support long-term growth in Europe. In particular, these concerns relate to the sources of expansion for the EFSF and whether the expanded fund would be able to perform its bailout function should other European countries experience debt problems. The spread on Italian sovereign bonds increased after the deal was reached and continued to rise, at least partly reflecting these concerns. The absence of a long-term growth plan for Europe, and the deal's uncertain impact on the Euro, are adding to uncertainty. A further factor is the "voluntary" nature of the debt restructuring, which may still be contested, and could lead to calls on credit default swaps. Finally, as market reaction to the short-lived idea of a Greek referendum on the bailout plan starkly illustrated, the political feasibility of the adjustments needed as part of the agreement is yet to be proven.

On the financial sector side, there is some anxiety that the 50 percent reduction in the value of bonds in bank balance sheets and the subsequent recapitalization might not succeed in maintaining a stable flow of credit to the private sector. Moreover, the banks are likely to shrink their balance sheets and deleverage given the increased capital requirement, combined with a reduction in assets and a possible inability to borrow without government guarantees. Trade finance, loans to small- and medium-sized enterprises, as well as emerging markets bank lending will be among the first activities to be affected. Should this happen, it would deprive the European business sector of credit, reduce economic growth, and have negative spillovers to the emerging markets through reduced bank flows. Credit default swaps guaranteed by sovereign bonds and held by banks are an additional risk to the successful outcome of the Eurozone agreement.

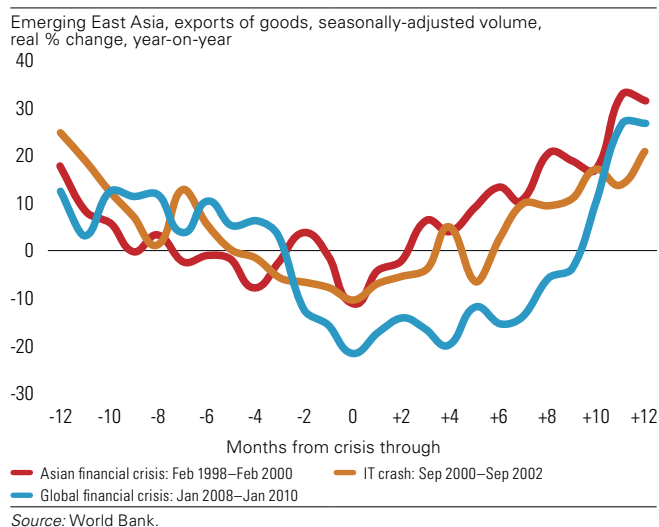
Last but not least, there are problems with financing for the EFSF, as it is unclear whether the special purpose vehicles would be bought by China, Japan or other potential investors. The jury is out therefore on whether the proposed deal can resolve uncertainty in the long-term and it has contributed little to calming markets shortly after its announcement.

**The region's middle-income countries enter this period of increased uncertainty in a relatively strong position.** They are holding sizeable reserves, relatively low debt, and are seeing strong domestic demand. But they remain vulnerable to trade and capital flow reversals, and to commodity price shocks. Low-income countries, especially the Pacific islands, are less prepared in terms of their fiscal position, but are less exposed in terms of direct impacts through financial sector flows.

### *Increased uncertainty highlights vulnerabilities*

**Should Eurozone problems result in a sharp negative growth shock in the industrialized countries, exports of developing East Asia will fall.** Direct exports to the developed countries' markets are between five percent of total exports in Mongolia and 52 percent in Cambodia, with an average East Asia country exporting about 30 percent of their total exports to Europe, and the U.S. (Table 2). During the last three crises, the combined export volume of East Asia fell by a maximum of 20 percent, and took as long as two years to recover to pre-crisis levels (Figure 49). Commodity exporters, which sailed through the 2008 crisis on buoyant growth (with the exception of Mongolia), are also vulnerable to a negative commodity price shock. Low-income countries with their undiversified exports

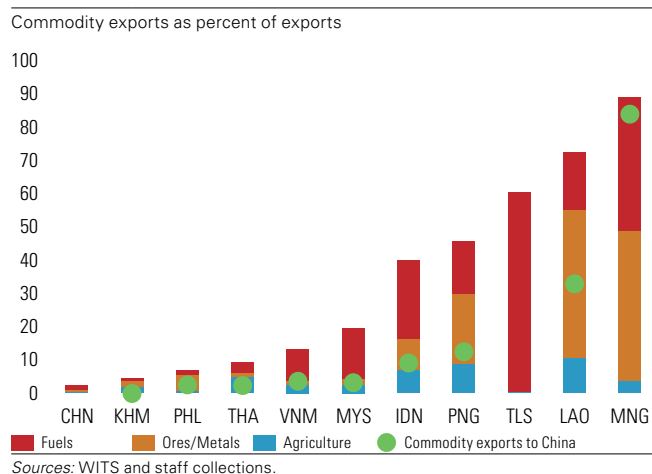
**Figure 49.** Exports could decline by up to 20 percent, based on experience during past crises



and greater reliance on European markets are perhaps most vulnerable (Figure 50).

**Rebalancing economies towards more domestic-driven growth will reduce vulnerability to external shocks.** Participation in the regional production networks increases vulnerability through trade channels, especially in the middle-income countries that export parts and components to China. Although its relative importance is declining, processing activities still account for nearly half of all Chinese trade. One-third of Chinese exports represent foreign value-added, including 80 percent in processing trade and 12 percent in other trade; East Asian suppliers account for the bulk of that amount (Figure 51).<sup>11</sup> The share of production networks-related trade in total electronics exports is around 15 percent in developing East Asia on average, and around 25 percent in the NIEs. By comparison, this number averages five percent in other regions.<sup>12</sup> Consumer goods constitute a large part of exports to the U.S. and Europe. For example, more than 60 percent of Malaysia's exports to the U.S. are in consumer electronics (Figure 52). This increases

**Figure 50.** Low-income commodity exporters are especially vulnerable to a negative price shock



**Table 2.** Direct trade exposures are high, especially for the low income countries

Exports by destination, percent of total exports

To:	China	Japan	U.S.	EU-27
From:				
China	-	7.6	17.9	19.7
Thailand	11	10.5	10.4	11
Malaysia	12.6	10.4	9.5	10.8
Indonesia	9.9	16.3	9.1	10.9
Philippines	11	15.2	14.7	14.4
Vietnam	10.5	11.1	20.4	16.3
Cambodia	1.2	1.6	34.2	16.7
Laos	23.3	1.6	2.6	9.3
Mongolia	81.8	0.8	0.4	3.9
PNG	7.2	9.2	0.9	7.3
Singapore	10.3	4.6	6.5	10
Korea, Rep.	24.8	6	10.6	11.4
Japan	19.4	-	15.6	11.3
U.S.	7.2	4.7	-	18.8
EU-27	4.2	1.5	-2.6	55.7

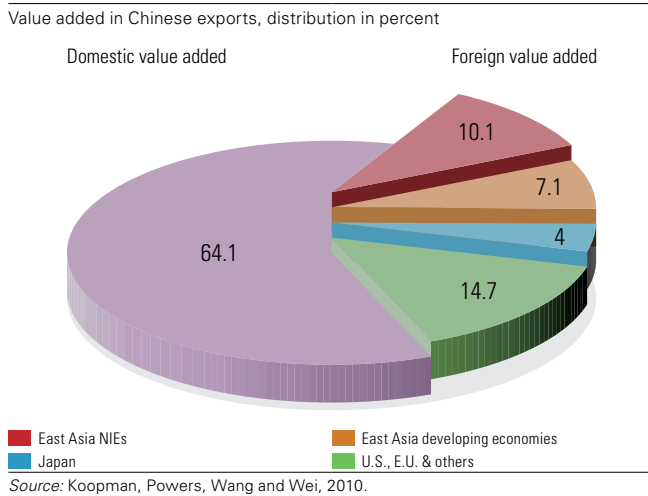
□ 0–5% □ 5–10% □ 10–20% ■ Above 20%

Sources: DOTS and World Bank staff.

