POLICY REVIEW

Post-crisis South Asia: monetary management and macro-prudential regulation

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Received 12 July 2011
Revised 17 January 2012
27 February 2012
Accepted 1 March 2012

Abstract

Purpose – The global crisis, originating in the US financial sector, affected the Asian region primarily through three channels – declining trade volumes, exchange rate pressure and asset deflation. The purpose of this paper is to focus on how the crisis impacted the four major economies of South Asia, viz. Bangladesh, India, Pakistan and Sri Lanka and how, by a combination of swift actions on the monetary, fiscal and exchange rate fronts, the worst consequences of the crisis were averted.

Design/methodology/approach – The regulatory and supervisory systems in these four economies are then benchmarked against certain desirable norms, which have emerged out of post-crisis international deliberations.

Findings – It is felt that the South Asian regulatory systems perform fairly well *vis-à-vis* these norms.

Practical implications – The paper also touches upon the major highlights of the crisis impact, policy responses and post-crisis recovery in the Southeast Asian region.

Originality/value – The several similarities and the few contrasts between the two regions on these aspects are also presented.

Keywords Bangladesh, India, Pakistan, Sri Lanka, South Asia, Southeast Asia, Monetary policy, National economy, Government policy, Regulation, Global crisis, Macro-prudential regulation

Paper type Research paper

1. Introduction

Even though there is a general consensus regarding the crucial role of financial systems for economic development, important areas of disagreement still persist, namely, the type of financial system most conducive to growth, private vs public ownership of financial institutions, the degree of regulation and supervision, the role of financial innovations and the optimum pace and extent of financial liberalization. The Latin American crises of the 1980s and 1990s, the Asian financial crisis and the current global recession have once again brought the critical role of financial institutions under the scanner and introduced some important caveats to this consensus. The present paper aims to take stock of some of these issues primarily in the South Asian context but also includes a brief discussion on Southeast Asia for comparative purposes. While it is certainly not being claimed that the Asian experience is representative of emerging market economies (EMEs) in general, it is nevertheless felt that some of the lessons drawn here, would have some relevance transcending their immediate context.

Tables I and II present the gross domestic product (GDP) growth rates and inflation, respectively, for the major countries of South and Southeast Asia over the period 2007-2010. The general pattern for the two regions is remarkably uniform – a

South Asian Journal of Global Business Research
Vol. 1 No. 2, 2012
pp. 189-209

2045-4457
DOI 10.1108/20454451211252732

Table I.
GDP growth rates (per cent) in South and Southeast Asia (2007-2010)

	2007	2008	2009	2010
Countries		*South Asia*		
Bangladesh	6.4	6.2	5.7	5.8
India	9.3	6.8	8.0	8.6
Pakistan	6.8	3.7	1.2	3.5
Sri Lanka	6.8	6.0	3.5	7.6
		Southeast Asia		
Indonesia	6.3	6.0	4.6	6.1
Malaysia	6.5	4.7	−1.7	7.2
Philippines	7.1	3.7	1.1	7.3
Singapore	7.8	1.6	−0.75	14.6
Thailand	5.0	2.5	−2.3	7.8
Vietnam	8.5	6.3	5.3	6.8

Sources: International Financial Statistics, International Monetary Fund (IMF), various issues

Table II.
Inflation rates (per cent) in South and Southeast Asia (2007-2011)

	2007	2008	2009	2010	2011 (first quarter)
Countries			*South Asia*		
Bangladesh	7.2	9.9	6.7	7.3	8.0
India	4.8	9.1	2.2	9.5	8.3
Pakistan	7.6	12.0	20.8	13.8	14.2
Sri Lanka	12.1	15.8	22.6	3.0	5.6
			Southeast Asia		
Indonesia	6.4	9.7	4.9	5.1	6.9
Malaysia	2.0	5.8	0.7	1.7	–
Philippines	1.5	9.3	3.2	3.8	–
Singapore	2.1	6.6	0.6	3.3	5.5
Thailand	2.2	5.5	−1.1	3.3	3.4
Vietnam	8.3	23.05	6.9	9.1	12.25

Sources: International Financial Statistics, International Monetary Fund (IMF), various issues

modest interruption to the pre-crisis growth trajectory in the crisis years 2008 and 2009, followed by a robust resumption of growth in 2010. Most countries in Table I display a typical U-shaped growth trajectory over the period considered, except Malaysia, Philippines, Thailand and Singapore where the trajectory is more aptly described as V-shaped. As seen in Table II, the strong rebound in post-crisis growth has been accompanied in most countries by a sharp up-turn in inflation.

The global crisis originating from a financial crisis in the USA (and later Europe) has impacted other regions of the world through five primary channels:

(1) Declining trade volumes through lower export demand (trade channel); see Baldwin and Simon (2009).

(2) Contamination of balance sheets of financial institutions via exposure to toxic assets of US and European Union (EU) banks (financial contagion channel); see Kollmann and Malherbe (2011).

(3) Liquidity constraints and greater volatility in the capital and foreign exchange markets (asset markets channel); see Bates and Vaugirard (2009).

(4) Pressure on private consumption through reduction in migrants' remittances, declining commodity prices and worsening job market conditions (consumption channel); see UNIDO (2009).

(5) Undermining of domestic investment opportunities through massive reversal of private foreign capital inflows (investment channel); see Milesi-Ferretti and Tille (2010).

The robust growth in Asia in the decade following the Asian crisis – a growth largely uninterrupted by the USA slowdown in the wake of the dot.com bust of 2000 has led a number of researchers (e.g. Akin and Kose, 2007; Willett *et al.*, 2011, etc.) to examine the hypothesis that several of the larger EMEs, especially in Asia, have decoupled from the developed western economies. Decoupling implies a progressively declining dependence of a few large EMEs on the macro-economic evolution of the advanced economies. A similar phenomenon was also in evidence during the recent global crisis. In this paper, we try to understand the reasons behind the relative insulation of the Asian region from the worst consequences of the recent crisis and the set of macro-economic policies (including a combination of monetary, fiscal and macro-prudential policies) that helped the region tide over the crisis, well before global recovery set in (see Reddy, 2011, p. 45).

The plan of our paper is as follows. This introductory section is followed by a discussion of the macro-economic management in four major countries of South Asia (namely, India, Bangladesh, Pakistan and Sri Lanka). The subsequent section turns to the macro-economic responses to the crisis in selected countries of Southeast Asia, highlighting parallels and contrasts with the South Asian case. A benchmarking of the regulatory and supervisory architecture currently obtaining in South Asia against certain desirable norms suggested at various international forums is attempted in the next section. Conclusions and recommendations have been gathered in the final section.

2. Macro-economic management in South Asia

I. India

Indian macro-policy was put to one of its severest tests by the recent global financial crisis. Though all the five transmission channels of global shocks identified above were operative in the early phase of the crisis, it was only the trade and investment channels which had significant and persistent impacts (see Kumar, 2009; Reddy, 2011, etc.). As global incomes plummeted, exports growth declined from a robust level of 28.9 per cent in 2007-2008 to 13.7 per cent in 2008-2009 and then turned negative (−4.7 per cent) in 2009-2010. Beginning the last quarter of 2007-2008, foreign portfolio investment registered negative growth for five successive quarters before regaining positive momentum in the first-quarter of 2009-2010. Together these factors cast a shadow on the high-growth performance enjoyed by the Indian economy in the previous quinquennium. The rate of growth of gross domestic capital formation in 2008-2009 was a third (6.7 per cent) of the rate achieved in 2007-2008 (20.6 per cent). As a consequence, GDP growth decelerated sharply to 6.7 per cent in 2008-2009 (from the high of 9.2 per cent in the previous year). (Statistics in this paragraph have been sourced from various publications of the RBI.)

