

ADB



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The *Asia Economic Monitor* (AEM) is a semi-annual review of emerging East Asia's growth and policy issues. It covers the 10 members of the Association of Southeast Asian Nations; People's Republic of China; Hong Kong, China; Republic of Korea; and Taipei, China. This issue includes a special chapter on regulatory reform in emerging East Asia.

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Highlights

Recent Economic Performance

- Economic growth in emerging East Asia dropped sharply in the first quarter of 2009, but early indicators suggest the pace of decline slowed during the second quarter.
- The slowdown in growth, coupled with lower oil and food prices, helped inflation to decline across the region.
- The balance of payments turned positive again in the first quarter of 2009 as current account surpluses grew and capital outflows moderated.
- Emerging East Asia's stock markets rebounded strongly, rising 68% over their November 2008 troughs.
- Several currencies in the region appreciated against the US dollar as investors' risk appetite began to return.
- Bond yield curves for most emerging East Asian economies shifted upward and steepened in recent months.
- With growth slowing and inflation falling, authorities continued to ease monetary and fiscal policies.
- The region's banking systems appear capable of weathering the economic storm, with prudential indicators strong and lending continuing to grow.

Outlook, Risks, and Policy Issues

- The overall external environment for emerging East Asia remains difficult and uncertain, with the recession in advanced economies continuing and global financial conditions improving yet tight.
- Emerging East Asia has entered the transition from recession to recovery, with GDP growth sourced more from domestic stimulus than a resurgence in external demand.
- Emerging East Asia could see a V-shaped recovery, with growth dipping sharply in 2009 before regaining last year's pace in 2010.
- Major risks to the outlook include (i) a more prolonged recession and weaker recovery than expected in developed countries; (ii) unintended consequences of economic stimulus or premature policy tightening; (iii) falling inflation becoming deflation; and (iv) non-economic events with low probabilities, but potentially large impacts.
- Given the tentative nature of the expected recovery, it is critical that authorities stay the course in supporting domestic demand and growth.

Acronyms, Abbreviations, and Notes

ACC	additional capital charge
ADB	Asian Development Bank
ADO	Asian Development Outlook
AEM	Asia Economic Monitor
AFMM+3	ASEAN+3 Finance Ministers Meeting
ASA	ASEAN Swap Arrangement
ASEAN	Association of Southeast Asian Nations
ASEAN+3	ASEAN plus People's Republic of China, Japan, and Republic of Korea
ASEAN-4	Indonesia, Malaysia, Philippines, Thailand
BCP	Basel Core Principles
BIS	Bank for International Settlements
BI	Bank Indonesia
BOE	Bank of England
BSA	bilateral swap agreement
BSP	Bangko Sentral ng Pilipinas
CAR	capital adequacy ratio
CMIM	Chiang Mai Initiative Multilateralization
ECB	European Central Bank
FSAP	Financial Sector Assessment Program
FSA	Financial Services Authority
FSF	Financial Stability Forum
Fed	Federal Reserve
G3	US, eurozone, Japan
G7	Group of Seven advanced economies
G20	Group of 20
GDP	gross domestic product
GP	general provisioning
H1N1	Influenza A
HKMA	Hong Kong Monetary Authority
IAS	international accounting standards
ICP	Insurance Core Principles
IOSCO	International Organization of Securities Commissions
IMF	International Monetary Fund
ISM	Institute for Supply Management
IT	information technology
JCI	Jakarta Composite Index
KLCI	Kuala Lumpur Composite Index
KOSPI	Korean Stock Price Index
Lao PDR	Lao People's Democratic Republic
M2	broad money
MPS	macro-prudential supervision
MSCI	Morgan Stanley Capital International Inc.
m-o-m	month-on-month
NEER	nominal effective exchange rate
NIE	newly industrialized economy
NPL	nonperforming loan
OECD	Organisation for Economic Co-operation and Development
OPEC	Organization of the Petroleum Exporting Countries
OREI	Office of Regional Economic Integration
PCOMP	Philippine Composite Index
PRC	People's Republic of China
PMI	purchasing managers' index
Q2	second quarter
q-o-q	quarter-on-quarter
repo	reverse repurchase
SET	Stock Exchange of Thailand
SIV	special investment vehicle
SME	small- and medium-sized enterprise
STI	Straits Times Index
TWSE	Taiwan Stock Exchange Index
UK	United Kingdom
US	United States
VaR	value-at-risk
y-o-y	year-on-year

Note: "\$" denotes US dollars unless otherwise specified.

The *Asia Economic Monitor* July 2009 was prepared by the Office of Regional Economic Integration of the Asian Development Bank and does not necessarily reflect the views of ADB's Board of Governors or the countries they represent.

- Monetary policy in the region needs to remain expansionary until the recovery gains substantial traction or large inflationary pressures reemerge.
- Ensuring that fiscal stimulus is implemented effectively and efficiently is key to bolstering domestic demand in the face of continued weakness in the external environment.
- Even as the immediate impact of the global crisis works itself out, authorities should continue with deeper, more comprehensive structural reforms needed to rebalance growth toward greater domestic demand.

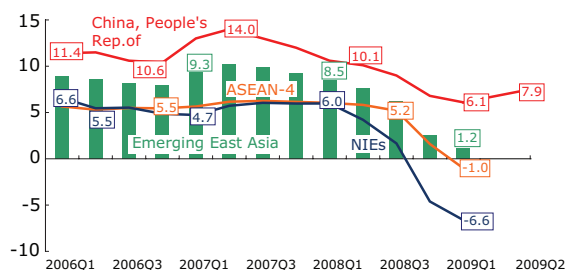
Beyond the Crisis: Regulatory Reform in Emerging East Asia

- The unprecedented financial crisis has prompted a reassessment of regulatory systems worldwide—to cover a wider set of market segments and institutions, especially those deemed systemically important.
- Emerging East Asia should actively participate in designing the new global financial architecture—particularly given the specific reform agendas that have emerged in forums such as the G20.
- Regulatory reform should eliminate gaps and overlaps, avoid regulatory arbitrage, increase transparency, and improve coordination among relevant authorities.
- There is no “one-size-fits-all” regulatory structure; yet there is growing acceptance that an integrated approach to macro-prudential oversight and financial stability is needed.
- Capital adequacy requirements must be increased and supplemented by a forward-looking assessment of risks stemming from liquidity, high leverage, and pro-cyclicality.
- System-wide, macro-prudential supervision must be developed to complement existing micro-prudential regulation.
- A key challenge for the region's regulators is how to encourage and manage financial market development without stifling innovation.
- Emerging East Asian economies should reinforce cooperation on enhancing financial stability by accelerating regional initiatives.

Emerging East Asia— A Regional Economic Update

Recent Economic Performance

**Figure 1: Regional GDP Growth¹—
Emerging East Asia² (y-o-y, %)**



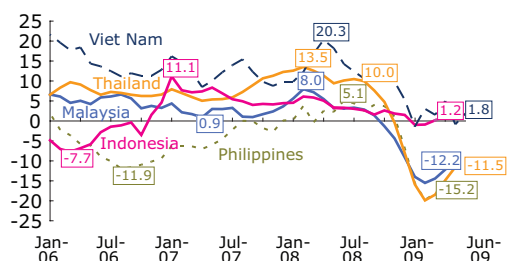
ASEAN-4 = Indonesia, Malaysia, Philippines, and Thailand; GDP = gross domestic product; NIEs = Hong Kong, China; Rep. of Korea; Singapore; and Taipei, China.

¹Weighted by gross national income (atlas method, current USD).

²Includes ASEAN-4, NIEs, Viet Nam, and People's Rep. of China.

Source: OREI staff calculations based on national sources.

**Figure 2: Industrial Production Growth¹—
ASEAN-4 and Viet Nam
(y-o-y, %)**



¹3-month moving average.

Source: OREI staff calculations based on CEIC data.

Growth and Inflation

Economic growth in emerging East Asia dropped sharply in the first quarter of 2009, but early indicators suggest the pace of decline slowed during the second quarter.

In the first quarter of 2009, aggregate growth in gross domestic product (GDP) of the 10 largest emerging East Asian economies¹ declined to 1.2% (year-on-year),² down from 2.6% in the last quarter of 2008 and in sharp contrast to the 8.5% growth in the first quarter of last year (**Figure 1**). The region's four highly-open, newly industrialized economies (NIEs)³—the most sensitive to plummeting external demand and global recession—contracted by 6.6%. Also, four large Association of Southeast Asian Nations economies (ASEAN-4)⁴ contracted—declining a combined 1.0%. Countering these slowdowns, however, was continued expansion in the People's Republic of China (PRC), where GDP grew 6.1% in the first quarter. Still, despite the global recession, most of the region's economies have performed better during the current economic crisis than during the 1997/98 Asian financial crisis (**Table 1**). Moreover, available data on second quarter performance and some leading indicators suggest that the slowdown may have bottomed out. In the second quarter, PRC's growth increased to 7.9% while early estimates show that Singapore's economic contraction moderated to -3.7%. Industrial production growth has moved away from recent lows in Indonesia, Malaysia, Philippines, Thailand, and Viet Nam (**Figure 2**). In Indonesia, consumer confidence rose during the first 6 months of the year (**Figure 3**). And purchasing managers' indexes (PMI) in the PRC and Singapore have been on the rise as well in recent months (**Figure 4**).

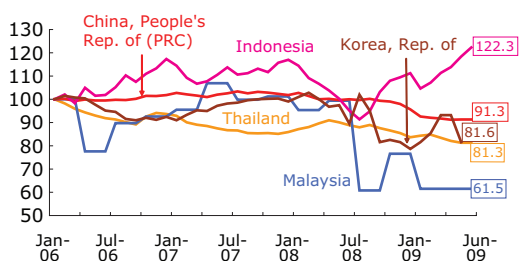
¹The 10 largest emerging East Asian economies are the People's Republic of China; Hong Kong, China; Indonesia; Republic of Korea; Malaysia; Philippines; Singapore; Taipei, China; Thailand; and Viet Nam.

²All growth figures are year-on-year unless otherwise indicated.

³Hong Kong, China; Republic of Korea; Singapore; and Taipei, China.

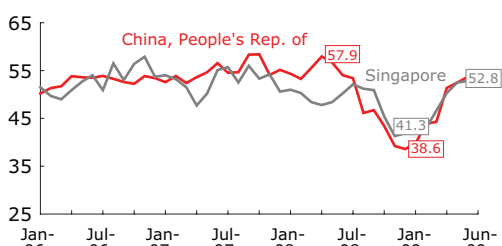
⁴Indonesia, Malaysia, Philippines, and Thailand.

Figure 3: Consumer Confidence Indexes—Selected Economies
(January 2006 = 100)



Notes: China Consumer Confidence Index for the PRC, Indonesia Consumer Confidence Index for Indonesia, South Korea Composite Consumer Sentiment Index (quarterly prior June 2008) for Republic of Korea, Malaysia Consumer Sentiments Index (quarterly) for Malaysia, and Thailand Consumer Confidence Index for Thailand.
Source: National Bureau of Statistics (People's Rep. of China), Bank Indonesia (Indonesia), Korea National Statistical Office and Bank of Korea (Republic of Korea), Malaysia Institute of Economic Research (Malaysia), and The University of the Thai Chamber of Commerce (Thailand).

Figure 4: Manufacturing Purchasing Managers' Indexes (PMI)¹—China, People's Rep. and Singapore



¹Seasonally adjusted. Series for the People's Republic of China and Singapore refer to manufacturing output PMI.
Source: Datastream.

Table 1: Quarterly GDP Growth Rate—Selected Economies¹

Country	Lowest		Latest ⁵
	1997Q1—1998Q4		2009Q1
China, People's Rep. of ²	7.20	(98Q2)	6.10
Hong Kong, China ³	-8.06	(98Q3)	-7.79
Indonesia	-18.26	(98Q4)	4.37
Korea, Rep. of	-8.12	(98Q3)	-4.25
Malaysia ⁴	-11.18	(98Q4)	-6.17
Philippines	-2.42	(98Q4)	0.45
Singapore	-4.20	(98Q3)	-9.6
Taipei, China	3.31	(98Q4)	-10.24
Thailand	-13.92	(98Q3)	-7.11

GDP = gross domestic product.
¹Excludes Brunei Darussalam; Cambodia; Lao PDR; and Viet Nam for which quarterly data are not available. ²Year-on-year, year-to-date growth rate. ³1998 growth rate based on 1993 prices. ⁴1998 growth rate based on 1987 prices. ⁵Based on 2000 prices.
Source: CEIC

The collapse in external demand hurt economic growth across the region.

The synchronized recession in advanced economies led to a collapse in external demand across the region, with all economies suffering double-digit declines in exports (**Figures 5a, 5b**). The worst-hit economies generally were those most reliant on international markets (**Figure 6**).

Domestic investment and consumption declined in the NIEs and ASEAN-4, while they held up well in the PRC, in part, due to the sizable fiscal stimulus.

The poor global economic environment also caused investment to fall dramatically in the NIEs and ASEAN-4. The NIEs were particularly hard hit, with investment falling 15.3% in the first quarter of 2009. ASEAN-4 economies did not suffer as badly, with investment declining 5.3% over the same period. Domestic consumption was also weak—falling 2.3% in the NIEs—as consumers cut back on spending. In the PRC, however, while growth in domestic demand slowed somewhat, it remained relatively robust compared with the rest of the region (**Figures 7a, 7b**).

Figure 5a: Export Growth¹—NIEs
(USD value, y-o-y, %)

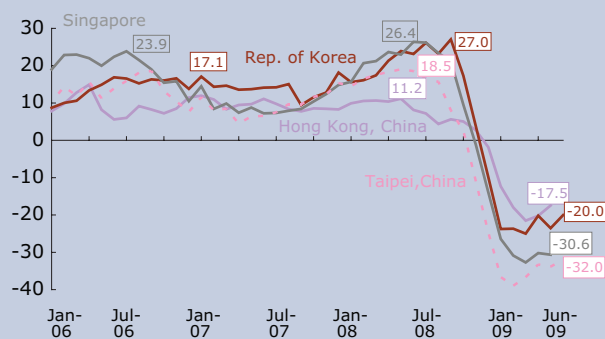
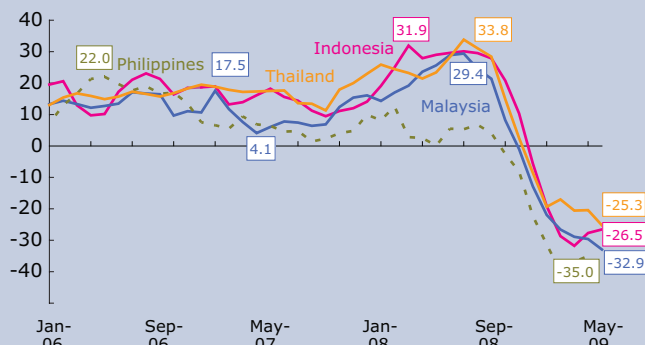
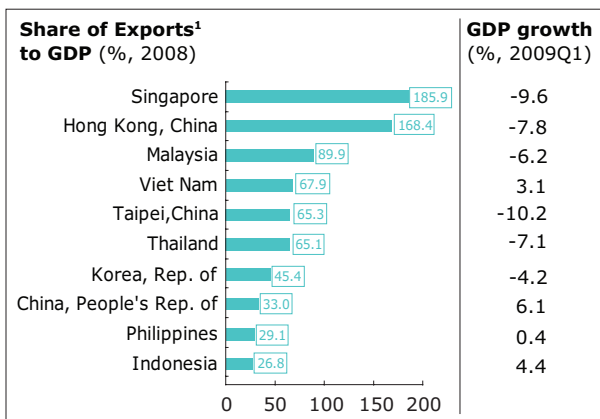


Figure 5b: Export Growth¹—ASEAN-4
(USD value, y-o-y, %)



y-o-y = year-on-year.
¹3-month moving average of merchandise exports.
Source: OREI staff calculations based on CEIC data.

Figure 6: Exports Share and GDP Growth—Emerging East Asia



¹Merchandise exports.
GDP = gross domestic product.
Source: CEIC; International Monetary Fund's *Direction of Trade Statistics*, *International Financial Statistics*, and *World Economic Outlook*; Datastream.

Economic contraction in the NIEs was the worst since the 1997/98 Asian financial crisis due to the precipitous drop in exports and weak domestic demand.

The collapse in global demand led to a dramatic slowdown in NIEs exports during the first 5 months of the year. Along with the precipitous drop in domestic demand, industrial production fell sharply (**Figure 8**). However, the pace of the decline has begun to moderate. The worst-hit economies were Taipei, China and Singapore, where GDP in the first quarter fell by 10.2% and 9.6%, respectively. Double-digit declines in fixed investments and exports contributed to the steep fall in Taipei, China's GDP. Hong Kong, China's economy also continued to shrink in the first quarter of 2009, declining 7.8%, with both external and domestic demand contracting. Meanwhile, the Republic of Korea's (Korea) economy contracted 4.2% in the first quarter of 2009—however, the decline may have stopped as the economy grew 0.5% (seasonally adjusted annualized rate) compared with the last quarter of 2008. Collectively, economic growth in the NIEs has declined more than during the 1997/98 Asian financial crisis, although the pace of decline has been less steep (**Figure 9a**).

Figure 7a: Domestic Demand Growth—NIEs
(y-o-y, %)

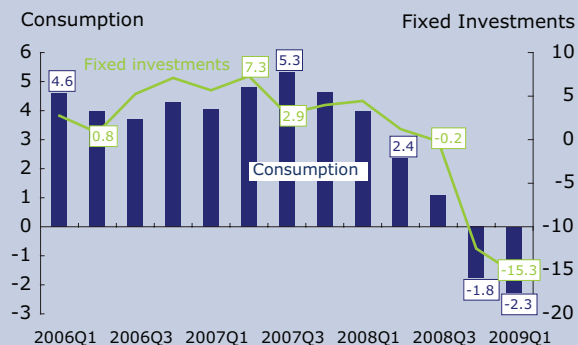
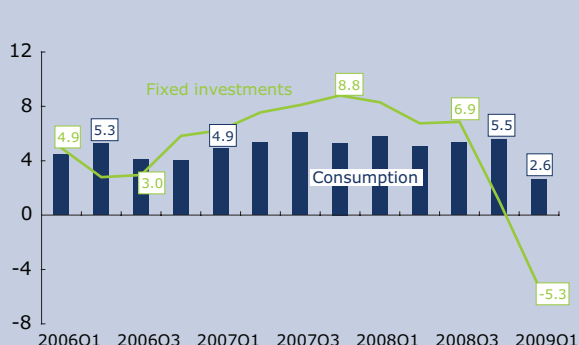
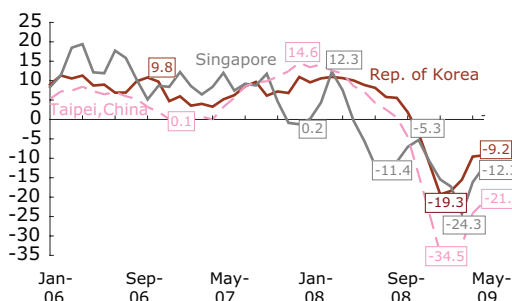


Figure 7b: Domestic Demand Growth—ASEAN-4
(y-o-y, %)



y-o-y = year-on-year; NIEs = Hong Kong, China; Korea, Rep. of; Singapore; and Taipei,China; ASEAN-4 = Indonesia, Malaysia, Philippines, and Thailand.
Source: OREI staff calculations based on CEIC data.

Figure 8: Industrial Production Growth¹—NIEs
(y-o-y, %)



¹3-month moving average.
Source: OREI staff calculations based on CEIC data.

Growth in ASEAN-4 economies also slowed due to falling exports and weakness in domestic demand, though the extent of the slowdown was less than among the NIEs.

The four middle-income ASEAN economies (Indonesia, Malaysia, Philippines, and Thailand) contracted 1.0% in the first quarter. Malaysia and Thailand had the largest declines, with GDP contracting by 6.2% and 7.1%, respectively. Both countries suffered from a double-digit fall in exports (see Figure 5b). Also, the Thai economy reacted to political unrest that hurt tourism, investment, and consumer confidence. Private consumption in Malaysia declined by 0.7% as the economic retrenchment sapped consumer confidence. The global downturn also affected growth in Indonesia and the Philippines. However, with both countries less reliant on exports than many of their emerging East Asian neighbors, their respective slowdowns were not as dramatic. Indonesia’s economy was helped by strong growth in private consumption—up 5.8% from the previous quarter’s 4.8% increase—due, in part, to election-related spending. In line with the slowdown in economic activity, industrial production declined for all ASEAN-4 economies except Indonesia (see Figure 2). To date, ASEAN-4 economies have been affected much less by the current crisis than during 1997/98 (**Figure 9b**).

Figure 9a: GDP Growth during Crisis Periods—NIEs¹ (quarterly, % change)

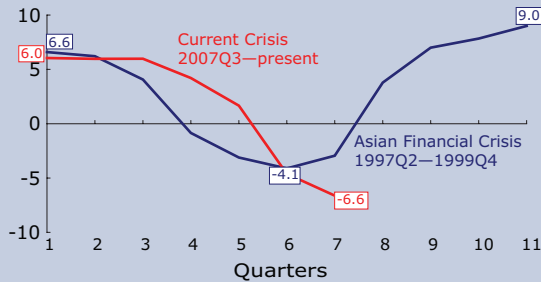
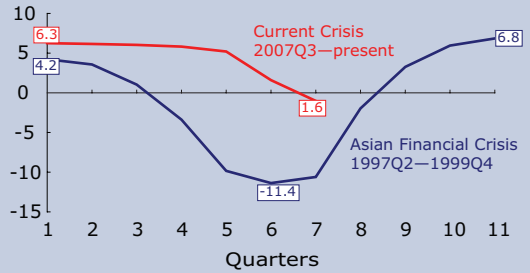


Figure 9b: GDP Growth during Crisis Periods—ASEAN-4² (quarterly, % change)



¹Newly industrialized economies (NIEs) refers to Hong Kong, China; Korea, Republic of; Singapore; and Taipei, China. ²Refers to Indonesia, Malaysia, Philippines, and Thailand. GDP growth rates for Indonesia and Malaysia during the Asian Financial Crisis are based on 1993 and 1987 prices, respectively. Growth rates for the current crisis are based on 2000 prices. Source: OREI staff calculations based on data from national sources.

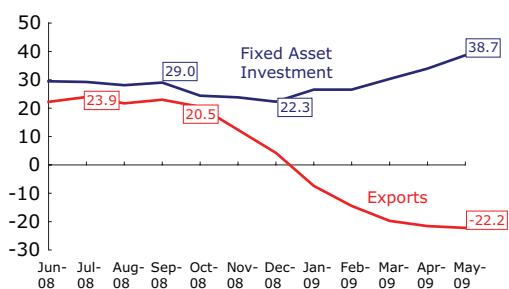
The smaller ASEAN economies performed better than their larger ASEAN partners as they are less dependent on external demand.

Viet Nam’s economic growth continued to slow to 3.1% in the first quarter of 2009—the lowest level of growth in a decade. However, growth picked up in the second quarter to 4.4%. Cambodia’s GDP grew 6.5% in 2008, lower than the 10.2% growth rate in 2007. In the Lao People’s Democratic Republic (Lao PDR), GDP growth was 7.2% in 2008 on the back of continued growth in the mining and hydropower sectors. GDP in Brunei Darussalam is estimated to have contracted by 2.7% in 2008 as a result of lower oil and gas output. Estimates suggest that Myanmar’s GDP growth slowed to between 0.9% and 4.5% in fiscal year (FY) 2008 from the official growth figure of 11.9% for FY 2007.

Growth slowed in the PRC as well, yet the huge fiscal stimulus helped cushion a massive decline in exports and enabled the country to maintain robust growth.

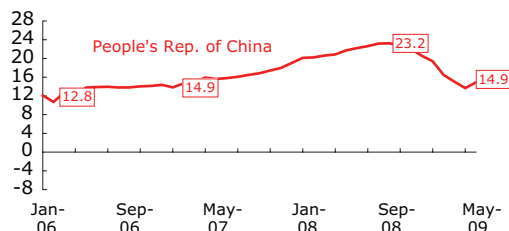
Amid the slowdown across most of emerging East Asia, the PRC remains a major bright spot as it continued to grow at a healthy rate during the first half of the year. GDP growth continued its 2-year moderation from its 14% peak in the second quarter of 2007. The 6.1% GDP growth in the first quarter of 2009 was the lowest since the introduction of quarterly GDP figures in the

Figure 10: Fixed Asset Investment and Exports¹—PRC (y-o-y growth, %)



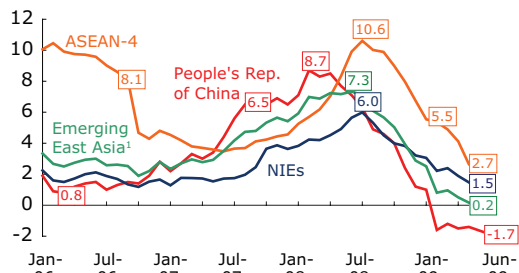
PRC = People's Republic of China, y-o-y = year-on-year.
¹3-month moving average of merchandise exports.
 Source: OREI staff calculations based on CEIC data.

Figure 11: Retail Sales Growth¹—PRC (y-o-y, %)



¹3-month moving average.
 PRC = People's Rep. of China
 Source: OREI staff calculations based on CEIC data.

Figure 12: Regional Inflation—Headline Rates (y-o-y, %)



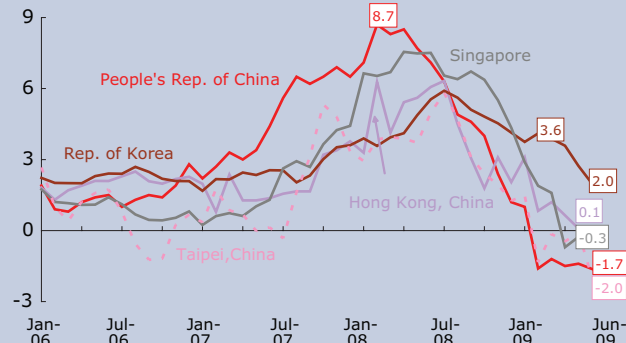
ASEAN-4 = Indonesia, Malaysia, Philippines, and Thailand;
 NIEs = Hong Kong, China; Korea, Rep. of; Singapore; and Taipei, China; y-o-y = year-on-year.
¹Refers to ASEAN-4, NIEs, People's Republic of China, and Viet Nam.
 Source: OREI staff calculations based on CEIC data.

fourth quarter of 1999. But growth performance improved in the second quarter, increasing by 7.9%. Like other East Asian economies, however, PRC exports were badly affected by the plunge in external demand, falling 22.2% in May. However, continued strong growth in fixed-asset investment, which was given added impetus by the government's massive stimulus package, managed to offset the effects of declining exports. Fixed-asset investment growth accelerated to 38.7% in May this year, compared with 25.4% in May 2008 (**Figure 10**). However, consumer demand, as reflected by retail sales growth, weakened to 13.7% in April before rising again to 14.9% in May (**Figure 11**).

The slowdown in growth, coupled with lower oil and food prices, contributed to a continued decline in inflation across the region.

In line with the slowdown in demand, headline inflation continued to decline in all of the region's economies. From February to June 2009, in fact, PRC prices deflated by an average of about 1.5%, continuing their decline from the 8.7% inflation reached in early 2008 (**Figure 12**). Headline inflation also declined in the NIEs, with Taipei, China and Singapore, whose economies contracted the most among the NIEs, experiencing deflation over the past few months (**Figure 13a**). Weaker demand also led to lower inflation throughout ASEAN (**Figure 13b**). Thai prices deflated for the sixth straight month in June. After reaching a peak of 28.3% in August 2008, inflation in Viet Nam fell to 3.9% in June. Lower oil and commodity prices compared with last year's record levels helped contribute to the slowdown. Core inflation continued to fall in emerging East Asia during the first 6 months of 2009. The drop was most significant in Malaysia, with core inflation at 0.4% in May, compared with the third quarter 2008 peak of 9.6%. Core inflation turned negative in May in Thailand due to weak demand (**Figures 14a, 14b**).

Figure 13a: Inflation in NIEs and PRC—Headline Rates (y-o-y, %)



PRC = People's Republic of China, y-o-y = year-on-year.
Source: OREI staff calculations based on CEIC data.

Figure 13b: Inflation in Selected ASEAN Economies—Headline Rates (y-o-y, %)

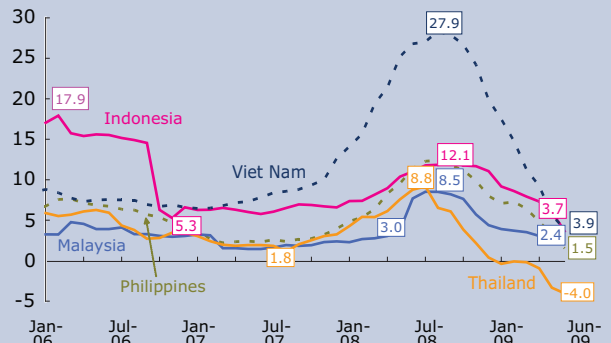
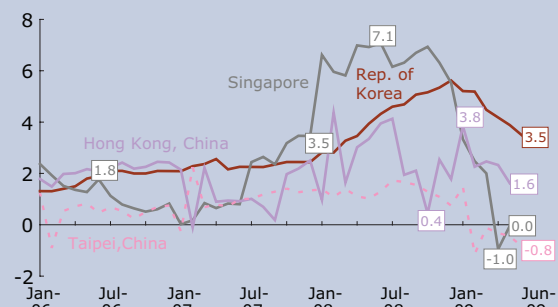


Figure 14a: Core Inflation Rates—NIEs (y-o-y, %)



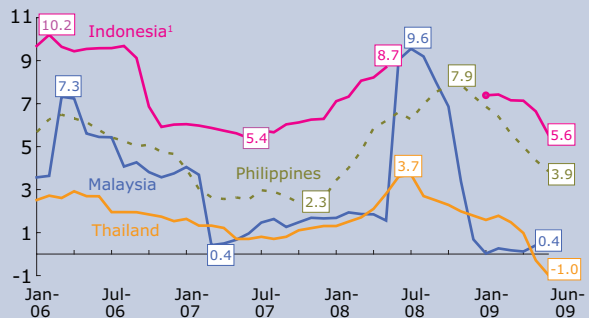
y-o-y = year-on-year.