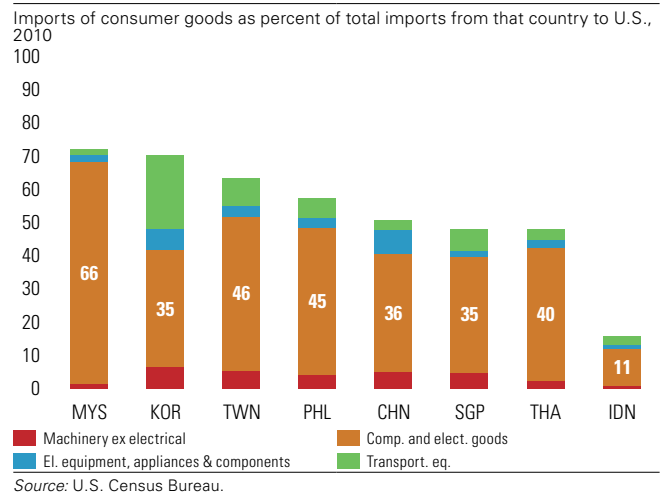
<sup>11</sup> Based on OECD Economic Surveys: China 2010, Koopman, Powers, Wang and Wei, 2010, "Give Credit Where Credit Is Due: Tracing Value Added in Global Production Chains", NBER Working Paper 16426, and IMF, "China: Spillover Report for the 2011 Article IV Consultation and Selected Issues", (2011).

<sup>12</sup> Emerging Stronger from the Crisis, March 2010, East Asia and Pacific Economic Update, World Bank, Washington DC (page 36).

**Figure 51.** East Asia accounts for over a half of foreign value added in Chinese exports



**Figure 52.** Export base focused on consumer electronics goods leaves many vulnerable to consumer sentiment in advanced economies



the vulnerability of the participating countries, especially the middle-income countries, to a fall in demand in the industrialized countries. The rebalancing of trade towards regional and domestic demand, including the pursuit of the opportunities offered by the growing demand for consumer goods by China, will reduce transmission of external shocks through trade (see also Chapter I).

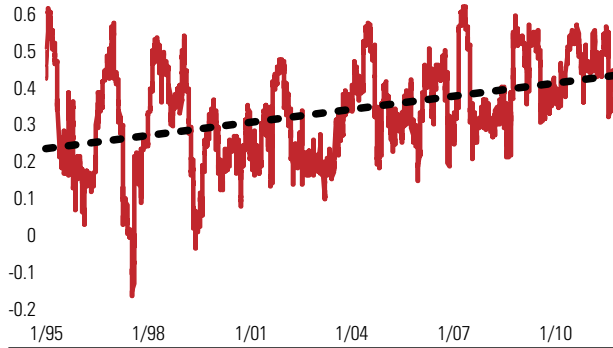
**Deterioration in the Eurozone economies would impact East Asia through weaker financial flows, including in the banking sector and in regional stock markets.** As discussed in the previous chapters, authorities have been implementing policies to counter sudden reversals of capital flows, but vulnerabilities remain. A reduction in the positions of foreign investors in East Asia economies and markets could result in abrupt outflows, including in equity and bond markets. With cross-border banking flows mostly comprising inter-bank lending, East Asia is also vulnerable to a potential deleveraging by European banks. Finally, contagion could spread to currency and derivatives markets.

**Foreign participation in the financial markets in East Asia increased sharply after the last crisis.** Since 2003, regional markets grew in size, depth, and efficiency. Market capitalization reached 170 percent of regional GDP in 2007, and recovered to 120 percent in 2010 while concentration and liquidity also improved. However, so did correlation with other markets, indicating greater vulnerability to contagion from elsewhere (Figure 53). Non-residents' holdings of local currency government bonds doubled between 2007 and 2011 in Indonesia and Malaysia (Figure 54). China attracted most of the portfolio inflows and issued most equity, with stocks of foreign capital equivalent to US\$2 trillion in end-2010 (Figure 55). Other economies tried to keep pace, and stocks of foreign capital as a share of GDP are the highest in Malaysia and Thailand (Figure 56).

**The increased exposure to foreign capital creates additional vulnerability during a crisis, even though these inflows have led to higher international reserves.** In 2008, the region's markets collectively lost more than two-thirds of their U.S. dollar value between the market peak in November 2007 and the market trough in March 2009 (Figure 57). Liquidity tightened, with turnover in 2008 dropping more than 30 percent year-on-year in China, Malaysia, and the Philippines and as much as 60 percent in Vietnam. Equity issuances by Asian corporations virtually dried up, while international portfolio flows weakened substantially or completely reversed. Given the increased foreign

**Figure 53.** Inter-dependence with global markets has increased over time

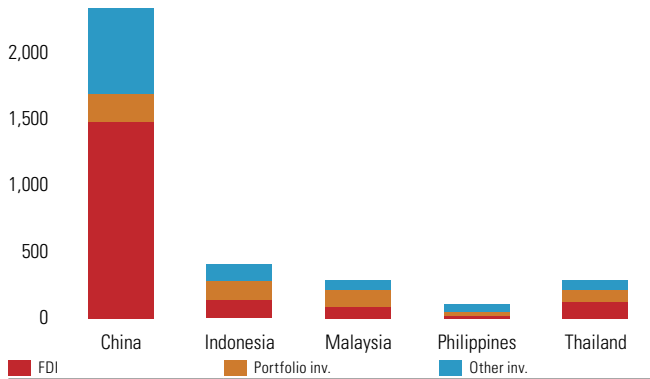
Correlations of daily returns, MSCI All-Country Far East excluding Japan and MSCI G-7, 90-day rolling window



Source: MSCI, via Datastream.

**Figure 55.** The stocks of foreign capital are low in middle-income countries in comparison to China...

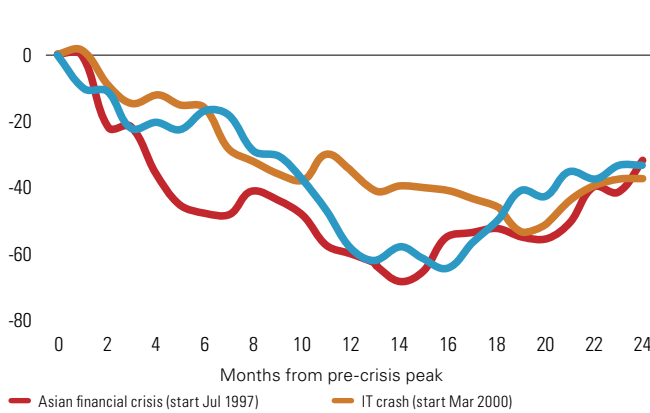
Stocks, end-2010, US\$ billions



Source: IMF.

**Figure 57.** The markets declined at rates not seen since the Asian financial crisis

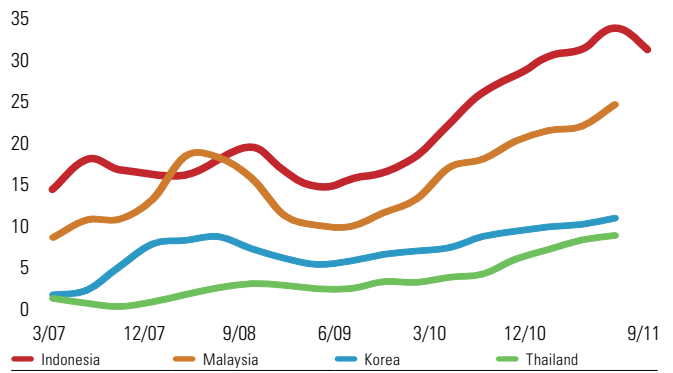
Cumulative change in the index value from pre-crisis peak, MSCI All-Country Far East excluding Japan, in percent



Source: MSCI, via Datastream.

**Figure 54.** In June 2011, non-residents held more than one-third of local currency government bonds in Indonesia, and one quarter in Malaysia

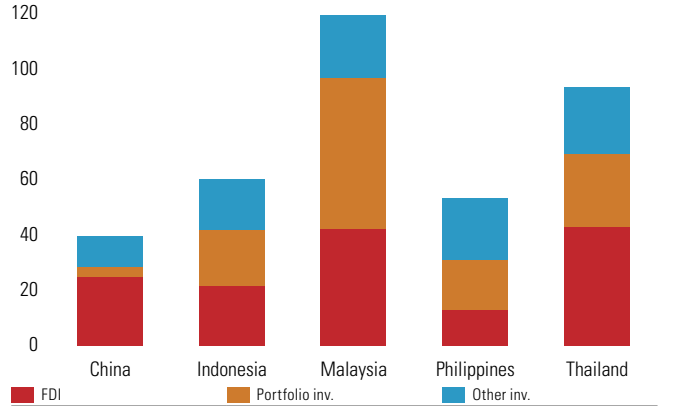
Non-resident portfolio holdings of local currency government bonds, in percent of local currency government bonds outstanding



Source: ADB and staff calculations.