The Indian policy response to the global crisis was built upon three overriding considerations, namely, revival *sans* stagflation; erecting firewalls around the financial sector; and ensuring safety nets for the vulnerable sections. The operational component of policy may be summed up in a single phrase – easy money and fiscal stimuli. On the monetary policy front the repo rate was reduced in a succession of steps from the level of 9 per cent in September 2008 to 5 per cent in March 2009 (with a corresponding reduction in the reverse repo rate from 6 to 3.5 per cent), the cash reserve ratio (CRR) was also reduced from 9 to 5 per cent over the same period, whereas the statutory liquidity ratio (SLR) was brought down by 1-24 per cent. Altogether, it has been estimated that these measures released more than Rs. 400,000 crores (US$80 billion approximately) of liquidity into the system. There were also three successive fiscal stimuli packages amounting to a total of Rs. 80,100 cores (US$16.3 billion). By and large, the fiscal stimuli did succeed in restoring growth to its pre-crisis trajectory. Real GDP at factor cost rebounded smartly to 8.0 per cent in 2009-2010 and then firmed up further to 8.6 per cent in 2010-2011 (see RBI, 2011, p. 2). Apart from ensuring adequate liquidity for the uninterrupted supply of credit to the productive sectors of the economy, the RBI also undertook a number of prudential measures aimed at containing financial contagion risks. The latter included guidelines relating to minimum holding periods and minimum retention requirements for securitized products, augmenting provisioning cushions, countercyclical capital buffers, etc. All these measures have been reasonably successful in insulating the Indian economy from the worst consequences of the crisis and positioning it firmly back on a high-growth trajectory (see Reddy, 2011; Subbarao, 2010). The Indian economy that experienced relatively slower GDP growth in the last quarter of 2008 and the first-quarter of 2009 began to see relatively higher growth rates from the second-quarter of 2009. However, beginning November 2009, food inflation started emerging as a serious threat. The major focus of monetary policy remained on inflation control, with a slightly moderated emphasis on growth right through 2010 and much of 2011. However, with the recent signs of slowing growth and receding inflation, monetary policy seems set for a major reorientation (see RBI, 2012, p. 47).

II. Pakistan

Monetary policy in Pakistan is directed at the achievement of the dual objectives of promoting economic growth and maintaining price stability. To achieve these goals the Central Bank of Pakistan targets monetary aggregates – broad money supply growth as an intermediate target and reserve money as an operational target – in accordance with the projections of GDP growth and inflation (State Bank of Pakistan (SBP), 2007). The Pakistani financial system has also witnessed some progress in terms of product innovation and diversification of monetary management tools. The behaviour of the Pakistani economy has been somewhat atypical set against the background of high growth and low inflation in the rest of the region. While most South Asian economies (led by India) witnessed relatively high-growth rates, Pakistan's economic growth has been particularly low both in the 1990s (the rate averaged 3.2 in the period of 1993-2002) as well as more recently. Simultaneously inflationary pressures have been high. These trends are substantially attributable to various structural and political problems plaguing the country in recent years, which began with the government getting embroiled in a judicial crisis in March 2007. These problems were further aggravated by the assassination of Benazir Bhutto and the uneasy transition from a military to a civilian government. The resultant political instability shelved important macro-economic decisions involving adjustments to key international developments (such as the sharp increases in global oil and commodity prices in 2007 and the subsequent prolonged recession in the country's OECD trading partners) (see Hussain, 2009; Faruqi, 2008).

Thus Pakistan's economic circumstances at the inception of the global financial crisis were very different from most South Asian economies (with the possible exception of Sri Lanka). Faced with twin deficits (balance of payments and fiscal) as well as a record high inflation, the State Bank of Pakistan's priority even in the last quarter of 2008 was to continue its tight monetary stance.

The crisis further aggravated Pakistan's economic woes. Its trade deficit widened and current accounts position deteriorated sharply in the last quarter of 2008. As a result, the Pakistani currency depreciated sharply (over 20 per cent) *vis-à-vis* the US dollar and its foreign exchange reserves declined to US$4.1 billion in October 2008. The output growth in Pakistan declined sharply to 2 per cent in 2008-2009 from 5.8 per cent in 2007-2008 (Economist Intelligence Unit (EIU) database).

Given the rapid deterioration of its macro-economic stability Pakistan sought accommodation from the International Monetary Fund (IMF) in November 2008. With IMF funding, the country averted a major balance of payment crisis but as part of loan conditionality, the SBP was required to bring down its fiscal deficit from 7.4 per cent of GDP in 2007/2008 to a more manageable 4.2 per cent in 2008/2009 and 3.3 per cent in 2009/2010 (IMF, 2008).

While the reduction of twin deficits and stabilization of key macro-variables has been the major focus for Pakistan throughout the crisis period, the State Bank of Pakistan had also to modify its monetary stance due to the excessive drain of liquidity from the market (owing to deceleration of net foreign assets), particularly in October 2008 and strong credit demand. Given the tight liquidity conditions in the domestic market, the central bank reduced the CRR and exempted time deposits from the SLR, among others. But it raised policy rates from 13 to 15 per cent in November 2008 given a high-inflation environment (SBP, 2008/2009). Earlier (July 2008), the reduction of reserve ratios released close to Pakistani rupees (PKR) 270 billion and this coupled with other measures amounted to cumulative liquidity to the tune of PKR 319.5 billion in Pakistan's financial market. While various stresses in the Pakistani economy remain, there was a noticeable growth pick-up with the fiscal year 2009-2010 registering a growth of 4.1 per cent (Table I).

III. Bangladesh

The Bangladesh economy characterized by low-economic growth and volatile inflation in the 1970s and 1980s showed distinct signs of improvement in the 1990s. Two major factors, namely, a relatively stable political system and economic reform seem to have played a critical role in the stabilization of inflation and the raising of the trend growth rate. In the process, the central bank has emerged as a credible entity, entrusted with multiple objectives (Bangladesh Bank, 2011). In recent years, the concept of economic growth has been broadened to encompass "inclusive growth", with a special emphasis on small- and medium-sized enterprise and agriculture growth (as can be seen from various monetary policy statements of the Bangladesh Bank). Nevertheless, the central bank continues to apply traditional tools to target high-powered money and credit in pursuit of its monetary objectives (see Bangladesh Bank, 2011).

In the absence of capital account convertibility and the very limited exposure to credit derivatives and foreign exchange products of financial institutions, the economy was well insulated from financial contagion and the central bank was thus not required to shift its monetary policy stance in the wake of the crisis. Following the collapse of

Lehman Brothers in September 2008, the equity prices were affected adversely for a brief period, but the liquidity conditions as well as interest rates remained stable. The economy's resilience in the midst of the crisis was reflected in several macro-variables – GDP growth did not decline markedly; export earnings grew 7 and 12 per cent, respectively, in 2008 and 2009 (largely due to the surge in demand for low-end apparel products) and private consumption (constituting about 75 per cent of the GDP) expanded 5.5 and 6 per cent, respectively, in 2008 and 2009 (EIU database). Bangladesh is also notably one of the few South Asian economies that faced relatively little pressure on its balance of payment during the crisis, despite the fact that the country's terms of trade had deteriorated sharply since 2007-2008. The balance of payments also drew support from the fact that the growth of remittance flows (constituting nearly 10 per cent of GDP) was buoyant even in the midst of the crisis. However, the growth of remittances began to decelerate in 2010 owing to the economic downturn in the Middle East.

