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Shalendra SHARMA

*University of San Francisco*

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## Japan, China, South Korea, and India: Why No Immunity from the Subprime Credit Crisis?

SHALENDRA D. SHARMA

*Department of Politics, University of San Francisco*

### Abstract

*When the subprime-induced financial crisis broke out in the U.S. housing sector in the summer of 2007 and mushroomed into a global financial crisis by September 2008, it was widely believed that the Asian economies, especially the “big four”—Japan, China, South Korea, and India—would remain largely immune from the worst of the crisis. However, this assumption has proven to be false. All four countries have felt the negative impact of the financial contagion—albeit differently. Whereas China and India have been moderately impacted, Japan and South Korea have experienced heightened financial instability, sharp economic contraction, and a deep recession. What explains the big four’s vulnerability to the crisis, and why have Japan and South Korea been affected more negatively than China and India? How have the four countries responded to the crisis, and what can they do to further insulate their economies from the vagaries of the global financial markets? In this article, the author addresses these interrelated issues.*

### Keywords

*Asian economies, China, financial contagion, Japan, subprime crisis*

When the subprime-induced financial crisis hit the United States in September 2008, it was widely assumed that the economic fallout would be limited to the United States, as U.S. authorities had the wherewithal to contain the crisis. Because the subprime crisis was related to factors specific to the U.S. economy, in particular problems associated with expansionary monetary policy that had kept interest rates low for several years (and that contributed to a real estate bubble), rather than to more systemic factors such as an oil shock or adverse trade relations, few anticipated a virulent financial contagion spreading too far beyond U.S. shores.

To many observers, Asia was seen to be well-positioned to weather the crisis for a number of reasons. First, since the major Asian economies (Japan, China, India, and South Korea) had little exposure to the “toxic” subprime securities and loans originating in the United States, they were assumed to be relatively immune from the crisis because the spillover effects into their economies would be minimal. Second, East Asia—in particular, Japan, the world’s second-largest economy—and China, the fourth largest, with substantial foreign exchange reserves and home of the “global savings glut” was widely viewed to have the financial resources to withstand the crisis, besides serving as a source of much-needed global liquidity or capital in an increasingly capital-scarce world. 1 Third, East Asia’s healthy corporate and banking sector balance sheets, coupled with the widespread view that

Asia was increasingly “decoupled” (i.e., economic growth in Asia was becoming more independent of the United States and Western Europe), led many to conclude that the Asian region was not as vulnerable to an economic slowdown emanating in the United States and Europe. <sup>2</sup> In fact, some proponents of the decoupling theory even asserted that the Japanese economy, especially the booming Chinese and Indian economies, would serve as both “shock absorbers” and as the world’s “locomotive” and help pull both the U.S. economy and the global economy out of its malaise. <sup>3</sup> However, these predictions proved to be overly optimistic, if not false. The big-four economies, after showing initial resilience, have hardly been immune to the crisis. On the contrary, Japan and South Korea have been hit particularly hard. Japan experienced negative economic growth in 2008, and both countries experienced further sharp contraction in 2009. Although China and India were not as severely impacted, neither country remained entirely immune from the ferocious financial contagion (see table 1). Indeed, Takatoshi Kato, the deputy managing director of the International Monetary Fund (IMF), has aptly noted that “the intensity of the downturn took everybody by surprise and was much larger than what could have been anticipated based on historic correlations of growth between the Asian and the advanced western economies. In the fourth quarter of 2008, GDP [gross domestic product] in Asia (excluding China and India) plummeted by close to 15 percent on a seasonally adjusted annualized basis. This was a much steeper downturn than in other regions, including those at the epicenter of the crisis.” <sup>4</sup>

**TABLE 1. Gross Domestic Product Growth: 2007–9**

	2007	2008	2009 <sup>a</sup>
China	13.0	9.0	7.5
India	9.0	7.1	6.0
Japan	2.4	–0.7	–2.5
South Korea	5.0	2.5	–1.5

<sup>a</sup>Data as of mid-2009.

Source: International Monetary Fund, *International Financial Statistics (CD-ROM)* (Washington, DC: Author, 2009)

My central aim in this article is to examine the reasons why Japan, South Korea, China, and India were impacted by the crisis, and in particular, why Japan and South Korea were more severely impacted than China and India. In other words, what explains Japan and South Korea's greater vulnerability to external shocks and China and India's greater resilience? More briefly, I also address how these governments have responded to the unprecedented economic and sociopolitical challenges unleashed by the crisis and the steps taken by each to better insulate themselves and the region from the vagaries of financial globalization.

## Severely Impacted: Japan and South Korea

### Japan

Japan, the world's second-largest economy was widely viewed as a source of global stability and liquidity when the subprime-induced crisis first broke. Japan's banks, particularly the so-called megabanks that had overcome the problems that plagued them in the "lost decade" of the 1990s, were now more robust and healthy. <sup>5</sup> Moreover, the banks were not overexposed to investment banking or structured finance and had reasonably strong capital positions with massive deposit bases. As a result, Japanese banks were expected to weather the subprime crisis and serve as a source of global liquidity. <sup>6</sup> However, the severity of the financial meltdown in the United States and the resultant sharp drop in the equities market caused severe losses in Japanese bank equity holdings, especially their tier 1 capital, forcing them to raise new capital. Despite attempts by the authorities to ease the fallout (e.g., the Bank of Japan reduced its policy rate in November 2008) through fiscal stimulus, it failed to stop the contagion. <sup>7</sup> The crisis highlights Japan's particularly close integration with the global economy—a collapse in external demand and financial spillovers can quickly plunge even a reasonably sound economy into a sharp economic contraction, if not recession. <sup>8</sup>