**Figure 56.** ...but they are much higher as a share of GDP

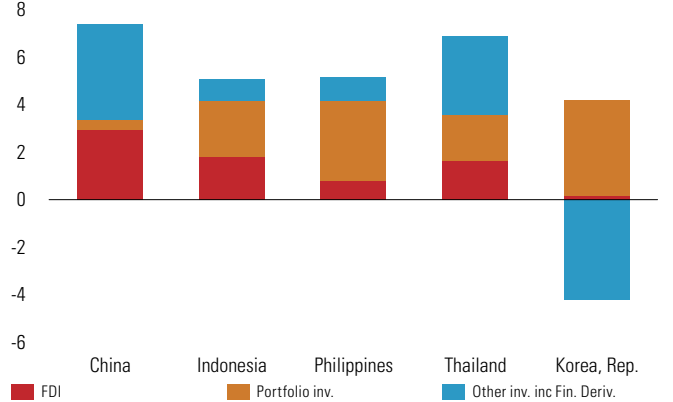
Stocks, end-2010, in percent of GDP



Source: IMF.

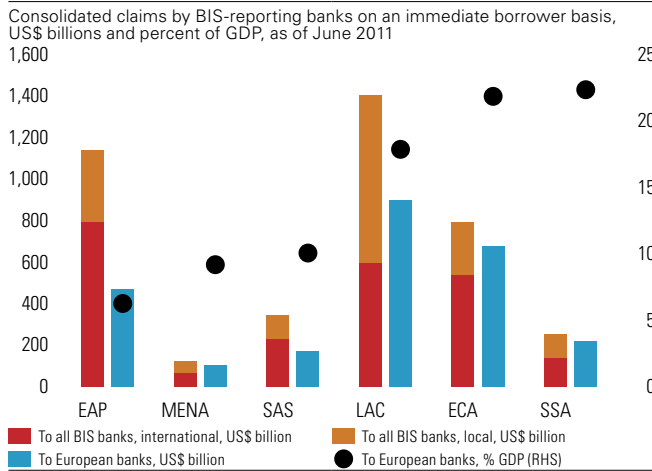
**Figure 58.** Portfolio flows remain the principal driver of financial risk in many countries

Net capital inflows, Balance of Payments basis, 3Q 2009–2Q 2011, in percent of GDP

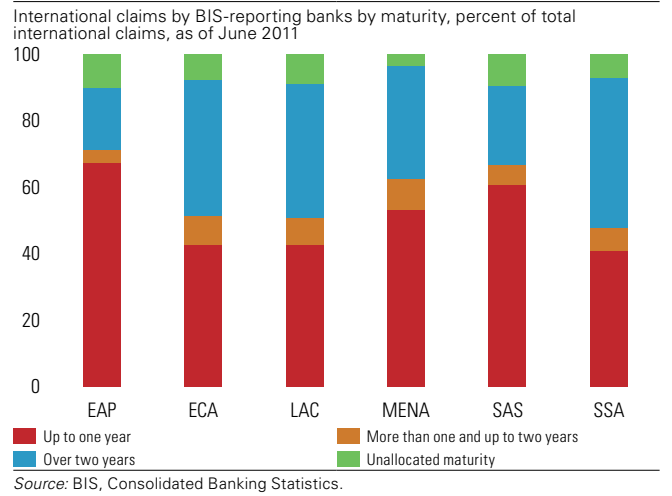


Source: Haver Analytics.

**Figure 59.** Developing East Asia is the least exposed to European banks as share of GDP, but total claims by European banks are almost US\$470 billion...



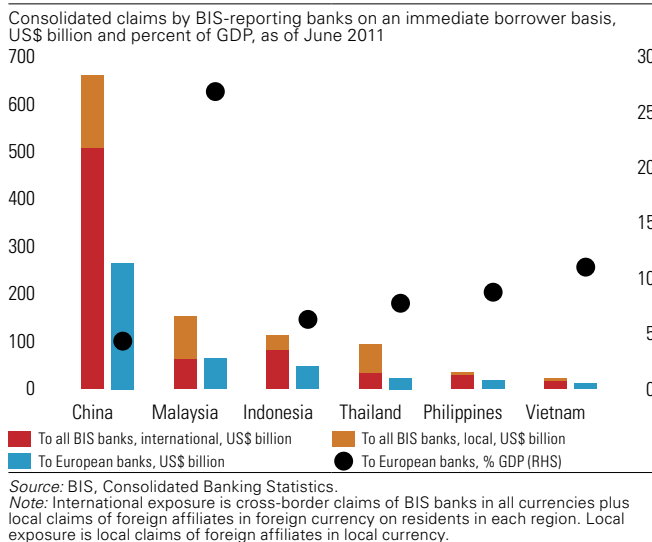
**Figure 60.** ...and the maturity of debts to foreign banks is shorter in EAP than in other regions



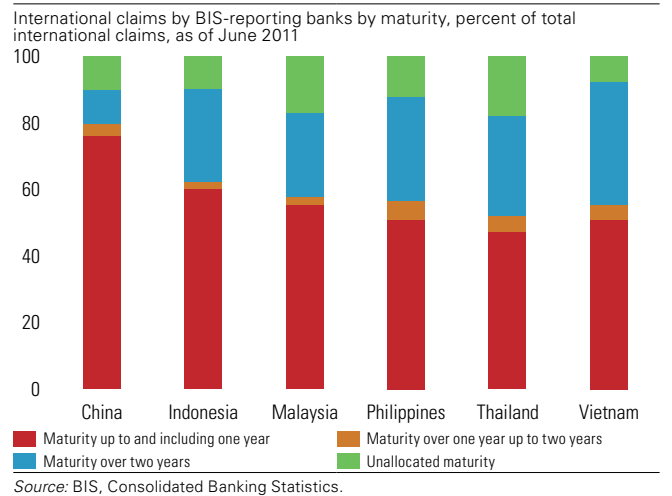
participation, a fall could be steeper this time. Volatile portfolio inflows have built up in the aftermath of the crisis in many countries (Figure 58), but, as discussed in Chapter II, increased inflows are also reflected in higher levels of international reserves, which mitigate some of these risks.

**A deeper banking crisis in Europe could affect bank credit to East Asia.** As part of the Eurozone debt solution, the banks holding Greek sovereign bonds have agreed to write down 50 percent of their claims, and all European banks have to raise Tier 1 capital adequacy ratios to nine percent. These measures are likely to result in reduced lending, even if banks are subsequently recapitalized by the EFSF (see Box 5). Even though developing East Asia is the least-exposed to European bank lending among all regions, consolidated claims by these banks still amounted to

**Figure 61.** China accounts for over half of the claims on developing East Asia, while Malaysia's exposure to European banks is over 25 percent of GDP

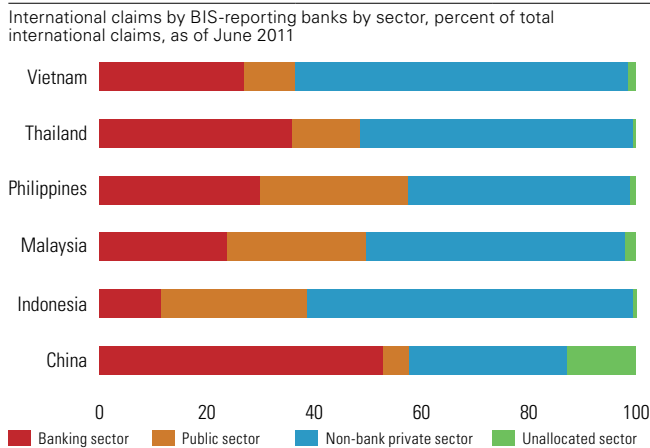


**Figure 62.** Liabilities to BIS-reporting banks are mostly short-term



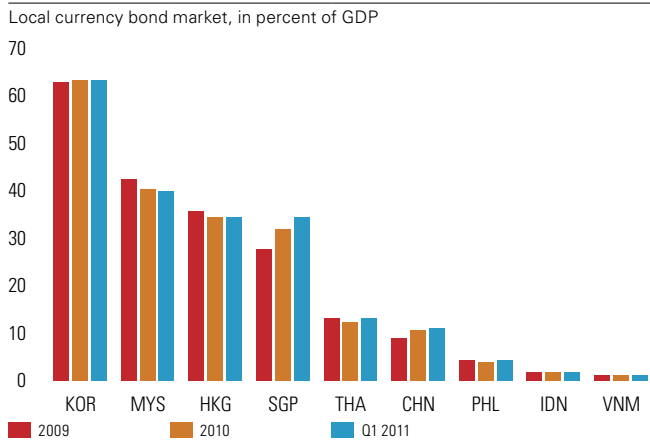
six percent of GDP in June 2011 (Figure 59). Nearly 70 percent of the loans from all BIS-reporting banks to East Asia are short-term. This reflects in part their nature—many of these loans finance trade—but their short-term maturities increase the risk of sudden withdrawal (Figure 60). Almost 80 percent of the short-term borrowings by China’s banks will mature in one year or less, with liabilities to European banks comprising US\$268 billion or five percent of GDP (Figure 61, Figure 62). Among other middle-income countries, Malaysia stands out with loans from European banks representing more than 25 percent of GDP (US\$ 64 billion). Half of the country’s total liabilities mature in one year or less, and are mostly held by the non-bank private sector and the government (Figure 61, Figure 62, Figure 63). Other middle-income countries have exposures of between seven percent and 11 percent of GDP, mostly in the non-bank private sector (e.g. between around 40 percent in the Philippines and 60 percent in Indonesia and Vietnam, see Figure 63). During the 2008 crisis, this type of credit fell by 13 percent (Figure 64). It is possible that other banks, including banks from East Asia, could potentially step into any financing gap left by European banks, reducing the possible impact of any deleveraging by these lenders.