To offset the fall in demand for non-apparel exports, two fiscal packages worth 0.6 and 0.9 per cent of GDP were announced in April and June 2009 (Hayashi, 2009). As far as monetary action is concerned, the Bangladesh Bank's policy continued to be contractionary as inflation continued to persist and was the major policy goal throughout 2007-2008. The central bank adjusted its policy rates upward in September 2008 and again in November 2008 to rein in rising inflation.

To sum-up, the impact of the crisis on the Bangladesh economy was minimal compared to the impact on other South Asian economies. A favourable external position and fiscal space allowed the government to inject two stimulus packages that helped maintain overall stability in the economy. As Tables I and II indicate, GDP growth decelerated somewhat in the years 2009 and 2010, while inflation showed a marginal pick-up.

IV. Sri Lanka

The macro-economic management in Sri Lanka during the crisis has been more challenging than in most South Asian economies (barring Pakistan). Largely as a reflection of the civil strife expenditure that the government has had to finance for decades, macro-economic stability in the country has been fragile both on account of the twin deficits (fiscal and current account) and high levels of inflation. While reform in fiscal management is the central focus of Sri Lankan macro-policy, some efforts are also in evidence towards reorienting monetary policy. The multiplicity of objectives of the Central Bank of Sri Lanka has given way to the twin objectives of economic growth and price stability. The monetary policy framework continues to be based on monetary targeting, with reserve money as the operating target (Central Bank of Sri Lanka Limited (CBSL), 2010).

As skyrocketing inflation was a major threat to Sri Lanka's macro-economic stability, the central bank put reserve money growth on a tight leash until the third-quarter of 2008. This trend had to be reversed in the last quarter of 2008, following the massive shortfall of net foreign assets owing to the outflow of foreign funds as a fallout of the global crisis. GDP growth contracted marginally to 6 per cent in 2008 and significantly to 3.5 per cent in 2009, from 6.8 per cent in 2007. Exports growth declined sharply – from 7.3 per cent in 2007 to 0.4 per cent in 2008 and −12.3 per cent in 2009 (EIU database). Balancing these negative shocks, the price level in the domestic market subsided substantially thanks to the collapse in global commodity prices. This allowed the central bank some leeway in easing its monetary policy. The CBSL signalled the change in its monetary stance (from a contractionary to an expansionary mode) beginning October 2008 by cutting interest rates, extending greater access to banks and primary dealers for central bank repurchases and reducing the statutory reserve ratio (CBSL, 2010). It also intervened in the foreign exchange market, augmenting dollar liquidity and further enhanced the domestic rupee liquidity via purchase of treasury bills. Even though the fiscal space in Sri Lanka was severely constrained, two stimulus packages equivalent to 0.4 and 0.2 per cent of the country's GDP were injected to contain the external shocks in December 2008 and May 2009, respectively (Hayashi, 2009).

The Sri Lankan economy has managed to recover smartly from the global crisis. Exports witnessed a 5.8 per cent growth in 2010 and gross fixed investment that had stagnated at around 24 per cent of GDP for many years shot up to 28 per cent. Perhaps, most importantly, the end of the decade-long ethnic conflict is expected to give a significant boost to the economy. Consequently, the economy is projected to expand at 7.6 per cent in 2010 (Table I).

3. Global crisis and Southeast Asia

In this section we briefly discuss how key Southeast Asian economies – Indonesia, Thailand, Malaysia, the Philippines, Singapore and Vietnam – were affected by the crisis, their policy responses and the state of recovery. There are several points of comparative interest in the differential impact of the global crisis on South Asia and Southeast Asia. First, in view of the greater global integration of Southeast Asia the transmission effects of the trade channel were considerably more pronounced than in the South Asian case. The worst affected economies were those that relied most strongly on manufacturing exports to industrial countries and included Singapore, the Philippines and Cambodia. However, the sharp depreciations in domestic currency in the wake of massive capital outflows (see Table IV), acted as a moderating influence on the current account deficit.

Another important transmission channel in the Southeast Asian region was the consumption channel – in most countries of the region, the channel operated via the wealth effect as stock markets plummeted sharply (by more than 50 per cent as compared to their pre-crisis levels, in Indonesia, Thailand, Vietnam and the Philippines and by between 30 to 40 per cent in Malaysia and Singapore) and in the case of primary commodity exporters like Indonesia, the decline in international commodity prices acted as a further aggravating factor. The sharp fall in capital market prices along with the reversal of capital flows also depressed investment prospects in most of these countries. By contrast, the limited exposure of financial institutions of this region to toxic assets, as well as the various macro-prudential measures put into effect immediately following the Asian crisis, had the salutary effect of containing the financial transmission channel.

Almost all countries of this region experienced steep declines in inflation rates in 2009, from their moderate to high levels in 2008 (see Table II). Such a steep fall raised fears of a general deflation in the region, but also gave much greater scope for easy monetary policy and large fiscal stimuli in the region as compared to South Asia. An additional factor affording greater fiscal space were the relatively low levels of the government debt-to-GDP ratios prevailing in most countries of this region (Singapore being somewhat of an exception) around the time of the crisis eruption (2008) (Indonesia: 33.2 per cent, Vietnam: 42.9 per cent, Philippines: 48.7 per cent, Malaysia: 42.9 per cent, Thailand: 37.3 per cent and Singapore: 97.2 per cent), as compared to

South Asia (India: 73.1 per cent, Pakistan: 58.7 per cent, Bangladesh: 36.4 per cent and Sri Lanka: 81.4 per cent) (see Table V).

As in most other countries, simultaneous actions to contain the consequences of the crisis were initiated on three fronts, namely, monetary easing, fiscal stimuli and macro-prudential regulation.

On the monetary policy front, key policy interest rates were significantly reduced (by 300 basis points (bps), in Indonesia, 100 bps in Thailand, 150 bps in Malaysia and 700 bps in Vietnam). As Singapore operates an exchange-rate centred monetary policy (leaving interest rates and money supply to be freely determined by market forces), the liquidity easing was effected by adopting a target of zero appreciation in October 2008 and lowering the centre of the band in April 2009. Other monetary policy measures included: liquidity assistance in local currency (Indonesia and the Philippines); lending foreign exchange (Indonesia, Malaysia, the Philippines and Singapore); expanding deposit insurance (Indonesia, Malaysia, the Philippines, Thailand and Singapore); bank capital injection (Thailand); imposing restrictions on short sales (Indonesia and Thailand); and relaxation of mark-to-market rules (Indonesia, Malaysia and the Philippines) (see Asian Development Bank, 2010) (Table III).