The first sign of trouble was an abrupt slowdown in economic activity due to fall in exports—in particular automobiles, electronics, and machinery to the United States and Europe—and anemic domestic spending. In October 2008, Japan's global exports of autos and electronics sharply declined, while exports to Asia, especially China plunged for the first time in almost seven years. <sup>9</sup> According to an IMF study, "Most of the drop in Japan's exports was caused by a sharp retrenchment in overseas demand for motor vehicles, information technology (IT), and capital goods. ... Japan's car exports fell by 65 percent since September 2008, with shipments to the United States plunging almost 75 percent." <sup>10</sup> Although the export decline was not unique to Japan as other countries also experienced significant fall in external demand, Japan was particularly vulnerable for two reasons. First, Japan's reliance on foreign trade has grown rather sharply in recent years. Kazuo Ueda notes that "in 2007 [Japan's] exports to GDP ratio was 16%. This is much higher than the United States, where the number was 8.4%. ... Japan has depended much more on exports recently. During the economic upturn of 2003–07 the contribution of exports to growth was stunningly high at 67%. In previous upturns, the ratio was usually less than 50%. In the late 1980s, Japan's 'bubble' years, it was less than 10%. More formally, the correlation between export growth and real GDP growth was surprisingly absent before 1990; the correlation coefficient between the two was minus 0.03 during 1970–90. It rose to 0.61 during 1991–2008. It is higher at 0.73 during the last 10 years. In other words, in the post-bubble period Japan has failed to deliver a domestic demand-led growth and become increasingly exposed to economic fluctuations in the rest of the world." <sup>11</sup> Second, Masahiro Kawai and Shinji Takagi have persuasively argued that the structural changes in Japan's export base, in which "over 90 percent of Japan's exports consist of highly income-elastic industrial supplies, capital goods, and consumer durables" made Japan extremely vulnerable to a drop in external demand. <sup>12</sup>

With the export base rapidly deteriorating, it did not take long for the industrial and manufacturing sector dominated export-oriented industries, including autos, electronics, and machinery to be adversely impacted. Japanese manufacturers were forced to cut output by 9.6 percent in December 2008, compared with November 2008. Such massive fallout quickly rippled through the Japanese job market, with companies announcing massive job cuts and greater reliance on temporary workers. Japan, which has long prided itself on full employment, saw the unemployment rate rise from 3.8 percent in October 2008 to 5.0 percent in April 2009.<sup>13</sup> As Ueda notes, “Japan’s manufacturing firms’ domestic procurement rate for parts and materials is fairly high, while American firms rely more on imports for parts and materials supply. Thus, a given demand shock, say, a decrease in exports, generates larger spill-over effects in Japan.”<sup>14</sup>

So fast and deep was the financial contagion that Japan’s economy contracted for two consecutive quarters in 2008 for the first time since 2001. According to the IMF, between October and December 2008, Japan’s real GDP shrank at an annual rate of 12.7 percent—the worst record in 35 years. It was the steepest drop since the 13.1 percent fall since January–March 1974—when the nation was reeling from the effect of the first oil crisis. Japan’s economy deteriorated further during January–March 2009, notching a decline at the annualized rate of 15.2 percent. In contrast, the U.S. economy fell by an annualized 6.1 percent during the first quarter of 2009; Italy’s declined by 9.4 percent. Like Japan, Germany’s trade-dependent economy shrank by a record 14.4 percent.<sup>15</sup> However, the slowdown of Japan’s export-driven economy is only part of the problem. Unlike the other major currencies, the yen has been appreciating. This was largely because of the unwinding of the so-called “carry trade”—as investors who borrowed in cheap yen to invest in high-yield currencies began reducing their positions abroad and because the yen usually tends to “benefit” from its perceived safe haven appeal in times of economic uncertainty.<sup>16</sup> However, it is always the yen’s rise—or more appropriately, its volatility—that generates concern. This is because a rising yen can not only stall growth in one of the world’s largest economies, the entire global financial sector is vulnerable because of the “carry trade.” That is, investors who took out massive loans in hitherto low-interest rate currencies (like the yen), exchanged the money to higher-interest-rate currencies (like the dollar or the euro), and reloaned it out. They made money from the higher interest on the second loan than they paid on the first one. This strategy worked as long as interest rates and currency valuations remained steady.<sup>17</sup> During the crisis, with the U.S. Federal Reserve and European Central Bank cutting their benchmark interest rates, carry traders, including many large financial institutions faced potentially huge losses.

Japan, which used to run a massive trade surplus, in part due to its prodigious savers is now seeing that era come to an end.<sup>18</sup> Japanese households now save far less of their income—not because they have become more spendthrift, but mainly because of life cycle changes. As the ratio of Japanese aged over 65 to those of working age rise (from 14 percent in 1980 to an estimated 34 percent in 2008, and to a projected 49 percent by 2020), consumption patterns have been changing as retired people tend to live off their savings, and thus save less. This trend, coupled with the slump in global

demand and a strengthening yen has pushed the country's trade balance into a deficit. From July 2008 to January 2009, Japan's annualized trade deficit jumped to ¥4 trillion (\$39 billion), compared with a surplus of almost ¥11 trillion a year earlier.<sup>19</sup> In addition, Japan's foreign-investment income has also been shrinking because of lower dividends and interest rates. As a result, its total current-account surplus dropped to only ¥125 billion in December 2008 (92 percent less than a year ago)—or, in other words, from “a record 4.8 percent of GDP in 2007 to an annualized 1.4 percent of GDP in the Q1 (first-quarter) of 2009.”<sup>20</sup>