**Figure 63.** International bank credit in middle-income countries excluding China is mostly to the non-bank private sector...



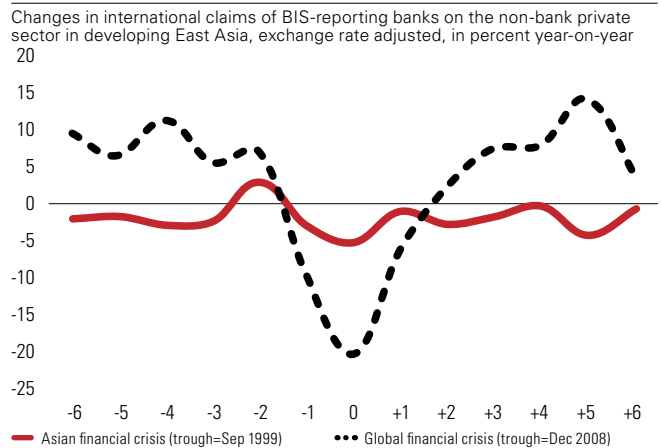
Source: BIS, Consolidated Banking Statistics.  
 Note: International exposure is cross-border claims of BIS banks in all currencies plus local claims of foreign affiliates in foreign currency on residents in each region. Local exposure is local claims of foreign affiliates in local currency.

**Figure 65.** Corporate bond stock is high in Malaysia compared to other MICs...



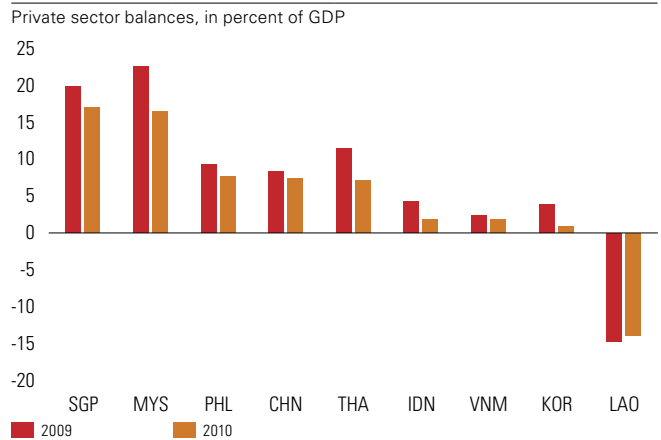
Source: IMF GFSR.

**Figure 64.** ...and could fall sharply during a crisis



Source: BIS, Consolidated Banking Statistics.

**Figure 66.** ...but private sector balances are mostly healthy



Source: WEO.  
 Note: Private sector (including households) balances are calculated as current account balance minus fiscal balance. Positive balance indicates surplus in the private sector (value added minus consumption and investment).

**Companies are more vulnerable now to volatility in the bond market, although aggregated private sector balances remain healthy.** Private sector companies are increasingly reliant on bond financing for their activities and growth (Figure 65). Local currency- and dollar-denominated bond issuance in East Asia increased considerably after the crisis, with buyers attracted by relatively high yields. High private sector debt financed by foreign lenders can add to fiscal strain through a potentially higher sovereign cost of borrowing and contingent liabilities associated with the banking sector. For example, Standard & Poor's downgraded Spain's credit rating recently due to high levels of private sector debt, despite its healthy public finances. In East Asia, private sector and households' balances remain mostly in surplus, however (Figure 66).

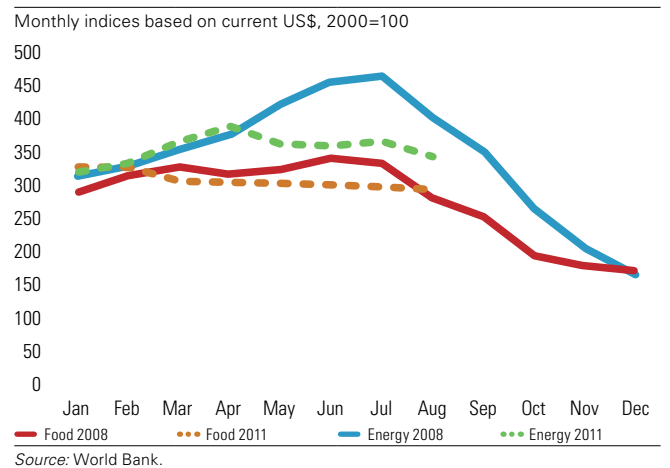
**Capital flows will return. But now is an opportune time to pursue reforms that would help match growing investment needs in the future.** With current growth differentials, East Asia is likely to continue to be among the most attractive destinations for capital flows. To make sure the markets are sufficiently deep and efficient, countries across the region are facing different challenges. In the longer-term, securities and corporate bond markets need to be further developed to match growing investment needs; priority areas include institutional and regulatory frameworks, information disclosure, transaction cost, and investor base. In China, the government is reducing the dominance of state-owned enterprises (SOEs) in the stock markets, improving corporate governance, and streamlining regulatory and supervisory practices. Middle-income countries need to deepen and broaden their markets; for example, Malaysia plans to triple the size of its stock exchange. Low-income countries with stock markets suffer from an insufficient number of traded companies and their priorities should include the deepening of the financial sector to provide financing to private businesses, a decrease in transaction costs, and the acceleration of SOE reforms.

### *Poverty reduction efforts could be hampered by food price shocks if incomes stagnate*

**International food prices this year have been near their 2008 peaks (Figure 67).** Countries in the region are more vulnerable to higher food and energy prices than advanced economies given higher weights of food and energy in their consumer price inflation baskets (see Chapter II). But shocks in international prices are not transmitted directly to domestic prices: it is estimated that a median long-term pass-through of a one-percent food price shock to domestic food prices is only 0.34 percent in developing countries on average.<sup>13</sup>

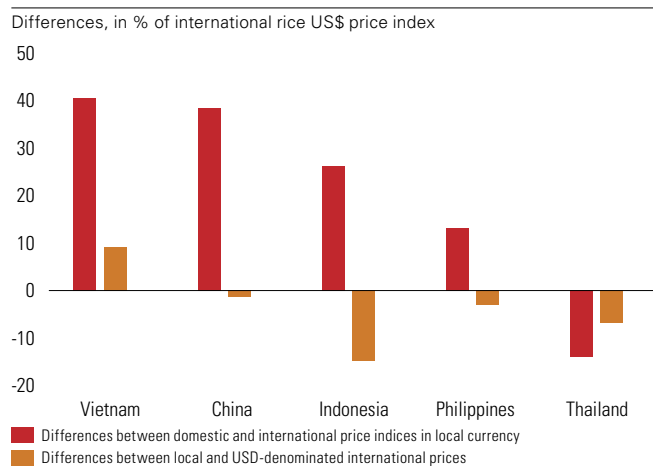
**The pass-through from international prices to domestic markets is influenced by policy interventions and exchange rate dynamics, but domestic shocks have also increased in importance.** Although international rice prices have more than doubled in U.S. dollar terms since 2000 (excepting Vietnam, where currency depreciated), the pass-through from international prices has been muted. But domestic food price inflation has also differed from international price increases: in Thailand rice price inflation was lower

**Figure 67.** International food prices are close to their 2008 levels



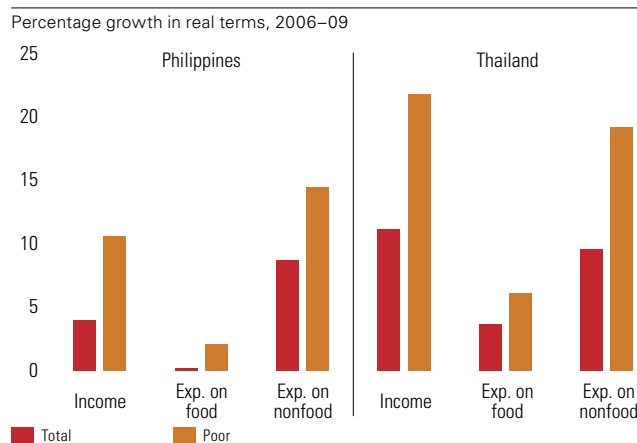
<sup>13</sup> IMF World Economic Outlook September 2011.