Note: Official figures, except for Hong Kong, China (excluding food, and utilities); Singapore (excluding food, and private transport); and Malaysia (excluding food, fuel, and utilities).

¹Series break due to inavailability of data.

Source: OREI staff calculations based on CEIC data.

Figure 14b: Core Inflation Rates—ASEAN-4 (y-o-y, %)



Balance of Payments

The balance of payments turned positive again across much of the region in the first quarter of 2009, as current account surpluses increased and capital outflows moderated.

Balance of payments as a percentage of GDP grew substantially across the region in the first quarter of the year (**Tables 2a, 2b, 2c**). While the global economic slowdown led to a collapse in exports for most emerging East Asia economies, imports fell much faster—due to weaker domestic demand and reduced trade in intermediate inputs. As a result, the current account surplus widened in the first quarter of 2009. With the financial sector showing signs of stabilizing and investors once again confident about investing in the region, capital that had been repatriated in the second half of 2008 began to return. Some countries saw net inflows of portfolio investment, while in others the rate of portfolio outflows moderated. Foreign exchange reserves increased in most emerging East Asian economies as authorities sterilized excess inflows to manage currency appreciation pressures (**Table 3**).

Table 2a: Balance of Payments—ASEAN-4 (% of GDP)

	2000– 2004 Average	2004	2005	2006	2007	2008	2008- Q1	2008- Q2	2008- Q3	2008- Q4	2009- Q1
Current Account	4.2	3.3	2.2	5.3	6.2	3.7	5.0	3.8	2.9	3.1	8.6
Net goods balance	9.7	8.4	6.8	8.8	8.6	5.9	6.8	7.1	5.2	4.4	8.7
Net services	-3.3	-2.7	-2.8	-2.4	-1.7	-1.3	-1.4	-2.1	-0.9	-0.8	0.3
Net income	-3.6	-3.7	-3.8	-3.1	-2.6	-2.6	-2.0	-3.0	-3.1	-2.4	-2.4
Net transfers	1.4	1.4	2.1	2.0	1.8	1.7	1.7	1.8	1.6	1.9	1.9
Capital and Financial Account	-1.8	1.0	0.2	-0.3	-0.7	-2.0	7.1	-0.9	-5.3	-9.2	-3.7
Capital account ¹	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0
Net direct investment	0.9	1.1	2.2	1.5	0.6	0.2	0.1	0.4	-0.9	1.3	2.1
Net portfolio investment	0.2	2.3	1.4	1.7	0.9	-2.6	5.1	-2.5	-6.8	-5.9	-0.7
Net other investment	-2.9	-2.4	-3.4	-3.6	-2.2	0.3	1.8	1.2	2.3	-4.6	-5.1
Net errors & omissions	-0.4	-0.3	-1.0	-0.4	-0.4	0.0	0.6	-0.6	-0.6	0.7	0.7
Overall Balance	2.0	4.0	1.3	4.5	5.1	1.6	12.7	2.3	-3.0	-5.4	5.5

ASEAN-4 = Indonesia; Malaysia; Philippines; Thailand; GDP = gross domestic product.

¹Capital account records acquisitions less disposals of non-financial assets by resident units and measures the change in net worth due to saving and capital transfers.

Source: *International Financial Statistics Online*, International Monetary Fund; and CEIC.

Table 2b: Balance of Payments—NIEs (% of GDP)

	2000– 2004 Average	2004	2005	2006	2007	2008	2008- Q1	2008- Q2	2008- Q3	2008- Q4	2009- Q1
Current Account	5.3	6.4	5.2	5.1	5.7	4.3	3.8	3.8	2.4	7.9	9.0
Net goods balance	4.9	5.9	5.6	4.9	4.9	2.0	1.4	2.8	0.7	3.2	5.2
Net services	0.4	0.6	0.5	0.6	0.8	1.5	1.0	1.0	1.2	3.2	2.5
Net income	0.6	0.5	-0.2	0.2	0.6	1.4	2.0	0.7	1.1	1.6	1.5
Net transfers	-0.7	-0.7	-0.7	-0.7	-0.6	-0.5	-0.6	-0.7	-0.6	-0.1	-0.2
Capital and Financial Account	-1.2	-1.1	-2.5	-2.8	-6.9	-3.6	0.9	-2.3	-5.7	-7.9	-1.2
Capital account ¹	-0.2	-0.2	-0.2	-0.2	-0.1	0.1	-0.1	0.0	0.2	0.3	0.5
Net direct investment	0.5	-0.3	0.8	0.5	-0.7	-0.3	0.4	-2.9	-0.2	1.9	2.0
Net portfolio investment	-2.7	-3.2	-2.6	-4.5	-4.7	-5.2	-8.2	-1.7	-4.1	-7.1	0.9
Net other investment	1.3	2.5	-0.4	1.4	-1.4	1.9	8.8	2.4	-1.6	-2.9	-4.6
Net errors & omissions	0.6	1.0	1.0	0.7	3.6	0.2	0.4	-0.8	1.0	0.2	0.5
Overall Balance	4.7	6.3	3.7	3.1	2.5	1.0	5.1	0.7	-2.3	0.2	8.2

NIEs = Hong Kong; China; Republic of Korea; Singapore; Taipei, China; GDP = gross domestic product

¹Capital account records acquisitions less disposals of non-financial assets by resident units and measures the change in net worth due to saving and capital transfers.

Source: *International Financial Statistics Online*, International Monetary Fund; CEIC; and national sources.

Table 2c: Balance of Payments—People's Rep. of China (% of GDP)

	2000– 2004 Average	2004	2005	2006	2007	2008	2008H1	2008H2
Current Account	2.6	3.6	7.2	9.5	11.3	9.8	10.0	9.7
Net goods balance	3.2	3.1	6.0	8.2	9.6	8.3	6.9	9.4
Net services	-0.5	-0.5	-0.4	-0.3	-0.2	-0.3	-0.2	-0.4
Net income	-1.0	-0.2	0.5	0.6	0.8	0.7	2.0	-0.3
Net transfers	1.0	1.2	1.1	1.1	1.2	1.1	1.3	0.9
Capital and Financial Account	3.0	5.7	2.8	0.3	2.2	0.4	3.8	-2.2
Capital account ¹	0.0	0.0	0.2	0.2	0.1	0.1	0.1	0.1
Net direct investment	3.3	2.8	3.0	2.1	3.7	2.2	2.1	2.2
Net portfolio investment	-0.2	1.0	-0.2	-2.5	0.6	1.0	1.0	0.9
Net other investment	0.0	2.0	-0.2	0.5	-2.1	-2.8	0.5	-5.4
Net errors & omissions	0.4	1.4	-0.7	-0.5	0.5	-0.6	0.9	-1.8
Overall Balance	6.0	10.7	9.2	9.3	14.0	9.7	14.7	5.7

GDP = gross domestic product.

¹Capital account records acquisitions less disposals of non-financial assets by resident units and measures the change in net worth due to saving and capital transfers.

Source: *International Financial Statistics Online*, International Monetary Fund; and CEIC.

Table 3: Foreign Exchange Reserves (excluding gold)

	Value (USD billion)				% Change (y-o-y)			% Change (m-o-m)		
	Jun-08	Sep-08	Dec-08	Mar-09	Sep-08	Dec-08	Mar-09	Jan-09	Feb-09	Mar-09
Brunei Darussalam	0.7	0.7	0.7 ³	—	15.3	4.5 ³	—	—	—	—
Cambodia	2.3	2.4	2.3	2.4	53.3	26.8	14.4	-0.1	0.3	2.4
China, People's Rep. of	1,811.1	1,907.7	1949.3	1956.8	32.9	27.4	16.2	-1.7	-0.1	2.2
Hong Kong, China	157.5	160.5	182.5	186.2	14.0	19.6	15.9	-0.5	-2.5	5.2
Indonesia	57.3	55.0	49.6	52.7	7.5	-9.8	-7.3	-1.7	-0.8	8.9
Korea, Republic of	258.0	239.6	201.1	206.3	-6.9	-23.3	-21.9	0.3	-0.1	2.4
Lao PDR	0.7 ³	—	—	—	—	—	—	—	—	—
Malaysia	125.5	109.4	91.1	87.4	11.8	-9.9	-27.1	-0.1	-0.3	-3.6
Myanmar	—	—	—	—	—	—	—	—	—	—
Philippines	32.7	32.9	33.2	34.5	17.9	9.9	5.2	4.5	-1.3	0.8
Singapore	176.7	168.8	174.2	166.1	10.7	6.9	-6.4	-4.1	-2.1	1.6
Taipei, China	291.4	281.1	291.7	300.1	6.9	7.9	4.6	0.3	0.5	2.0
Thailand	103.2	100.0	108.7	113.7	27.1	27.5	5.8	-0.4	2.3	2.7
Viet Nam	22.3	23.8	23.9	22.7 ³	5.6	1.8	-12.3 ³	-4.4	-0.8	—
Emerging East Asia	3,039.3¹	3,082.0²	3,108.1²	3,128.9⁴	21.8²	16.2²	7.2⁴	-1.3⁴	-0.2⁴	1.5⁵
Japan	978.7	974.1	1,009.4	996.0	5.0	5.9	0.3	-2.1	-0.2	1.0
East Asia	4,018.0¹	4,056.2²	4,117.5²	4,124.9⁴	17.3²	13.5²	5.5⁴	-1.5⁴	-0.2⁴	1.4⁵

m-o-m = month-on-month, y-o-y = year-on-year, — = data not available

¹Excludes Myanmar as data are unavailable. ²Excludes Lao People's Democratic Republic (PDR) and Myanmar as data are unavailable. ³If data is unavailable for reference month, data is for most recent month in which data is available. ⁴Excludes Brunei Darussalam, Lao PDR, and Myanmar as data are unavailable. ⁵Excludes Brunei Darussalam, Lao PDR, Myanmar, and Viet Nam as data are unavailable.

Source: *International Financial Statistics Online*, International Monetary Fund; and CEIC.

Current account surpluses increased across much of the region as imports declined faster than exports.

The PRC's overall trade surplus increased to \$88.8 billion in the first 5 months of 2009 from \$76.7 billion in the first 5 months of 2008, as imports fell more dramatically than exports. However, in June, imports picked up, resulting in a trade surplus for the first half of 2009 of \$97 billion, down slightly from \$97.5 billion in the first half of 2008. The NIEs also experienced large drops in exports. However, with the exception of Hong Kong, China and Singapore, the pace of the decline of imports was faster than that of exports, resulting in larger trade surpluses. The situation was similar among ASEAN-4 economies, except for the Philippines, as they experienced faster declines in imports and thus higher trade surpluses. As a result, the current account balance for both the ASEAN-4 and NIEs widened in the first quarter of 2009.

In the first quarter of 2009, the capital account and financial account showed a smaller deficit in much of emerging East Asia as capital outflows moderated significantly.

Capital inflows to the PRC continued in 2009, as foreign reserves increased by \$185.6 billion in the first half of the year compared with an increase of \$137.2 billion in the second half of 2008. The bulk of the increase, \$177.9 billion, came in the second quarter. The NIEs capital and financial account showed a much smaller deficit in the first quarter of 2009 as portfolio investment flowed in again after a huge outflow in the fourth quarter of 2008. Similarly, the ASEAN-4 economies also recorded a smaller deficit in their capital accounts as portfolio investment outflows moderated significantly. Despite the economic turmoil, foreign direct investment has continued to flow into the NIEs and ASEAN-4 economies in the first quarter of 2009.

Financial Markets and Exchange Rates

Stock markets rebounded strongly in the first half of 2009, with the MSCI AC (All Country) Asia ex Japan Index rising 68% over its November 2008 trough.

Figure 15: Composite Stock Price Indexes
(last daily price, 2 January 2008 = 100, local index)



¹Daily stock price indexes of Hang Seng (Hong Kong, China); JCI (Indonesia); KOSPI (Korea); KLCI (Malaysia); PCOMP (Philippines); STI (Singapore); TWSE (Taipei, China); and SET (Thailand); weighted by market capitalization.

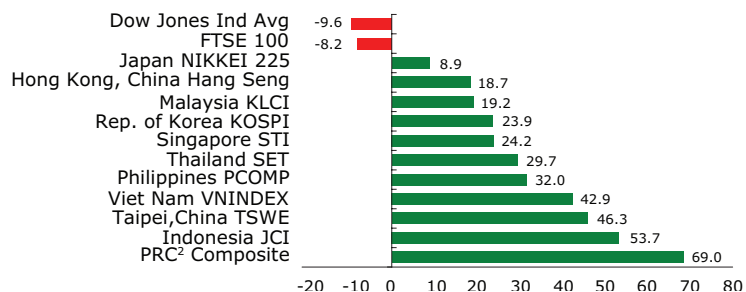
²Daily stock price indexes of combined Shanghai and Shenzhen Composite, weighted by their respective market capitalization (PRC).

Source: OREI staff calculations based on Reuters and Bloomberg data.

Financial markets appear to have stabilized in emerging East Asia as stock markets in the region rebounded strongly showing some return of risk appetite. The MSCI AC (All Country) Asia ex Japan Index⁵ was up 68% compared with last November. Through 7 July, the PRC’s composite stock market index increased 69.0% for the year (**Figures 15, 16**). The gain likely reflects the effects of the PRC’s huge fiscal stimulus package. In contrast to the strong performance in emerging East Asia, the Dow Jones Industrial Average and the FTSE 100 both declined over the same period. Despite the rebound across emerging East Asian equity markets, they remain below their levels at the beginning of 2008 (**Figures 17a, 17b**).

⁵Includes People’s Republic of China; Hong Kong, China; India; Indonesia; Republic of Korea; Malaysia; Philippines; Singapore; Taipei, China; and Thailand.

Figure 16: Stock Price Indexes¹
(2 January 2009 to 7 July 2009, % change)



¹Latest closing as of 7 July 2009. ²People's Republic of China (PRC)
Source: OREI staff calculations based on data from Reuters and Bloomberg.

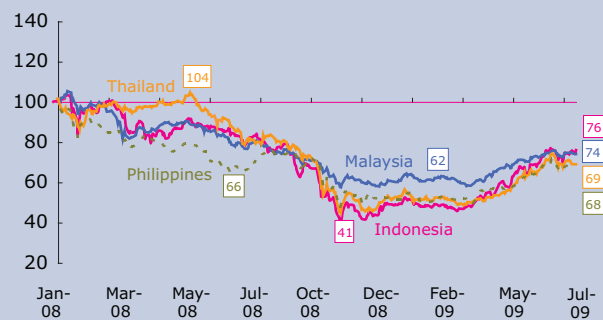
Several currencies in the region appreciated against the US dollar as investors' risk appetite has gradually returned.

Another sign that financial markets have stabilized in the region is that most regional currencies strengthened against the US dollar during the first half of the year. The Korean won reversed its decline and appreciated by 3.7% against the dollar on the back of a current account surplus and stronger-than-expected economic growth (**Figure 18**). The Indonesian rupiah also appreciated in 2009 (6.9%), while the Vietnamese dong depreciated 1.8% as the State Bank of Viet Nam allowed it to weaken to make exports more competitive (**Figures 19a, 19b**). Meanwhile, the Philippine peso and Malaysian ringgit depreciated against the

Figure 17a: Composite Stock Price Indexes—NIEs¹
(last daily price, 2 January 2008 = 100, local index)

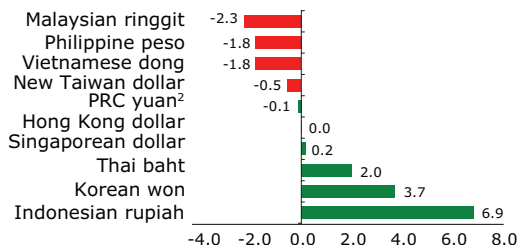


Figure 17b: Composite Stock Price Indexes—ASEAN-4¹
(last daily price, 2 January 2008 = 100, local index)



¹Daily stock price indexes of Hang Seng (Hong Kong, China); KOSPI (Korea); STI (Singapore); and TWSE (Taipei,China); JCI (Indonesia), KLCI (Malaysia), PCOMP (Philippines); and SET (Thailand).
Source: OREI staff calculations based on Reuters data.

Figure 18: Regional Currencies¹
(2 January 2009 to 7 July 2009, % change)



¹Latest closing as of 7 July 2009, based on the USD value of local currency. Negative values indicate depreciation of local currency.
²PRC = People's Republic of China
Source: OREI staff calculations based on Reuters ata.

dollar in the first half of the year, as the Malaysian and Philippine economies are weaker than other economies in the region.

Bond yield curves for most emerging East Asian markets shifted upward and steepened in recent months, a reaction to several factors, including a possible sign of investors' confidence that recovery is in the offing.

Bond yield curves have shifted upward in most emerging East Asian markets in the year through 7 July. However, they remain below their 15 September 2008 levels (the day Lehman Brothers collapsed). Yield curves have also steepened for most economies in the region. The upward movement and steepening of the yield curves this year could be due to several factors, including (i) additional market liquidity as governments issue new debt to finance fiscal stimulus; (ii) expectations that the new liquidity could add to future inflationary pressures; and (iii) improved investor expectations about economic recovery. In the PRC and Korea, where economic growth has been strong, there has been a significant upward shift and a slight steepening in the bond yield curves. In Malaysia and Thailand, concerns about the size of fiscal deficits may have caused the yield curves to steepen significantly as well as pushing them upward. **(Figures 20a, 20b, 20c, 20d).**

Figure 19a: Exchange Rate Indexes—NIEs and PRC
(local currency vis-à-vis USD, 2 January 2008 = 100)



Source: OREI staff calculations based on Reuters data.

Figure 19b: Exchange Rate Indexes—ASEAN-4
(local currency vis-à-vis USD, 2 January 2008 = 100)

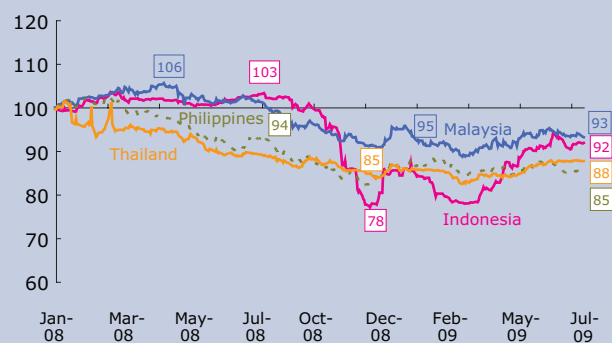


Figure 20a: Benchmark Yields—China, People’s Republic of (% per annum)

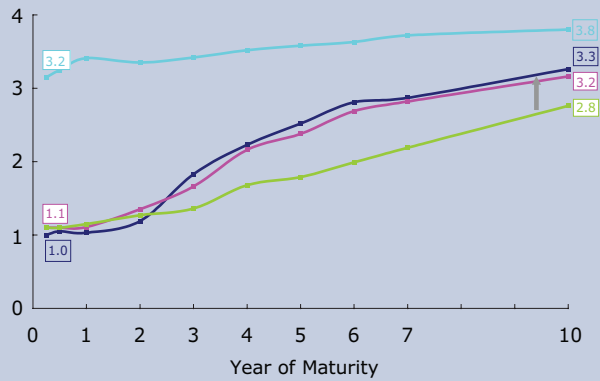


Figure 20b: Benchmark Yields—Korea, Rep. of (% per annum)

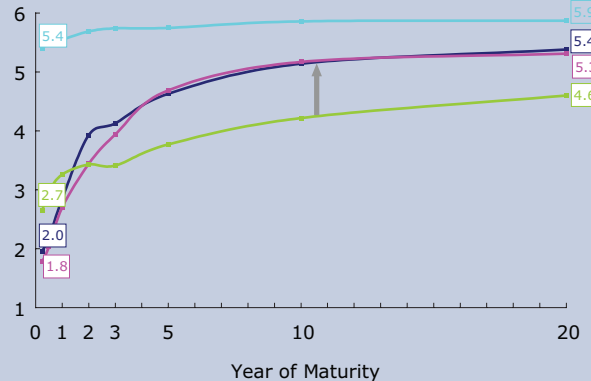


Figure 20c: Benchmark Yields—Malaysia (% per annum)

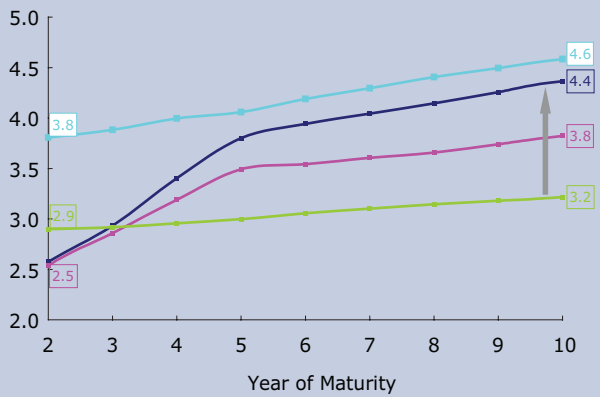
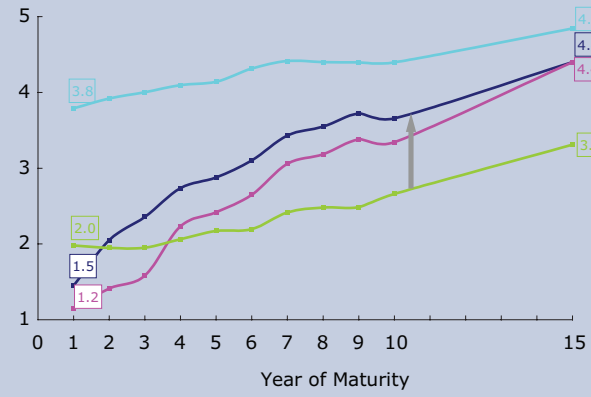


Figure 20d: Benchmark Yields—Thailand (% per annum)



7-Jul-2009 31-Mar-2009 31-Dec-2008 30-Sep-2008

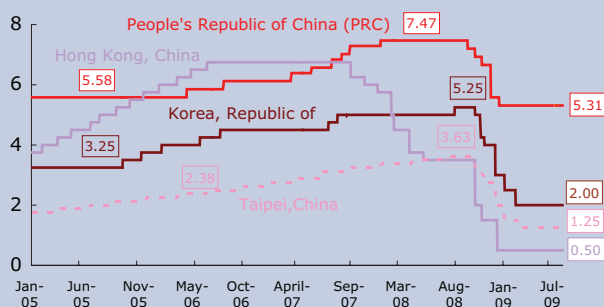
Source: Bloomberg

Monetary and Fiscal Policy

With growth slowing and inflation falling, authorities continued to ease monetary and fiscal policies.

The main concern facing monetary authorities in emerging East Asia is how to reverse the economic slowdown. Central banks have continued to aggressively reduce policy rates in response (**Figures 21a, 21b**). They have also introduced a variety of other measures to increase liquidity in the banking system and to encourage banks to expand lending.

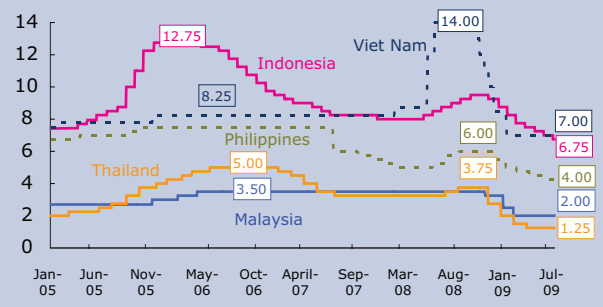
Figure 21a: Policy Rates¹—PRC; Hong Kong, China; Korea, Rep. of; Taipei,China
(% per annum)



Note: ¹Hong Kong base rate (Hong Kong, China); Korea base rate (Republic of Korea); 1-year lending rate (People's Republic of China); discount rate (Taipei, China); State Bank of Indonesia (SBI) rate before July 2005 and Bank Indonesia (BI) rate from July 2005 onwards (Indonesia); overnight policy rate (Malaysia); reverse repurchase (repo) rate (Philippines); 14-day repo rate before 17 Jan 2007 and 1-day repo rate from 17 Jan 2007 onwards (Thailand); prime rate (Viet Nam).

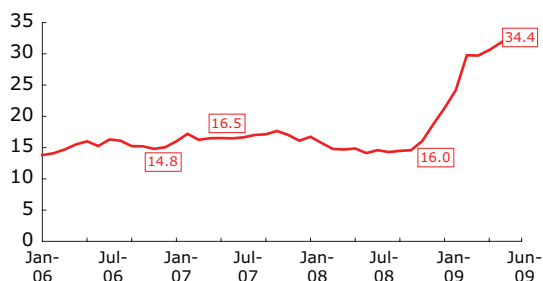
Source: Bloomberg and Datastream.

Figure 21b: Policy Rates¹—ASEAN-4 and Viet Nam
(% per annum)



Favorable monetary conditions in the PRC have seen bank lending surge in the first half of 2009, while the NIEs have also continued to ease monetary policies to jump-start economic growth.

Figure 22: Bank Lending Growth—China, People's Rep. of (% , y-o-y)



y-o-y = year-on-year.
Data refers to financial institution loans
Source: CEIC; People's Bank of China.

The PRC's monetary policy remains accommodative as the export decline and deflation led monetary authorities to stimulate growth. While policy rates were not reduced in the first half of the year, the lifting of credit quotas in 2008 resulted in a surge of bank lending (34.4% year-on-year in June) (Figure 22). Among the NIEs, Taipei, China aggressively cut its policy rate twice since the start of 2009, bringing it to a record low of 1.25%. Korea has also cut its policy rate twice this year, bringing it to 2.0%. Hong Kong, China has introduced a variety of measures to provide liquidity support, including a HK\$227 billion currency swap agreement with the People's Bank of China. Since its policy shift in October 2008, the Monetary Authority of Singapore has maintained its 0% appreciation target, while keeping its trading band unchanged.

ASEAN economies have also reduced policy rates to stimulate economic growth.

As inflationary pressures moderate, ASEAN countries had plenty of room to reduce interest rates. Bank Indonesia reduced its policy rate seven times since the beginning of 2009—from

9.25% to a record low of 6.75%—to stimulate economic growth. Bangko Sentral ng Pilipinas (BSP) also took a gradual approach to cutting its policy rate—reducing it five times so far this year—from 5.5% to 4.0%. In contrast to the gradual approach taken by Indonesian and Philippines authorities, the State Bank of Viet Nam slashed its interest rate by 150 basis points at the end of January 2009. The Bank of Thailand cut its 1-day repo rate twice during the first half of the year to a 5-year low of 1.25%, while the overnight policy rate was cut twice in Malaysia—from 3.25% to 2.0%.

The PRC is implementing a sizable fiscal stimulus package, which was first announced in November 2008, while the NIEs have also introduced a variety of fiscal measures to cushion the external demand shock.

As a result of the 2-year stimulus package worth CNY4 trillion, the PRC's fiscal deficit is expected to rise from 0.4% of GDP in 2008 to 3.0% in 2009. While the government has not announced additional policy measures, it remains committed to spending more on stimulus if necessary. The fiscal stimulus is credited with helping the PRC's economy maintain growth amid a collapse in exports. However, there are concerns that local authorities in the PRC may not be able to spend the stimulus money effectively. Meanwhile, Hong Kong, China announced plans in February to spend HK\$1.6 billion to generate 62,000 jobs and internships over 3 years. In May, authorities unveiled tax cuts and fee waivers totaling HK\$16.8 billion. In Korea, the Ministry of Strategy and Finance announced a supplementary budget in April worth \$13 billion to support job and welfare programs, credits and grants for exporters and small- and medium-sized businesses (SMEs), and subsidies to local governments. Singapore has also aggressively used fiscal measures, announcing in January that it would spend S\$20.5 billion, which is equivalent to 8.0% of GDP, to stimulate the economy. Taipei, China targeted consumers by distributing NT\$85.7 billion worth of consumer vouchers in January to encourage consumption.

Table 4: Fiscal Balance of Central Government (% of GDP)

	2000–2004 Average	2004	2005	2006	2007	2008	2009 ⁶
Cambodia ¹	-5.3	-4.5	-2.5	-2.7	-2.9	-1.7	-3.2
China, People's Rep. of ¹	-2.2	-1.3	-1.2	-0.8	0.6	-0.4	-3.0
Hong Kong, China ⁴	-2.4	1.6	1.0	3.9	7.5	0.1	-3.9
Indonesia	-1.2	-1.1	-0.2	-0.9	-1.2	0.0	-2.5
Korea, Rep. of ⁵	1.5	0.7	0.4	0.4	3.8	1.2	-2.2
Malaysia ²	-5.0	-4.1	-3.6	-3.3	-3.2	-4.8	-7.6
Philippines	-4.4	-3.8	-2.7	-1.1	-0.2	-0.9	-3.2
Singapore ^{1,4}	7.0	6.9	9.0	8.3	13.9	6.5	-3.5
Taipei, China ¹	-3.3	-2.4	-1.6	-0.7	-0.4	-1.4	-3.6
Thailand ⁴	-0.4	0.3	0.2	0.1	-1.1	-0.3	-3.5
Viet Nam ³	-4.5	-4.9	-4.9	-5.0	-4.9	-4.5	-4.8

¹Refers to general government balance. ²Refers to federal government balance. ³Refers to state budget balance. ⁴Fiscal year. ⁵Balance including social security funds. ⁶Budget deficit estimates in 2009 budgets of respective countries, except for Cambodia (International Monetary Fund projection); China, People's Rep. of (maximum government estimate); Philippines (revised government target), and Thailand (government estimate).