The fiscal stimuli injected in South Asia and Southeast Asia are indicated in Table VI. In Indonesia, the government adopted a fiscal stimulus amounting to 1.4 per cent of GDP in 2009, but there was an additional stimulus in the form of the election expenditures, which according to some estimates could have been as high as 1 per cent of the country's GDP. The government of Thailand intervened with two fiscal stimulus packages worth over US$45 billion (over 6 per cent of the country's GDP) spread over three successive fiscal years, while the Malaysian Government introduced two fiscal packages totalling US$18.1 billion (about 9 per cent of the GDP). A fiscal stimulus totalling US$14.7 billion (4 per cent of the country's GDP) was launched in Singapore in the second half of 2008. To limit the crisis impact, the Philippine Government injected US$7 billion in the economy through various fiscal outlays (4 per cent of the country's GDP). Finally, in spite of a weak fiscal position, the Vietnamese Government

Table III.
Exports, imports (per cent growth rates) and current account deficit (as a percentage of GDP)

	2007			2008			2009			2010		
	EXP	IMP	CA/GDP	EXP	IMP	CA/GDP	EXP	IMP	CA/GDP	EXP	IMP	CA/GDP
						South Asia						
Bangladesh	13.0	16	1.3	7.0	−2.1	1.2	12.2	15.2	3.7	5.6	5.4	2.4
India	5.2	10.0	−0.7	13.2	22.5	−2.5	−7.1	−2.1	−1.9	17.6	9.2	−3.0
Pakistan	2.3	−3.5	−5.8	−5.3	3.5	−9.5	−3.3	−15.1	−2.5	15.8	4.4	−0.9
Sri Lanka	7.3	3.7	−4.6	0.4	4.0	−9.8	−12.3	−9.6	−0.7	5.8	13.0	−3.4
						Southeast Asia						
Indonesia	8.5	9.1	2.4	9.5	10.0	0.0	−9.7	−15.0	1.9	14.9	17.3	0.9
Malaysia	4.1	5.9	15.9	1.7	2.1	17.5	−10.5	−12.2	16.5	9.9	15.1	10.9
Philippines	5.5	−4.2	4.8	−8.4	−4.0	2.1	−7.8	−8.1	5.6	21.0	22.5	4.2
Singapore	9.3	7.8	26.6	4.0	9.4	19.0	−8.1	−11.0	17.8	19.2	16.6	20.8
Thailand	7.8	4.4	6.3	5.1	8.9	0.8	−12.5	−21.5	8.3	14.7	21.5	4.6
Vietnam	16.1	28.2	−9.8	15.1	15.2	−11.9	−5.8	−6.2	−6.6	15.3	17.3	−5.5

Notes: EXP, per cent growth rate of exports; IMP, per cent growth rate of imports; CA/GDP, current account deficit (or surplus) to GDP ratio
Source: Economist Intelligence Unit database

Table IV.
Bilateral exchanges rates (*vis-à-vis* US dollar)

	2007 Exchange rate	2008 Exchange rate	2009 Exchange rate	2010 Exchange rate
		South Asia		
Bangladesh	68.9	68.6	69.0	69.6
India	41.3	43.5	48.4	45.7
Pakistan	60.7	70.4	81.7	85.2
Sri Lanka	110.6	108.3	115.0	113.1
		Southeast Asia		
Indonesia	9,141.0	9,699.1	10,390.0	9,090.4
Malaysia	3.4	3.3	3.5	3.2
Philippines	46.1	44.3	46.7	45.1
Singapore	1.51	1.41	1.45	1.36
Thailand	34.5	33.3	34.3	31.7
Vietnam	16,077.9	16,440.4	17,799.6	19,127.0

Source: Economist Intelligence Unit database

Table V.
Public debt to GDP ratios

	2007 Public debt/GDP	2008 Public debt/GDP	2009 Public debt/GDP	2010 Public debt/GDP
		South Asia		
Bangladesh	39.5	36.4	35.4	35.2
India	73.1	73.1	71.1	69.2
Pakistan	54.6	58.7	57.3	56.9
Sri Lanka	85.0	81.4	86.1	81.9
		Southeast Asia		
Indonesia	36.9	33.2	28.7	27.0
Malaysia	42.7	42.9	55.4	54.2
Philippines	47.8	48.7	49.2	47.3
Singapore	85.8	97.2	105.0	97.2
Thailand	38.3	37.3	45.2	44.1
Vietnam	44.6	42.9	51.2	52.8

Sources: Economist Intelligence Unit database (for Bangladesh and Sri Lanka) and for the rest of the countries World Economic Outlook, International Monetary Fund

Table VI.
Fiscal stimuli in South Asia and Southeast Asia

Size of fiscal stimulus (as percentage of GDP)	South Asia	Southeast Asia
>5	–	Thailand, Vietnam, Malaysia
2-5	India	Singapore, Philippines
0.5-2	Bangladesh, Pakistan	Indonesia
<0.5	Sri Lanka	–

introduced a US$7.7 billion worth stimulus package (8.6 per cent of GDP) over the two years 2008 and 2009.

The third leg of the crisis management strategy was macro-prudential regulation. As mentioned earlier, the entire Asian region had well ingested the lessons of the Asian meltdown of the late 1990s. Hence many countries of this region had fenced in their financial systems with appropriate prudential regulations. These were further strengthened in the wake of the current global crisis. Three types of macro-prudential measures may be distinguished, namely, first, price- and quantity-based measures designed to limit credit expansion such as credit ceilings and exposure limits (these measures were relied upon heavily by all the countries in Southeast Asia); second, measures aimed at quality of loans such as loan-to-value ratios, debt-to-income rules, limits on currency mismatches, etc. (resorted to with varying degrees of emphasis, in Malaysia, the Philippines, Thailand and Singapore); and finally, measures targeting the resilience of the overall banking system to balance sheet shocks, including capital adequacy (beyond that imposed by Basel II), provisioning requirements, etc. (used primarily in Indonesia, Malaysia and Vietnam) (Table IV).

The combination of these measures allowed Southeast Asia to successfully weather the most severe consequences of the crisis. The region had staged a sharp V-shaped recovery by 2010 and (with the notable exception of Vietnam) this recovery was not accompanied by an inflationary surge as was characteristic of the South Asian recovery (Tables V and VI).

4. Regulatory and supervisory response to the global crisis in South Asia

The global crisis precipitated an extensive debate on the role of national regulatory and supervisory authorities in crisis prevention and crisis management and a number of reports from various international agencies have been forthcoming. Two reports in particular may be viewed as representative of the general trend of thinking on these and related issues, namely, those put forth by the De Larosiere Group (2009) in the EU and the Working Group 1 of the Group of Twenty (G20) (March 2009). These reports throw considerable light on the existing deficiencies in the global financial system and suggest several measures to mitigate the possibility of recurrences of a crisis of such amplitude. The suggested measures embraced five distinct areas, namely:

(1) strengthening and expanding the scope of regulation and supervision (R&S);
(2) controlling leverage of financial institutions;
(3) dampening pro-cyclicality of capital requirements;
(4) reducing costs of financial failures; and
(5) devising market incentives for prudent behaviour.

A. Scope of R&S

It was felt that R&S has not only to be strengthened but that its scope also needs to be extended considerably. For strengthening R&S three measures seem to be in order, namely:

A1: entrusting a special regulatory authority (either an existing one or a newly constituted one) with an explicit financial stability mandate. Traditionally, the central banks of most countries have been primarily entrusted with the mandate of monetary stability (inflation targeting). However, the recent global crisis, has demonstrated that monetary stability need not imply financial stability (see e.g. Borio, 2011; Galati and Moessner, 2011). Considerations of financial stability can be taken care of, either by expanding the mandate of the central bank to additionally include financial stability; or establishing a separate regulatory authority explicitly focused on financial stability.

A2: ensuring coordination between different regulatory authorities. Any modern economy is characterized by a diversity of financial institutions, each under a different R&S authority (by way of example, in India, the RBI regulates and supervises operations of commercial and cooperative banks, the National Housing Bank is the R&S authority for housing finance and mortgage companies, the Securities and Exchange Board of India oversees the functioning of equity and bond markets, etc.). Jurisdictional conflicts (often referred to as "turf wars") among such distinct R&S authorities are common and hence the need for inter-regulatory coordination.

A3: expanding the scope of regulation to include credit rating agencies and private pools of capital (including hedge funds) via a system of registration, disclosure requirements and oversight.

B. Leverage of financial institutions

An important amplification factor for the current crisis has been not only the high degree of leveraging of many financial institutions but also the fact that this leveraging has very often been quite opaque. Reflecting the need for more accurate measures of balance sheet exposures, the following suggestions have emerged:

B1: a stronger focus by regulators on loan-to-value ratios (especially for mortgages).