**Figure 68.** Exchange rate appreciation helped food importers, but domestic rice price inflation tended to be higher than international



Sources: Haver, CEIC, and World Bank staff calculations.  
 Note: Percentage difference between indices of international rice prices in local currency and US dollars; and between domestic and international prices in US dollars. Averages 2009-2011. International Prices for Thai rice (5 percent broken). Domestic prices: wholesale for Thailand, retail for all others.

**Figure 69.** Income and consumption expenditure have increased, especially among the poorest 20 percent of the population



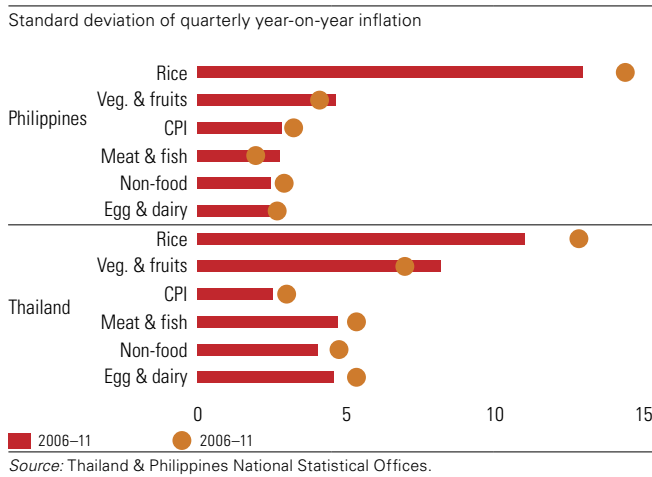
Source: World Bank staff calculations using data from household income and expenditure surveys.  
 Note: Food and drink consumption expenditure is deflated using CPI by commodity or group of commodities; non-food consumption expenditure is deflated by aggregated nonfood CPI. The poorest are defined as individuals in the bottom household consumption expenditure quintile.

than that of the international rice prices, while in other countries it was higher (Figure 68). Policy interventions that can dampen the effect of international inflation on domestic price movements include consumer and production subsidies, price supports, tariffs, and import quotas, as well as the use of reserves. Some of the shocks affecting prices are increasingly domestic in nature, highlighting the importance of perishable foods—such as vegetables, meats, and dairy products—for inflation, incomes, and poverty reduction. For example, while rice price inflation was the highest among food items in the Philippines, in Thailand other foods, such as vegetables, fruits, and meats, were also important (see Figure 70). Production shocks can quickly translate into price hikes, and changes in pre-harvest weather conditions have the tendency to quickly unsettle markets. For example, the combined effects of the recent move by the Thai government to buy paddies at higher prices from farmers, and the loss of 5-6 million tons of rice due to flooding, have added to upward pressure on prices (see Box 1 and 4).

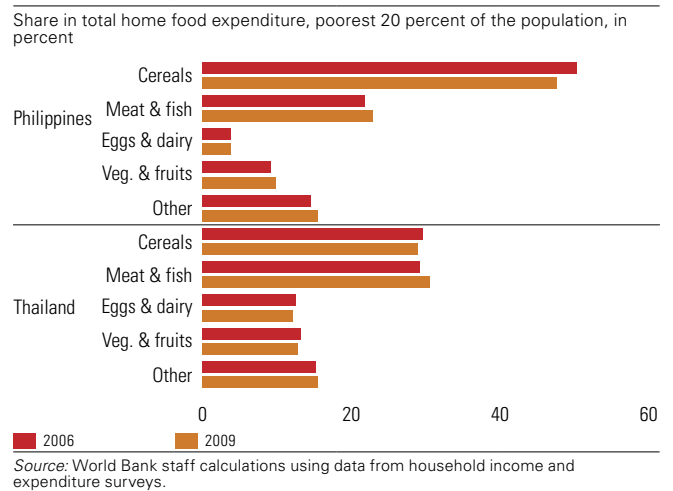
**Between 2006 and 2009, as real incomes increased, people spent more on food, although food expenditures grew much slower than incomes.** In the Philippines and Thailand, incomes grew for the population at large, but especially for the poorest 20 percent of their populations<sup>14</sup> (Figure 69). These households saw their incomes increase by 22 percent in Thailand and 10 percent in the Philippines. Incomes increased in the rural areas in particular. In the Philippines, rural incomes grew by nine percent while urban incomes stagnated. In Thailand, urban and rural incomes increased by seven percent and 13 percent respectively. One factor playing out in this increase is higher agricultural prices that have likely translated into higher incomes for farmers. Consumption expenditure in the Philippines also rose; by 6.5 percent for the poor and by 5.1 percent for the population at large. In Thailand, consumer spending grew by 12.4 percent among the poor and by 7.6 percent for the overall population. At the same time, only modest increases in real expenditure on food items were observed among the poor. A disproportionate increase in food prices in comparison to CPI inflation contributed to this outcome (Figure 70).

<sup>14</sup> To avoid using country-specific poverty lines, hereafter in this document, we refer to the group of people in the lowest expenditure quintile as “poor” or “the poorest”, interchangeably.

**Figure 70.** Price spikes were particularly pronounced in rice...



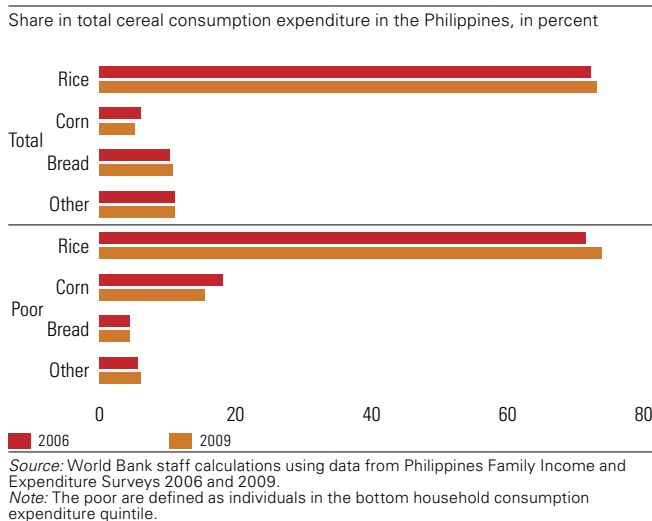
**Figure 71.** ...as a result, the poorest in Thailand and the Philippines consumed less starch and more protein



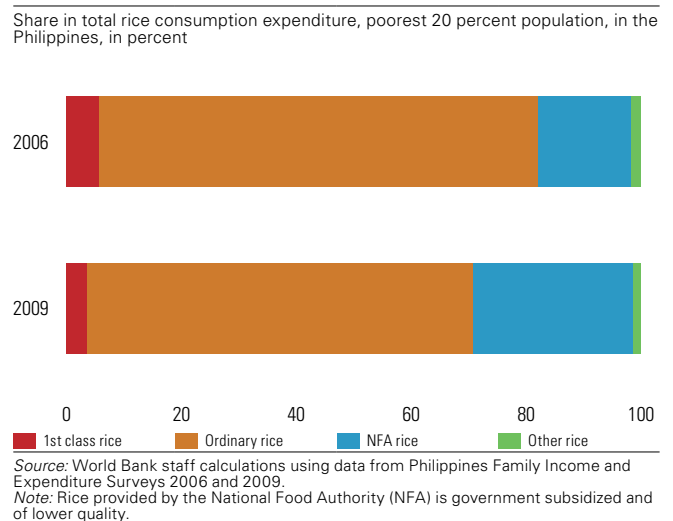
Responding mainly to higher incomes, consumers shifted from cereals to more protein-rich foods. Rice prices had the highest increases among food items, while meat and fish prices have been more stable (Figure 70). As a result, the poor in the Philippines and Thailand have substituted other foods for cereals (Figure 71). Higher incomes also usually allow people to increase their intake of expensive, protein-rich food.

Consumers had to switch to cheaper rice, the region’s dominant staple food, and reduced consumption of other cereals. Consumption of cereals decreased overall, but the share of rice in real expenditures increased relative to other cereals as income levels increased (Figure 72). Filipinos reduced their consumption expenditure on corn, an inferior staple food. The substitution between rice and corn is particularly pronounced for the poor in the Philippines. In addition, they also substituted high quality rice with subsidized but lower quality rice, as the price of unsubsidized rice rose. The substitution was most significant for the poor (Figure 73). They, in effect, stabilized overall rice consumption expenditure, even though the quality of the rice they consumed declined.