Sources: National sources; *Asian Development Outlook* (various issues), ADB; *Article IV reports*, International Monetary Fund; and CEIC.

Authorities across ASEAN have also introduced a variety of fiscal measures to stimulate their economies.

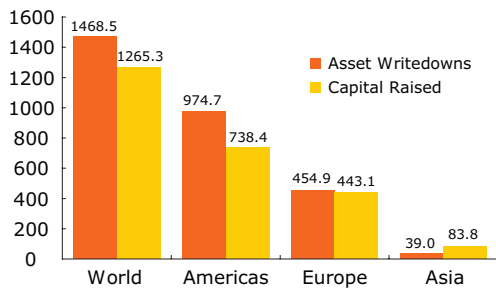
In an attempt to fend off recessionary pressures, ASEAN economies have introduced fiscal stimulus measures as well. In Indonesia, the government raised its budget deficit target to 2.5% of GDP from 1.0% to accommodate an Rp73.3 trillion stimulus package comprising tax incentives, pay increases, export guarantees, cash transfers, and increased government spending. Meanwhile, Thailand introduced its first supplemental stimulus package in mid-January worth B116 billion, which included cash handouts of B2,000 to low-income earners. This package was later supplemented by a B40 billion tax relief package. Finally, Malaysia unveiled a second stimulus package worth RM60 billion in March 2009 and raised its deficit target upward to 7.6% of GDP (**Table 4**).

Assessment of Financial Vulnerability

The region's banking systems appear capable of weathering the economic storm, being further supported by recent stability in global financial markets.

As the near-term outlook shows lessening signs of weakness, a repeat of the 1997/98 Asian financial crisis is unlikely, given the relatively sound macroeconomic fundamentals that have been built up across the region since then. Many emerging East Asian economies are expected to continue to have manageable fiscal and external positions despite the impact of the global economic crisis (**Table 5**). The region's banks have largely escaped massive write-downs related to holdings of toxic credit investments and the complete seizure of the interbank markets after the collapse of Lehman Brothers in September 2008. Of the \$1.5 trillion in write-downs reported globally since the subprime debacle began, only 2.7% (\$39 billion) have originated in Asia (**Figure 23**). Meanwhile, Asian banks have raised nearly twice that amount (\$83.8 billion) to bolster their capital positions. The new capital is not only replenishing depleted amounts, but also cushioning against potential losses arising from problematic loans during the current and any subsequent economic slowdowns. This is important as the market now demands a higher level of capital as a sign of bank strength and resilience.

Figure 23. Writedowns and Capital Raised by Major Banks since 2007Q3
(USD billion, as of 7 July 2009)



Source: Bloomberg.

With authorities' support, domestic interbank markets have returned to normal.

In addition, domestic interbank markets in Asia did not seize up as severely as their counterparts in developed countries. But there were some signs of stress in the money markets for local currencies in Singapore and Hong Kong, China; while in Korea, US dollar funding became even scarcer. However, interbank markets in all three of these economies saw a return to normality after additional liquidity injections, an expansion of liquidity facilities, a temporary blanket deposit guarantee, and liquidity swap operations with the US Federal Reserve. The gradual return of liquidity in global credit markets has also been helpful.

Table 5: Assessment of Vulnerability (%)

	Inflation (latest available)	Fiscal Balance/GDP (2008) ¹	Current Acct./GDP (latest available)	External Debt/GDP ² (4Q08)	Short-Term External Reserves (4Q08) ³	Govt. Debt/GDP (2008) ⁴	Foreign Reserves (number of months of imports) ⁵	Foreign Liabilities/Assets ⁶ (latest available)	Loans/Deposits of Banks ⁷ (latest available)
Brunei Darussalam	2.3 (Apr 09)	29.1	45.6 (2006)	7.9	62.4	—	3.4 (Dec 08)	3.6 (Jan 09)	0.73 (Jan 09)
Cambodia	-3.9 (Apr 09)	-1.7	-6.6 (4Q07)	16.1	5.8	26.8	8.8 (Feb 09)	98.8 (Mar 09)	0.97 (Mar 09)
China, People's Rep. of	-1.4 (May 09)	-0.4	9.7 (2H08)	4.0	5.4	—	22.4 (Mar 09)	22.5 (Apr 09)	0.71 (Apr 09)
Hong Kong, China	0.1 (May 09)	0.1	10.7 (1Q09)	173.9	57.7	1.3	6.4 (Apr 09)	63.0 (Mar 09)	0.44 (Mar 09)
Indonesia	3.7 (Jun 09)	0.0	1.6 (1Q09)	20.7	57.5	31.2	7.1 (Apr 09)	53.3 (Apr 09)	0.77 (Apr 09)
Korea, Republic of	2.0 (Jun 09)	1.2	5.1 (1Q09)	26.4	59.6	29.1	6.6 (Apr 09)	185.2 (Feb 09)	1.35 (Feb 09)
Lao PDR	3.2 (Dec 08)	-1.7	2.6 (2007)	46.5	30.3	53.3	3.4 (May 08)	31.6 (Apr 08)	0.35 (Apr 08)
Malaysia	2.4 (May 09)	-4.8	20.2 (1Q09)	27.0	29.1	41.4	7.6 (Apr 09)	124.2 (Apr 09)	0.92 (Apr 09)
Myanmar	12.7 (Feb 09)	—	5.5 (2006)	9.3	55.0	—	4.6 (Jun 07)	—	0.43 (Dec 08)
Philippines	1.5 (Jun 09)	-0.9	5.9 (1Q09)	36.0	28.1	63.6	8.4 (Apr 09)	54.6 (Apr 09)	0.81 (May 09)
Singapore	-0.3 (May 09)	6.5	10.2 (1Q09)	276.2	68.8	99.2	6.8 (Mar 09)	86.7 (Apr 09)	0.81 (Mar 09)
Taipei,China	-2.0 (Jun 09)	-1.4	14.6 (1Q09)	16.2	9.5	31.6	20.4 (Jun 09)	54.4 (Apr 09)	0.69 (May 09)
Thailand	-4.0 (Jun 09)	-0.3	14.8 (1Q09)	11.9	10.3	38.1	9.3 (May 09)	51.3 (Apr 09)	0.94 (Apr 09)
Viet Nam	3.9 (Jun 09)	-4.5	-19.2 (4Q07)	31.4	20.2	44.4	3.8 (Feb 09)	75.6 (Feb 09)	0.98 (Feb 09)

GDP = gross domestic product, — = not available

¹Data for Brunei Darussalam is primary budget balance estimate; for the Lao People's Democratic Republic (PDR), it is the overall balance (including grants) projection from IMF Article IV Consultation reports. Data for Cambodia; People's Republic of China; Singapore; and Taipei,China refer to general government balance; for Malaysia, it covers federal government balance; for the Republic of Korea, the balance includes social security funds; and for Viet Nam, it refers to state budget balance. Data for Hong Kong, China; Lao PDR; Singapore; and Thailand are on a fiscal year basis. ²Total external debt includes cross-border loans from the Bank for International Settlements (BIS) reporting banks and BIS reporting banks to nonbanks, total official bilateral loans, total multilateral loans, total official trade credits, and international debt securities as defined in the Joint External Debt Hub. Full year 2008 nominal GDP (US\$) was sourced from the International Monetary Fund's *World Economic Outlook*, April 2009. ³Short-term external debt includes loans and credits, and debt securities due within a year as defined in the Joint External Debt Hub. Total reserves data for Lao PDR as of 1Q08 and for Myanmar, as of 2Q07. ⁴Data for Cambodia is a projection, while data for Indonesia, Lao PDR, and Viet Nam are estimates from IMF Article IV Consultation reports. Data for Indonesia; the Republic of Korea; and Taipei,China cover central government debt; for Malaysia it covers federal government debt; and for the Philippines, it covers central government debt. ⁵Refers to reserves minus gold over a 12-month moving average of imports (cif). ⁶Indicator covers foreign liabilities and assets of banking institutions, deposit money banks, and other depository corporations of each country. ⁷Covers loans to the private sector and non-financial institutions; and deposits (demand, time, savings, foreign currency, bond, and money market instruments) of banking institutions, deposit money banks, and other depository corporations of each country. Source: CEIC; national sources; Joint External Debt Hub, BIS-IMF-OECD-WB; *International Financial Statistics*, *Direction of Trade Statistics*, *World Economic Outlook* April 2009, and *Article IV Consultations*; International Monetary Fund.

Table 6: Risk-Weighted Capital Adequacy Ratios (% of risk-weighted assets)

Economy	2000–2004 Average	2004	2005	2006	2007	2008 ¹	2009 ²
China, People's Rep. of	-2.3 ³	-4.7	2.5	4.9	8.4	8.2	—
Hong Kong, China	16.1	15.4	14.8	14.9	13.4	14.7	15.6
Indonesia	18.7	19.4	19.3	21.3	19.3	16.8	17.8
Korea, Republic of	10.7	11.3	12.4	12.3	12.0	12.7	13.4
Malaysia	13.4	14.3	13.6	13.1	12.8	12.2	13.7
Philippines	17.0	18.7	17.7	18.5	15.9	15.7	—
Singapore	17.7	16.2	15.8	15.4	13.5	14.3	—
Taipei, China	10.5	10.7	10.3	10.1	10.6	10.8	—
Thailand	13.2	13.0	14.2	14.5	15.4	14.1	15.2

— = not available.

¹Data for Singapore as of Sep 2008; and for People's Republic of China as of Mar 2008. ²Data for Malaysia as of May 2009; for Thailand as of Apr 2009; for Hong Kong, China and Republic of Korea as of Mar 2009; and for Indonesia as of Jan 2009. ³Average of 2000 and 2002–2004 figures. Figure for 2000 is ratio for state commercial banks.

Source: National sources and *Global Financial Stability Report* April 2009, International Monetary Fund.

a. Prudential Indicators

Banks continue to maintain ample capital cushions.

In the region's economies, risk-weighted capital adequacy ratios at above 10% continue to provide a strong capital cushion (**Table 6**). This is even true in Korea, where the banking system is relatively more vulnerable given the greater reliance on external borrowing and a currency that is still sharply depreciated despite its recent rise. In addition, numerous banks have already raised capital or plan to do so in the near future. This should bode well, along with pressure from governments, for lending to stimulate economies. In some countries, governments have set up special capital funds, which banks can tap if needed, and re-activated the asset management company's role in cleansing and restructuring banks' bad debt.

Despite generally good profits and low non-performing loan ratios, concerns remain.

Banks' profitability had held up well (**Tables 7, 8**), but more recent data present a mixed picture, largely due to falling income from fees and commissions amid the economic deceleration. Loan loss provisions have also increased in line with rising bad debts, even as available nonperforming loan ratios remained at low

Table 7: Rate of Return on Commercial Bank Assets (% per annum)

Economy	2000–2004 Average	2004	2005	2006	2007 ¹	2008 ²	2009 ³
China, People's Rep. of	0.2	0.5	0.6	0.7	1.0	—	—
Hong Kong, China ⁴	1.2	1.7	1.7	1.7	1.9	1.8	1.6
Indonesia	2.2	3.5	2.6	2.6	2.8	2.3	2.7
Korea, Republic of	0.4	0.9	1.2	1.1	1.1	0.5	—
Malaysia	1.3	1.4	1.4	1.3	1.5	1.6	—
Philippines	0.8	1.0	1.1	1.3	1.4	0.8	0.8
Singapore	1.1	1.2	1.2	1.4	1.3	1.1	—
Taipei,China	0.3	0.6	0.3	-0.4	0.1	-0.1	—
Thailand	0.7	1.3	1.3	0.8	0.2	1.0	0.9

— = not available.

¹Data for People's Republic of China as of Jun 2007. ²Data for Singapore as of Sep 2008 and for Malaysia as of Jul 2008. ³Data for Hong Kong, China; Philippines; and Thailand as of Mar 2009; and for Indonesia as of Jan 2009. ⁴Net interest margin of retail banks.

Source: National sources and *Global Financial Stability Report* April 2009, International Monetary Fund.

Table 8: Rate of Return on Commercial Bank Equity (% per annum)

Economy	2000–2004 Average	2004	2005	2006	2007 ¹	2008 ²	2009 ³
China, People's Rep. of	—	13.7	15.1	14.8	19.9	—	—
Hong Kong, China ⁴	14.9	17.2	16.7	16.7	21.3	12.6	—
Indonesia	18.5	34.5	26.4	30.2	25.7	26.0	—
Korea, Republic of	6.1	15.2	18.4	14.6	14.6	—	—
Malaysia	16.3	16.7	16.7	16.2	19.7	—	—
Philippines	5.9	7.6	9.5	11.5	11.8	7.2	7.3
Singapore	9.6	11.6	11.2	13.7	12.9	11.9	—
Taipei,China	4.1	8.8	4.4	-7.3	2.6	-0.7	—
Thailand	13.3	19.4	16.5	10.2	2.8	12.2	11.0

— = not available.

¹Data for People's Republic of China as of Jun 2007. ²Data for Indonesia as of Aug 2008. ³Data for the Philippines and Thailand as of Mar 2009. ⁴Covers only locally-incorporated banks.

Source: National sources and *Global Financial Stability Report* April 2009, International Monetary Fund.

levels (**Table 9**). The coverage of provisions for nonperforming loans in the PRC, Korea, and Singapore was above 100% in 2008, while for other economies coverage was above 80% (**Table 10**). Meanwhile, the region's sovereign credit ratings remain stable, although the outlook has been revised to negative with the possibility of a future downgrade for Korea and Thailand (4Q2008), and Taipei,China (2Q2009) (**Figures 24a, 24b, 24c, 24d**). Rating agencies have similarly revised downward the outlook for numerous financial institutions.

Table 9: Nonperforming Loans (% of commercial bank loans)

Economy	2000–2004 Average	2004	2005	2006	2007	2008 ¹	2009 ²
China, People's Rep. of	21.0	13.2	8.6	7.1	6.2	2.5	2.0
Hong Kong, China ³	4.0	1.6	1.4	1.1	0.9	1.2	1.5
Indonesia	10.2	4.5	7.6	6.1	4.1	3.2	3.6
Korea, Republic of	3.1	2.0	1.3	0.9	0.7	1.2	1.5
Malaysia ³	8.9	6.8	5.6	4.8	3.2	2.2	2.2
Philippines ³	14.8	12.7	8.5	5.7	4.4	3.5	3.7
Singapore	5.3	5.0	3.8	2.8	1.5	1.4	—
Taipei, China	5.2	2.8	2.2	2.1	1.8	1.5	—
Thailand ³	13.5	10.9	8.3	7.5	7.3	5.3	5.5

— = not available.

¹Data for Singapore as of Sep 2008. ²Data for Malaysia as of May 2009; for the Philippines as of Apr 09; for People's Republic of China, Hong Kong, China; Republic of Korea; and Thailand as of Mar 2009; and for Indonesia as of Jan 2009. ³Reported nonperforming loans are gross classified loans of retail banks. Source: National sources and *Global Financial Stability Report* April 2009, International Monetary Fund.

Table 10: Bank Provisions to Nonperforming Loans¹ (%)

Economy	2000	2008 ²
China, People's Rep. of	4.7	115.3
Hong Kong, China	—	—
Indonesia	36.1	98.5
Korea, Republic of	81.8	155.4
Malaysia	57.2	88.9
Philippines	43.7	86.0
Singapore	87.2	119.9
Taipei, China	24.1	76.6
Thailand	47.2	97.9

— = not available.

¹Values for Indonesia are write-off reserve on earning assets to classified earning assets ratio; while those for Malaysia refer to general, specific, and interest-in-suspense provisions. Data for People's Republic of China in 2000 cover state commercial banks only. ²Data for Republic of Korea and Singapore as of Sep 2008, and Indonesia as of Aug 2008.

Source: *Global Financial Stability Report*, and *International Financial Statistics*, International Monetary Fund; and national sources.

b. Activity Indicators

Loan growth in the region generally rose throughout 2008 before weakening somewhat in 2009, with the exception of the PRC, where loans grew much faster in the first half of 2009.

Among the ASEAN-4, loan growth was particularly strong; while in the NIEs, it has eased significantly since the last quarter of 2008. Banks across the region are now operating in a tougher lending environment and are inclined to reduce lending to protect their balance sheets as economic activities slow. At the same time, potential borrowers are less inclined to take on loans given uncertain employment and business prospects. Appropriate financial and fiscal measures should, therefore, be implemented to ameliorate such concerns and get credit to where it is needed to stimulate economic activity. In the PRC, the amount of new loans through June of this year has surpassed the total amount of new loans made in all of 2008 (**Figure 25**). Such aggressive moves, while laudable, should not be made at the expense of laxer lending standards, which could simply lead to a rebound in bad loans a few years on. On the other hand, securities investments as a share of total bank assets have increased in some economies—buoyed by a moderation in lending activities

Figure 24a: S&P Sovereign Ratings—ASEAN-4 and Viet Nam (long-term foreign currency)

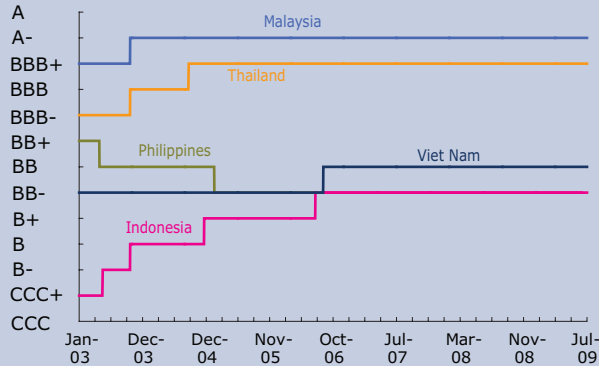


Figure 24b: S&P Sovereign Ratings—NIEs and PRC (long-term foreign currency)

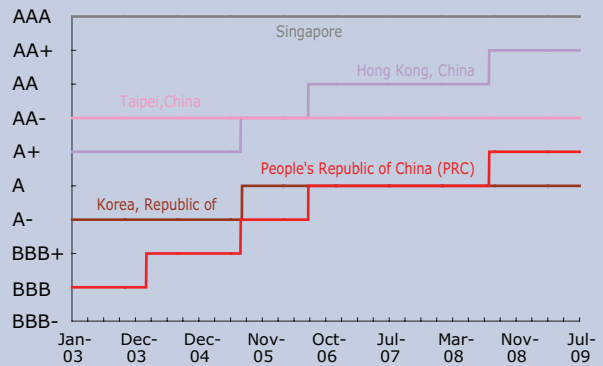


Figure 24c: Moody's Sovereign Ratings—ASEAN-4 and Viet Nam (long-term foreign currency)

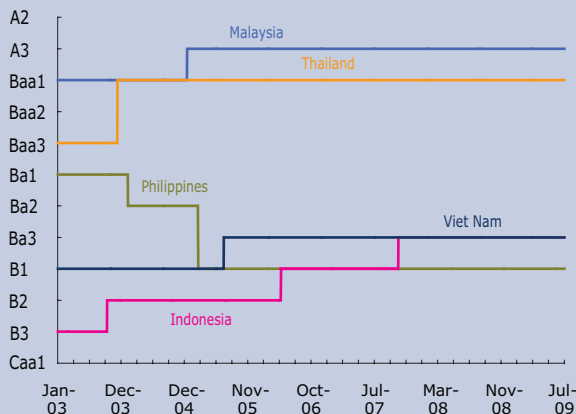
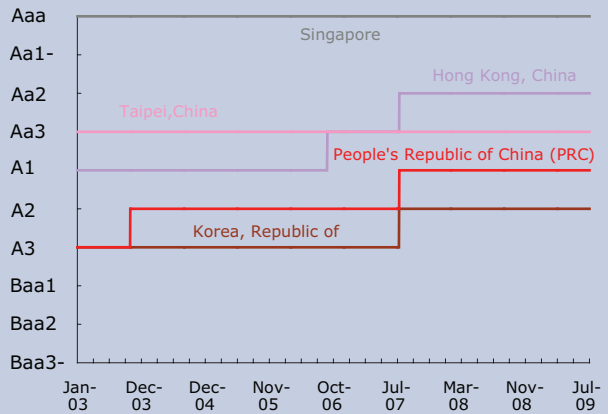
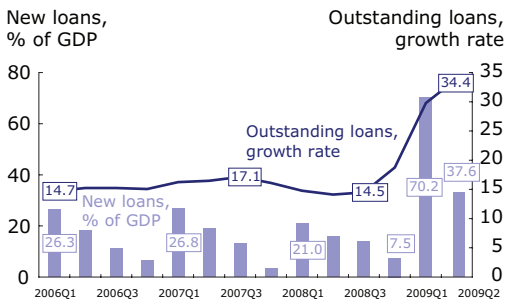


Figure 24d: Moody's Sovereign Ratings—NIEs and PRC (long-term foreign currency)



NIE = newly industrialized economy.
Source: Bloomberg.

Figure 25: Bank Lending—People's Republic of China



GDP = gross domestic product.
Source: OREI staff calculations based on data from CEIC.

and the larger issuance of government bonds to fund greater fiscal spending (Table 11).

c. Market Indicators

Despite recent stock market recoveries, financial share prices have performed less favorably than overall market indexes.

In all economies, except the PRC, the financial stock price index had dropped much more precipitously than the overall stock market index (Figures 26a, 26b). When the crisis unfolded, investor confidence was shaken by the health of banks because

Table 11: Securities Investment to Total Bank Assets of Commercial Banks (%)

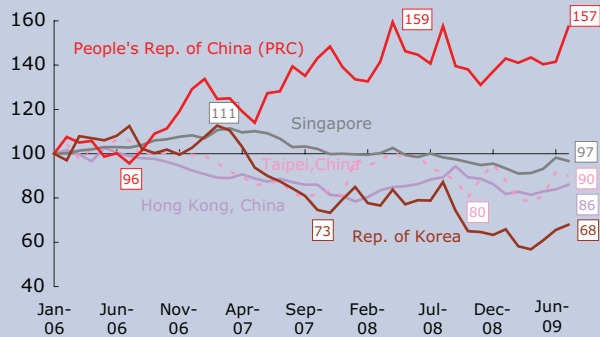
Economy	2000–2004 Average	2004	2005	2006	2007	2008	2009 ¹
Hong Kong, China	16.9	19.2	19.6	20.2	17.7	17.8	18.4
Indonesia	18.3 ²	20.2	18.0	24.8	27.8	20.1	21.3
Korea, Republic of	23.2	20.8	22.1	20.2	18.6	16.5	16.8
Malaysia	12.7	10.6	9.6	9.3	11.9	14.6	14.6
Philippines ³	23.8	32.6	30.1	23.7	21.2	23.9	25.6
Singapore	16.9	17.1	16.5	15.9	15.8	14.8	14.4
Taipei, China	13.6	14.2	12.1	12.0	11.9	11.7	12.5
Thailand	15.2	16.0	16.0	15.8	15.9	13.7	15.4

— = not available.

¹Data for Malaysia; Singapore; and Taipei, China as of May 2009; for Hong Kong, China; Philippines; and Thailand as of Apr 2009; for Republic of Korea as Mar 2009; and for Indonesia as of Jan 2009. ²Refers to 2001–2004 average. ³Financial assets (net of allowance for credit losses) as a ratio of total assets of commercial banks.

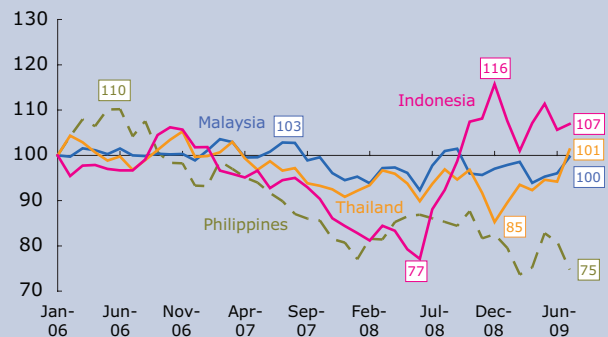
Source: National sources and CEIC.

Figure 26a: Ratio of Financial Stock Price Index to Overall Stock Market Index—NIEs-4 and PRC
(January 2006 = 100)



NIE = newly industrialized economy.
Source: OREI staff calculations using Reuters data.

Figure 26b: Ratio of Financial Stock Price Index to Overall Stock Market Index—ASEAN-4
(January 2006 = 100)



of the uncertainty over the extent of toxic asset holdings. Right after the collapse of Lehman Brothers, confidence plummeted when it became clear that Asia would not escape the effects of a sharp contraction in demand from developed countries. As the heart of Asian businesses, banks remain the weakest link in regional economies, which is reflected in their performance vis-à-vis the overall market. That said, the region's banking systems have made significant progress since the 1997/98 Asian financial crisis and remain in a better position than banks in other regions. Along with measures implemented to protect depositors and stabilize financial systems, the post-crisis reforms have largely helped emerging East Asian banks escape the same fate as their western counterparts.

Economic Outlook, Risks, and Policy Issues

External Economic Environment

In recent months, the world economy has shown tentative signs of stabilizing, with financial stress and the pace of economic decline easing.

Figure 27: MSCI Indexes
(2 Jan 2008 = 100)



¹Includes People's Republic of China; India; Indonesia; Republic of Korea; Malaysia; Pakistan; Philippines; Taipei, China; and Thailand.

Source: Morgan Stanley Capital International (MSCI) Barra and Datastream.

Figure 28: TED Spreads¹—G3



¹Difference between the 3-month LIBOR (London Interbank Offered Rate) and 3-month government debt (e.g. Treasury bills).

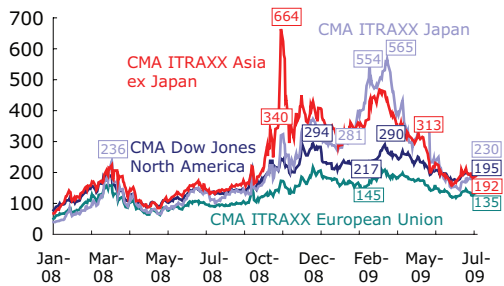
Source: OREI staff calculations based on data from Bloomberg and Datastream.

Measures taken by major economies to shore up financial stability boosted global stock markets recently, following several months of plunging prices (**Figure 27**). Credit spreads have narrowed since March (**Figure 28**); indicating that liquidity in international financial markets has improved significantly. Corporate default risk has decreased over the past 2 months—though the global recession and worsening corporate earnings outlook have kept default risk elevated (**Figure 29**). Emerging market sovereign bond spreads have fallen, yet remain wide with credit quality deteriorating (**Figure 30**). Despite major central bank intervention and the slowdown in economic decline, growing concerns over future inflation from the increased government debt associated with financial stimulus has driven long-term treasury yields up sharply from their very low levels following the September 2008 Lehman Brothers' collapse (**Figure 31a**). As the short end remains low due to aggressive monetary easing among G3 economies—US, eurozone, and Japan—yield curves have steepened, which may indicate an economic upturn is approaching (**Figure 31b**). Early indicators from major industrial economies—business and consumer confidence, purchasing managers' indexes, and consumer spending—show the pace of economic contraction has slowed and the worst of the decline may be over.

Despite these early indicators, the global economy is expected to contract in 2009 for the first time since World War II.

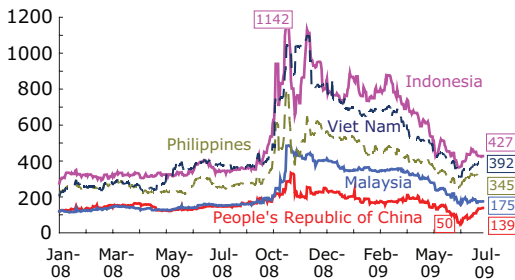
A global, synchronized economic downturn is underway with the G3 economies all in recession. The International Monetary Fund (IMF) now projects GDP in advanced economies to decline by 3.8% in 2009—after growing 0.8% in 2008. The world economy is expected to remain sluggish in 2010. The process of financial deleveraging as a result of the crisis exacted a heavy toll on

Figure 29: Credit Default Swap Indexes
(investment grade, senior 5-year)



Source: Datastream.

Figure 30: JPMorgan EMBI Sovereign Stripped Spreads (basis points)



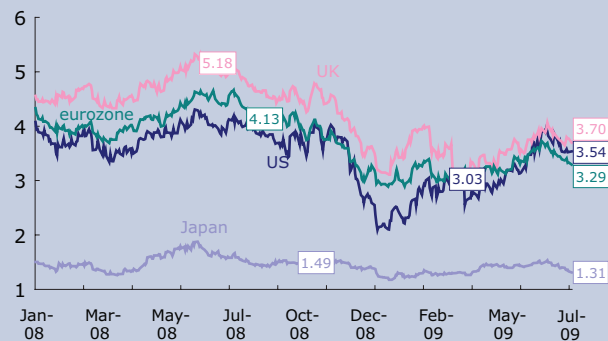
Source: Bloomberg.

asset prices and credit conditions. The value of financial assets worldwide may have fallen by well over \$50 trillion.⁶ With cash-strapped households and firms suffering from the credit squeeze, demand weakened and economic activity slowed. As demand dropped, world trade and industrial production also plummeted in the last few months of 2008 and into early 2009. The negative feedback loop between the real and financial sectors could further cloud the outlook, unless more comprehensive and coordinated policy actions break the vicious cycle.

While the pace of economic decline in the US has slowed, GDP is nonetheless expected to record its worst contraction in 60 years.

After shrinking 6.3% (quarter-on-quarter, seasonally adjusted annualized rate) in the fourth quarter last year—its biggest quarterly slowdown since 1982—the US economy contracted a further 5.5% in the first quarter of 2009. Strong second quarter growth in 2008 skewed the recessionary pattern, leaving the US economy showing overall growth of 1.1% in 2008 (Figure 32). The labor market remains weak with the unemployment rate climbing toward 10% (Figure 33). However, the US housing market is showing tentative signs of stabilization, with new and existing home sales growing, albeit at low levels. Deep price

Figure 31a: 10-Year Government Bond Yields (% per annum)



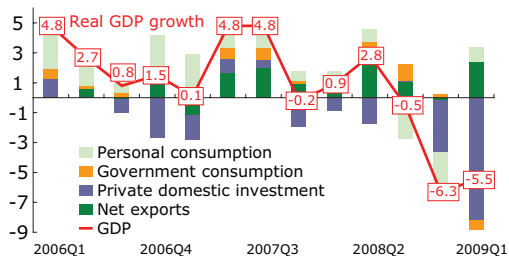
UK = United Kingdom, US = United States.
Source: Datastream.