### **South Korea**

Like Japan, South Korea was also well-positioned to weather the crisis. In fact, South Korea was deemed to be quite immune as its financial institutions were not heavily exposed to the U.S. mortgage debt and related securitized products,<sup>21</sup> and the country's banks were much more resilient than a decade ago, during the Asian financial crisis in the late 1990s. In 2008, the Korean banks' aggregate nonperforming loan ratio was 0.8 percent, compared with 6.0 percent before the Asian financial crisis, and their Basel capital ratios were a respectable 11 percent—up from 7 percent in 1997. Second, apparently learning the bitter lessons from the Asian crisis (during which South Korea was hit hard because the inflows of dollars dried up, and its economy spiraled into a recession), this time Seoul had built up huge reserves of dollars and euros, including restricting much of its borrowing in the domestic markets. For example, on the eve of the Asian financial crisis, South Korea's foreign reserves only amounted to \$8.4 billion, but in mid-2008, it was a robust \$240 billion, and the total ratio of external debt to foreign reserves in 2008 was a manageable 173 percent. Third, although the Korean economy remains fundamentally export-led, its rapidly expanding intraregional trade linkages with Asia provide it much greater immunity. That is, over the past decade, South Korea has diversified its export markets. In 2008, North America and the European Union constituted only 13.3 and 15.1 percent of the Korean export market, whereas China, the Association of Southeast Asian Nations, Japan, and other countries constituted 22.1, 10.4, 7.1, and 19.1 percent of the Korean export market, respectively. Clearly, by all key measures, the economic fundamentals of the Korean economy seemed sound in 2008.<sup>22</sup>

However, South Korea was hard hit by the financial contagion. The Korean economy contracted by 5.1 percent in the last quarter of 2008 from the previous three months. According to the IMF, it was “among the sharpest contractions worldwide.”<sup>23</sup> Arguably, the main reason South Korea experienced such an unusually high degree of financial instability despite its strong macroeconomic fundamentals (other Asian economies with comparable fundamentals showed far greater resilience during the height of the financial turbulence) is because of Korea's adoption of open capital account liberalization. Unlike every other major economy in Asia, South Korea placed almost no restrictions on foreign residents' purchase and sale of domestic equities. Similarly, no limits were placed on domestic financial institutions' foreign borrowing. Thus, the liquidity of Korea's bond and equity markets not only meant that foreign investors could easily unwind their holdings during times of

economic stress and uncertainty, it also meant that Korean banks could easily borrow. Not surprisingly, many had exceptionally large exposure to short-term foreign loans. When the rollover rate on those loans fell because of the global credit crunch, it resulted in repayment pressures (as the banks' weakened balance sheets fueled capital flight) and the eventual downturn in real economic activity. The experience of Korea underscores that although unrestricted crossborder capital flows provide rewards by giving greater financial depth to the recipient country, it also carries potential risks (as foreign residents can quickly withdraw their funds from the local financial markets). These risks are greatly magnified if the domestic banking sector becomes excessively exposed to short-term foreign loans. Clearly, in times of economic uncertainty and stress, the risk and dangers of financial contagion becomes amplified.<sup>24</sup>

An unintended outcome of the policy was that many Korean households and small and medium-sized enterprises (SMEs) have become heavily indebted as Korean banks with access to cheap credit funneled funds to the SMEs and households.<sup>25</sup> Myung-koo Kang notes that "for the past decade, gross foreign debt has increased about 2.3 times—from \$163.8 billion to \$380.5 billion in 2008. During the same period, short-term foreign debt has increased from \$39.5 billion to \$151.0 billion, and its proportion in the gross external debt has also increased."<sup>26</sup> However, according to the Organization for Economic Co-operation and Development (OECD), "Korea's short-term foreign debt ... soared from \$66 billion at the end of 2005 to \$189 billion in September 2008."<sup>27</sup> Because much of the borrowed money failed to go into productive investments, Korean households and SMEs are not only "facing record levels of debt ... in just over two decades, the household savings rate in Korea has plummeted from a world-beating 25 percent to a projected 3.2 percent in 2010—the lowest among OECD countries. If the projections are accurate, next year [2010] South Koreans will save roughly half the amount that Americans do. In the face of the financial crisis, as banks limit access to credit, there is likely to be a rise in personal and small business bankruptcies."<sup>28</sup> Global risk-aversion and the resultant drop in capital flows caused by global deleveraging following the collapse of Lehman severely impacted South Korean financial institutions. Like everywhere else, the global credit crunch made it extremely difficult for local banks to acquire dollars and other foreign currency needed to refinance activities such as foreign-denominated loans to the domestic SMEs. Korean banks, which had accumulated substantial short-term foreign currency debt, have been hit particularly hard by the external shocks as both the domestic and foreign exchange liquidity tightened for banks with large financing needs.

Moreover, as foreign investors began to retrench from Korea and with dollar assets leaving the country (and the global credit markets freezing up during the peak of the crisis), asset prices dropped sharply and Korean banks found it exceedingly difficult to access dollars to repay maturing dollar loans.<sup>29</sup> As the dollar liquidity strains spilled over into the local currency markets, banks became even more cautious about extending loans on concerns of worsening asset quality. At the peak of the crisis, as foreign investors withdrew funds en masse from domestic equity and bond markets (because of heightened risk aversion), the resultant foreign capital outflows not only caused

a steep decline in the stock market but also led to a substantial depreciation of the exchange rate with the won depreciating some 40 percent. In early October 2008, the won fell to a low as 1,484.90 per dollar—its weakest rate since the Asian crisis in 1997.<sup>30</sup> The derivatives, originally put in circulation to reduce risks caused by a rise in the value of the won versus the U.S. dollar has become a liability as the won's sharp depreciation against the dollar further increased the cost of servicing foreign debt.