B2: higher loan-loss provisioning norms.

B3: stress-testing exercises to be conducted periodically to monitor leveraging on an on-going basis.

B4: improved disclosure requirements for complex structured products.

C. Pro-cyclicality of capital requirements

A fact well known to economists (see e.g. Ghosh and Nachane, 2003) and policymakers alike is the fact of capital adequacy requirements being pro-cyclical and hence a possible accentuating factor in any crisis. As the current crisis runs its course, there is a greater realization among central bankers globally that ways had to be found to counter this pro-cyclicality? Two operational suggestions have been made in this context:

C1: requiring financial institutions to build-up capital buffers during economic expansions (which could then be unwound in times of recession) and control, leverage and maturity mismatches (see Hanson *et al.*, 2011; Gordy and Howells, 2009, etc.)

C2: imposing higher capital requirements on systemically important financial institutions (see Pennacchi, 2010; Bullard *et al.*, 2009, etc.).

D. Reducing cost of financial failures

The welfare costs of financial crises are generally severe and fall disproportionately on disadvantaged groups in any society and the current crisis is hardly an exception. With a view to reducing such costs, the following suggestions have been made:

D1: an early warning diagnostic system can contribute considerably towards containing collateral damage.

D2: the instituting of orderly closure rules for important financial institutions (as prevalent in the USA for banks under the Federal Deposit Insurance Corporation Improvement Act and Competitive Equality Banking Act).

D3: under exceptionally turbulent circumstances, the use of credit ratings by private agencies could be temporarily suspended in favour of regulators' ratings.

- D4: the establishment of clearing houses in over the counter (OTC) derivatives markets.

E. Devising market incentives for prudent behaviour

Market incentives can play an important supplementary role in ensuring prudent behaviour by financial institutions. It is generally recognized that an important triggering factor in the current crisis has been the unregulated corporate compensation framework, which provided perverse incentives for excessive risk taking resulting in a serious moral hazard syndrome. The solutions to this problem emerging in the deliberations of the Working Group 1 of the G20 are:

- E1: prudential oversight of financial executive compensation schemes.
- E2: originators of securitized products be required to take an equity slice in the products that they sell/distribute.
- E3: better separation of ratings and consultancy activities of credit rating agencies.

It is not our contention here that the above schemata constitutes a perfect recipe for insurance against future crises. However, it cannot be denied that the schemata could serve as a useful benchmark for evaluating the degree of preparedness of any national system to deal with an incumbent financial crisis. To quote Borio (2011, p. 12) "the international community has strongly endorsed the need to establish frameworks" (FSF, 2009; Larosiere group, 2009; G20, 2009, 2010). International regulatory bodies have been strengthening the macro prudential orientation of their standards, national and supranational bodies have been setting up new bodies with explicit macro prudential responsibilities and a lot of work is under way to establish how best to implement the arrangements. Monitoring and limiting systemic risk is now a core policy objective". A number of measures along these lines had already been incepted in several Asian economies well before the crisis, while some others were put in place in the immediate aftermath of the crisis. Table VII examines in detail the extent to which the current South Asian financial regulatory structure measures up to these benchmark criteria. The table clearly indicates that the financial regulatory and supervisory system in South Asia performs fairly well against these general guideposts for financial stability, though the Indian system measures up significantly better than the other countries of the region.

The issue of market discipline was brought into the forefront of debates on sound regulatory practices by the great emphasis laid on it by Basel II. By way of background, it may be mentioned that the Bank of International Settlements (BIS) announced the Basel I accord in 1988, suggesting guidelines for regulation of internationally active banks. The recommendations are not binding on member countries, although most countries have found them useful and adopted them in the interests of making their financial systems compliant with internationally accepted norms. Basel II, which was fully operationalized in 2004, went considerably beyond Basel I. At the current juncture, most OECD countries and major EMEs have already implemented Basel II, while many advanced countries are well on their way to adopt Basel III, which was put out by the BIS in 2011. As is well known, Basel II comprises three pillars, namely, minimum capital requirements (Pillar I); supervisory review of bank operations by the R&S authority (Pillar II); and market discipline (Pillar III). Market discipline is a generic term referring to the monitoring of financial institutions by market participants and in the Basel II schemata, is sought to be achieved by imposing various kinds of disclosure requirements on financial institutions (most

Benchmark suggestion		Implementation status in South Asia
A1	India	Board for Financial Supervision (BFS) established had already been established as early as November 1994. The RBI carries out this mandate under the general guidance of the BFS
	Pakistan	No special regulatory authority. The State Bank of Pakistan regulates and supervises the financial system. NBFIs, are being regulated/supervised by the Securities and Exchange Commission (SECP)
	Bangladesh	No special regulatory authority. The Bangladesh Bank and the Securities and Exchange Commission regulate and supervise the financial system
	Sri Lanka	No special regulatory authority. The Central Bank of Sri Lanka and the Securities and Exchange Commission regulate and supervise the financial system
A2	India	Coordination between the three major regulators Reserve Bank of India (RBI), Securities and Exchange Board of India (SEBI) and Insurance Regulatory Development Authority (IRDA) is weak and potentiality for conflicts not ruled out
	Pakistan	Same as above
	Bangladesh	Same as above
	Sri Lanka	Same as above
A3	India	No move in this direction is in sight
	Pakistan	Same as above
	Bangladesh	Same as above
	Sri Lanka	Same as above
B1	India	RBI insists on a cap of 75 per cent on the loan-to-value (LTV) ratio. Risk weights are varied according to the LTV ratio
	Pakistan	49.8 per cent
	Bangladesh	50-80 per cent
	Sri Lanka	75 per cent
B2	India	Loan loss provisioning has been steeply raised in the wake of the crisis (it currently stands at 70 per cent)
	Pakistan	70.9 per cent
	Bangladesh	Loan loss provisioning varies depending on type of banks. For SCBs the required ratio is 73 per cent
	Sri Lanka	50.8 per cent
B3	India	A pilot stress-testing exercise was done in 2009. More detailed stress tests are proposed to be carried out twice a year
	Pakistan	SBP started macro-stress testing of credit risk to assess the resilience of the banking system towards credit shocks since June 2008
	Bangladesh	All banks and FIs are expected to carry out stress testing on half yearly basis (June 30 and December 31) each year with their first stress testing was conducted on 30 June 2010
	Sri Lanka	na
B4	India	Complex derivative products such as synthetic securitization have not been permitted so far
	Pakistan	Same as above
	Bangladesh	Same as above
	Sri Lanka	Same as above
C1	India	While a system of capital buffers is not in place, pro-cyclicality is sought to be mitigated via risk weights adjustments
	Pakistan	Same as above
	Bangladesh	Same as above
	Sri Lanka	Same as above

(*continued*)

Table VII. Benchmarking the South Asian regulatory and supervisory structure against globally proposed norms