**Figure 72.** Within cereals, rice consumption rose while corn consumption declined...



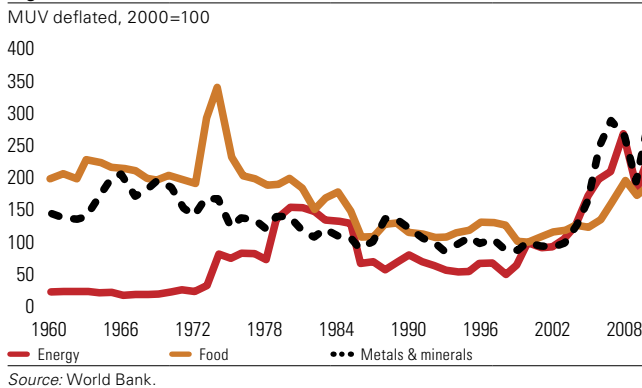
**Figure 73.** ...but the poor also switched to cheaper varieties of rice



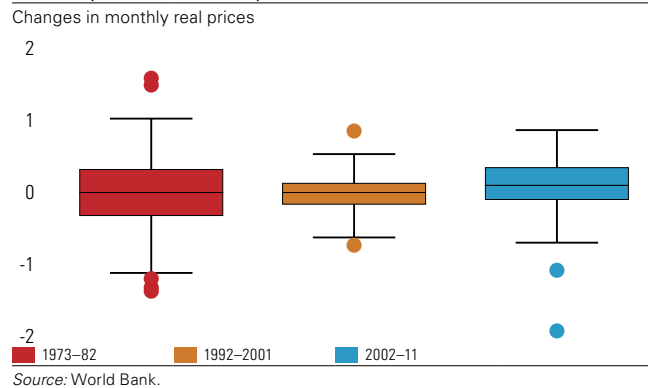
**Box 6. High food prices are likely here to stay**

Food prices remain high and their volatility has increased. The spike in 2008 compares to previous commodity hikes during the Korean War in 1950/1951 and the oil crisis of 1973, interrupting otherwise largely declining trends in commodity prices (Box Figure 1). Volatility in food prices is higher than before 2002 and is comparable to volatility following the previous commodity boom following the oil crisis of 1973 (Box Figure 2).

**Box Figure 1.** Commodity prices rallied in the 2000s and remain high

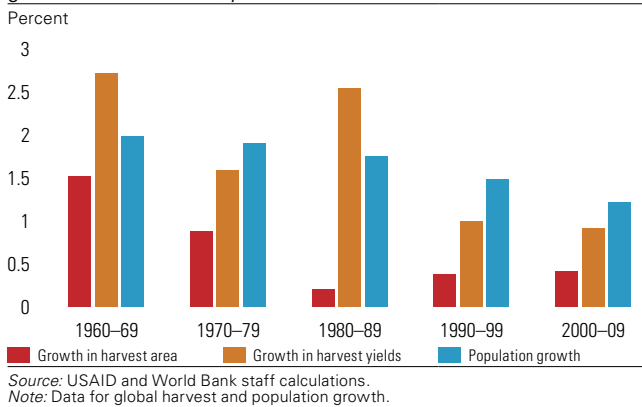


**Box Figure 2.** Volatility in food prices has increased since 2002 but compares to the last price shock

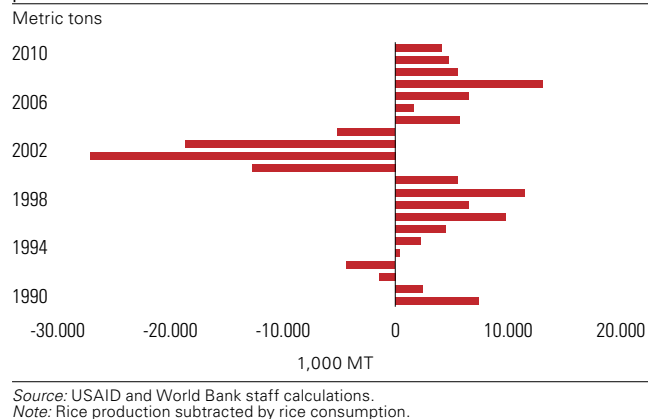


Stronger demand for food that is unmatched by higher production is often cited as the main reason for high food prices, which has been compounded by increases in demand for biofuels. For rice, Box Figure 3 shows that harvest area has been expanding less rapidly since the 1980s compared to the earlier period. Similarly, growth in rice yields has gone down since the Green Revolution. In the 1990s and 2000s, growth in the world's population exceeded both the growth in yields and harvest area (Box Figure 4). One reason explaining the decrease in yields is lower investment in research and development devoted to agriculture. Since the Green Revolution, technological innovation in agricultural production has been sluggish.

**Box Figure 3.** Since the 1990s population growth has exceeded growth in rice harvest yields and area



**Box Figure 4.** In the early 2000s rice consumption exceeded rice production



Other pressures on food prices come from increasing transportation and production costs and shocks. Demand for commodities in general has trickled into food prices. Strong demand for energy has caused a notable shift of crop production for food consumption to production of bio-fuels. This has added to upward pressures from oil and other commodities used as inputs in food production. Adverse supply shocks have also aggravated shortages. The weather was particularly hostile to agricultural production in 2008, for example, and bad harvests translated into higher food prices.

Overall, food prices are likely to remain high. As long as demand and supply fundamentals in the world economy remain unaltered it is unlikely that food prices will decline significantly in the near future.

**A combination of food price increases and sluggish income growth would pose a significant risk.** When food price increases take place over a period of sufficient income growth, households' can still experience overall welfare gains in terms of total consumption, and thereby protect their food consumption. However, if their incomes do not increase, it would be more costly for poor households', for whom protecting basic food consumption will be increasingly difficult.

**There have been policy interventions to address high and volatile food prices.** Several countries have used agricultural subsidies to boost local food production in place (for example, China). The Indonesian government allowed the State Logistics Agency to import rice, and Indonesia, the Philippines and Thailand also temporarily reduced tariffs on selected food imports. Authorities in rice-importing countries often use stock reserves to manage price volatility (in China and the Philippines, for example). Rice-exporting countries, such as Thailand, and Vietnam, maintain smaller emergency stocks to be used for humanitarian relief during natural disasters or other temporary supply shortages. Rice-exporting countries also have various farmer support schemes in place (see Box 4 for Thailand). Some ongoing initiatives provide a promising start for regional cooperation in responding to food price shocks. The ASEAN+3 East Asia Emergency Rice Reserve, for example, while not sizeable enough to mitigate large shocks, could work as an emergency response vehicle. However, international food prices are high largely because of the structural issues in underlying demand and supply (see Box 6). Increasing investment in research and development and in technology in the agricultural sector would help take advantage of potential economies of scale, and boost agricultural productivity and farmers' incomes.

### *Focusing on long-term growth*

**Given that global economic growth is projected to remain sluggish, it is important to refocus on long-term reforms that will enhance growth and reorient it towards domestic sources where possible.** As stressed in our previous Update,<sup>15</sup> maintaining a more buoyant growth path in the middle-income countries in the region remains a key priority for the authorities. Fiscal spending will need to be increasingly more efficient, better targeted, and long-term oriented, including enhancements in social security and education. Increasing productivity and moving towards higher value-added production will be an important part of the growth strategy. In some countries, this will mean a higher level of investment in key sectors such as in productive infrastructure, and education. In others, increasing the quality and efficiency of investments will be the first priority. Investments in disaster management and prevention are also becoming increasingly important for the region, as borne out by the dramatic flooding in Thailand.