The traditional trade channel also became a problem for South Korea as global demand sharply dropped. The country's trade deficit, in the black since the end of the Asian financial crisis, recorded a deficit of \$12.3 billion in August 2008, largely due to the sharp rise in crude oil prices.<sup>31</sup> However, with the slump in global trade this problem became much worse as Korea is a heavily export-dependent economy.<sup>32</sup> As a result, the country experienced “its largest drop in exports on record and at the low point in January 2009, exports were down 35 percent from the previous year.”<sup>33</sup> The precipitous decline in global consumption has weighed heavily on the big-ticket items, in particular, the nation's carmakers. According to the Korean Ministry of Commerce, Hyundai Motors, Kia Motors, GM Daewoo, Renault Samsung, and SsangYong Motors reported a combined 13.1 percent year-on-year reduction in sales for December 2008. Overall, exports declined sharply with plummeting global demand—a problem further complicated by weaker domestic consumption and investment. At the end of 2008, exports dropped by 9.8 percent and domestic sales plummeted by 23.2 percent. Although Korean exports jumped 17 percent in January 2009, led by oil products, flat-screen panels, machinery, and mobile phone handsets, it has since declined because of the spreading impact from the U.S. economic slowdown.<sup>34</sup> Indeed, the country's broadest measure of trade—the current account—is expected to record an annual deficit for the first time in a decade, meaning South Korea is spending more on goods, services and investments from overseas than it sells abroad.

### **Moderately Impacted: India and China**

#### **India**

The Indian economy was better able to withstand the crisis for two major reasons. First, its financial sector was not exposed to the U.S. subprime mortgages securities,<sup>35</sup> and, second, active policy interventions in both the monetary and financial sectors adopted by the Reserve Bank of India (RBI) kept the banking sector “protected” from the global financial markets.<sup>36</sup> As a result, not only India's state-owned banks still hold about 70 percent of the nation's banking assets, the country's financial sector is relatively insulated because none of the major Indian banks have much exposure to U.S. subprime mortgage debt, including limited off-balance sheet activities or securitized assets.<sup>37</sup> Indian banks do not have toxic assets because credit default swaps were not permitted in the country. The State Bank of India, the ICICI Bank (the country's largest private bank), the Bank of Baroda, and Bank of India have exposure to international securitized debt in the form of collateralized debt obligations (CDOs) for only around \$3 billion.<sup>38</sup> This is tiny in comparison to ICICI's \$100 billion



balance sheet. Overall, India's banks (both public and private) are financially sound with relatively strong balance sheets, well capitalized with low nonperforming assets and reasonably well regulated. The capital-to-risk weighted assets ratio of Indian banks at 12.5 percent is above the regulatory norm of 9 percent and well above the Basel Accord norm of 8 percent.<sup>39</sup> Therefore, rather ironically, India's financial protectionism inadvertently translated into foreign banks not only holding a relatively small share (8.4 percent) of the country's banking assets, but also preventing foreign banks from fleeing with their assets, as they have done elsewhere during this crisis. Finally, unlike the 1991 crisis, India has healthy foreign currency reserves—more than adequate to cover the country's debt obligations.<sup>40</sup>

Paradoxically, India is still a small player in the global financial system. Indian banks, some of which are large by global standards based on market capitalization and the size of their balance sheets, have only modest international presence. The rupee is not fully convertible (and hardly used outside India), and the country's capital markets are small relative to the size of the domestic economy. In addition, India's relies heavily on foreign direct investment (FDI) rather than on securities investment and other forms of capital flows to access international capital markets, because India still subjects portfolio capital flow to various restrictions.<sup>41</sup> Complementing these policies, India's recent growth has been driven predominantly by domestic consumption and domestic investment. External demand, as measured by merchandise exports, accounts for less than 15 percent of country's GDP, giving India relative insulation from the vagaries of global trade. Finally, unlike the economic crisis of the 1990s, India has healthy reserves. Although India's total reserve assets declined about 7 percent from August 2008 to \$274 billion in the second week of October 2008, its foreign currency reserves were still more than adequate to cover its debt obligations.<sup>42</sup> Cumulatively, these strengths served to calm markets and mitigate a potentially destructive financial panic.

## **China**

Similarly, China's financial sector had only limited exposure to the U.S. subprime mortgages securities. The Bank of China held about \$9.7 billion of securities backed by U.S. subprime loans, while the Industrial and Commercial Bank of China and the China Construction Bank reported exposure of about \$1 billion each. Of course, in the larger scheme of things, these are extremely small debts. Even if the three Chinese banks have a total \$12 billion exposure to subprime debt, that is still only 6 percent of the \$199 billion in private foreign securities that they hold. Moreover, as the crisis was beginning, the Chinese authorities made explicit that none of the country's massive \$1.5 trillion foreign reserves (the largest in the world) was invested in subprime debt. Beijing also downplayed concerns regarding China's potential housing bubble problems by noting that Chinese banks were far better prepared to withstand falling house prices than their U.S. counterparts because Chinese buyers are required to put down a minimum deposit of 20 to 30 percent down payment and as much as 40 percent on second homes. No doubt, because China's banks (like their Indian counterparts)

fund their loans through deposits rather than capital markets, they are better insulated from the global credit crunch than Western banks.

Indeed, Chinese banks (again, like their Indian counterparts), while huge by global standards (based on market capitalization and the size of their balance sheets), have only modest international presence. The renminbi (RMB) is hardly used outside China (except for a modest amount in Hong Kong), and Chinese capital markets are not a major source of financing for foreign borrowers. In fact, capital markets in China are quite small relative to the size of the domestic economy and still depend heavily on FDI rather than securities investment and other forms of capital flows to access international capital markets. Although there has been gradual liberalization, China (like India) subjects portfolio capital flows to various restrictions. Portfolio flows are still largely channeled through large institutional investors via the qualified foreign institutional investors (QFII) and qualified domestic institutional investors (QDII) programs established in 2002. The QFII program is restricted to funds-management and securities companies with at least \$10 billion in assets, including the world's top 100 commercial banks. In addition, securities regulator of the QFII's home country must sign a memorandum of understanding and have a track record of good relations with the China Securities Regulatory Commission (CSRC), while the QDII's must have assets of over 5 billion RMB. 43