Benchmark suggestion		Implementation status in South Asia
C2	India	Systemically important non-bank financial intermediaries are subject to a higher capital to risk-weighted assets ratio (CRAR) of between 12 and 15 per cent as opposed to the regularly applicable CRAR of 9 per cent for banks
	Pakistan	14.3 per cent
	Bangladesh	10 per cent
	Sri Lanka	14.5 per cent
D1	India	The RBI introduced the prompt corrective action (PCA) scheme in December 2002. Under the PCA, the RBI will initiate certain structured as well as discretionary actions in respect of banks, which have hit certain trigger points in terms of capital to risk-weighted assets ratio (CRAR), net non-performing assets (NPA) and return on assets (ROA)
	Pakistan	na
	Bangladesh	na
	Sri Lanka	na
D2	India	No such provision exists
	Pakistan	Same as above
	Bangladesh	Same as above
	Sri Lanka	Same as above
D3	India	No such provision exists
	Pakistan	Same as above
	Bangladesh	Same as above
	Sri Lanka	Same as above
D4	India	About 75 per cent of the OTC derivative contracts are routed through a centralized exchange – the Clearing Corporation of India Ltd (CCIL)
	Pakistan	No such provision exists
	Bangladesh	Same as above
	Sri Lanka	Same as above
E1	India	Such rules do not exist
	Pakistan	Same as above
	Bangladesh	Same as above
	Sri Lanka	Same as above
E2	India	No provision for such an eventuality exists at the moment
	Pakistan	Same as above
	Bangladesh	Same as above
	Sri Lanka	Same as above
E3	India	No formal legislation to this effect, but safeguards exist to prevent "cherry picking" credit assessments by banks
	Pakistan	Same as above
	Bangladesh	Same as above
	Sri Lanka	Same as above

Sources: Various annual reports and circulars of the central banks of India, Bangladesh, Pakistan and Sri Lanka

Table VII.

particularly banks) relating to their capital, assets, credit risk, market risk, operational risk, etc. Since Basel II Pillar III has gone into implementation in India and Bangladesh in March 2009 and December 2009, respectively, the disclosure component of market discipline seems to be fairly in place. But it has to be remembered that while disclosures do contribute to greater transparency in financial sector operations and to that extent to better monitoring by all counterparties, they constitute only a necessary condition for market discipline.

Monitoring of banks and financial institutions by depositors in India is weak, primarily because of the prevalent flat-rate deposit insurance premium, which imposes a uniform premium on deposit insurance for all banks, irrespective of the riskiness of their respective loan and investment portfolios. Such a system subsidizes high risk, poorly run institutions at the cost of well-run institutions. An ideal deposit insurance premium pricing system would embody banks paying premium indexed to their own levels of risks; and a premium level that ensures a continually solvent insurance fund (see e.g. Demirguc-Kunt and Huizinga, 2004). However, it is difficult to assess individual banks' risks accurately, before problems emerge. Thus risk-based premium (RBP) systems should be viewed as a complement to, rather than a substitute for, other methods of checking excessive risk taking like risk-based capital requirement prescriptions, strong supervision and direct restraints on risky activities. There is an increasing move towards RBP across the globe and moving towards an RBP system could be an important move in the direction of strengthening market discipline in India. Interestingly, the Bangladesh Bank has recently approved the new risk-based premium rate and the amount of coverage, which will come into force after the government's approval. So far as the other two South Asian countries are concerned, Sri Lanka has a flat (risk-unadjusted) deposit premium system as in India, whereas in Pakistan deposit insurance has been introduced very recently via the Deposit Protection Fund Act (2008).

Monitoring of banks by shareholders traditionally occurs via responses of equity values to changes in the perceived risks of banks. If market discipline is effective in improving bank governance, then we must have publicly listed banks (with constantly available market signals from their equity and bond prices) assuming less risk than similarly placed non-publicly traded banks. There have been several empirical tests of this and similar hypotheses (see e.g. Kwan, 2002; Flannery, 2001; Park and Peristiani, 2007). While the empirical conclusions vary somewhat, nevertheless there seems to be a fairly broad consensus around two propositions: lack of a significant difference in the risk profile between publicly traded and non-traded banks; and publicly traded banks often tend to have worse supervisory ratings than non-publicly traded banks.

One additional way to strengthen market discipline is via the so-called Chicago Fed Plan (see Keehn, 1989), which proposes the inclusion of a mandatory subordinated debt (i.e. debt that is unsecured and has lower order of claims than other debts in the event of closure (of a company)) component in bank capital requirements (see also, Calomiris and Powell, 2000; Evanoff and Wall, 2002, etc.). Interestingly subordinated debt can act as an important market disciplining factor, since as perceived risks of a bank increase, holders of subordinated liabilities will require a higher return to compensate for the extra perceived risk. Several studies (Jagtiani and Lemieux, 2001; Evanoff and Wall, 2002; Sironi, 2003, etc.) have noted that issuance and secondary market risk premia on traded subordinated debt are correlated positively with risk measures such as asset portfolio composition, credit ratings, probability of undercapitalization and/or failure, etc. In India, as in other South Asian countries, as of now, there is no mandatory requirement for subordinate debt and it is a suggestion worth careful consideration as to whether such a mandatory requirement be imposed in the interests of market discipline.

5. Conclusions

The main focus of this paper has been on how the South Asian region has been affected by one of the worst crisis in recent decades and what lessons can be drawn for EMEs from this experience. We have seen that this region has coped well given the severity of the crisis – certainly countries in this region have managed to stave off contagion to their financial systems, though in the initial stages the real sector was badly affected through declining trade volumes, capital outflows and exchange rate volatility. A trilateral combination of monetary easing, fiscal stimuli and macro-prudential measures was instrumental in guarding the countries of the region against the looming recessionary threats. We describe the details of this process in the case of four South Asian countries, namely, Bangladesh, India, Pakistan and Sri Lanka in Section 2.

It is of considerable interest to juxtapose the South Asian experience with the experience in Southeast Asia which is far more integrated globally in terms of trade, investment and financial flows. This comparison along with a somewhat quick overview of the unfolding of the crisis and its aftermath in Southeast Asia forms the subject matter of Section 3. Interesting similarities as well as contrasts emerge. The impact on Southeast Asia was far more severe (as its greater global integration would lead us to expect), but the recovery was correspondingly quicker. Among other things, lower base line (pre-crisis) inflation and greater fiscal space, afforded relatively more comfortable room for monetary easing and fiscal stimuli and this prompted the V-shaped recovery. Post-crisis the situation appears fairly sanguine in both regions, though inflation is emerging as a major threat, especially in South Asia. Another major post-crisis problem confronting the Asian region has been massive capital inflows, as the slow recovery in the EU and the USA meant that a large part of the liquidity released by the European Central Bank and the Federal Reserve Bank has wended its way to the Asian region. Here also the South Asian response has been somewhat different from the Southeast Asian case. None of the countries in South Asia has experimented with capital controls, though these have not been explicitly ruled out. In Southeast Asia, by contrast, three economies, namely, Vietnam, Indonesia and Thailand have introduced some varieties of capital controls.

The global crisis has also brought to the fore the dangers associated with regulatory and supervisory lapses. The extensive debates on these issues has slowly generated a nascent consensus among central banks, finance ministries and multilateral institutions relative to the desiderata for national regulatory and supervisory systems, if they were to be successful in maintaining systemic financial stability. The existing post-crisis regulatory architecture in South Asia, when benchmarked against these desiderata comes out reasonably well, which of course makes for a sense of satisfaction, though hardly for complacency (Section 4).

In a similar fashion, the crisis has highlighted the inconsistencies in regulatory systems across countries and the potential conflicts of interest between regulators across borders as well as between regulators and financial markets. A new era of global financial coordination to deal with global systemic risk seems to be dawning. But this will have to contend with four formidable and fundamental issues, namely, first, the coordination of regulations; second, coordination of resolution tools; third, coordination in depositor and investor protection; and finally, enhanced information sharing. A beginning can be made by ushering in an era of South-South financial coordination in the Asian region.

The future success of financial reforms in South Asia as well as Southeast Asia, will be crucially contingent upon how successfully the regulatory architecture in these regions adapts to the twin dictates of financial development and financial stability, the extent to which market discipline can be usefully deployed as a pillar to support this architecture, the degree to which regulatory and supervisory independence is not compromised and finally the pace and extent of financial coordination across Asia as well as the globe.