**Increasing productivity will need to remain a priority if high growth rates are to be maintained.** While initially not very high, total factor productivity (TFP) improvements have strongly contributed to growth in the years after the Asian crisis. When capital accumulation fell after the crisis, countries that were able to increase total factor productivity grew faster. If the middle-income countries were accumulating capital at the average historical rate, they would need to facilitate even faster improvements in total factor productivity to achieve growth rates of around seven percent.<sup>16</sup>

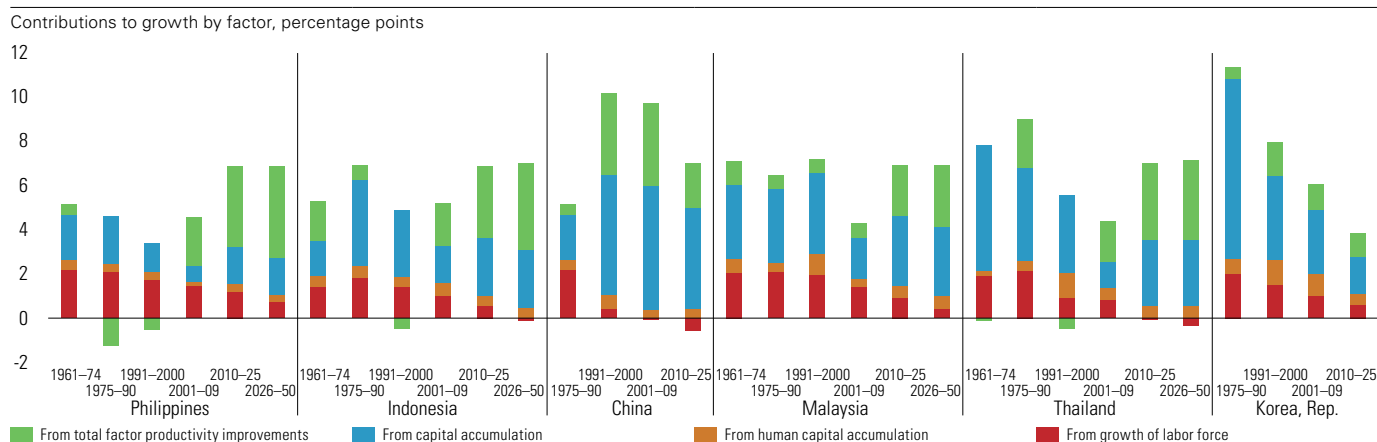
<sup>15</sup> Securing the Present, Shaping the Future, EAP Update, April 2011, World Bank, Washington DC.

<sup>16</sup> Average historical rates of capital accumulation are calculated for 1980–2009. Note that 7 percent growth in real GDP would be higher than average growth rates in 1980–2009 for most MICs.

	Thailand	Malaysia	Philippines	Indonesia	China
Average growth rate	6.3	6.0	3.1	5.4	9.8
Median growth rate, excluding crisis years	7.1	6.9	4.2	6.4	10.1

In some countries, these improvements would need to make up for the declining labor force and for the naturally slowing growth in capital stocks (Figure 74). For Indonesia and Thailand to grow at their median non-crisis growth rates<sup>17</sup>, they would need to bring capital accumulation back to the historical average and double TFP contributions. For

**Figure 74.** Increases in productivity will be crucial if targeting high real growth rates



Source: WB staff calculations.

Note: Seven percent growth rate is targeted for all countries, for illustration purposes.

Malaysia, an increase in capital accumulation would be required, along with more than tripling the TFP contribution to growth. In the Philippines, TFP improvements will be necessary if the country is to grow at rates above five percent. In China, we assume a gradual easing in capital accumulation following its medium-term plan aimed at rebalancing the economy.<sup>18</sup> As a result, if TFP growth remains at its current levels, the loss of the demographic benefit would mean a decline in overall growth in 2010–2025.

**Improving both the quantity and quality of investment will be an important component of the strategies for increasing productivity.** As discussed in the previous Update,<sup>19</sup> the shares of investment in GDP in the middle-income countries in the region are not sufficient to escape the middle-income trap, and some are not even at their pre-Asian crisis levels (Figure 75).<sup>20</sup> Korea and Japan invested as much as 31 percent of GDP to escape the middle-income trap, and investment rates of 25 percent of GDP or more are usually needed for robust and high growth.<sup>21</sup> At present, only China, Mongolia, and Vietnam are investing at such high rates, which may or may not be sustainable. Increased spending alone, however, is not likely to be an effective solution. A new index of public investment management practices<sup>22</sup> suggests that the quality of planning, appraisal, selection, implementation, and evaluation for projects within government investment portfolios could be improved in most countries within the region (Figure 76). While relative country rankings may be debatable, it is clear that only a few developing East Asian countries have met or exceeded the middle-income average for the quality of public investment management.

<sup>17</sup> Their median growth rate during non-crisis years between 1980 and 2009, see Table in the previous footnote.

<sup>18</sup> See He, J. and L. Kuijs. 2007. Rebalancing China's Economy – Modeling a Policy Package, World Bank China Research Paper No. 7. Also see Kuijs, L. 2009. China through 2020—A Macroeconomic Scenario. World Bank China Research Working paper No.9.

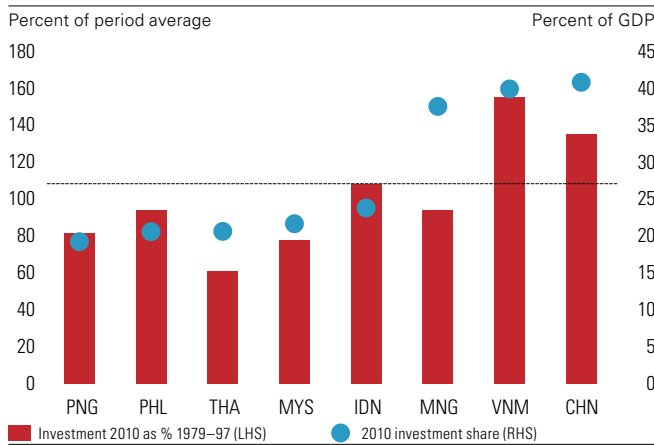
<sup>19</sup> Securing the Present, Shaping the Future, EAP Update, April 2011, World Bank, Washington DC.

<sup>20</sup> Calculated as a 20 year average from 1978 to 1997.

<sup>21</sup> Growth Commission, 2008, The Growth Report: Strategies for Sustained Growth and Inclusive Development, p. 34, [www.growthcommission.org](http://www.growthcommission.org).

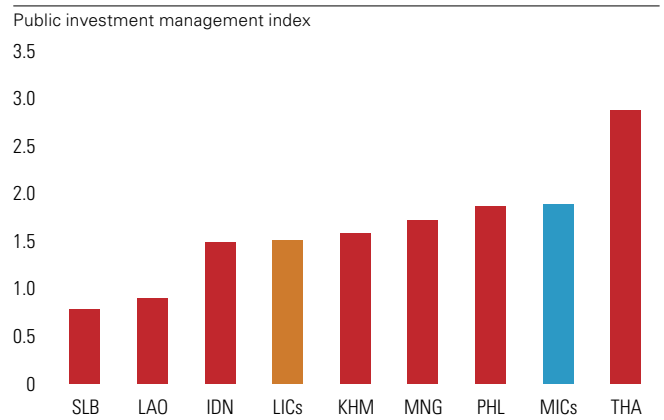
<sup>22</sup> Dabla-Norris et al, 2011. Investing in Public Investment: An Index of Public Investment Efficiency. Primary sources used to construct the indices are from the period 2007 to 2010.

**Figure 75.** Investment shares of GDP have not uniformly recovered after the Asian crisis



Source: World Development Indicators.  
Note: Data after 1995 only are used for Vietnam.

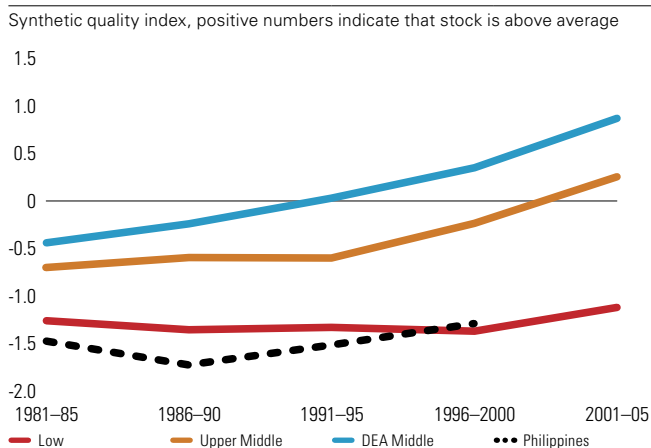
**Figure 76.** Quality of public investment planning and implementation needs to improve in many countries



Source: Dabla-Norris et al (2011).  
Note: Higher values indicate better investment planning and implementation.