Figure 31b: 2-year and 10-year Government Bond Yield Spreads (% per annum)



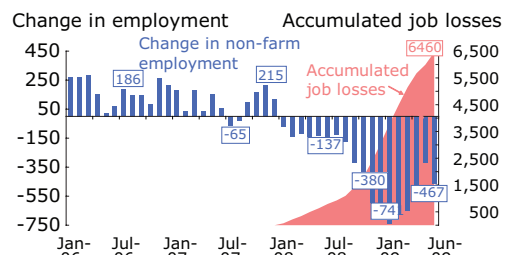
⁶See Loser, Claudio M. 2009. *Global financial turmoil and Emerging Market Economies: Major contagion and a shocking loss of wealth?* Available: <http://www.adb.org/Media/Articles/2009/12818-global-financial-crisis/Major-Contagion-and-a-shocking-loss-of-wealth.pdf>. ADB. March.

Figure 32: Contributions to Growth—US
(seasonally adjusted, annualized, q-o-q, % change)



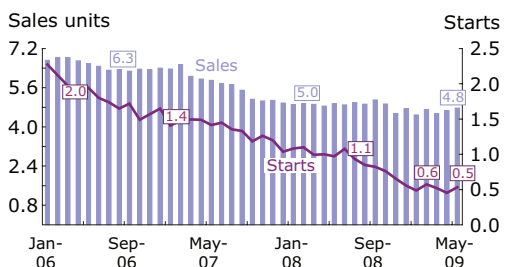
GDP = gross domestic product, q-o-q = quarter-on-quarter.
Source: US Bureau of Economic Analysis.

Figure 33: Change in Non-Farm Employment and Accumulated Job Losses¹
(in thousands)



¹Accumulated job losses since December 2007. Figures for April and May 2009 are preliminary.
Source: OREI staff calculations based on data from the US Department of Labor, Bureau of Labor Statistics.

Figure 34: Private Housing Starts¹ and Existing Home Sales²—US
(million units)



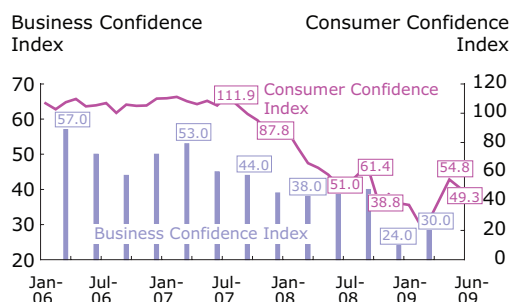
US = United States.
¹Seasonally adjusted levels. ²Seasonally adjusted and annualized.
Source: CEIC.

discounts from foreclosures and favorable mortgage rates are attracting new buys and mortgage refinancing (**Figure 34**). In addition, US consumers are feeling less pessimistic about the economy as confidence rises, a possible boost to future consumer spending (**Figure 35**). The US Federal Reserve’s (Fed) largely positive stress test results for major US banks boosted investor confidence. Also, the Fed recently outlined a series of specific requirements for banks to exit the Troubled Asset Relief Program (TARP), including a requirement that the bank sell equity to the public. Headline inflation is near zero and likely to remain very low, at least in the short term. Core inflation, which excludes food and energy, is at about 2%. Following the trauma of deleveraging and lost wealth, US households have now started to save, with the personal savings rate reaching 6.9% in May, the highest in 15 years. The massive shift in consumer behavior will produce great benefits in the long run, but is slowing recovery in the near term. The US economy is now expected to contract 3.0% this year, before returning to a forecasted 1.6% growth rate in 2010. There remain, however, significant downside risks and uncertainties, leaving any forecast tentative.

The eurozone is expected to experience a severe recession this year as its financial markets remain stressed, industrial production plunges, and unemployment surges.

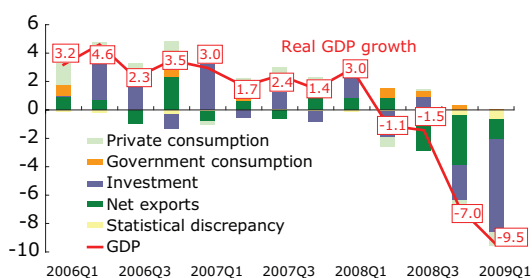
The eurozone economy contracted 9.5% (q-o-q, seasonally adjusted annualized rate) during the first quarter of 2009, after shrinking 7.0% in the last quarter of 2008 (**Figure 36**). Exports fell sharply on slumping global demand (**Figure 37**). As the credit crunch broadened, banks held back lending and corporate spending dropped. Consumers remain cautious, given the heightened uncertainty about job prospects and credit conditions. Germany is among the hardest hit. As its key export markets fell victim to the deepening financial crisis, exports and industrial production declined sharply. Financial conditions remain tenuous, particularly with large bank exposure to Central and Eastern Europe, where rising loan losses hint at credit downgrades. Business and consumer confidence in the eurozone remains low, despite some move upward in the past month or so, suggesting that a longer and more protracted recession is on the horizon (**Figure 38**). There are some signs of improvement, such as slower declines in retail sales and industrial production (**Figure 39**). Eurozone headline inflation dipped below zero to

Figure 35: US Business and Consumer Confidence Indexes



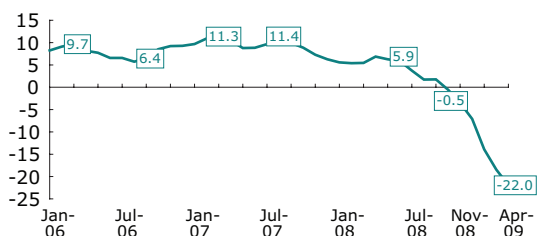
US = United States.
 Notes: Consumer Confidence (1985 = 100). A business confidence index above 50 means there are more positive than negative responses. Consumer confidence index is monthly; business confidence index is quarterly.
 Source: Datastream.

Figure 36: Contributions to Growth¹—eurozone (seasonally adjusted, annualized, q-o-q, % change)



GDP = gross domestic product, q-o-q = quarter-on-quarter.
²2009Q1 figures are second estimates.
 Source: Eurostat website.

Figure 37: Export Growth¹—eurozone² (y-o-y, % change)



¹3-month moving average of seasonally adjusted, year-on-year growth. ²Refers to Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, and Spain.
 Source: OREI Staff calculations based on Datastream data.

-0.1% in June 2009, the lowest since the start of the series, suggesting substantial economic slack. The European Central Bank (ECB) cut its benchmark interest rate to 1.0% in May 2009, a total of 150 basis points so far this year, and has maintained its emergency lending window open to banking systems. European governments ploughed hundreds of billions of euros into ailing banks to prop up market confidence. The eurozone economy is expected to contract 4.3% in 2009 and may stagnate in 2010.

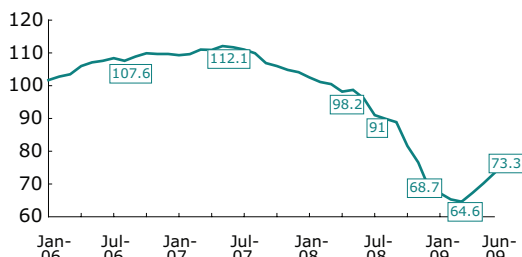
Japan's GDP is forecast to contract by 5.8% this year, the largest contraction since 1955, as export demand continues to collapse and domestic consumption remains sluggish.

In the first quarter of 2009, Japan's economy contracted a whopping 8.8%, with the annualized quarterly contraction of 14.2% being the largest drop since records began in 1955 and the fourth straight quarter of negative growth (**Figure 40**). With its reliance on trade, Japan suffered the worst contraction among major industrialized nations. Exports in real terms fell at an annualized 70% (q-o-q, seasonally adjusted) in the first quarter. Domestic demand also declined for the fourth quarter in a row. Declining corporate profits continue to drive business sentiment down. But consumer sentiment improved slightly—though remained low—in recent months, suggesting domestic demand will remain weak (**Figure 41**). Japan's stock prices have rebounded about 10% since the beginning of 2009, though at one point plunged to a 26-year low. Industrial production has been growing in recent months, after a precipitous fall early in the year, and Japan's purchasing managers' index—an important sentiment indicator—has picked up in recent months (**Figure 42**). The Bank of Japan has kept its policy rate low after slashing it from 0.3% to 0.1% on 19 December. The central bank has also announced it will buy commercial paper and shares to boost asset prices.

World trade volume is forecast to decline for the first time in nearly 3 decades, as economic activity in advanced economies collapses.

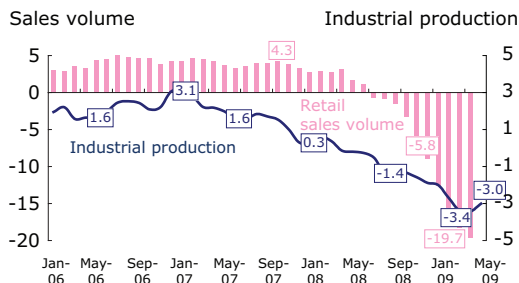
Trade is again proving to be a potent channel for transmitting shocks—developing a downward spiral through declines in world demand and industrial production (**Figure 43**). A sharp falloff in G3 import demand has been battering developing economies

Figure 38: Economic Sentiment Indicator¹—eurozone²



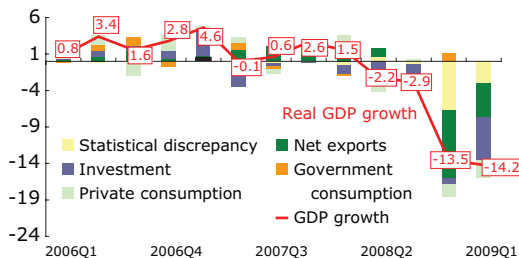
¹The economic sentiment indicator is a composite index of business and consumer confidence indicators based on surveys of economic assessments and expectations in the eurozone.
²eurozone in this figure refers to Euro Area 16, composed of the following countries: Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia and Spain.
 Source: Datastream.

Figure 39: Retail Sales and Industrial Production¹—eurozone



¹Working day adjusted, year-on-year growth rate of 3-month moving averages.
 Source: OREI staff calculation based on CEIC data.

Figure 40: Contributions to Growth¹—Japan (seasonally adjusted, annualized, q-o-q, % change)



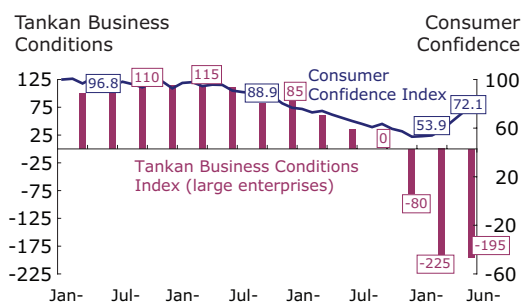
GDP = gross domestic product, q-o-q= quarter-on-quarter.
¹2009Q1 figures are 2nd preliminary estimates.
 Source: Cabinet Office, Government of Japan.

that rely on exports for a large portion of GDP, while hurting industrial activity as well. With emerging East Asia vulnerable to changing demand conditions in major industrial countries, the downturn in exports has directly translated into slowing GDP growth. Trade within the region is imploding, particularly as the PRC remains an assembly hub for final products destined for major industrial countries—with a large proportion of the intermediate goods sourced from the Association of Southeast Asian Nations (ASEAN) and the newly industrialized economies (NIEs). It now appears likely that sagging global demand and the continuing financial crisis will seriously affect industrial production in the region. World trade volume is expected to contract 12.4% in 2009, sharply down from the estimated 6.2% growth last year.

The high-tech and auto industries have been particularly hurt by the global recession, as tight finance, slowing demand, and uncertainty over the short-term choke demand and investment.

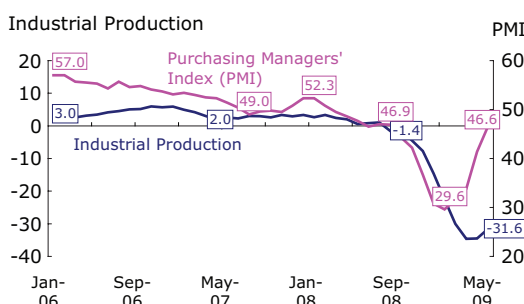
Sales of computer equipment and software continue to decline in major industrial countries (**Figure 44**). In the first quarter of 2009, US corporate spending on equipment and software fell 33.7% q-o-q, following a contraction of 28.1% the previous quarter. Weak demand for consumer electronics, wireless communication devices, and personal computers is also putting a damper on high-tech production worldwide. Slumping global demand for automobiles in general and a shift in demand toward more fuel-efficient cars have been the bane of the auto industry in recent years, particularly in the US (leading to the bankruptcies of General Motors and Chrysler). However, there are signs that both the high-tech and auto industries are stabilizing. After declining for two quarters, final sales of computers in the United States (US) rose 16.2% (q-o-q, seasonally adjusted and annualized). The pace of decline in new orders in major industrial countries has slowed over the past few months, as business and consumer confidence recovers (**Figure 45**). Global auto sales improved in the second quarter, led by emerging markets. In the PRC, auto sales were up 18% in the first half of 2009—supported by government incentives including a sales tax cut for small cars and one-off cash subsidies to owners who trade in high-emission vehicles.

Figure 41: Business and Consumer Sentiment Indexes—Japan (Jan 2006 = 100)



Source: OREI staff calculations based on Datastream data.

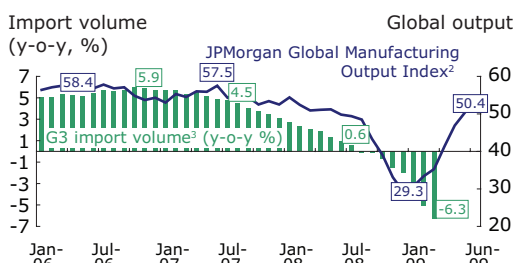
Figure 42: Industrial Production¹ and Purchasing Managers' Index²—Japan



¹Year-on-year growth of 3-month moving averages. ²Refers to Manufacturing PMI; seasonally-adjusted series.

Source: Bloomberg and OREI staff calculations based on data from CEIC.

Figure 43: Global Manufacturing Output and G3 Import Volume¹



y-o-y = year-on-year.

¹Annual growth rate. ²A component of the JPMorgan Global Manufacturing Purchasing Managers' Index (PMI), which serves as an indicator of global manufacturing business conditions, based on data collected from surveys around the world. A reading above 50 indicates an increase in the variable from the previous month and a reading below 50 indicates a decrease.

³G3 (eurozone, Japan, US) 12-month moving average growth rates were aggregated using import values in USD.

Source: OREI staff calculations based on data from *International Financial Statistics*, International Monetary Fund; Bloomberg; JPMorgan; and Datastream.

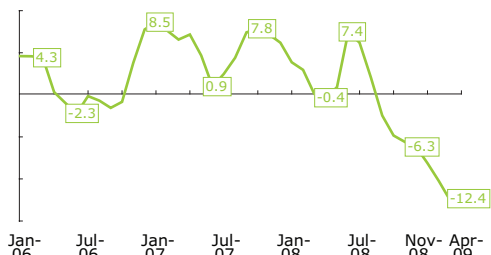
The increase in commodity prices since the beginning of the year will likely stabilize over the remainder of 2009.

Commodity prices, as measured by International Monetary Fund (IMF) primary commodity prices, have risen 17% from their lows in February this year. Yet, they remain far below their peaks of mid-2008 (Figure 46). The commodity price boom, which lasted from 2003 through mid-2008, abruptly ended when global demand sunk in response to the financial and broader economic crisis. The sharp rise and subsequent decline in commodity prices illustrates the classic boom and bust cycle of commodities in response to global growth. Having tumbled from close to \$150 per barrel (bbl) last July to below \$40/bbl at the end of 2008 as global energy demand collapsed amid the deepening economic crisis, oil prices doubled in the first half of 2009 to about \$70/bbl (Figure 47). While the Organization of the Petroleum Exporting Countries (OPEC) has reduced target production levels, weaker global demand and increased capacity among several OPEC producers also imply that surplus production capacity should rise significantly over the next several years, limiting the possibility of oil prices from rising further (Figure 48). Oil futures suggest that oil prices will remain at about \$70/bbl for 2009 and early 2010. Slower growth, increased production capacity, and a build-up in stocks for many commodities are expected to keep prices of non-oil commodities at bay throughout 2009.

The overall external environment for emerging East Asia remains difficult and uncertain, with the recession in advanced economies continuing and global financial conditions improving yet tight.

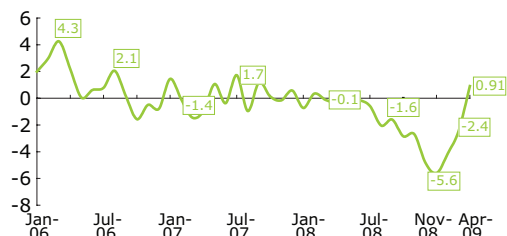
The weakest link undoubtedly remains the global banking system. Large write-downs on mortgage-backed securities and other assets continue to erode the capital base in major global banks. Banks worldwide have thus far reported more than \$1.47 trillion in write-downs and more losses are expected in the coming months (see Figure 23). While having eased in the past few months, financial conditions remain tight compared with the period before September 2008, thereby, slowing economic activity in developed countries. Limited credit also constrained growth and trade in emerging market economies—including emerging East Asia. Strong policy responses are supporting the global economy, yet the immediate outlook remains both weak and uncertain.

Figure 44: Computer and Software Sales—G3¹ (y-o-y, % change)



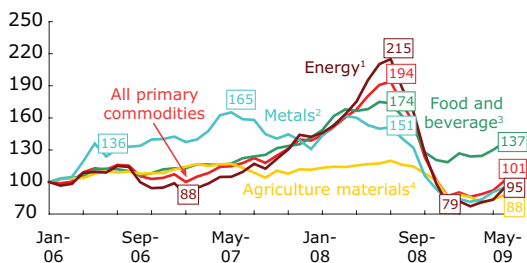
¹3-month moving average of growth in sales values. G3 refers to United States, eurozone, and Japan.
Source: Datastream and Eurostat.

Figure 45: New IT Orders¹—G3² (% change)



¹Seasonally-adjusted, 3-month moving average, month-on-month. ²eurozone, Japan, and the United States (US).
Source: OREI staff calculations based on national sources.

Figure 46: Primary Commodity Price Indexes (Jan 2006 = 100)



¹Crude oil, natural gas, coal. ²Copper, aluminum, iron ore, tin, nickel, zinc, lead, uranium. ³Cereal, vegetable oils, meat, seafood, sugar, bananas, oranges, coffee, tea, cocoa. ⁴Timber, cotton, wool, rubber, hides.
Source: OREI staff calculations based on data from *IMF Primary Commodity Prices*, International Monetary Fund.

Regional Economic Outlook for 2009–2010

Economic forecasts for major industrial economies in 2009 continue to be revised downward, with a drag effect on emerging East Asia’s growth outlook likely.

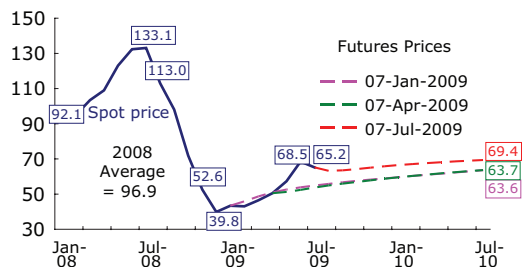
While there are signs of improvement in G3 economies in the second quarter, weak and uncertain global economic conditions have led to a lowering of growth forecasts for 2009. ADB’s March *Asian Development Outlook* (ADO) forecast a 3.0% growth rate for emerging East Asia for 2009.⁷ Since then, downside risks to the outlook have increased in a number of economies, including Hong Kong, China; Malaysia; Philippines; Taipei, China; and Thailand. On the other hand, there are upside risks to the 2009 outlook for the PRC, and possibly Indonesia.

The weak external environment implies that external demand for the region’s products will remain sluggish.

Before emerging East Asia can return to the levels of growth seen in recent years, industrialized economies must recover sufficiently to rekindle demand for the region’s exports. The US, Japan, and Europe remain major markets for Asian exporters (see Figure 1.2). Trade within emerging East Asia has grown rapidly in recent years, but it remains largely based on parts and components rather than final goods. The region has yet to provide final demand for its own exports. As a result of only a modest recovery projected in 2010, the region’s external demand will not pick up soon, and the region’s export recovery will largely hinge on how quickly major industrial countries recover. Until stimulus in advanced economies begins to gain traction and households realign their debt and savings profiles, it is unlikely that external demand will drive the region’s export production back to full throttle any time soon.

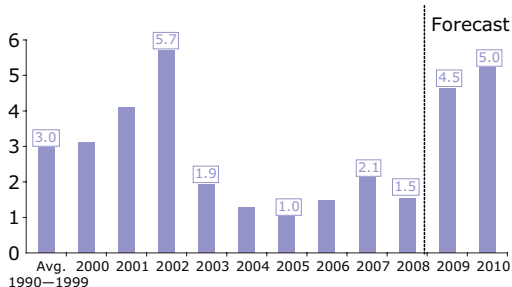
⁷*Asian Development Outlook 2009* is available at <http://www.adb.org/Documents/Books/ADO/2009/default.asp>.

Figure 47: Brent Spot¹ and Futures Prices
(USD per barrel)



¹Monthly average of daily spot prices.
Source: Datastream

Figure 48: OPEC Spare Capacity
(barrels per day, million)



OPEC = Organization of the Petroleum Exporting Countries.
Source: *Short-Term Energy and Summer Fuels Outlook* (July 2009), US Energy Information Administration.

Domestic demand in emerging East Asia is expected to pick up gradually from the second half of 2009 as policy measures in the region gain traction and business and consumer confidence improves.

The stimulus measures adopted by governments across emerging East Asia since September 2008 have started to take effect. Monetary and fiscal easing—and a significant depreciation of many of the region’s currencies—have helped reinvigorate some domestic demand. Early indicators such as industrial production, retail sales, fixed-asset investment, and business and consumer confidence, all show that economic activity slowed less or began to grow in the second quarter. GDP growth in the second quarter of 2009 for the PRC and Singapore, for example, improved significantly from the first quarter of 2009. Domestic demand is strengthening, which should support a recovery in emerging East Asia beginning in late 2009.

Emerging East Asia has entered the transition from recession to recovery—possibly V-shaped—with GDP growth sourced more from domestic stimulus than a resurgence in external demand.

The regional outlook has improved from just a few months ago. The deceleration of emerging East Asia’s growth from 6.1% in 2008 to 3.0% in 2009 remains the worst since the 1997/98 Asian financial crisis. This resiliency, supported by expansionary policies, will allow the region’s largest economies to sustain positive, if much slower, growth. Those economies with strong global trade and financial links, however, are expected to continue to contract, though less dramatically (**Table 12**). As external demand will remain sluggish in the near future, emerging East Asia’s recovery is expected to be gradual, with 2010 growth rising to about 6.0%. It will undoubtedly take time before the region’s economies return to their full potential.

Mainly due to the sharp drop in exports, economic growth in the PRC is expected to slow this year to its lowest annual rate in nearly 2 decades, while reaching 8.0% in 2010.

The PRC economy grew 6.1% in the first quarter of the year, rising to 7.9% in the second quarter, which is already painting a better picture for the rest of the year. The government’s stimulus

Table 12: Annual GDP Growth Rates (% , y-o-y)

	2000–2007 Average	2004	2005	2006	2007	2008	2009Q1	2009Q2	March 2009 ADB Forecasts ⁸		
									2009	2010	Expected revision to 2009 forecast
Emerging East Asia^{1,2}	7.6	8.0	7.7	8.7	9.7	6.1	1.2	—	3.0	6.0	▲
ASEAN^{1,2}	5.4	6.5	5.7	6.0	6.4	4.2	-1.9	—	0.7	4.2	▼
Brunei Darussalam	2.3	0.5	0.4	4.4	0.6	-2.7	—	—	-0.4	2.3	■
Cambodia	9.5	10.3	13.3	10.8	10.2	6.5	—	—	2.5	4.0	■
Indonesia ³	5.0	5.0	5.7	5.5	6.3	6.1	4.4	—	3.6	5.0	▲
Lao PDR	6.7	7.0	6.8	8.7	7.8	7.2	—	—	5.5	5.7	■
Malaysia ⁴	5.6	6.8	5.3	5.8	6.2	4.6	-6.2	—	-0.2	4.4	▼
Myanmar ⁵	12.9	13.6	13.6	13.1	11.9	—	—	—	—	—	—
Philippines ⁶	5.1	6.4	5.0	5.3	7.1	3.8	0.4	—	2.5	3.5	▼
Thailand	5.1	6.3	4.6	5.2	4.9	2.6	-7.1	—	-2.0	3.0	▼
Viet Nam	7.6	7.8	8.5	8.2	8.4	6.2	3.1	4.4	4.5	6.5	■
Newly Industrialized Economies¹	4.9	5.9	4.7	5.6	5.6	1.6	-6.6	—	-3.3	3.5	▼
Hong Kong, China	5.3	8.5	7.1	7.0	6.4	2.4	-7.8	—	-2.0	3.0	▼
Korea, Rep. of	5.2	4.6	4.0	5.2	5.1	2.2	-4.2	—	-3.0	4.0	■
Singapore	6.0	9.3	7.3	8.4	7.8	1.1	-9.6	-3.7 ⁷	-5.0	3.5	▼
Taipei, China	4.1	6.2	4.2	4.8	5.7	0.1	-10.2	—	-4.0	2.4	▼
China, People's Rep. of	10.1	10.1	10.4	11.6	13.0	9.0	6.1	7.9	7.0	8.0	▲
Japan	1.7	2.7	1.9	2.0	2.4	-0.8	-8.8	—	-5.8	1.1	
US	2.5	3.6	2.9	2.8	2.0	1.1	-2.5	—	-3.0	1.6	
eurozone	2.1	2.1	1.7	2.9	2.7	0.7	-5.2	—	-4.3	0.5	

▲ = most likely to be revised upward, ▼ = most likely to be revised downward, ■ = most likely to remain unchanged.

FY = fiscal year, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic, US = United States, and y-o-y = year-on-year.

— = not available

¹Aggregates are weighted according to gross national income levels (atlas method, current \$) from the World Bank's *World Development Indicators*. ²Excludes Myanmar for all years as weights are unavailable. Quarterly figures exclude Brunei Darussalam; Cambodia; Lao PDR; and Myanmar for which quarterly data is not available. ³GDP growth rates from 1999–2000 are based on 1993 prices, while growth rates from 2001 onward are based on 2000 prices. ⁴Growth rates from 1999–2000 are based on 1987 prices, while growth rates from 2001 onward are based on 2000 prices. ⁵For FY April–March. ⁶Figures for 2004–2006 are not linked to the GDP figures 2003 backwards due to National Statistics Office revisions of sectoral estimates. ⁷Advance estimate released by Singapore's Ministry of Trade and Industry. ⁸2009 figures for Japan, US, and eurozone are revised forecasts from the March 2009 *Asian Development Outlook* (ADO). Source: ADB, Eurostat website (eurozone), Economic and Social Research Institute (Japan), Bureau of Economic Analysis (US), International Monetary Fund's *World Economic Outlook* (April 2009).

package has boosted demand, as fixed-asset investment growth was strong in recent months. Expansionary monetary policy drove broad money (M2) up 28.5% in the year to June 2009, significantly higher than the 15.0% in the second half of 2008. While fine-tuning the fiscal stimulus package—with more on social spending and affordable housing and less on infrastructure—the government has budgeted a deficit of 3.0% of GDP in 2009, well above the 0.4% of GDP in 2008. The increase is the largest since the late 1970s and will help cushion the impact of the global crisis. GDP growth is forecast to slow this year from the 9.0% rate in 2008, before recovering to 8.0% in 2010, with risks on the upside. Because the PRC's imports from the region have increased significantly in recent years, continued robust growth in the PRC will likely benefit other economies in the region as well (**Box 1**).

Highly dependent on external demand and tightly integrated with global financial markets, the NIEs will likely contract this year before experiencing moderate growth in 2010.

From meager growth in 2008 of 1.6%, the aggregate GDP of the NIEs is forecast to contract 3.3% in 2009, before returning to a 3.5% growth rate in 2010. Economic activity remains well below the levels prior to September 2008, when the Lehman Brothers bankruptcy set the dominoes falling toward world recession. In general, the NIEs should pick-up gradually from the second half of 2009 and into 2010. Korea's economy may have bottomed out in the first quarter, when it grew 0.5% (q-o-q, seasonally adjusted annualized rate) as government and central bank stimulus appears to have begun to take hold. A weak won also helped. With sharply falling external demand and persistent financial stress, Korea's economy is expected to contract 3.0% for 2009 before recovering to a 4.0% growth rate in 2010. Due to its strong global trade and financial links, GDP in Hong Kong, China is projected to contract 2.0% in 2009, despite the expansionary spending and continuing robust growth in the PRC. Similarly, in Singapore, in spite of a massive fiscal stimulus package—leading to a fiscal deficit of 3.5% of GDP—the economy is expected to contract 5.0% in 2009. Suffering a 10.2% first quarter GDP contraction, the economy of Taipei, China is expected to shrink 4.0% in 2009, with a forecast return to growth of 2.4% in 2010. The 2009 growth forecast has some upside risks for Korea, but those for Hong Kong, China; and Taipei, China have risks on the downside.

Box 1: Will the People's Republic of China Lead the Recovery in Emerging East Asia?