Finally, China's overall financial muscle was (and is) its greatest leverage and source of stability and resilience. In mid-2008, (before the crisis broke), China maintained the world's largest cash reserves of roughly \$2 trillion and was the world's leading creditor nation. 44 In fact, Beijing had become the largest foreign holder of U.S. government debt—passing Japan in September 2008. In effect, China had become the U.S. government's largest foreign creditor. According to the U.S. Treasury, China's investment in Treasury bonds totaled some \$585 billion in September 2008; Japan held \$573.2 billion. 45

### **Why No Immunity for China and India?**

Although these strengths explain the relatively moderate impact of the crisis on these two giants, the fact is that neither country was completely immune. What explains this, and what has been the nature and extent of the impact? In short, the contagion was transmitted via both “broad” and “specific” channels. 46 Broadly, no country can remain immune from a crisis emanating from the United States, the world's largest and most powerful economy. Indeed, the rapid global spread of the crisis unambiguously underscores that in today's interconnected world, no country is an island. Closely integrated financial and banking systems and deepening trade interdependence has meant that even countries not at the epicenter of the problem (in this case, directly exposed to the toxic subprime assets originating from the United States) became extremely vulnerable to the financial contagion. Compounding this vulnerability are the unprecedented levels of capital flows and complex forms of financial market integration and linkages. Globally integrated markets mean that the stock markets are particularly vulnerable to swings in investor sentiment. 47 For example, in

both China and India, foreign institutional investors (FIIs) sold billions of their investment in Chinese and Indian companies to cover losses accrued in their home markets. In the case of India, the stock exchanges have taken a beating. Ramkishan Rajan and Sasidaran Gopalan note that “massive FII infusions in the previous few years had propelled India’s Bombay Stock Exchange (BSE) to a high of almost 20,000 points in the end of 2007 when it was less than 14,000 points a year earlier (January 2007).”<sup>48</sup> In turn, this led to an intense liquidity crisis (a consequence of the global liquidity squeeze), brought on by the tightening of global credit markets and the withdrawal of FIIs. India’s financial markets, including equity markets, money markets, foreign exchange markets, and credit markets have come under intense pressure. According to the IMF country report, it is estimated that about \$9 billion was withdrawn from the Indian market by foreign portfolio investors between April and December 2008—with some \$4 billion in outflows in October alone.<sup>49</sup> According to Rajan and Gopalan, “while net FII inflows were just over US\$20 billion in 2007–08 (April–March), there was a net withdrawal of over US\$11 billion between January and October 2008. This, in turn, pushed down the BSE index sharply to just below 14,000 points by October 2008, effectively giving back all the gains since January 2007.”<sup>50</sup> Similarly, FDI inflows “fell from 4.6 percent of gross domestic investment in the third quarter of 2008 to only 0.7 percent during the fourth quarter.”<sup>51</sup>

The credit squeeze forced Indian banks to shift their credit demand to the domestic banking sector, and as the foreign exchange market has come under pressure because of reversal of capital flows as part of global deleveraging, businesses have been forced to convert domestic funds into foreign currency to meet their external obligations. In turn, this has placed downward pressure on the rupee, which sharply depreciated from about Rs39 to \$1 in January 2008 to Rs49 to \$1 in October 2008. The RBI’s intervention in the foreign exchange market to manage the volatility in the rupee only resulted in the further tightening of liquidity. To help fill the gap left by a sharp decline in foreign investment, the RBI has made more funds available by reducing its benchmark interest rates. However, the interest rates Indian banks charge are still higher than once charged by foreign institutions, not to mention domestic lenders are more reluctant to extend credit in an uncertain market. The implications have been severe: As commercial credit from foreign banks has literally stopped, it has been replaced with credit lines from domestic banks. However, domestic banks charge a higher interest. This has caused the rupee to depreciate raising the cost of businesses existing foreign loans. Since foreign portfolio investment added buoyancy to the Indian capital markets, Indian corporations were engaged in aggressive acquisition overseas (resulting in the high volume of outbound direct investment flows). That is, during good times Indian firms went on a shopping spree buying more than 1,000 international mergers or acquisitions, worth over \$72 billion, between 2000 and 2008. Among the high-profile, Tata Steel borrowed extensively to buy Corus in 2007, while Hindalco, India’s biggest aluminum company, borrowed \$3 billion to buy Novelis, a Canadian manufacturer of aluminum products. However, much of this purchase was financed by foreign borrowing. Today, many of these firms are saddled with huge debts—in large part because some of the purchases turned out to be dubious, such as Tata’s purchase of Jaguar Land Rover in 2008, which

“saddled Tata Motors with a prestigious brand, prodigious losses and a \$3 billion loan, the last \$1 billion of which it managed to refinance on May 27th, days before it fell due. It has had to call on the help of the Tata Group's holding company, which underwrote its faltering rights issue last year, and the indulgence of India's biggest state bank, which guaranteed an \$840m bond it floated in May.”  
 52 Not surprisingly, “corporate profit growth fell to 9 percent in April–June quarter from about 25 percent in 2007. 53