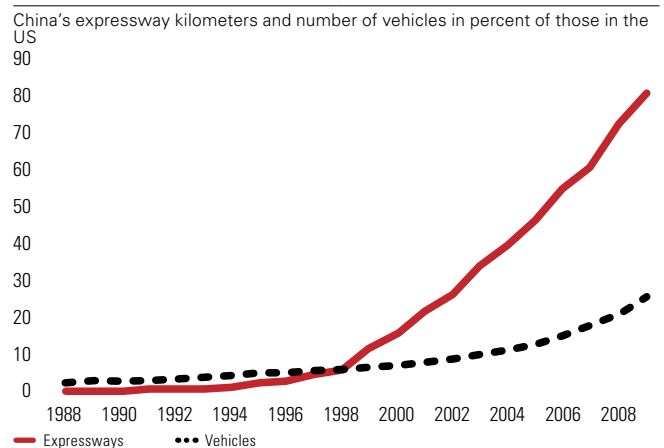
**More infrastructure investments are needed to ensure high growth rates in the future.** These include investment in transportation, as well as in innovation-enhancing technologies, such as telecommunications. While stocks of infrastructure per capita in East Asia exceeded world average in 2000, they are still below lower- to middle-income country averages.<sup>23</sup> But returns to infrastructure investments are not always adequate (Figure 77). In the Philippines, the quality of urban infrastructure is a major constraint, including roads, ports, and airports; high electricity costs and blackouts, by themselves, cause manufacturers to lose as much as six percent of their sales.<sup>24</sup> In Indonesia, firms identified a large infrastructure gap, including in roads, as one of the greatest obstacles to private investment.<sup>25</sup> Some infrastructure in China has been built well ahead of demand, raising questions about the returns on such investments,

**Figure 77.** The quality of most regional infrastructure is very good but some countries lag far behind...



Source: Serven and Calderon (2010).

**Figure 78.** ...while some may be leading demand, creating the risk of low returns



Source: National Bureaus of Statistics.  
Note: Vehicle data from China are for civil vehicles owned, data from US are for vehicles in use.

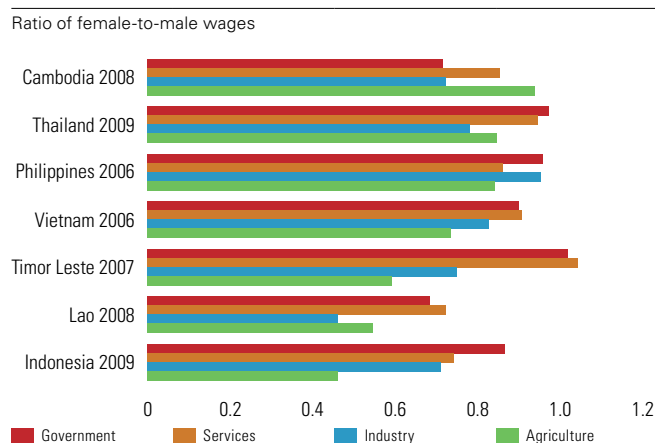
- 23** Serven and Calderon, 2010. Infrastructure in Latin America. The synthetic quality index focuses on telecommunications, electricity, and roads. The underlying data include the waiting period for telephone installation, electric power transmission and distribution losses, and the percent of roads that are paved.
- 24** World Bank, 2006. Philippines Investment Climate Assessment and World Bank, 2008. Philippines Enterprise Survey.
- 25** World Bank, 2010. Indonesia Rising: Policy Priorities for 2010 and Beyond.

as in the case of the rapid expansion of their expressways (Figure 78). In Thailand, the quality of infrastructure is better than in most of its neighbors, but large variances in the quality of infrastructure services across provinces may need continued attention (Figure 76).<sup>26</sup> Ensuring a high quality of information technology infrastructure, together with affordable access, should also be a priority for Thailand.

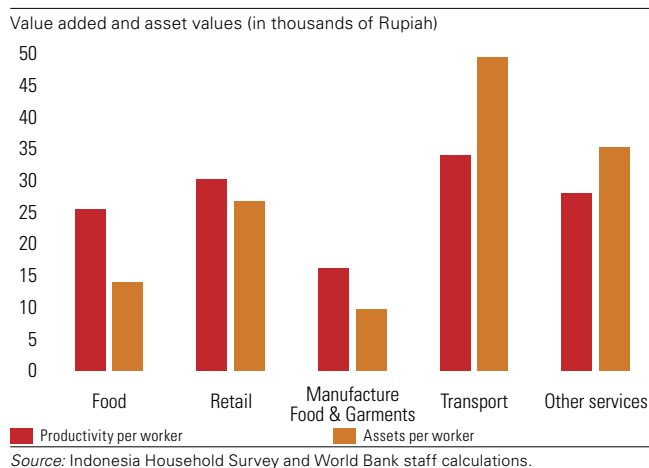
**Faster growth in productivity can be driven by facilitating innovation and by greater investments in human capital.** Economy-wide productivity improvements come from two main sources: technology and capital accumulation that improve productivity within sectors, and the movement of labor from less productive to more productive sectors. To increase productivity, low-income countries will need to educate more workers, and continue adopting existing technologies. Middle-income countries have successfully exploited a model of high volume, low value-added assembly operations, mainly through adoption of existing technologies. For these countries, sustaining rapid growth will depend more on the ability of the private sector to innovate closer to the frontier and to move up the value chains. To innovate, firms need access to adequately educated and skilled workers who can absorb and apply new knowledge and processes. Better education is the key: without educated workers, ideas would not emerge, get transmitted, adopted, or implemented. The share of unskilled workers can be as high as 85 percent in Thailand and 65 percent in Malaysia, compared to only 25 percent in OECD countries. Workers with tertiary education tend to get hired by innovating firms and they often earn more than those with less education.<sup>27</sup> More than half of the manufacturing firms in Thailand, Cambodia, and Malaysia offer formal training for their workforce, suggesting that education systems do not adequately train their workers. Restrictions on the movement of labor to productive sectors, where they are precluding productivity growth, should also be relaxed.

**Reducing gender bias will also help improve productivity.** In East Asia, within-industry productivity differentials are quite large (in some industries, total factor productivity of the top firms is 20 times higher than that of the least productive firms).<sup>28</sup> Reducing distortions and leveling the playing field would help reduce these differentials and increase overall productivity. Equal participation and opportunities for all is one way to move in the right direction. East Asia has made significant advances in reducing gender-based inequities in education and labor force participation.

**Figure 79.** Women in most of East Asia and Pacific continue to earn less than men



**Figure 80.** In Indonesia, female entrepreneurs are clustered in lower productivity sectors, such as garments



<sup>26</sup> World Bank, 2008. Thailand Investment Climate Assessment.

<sup>27</sup> Putting Higher Education to Work: Skills and Research for Growth in East Asia, October 2011, World Bank, Washington DC.

<sup>28</sup> See Productivity and Innovation in East Asia and Pacific: A Stocktaking, Eye on East Asia and Pacific #11, World Bank, Washington DC.

Even so, persistent employment segregation by gender traps women in low-productivity, lower-paying jobs, often in smaller, less efficient firms (Figure 79). For example, in Indonesia female entrepreneurs are most likely to locate in retail, food and garment sectors, which have lower productivity (Figure 80). Such labor market sorting by gender is not only fundamentally unfair, but it also prevents the full utilization of women’s skills and talents. Likewise, women’s productivity is also impaired when distribution of a key asset—such as land—is skewed, when women have to bear the double burden of combining household work with market roles, or when women-owned businesses receive less than equal access to services. Policy action to reduce remaining gender biases in skills acquisition, jobs and wages, ownership of capital, and access to services is urgently needed—not only to uphold fundamental values of justice and fairness, but also to improve overall productivity so that everyone is better off as a result.

**Investments are also needed to reduce the impact and costs of natural disasters.** East Asia and Pacific region represents 85 percent of all people affected by natural disasters since 2007. That exposure is likely to double by 2050 due to climate change and rapid urbanization that concentrates the lives and assets in ways that can, but need not always, leave them vulnerable to the effects of climate change and other natural hazards. Moreover, when those urban areas host international manufacturing and trading hubs, local disasters can have global impacts—as has been clearly demonstrated by the recent earthquake and tsunami in Japan and by the flooding in Thailand (see also Box 1).

**While it is not possible to control natural hazards, it is possible to reduce their costs through proactive policies and investments aimed at disaster management and prevention.** Sometimes the required policy changes can be simple.<sup>29</sup> Well-maintained roads are essential for disaster management, allowing people to be evacuated to safety and relief supplies to be brought to devastated areas. Another important option is to use regulation to coordinate commercial and public investment decisions. For example, commercial investments in rural land clearing often result in downstream flooding of urban areas, thus requiring heavy public expenditures in flood control systems. Yet, thoughtful regulation can balance these commercial and public interests. Investing in information systems for easy access by firms and households would also help. Information about where flood plains and earthquake zones are located can usefully inform decisions about where to locate factories and homes, how to build-in resiliency against disasters, how to value property, and how to insure that property. This process works best when markets, while regulated, are not distorted through excessive taxation, subsidies or controls.

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<sup>29</sup> World Bank, 2010. *Natural Hazards, Unnatural Disasters*, World Bank, Washington DC.