Regional Financial Cooperation in South Asia
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Regional Outlook

Regional Financial Cooperation in South Asia

Rashmi Umesh Arora
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Executive Summary*

This study examined the extent of financial cooperation in the South Asia region. Although heterogeneous in terms of size, political ideologies and level of development, the nations of this region share historical and cultural closeness, poverty and low level of human development. Using Principal Component Analysis, this study found that trade openness, level of income, political stability and rule of law have been important factors influencing regional financial cooperation in the South Asia region. While intra-regional trade is increasing, the need for financial cooperation as well has been realised. One major initiative is SAARCFINANCE, established to promote intra-regional financial cooperation through institutional networking.

* An earlier version of this paper was presented at the Second China–South Asia International Cultural Forum on ‘India, China and Asia: Geo–Civilizational Perspectives’, held in India International Center, New Delhi, 4–6 December 2009. I gratefully acknowledge comments and suggestions offered by the Forum participants, particularly Professor Ravni Thakur. Any errors are solely mine.
1. Introduction

Financial integration generally implies elimination of barriers between and across countries for foreign institutions. Its advocates claim that financial integration enhances access to capital, helps to lower funding costs, increases investment, and helps to stabilise macroeconomic policies, all of which increase both regional stability and economic growth.\(^1\) Integration of financial markets leads to efficient allocation of capital and higher economic growth.\(^2\) Financial integration also enables the countries involved to use cross-country resources in financing infrastructure projects and thus to reduce poverty.

At the regional level, financial integration ‘would (is expected to) pool resources available for investment and trade, promote the development of domestic financial systems, enhance risk sharing, and lead ultimately to faster-growing and more resilient economies’.\(^3\) Here advocates claim that it provides opportunities to expand the scale of financial intermediation and makes available large amounts of funds for infrastructure projects.\(^4\) It leads to the upgrading of financial infrastructure, increases in efficiency, and the emergence of banks and non-bank financial intermediaries. The regional pooling of resources provides a cushion to fall back on in case of external shocks and speculative attacks. It also speeds up institutional development and leads to the adoption of international best practices.

Nevertheless, despite these stated advantages of financial integration, a number of studies have argued that financial integration may prove to be costly and costs may exceed benefits.\(^5\) The experience of the current global and financial crisis also suggests countries that were less financially integrated with others had lower exposure to the negative impact of international financial markets. However, their losses in economic growth and employment were not much less than those of the more closely integrated countries because although the direct impact of the crisis was lower in these markets, the indirect impact was far higher in terms of decline in trade, industrial output and finance.

A number of countries have attempted to integrate regionally for both economic and financial benefits. Among the more successful examples, the EU is often cited as an exemplar for others to follow and has been rated highly in most studies.\(^6\) Financial integration in other regions has been found to be less successful than in the EU.\(^7\)

In the literature and policy circles, financial integration in East Asia, Latin America, the EU, the Caribbean region, the Nordic–Baltic region and the Middle-East region has been much discussed and debated. This discussion generally does not include South Asia, a unique and heterogeneous region that encompasses countries diverse in size, in the political ideologies under which they are governed, in their economies and their stages of economic development.\(^8\) Yet these nations also share cultural and historical closeness, high levels of poverty and low levels of human development. Despite their high share of the world’s total population, the region’s countries together account for only 3 per cent of global gross domestic product, 1.9 per cent of world exports, and 1.7 per cent of the world’s foreign direct investment.\(^9\)

Trade integration within South Asia has increased in recent years, although at less than 6 per cent it is still far below the levels in East Asia and Pacific (52 per cent); Latin America and Caribbean (17 per cent) and sub-Saharan Africa (around 11 per cent).\(^10\) Reasons for this low level of intra-regional trade include high levels of tariffs, restricted mobility of people, and the exclusion of services and investment from the intra-regional trade agreement, SAFTA (South Asia Free Trade Agreement).\(^11\) Nevertheless, during the period 2003 to 2006, intra-regional trade nearly doubled from US$5.4 billion to $10.3
Bilateral free trade agreements recently signed within the region have also boosted both intra-regional trade and expectations of it. For instance, signing of the India–Sri Lanka free trade agreement led to average annual growth in India’s exports to Sri Lanka at 34.5 per cent and from Sri Lanka to India at 13.2 per cent during the period 2000–05/6. The types of Sri Lankan export items increased from 505 to 1,062, with a shift from low value agricultural items to high value added manufactured products. The average intra-regional trade share in South Asia during this period appears in Table 1.