For both China and India, as external trade in merchandise and services accounts for a significant portion of their economies, a global slowdown in demand inevitably results in an overall negative impact. With world trade volumes sharply contracting, and coupled with declines in consumer spending and the rise of unemployment in the United States and elsewhere, China and India (along with other major exporters) have seen a big drop in their export earnings. As the United States, the European Union, and the Middle East account for some three-quarters of India's goods and services trade, a simultaneous slowdown in all these economies have only compounded India's difficulties. No doubt, the problem is more pronounced in China, which is more export dependent (with exports accounting for 40 percent of GDP) than India. 54 Although—unlike China—the main drivers of aggregate demand in the Indian economy remain domestic consumption and domestic investment, it does not mean that exports are not important to the Indian economy. To the contrary, India's outsourcing industry and export-dependent information technology (IT) sector has been hit particularly hard by declining revenues—not only due to a slowdown in global demand but also due to the rise in the value of the rupee against the U.S. dollar. In fact, tightening credit and the decline in the value of dollar has hit India's IT companies rather severely as the industry derives more than 60 percent of its revenues from the United States. Also, as some 30 percent of business coming to Indian outsourcers includes projects from U.S. banking, insurance, and the financial services sector, a sharp slowdown has already impacted these businesses. Infosys and Satyam, two well-known outsourcing companies have laid off workers and reported weaker earnings as their customers in the United States and Europe pull back. Over the long term, service export growth is likely to slow down considerably as financial services firms—the major users of outsourcing services—are restructured and consolidated. Equally worrisome for India is the impact on the labor-intensive textile and garment sectors. This sector, which employs thousands of poor people, has been negatively affected by slowing exports and rising capital costs. Also, the sharp decline in remittances some 6 million Indians working abroad sent home each year and have further added to the financial hardship. In 2008, migrant remittances totaled more than \$30 billion, making India the top receiver of such income. Remittance from migrant workers is projected to sharply decline as the oil-producing Middle East countries adjust to a much lower crude price and the advanced economies suffer from a prolonged recession.

No doubt, for China, the challenges are more daunting. The exponential growth of China's massive foreign-exchange reserves has been the result of trying to sustain a stable exchange rate between the RMB and the dollar even in the face of strong economic pressures for appreciation (given China's

strong productivity growth, it is natural for the RMB to appreciate). To prevent this appreciation and to avoid loss of export competitiveness, the People's Bank of China has been aggressively buying dollars and selling RMB. However, this strategy has not been without costs for China. 55 Besides making domestic macroeconomic management difficult (China's controls on private exchanges of RMB for other currencies are not always effective), concentration on exchange-rate stabilization has meant that Beijing has largely ceded the ability to use monetary policy to target domestic objectives like controlling inflation. In addition, the continuing depreciation of the U.S. dollar has not only increased the uncertainties associated with capital movements, a weak dollar has also driven up commodity prices (in dollar terms) thereby adding to the inflation problem in China. This poses a real threat, as global external shocks can generate runaway inflation. For example, a sharp hike in food prices can quickly erode the gains made in economic development, especially poverty reduction. Moreover, in both countries the subprime-induced general tightening of the global credit markets and the resultant "credit crunch" has reduced capital flows. Over the short term this may not be a serious problem, because both countries have a fair amount of liquidity in the domestic economy. However, if the problem persists over time, the credit crunch could have a negative impact on both economies. For example, an impact on the business sector's ability to raise funds from international sources can impede investment growth, because these businesses would have to rely more on costlier domestic sources of financing, including bank credit. This could, in turn, put upward pressure on domestic interest rates.

## **Policy Responses**

The four Asian governments have responded to the crisis with ambitious fiscal stimulus and monetary policies to contain the contagion—in particular, to keep their domestic money and credit markets functioning normally and limit insolvency caused by liquidity stresses. However, on this score, Japan has the least policy options given its already extremely low interest rates (the Bank of Japan cut its policy interest rate from 0.5 percent to 0.3 per cent in October 2008) and highly indebted public finance. Specifically, the room for fiscal stimulus is quite limited given Japan's already high level of public indebtedness—which, since the 1990s, has been the highest in the developed world when extensive fiscal support measures were put in during the recession. Given this, the Japanese government's two recent stimulus packages to support economic growth offers no guarantees while the option of higher income and consumption taxes holds significant risk for the already strained private consumption. In fall 2008, the Korean government implemented a fiscal stimulus package equivalent to 1.2 percent of its GDP totaling some \$11 billion dollars, in addition to tapping its official reserves to supply U.S. dollar liquidity through local markets for foreign exchange swaps. On November 11, 2008, the Chinese government announced a massive 4 trillion RMB (\$586 billion) stimulus package over two years. Totaling some 14 percent of annual GDP it is arguably the biggest peacetime stimulus ever, although it may include sums already earmarked in the budget. The

package has ten targeted spending items, including construction/expansion projects of railways (more than \$200 billion), highways, airports, city subways, and nuclear power plants. It also promises to increase investment in the public health-care system, education, and subsidized housing, and raise unemployment and other welfare benefits. Moreover, value-added taxes are to be phased out and replaced by corporate income taxes. Without doubt, unemployment remains a big concern. According to the government, with demand for Chinese exports evaporating, as many as 26 million of China's estimated 130 million migrant workers are now unemployed.<sup>56</sup> To boost domestic demand and create jobs, on January 21, 2009, Beijing announced extra spending of 850 billion RMB over three years to improve health care. Also, beginning in February 2009, rural residents received a 13 percent rebate on purchases of goods such as refrigerators, televisions, and washing machines. To help the property sector, minimum down payments have been reduced from 30–40 percent of a home's value to 20 percent, and the transaction tax has been waived for properties held for at least two years. However, without effective privatization of state and collective-owned land and state assets the stimulus efforts will be a one-time boost only.

It is well known that China's private consumption has failed to grow, not because Chinese consumers do not like to purchase goods and spend on vacations, but because most do not own property and collateral asset. Most households are wage-earners who have not felt enough “wealth effect” to boost their consumption. Unless these concerns are effectively dealt with they will not be spending their rainy day savings anytime soon. It also means that financial stimulus (despite its size) is a one-time shot designed to alleviate immediate problems in the economy by giving it a boost. More sustained growth must come less from capital infusion but more from productivity growth. Arguably, it would be prudent for China to adopt a more flexible exchange rate.<sup>57</sup> After all, China's emphasis on exchange rate stability in the face of rising current account surpluses has not only generated intense protectionist pressures in the United States and elsewhere,<sup>58</sup> it has also forced the central bank to accumulate massive foreign exchange reserves with negative domestic consequences. Preventing the RMB from rising against the dollar means that China's central bank has to print more money to keep interest rates low, and this strategy can also exacerbate the problem of inflation if more money ends up chasing too few goods. It also means that China is exposed to large capital losses on its foreign reserve holdings (which are largely held in U.S. dollars) as the RMB appreciates. Moreover, an appreciation of the exchange rate would also boost domestic consumption—something China needs.