The People's Republic of China (PRC) is the largest economy in emerging East Asia. It has avoided the worst effects of the global downturn, growing a robust 7.1% in the first half of the year. This has led many to believe that the PRC will help ignite economic recovery across the region.

To achieve this, the PRC's economy must continue its strong growth. There are good reasons to believe it will. Like other emerging East Asian economies, PRC exports have fallen drastically. But the PRC's massive fiscal stimulus package appears to have countered this external demand shock. Along with fiscal stimulus, there has also been substantial monetary easing leading to a surge in new lending. Together, these measures suggest that robust economic growth in the PRC will continue, at least in the short term.

The huge stimulus package boosted the government's fiscal deficit this year to a projected 3.0% of GDP

from 0.4% in 2008. This may be the highest since 1979, but remains low compared with deficits in much of the rest of emerging East Asia. Unlike most developed countries, the PRC has also been able to get its banks to ramp up lending. In the first quarter alone, new bank lending exceeded last year's total. This is good for the economy and economic activity, so long as it stays manageable.

The share of private consumption in the PRC has been declining since 1995—accounting for only 35% of GDP in 2008—while the importance of net exports and investment has been rising. To ensure sustainable growth, rebalancing growth toward greater consumption from an over-reliance on exports is likely. But PRC consumers so far have remained cautious—while still strong, growth in retail sales slowed to 15.0% in June 2009 year-on-year (y-o-y) from 23.2% in September 2008. However, as the global financial system begins to regain stability and economic recovery begins to take hold, consumer confidence may strengthen further.

Thus, it is likely that the PRC will recover ahead of other emerging East Asian economies, reaching its targeted growth rate of 8.0%.

Should the PRC recover quickly, will it help recovery in other emerging East Asian economies?

The PRC can serve as a huge market for emerging East Asian exports. The share of emerging East Asia's exports to the PRC and to Hong Kong, China has been rising over the years¹ (**Table 1.1**). For example, the share of Taipei,China's exports to the PRC and Hong Kong, China rose from below 25% in 2000 to almost 40% in 2008. With most advanced economies in recession, the PRC is one of the few large economies still growing. Recent trends show that while exports from ASEAN-4 and the NIEs to the United States (US) have continued falling, exports to the PRC and Hong Kong, China have started increasing (**Figures 1.1a, 1.1b**).

¹Exports to Hong Kong, China are frequently bound for factories in the PRC.

Table 1.1: Exports of Emerging East Asia to the People's Republic of China and Hong Kong, China
(% of total exports)

Year	Indonesia	Rep. of Korea	Malaysia	Philippines	Singapore	Taipei,China	Thailand	Viet Nam	EEA
2000	6.6	16.0	7.2	6.1	11.3	24.4	8.8	12.4	13.6
2001	5.9	17.5	8.5	6.7	12.9	26.6	9.2	11.2	14.6
2002	6.9	19.8	10.8	9.6	14.2	32.1	10.2	10.8	17.1
2003	7.8	23.6	12.4	13.3	15.0	35.7	12.1	10.9	19.5
2004	7.9	25.5	12.1	13.6	16.3	38.0	12.1	12.1	20.7
2005	9.0	25.9	12.0	16.8	17.6	39.1	13.5	10.8	21.4
2006	9.5	25.9	11.8	16.7	19.5	39.8	14.2	9.1	21.8
2007	9.5	25.9	12.9	21.9	19.8	40.7	15.1	7.9	22.3
2008	9.9	28.4	15.9	33.8	19.2	39.0	14.6	8.2	22.8

Note: Emerging East Asia (EEA) includes Indonesia; Republic of Korea; Malaysia; Philippines; Singapore; Taipei,China; Thailand; and Viet Nam.

Source: OREI staff calculations based on *Direction of Trade Statistics*, International Monetary Fund.

Figure 1.1a: Destination of ASEAN-4 Exports (USD million)

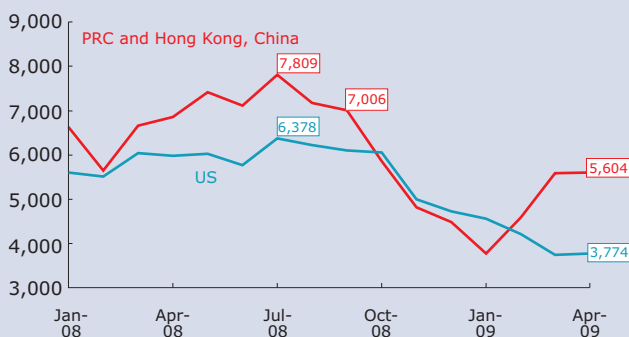
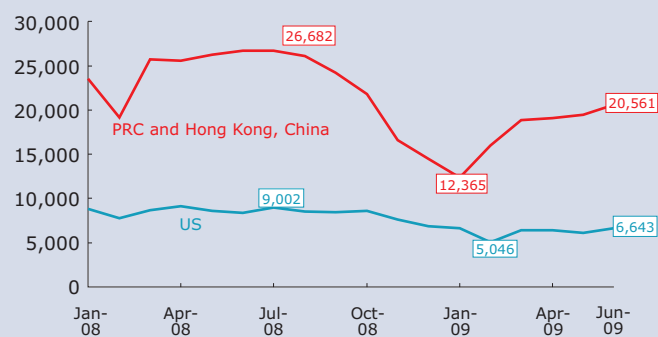


Figure 1.1b: Destination of NIE-3 Exports (USD million)



ASEAN-4 = Indonesia, Malaysia, Philippines, and Thailand; NIE-3 = newly industrialized economies (Hong Kong, China; Korea, Republic of; Taipei, China); PRC = People's Republic of China; US = United States.
Source: OREI staff calculations based on data from CEIC.

However, there is a limit to what the PRC can do by itself. During the first 6 months of 2009, the PRC's total exports have dropped 21.8%. But imports fell faster, at 25.4%. This is because a substantial portion of PRC imports include intermediate goods for further processing into final exports to other countries. Therefore, as global demand for its exports fell, PRC imports fell further. Analysis using the Global Trade Analysis Project (GTAP) estimates that 60% of Asian exports' final destination is the G3—European Union, US, and Japan—compared with 32% in terms of direct trade (Figure 1.2). This suggests that the advanced economies remain the primary destination of Asian exports, if one includes trade in intermediate goods within the region. Given that PRC demand for imports from emerging East Asia depends on its ability to export, without a recovery in global demand, the PRC cannot be expected to be the major driver for the region's recovery.

In addition, the PRC exports many of the same manufactured goods—such as electronics and garments—that other emerging East Asian economies export. Therefore, exporters may find it hard to

enter PRC markets if PRC factories shift production to domestic markets instead of concentrating on export markets. This means that economies whose products do not directly compete with PRC exports will do better. NIEs like Taipei, China and the Republic of Korea, which produce high-tech products, will likely benefit. But economies such as Malaysia and Thailand, which produce goods similar in technological development to the PRC, will find it hard to crack the PRC market. Additionally, prices obtained for exports from emerging East Asian economies in China will be lower than these in G3 economies.

Another reason that PRC growth may not help the regional economies much is that the fiscal stimulus spending currently driving PRC growth is mostly focused on improving infrastructure. This is admirable as the PRC still needs better infrastructure in rural areas. This will particularly help stimulate growth in the western regions that have been lagging behind the rest of the country. While infrastructure spending will help boost construction and imports of raw materials, it is unlikely to help increase much of the demand for goods that other emerging East Asian economies

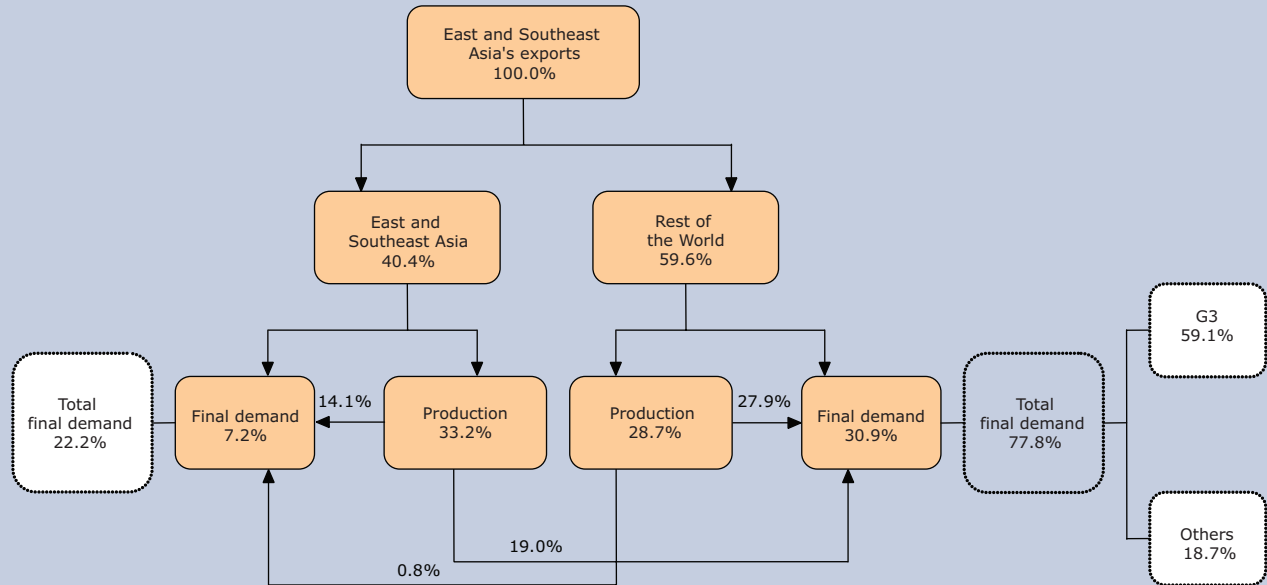
export. The local authorities that are implementing these infrastructure projects are also eager to ensure that stimulus benefits local producers.

The PRC also has a lot of money to invest. Emerging East Asian economies could benefit if the PRC looks for investment opportunities within the region. So far, however, the PRC has focused its investment in raw material production or advanced technology. Thus, regional economies may not benefit that much from PRC foreign investment in the region.

The PRC economy looks set to stage a quick recovery. This will provide a much needed boost to the region's economies. Nevertheless, despite its growing importance to the region, the PRC cannot be the sole driver for the region's recovery. Europe, the US, and Japan all remain important sources of demand for the region's exports.

Box 1 ...continued

Figure 1.2: Breakdown of Emerging Asia's Exports



Note: Emerging Asia includes the People's Republic of China; Hong Kong, China; Indonesia; Republic of Korea; Malaysia; Philippines; Singapore; Taipei, China; and Thailand.
 Source: Kim, S., J.-W. Lee and C.-Y. Park. 2009. Emerging Asia: Decoupling or Recoupling. *Asian Development Bank Working Paper Series on Regional Economic Integration* No. 31.

After virtually stagnating this year, the four middle-income ASEAN economies are expected to grow moderately in 2010, thanks to fiscal stimulus, its effect on domestic demand, and a slight recovery in external demand.

Economic activity among ASEAN-4 countries (Indonesia, Malaysia, Philippines, and Thailand) should start to strengthen from the second half of 2009. Indonesia and the Philippines, which are both less reliant on exports, managed to maintain some positive growth during the worst of the global downturn. In the face of contagion through trade and finance channels, their governments rolled out larger stimulus packages than previously announced, with their central banks cutting interest rates as well. For 2009, GDP growth in Indonesia is projected to be a relatively robust 3.6%. The 2009 growth forecast of 2.5% for the Philippines has downside risks, as remittances from Filipinos working overseas may not stay robust. In contrast, Malaysia and

Thailand, which rely more on external demand, have been more severely affected by the crisis. The worst appears to be over for both countries, however, and authorities have been increasingly aggressive in using fiscal policy to support growth. While the stimulus measures should begin showing results in the second half of this year, the two economies are expected to shrink this year with risks on the downside, before recovering in 2010.

A significant slowdown is also likely for the remaining ASEAN economies in 2009, with weak to moderate growth in 2010.

The newer members of ASEAN are also feeling the crisis pinch. Vibrant domestic demand in Viet Nam is offsetting slowing external demand and declining foreign direct investment, leading to a forecast GDP growth of about 4.5% in 2009—growth in the second half is expected to be better than in the year to June. Economic growth should be about 6.5% in 2010, slightly below the trend growth of 7%. Following slower growth in 2008, Cambodia and Lao People's Democratic Republic (Lao PDR) are projected to slow further in 2009, with Cambodia's GDP growth slipping to 2.5%, and Lao PDR maintaining relatively healthy GDP growth of 5.5% due to its resilient mining and hydropower sectors. Highly dependent on oil and gas exports, Brunei Darussalam will likely remain in negative territory, contracting 0.4% in 2009, after an estimated contraction of 2.7% in 2008.

Inflation will likely fall further and remain low across emerging East Asia, largely due to weak demand and below-potential economic growth.

After having peaked in the third quarter of 2008 on record oil and other commodity prices, inflation has been dropping rapidly in 2009 (see Figure 12). In fact, several economies—PRC; Singapore, Taipei, China, and Thailand—have already seen some deflation. It remains too early to say that a bout of deflation has begun. Yet continued depressed economic conditions, worsening labor markets, and lower food and energy prices are expected to increase disinflationary (and possibly deflationary) pressures throughout the region in 2009. As economies gradually pick up in 2010 (though with growth remaining below potential) inflation should stay under control. Further rapid increases in commodity prices, however, may be inflationary and hurt the pending recovery.

For most of emerging East Asia, balance of payments and foreign reserve positions will likely deteriorate on falling trade balances and capital flows.

With trade balances falling, the combined current account surplus of emerging East Asia is expected to narrow in 2009, after peaking at 8.6% of GDP in 2007. While exports fell precipitously across much of the region, in several economies imports might be less constrained on relatively robust domestic demand. Thus, for 2009, current accounts are expected to remain in surplus in the PRC; Hong Kong, China; Korea; Malaysia; Singapore; and Thailand. In contrast, they should be closer to balance in Indonesia and the Philippines, while Cambodia, Lao PDR, and Viet Nam will likely continue to run large deficits financed mainly by official aid and foreign investment. Capital inflows to the region are expected to weaken significantly in 2009 due to tight credit conditions and risk aversion, though returning risk appetite from the second quarter may encourage capital flows into the region in the second half. The region's currencies are likely to strengthen over time, yet the outlook remains uncertain in the near term (**Box 2**). While promoting exports in the face of weakening external demand may lead authorities to prevent currencies from appreciating, worsening balance of payments positions are likely to reduce foreign exchange reserves across the region.

Risks to the Outlook

Major risks to the above outlook include (i) a more prolonged recession and weaker recovery in developed countries than currently envisaged, (ii) unintended consequences of economic stimulus or premature policy tightening, (iii) falling inflation becoming deflation; and (iv) non-economic events with low probabilities but potentially large impacts.

The crisis resolution and stimulus measures in the US and elsewhere may have started to gain traction, as evident from growing investor optimism and surging stock prices. Signs of stabilization point to an improved outlook for the real economy as well. However, the global outlook remains uncertain, as it takes time for problem assets to be removed from balance sheets. Deleveraging is continuing and a massive shift in

Box 2: Emerging East Asian Currency Outlook

Emerging East Asian currencies experienced a rollercoaster ride during the global financial crisis. Most of them—with the exceptions of the People’s Republic of China’s (PRC) yuan and Indonesian rupiah—began to weaken at the start of 2008 when the United States (US) subprime crisis began to spread globally. The sharpest declines occurred after the bankruptcy of Lehman Brothers in September 2008, which intensified the global crisis substantially. Most currencies, however, showed signs of recovery after March 2009, suggesting that the worst of the crisis for Asian currency markets was over. Emerging East Asia’s currencies are likely to strengthen over time, yet the outlook remains highly uncertain in the near term.

Since the 1997/98 Asian financial crisis, emerging East Asian policymakers have implemented a wide range of initiatives to reduce the risk of balance of payment crises and increase exchange rate stability. As a result, Asian fundamentals improved significantly over the past decade. Many crisis-affected economies, including Indonesia, Republic of Korea (Korea), Malaysia, and Thailand, have maintained current

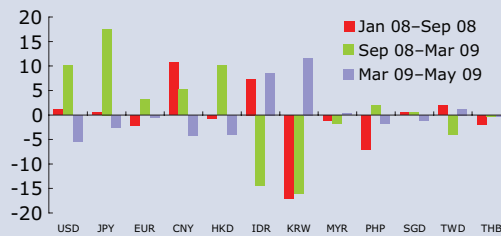
account surpluses. The PRC’s current account surplus even reached 11.3% of GDP in 2007. External borrowing was also lower. The most remarkable gains were in the accumulation of foreign exchange reserves, which rose from \$465.3 billion in 1996 to \$3.11 trillion in 2008 for the region as a whole.

These positive developments, however, were not sufficient to shield Asia from the global financial meltdown and ensuing recession—which saw the region’s exports collapsing, economic growth slowing, and currencies

weakening. This mainly reflected the region’s close economic ties with the US, the epicenter of the crisis. In the two quarters following September 2008, both the Indonesian rupiah and Korean won depreciated in real effective terms by about 15.0% (**Figure 2.1**). The New Taiwan dollar, and Malaysian ringgit lost 4.0% and 1.7%, respectively; the Singapore dollar and Thai baht barely moved. However, the PRC yuan, Hong Kong dollar, and Philippine peso strengthened in real terms by 5.3%, 10.1%, and 1.9%, respectively,

as these currencies are linked closely to the US dollar. As the most open developing region globally, it was unrealistic to expect emerging East Asia to remain unscathed by the financial turmoil. This provided strong evidence refuting the once-popular “decoupling” thesis—at least as far as financial markets are concerned. But the very volatile

Figure 2.1: Changes in REER¹ of Asian Currencies (%)



¹REER = Real effective exchange rate.
 USD= US dollar; JPY= Japanese yen; EUR=euro; CNY=Chinese yuan; HKD=Hong Kong dollar; IDR=Indonesian rupiah; KRW=Korean won; MYR=Malaysian ringgit; PHP=Philippine peso; SGD=Singaporean dollar; TWD=New Taiwanese dollar; THB= Thai baht.
 Source: OREI staff calculations based on data from the Bank for International Settlements.

Continued overleaf

currency markets also suggest that more reforms may be needed to improve the resilience of emerging East Asia's external sectors.

The encouraging news is that during the second quarter of 2009, most of the region's currencies appreciated, except the PRC yuan. The weakening of the yuan was probably the result of a combination of both a more rigid bilateral exchange rate against the US dollar and worsening deflation in the PRC. The general trend of recovery of the region's currencies was driven by the perception that the worst of the global financial crisis might be over, and the region's currency markets had probably bottomed out during the second quarter.

It remains highly risky making firm predictions about exchange rates. Financial stress may have abated and the region's equity markets rebounded. The US dollar is likely to weaken as the US consolidates its fiscal and external accounts in the medium term. But global investors do not appear to have regained the risk appetite they had prior to the crisis. In addition, economic indicators in the region as well

as at the global level are expected to remain volatile in the coming months, especially in areas like unemployment, nonperforming assets, and consumer spending. Current account balances in the region could remain weak even if the financial crisis draws to an end. Slower recovery in the industrial world than in emerging East Asia implies that the region's exports could stay weaker than imports for some time. The PRC is a good example; while the economy recovered strongly beginning the second quarter of 2009 due to effective stimulus, the recovery in exports is likely to lag. This implies that the region's current accounts may deteriorate, hurting the currency outlook.

Moreover, the ability of individual economies to deal with external shocks to financial flows also impacts currency movements differently. Post-1997/98 policy efforts raised the region's foreign reserves, in some cases far in excess of external financing needs (debt payment plus current account deficits). However, the liberalization of financial markets through much of the region attracted foreign portfolio investments to many emerging East Asian economies. And the reversal of these portfolio flows could pose significant challenges to policymakers hoping to

stabilize exchange rates. Here, Korea and Indonesia look relatively more vulnerable. And this may be why their currencies were more volatile during the current crisis.

It is possible that emerging East Asia's currency markets already reached their turning points during the second quarter of 2009. So long as the global markets continue to stabilize and the world economy begins to recover, the region's currencies are likely to strengthen against the US dollar over time. But the situation in each market is likely to differ significantly. The PRC yuan, for example, may appreciate slowly in the near term until the authorities release again the de facto peg to the US dollar once again. Comparing current levels of real effective exchange rates with historical averages of the past 20 years suggest that the New Taiwan dollar, Korean won, and Malaysian ringgit still hold the greatest potential for appreciation.

consumer behavior in developed countries, the US in particular, is underway. The risks to emerging East Asia's transition to recovery, while having dissipated somewhat over the past few months, remain firmly tilted on the downside.

The recession in advanced economies could be much longer and recovery weaker than currently expected, exacerbating the external environment for emerging East Asia.

Despite extraordinary policy measures by major economies to stabilize their financial systems, hidden perils still lurk in major global banks. There remain uncertainties surrounding resolution of problem assets and the still-fragile financial system could be hit by another shock. Commercial real estate and credit card debt are danger zones. Commercial property prices are falling and vacancy rates are rising in the US and Europe, and as many banks are heavily exposed to commercial real estate, any increase in defaults would add to their financial stress. Credit card charge-off rates—debt that card insurers believe they will never collect—rose to the highest level (10.6%) in 20 years in the US, underscoring the strain consumers' finances face from rising unemployment. In addition, concerns are growing over the significant exposure of European banks to the rapidly slowing economies in central and eastern Europe. Rising defaults and deteriorating economic conditions could intensify financial stress, particularly with global banking systems struggling to repair balance sheets and recapitalize. A dysfunctional financial system reduces the ability of monetary and fiscal actions to stimulate the economy, and threatens to prolong the crisis and delay recovery. Moreover, strains in financial systems feed the global recession, which in turn adds additional stress to financial systems. The risk is that the vicious cycle continues.

Unintended policy errors—such as unplanned consequences of economic stimulus or premature policy tightening—could harm emerging East Asia's growth prospects.

Policy makers have learned to avoid the mistakes that transformed the 1929/30 crisis into the Great Depression—the recent adoption of major expansionary macroeconomic policies a case in point. However, some measures may have unintended consequences. With interest rates close to zero in major

industrial economies, several central banks have started to use quantitative easing, an unproven policy tool which could impact central bank independence and affect inflationary expectations. Moreover, recent research shows that government interventions during the Great Depression in the US (and in similar depressions elsewhere) may have contributed to worsening economic conditions. In particular, policies that reduce competition in labor and product markets were especially damaging.⁸ There continue to be heated debates among economists about what form of fiscal stimulus is best to maximize the size of fiscal multipliers and their effectiveness in stimulating demand. As the signs of recovery emerge, there is the dilemma facing policymakers as to when to start reining in the recovery and what the exit strategy should look like—tightening too early could kill the recovery, whereas tightening too late may result in inflationary pressures. Timing will be a critical factor.

Deflation may hurt recovery in the short term, with inflationary pressures possibly returning in the medium term.

A very weak economy puts downward pressure on wages and prices. This could continue and intensify with unemployment already substantial and likely to rise further. In the short to medium term, disinflationary and possibly deflationary pressures are outweighing inflationary ones. And, if the recovery fails to start soon, low inflation in both developing and developed economies could shift into outright deflation. Deflation, if sustained, would further hurt the region's outlook, as it impairs economic activity both by raising real interest rates and by increasing the burden of debt fixed in nominal terms. Yet, unprecedented stimulus policies taken by authorities around the world could possibly become inflationary in the medium to longer term, should the authorities fail to unwind them in time. Recent sharply rising bond yields indicate that there is serious concern large fiscal deficits could eventually stimulate inflation, as could exploding balance sheets of central banks in major industrial countries and significant credit growth in some emerging East Asian economies. The recent sharp rise in fiscal deficits in many economies is in large part cyclical, rather than structural, as governments respond to severe recession and financial crisis.

⁸See Cole, Harold L. and Lee E. Ohanian. 2004. New Deal Policies and the Persistence of the Great Depression: A General Equilibrium Analysis. *Journal of Political Economy* 112:4. August.

When economies finally recover, governments should unwind their fiscal positions before enticing inflation. Structural fiscal deficits, due to aging populations and the chronic escalation in healthcare costs in the US and other developed countries, for example, could drive up long-term interest rates and crowd out private investment, and could be inflationary, unless central banks are determined to fight price pressures.

Non-economic events, such as geopolitical tensions or a significant increase in the spread of Influenza A(H1N1), may have relatively low probabilities but could have a major impact on emerging East Asia's growth outlook.

The World Health Organization declared Influenza A(H1N1) a pandemic on 11 June, noting that the virus has "moderate severity". H1N1 casualties continue to mount quietly (**Table 13**). The pandemic could have a more severe impact on the region, should the virus mutate or the outbreak become full-blown in those developing countries with limited health system capacities. The recent nuclear and missile test in the Democratic Republic of Korea (North Korea) is a much more serious threat. This raises the specter of a serious shock to East Asia's financial and economic systems if the implied threat is carried out. Its seeming unlikelihood must be contrasted with the potentially damaging economic impact.

Policy Issues

Despite tentative signs that the transition to recovery is underway in emerging East Asia, it is important that policymakers stay the course in supporting domestic demand and growth.

Government and central bank policies, both globally and regionally, have stabilized financial markets and may be starting to rekindle growth. Interest rates have been cut and remain extremely low, while an increasing number of central banks are using aggressive quantitative easing to inject money directly into their economies. This is on top of the mass of large stimulus packages currently being implemented. As a result, there are some tentative signs of global and regional economies bottoming out. However, it remains far too early to say if these signs signal a recovery will be underway any time soon.

Table 13: Influenza A(H1N1) Confirmed Cases

	Apr-09		May-09		Jun-09		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Emerging East Asia¹ + Japan	0	0	430	0	4,660	1	5,090	1
China, People's Republic of	0	0	21	0	1,421	0	1,442	0
Philippines	0	0	6	0	855	1	861	1
Thailand	0	0	2	0	772	0	774	0
Singapore	0	0	4	0	595	0	599	0
Korea, Republic of	0	0	33	0	169	0	202	0
Japan	0	0	364	0	848	0	1,212	0
North America²	128	1	8,917	12	26,447	135	35,492	148
Other regions	129	7	5,886	79	23,993	76	30,008	162
Global	257	8	15,233	91	55,100	212	70,590	311

¹Figures include countries in emerging East Asia with the five highest number of cases of influenza A(H1N1). There were also reported cases in Brunei Darussalam (29); Cambodia (6); Indonesia (8); Lao PDR (3); Malaysia (112); Taipei,China (61); and Viet Nam (63). ²Includes Canada and United States.

Source: World Health Organization.

Economists are predicting that any pending recovery will most likely be weak and fragile, with fallout from the global economic crisis long-lasting. Thus, authorities would be wise to maintain expansionary policies within the bounds of medium- and long-term fiscal sustainability. However, at this stage, authorities should plan rather than implement credible and coherent exit strategies to unwind the policy stimulus to prevent inflationary expectations from rising, which could later impede recovery and sustainable growth.

Monetary policy in the region needs to remain expansionary until the recovery gains substantial traction or large inflationary pressures re-emerge.

With real interest rates rising fast, several economies can further loosen monetary policy—others have limited room to ease. Since September 2008, central banks across the region have dramatically loosened their monetary policy, with interest rate cuts ranging from 1.5 percentage points in Malaysia to 7.0 percentage points in Viet Nam (**Table 14**). Despite these aggressive rate

cuts, monetary conditions in the region have not been overly expansionary when considering the sharp contractions in the real economy, the benign inflation environment, and moderating bank lending growth (**Figures 49a, 49b**). As real policy rates have continued to be largely positive (with the exception of Korea and Malaysia)—and while rising with falling inflation—monetary conditions are, in fact, tightening despite significant currency depreciations since the height of the financial crisis. Thailand’s real policy rate, for example, remains above 4.0% and has been rising in recent months, suggesting more room for monetary easing. In addition, with near-term growth likely to be below potential across the region, deflationary pressures—should they become entrenched—indicate the need for further easing. In other countries, most notably the PRC—even with a 7.0% real policy rate—substantial credit and money growth in the first half of the year (see Figure 21) points to highly expansionary monetary conditions, leaving little room to loosen further.

Table 14: Policy Rates¹ (as of 13 July 2009)

Economy	Current Policy Rate	Decline (in basis points)
China, People’s Rep. of	5.31%	216 basis points (from 7.47% on 15 Sep 08)
Hong Kong, China	0.50%	300 basis points (from 3.5% on 08 Oct 08)
Indonesia	6.75%	275 basis points (from 9.5% on 03 Dec 08)
Korea, Rep. of	2.00%	325 basis points (from 5.25% on 08 Oct 08)
Malaysia	2.00%	150 basis points (from 3.5% on 21 Nov 08)
Philippines	4.00%	200 basis points (from 6.0% on 18 Dec 08)
Taipei, China	1.25%	238 basis points (from 3.63% on 24 Sep 08)
Thailand	1.25%	250 basis points (from 3.75% on 02 Dec 08)
Viet Nam	7.00%	700 basis points (from 14% on 20 Oct 08)

¹Policy rates for each economy are as follows: 1-year lending rate (People’s Republic of China); Hong Kong base rate (Hong Kong, China); Bank Indonesia (BI) rate (Indonesia); Korea base rate (Korea); overnight policy rate (Malaysia); reverse repurchase (repo) rate (Philippines); discount rate (Taipei, China); 1-day repo rate from 17 Jan 2007 onwards (Thailand); and prime rate (Viet Nam).

Source: OREI staff calculations based on data from Bloomberg and Datastream.