References

Akin, C. and Kose, M.A. (2007), "Changing nature of north-south linkages: stylized facts and explanations", IMF Working Paper No. WP/07/280, International Monetary Fund, Washington, DC.

Asian Development Bank (2010), "Asian Development Outlook 2010", available at: http://beta.adb.org/publications/search/1083%2C4759?keyword=asian%20development%20outlook%202010 (accessed 10 July 2011).

Baldwin, R. and Simon, E. (2009), *The Collapse of Global Trade, Murky Protectionism and the Crisis*, VoxEU.org eBooks, available at: www.voxeu.org/index.php?q=node/3199 (accessed 2 October 2011).

Bangladesh Bank (2011), "Monetary policy statements (MPS), various issues", available at: www.bangladesh-bank.org/ (accessed 16 January 2011).

Bates, S. and Vaugirard, V. (2009), "Monetary transmission channels around the subprime crisis: the US experience", *Global Economy & Finance Journal*, Vol. 2 No. 2, pp. 138-56.

Borio, C. (2011), "Rediscovering the macroeconomic roots of financial stability policy: journey, challenges and a way forward", BIS Working Paper No. 354, Bank for International Settlement, Basel.

Bullard, J., Neely, C.J. and Wheelock, D.C. (2009), "Systemic risk and the financial crisis: a primer", *Federal Reserve Bank of St. Louis Review*, Vol. 91 No. 5, pp. 403-17.

Calomiris, C.W. and Powell, A. (2000), "Can emerging market bank regulators establish credit discipline?: the case of Argentina 1992-99", NBER Working Paper No. 7715, National Bureau of Economic Research, Cambridge, MA.

Central Bank of Sri Lanka Limited (2010), "Monetary policy, money, credit and interest rates", Annul report 2010, Central Bank of Sri Lanka Limited, Colombo, available at: www.cbsl.gov.lk/pics_n_docs/10_pub/_docs/efr/annual_report/AR2010/English/11_Chapter_07.pdf (accessed 12 January 2012).

De Larosiere Group (2009), "Report of the high-level group on financial supervision in the European Union: Brussels", February, available at: http://ec.europa.eu/internal_market/finances/docs/de_larosiere_report_en.pdf (accessed 19 April 2011).

Demirguc-Kunt, A. and Huizinga, H. (2004), "Market discipline and deposit insurance", *Journal of Monetary Economics*, Vol. 51 No. 2, pp. 375-99.

Economist Intelligence Unit (EIU), "Economist Intelligence Unit datatool", available at: http://graphics.eiu.com/data_services/help/EIUDataTool_viewlet_swf.html (accessed 19 April 2011).

Evanoff, D.D. and Wall, L.D. (2002), "Measures of the riskiness of banking organizations: subordinated debt yields, risk-based capital and examination ratings", *Journal of Banking and Finance*, Vol. 26 No. 5, pp. 989-1009.

Faruqi, A. (2008), "Musharraf's crisis of legitimacy", in Hasnat, S.F. and Faruqi, A. (Eds), *Pakistan: Unresolved Issues of State and Society*, Vanguard Books Ltd, Lahore, pp. 39-60.

Flannery, M.J. (2001), "The faces of 'market discipline'", *Journal of Financial Services Research*, Vol. 20 Nos 2/3, pp. 107-19.

Galati, G. and Moessner, R. (2011), "Macroprudential policy: a literature review", BIS Working Paper No. 337, Bank for International Settlement, Basel.

Ghosh, S. and Nachane, D. (2003), "Are Basel capital standards pro-cyclical? Some empirical evidence from India", *Economic and Political Weekly*, Vol. 38 No. 8, pp. 777-84.

Gordy, M. and Howells, B. (2009), "Procyclicality in Basel II: can we treat the disease without killing the patient?", *Journal of Financial Intermediation*, Vol. 15 No. 3, pp. 395-417.

Group of Twenty (G20) (2009), "Enhancing sound regulation and strengthening transparency", Final Report of the G20 Working Group 1, G20.

Group of Twenty (G20) (2010), "The G20 Seoul summit declaration", 11-12 November, available at: www.g20.utoronto.ca/2010/g20seoul.html (accessed 19 June 2011).

Hanson, S.G., Kashyap, A.K. and Stein, J.C. (2011), "A macroprudential approach to financial regulation", *Journal of Economic Perspectives*, Vol. 25 No. 1, pp. 3-28.

Hayashi, T. (2009), "Overview of fiscal stimulus", paper presented at Regional High-Level Workshop on "Strengthening the Response to the Global Financial Crisis in Asia-Pacific: The Role of Monetary, Fiscal and External Debt Policies", Dhaka, 27-30 July, available at: www.unescap.org/pdd/calendar/strengthening_responses/papers/ADB_fiscal_Hayashi_ppt.pdf (accessed 11 June 2011).

Hussain, I. (2009), "Pakistan & Afghanistan: domestic pressures and regional threats: the role of politics in Pakistan's economy", *Journal of International Affairs*, Vol. 63 No. 1, pp. 1-18.

International Monetary Fund (IMF) (2008), "Pakistan gets $7.6 billion loan from IMF", *IMF Survey Magazine*, 24 November, available at: www.imf.org/external/pubs/ft/survey/so/2008/car112408c.htm (accessed 12 October 2011).

Jagtiani, J. and Lemieux, C. (2001), "Market discipline prior to failure", *Journal of Economics and Business*, Vol. 53 Nos. 2/3, pp. 313-24.

Keehn, S. (1989), *Banking on the Balance: Powers and the Safety Net*, monograph, Federal Reserve Bank of Chicago, Chicago, IL.

Kollmann, R. and Malherbe, F. (2011), "International financial contagion: the role of banks", paper has been prepared for the forthcoming Encyclopedia of Financial Globalization, in Jerry Caprio (Ed.), Elsevier, available at: www.ecore.be/DPs/dp_1295267276.pdf (accessed 10 October 2011).

Kumar, R. (2009), "Global financial and economic crisis: impact on India and policy response", in Kumar, R., Debroy, B., Ghosh, J., Mahajan, V. and Prabhu, K.S. (Eds), *Global Financial Crisis: Impact on India's Poor – Some Initial Perspectives*, United Nations Development Programme, New Delhi, pp. 7-13, available at: http://www.undp.org/content/dam/india/docs/impact_of_the_financial_crisis_on_the_poor_in_india_some_initial_perspectives.pdf

Kwan, S.H. (2002), "The promise and limits of market discipline in banking", FRBSF Economic Letter 2002-36, available at: www.frbsf.org/publications/economics/letter/2002/el2002-36.html (accessed 23 September 2011).

Milesi-Ferretti, G.-M. and Tille, C. (2010), "The great retrenchment: international capital flows during the global financial crisis", *Economic Policy*, Fifty-Second Panel Meeting hosted by EIEF, Rome, 22-23 October.

Park, S. and Peristiani, S. (2007), "Are bank shareholders enemies of regulators or a potential source of market discipline?", *Journal of Banking & Finance*, Vol. 31 No. 8, pp. 2493-515.

Pennacchi, G. (2010), "A structural model of contingent bank capital", Working Paper No. 10-04, Federal Reserve Bank of Cleveland, Cleveland, OH.

RBI (2011), *Macroeconomic and Monetary Developments in 2010-11*, Reserve Bank of India, Mumbai.

RBI (2012), *Macroeconomic and Monetary Developments: The Third Quarter Review*, Reserve Bank of India, Mumbai.

Reddy, Y.V. (2011), *Global Crisis, Recession and Uneven Recovery*, Orient Blackswan, Hyderabad.