India's exchange rate policy has been more flexible and variable (in both nominal and real terms) than China's. Although this variability may not be huge (and the RBI does indeed intervene), India's exchange rate policy and outcomes have greater flexibility than China's. As a result, India does not face the challenges China does. However, on December 6, 2008, India's central bank cuts key interest rates by 1 percent amid signs of slowing economic growth and damaged investor confidence following the attacks in Mumbai. The cut brought the benchmark repo rate (at which the central bank makes short-term loans to commercial banks) from 7.5 percent to 6.5 percent. The reverse

repurchase rate (the rate at which it borrows from commercial banks) was lowered from 6 percent to 5 percent to encourage banks to lend more to consumers. The RBI also announced measures to ease credit to small businesses, exporters, the real estate sector, and others hit by the global economic downturn. All this is in addition to the fact that, since mid-September, the RBI has infused 3 trillion rupees (\$60.2 billion) into the financial system. Although these measures have helped to unfreeze liquidity, there is not much more the authorities can do. India's problem is that it already has a very large fiscal deficit on top of a debt-to-GDP ratio of more than 80 percent. More government spending will only make matters worse. Clearly, essential to India's long-term growth is making its financial system efficient at intermediating resources and directing them to the most productive investments. India has performed better than China on this front, but much more work still needs to be done.

### **Challenges and Opportunities for the Big Four and the Asian Region**

During the Asian financial crisis of 1997–98, robust growth and demand in the advanced economies helped support Asia's recovery. However, this time, the United States, Japan, and Western Europe are facing severe economic challenges. 59 Business confidence and consumption in these countries on which Asia (indeed, the world) depends are still reeling from massive deleveraging, crashing equity prices, and frozen credit markets. The precipitous fall in asset prices (equity, bond, and housing markets) has dramatically eroded the net worth of households in the advanced economies. According to the IMF, “during the first three quarters of 2008 alone, the value of household financial assets decreased by about 8 percent in the United States and the United Kingdom, by close to 6 percent in the euro area, and by 5 percent in Japan. As global equity markets plunged in the last quarter of 2008, household financial wealth declined further—for example, by an additional 10 percent in the United States. At the same time, the value of housing assets also deteriorated in line with falling house prices, especially in the United States and the United Kingdom.” More precisely, “the losses in household wealth during 2008 were about \$11 trillion in the United States (\$8.5 trillion in financial assets and \$2.5 trillion in housing assets) and were estimated at \$1.5 trillion in the United Kingdom (\$0.6 trillion in financial assets and \$0.9 trillion in housing assets).” 60 Such massive losses of household wealth, coupled with growing financial liabilities in the advanced countries, will inevitably force more precautionary household savings and depress consumption.

As consumers in the advanced economies abruptly cut back on spending, demand for Asia's exports have fallen sharply. 61 Sales of both labor-intensive manufacturing products and higher value-added goods such as computers and related equipment and automobiles have all fallen since September 2008 in all Asian countries for which data are available (see table 2).

If the current trends are any indication of the potential long term trends, the big four, indeed the Asian economies as a whole, are at risk of a structural decline in demand from the advanced economies. Not only may the era of easy credit to finance consumer durables be over, the over-leveraged households in the United States and elsewhere in the rich economies are becoming more

prudent by saving or by consuming less. 62 If this trend holds, the growth of Asian manufacturing, especially exports could be structurally lower and Asia's export-led growth strategy may no longer as critical as in the past. As it is likely that global demand for Asian produced goods will remain suppressed for the foreseeable future, the region's longer-term recovery will mean that its traditional reliance on export-promotion as the driver for growth will have to diminish. This means that countries (big and small) will need to adapt and rebalance growth away from exports and more toward domestic demand in order to generate sustainable growth rates. 63 In China and India this could be partly achieved by building stronger social protection systems that will reduce the need for precautionary savings to meet needs related to health, education, and retirement. Similarly, domestic exchange rate appreciation can also help, as it will provide price incentives to shift resources toward production for domestic use and by raising real household income. This in turn will spur domestic consumption.

**TABLE 2. Collapse of Exports (Value, % Change)**

Country	2007	2008				2009 <sup>a</sup>
		Q1	Q2	Q3	Q4	Q1
<b>World</b>	<b>15.1</b>	<b>22.1</b>	<b>25.2</b>	<b>21.0</b>	<b>−9.5</b>	<b>−29.1</b>
China	25.7	21.4	22.4	23.0	4.3	−19.7
India	21.5	37.6	37.1	25.5	−12.8	−24.1
Malaysia	2.7	9.9	20.8	16.8	−7.5	−22.2
Thailand	7.4	13.5	16.5	23.7	−9.7	−16.2
Philippines	6.4	2.8	5.5	4.1	−22.3	v39.9
Vietnam	23.8	28.7	31.8	37.6	5.7	3.4
Cambodia	14.1	97.2	45.8	5.3	−3.3	—
Lao PDR	12.1	36.2	15.7	42.7	4.9	—
Bangladesh	11.1	17.5	8.6	19.3	12.5	10.6
Pakistan	2.9	20.9	25.9	19.0	1.7	−17.9
Sri Lanka	18.0	9.3	6.8	5.4	−3.5	−10.7

*Notes.* “—” indicates data not available. PDR = People's Democratic Republic.