Figure 49a: Bank Lending Growth—NIEs-4
(%, y-o-y)

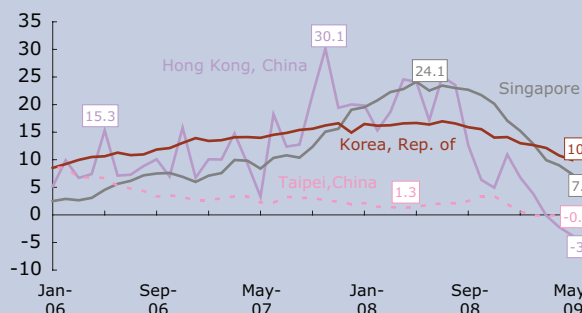
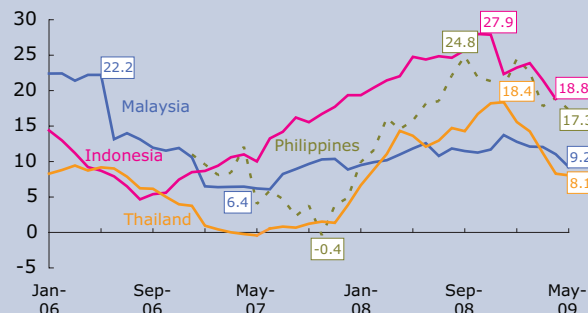


Figure 49b: Bank Lending Growth—ASEAN-4
(%, y-o-y)



NIEs = newly industrialized economies, y-o-y = year-on-year.
 Data for Hong Kong, China refers to authorized institutions' loans and advances; Republic of Korea to commercial and specialized bank loans; Singapore to domestic banking unit loans and advances; and Taipei, China to domestic bank loans and advances. Data for Indonesia refers to commercial bank claims on public and private sectors; Malaysia to commercial bank loans and advances; Philippines to commercial and universal bank loans net of RRP's, starting in 2007; and Thailand to commercial bank loans .
 Source: OREI staff calculation using data from CEIC and Bank of Korea website.

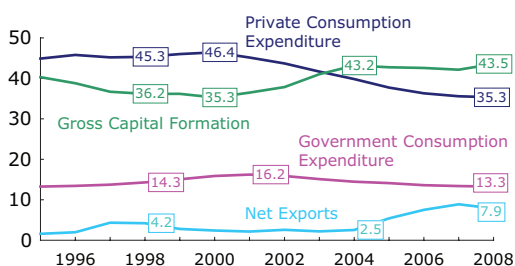
Ensuring the region's stimulus packages are implemented effectively and efficiently is key to bolstering domestic demand in the face of the continued weakness in external demand.

Emerging East Asian economies have introduced a series of new fiscal stimulus in the first half of 2009. Now they need to be implemented to shore up private sector demand to balance the weak and fragile external sector. But fiscal stimulus typically takes time to work through an economy. That is why gauging the effects of stimulus is important, either in determining the need for additional pump-priming, or in beginning to implement an exit strategy. For the moment, it would be good to retain the option for additional fiscal stimulus in 2010. But fiscal deficits are rising substantially, and the higher the deficit in 2009, the less room there will be for an additional increase in 2010. Regardless, to ensure the most direct impact on growth, fiscal stimulus should be focused on areas where it will be most effective and efficient—"shovel-ready" infrastructure, small- and medium-enterprises (SMEs), rural economies, and social safety nets.

Even as the immediate impact of the global crisis works itself out, authorities should continue with deeper, more comprehensive structural reforms needed to rebalance growth toward greater domestic demand.

In the longer term, the region should aim to rebalance its sources of growth away from exports and toward domestic demand. To achieve this, authorities can deepen and broaden structural reforms while further developing financial sectors. Given emerging East Asia’s huge diversity, the optimal policy mix will necessarily differ across economies. Policy makers should address key areas of weakness in the investment climate, such as policy uncertainties, competition in product and service markets, governance, the quality of legal and institutional frameworks, and regulatory capacity. This will require more comprehensive structural reforms to improve efficiency and competitiveness through minimizing unnecessary regulatory barriers on business, encouraging private incentives and market discipline, creating a level playing field, and fostering competition to upgrade institutional capacity. In economies with lower levels of private consumption (**Figure 50**), authorities could address income inequalities and increase public spending on social safety nets, housing, education, and health. This would increase disposable income and reduce precautionary savings, removing some of the impediments to increased household consumption.

**Figure 50: Demand Components—
People’s Republic of China**
(as % of GDP¹)



GDP = gross domestic product.
¹Share of each component to nominal GDP.
 Source: OREI staff calculations based on data from CEIC.

With the region entering the transition to recovery, policy makers can consider the medium- to long-term agenda of improving and streamlining financial regulatory and supervisory regimes in conjunction with global efforts.

The global financial crisis uncovered major regulatory and supervisory gaps in related institutional and market conduct. Reform proposals are currently being discussed at national, regional, and global levels. It is critically important for emerging East Asian authorities to both keep step with and contribute to these debates through regional and global forums. Ways to keep up with the changing landscape for financial regulation will likely include upgrading risk management, revamping information disclosure policies and transparency, enhancing governance and strengthening prudential oversight (**see *Beyond the Crisis: Financial Regulatory Reform in Emerging East Asia*, page 55**).

Expanded regional cooperation could also play a significant supportive role in containing the ripple effects of the global economic crisis on emerging East Asia.

Regional cooperation has proven extremely valuable in coordinating policy responses to the global economic crisis. ASEAN plus the PRC, Japan, and Korea (ASEAN+3) expanded the Chiang Mai Initiative Multilateralization (CMIM) reserve pooling arrangement to \$120 billion in February (**Box 3**). More importantly, the regional grouping has agreed on voting rights, contributions, and independent surveillance and monitoring mechanisms to operate the fund. These are the institutional seeds for closer regional cooperation in general. Also, ASEAN+3 is accelerating the establishment of a credit guarantee and investment mechanism to provide credit guarantees for domestic commercial bank loans and bond issuance. It is also important that authorities in the region collectively reaffirm their commitment against protectionism, both within the region and globally, to maintain and improve a free trade environment. Expanding cooperation for infrastructure development is another initiative worth pursuing to build a cofinancing platform to pool resources from development partners, which will help further promote intraregional trade and investment flows to support the region's economic growth.

Box 3: The Chiang Mai Initiative—Multilateralization and Beyond

The Chiang Mai Initiative (CMI) was announced by the finance ministers of the Association of Southeast Asian Nations (ASEAN) plus the People's Republic of China (PRC), Republic of Korea (Korea), and Japan (ASEAN+3) when they met on the sidelines of the Asian Development Bank (ADB) annual meeting in May 2000. In the aftermath of the 1997/98 Asian financial crisis, the CMI was designed to address short-term liquidity problems and to supplement existing

international financial arrangements in the event of an emergency. Initially, the initiative involved an expanded ASEAN Swap Arrangement (ASA) involving all ASEAN members, and a network of bilateral swap agreements (BSAs) and repurchase facilities among ASEAN+3. Since its inception, however, it was clear that the CMI was much more than this—it was actually an agreement to pursue further negotiations, rather than a final agreement on swap arrangements.

The ASA was initially increased to \$1 billion, and then \$2 billion. Both the number of BSAs and the amounts involved continued to grow over time. By the time of the ASEAN+3 Finance Ministers Meeting (AFMM+3) in Madrid in May 2008, the size of the BSA had increased to \$84 billion (**Table 3.1**).

The leaders of ASEAN+3, meeting on the sidelines of the Asia–Europe Meeting in Beijing in October 2008, decided to expedite the

Table 3.1: Swap arrangements under the Chiang Mai Initiative (as of Dec. 2008, in billion US\$)

From	To	China	Japan	Korea	Indonesia	Malaysia	Philippines	Singapore	Thailand	Total
China			3.0	4.0	4.0	1.5	2.0		2.0	16.5
Japan		3.0		13.0	6.0	1.0	6.0	3.0	6.0	38.0
Korea		4.0	8.0		2.0	1.5	2.0		1.0	18.5
Indonesia				2.0						2.0
Malaysia				1.5						1.5
Philippines			0.5	2.0						2.5
Singapore			1.0							1.0
Thailand			3.0	1.0						4.0
Cambodia										0.0
Lao PDR										0.0
Myanmar										0.0
Vietnam										0.0
Sub-total		7.0	15.5	23.5	12.0	4.0	10.0	3.0	9.0	84.0
ASEAN Swap Agreement (among the 10 ASEAN countries)										2.0
TOTAL										86.0

Source: Elaborations based on Japan's Ministry of Finance website.
Available: <http://www.mof.go.jp/english/index.htm>. Accessed: February 2009.

Continued overleaf

multilateralization of the CMI. They agreed that funds available under the CMI should be a self-managed reserve pooling arrangement, governed by a single contract, reducing costly and wasteful duplication.

At these meetings, the finance ministers also confirmed that the proportion of the contribution between ASEAN and the plus three countries to the CMI would be 20% for ASEAN, and 80% for PRC, Korea, and Japan.

At the Special ASEAN+3 Finance Ministers Meeting in Phuket in February 2009, ministers agreed to expand the pool of foreign currency reserves from \$80 billion to \$120 billion.

But the biggest step forward took place on 3 May 2009 in Bali, when the AFMM+3 agreed on the governing mechanisms and implementation plan for the CMI multilateralization (CMIM). Japan and the PRC would contribute identical shares of the total reserve pool (32%), double Korea's share (16%). The remaining 20% is covered by ASEAN members' contribution. Other details relating to the agreement, such as voting rights, decision making rules, and other operational aspects including activation of short-term liquidity in case of a sovereign financial

emergency, can be found in the official statement.¹

The AFMM+3 also agreed to establish an independent regional surveillance unit to monitor and analyze regional economies and support CMIM decision-making. While the formal unit is being set up, the AFMM+3 asked the ASEAN Secretariat (ASEC) and ADB to work out an interim surveillance arrangement based on the existing surveillance process.

The ASEAN+3 independent regional surveillance unit is not intended as a substitute for the International Monetary Fund (IMF), however. It is designed to enhance objective economic monitoring, supplementing the IMF, especially given the IMF's new Short-Term Liquidity Facility, which enables certain countries to borrow without conditions. Under the CMIM, a country can draw up to 20% of its quota without being subject to IMF conditionality, although the term is restricted to no more than 6 months. Should a country avail of its full quota, then 80% of the amount disbursed would be tied to an IMF program. Once the regional surveillance unit becomes fully operational, the amount that member countries can withdraw without IMF conditionality could be increased.

¹For the full text, please visit <http://www.asean.org/22536.htm>.

By collectively agreeing on the main components of a process created to manage a regional pool of international reserves, the CMIM agreement has set the stage for institutionalizing Asian regionalism. It sets a workable precedent for addressing other priority areas for regional cooperation. For example, enhanced intergovernmental dialogues have spurred further cooperation in trade, investment, and—importantly in these times—financial supervision and regulation. The new institutional model could also be used to speed up financial market development, for example, by setting up a new fund to invest in developing regional bond markets, better using the region's huge savings to help finance massive investment requirements.

The agreed governance structure of the CMIM can even stand as a model outside the economic sphere—such as with regional public goods including climate change and the environment, security, disaster preparedness, and disease prevention.

Apart from issues relating to coverage and process, the impact that the CMIM is likely to have in the region over time will depend on how its membership evolves. What can we say about the likely future composition of CMIM members? Once pressing operational issues are resolved, the CMIM could expand to include India, or even Australia and New Zealand (the East Asia Summit, or ASEAN+6).

Beyond the Crisis: Regulatory Reform in Emerging East Asia

Introduction

The unprecedented global financial crisis has prompted a reassessment of financial regulatory systems worldwide.

Financial crises often provide impetus and opportunity for overdue regulatory reform. As in past crises, the current turmoil exposed shortcomings in supervisory, regulatory, and prudential frameworks. This has led national authorities—together with regional and global financial institutions—to reexamine approaches to financial regulation and supervisory oversight. While the crisis continues to reshape the global financial architecture, wide-ranging reforms and a regulatory overhaul are under discussion to address apparent weaknesses and gaps.

As the expected reforms will dramatically transform the global financial landscape, it is imperative that Asia's financial regulators keep in step.

By and large, emerging East Asia's financial systems and institutions have been shielded from the direct impact of the global financial crisis. Thus, the region faces substantially less pressure for financial restructuring and regulatory reform. Nonetheless, the underlying causes of the current turmoil—based on the dynamics of financial innovation and globalization—accent the need to better supervise financial institutions and safeguard financial stability. While the resilience of emerging East Asia's banking systems has been in past attributed to the reforms following the 1997/98 Asian financial crisis, the risk-assessment capabilities installed are now clearly insufficient and must be supplemented to address new risks and challenges. Emerging East Asia cannot be insulated from the impact of financial crises spawned elsewhere. There is the need for a coordinated approach, not only to address the crisis, but also to prevent the emergence of systemic risks that could threaten national, regional, and global financial stability. Beyond the national responses to mitigate the spillover effects of the crisis, the region's authorities need to design an effective and

coherent framework for cross-border crisis management, and an international regulatory and surveillance system.

Currently, there is a need to improve and streamline the region's regulatory and supervisory regimes, reinforcing global efforts at revamping the financial architecture to avoid a repeat of the crisis.

With the crisis well into its second year, lessons drawn from recent events have led to specific reform proposals with concrete implementation plans. Two major shortcomings are shaping an array of possible regulatory, supervisory, and prudential reforms. First, supervisors failed to stop excessive risk-taking and leveraging by banks. Market failures, in part due to rapid financial innovation, discredited the regulatory model that relied on transparency, disclosure, and market discipline to curb inordinate risk-taking. Second, crisis management in helping resolve impaired financial institutions—local and international—sapped confidence from the system. Thus, the mandate for the region's authorities is clear: they need to be proactive in strengthening their respective national regulatory and supervisory frameworks, in line with higher regulatory standards emanating from global reforms. National regulators should form regional and global alliances to establish a mechanism that can effectively monitor cross-border financial activities that could threaten financial stability. Following a brief survey of the lessons drawn from the crisis and emerging East Asia's regulatory responses thus far, this special section will focus on proposed policies that address identified regulatory gaps.

Regulatory Gaps: What Went Wrong?

GLOBAL LESSONS

A confluence of macroeconomic and structural factors contributed to the current crisis, highlighting an inadequate financial policy and regulatory framework.

The existing regulatory and supervisory system clearly failed to prevent systemic risk from undermining financial stability. Regulatory gaps between different market segments and products, fragmented supervision, and inadequate information to protect investors and encourage market discipline all contributed

to the incidence of systemic risk now crippling the global banking and financial system. While there are many lessons to draw from the crisis, there are five broad lessons particularly relevant to emerging East Asia's financial systems.

- ***Global and national regulatory structures have not kept up with changes in the financial landscape over the past decade, creating gaps across products and services that allowed excessive leverage and risk-taking.***

The crisis exposed important weaknesses and gaps in regulations and their coverage in a number of countries. The global financial landscape has been transformed in recent years. Nonbank financial institutions play an increasingly important role in financial intermediation. The emergence of financial conglomerates also reshaped the financial landscape. Cross-border finance has accelerated, increasing financial interdependence globally. Also, the absence of clear mechanisms for information-sharing and monitoring global transactions contributed to the rapid spread of financial panic as the crisis gained strength.

- ***A largely unregulated, shadow banking system showed phenomenal growth with a massive build-up of off-balance sheet leverage.***

The shadow banking system refers to nonbank financial institutions that play an increasingly critical role in lending. For example, a hedge fund may channel funds from an investor to a corporation, profiting either from handling fees or from interest rate differentials between investor and borrower. These shadow banking institutions have not been subject to the rigorous prudential regulations required of depository banks. The popular and growing use of structured investment vehicles and other conduits also contributed to the expansion of the shadow banking system, allowing excessive amounts of off-balance sheet leverage to build.

- ***Contagion was rapid during the height of the crisis, reflecting high levels of financial interdependence—for example, as a result of the transfer of risk through complex securitized products.***

The financial crisis illustrated how the collapse of a systemically-significant global financial institution—or a sharp, rapid deterioration in an asset class—can have far-reaching impact on global markets and financial systems. Opacity embedded in complex financial products and services also exacerbated market liquidity, contributing to the sharp increase in risk aversion. For example, uncertainty about the valuation of complex credit derivatives and financial institutions' exposure to them generated widespread distrust among global financial institutions, further squeezing market liquidity.

- ***Misaligned incentives in compensation schemes, self-serving credit ratings, and the diffuse originate-to-distribute model were also exposed by the crisis.***

Faulty incentive structures contributed to excessive leveraging and risk-taking. First, the remuneration and incentive schemes of financial institutions encouraged managers to take excessive risks by focusing on short-term returns. Second, misaligned incentives faced by credit rating agencies in supplying ratings and offering advisory services likely contributed to overly positive ratings for complex financial instruments and the underestimation of risk. Third, the originate-to-transfer model may have contributed to a decline in due diligence in lending by reducing incentives to monitor the credit quality of underlying assets in structured credit products.

- ***Certain regulations reinforced the pro-cyclicality of financial systems, exacerbating market stress as the crisis developed.***

The regulatory system was inadequate in accounting for risks associated with boom–bust cycles at the macro level. In some cases, prudential requirements, in fact, encouraged the pro-cyclical behavior of banking systems. For example, several provisions in the Basel II framework appear to encourage banks to decrease the amount of capital they hold during business cycle expansions and increase them during contractions—the

result of mark-to-market, variations in specific provisioning, related risk-weighted capital requirements, and changes in perceived risk using the Value-at-Risk (VaR) model.

Emerging East Asia's Response

In response to the global financial turmoil, authorities across emerging East Asia used an array of policies to support their banking systems and ensure financial stability.

Emerging East Asian policy responses ranged across a wide spectrum, both in response to the immediate crisis and to address spillovers into the real economy. In terms of maintaining financial stability, the main thrust was to ensure sufficient funding in credit markets, restore consumer and investor confidence, and prevent systemic failures. As the effect of the financial crisis was most acute in terms of currency volatility and external funding conditions, the most common measures were exchange market interventions and swap arrangements. Liquidity support and deposit guarantees were also used. The Republic of Korea (Korea) was the most aggressive, while authorities in the People's Republic of China (PRC); several Association of Southeast Asian Nations (ASEAN) members; Hong Kong, China; and Taipei, China were also active (**Table 15**).

Table 15: Government Responses to the Global Economic Crisis—Emerging East Asia

Emerging Asia	Capital Support	Liquidity Support	Credit Guarantee Schemes	Regulatory Forbearance	Deposit Guarantees	Foreign Exchange Intervention & Swap Arrangements	Stock Market Intervention
China, People's Rep. of	✓	✓		✓		✓	✓
Hong Kong, China		✓	✓	✓	✓	✓	
Indonesia			✓	✓	✓	✓	✓
Korea, Rep. of	✓	✓	✓	✓		✓	✓
Malaysia		✓	✓	✓	✓	✓	✓
Philippines		✓		✓	✓	✓	
Singapore		✓			✓	✓	
Thailand				✓	✓	✓	✓
Taipei, China		✓	✓	✓	✓	✓	✓
Viet Nam			✓	✓		✓	✓

Source: *Asian Economic Monitor* December 2008, ADB; *The State of Public Finances: Outlook and Medium-term Policies After the 2008 Crisis*, International Monetary Fund; OREI staff country write-ups; news releases; and national budget documents.

Taken together, these measures have been broadly successful in maintaining public confidence in the region's financial systems; yet there are concerns that some of these measures could hurt long-term financial system stability.

Authorities' policy responses have been swift and aggressive compared with 1997/98. The speed and magnitude of measures taken have been helpful in mitigating the crisis' immediate impact and in avoiding more serious systemic stress. However, despite their short-term stabilizing effects, many of these measures have major drawbacks. Accommodative policies such as state guarantees and regulatory forbearance tend to create moral hazard and breed future problems. Most of these measures also entail significant costs. Direct capital injections can add significant contingent risks to a government's fiscal position, with the possibility of large losses at the expense of taxpayers. Frequent interventions in foreign exchange and stock markets do not seem to have much visible effect on stabilizing either currencies or equity prices—although the simple fact of intervention can considerably harm an authority's reputation for independence and integrity in the long run.

Ad hoc national policy responses can create conflicts of interest among the region's economies, thus leading to suboptimal levels of policy support.

As the crisis rapidly intensified in the latter half of 2008, emerging East Asian governments raced to protect their financial systems and bolster foreign investor confidence in their markets. Without a regionally coordinated approach, competition across the region's financial systems may have led to inefficient or wasteful policy support. For example, the introduction of a blanket guarantee in one economy can force a competing economy to follow suit where authorities otherwise might not have done so. The result may be excessive policy support with potentially large corresponding costs.

A well-established crisis management framework reduces the risk of policy mistakes and greater costs in addressing financial crises.

Monetary and liquidity support along with deposit and other guarantees have succeeded thus far in maintaining confidence

in the region's banking systems—there have been no bank runs. However, few economies have systemic guidelines in responding to crises. For example, when providing capital and liquidity, few governments have specified criteria that trigger the support mechanism—although state-owned banks are usually the beneficiaries. State guarantees for depositors and small- and medium-sized enterprise (SME) credits have been repeatedly expanded. In the case of Taipei, China, it took only 1 day for authorities to expand the scope of deposit guarantees to unlimited coverage. Given the significant moral hazard and financial cost that stabilization measures might entail, there should be clear conditions and criteria under which financial institutions could avail of public sector support.

What Makes Asia Different?

The direct impact of the global financial meltdown on emerging East Asian systems has been minimal.

Limited direct exposure to US mortgage-related assets shielded Asian banking systems from massive losses. Of the total \$787.3 billion in write-downs and credit losses reported worldwide since July 2008, only \$11.7 billion, or about 1.5%, comes from Asian financial institutions—the bulk of which is concentrated in Japan and to a lesser extent the PRC. This—coupled with Asian banks' continued ability to raise fresh capital—allowed the region's banking systems to remain generally well-capitalized and liquid. The relative soundness of the region's banking systems, which dominate financial intermediation across emerging East Asia, has helped the region's financial systems continue to finance real economic activity.

The relative resilience of the region's financial systems is in part due to the structural reforms taken since the 1997/98 Asian financial crisis.

Significant structural changes swept across emerging East Asia in the aftermath of the 1997/98 Asian financial crisis, underpinning the relative resilience and soundness of the region's financial systems. The post-crisis reforms helped deepen and broaden the region's financial sectors, with significant financial asset growth, particularly in the non-banking sector, together with a strong rise in equity and bond markets (**Table 16**). Across the region, banks continue to play an important role in financial

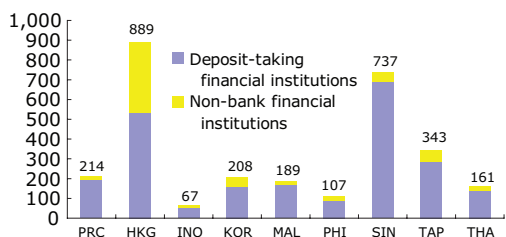
Table 16: Size and Composition of Financial System (% of GDP)

	Financial Sector Assets ¹				Market Capitalization ²		Total Bonds Outstanding	
	Deposit-taking Financial Institutions		Non-bank Financial Institutions		2000	2008	2000	2008
	2000	2008	2000	2008	2000	2008	2000	2008
China, People's Rep. of	168.8	204.5	8.8	33.9	27.1	32.3	16.9	50.3
Hong Kong, China	505.5	640.7	196.4	573.8	363.9	610.9	35.8	42.9
Indonesia	63.6	48.6	8.8	13.7	18.7	21.7	31.9	13.4
Korea, Rep. of	147.9	192.7	44.1	62.6	31.2	56.3	66.5	86.2
Malaysia	154.2	190.3	16.5	20.2	124.7	89.6	74.8	73.5
Philippines	99.2	78.8	22.4	18.5	76.8	54.3	27.6	33.7
Singapore	683.8	707.9	39.1	47.1	243.7	148.0	48.0	70.8
Taipei,China	259.9	289.6	29.8	80.6	81.7	94.7	7.7	7.7
Thailand	132.3	137.7	10.7	33.0	26.0	39.2	25.3	51.6
Memo								
eurozone	230.0	315.8	142.1	169.3	—	—	124.2	69.4
Japan	227.5	230.9	118.5	132.1	71.7	55.8	97.4	193.4
United States	78.3	104.8	283.2	306.1	117.5	64.6	41.8	55.3

¹Financial asset data for China, People's Rep. of for 2002 and 2007; Hong Kong, China for 2000 and 2007; Indonesia for 2001 and 2007; Malaysia for 2000 and 2007; and Japan for 2001 and 2004. ²Market capitalization as percent of gross domestic product (GDP) in local currency unit.

Source: OREI staff calculations using data from national sources (accessed through CEIC and websites), *AsianBondsOnline*, Bloomberg, *World Economic Outlook Database* (April 2009), and World Federation of Exchanges.

Figure 51: Importance of Bank Assets Relative to Non-Bank Financial Sector¹
(total assets as % of GDP, period average)



¹Average values for China, People's Republic of (PRC) for 2002-2007; Hong Kong, China (HKG) for 2000-2007; Indonesia (INO) for 2001-2007; Korea, Rep. of (KOR) for 2000-2008; Malaysia (MAL) for 2000-2007; Philippines (PHI) for 2000-2008; Singapore (SIN) for 2000-2008; Taipei,China (TAP) for 2000-2008; and Thailand (THA) for 2000-2008

Source: OREI staff calculations using data from national sources (accessed through CEIC and websites); and *World Economic Outlook Database* (April 2009), International Monetary Fund.

intermediation (**Figure 51**). Nevertheless, post-crisis capital market development has expanded alternative means of corporate finance, such as equities and bonds.

The quality of banks' risk management in the region has been strengthened substantially, although vulnerabilities could still arise from new lines of banking business and the legal and structural impediments that remain.

Banks across the region are generally stronger than before, owing to much-improved risk management practices (**Table 17**). Banks generally hold comfortable credit and liquidity cushions, with the ratio of nonperforming loans to total loans sharply decreasing since the 1997/98 Asian financial crisis. Loan-to-deposit ratios have come down across the region as well, with the exception of Korea. While the 1997/98 crisis reflected, in part, the impact of structural weaknesses from a

Table 17: Banking Sector Indicators (%)

	Nonperforming Loans to Total Loans ¹		Bank Regulatory Capital to Risk-Weighted Assets ²		Bank Provisions to Nonperforming Loans ³		Private Sector Loans to Deposit ⁴	
	2000	2008	2000	2008	2000	2008	2000	2008
China, People's Rep. of	22.4	2.5	13.5	8.2	4.7	115.3	95.2	69.6
Hong Kong, China	5.9	1.2	17.8	14.7	—	—	66.7	47.3
Indonesia	20.1	3.2	12.5	16.8	36.1	98.5	39.2	80.1
Korea, Republic of	6.6	1.2	10.5	12.7	81.8	155.4	111.5	134.1
Malaysia	9.7	2.2	12.5	12.2	57.2	88.9	108.8	92.8
Philippines	15.1	3.5	16.2	15.7	43.7	86.0	82.0	78.3
Singapore	3.4	1.4	19.6	14.3	87.2	119.9	99.7	85.3
Taipei,China	5.3	1.5	10.8	10.8	24.1	76.6	77.5	73.1
Thailand	17.7	5.3	11.9	14.1	47.2	97.9	102.3	97.7
Memo								
eurozone	—	1.5	—	7.9	—	—	135.0	138.5
Japan	5.3	1.5	11.7	12.3	35.5	24.9	58.5	73.9
United States	1.1	2.3	12.4	12.5	146.4	84.7	110.6	109.2

— = not available.

¹Nonperforming loan (NPL) ratios for commercial banks, except for eurozone and Taipei,China for banking system; Japan for major banks; and United States for all FDIC-insured institutions. Data for Hong Kong, China in 2008 refers to gross substandard, doubtful and loss loans. Data for Japan, Singapore, and the United States as of September 2008. Data for eurozone as of end-2007. ²Risk-weighted capital adequacy ratios for commercial banks except for People's Republic of China, eurozone, and Taipei,China banking system; Japan major banks; and United States all FDIC-insured institutions. Values for the Philippines are on consolidated basis; while eurozone data includes non-IFRS reporting countries only. Data for China, People's Republic of in 2000 for state commercial banks only. Data for Singapore as of September 2008; and for China, People's Republic of as of March 2008. ³Data for Japan; Korea, Rep. of; Singapore; and United States in 2008 as of September 2008; Indonesia as of August 2008. Values for Indonesia are write-off reserve on earning assets to classified earning assets ratio, while those for Malaysia refer to general, specific, and interest-in-suspense provisions. Data for China, People's Republic of in 2000 for state commercial banks only. ⁴Covers loans to private sector or nonfinancial corporations, and deposits of banking institutions, other depository corporations, or deposit money banks. Private sector loans-to-deposit data for Indonesia, Japan, Malaysia, Thailand, and United States in 2000 are end-2001 values.