Sironi, A. (2003), "Testing for market discipline in the European banking industry: evidence from subordinated debt issues", *Journal of Money, Credit & Banking*, Vol. 35 No. 3, pp. 443-72.

State Bank of Pakistan (SBP) (2007), "Monetary policy statement, January–June 2007", State Bank of Pakistan, Karachi, available at: http://www.sbp.org.pk/m_policy/MPS-Jan-Jun-FY07.pdf (accessed 2 January 2012).

State Bank of Pakistan (SBP) (2008/2009), "Monetary policy statement", available at: www.sbp.org.pk/m_policy/index.asp (accessed 12 April 2011).

Subbarao, D. (2010), "India and the global financial crisis: transcending from recovery to growth", Speech at the Peterson Institute for International Economics, Washington, DC, available at: http://rbidocs.rbi.org.in/rdocs/Speeches/PDFs/PSF260410.pdf (accessed 23 December 2011).

UNIDO (2009), "The global financial crisis and the developing world: transmission channels and fall-outs for industrial development", working paper, Research and Statistics Branch, United Nations Industrial Development Organization, Vienna, available at: www.unido.org/fileadmin/user_media/Publications/RSF_DPR/WP062009_Ebook.pdf (accessed 20 September 2011).

Willett, T.D., Liang, P. and Zhang, N. (2011), "Global contagion and the decoupling debate", in Cheung, Y.-W., Kakkar, V. and Ma, G. (Eds), *The Evolving Role of Asia in Global Finance (Frontiers of Economics and Globalisation)*, Vol. 9, pp. 215-34.

Further reading

Akhtar, S. (2007), "Monetary policy in Pakistan", available at: www.sbp.org.pk/about/speech/governors/dr.shamshad/2007/MP-02-May-07.pdf (accessed 16 January 2011).

Alcala, F. and Ciccone, A. (2004), "Trade and productivity", *Quarterly Journal of Economics*, Vol. 119 No. 2, pp. 612-45.

Archer, D. (2006), "Implications of recent changes in banking for the conduct of monetary policy", BIS Paper No. 28, Bank for International Settlement, Basel, pp. 123-51, available at: www.bis.org/publ/bppdf/bispap28f.pdf (accessed 12 March 2011).

Arun, T.G. and Turner, J.D. (2004), "Corporate governance of banks in developing economies: concepts and issues", *Corporate Governance: An International Review*, Vol. 12 No. 3, pp. 371-7.

Blinder, A.S. (1997), "What central bankers could learn from academics – and vice versa", *Journal of Economic Perspectives*, Vol. 11 No. 2, pp. 3-19.

Bloomberg (2009), "Sri Lanka may need bailout as war debt drain reserves", 27 February, available at: www.bloomberg.com/apps/news?pid=newsarchive&sid=adCnELXgpXbY&refer=india (accessed 22 January 2011).

Calomiris, C.W. (2007), "Bank failures in theory and history: the great depression and other contagious events", NBER Working Paper No. 13597, National Bureau of Economic Research, Cambridge, MA.

Chirathivat, S. and Mallikamas, S. (2010), "Thailand's economic performance and responses to the global crisis", available at: www1.doshisha.ac.jp/~ccas/eng/Econference/ econfpdf/26th%20Conference%20of%20the%20American%20Committee%20for%20Asian%20Economic% 20Studies/Suthiphand.pdf (accessed 10 April 2011).

De Krivoy, R. (2000), "Collapse: the Venezuelan banking crisis of 1994", Group of Thirty, Washington, DC, available at: www.group30.org/rpt_17.shtml (accessed 12 January 2011).

Financial Stability Forum (2009), "Report of the financial stability forum on enhancing market and institutional resilience", Bank for International Settlements, Basel, available at: www.financialstabilityboard.org/publications/r_0904d.pdf (accessed 19 December 2012).

Gaiha, R., Imai, K.S., Thapa, G. and Kang, W. (2010), "Fiscal stimulus, agricultural growth and poverty in Asia and the Pacific", IFAD Occasional Paper, Rome, available at: www.ifad.org/operations/projects/regions/pi/paper/10.pdf (accessed 19 June 2011).

Hartcher, P. (1998), *The Ministry: How Japans' Most Powerful Institution Endangers World Markets*, Harvard Business School Press, Boston, MA.

Ibrahim, M.B. (2010), " 'Impact of the global crisis on Malaysia's financial system' in the global crisis and financial intermediation in emerging market economies", BIS Paper No. 54, Bank for International Settlement, Basel, available at: www.bis.org/publ/bppdf/bispap54p.pdf (accessed 10 June 2011).

Indian Express (2009), "War on terror has cost $35 billion: Pak foreign minister", *Indian Express*, 21 July.

International Monetary Fund (IMF) (2010), "Pakistan: third review under the stand-by arrangement", IMF Country Report No. 10/6, Washington, available at: www.imf.org/external/pubs/cat/longres.aspx?sk=23517.0 (accessed 1 October 2011).

Kaufmann, D., Kraay, A. and Mastruzzi, H. (2007), "Governance matters VI: governance indicators for 1996-2006", World Bank Policy Research Discussion Paper No. 4280, World Bank, Washington, DC.

Khoon, G.S. and Michae, L. (2010), "The impact of the global financial crisis: the case of Malaysia", Third World Network, available at: www.twnside.org.sg/title2/ge/ge24.pdf (accessed 10 June 2011).

Kohli, A. (2006), "Politics of economic growth in India, 1980-2005: I & II", *Economic and Political Weekly*, 8 April, pp. 1361-70.

Levine, R. (1997), "Financial development and economic growth: views and agenda", *Journal of Economic Literature*, Vol. 35 No. 2, pp. 688-726.

Lindgren, C., Balino, T., Enoch, C., Gulde, A., Quintyn, M. and Teo, L. (1999), "Financial sector crisis and restructuring: lessons from Asia", IMF Occasional Paper No. 188, International Monetary Fund, Washington, DC.

Meier, G. and Seers, D. (Ed.) (1984), *Pioneers in Development*, Oxford University Press, New York, NY.

Nachane, D. and Islam, M.S. (2009), "Financial sector reforms in South Asia: a perspective", in Tai Yong (Ed.), *South Asian Perspectives*, Institute of South Asian Studies, Singapore, pp. 351-430.

Quintyn, M. and Taylor, M.W. (2002), "Regulatory and supervisory independence and financial stability", IMF Working Paper No. WP/02/46, International Monetary Fund, Washington, DC.

RBI (2008), *Reports on Currency and Finance 2003-08*, Reserve Bank of India, Mumbai.

RBI (2010), *Report on Currency and Finance 2008-09*, Reserve Bank of India, Mumbai.

Rodrik, D., Subramanian, A. and Trebbi, F. (2002), "Institutions rule: the primacy of institutions over geography and integration in economic development", NBER Working Paper No. 9305, National Bureau of Economic Research, Cambridge, MA.

Seers, D. (1983), *The Political Economy of Nationalism*, Oxford University Press, New York, NY.

Stern, N. (1989), "The economics of development: a survey", *Economic Journal*, Vol. 99 No. 397, pp. 597-685.

UNDP (2009), "The global financial crisis and the Malaysian economy: impact and responses", A joint ISIS and UM report commissioned by the United Nations Development Programme, Kuala Lumpur, available at: www.undp.my/uploads/UNDP%20Report%20-The%20Global%20Financial%20Crisis%20and%20the%20Malaysian%20Economy.pdf (accessed 10 June 2011).

Wallison, P.J. (2007), “America will prefer to rely on rules, not principles”, *Financial Times*, 6 July.

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