<sup>a</sup>First quarter figures are estimates using latest available data. Data for China are actual values.

*Source:* Asian Development Bank, “Report to the Second Global Review on Aid for Trade: Aid for Trade in the Asia and the Pacific: An Update” (report, Asian Development Bank, Manila, June 2009).

Externally, greater regional-level coordination to help recovery and generate growth is essential. On February 23, 2009, the finance ministers from Japan, China, South Korea and ten Southeast Asian nations (India was not at the table) agreed to create a \$120 billion pool of foreign exchange reserves to be used by countries to defend their currencies from speculative attacks against the backdrop of the global financial crisis. The plan broadens the current arrangement called the “Chiang Mai Initiative” — which allows for only bilateral currency swaps. Moreover, in a joint statement, Japan,



China, and South Korea also vowed to boost regional trade and investment. Their communique reaffirmed the importance of national measures to boost domestic demand and the three countries agreed to implement measures outlined in the G-20 action plan adopted in November 2008 to address the global financial malaise. However, the Chiang Mai Initiative's stated plan to create an Asian Monetary Fund (a regional alternative to the International Monetary Fund) has not amounted to much to date. For example, its credits and swaps have never been activated and the Bank of Korea was forced to negotiate a \$30 billion foreign currency swap with the United States Federal Reserve, not with its ASEAN Plus Three partners. It remains to be seen if this crisis provides an opportunity for the regional governments to really cooperate. For starters, India must be included in this group. Finally, on the eve of the annual G-8 summit in July 2009, China, Russia, and India all called for an end to the U.S. dollar's dominance in the international monetary system. President Dmitry Medvedev of Russia boldly declared that the dollar system is "flawed" and called for the creation of a supranational currency. Similarly, a senior economic adviser to Prime Minister Manmohan Singh of India has urged the government to diversify its \$264.6 billion foreign exchange reserves and hold fewer dollars. Both have claimed that world currencies need to adjust to help unwind trade imbalances that have contributed to the global financial crisis. India is correct to align itself with Russia and China to push for a new international currency. This is because betting on the U.S. dollar is becoming more and more problematic given the United States' profligacy of rampant borrowing and running huge budget deficits. Not surprisingly, the holders of U.S. dollar holdings (China being the biggest) have reasons to be concerned about the value of their holdings and work together to mitigate the fallout. Prudence dictates that India, and other Asian economies, should gradually diversify its massive dollar holdings and not get caught like the Chinese have.

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## Notes

aData as of mid-2009.

aFirst quarter figures are estimates using latest available data. Data for China are actual values.

1. Specifically, before the crisis broke, in an important speech, titled "The Global Saving Glut and the U.S. Current Account Deficit," Benjamin Bernanke, the Federal Reserve chair, offered a novel explanation for the rapid rise of the U.S. trade deficit in recent years. To Bernanke, the source of the problem was not the United States but Asia, especially China and the booming economies of East and Southeast Asia. He argued that if, in the mid-1990s, these economies were significant importers of capital by borrowing abroad to finance their ambitious development, in the aftermath of the Asian financial crisis of 1997–98, they made a sharp volte-face. Cognizant of the fact that absence of foreign hard currency reserves had made them vulnerable they took the International Monetary Fund's

(IMF) advice and began to protect themselves against future crisis by amassing huge war chests of foreign assets. Amidst a global economic downturn, these savings now provided a source of stability. For details, see Benjamin Bernanke, "The Global Saving Glut and the U.S. Current Account Deficit" (Sandridge Lecture, Virginia Association of Economists, Richmond, VA, March 10, 2005), <http://www.federalreserve.gov/boarddocs/speeches/2005/20050414/default.htm>.

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3. To be fair, the more nuanced decoupling thesis, such as those articulated by the IMF, did distinguish between the effects of a "moderate" slowdown in the United States to a "sharp slowdown or recession." The IMF noted, "Overall, these factors suggest that most countries should be in a position to "decouple" from the U.S. economy and sustain strong growth if the U.S. slowdown remains as moderate as expected, although countries with strong trade linkages with the United States in specific sectors may experience some drag on their growth. However, if the U.S. economy experienced a sharper slowdown because of a broader-than-expected impact of the housing sector difficulties, the spillover effects into other economies would be larger, and decoupling would be more difficult." IMF, *World Economic Outlook*, (Washington, DC: Author, 2007), 148. As it turned out, the crisis only became more severe, especially after the collapse of Lehman Brothers in September 2008, and, as the IMF study predicted, decoupling no longer remained credible.

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13. IMF, "Japan: 2009 Article IV Consultation," 6.
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16. The "yen carry trade" is borrowing at low interest rates in yen and using the loan to buy higher-yielding assets elsewhere. For example, borrowers can exploit the gap between the U.S. and Japanese yields by borrowing for literally next to nothing in yen and then putting the money into U.S. treasuries and benefitting from an interest rate difference of more than three percentage points and from the dollar's rise against the yen. Investors make their profit when they reverse the trade and pay back the yen loan.
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24. Olivier Blanchard, "The Perfect Storm," *Finance and Development* 46, no. 2, (2009): 37–39.

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29. Myung-koo Kang notes that "the Korean financial markets have also been heavily hit by foreign investors' retreating from their portfolio investment to Korea ... in 2008 more than \$50 billion of investment flowed outward from Korea. This massive withdrawal occurred in every type of foreign investment: foreign direct investment (FDI), portfolio investment, financial derivatives, and in the category of other investments. ... In 2008, \$225 billion was withdrawn from the Korean financial markets." Myung-koo Kang, "Global Financial Crisis and Systemic Risks in the Korean Banking Sector," *KEI Academic Paper Series*, 4, no. 5 (2009): 4–5.

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