Source: *Global Financial Stability Report*, and *International Financial Statistics*, International Monetary Fund; and national sources.

highly leveraged corporate sector and weak bank oversight, the region's corporate sector during the current crisis appears to be in good shape with rising profitability and declining gearing ratios (**Table 18**). Despite the global run-up in housing prices prior to the 2008 crisis, the region's households appeared to hold relatively healthy financial positions as well (**Table 19**). With the exception of the region's more advanced economies—such as Hong Kong, China; Singapore; and Taipei,China—household debt and mortgages as a percent of gross domestic product (GDP) remain low compared with the United States (US) and Europe. While these indicators show the region's banks are sound overall, pockets of weakness remain with new challenges

Table 18: Corporate Sector Indicators¹

	Return on Assets (%)		Sales Growth (% , y-o-y)		Interest Expense/ Assets (%)		Interest Coverage Ratio		Debt-Equity Ratio	
	2000	2008	2000	2008	2000	2008	2000	2008	2000	2008
China, People's Rep. of	4.5	4.6	621.5	38.5	2.7	1.3	5.1	9.3	0.6	0.3
Hong Kong, China	11.6	7.4	9.7	24.5	1.7	1.2	9.0	11.5	0.2	0.1
Indonesia	6.5	6.5	0.0	35.5	5.2	1.9	3.4	9.9	1.1	0.5
Korea, Rep. of	3.0	2.0	1.3	26.9	3.9	1.3	3.4	7.6	0.8	0.6
Malaysia	4.1	4.6	10.3	22.5	2.3	1.7	4.5	6.7	0.5	0.4
Philippines	3.3	4.4	0.5	16.8	3.1	2.5	3.4	5.2	0.8	0.5
Singapore	4.4	6.7	5.8	25.3	1.1	1.0	8.1	12.7	0.0	0.2
Taipei, China	7.5	3.1	19.7	6.0	1.3	0.9	11.2	13.9	0.3	0.2
Thailand	0.8	4.7	3.0	36.2	4.8	1.6	2.3	9.3	1.9	0.6
Average	5.1	4.9	74.6	25.8	2.9	1.5	5.6	9.6	0.7	0.4
Median	4.4	4.6	5.8	25.3	2.7	1.3	4.5	9.3	0.6	0.4
eurozone	3.9	3.8	-1.4	-0.8	1.5	1.6	8.2	7.0	0.5	0.7
Japan	0.8	2.0	1.1	1.3	1.2	0.6	6.4	18.3	0.9	0.6
United States	5.7	4.6	7.0	10.6	2.2	1.8	6.7	7.2	0.7	0.6

¹Data for all listed non-financial companies.

y-o-y = year-on-year

Notes:

Return on assets = (net income/total assets)*100.

Interest expense/assets = (interest expense/total assets)*100.

Interest coverage ratio = earnings before interest, taxes and depreciation(EBITDA)/interest expense.

Net income represents income after removing all operating and non-operating income and expense, reserves, income taxes, minority interest, and extraordinary items of listed non-financial companies.

Total assets represent the sum of total current assets, long term receivables, investment in unconsolidated subsidiaries, other investments, net property plant and equipment, and other assets of listed non-financial companies.

Net sales represent gross sales and other operation revenues less discount, returns, and allowance of listed non-financial companies.

Net debt represents total debt minus cash of all listed non-financial companies.

Common equity represents common shareholders' investment in listed non-financial companies.

Source: OREI staff calculations using Datastream data.

emerging. Slower growth often reveals vulnerabilities hidden below the surface during high-growth periods. With economies in the doldrums, the region's banking systems face a tougher business environment. For example, corporate defaults tend to rise with economic difficulty, increasing nonperforming loans. The region's banking systems now lend more to the household sector and invest more in securities. Deterioration in housing and/or financial asset markets could have a negative impact on bank's balance sheets. And finally, despite the significant progress made through the post-1997/98 crisis reforms, legal and market infrastructure remain underdeveloped in many of the region's economies, with meager institutional support for risk management.

Table 19: Household Sector Indicators

	Household Indebtedness (% of GDP) ¹		Household Mortgage Loans (% of GDP) ¹		Housing Prices Change (% , y-o-y) ²		LTV Limit (%) ³	DTI Limit (%) ³	Mortgage Delinquency Ratio ⁴
	2001	2008	2001	2008	Average 2001–2007	2008	Current	Current	Latest
China, People's Rep. of	—	—	5.1	11.6	6.3	7.1	80	55	—
Hong Kong, China	61.3	52.3	49.8	38.8	3.2	17.3	60–90	45–50	0.1
Indonesia	5.6	11.6	1.2	2.5	6.9	5.5	—	—	2.3
Korea, Rep. of	24.7	37.9	13.3	23.4	6.7	4.0	40–60	40	0.6
Malaysia	43.8	48.5	24.4	26.0	3.1	4.0	—	—	5.6
Philippines	2.2	6.4	1.4	2.1	—	—	—	—	8.4
Singapore	—	50.8	28.0	34.8	2.1	13.4	90	none	0.5
Taipei, China	43.3	54.0	26.6	38.4	—	—	—	—	—
Thailand	10.8	17.9	7.1	9.6	3.1	-1.1	70–90	none	—
Memo									
eurozone	44.4	52.7	28.6	37.6	6.4	1.7	—	—	—
Japan	19.7	22.4	15.0	19.5	-4.2	-1.2	90	25–40	—
United States	95.6	120.8	76.4	102.6	6.7	-5.7	70–95	45	7.9

— = not available. DTI = mortgage debt to income ratio, GDP = gross domestic product, LTV = mortgage loans to value ratio, y-o-y = year-on-year.

¹Values for Indonesia, Singapore, and Thailand refer to loans from commercial banks and financing companies; People's Republic of China (PRC) from financial institutions; Hong Kong, China from authorized institutions; Republic of Korea from commercial and specialized banks; Malaysia from commercial and investment banks; Philippines and Taipei, China from the banking system; eurozone from monetary and financial institutions; Japan from domestic licensed banks; and United States from financial system. Data for PRC in 2008 as of December 2007. ²Values for China, People's Rep. of; Hong Kong, China; Indonesia; Singapore; and eurozone refer to residential property price index. Data for Korea, Republic of; Malaysia; Thailand; and United States refer to housing price index. Data for Japan refers to urban residential land price index. ³Limits for the United States are from Freddie Mac and Fannie Mae; Japan from Housing Finance Agency; Hong Kong, China from Hong Kong Mortgage Corporation; and Thailand from Government Housing Bank. ⁴Values for Indonesia, Malaysia; and Singapore refer to nonperforming housing loans ratio; for the Philippines real estate loans past due. Data from the banking system for most; except for Malaysia and United States for commercial banks; and Hong Kong, China for retail banks. Data for Singapore as of September 2008; Indonesia as of December 2008; Hong Kong, China; Rep. of Korea, Malaysia, Philippines and United States as of March 2009.

Source: National sources accessed through CEIC and various websites; Federal Reserve System; European Central Bank; and *World Economic Outlook Database* (April 2009), International Monetary Fund.

The current crisis illustrates that the risk assessment capabilities built since the 1997/98 Asian financial crisis remain insufficient and need to be upgraded.

There is a fundamental weakness in exclusively using a micro-prudential approach in supervision—it tends to overlook financial spillovers and externalities in times of stress. Better regulatory and supervisory oversight has improved the soundness of individual banks. However, financial interdependence has intensified as banks diversify lines of business and new products and services blur the boundaries of banking. In addition, the complexity of structured credit products—often involving high

leverage, the unbundling and repackaging of risk, and credit enhancement—is challenging the ability of banks and financial regulators to fully assess the risks involved. In sum, marked changes in the banking environment have rendered existing regulatory approaches somewhat obsolete.

Innovation, deregulation, and globalization continue to impact the region’s evolving banking environment.

Innovation is often driven by regulatory arbitrage, or the desire to avoid regulatory requirements placed on banks and other deposit-taking institutions. These include minimal capital and liquidity ratios, various prudential constraints on permissible assets and liabilities, governance requirements, and reporting obligations. Deregulation has obscured the boundaries between banks and nonbank financial institutions in terms of the products and services they offer. Increased globalization means global financial conditions increasingly affect the health of the region’s banking and financial systems. During the current crisis, for example, the repatriation of funds by global financial institutions put significant pressure on local banks’ foreign currency resources and in some cases threatened their financial soundness. The rapidly changing financial landscape requires a thorough review of new risks and challenges. The crisis presents an opportune time to review them and make required adjustments to the reform measures implemented since the 1997/98 Asian financial crisis.

The financial regulatory and supervisory framework changed significantly after 1997/98, driven by banking sector consolidation, the evolving business of banking, and growing financial disintermediation.

Overall, the region’s banking regulatory and supervisory frameworks have become more rule-based—as opposed to the discretionary, relationship-based frameworks in place prior to 1997. Rules and norms in bank supervision across the region now appear to be broadly consistent with international standards. Market entry and ownership criteria, capital and liquidity requirements, prudential requirements, banking activities, auditing and disclosure requirements, and corporate governance all generally comply with international standards (**Table 20**).

Table 20: Banking Regulatory and Supervisory Framework in Emerging East Asia

	China, People's Rep. of	Hong Kong, China	Indonesia	Korea, Rep. of	Malaysia	Philippines	Singapore	Taipei, China	Thailand	Viet Nam
Licensing authority	China Banking Regulatory Commission	Hong Kong Monetary Authority	Bank Indonesia	Financial Services Commission	Finance Minister (by recommendation of Bank Negara Malaysia)	Bangko Sentral ng Pilipinas	Monetary Authority of Singapore	Financial Supervisory Commission	Ministry of Finance (by recommendation of the Bank of Thailand)	State Bank of Viet Nam
Market entry criteria	CNY1 billion for a nation-wide bank; CNY100 million for a city commercial bank; CNY50 million for a rural commercial bank	HKD300 million	IDR3 trillion for domestic and subsidiary of foreign banks; new entry of foreign bank branch not allowed	KRW 100 billion	MYR2 billion	PHP4.95 billion for universal bank; P2.4 billion for commercial bank	SGD1.5 billion	NTD10 billion	THB5 billion	VND3 trillion
Required information on the source of funds for capital	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Maximum percentage of capital that can be owned by a single owner	For a city commercial bank, up to 5% of the total shares	None	None	None	10% for individuals and 20% for corporate	40%	None	25%	5% of the total amount of a commercial bank's shares sold	5%
Ownership criteria	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed
Nonfinancial firms' ownership of banks	Permitted	Permitted	Permitted	Permitted	Restricted	Restricted	Permitted	Restricted	Restricted	Permitted
Nonfinancial firms' ownership of voting shares	8%	8%	8%	10%	8%	10%	10%	8%	8.5%	8%
Risk-weighted capital adequacy ratio (%)	8%	8%	8%	10%	8%	10%	10%	8%	8.5%	8%
Varying capital-asset ratio in line with market risk	No	No	No	No	Yes	Yes	Yes	Yes	No	Yes

Table 20 continued

	China, People's Rep. of	Hong Kong, China	Indonesia	Korea, Rep. of	Malaysia	Philippines	Singapore	Taipei, China	Thailand	Viet Nam
Securities	Prohibited	Unrestricted	Prohibited	Permitted	Permitted	Unrestricted	Unrestricted	Restricted	Prohibited	Permitted
Insurance	Restricted	Unrestricted	Prohibited	Permitted	Restricted	Permitted	Restricted	Restricted	Restricted	Permitted
Real estate	Prohibited	Unrestricted	Prohibited	Prohibited	Restricted	Permitted	Restricted	Restricted	Restricted	Permitted
Bank activities	Prohibited	Permitted	Prohibited	Restricted	Restricted	Permitted	Restricted	Restricted	Restricted	Permitted
Regulatory restrictions on bank ownership of nonfinancial firms	Prohibited	Permitted	Prohibited	Restricted	Restricted	Permitted	Restricted	Restricted	Restricted	Permitted
Compulsory external audit	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Auditor's report given to supervisory agency	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Auditing system	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No
Auditors are legally required to report misconduct by managers/directors to supervisory agency	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No
Supervisors can take legal action against external auditors for negligence	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Management and organization	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Supervisors can force banks to change internal organizational structure	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 20 continued

	China, People's Rep. of	Hong Kong, China	Indonesia	Korea, Rep. of	Malaysia	Philippines	Singapore	Taipei, China	Thailand	Viet Nam
Specific guidelines for asset diversification	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
Banks are prohibited from making loans abroad	No	No	Yes	Yes	No	No	No	No	No	No
Liquidity requirements	8% of outstanding deposits denominated in domestic currency	Not Applicable	7.5% of third party fund or bank deposit (IDR); 1% (USD)	Up to 35% of total reserves may be held in the form of vault cash	4% of eligible liabilities	19% of total deposit liabilities of banks	3% cash balance; 18% liquid asset ratio	a minimum deposit at Central Bank with minimum requirements vary with deposits (4–10.75%)	At least 0.8% of required reserves	Liquidity requirement on a case-by-case basis
Depositor protection schemes	None	Yes	Yes	Yes	Yes	Yes	Yes	Yes	None	Yes
Explicit deposit insurance scheme	None	Yes	Yes	Yes	Yes	Yes	Yes	Yes	None	Yes
Depositor insurance agency can take legal action against bank directors and/or officials	Not Applicable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Not reported
Provisioning requirements	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Formal definition of nonperforming loans	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Loan classification is based on (a) the number of days a loan is in arrears, (b) a forward-looking estimate of the probability of default, or (c) other factors	(b)	(a), (b), and (c)	(c)	(a) and (b)	(a)	(a) and (b)	(c)	(a)	(a)	(a) and (c)

Table 20 continued

	China, People's Rep. of	Hong Kong, China	Indonesia	Korea, Rep. of	Malaysia	Philippines	Singapore	Taipei, China	Thailand	Viet Nam
Income statement contains accrued but unpaid interest/principal while loan is performing	Not Available	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Consolidated accounts covering bank and any non-bank financial subsidiaries are required	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Not re-reported
Off-balance sheet items are disclosed to supervisors	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Not re-reported
Banks must disclose risk management procedures to the public	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Directors are legally liable for erroneous and/or misleading information	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Regulations require credit ratings for commercial banks	No	No	No	Yes	No	Yes	No	No	No	No
Single/multiple supervisory authority	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single
Onsite examinations	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Supervisors are legally liable for their actions	No	No	No	Yes	No	Yes	No	Yes	Yes	Not re-reported
Disclosure										
Supervision										

Table 20 continued

	China, People's Rep. of	Hong Kong, China	Indonesia	Korea, Rep. of	Malaysia	Philippines	Singapore	Taipei, China	Thailand	Viet Nam
Mechanisms of cease-desist type orders whose infraction leads to the automatic imposition of civil and penal sanctions on the banks directors and managers	Yes	None	Yes	Yes	Yes	Yes	Yes	Yes	Yes	None
Supervisory agency can order directors and/or management to constitute provisions to cover actual and potential losses	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Not re-reported
Discipline										
Specific law addressing bank insolvency	Banking Law and Commercial Banking Law	Companies Ordinance, Bankruptcy Ordinance, Banking Ordinance, Deposit Protection Scheme Ordinance, and Clearing and Settlement Systems Ordinance	Banking Act and Bank Indonesia regulation	Banking Act, Act on Structural Improvement of the Financial Industry	Companies Act 1965 and Banking and Financial Institutions Act 1989	R.A. 7653 Central Bank Act	Banking Act, Companies Act, and Bankruptcy Act	Company Law, Bankruptcy Law, and Banking Act	Bankruptcy Act B.E. 2483 (1940) as amended	The Law on Credit Institutions and Bankruptcy Law
Supervisory agency can supersede bank shareholder rights and declare bank insolvent	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Not re-reported

Source: Caprio, Gerard, Ross Eric Levine, and James R. Barth; *Bank Regulation and Supervision (2003 and 2008)*, World Bank; and OREI staff updates based on central bank/monetary authority and regulatory agency circulars.

Nevertheless, there remain vast differences across emerging East Asia in the institutional setup for financial regulation and supervision (**Table 21**). This largely reflects the varying stages of financial development and differences in the structure of individual financial systems. The 1997/98 Asian financial crisis played a catalytic role in reforming the region's regulatory and supervisory regimes. One of the key considerations then was to integrate and streamline the regulatory structure. For example, both Korea and Taipei,China now have single, integrated financial regulators separate and independent from their respective former regulators. In Singapore and Viet Nam, the central bank is the single regulator for all financial services. In most cases, however, the central bank remains the banking regulator. In Korea and Taipei,China, even where the single financial regulator also oversees banks, the central bank retains a specific role in bank supervision.

Asia's performance in implementing international financial standards and codes shows the need for further compliance.

Information on the quality of regulation can be drawn from assessments of compliance with international financial standards and codes. For Asian economies participating in the World Bank/International Monetary Fund (IMF) Financial Sector Assessment Program (FSAP), this information is available together with other stand-alone and self-assessments. The principal standards assessed through FSAP are the Basel Core Principles (BCP), Insurance Core Principles (ICP), and International Organization of Securities Commissions Principles (IOSCO) (**Tables 22a, 22b, 22c**).

- ***Assessments of the BCP for effective banking supervision reveal that compliance was generally lower in Asian jurisdictions compared with the global reference sample.***

Observance of compliance with principles on licensing and structure, methods of supervision, accounting and disclosure, and consolidated and cross-border supervision were found to be lower in Asian economies than the global average. In particular, for this cluster of principles incidences of materially compliant to non-compliant with the standards were generally higher than global averages. On the other

Table 21: Institutional Setting of Financial Regulation and Supervision in Emerging East Asia

	China, People's Rep. of	Hong Kong, China	Indonesia	Korea, Rep. of	Malaysia	Philippines	Singapore	Taipei, China	Thailand	Viet Nam	
Supervisory structure	Single supervisor	Separate from the central bank		✓				✓			
		Within the central bank				✓				✓	
	Semi-integrated supervisory agencies	Banking and securities									
		Banking and insurance				✓					
	Multiple supervisors	All non-banks									
		At least one for banks, securities, and insurers	✓	✓			✓			✓	

Table 21 continued

	China, People's Rep. of	Hong Kong, China	Indonesia	Korea, Rep. of	Malaysia	Philippines	Singapore	Taipei, China	Thailand	Viet Nam
Central bank is the banking supervisor	✓	✓	✓		✓	✓	✓		✓	✓
Partial involvement										
Management of the banking supervisor										
Some specific tasks in banking supervision	✓			✓				✓		
Sharing resources with other supervisory agencies										
Consolidated supervision applied to bank subsidiaries and affiliates of domestic financial groups, and to unincorporated branches and affiliates of non-domestic financial groups	✓		✓			✓		✓		✓
Consolidated supervision applied to bank subsidiaries and affiliates of domestic financial groups, <u>but not</u> to unincorporated branches and affiliates of non-domestic financial groups		✓		✓			✓			

Source: *Global Survey 2008: Regulatory and Market Developments*, Institute of International Bankers; *Designing an Integrated Financial Supervision Agency*, Siregar, R. and W. James; ASEAN Economic Bulletin Vol. 23, No. 1; and OREI staff updates and inputs.

Table 22a: Assessment of Compliance with Basel Core Principles

	Core Principles	Asia (% of Asian Economies Assessed)					Global (% of World Economies Assessed)				
		Compliant	Largely Compliant	Materially Compliant	Non-Compliant	No Answer or Not Assessed	Compliant	Largely Compliant	Materially Compliant	Non-Compliant	No Answer or Not Assessed
Objectives, Independence, Powers, Transparency, and Cooperation	1	10.5	5.3	5.3	—	78.9	11.6	4.3	2.2	—	81.9
Licensing and Structure	2–5	46.1	35.5	15.8	2.6	—	51.1	31.9	13.8	3.3	—
Prudential Regulations and Requirements	6–18	32.4	22.7	31.2	11.3	2.4	32.0	33.7	25.8	7.5	1.1
Methods of Ongoing Banking Supervision	19–21	33.3	26.3	24.6	8.8	7.0	36.5	29.7	23.9	5.6	4.3
Accounting and Disclosure	22	26.3	52.6	15.8	5.3	—	27.5	39.1	30.4	2.9	—
Corrective and Remedial Powers of Supervisors	23	36.8	5.3	21.1	10.5	26.3	30.4	19.6	13.8	8.0	28.3
Consolidated and Cross-Border Banking Supervision	24-25	36.8	34.2	13.2	7.9	7.9	40.2	29.0	14.5	4.3	12.0

Notes: Asia includes: Australia; Bangladesh; Cook Islands; Hong Kong, China; India; Indonesia; Japan; Korea, Republic of; Labuan (Malaysia); Macau, China; Marshall Islands; New Zealand; Palau; Philippines; American Samoa; Singapore; Sri Lanka; Thailand; and Vanuatu. Global includes 139 jurisdictions assessed. Source: International Monetary Fund.

Table 22b: Assessment of Compliance with Insurance Core Principles

	Core Principles	Asia (% of Asian Economies Assessed)					Global (% of World Economies Assessed)					
		Observed	Largely Observed	Partly Observed	Materially Non-Observed	Non-Observed	Not Assessed or Not Applicable	Observed	Largely Observed	Partly Observed	Materially Non-Observed	Non-Observed
Organization	1	—	—	62.5	37.5	—	—	15.0	40.0	30.0	5.0	6.7
Licensing and Changes in Control	2-3	75.0	—	6.3	12.5	6.3	—	55.8	25.0	10.0	7.5	0.8
Governance and Internal Control	4-5	18.8	—	31.3	25.0	18.8	6.3	17.5	20.0	33.3	23.3	5.0
Prudential Rules	6-10	30.0	10.0	22.5	15.0	12.5	10.0	34.7	28.7	17.3	8.7	7.7
Market Conduct	11	37.5	—	37.5	25.0	—	—	30.0	20.0	35.0	8.3	6.7
Monitoring and On-Site Inspection	12-13	37.5	6.3	25.0	25.0	6.3	—	40.8	35.0	18.3	2.5	0.8
Sanctions	14	75.0	—	12.5	12.5	—	—	50.0	36.7	10.0	1.7	—
Cross Border Business Operations	15	50.0	—	25.0	12.5	—	12.5	41.7	15.0	11.7	—	31.7
Coordination and Cooperation	16	12.5	12.5	37.5	25.0	12.5	—	41.7	1.7	15.0	10.0	1.7
Confidentiality	17	75.0	—	25.0	—	—	—	71.7	21.7	5.0	—	1.7

Asia includes: Hong Kong, China; Japan; Korea, Republic of; Labuan (Malaysia); Macau, China; Philippines; Singapore; and Vanuatu.
Global includes 60 jurisdictions assessed.
Source: International Monetary Fund.

Table 22c: Assessment of Compliance with IOSCO Core Principles

	Core Principles	Asia (% of Asian Economies Assessed)					Global (% of World Economies Assessed)				
		Implemented	Broadly Implemented	Partially Implemented	Non-Implemented	Not Applicable or No Answer	Implemented	Broadly Implemented	Partially Implemented	Non-Implemented	Not Applicable or No Answer
Powers, Resources, Independence, and Accountability	1-5	52.0	17.1	25.3	4.0	1.6	56.4	25.5	18.2	—	—
Self-Regulatory Organizations and Supervision	6-7	48.0	5.3	22.0	4.7	20.0	63.6	4.5	31.8	—	—
Enforcement	8-10	46.2	15.1	29.8	7.1	1.8	45.5	21.2	24.2	9.1	—
Domestic and International Cooperation	11-13	47.1	10.7	29.8	10.2	2.2	45.5	15.2	15.2	21.2	3.0
Issuers and Disclosure of Information	14-16	48.4	13.3	29.3	4.0	4.9	45.5	27.3	21.2	—	6.1
Collective Investment Schemes and Operations	17-20	62.7	9.0	21.3	5.0	2.0	54.5	13.6	27.3	4.5	—
Supervision of Market Intermediaries	21-24	50.3	11.0	26.3	9.7	2.7	52.3	11.4	31.8	4.5	—
Regulatory Structure, Integrity, and Clearance and Settlement Functions	25-30	50.2	9.6	22.2	5.6	12.4	53.0	13.6	24.2	1.5	7.6

Asia includes: Australia; Bangladesh; Hong Kong, China; India; Japan; Korea, Republic of; Labuan (Malaysia); New Zealand; Philippines; Singapore; and Sri Lanka. Global includes 75 jurisdictions assessed. Source: International Monetary Fund.

hand, full compliance with BCP requirements on prudential regulations and on corrective and/or remedial powers was higher than the average benchmark, even though there were once again more observations of non-compliance among assessed Asian economies. It is noteworthy that in Asia, as for other countries, there were some difficulties in assessing compliance with BCP on the objectives, independence, and powers of the supervisor.

- ***Asian jurisdictions also scored lower than the global average in assessments of compliance with ICP.***

Serious shortcomings were found in the organization of insurance supervision in Asia compared with the global benchmark, as no Asian jurisdictions were found to be either fully or largely ICP compliant. Compliance with prudential rules, monitoring and inspection, and coordination and cooperation were generally lower in Asia, with the incidences of non-compliant to materially non-compliant much higher than average. But Asia scored much better than the global average for licensing, market conduct, and imposing sanctions.

- ***Assessment of compliance with IOSCO showed that Asia implemented these principles more consistently than the global average.***

Asia was particularly strong relative to the global average in the implementation of IOSCO principles in collective investment schemes and disclosure of information by issuers. But Asia had lower scores relating to supervisory powers and independence, the role of self-regulatory entities and the cluster of principles that included clearance and settlement functions. Otherwise, in general, implementation of the other principles by Asia was observed to be close to the global average.

Closing Regulatory Gaps

Specific reform agendas are emerging in international forums to address regulatory gaps; those that caused the crisis and have hampered corrective measures afterward.

Several global forums and multilateral institutions are preparing reform proposals. Based on initiatives from the Group of Seven (G7),⁹ the Group of Twenty (G20),¹⁰ the Financial Stability Forum (FSF),¹¹ and the IMF,¹² recommendations for regulatory and supervisory reform are being developed with detailed implementation plans. The following focuses on the measures and related issues with strong implications for emerging East Asia's financial systems.

⁹As early as August 2007, some international responses started to emerge to calm volatile financial markets, which originated from the US subprime mortgage market. The Group of Seven (G7) finance ministers, who met in Washington DC in October 2007, requested the Financial Stability Forum (FSF) to prepare recommendations for increasing the resilience of financial institutions and markets. An initial FSF report was tabled in April 2008, which was updated in October 2008 and again in April 2009. Initially, these recommendations did not address specific regulatory structures or expanding the scope of regulation, but rather focused on broad issues related to improving the existing international financial architecture.

¹⁰With the crisis worsening—despite policy measures taken by advanced economies—it became clear that the G7 could not address those issues requiring more comprehensive global resolution. The Group of Twenty (G20) met in Washington DC on 14–15 November 2008 to craft more comprehensive and multilateral measures to stop the financial panic and avoid a major global recession. At the end of their Washington summit, G20 leaders endorsed common principles for reform of the international financial system and established five working groups to review and recommend how to strengthen transparency and accountability, enhance sound regulation, promote integrity in financial markets, reinforce international cooperation, and reform international financial institutions.

¹¹The Financial Stability Forum (FSF)—founded in 1999 to promote international financial stability—brings together finance ministers, central bankers, financial regulators, and international financial bodies. Following the G20 London summit in April 2009, the FSF was renamed the Financial Stability Board (FSB) with all G20 countries as members. The FSB is mandated to address vulnerabilities and to develop and implement strong regulatory, supervisory, and other policies in the interest of financial stability.

¹²At the London summit, the G20 also requested the IMF to tackle long-term and multilateral challenges of strengthening financial regulation while helping mitigate the short term impact of the crisis. The IMF will assume a greater role in monitoring and surveillance of global financial activities, and individual member countries' compliance with their policy obligations. In an effort to enhance the global regulatory and supervisory system, the IMF has recommended the adoption of more comprehensive perimeters for regulation, enhancing transparency with adequate disclosure requirements to determine the systemic importance of institutions, and strengthen their oversight.

REVAMPING REGULATORY STRUCTURES

Regulatory reform should eliminate gaps and overlaps, avoid regulatory arbitrage, increase transparency, and improve coordination among relevant authorities.

The crisis revealed fragmentation in the current supervisory and regulatory structures. In economies without unified financial supervision, lack of coordination among different regulatory agencies—such as information sharing—hinders effective monitoring and developing an understanding of the risks tied to closely-intertwined market segments. Even in economies with unified supervisors, particularly those outside the central bank, there remains the need for greater cooperation and information sharing. Changes in regulatory structure need to address the gaps arising from incomplete cooperation and communication among different regulatory agencies, and identify clearly who has final legal authority to sanction or bail out individual institutions, or to implement policies to safeguard financial stability. Regardless of the institutional arrangements for supervision—whether unitary, “twin-peaks,”¹³ or multiple supervisors—legal authority, information sharing, and effective coordination remain critical for effective crisis management.

While there is no “one-size-fits-all” regulatory structure, there is growing acceptance that an integrated approach to macro-prudential oversight and financial stability is needed.

One major regulatory gap is the lack of a centralized approach to monitoring potential systemic risk and ensuring financial stability. There have been many studies on the issue of a single unified supervisor versus multiple supervisors (**Box 4**). But little evidence has been found that one regulatory structure is universally better than the rest.¹⁴ Whether a country follows an approach of a single unified supervisor or several supervisors may not be as critical as having a supervisory structure with

¹³“Twin peaks” is an approach in which there is separation of regulatory functions between two regulators by objective. For example, in Australia, regulatory responsibilities are split between the supervisor of the safety and soundness of financial institutions and systems, and the conduct-of-business regulation.

¹⁴ Barth, James R., Gerard Caprio, and Ross Levine. 2004. Bank regulation and supervision: What works best? *Journal of Financial Intermediation*. 13(2), 205–248.

Box 4: Single versus Multiple Regulators

The global financial crisis highlights the need for regulatory consistency and/or harmonization. It has generated a heated debate in both policy and academic circles over which structure is most appropriate for national regulatory and supervisory systems. The debate is complex, but in general pits those who favor a single unified regulator against those who argue that a single regulator may not have sufficient tools and expertise to satisfy diverse public policy objectives.

In the United States (US), for example, there are multiple regulators for the banking sector. These include the Federal Reserve Board (Fed), the Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency, and the Office of Thrift Supervision. As the financial crisis deepened, overall banking regulation was roundly criticized because of the gaps and weaknesses in this fragmented system. The US administration has recently announced reform proposals to consolidate banking regulation under one supervisor, most likely the Fed. In particular, the existing approach to regulate bank holding companies failed to identify and incorporate risks emanating from non-depository financial affiliates in bank risk management. The idea is to fill in these gaps to ensure comprehensive regulation of the entire corporate entity.

In contrast, the United Kingdom (UK) has, in principle, a single unified regulator—the Financial Services Authority (FSA). The FSA has supervisory responsibility for banks, listed money market institutions, and clearing houses from the Bank of England. As the financial crisis unfolded, however, critics argued that there was inadequate coordination among regulatory and supervisory authorities—bank failures such as Northern Rock required substantial support from the Bank of England (BOE) and the government. These critics were quick to argue that the FSA lacked authority to take responsibility for protecting the economy and financial system as a whole. The UK government has tabled a proposal to create a Council for Financial Stability—to bring together the BOE, FSA, and Treasury on a regular basis to review risks to the system and publish their results.

Although little empirical evidence exists on the effect of different structures on regulatory effectiveness and financial stability, there is a growing number of studies that discuss conceptual and theoretical frameworks for national regulatory and supervisory systems.¹

¹For a detailed review of existing studies, see Barth, Dopico, Nolle, and Wilcox, 2002, An International Comparison and Assessment of the Structure of Bank Supervision, in *Financial Regulation: A Guide to Structural Reform*, ed. Jan-Juy Lin and Douglas Arner, pp.57-92. Hong Kong: Sweet & Maxwell.

There are, of course, strong arguments on both sides. Those who prefer unified supervision emphasize several points:

- Consolidated supervision can avoid regulatory gaps and limit regulatory arbitrage that can arise from fragmented supervision. Multiple agencies may have difficulty forming a comprehensive risk assessment of financial institutions or assess system-wide risk. Also, as the demarcation between products and institutions increasingly blur, financial institutions tend to want supervision by less restrictive regulators—trying to reduce the regulatory burden. Consolidated supervision, the argument goes, could help achieve competitive neutrality.
- A single regulator is likely to be more transparent and accountable. Under a multiple regulatory regime, regulators may defer responsibilities to each other. It can also make it more difficult to hold regulators accountable for regulatory failures or actions taken counter to intended objectives.
- A single regulator could generate economies of scale and enhance regulatory efficiency. A large single regulator can take advantage of economies of scale

Continued overleaf

by increasing the cost effectiveness of its operations, thus minimizing wasteful duplication of resources and allowing for more efficient resource allocation.

- The unified approach can allow greater flexibility in responding to changing environments. A single regulator can decide promptly and efficiently, compared with a process involving multiple agencies that are each saddled with a unique bureaucratic, political, and legal atmosphere. A streamlined decision-making process can also help a single regulator resolve conflicts that arise.
- Finally, a single regulator could better coordinate cross-border supervision. Often times, foreign supervisors find it difficult to gather information from multiple regulators in a country.

Those who favor multiple regulators have equally compelling arguments:

- A single agency may not be able to meet diverse public policy objectives. These range from protecting consumers and investors to safeguarding financial stability. It may be difficult for a single regulator to clearly focus on a variety of objectives, which can generate internal conflicts

of interest among different departments.

- A single regulator’s monopoly on power may create diseconomies of scale. In fact, multiple regulators may encourage competition between regulators, enhancing regulatory efficiency and motivating regulators to respond quickly to innovation. Also, the synergy gains from a single regulator may not be very large. The focus and skill sets of the traditionally functional supervisors, —such as banking, insurance, and securities regulators—generally do not overlap, thus limiting the efficiency gains arising from merges between these different regulators.
- A single regulator may create the illusion that all creditors of institutions it supervises will receive identical protection. For example, from the perspective of public policy, depositors are often treated differently from financial investors. However, other financial investors may assume that they are subject to the same degree of protection, generating moral hazard.

Institutional frameworks for financial regulation come in all shapes and sizes, depending on the different structures of financial sectors and the stage of market development in individual economies. While there is no universally “better”

regulatory structure, an appropriate institutional setup should consider the following:

- First, a regulatory regime, with either single or multiple agencies, should ensure competitive neutrality, thus limiting regulatory arbitrage and moral hazard. There should be a level playing field without undue regulatory burden for financial institutions.
- Second, there should be a clear and effective mechanism for information-sharing and supervisory cooperation among different regulators, whether different departments within a single regulator or different agencies.
- Finally, issues such as the insolvency of a systemically important institution and its impact on systemic risk require a consolidated approach. There should be an avenue for better communication and close cooperation among financial regulators to ensure system-wide soundness. It is also important to establish who has the ultimate responsibility for macro-prudential supervision and how the regulatory measures to counter systemic macro-prudential risks should be formulated and implemented.

clear objectives and supervisors with the authority and legal power to regulate and take effective action, especially in resolving financial distress. The blurring of activities among financial service providers, together with the emergence of financial conglomerates (financial institutions doing a variety of financial business), also poses regulatory challenges as a number of agencies often have different objectives and share different regulatory responsibilities. Any new regulatory structure should be flexible enough to meet the challenges of a rapidly changing regulatory environment, while allowing for a centralized approach to macro-prudential oversight and determination of systemic risk.

Lessons from the recent financial turmoil call for reconsidering the supervisory role of central banks.

It is now clear that as “lenders of last resort” and in monitoring financial stability, central banks must have timely access to banking information and developments in other financial segments. According to a recent survey by the IMF (2009),¹⁵ almost all banking supervisors consider monitoring systemic risks and maintaining financial stability to be part of their mandates. Other financial services supervisors such as insurance and securities gave little importance to these systemic aspects. Whether the central bank should also be a bank regulator is subject to debate. However, the governance arrangement of supervisory agencies is central to their effectiveness. Recent studies suggest that supervisory authorities' independence may enhance the safety and soundness of the banking system while promoting bank efficiency.¹⁶ The IMF study showed that 75% of agencies surveyed had legislated operational independence over supervisory decisions, but only 58% had independence for regulatory activities. Currently, the majority of bank supervisors are also located within central banks. Thus, the region's central banks tend to have dual responsibility—for banking supervision and monetary policy. It is important to ensure that the supervisory arm of the central bank maintains its independence from the central bank's monetary policy division.

¹⁵Steven Seelig and Alicia Novoa, 2009. Governance Practices at Financial Regulatory and Supervisory Agencies. IMF Working Paper No. 09/135

¹⁶Barth, James R., Chen Lin, Yue Ma, Jesús Seade, and Frank M. Song. 2009. The Role of Bank Regulation, Supervision and Monitoring in Bank Efficiency. Unpublished manuscript.

BROADENING REGULATORY PARAMETERS

The crisis highlighted the need to extend supervision over a wider set of market segments and institutions—especially those deemed systemically important.

Financial regulators have always faced the challenge of balancing public policy objectives with market innovation. They need to safeguard financial stability and protect the general public while not stifling market incentives to innovate and diversify risks. Prior to the crisis, many nonbank financial institutions—non-life insurance, hedge funds, monoline insurers, private equity funds, specials investment vehicles (SIVs)—were either lightly regulated or not regulated at all. The crisis showed that these institutions, either individually or collectively, can pose risks to financial stability or trigger contagion when they are closely connected to regulated entities and have a concentration of assets giving rise to systemic risks.

However, it is less clear what constitutes systemic importance and how to identify or define these systemically critical institutions.

For any financial institution (whether bank or nonbank), many argue that systemic risks should be linked to operations and asset-liability structure. This leaves their legal status—as banks, insurers, and SIVs, among others—a secondary concern. Yet it remains unclear what constitutes systemic importance, how it is defined, and how it should be monitored. Indeed, standard stress tests on individual financial institutions proved inadequate in identifying those that posed systemic risk. In the crisis aftermath, specific national proposals are also likely to err on the side of over-regulation given the highlighted role that hedge funds and over-the-counter derivatives played leading up to the crisis. But the existence of strong asset management funds and the availability of various financial products are essential elements for building deep and liquid financial markets. The risk of over-regulation and discouraging financial innovation could be particularly harmful, deterring necessary capital market developments in emerging East Asia, where many economies still struggle to develop their capital markets and provide adequate systemic support and market infrastructure.

Tests of systemic risk can be strengthened by assessing the financial institution’s position and influence in the market, as well as its size.

A specific financial institution could—because of its size or market influence—be an individual entity that poses systemic risk. This could be determined through stress tests using traditional methods, such as value-at-risk (VaR)-based models. As a next step, the model could be strengthened by including incremental risk factors of identified weaknesses. A financial entity could also pose systemic risks because it may likely trigger “herd behavior” because of its swathe or position in the market. Recent studies¹⁷ suggest that CoVaR—the VaR of financial institutions conditional on other institutions being in distress—can be a useful device in determining the systemic risk posed by such an institution. This method can capture the risk-spillovers from one institution to another. For example, financing constraints of individual institutions could force them to unwind when the risk estimated by individual VaR rises, pushing margin and capital requirements higher. In times of market stress, forced asset sales could lead to an increase in market risk, thus feeding back into the measured risk. The co-risk measure, or CoVaR, estimates the extent to which an individual institution is exposed to such systemic risk in addition to its own risk as measured by VaR.

STRENGTHENING PRUDENTIAL REQUIREMENTS

There is broad agreement among financial regulators that existing capital adequacy requirements must be increased and supplemented by an assessment of forward-looking inherent risks.

There have been recommendations for bringing back a simple fixed minimum leverage ratio for capital. This would serve as the first line of defense, not for safeguarding the bank itself, but for depositors represented by the deposit insurance agency, and ultimately taxpayers. If this minimum capital is breached it should be the trigger for regulators to demand immediate corrective action. In addition, the minimum capital adequacy ratio (CAR) should be set higher and supplemented by additional

¹⁷Tobias, Adrian, and Markus K. Brunnermeier. 2008. *CoVaR*. Federal Reserve Bank of New York Staff Reports No. 348.

charges or provisioning based on forward-looking emerging risks stemming from liquidity, higher leverage, or pro-cyclicality.

Emerging East Asian authorities should strengthen bank liquidity management and supervision by determining whether banks could fall victim to problems encountered by institutions in advanced economies.

A global standard on proper liquidity management is rapidly evolving. The crisis showed that liquidity management using the minimum CAR for liquidity and leverage risks is inadequate. Several mechanisms are being considered to supplement the minimum CAR—for example, use of an additional capital charge linked to a mismatch in the asset–liability maturity structure. New capital adequacy requirements should also take account of a leverage ratio to dampen excessive leverage. The Basel Committee on Banking Supervision (BCBS) already unveiled enhanced capital requirements for structured products and securitization.¹⁸

The crisis showed that the riskiness of a bank’s assets is intimately linked to a bank’s funding source and its term structure.

Regulators did not pay sufficient attention to the source and maturity structure funding banks’ asset expansion and growth in recent years. Excessive reliance on short-term funding during booms—particularly when interest costs and margins are low—tends to increase the fragility of the financial system. Accordingly, a capital charge on the maturity mismatch from the funding of asset–liability growth would help dampen a bank’s reliance on short-term funds and pro-cyclicality. This means that banks with medium- to long-term assets that have low market liquidity—and those who funded these assets with short-term liabilities—must hold additional capital. This additional capital charge would then force banks to internalize risks from maturity mismatches that give rise to funding liquidity risks. A multiple of CAR set as a function of the months of effective mismatch between asset maturity and funding maturity could be used for

¹⁸Two important global standard setters are documenting new guidelines for prudential requirements. First, the Basel Committee on Banking Supervision (BCBS) published *Principles for Sound Liquidity Risk Management and Supervision* in June 2008. Second, the Committee of European Banking Supervisors (CEBS) published *Recommendations on Liquidity Risks Management* in September 2008.

the additional capital charge for maturity mismatches. To do this, supervisors would need to develop a new database. This is best done in coordination with macro-prudential supervisors and the industry to agree on a method to match pooled assets with pooled funding and to determine effective maturities of assets and their funding.

The capital adequacy requirement should also take into account the amount of leverage undertaken by a bank or nonbank financial institution.

Setting the explicit leverage ratio may serve as an upper bound to leverage during a boom period. The amount of leverage of a bank or nonbank financial institution would need to be reviewed by taking into account links to off-balance sheet exposures and other contingent liabilities. The additional capital charge for exceeding the leverage ratio can be a multiple of CAR or derived using a function of the amount of deviation from the established ratio, which will increase as the deviation widens.

The combination of these additional capital charges should be applied to the basic CAR, as in Tier 1 capital.

Higher capital requirements would better respond to risks identified in the course of the current crisis. It will introduce buffers, making the banking system more resilient and ameliorate the counter-cyclical tendency of the regulatory regime. The charges should be applied to Tier 1 capital, widely recognized by the market as the reliable measure of a bank's resilience. Thus, the more a bank engages in risky activities, as measured by asset growth, maturity mismatches, liquidity pressures, and leverage, the higher the multiple in CAR it will have to set aside to reduce pro-cyclicality.

There is growing support for counteracting the pro-cyclicality of capital and liquidity requirements through the business cycle.

Several mechanisms are being considered for creating counter-cyclical capital buffers and dynamic provisioning (**Box 5**). One is the requirement for higher capital levels during normal times, which could be used to absorb losses in a downturn. A second is to consider counter-cyclical or through-the-cycle provisioning. It

Box 5: Examples of Counter-Cyclical Regulatory Measures

The global financial crisis revealed an unintended problem with current regulations—they actually encouraged the procyclical behavior of financial institutions, which thus aggravated the credit crunch. Recent criticism of the Basel II framework is that it reinforces pro-cyclicality of the financial system by increasing risk sensitivity in financial regulation. There is now growing demand for counter-cyclical measures using dynamic provisioning or additional capital buffers to help mitigate risks during the boom cycle and dampen the effects of deleveraging and asset sales during a downturn.

Dynamic provisioning is a counter-cyclical regulatory measure that mitigates risks from rapid loan growth and the sharp credit retrenchment that may follow. The Bank of Spain applies one that requires additional provisions to be set aside (or utilized) based on a formula it provides. The formula can alternatively be an approved internal bank model. The summary formula for general provisioning (GP) is

$$GP = \alpha \Delta \text{Credit} + \beta \text{Credit} - \text{Specific Provisions}$$

The formula incorporates an adjustment for collective risk assessment (α) of credit growth over a defined period, latent risks derived from historical loan loss experience (β), the stock of outstanding credit, and specific provisions for incurred losses. The formula aims to capture the rising risk of default over time, provided that the loan is appropriately priced with the default premium correctly set.

Similarly, **additional capital buffers** for “excessive” credit growth provide a useful counter-cyclical tool. There are some simple methods for imposing counter-cyclical capital charges that are triggered by some definition of excessive bank asset growth. In 2000, the Central Bank of Brazil used a method that relied on a simple comparison of the growth rates of bank credit and gross domestic product (GDP). The ratio helped determine the capital buffer needed to help mitigate potential problems during a down cycle.

In Brazil, credit tended historically to expand faster than GDP during economic upswings. In subsequent downturns, loan loss provisions of Brazilian banks could not support normal operations, leading to stagnation in credit growth,

thus creating a drag on economic recovery. The introduction of an additional capital charge as a function of credit growth in excess of GDP growth to serve as a buffer during the upswing mitigated the negative effects from the downturn that followed.

The increased capital adequacy ratio (CAR) is calculated as a function of the excess growth in credit over GDP growth over a specified observation period. The larger the excess, the higher the additional capital charge levied. The additional capital charge (ACC) is determined by

$$ACC = \alpha (\Delta \text{Credit} - \Delta \text{GDP})$$

such that (α) would rise as the positive deviation of $(\Delta \text{Credit} - \Delta \text{GDP})$ grows. During a downturn, $(\Delta \text{Credit} - \Delta \text{GDP})$ could become negative and (α) could drop below unity.

has long been argued that loan loss provisioning is often backward looking as it is mostly based on losses already incurred. With a short time horizon, the current loan loss provisioning creates delays in recognizing new risks, excessive risk taking during boom periods, and regulatory arbitrage. In recent years, the enhanced risk sensitivity of Basel II capital requirements also exacerbated this pro-cyclical behavior.

Dynamic provisioning helps recognize credit risks posed by the possibility of expected future losses—it can also limit excessive bank credit growth.

The rationale for dynamic provisioning is that the risk of expected losses tends to rise as the economic cycle matures. Thus, the use of a metric that captures the increasing rate of credit growth also measures rising expected losses (See Box 5). This triggers additional provisioning on top of the specific one as a buffer in the upswing phase of credit growth and vice versa in a downswing. Additional provisioning lowers net credit and is reflected as an expense, thus affecting profitability. Since it was introduced by the Bank of Spain in 2000, this mechanism has been widely touted as a good example of counter-cyclical measures. There are some complications, however, if the Spanish example were to be applied elsewhere. The use of generic provisioning contravenes International Accounting Standards (IAS) principles in which provisioning must be based on incurred losses or evidence of credit impairment. This conflict did not create a problem for Banco de España, as it also sets the accounting standards. But, for most other regulators, adopting dynamic provisioning would create conflict with IAS compliance. Related concerns are that this mechanism may interfere with a proper evaluation of credit risks, distort the distribution of dividends, and give rise to deferred taxes if they were not deductible as an expense. There is growing support for recognizing the importance of prudential requirements, which may take precedence over accounting principles, and a review of IAS principles is underway.

Another more direct counter-cyclical mechanism is to add a capital charge linked to a measure of excessive credit growth.

To achieve this, regulators would need to develop, ideally in coordination with macro-prudential supervisors and industry stakeholders, a measure of normal sustainable loan growth

consistent with financial stability and the long-term growth of the economy. When a bank's loan growth exceeds the agreed growth path, it would trigger an additional charge on capital. It would be dynamic if the multiple on capital rises as the trend of loan growth deviates further away from the agreed path. As the boom continues, this would result in a larger capital buffer. Similarly, in a downturn the surcharge would be progressively lowered—below one if the situation worsens dramatically. The Central Bank of Brazil introduced such a capital charge in 2000 through a mechanism that links the deviation of credit growth relative to GDP growth (See Box 5).

FORMALIZING MACRO-PRUDENTIAL SUPERVISION

System-wide macro-prudential supervision must be developed to complement existing micro-prudential regulation.

High leverage tends to magnify profits during booms for individual institutions but leads to huge system-wide losses during crises. Moreover, the micro-prudential approach encourages banks to be more reluctant and conservative when lending during an economic downturn. This hurts the public good by depressing economic activity and deepening the business cycle trough. Risks also stem from interdependence among banks and lightly regulated nonbank entities through their operations, diversification of risks, and participation in innovative financial instruments. The ups and downs of the economic cycle need to be better integrated through macro-prudential supervision.

Macro-prudential supervision aims to ensure financial system stability by focusing on overall market trends or turning points—factors that can signal emerging systemic risks.

Strengthening macro-prudential capabilities in no way implies that micro-prudential measures are wrong or no longer needed. Rather, the global crisis clearly showed that micro-prudential supervision is insufficient on its own and would be more effective if complemented by macro-prudential supervision (MPS). There is as yet no clear agreement on what an MPS framework should look like. And the instruments to operationalize MPS are not well defined. Establishing an MPS approach requires caution to ensure that the main objectives for ensuring financial stability

are met while taking into account the basic cost-benefit assessment of the large information needs that MPS is likely to entail. This would include defining policy targets to monitor, instruments available to address deviation from targeted trends, and governance issues. It is also important to specify which supervisory or government authority will be in charge and held accountable.

An effective MPS requires comprehensive supervision and analysis of how a failure in any segment of a financial system—whether bank or nonbank-related—affects the risks associated with any other segment or the system as a whole.

Many national regulators now publish financial stability reports that provide an analysis of financial risks from a system-wide perspective—based on how the resilience of the system can be assessed. The introduction of dynamic provisioning and/or additional capital requirements may help address identified risks emerging from rapid loan growth in a boom cycle and the effects of deleveraging and asset sales during a downturn. Also at the global level, international institutions are attempting to define an effective MPS. The FSB, for example, is working with the IMF to develop early warning indicators of evolving macroeconomic and financial risks. It is critical that emerging East Asian economies contribute to this process by providing inputs for the development of early warning indicators specific to their national systems, while ensuring that they are fully incorporated in their regulatory systems and shared among supervisors and regulators of all financial sector segments.

IMPROVING ACCOUNTING STANDARDS AND CREDIT RATING SYSTEMS

In the run-up to the crisis, mark-to-market accounting, in combination with the pro-cyclical characteristics of asset prices contributed to the delay in seeing rising risks and interdependencies.

The global financial crisis illustrated that strict adherence to mark-to-market accounting principles exacerbates bank losses, liquidity problems, and the downward asset price spiral. To alleviate this, regulators could ask banks to pool together assets that can be matched to a pool of liabilities funding such assets.

The assets would then be placed in a “hold-to-funding account,” which would be linked to the maturity of the funding rather than mark-to-market or fair market valuations. This tool would help preserve the value of bank assets during periods when market disruptions hamper appropriate asset pricing. It would also preserve systemic stability by reducing market illiquidity brought about by forced asset sales from strict adherence to mark-to-market accounting.

The crisis identified several flaws in the design and function of credit rating agencies.

The complex nature of structured products led to heavy reliance on rating agencies in assessing the exposures to different layers of structured products, and in monitoring their secondary market performance. Traditionally, credit rating agencies enhance transparency, support capital market development, and encourage financial innovation. But several flaws in the design and function of rating agencies helped cause or aggravate the current crisis. Rating agencies were found lax in rating structured credit products with short historical track records, thus relying overwhelmingly on mathematical models in defining risks. This created doubts in rating accuracy and model-based valuations. Credit rating downgrades of structured products triggered the liquidity squeeze, and destroyed confidence in related products and the financial entities that were exposed to these instruments. Wide-spread concern over conflicts of interest and the analytical independence of rating agencies derives from the agency business model, which is based on compensation from the credit issuers, and the fact that rating agencies usually act as issuers’ financial advisors. This triggered discussions over whether credit rating agencies should be subject to formal regulatory oversight. Earlier proposals from the G20 and FSB left open the possibility of voluntary compliance by rating agencies with the IOSCO standards on transparency and disclosures, governance, and management of conflicts of interest.

ENHANCING CORPORATE GOVERNANCE

The crisis focused attention on flawed compensation incentives for financial managers and traders that rewarded imprudent short-term risk-taking.

There is a growing consensus that compensation schemes for financial managers and traders should be reviewed by supervisory authorities to ensure they do not reward excessive short-term, risk-taking behavior at the expense of longer-term value and financial stability. At the G20 London meeting in April 2009, leaders endorsed principles on pay and compensation proposed by the FSB. Following this, the European Commission issued a communication and unveiled proposals that include supervisory oversight of the sustainability of compensation schemes.

PROMOTING BETTER CROSS-BORDER COOPERATION

The crisis showed that the established framework for cross-border coordination and cooperation through memorandums of understanding and a College of Supervisors have limitations.

In reforming crisis management frameworks, remedial or corrective actions need to be harmonized, particularly for large and systemic cross-border financial institutions. In the early stages of the crisis, there were issues with cross-border movements of funds and assets to support liquidity or capital requirements of either the parent entity or the subsidiary or branch. Actions to widen guarantees on deposits and selected bank liabilities and similar measures were not coordinated—in some instances adding pressure to neighboring countries' systems. Later, there were problems with the resolution of cross-border banks and their operations.

Supervision of liquidity management of cross-border banks lacked consistency, in which an important issue as liquidity across domestic and international capital markets tightened.

Regulators need a common set of liquidity parameters. Disruptive regulatory actions—such as the ring-fencing of liquid assets in the recent crisis—should be used only as a last resort. This requires better knowledge of how cross-border banks conduct their

business. Complex, large cross-border banks internally manage liquidity in very diverse ways. Host and home supervisory and regulatory authorities need to ensure that these banks hold sufficiently high-quality liquid assets.

A more effective cross-border bank resolution process needs to be established.

The crisis showed that insolvency regimes need to be aligned across economies affected by cross-border bank failures. Delays and uncertainties during the height of the crisis broke potential deals and exacerbated contagion. For example, measures and processes for managing insolvent banks requiring close out netting, managing creditor claims on collateral assets, or unwinding financial transactions are often designed for domestic operations. They fail to address cross-border banking insolvencies. A strengthened resolution framework would also help forestall unilateral actions tantamount to financial protectionism. There is a clear need for better information sharing and for cross-border burden sharing on costs. For work-out operations, mergers, or liquidation of cross-border banking businesses, for example, in which jurisdiction would a bridge bank be located if one is needed as a least-cost solution?

There are several models addressing cross-border issues, ranging at the extremes from establishing a global supranational authority to tightly regulating cross-border activities.

Realistically, the establishment of a supranational supervisory authority will involve prolonged political and legal negotiations. A common legal and regulatory framework will be needed for financial institutions to operate; and to be supervised, resolved, and liquidated. Credible mechanisms for coordination, burden-sharing, and crisis management must be in place. While it is difficult to imagine a supranational supervisor will emerge anytime soon, the reverse—rigid operational control of cross-border banks by the host regulator—would be a deep setback to the benefits of financial integration. A middle path needs to be found that incorporates elements of cross-border liquidity management, alignment of insolvency regimes, and better sharing of financial burden and information.

The Way Forward

Emerging East Asia must play its part in ensuring the new financial architecture meets both the challenges of globalized finance and the region's financial development agenda.

The absence of a global mechanism to supervise the increasingly globalized financial system exposed serious problems during the crisis. Reform of the global financial architecture is underway. Emerging Asia must take its place in this new architecture by actively participating at all levels of governance. In doing so, authorities in emerging East Asia, both individually and collectively, need to address weaknesses in their financial systems, improving both functionality and integrity. Detailed action programs focusing on crisis prevention and improving crisis management can be coordinated regionally in line with the initiatives of the G20, the FSB, and the IMF. Given its financial evolution since the 1997/98 Asian financial crisis, plus reactions to the spillover from the current global turmoil, the region needs to contribute in a major way to these international and regional work programs. While reinforcing efforts for effective regional cooperation, emerging East Asia also needs to play a proactive role in ensuring macroeconomic and financial stability at the global level. This requires greater responsibility in correcting global macroeconomic and structural imbalances.

An important distinction should be made between the basic elements of capital market development and risky financial innovation.

Many economies in the region continue to face the challenge of developing capital markets to efficiently channel domestic savings into productive investment. For emerging East Asia, where banks remain the main channel for financial intermediation, building a strong banking system remains paramount. However, authorities must also foster a broader range of markets—including corporate bond markets, securitization, and derivatives—to enhance financial system resilience. Still, much of the region lacks essential financial services—authorities need to encourage greater public access to banking, provide credit to promote entrepreneurship, diversify savings instruments, and develop appropriate products to manage risk. Thus, at this stage, it is important to encourage simple innovations to provide a better

array of financial services and products that cater to the needs of small entrepreneurs and investors. Many economies also need to establish, upgrade, or reform the basic market infrastructure for trading and settlement, all of which will help promote more efficient financial transactions.

The key challenge for the region's regulators is how to encourage and manage financial market development without stifling innovation.

Ideal regulation leaves space for innovation. However, unfettered innovation can generate risks of its own. The effects of past crises suggest caution, but translating caution into regulatory straitjackets stifles innovation. And this has its own costs. Striking the right balance is the challenge, and not an easy one. Crises highlight the importance of adequate monitoring. Regulators should be wary of complex innovations that make the underlying risks of products or services more difficult to assess or trace—whether by bank management or the final investor. Innovative products also lack the historic data needed to apply appropriate stress testing. Regulators need to assess the impact of innovative products on the safety and soundness of financial institutions, risk management, investor protection, and financial stability in general.

Emerging East Asian economies should reinforce cooperation on enhancing financial stability by accelerating regional initiatives.

National mechanisms to stem the spread of financial panic were largely inadequate, ineffective, and inefficient in the face of massive deleveraging in advanced economies, tight international liquidity, and worsening growth prospects. Some Asian economies experienced severe disruptions in their currency and asset markets due to difficult access to external funding sources. Although economies with sufficiently large international reserves were able to provide liquidity support to their banks and financial systems, holding vast reserves for rainy days has its own costs. Also, accumulating large current account surpluses is often blamed for having contributed to global imbalances. Swap agreements with developed and financially strong emerging economies, regional reserve pooling, and access to funding from international financial institutions offer several alternatives for the region in managing short- to medium-term debt and

financial flows. Many Asian economies have already negotiated swap arrangements with both developed and other emerging economies. For example, Singapore and Korea established temporary swap lines with the US Federal Reserve of up to \$30 billion; Japan arranged similar deals with Indonesia and a few other Asian countries; and the PRC made arrangements with several of its Asian trading partners. The multilateralization of the ASEAN+3 Chiang Mai Initiative (CMI) further institutionalizes the arrangement through operational rules governing fund access, voting rights, and contributions (See Box 3).

Emerging East Asia must play an appropriate role in shaping the new global financial architecture, with support from international financial institutions and multilateral development banks.

The global crisis demands a global solution. The crisis highlighted that inappropriate policies and poor governance in advanced economies can severely harm the growth and welfare of developing countries. A new framework for the global financial architecture should also accompany appropriate changes in the new international governance architecture, which must reflect the increased weight of emerging economies and developing countries. The G20 recognized insufficiencies in the existing institutional setup for financial rules and regulations. It proposed to reform the global financial architecture, to reduce and control threats of a systemic financial meltdown in the future. In their April meeting, G20 leaders agreed to take a tougher stance on financial regulation and emphasized the role of international and regional financial institutions. International financial institutions, including the Asian Development Bank (ADB), the IMF, and the World Bank have also received increased funding to support economic growth, bolster trade and investment financing, and support financial system development.

ADB is ready to play a greater role in safeguarding financial stability in the region.

ADB has been working to ensure that developing economies in Asia have sufficient access to finance to restore market confidence and economic stability. It also plays a counter-cyclical role by providing credit in areas where commercial players have retreated, including trade finance. ADB also provides assistance for its developing member countries' financial

system development through (i) financial support, (ii) policy advice, and (iii) technical assistance for policy implementation and institution building. In addition, ADB continues to support existing work within ASEAN and the wider regional architecture on economic monitoring, surveillance, and policy dialogue; bond market development; and the creation of a credit guarantee and investment mechanism, currently under development.

About the Asian Development Bank

ADB, based in Manila, is dedicated to reducing poverty in the Asia and Pacific region through inclusive economic growth, environmentally sustainable growth, and regional integration. Established in 1966, it is owned by 67 members – 48 from the region. In 2008, it approved \$10.5 billion of loans, \$811.4 million of grant projects, and technical assistance amounting to \$274.5 million.