<table>
<thead>
<tr>
<th>Share of exports to region (%)</th>
<th>India</th>
<th>Pakistan</th>
<th>Bangladesh</th>
<th>Sri Lanka</th>
<th>Nepal</th>
<th>Maldives</th>
<th>Bhutan</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>4.5</td>
<td>4.6</td>
<td>1.6</td>
<td>9.5</td>
<td>54.3</td>
<td>17.2</td>
<td>95.0</td>
</tr>
<tr>
<td>1999</td>
<td>5.5</td>
<td>3.3</td>
<td>2.2</td>
<td>2.6</td>
<td>27.7</td>
<td>16.6</td>
<td>81.9</td>
</tr>
</tbody>
</table>

| Share of imports from region (%) | | | | | |
| 2005 | 0.9 | 2.8 | 15.3 | 22.4 | 48.0 | 17.4 | n.a. |
| 2001 | 0.9 | 2.9 | 14.4 | 12.4 | 19.7 | 23.7 | n.a. |


The table reveals variation in intra-regional trade within the region; while only 4.5 percent of the exports of India, a large internationally integrated country, are within the region, the shares of relatively closed Bhutan and Nepal are as high as 95 per cent and 54.3 per cent respectively. Most of India’s exports are to other Asian countries and OECD countries. These data for formal intra-regional trade do not, however, take into account the large amount of informal intra-regional trade, between countries such as India and Pakistan, and Bangladesh and India, or through third party countries such as Dubai or Singapore. Some studies estimate informal trade could be twice the amount of formal trade in the region.12

Stable and greater intra-regional trade requires a coordinated and cooperative financial environment. Recognition of this has led the South Asian countries to increase monetary cooperation and exchange of knowledge between each other towards achieving greater economic integration, similar to moves by the EU in its formative stages.13

As noted above, in recent years the literature on South Asian trade has paid increasing attention to trade integration. Financial integration of the region, however, has not been much explored. Some observers may believe that discussion of financial integration is inappropriate at this stage of economic development of these countries; that it is more feasible to explore financial cooperation and mutual learning from each other’s experiences. In this paper we examine financial cooperation in South Asia, considering progress so far and the factors that influence it. Some studies have questioned the need for financial cooperation in this region, considering the stage of development of the South Asian countries.14 The present study does not take up this issue, instead focusing on two major questions: 1) What is the extent of financial cooperation in South Asia? and 2) What are the factors that hinder financial integration in South Asia?

The countries selected for this study share geographical proximity and common borders, and are those to which the IMF and the World Bank refer in their discussions on South Asia: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.15 This selection differs from Vamvakidis’s concept of neighbouring economies that clubs together Bangladesh, Myanmar, China, Hong Kong and India in the same region.16 Overall our study finds that among economic and political factors, trade, income levels and political stability are the most important in influencing regional financial cooperation in South Asia.
This study contributes to two of the existing literatures: on financial development in South Asia and the literature on South Asia financial cooperation. The rest of the paper is organised as follows. Section 2 examines the current status of financial development and financial cooperation in the region, recognising that a number of studies have identified domestic financial development as a potential driver of financial integration. Section 3 identifies the potential factors influencing regional financial cooperation in South Asia. Section 4 discusses data and methodology and presents empirical results. The conclusion closes this paper.
2. Financial Development and Financial Cooperation in South Asia

Indicators of Financial Development in South Asia

In most South Asian countries, financial sector reforms were initiated in the 1990s. The two exceptions are Sri Lanka, where these reforms were introduced much earlier, and Nepal, where a comprehensive financial sector reform strategy was not introduced until 2002. As latecomers to the reform process, the South Asian countries had an advantage of being able to learn from the experience of others (for example, the consequences of big bang liberalisation measures adopted by the Latin American countries and transition countries). South Asia therefore followed a different approach to reform. While, stressing improvement of allocative efficiency and profitability of the financial sector, at the same time it sought to maintain financial stability, which required a gradual approach to the reforms.\(^{18}\)

The banking sector is the most predominant financial intermediary in the region. Non-banks play a minor role in the South Asian countries’ financial systems. In India, commercial banks and cooperative banks account for nearly 70 per cent of the total assets of financial institutions.\(^{19}\) A unique feature of the South Asian banking system is the strong involvement of the public sector, with state ownership of banks ranging from 20 per cent of total banking assets in Pakistan to 70 per cent in India. In almost all countries in the region, financial sector reforms have reduced state ownership, although it is still relatively very high.\(^{20}\) Table 2 shows the banks’ overhead costs, return on assets, and interest margin based on bank ownership. Government owned banks have the highest overhead costs and both their returns on assets and interest margins are the lowest among all the bank groups. This is in sharp contrast to the foreign owned and private sector banks.

Table 2: Bank profitability, efficiency and margins in South Asia

<table>
<thead>
<tr>
<th>Bank ownership</th>
<th>Return on assets</th>
<th>Overhead costs/total costs</th>
<th>Interest margin/total assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>0.54</td>
<td>2.64</td>
<td>2.69</td>
</tr>
<tr>
<td>Foreign</td>
<td>1.68</td>
<td>2.07</td>
<td>3.43</td>
</tr>
<tr>
<td>Private</td>
<td>1.04</td>
<td>2.44</td>
<td>3.08</td>
</tr>
</tbody>
</table>


Nevertheless, contrary to the common view that public ownership of banks leads to reduced efficiency, empirical evidence in the Indian context has found that allocative, technical and cost efficiency of the Indian public sector banks has been much higher than for the private and foreign banks.\(^{21}\) The literature has also not really appreciated the role played by these banks in pursuit of social and redistributive objectives. Burgess and Pande’s study of the branch expansion policy of commercial banks in India implemented in 1977 and discontinued in 1990 found that a 1 per cent increase in the number of rural bank branches reduced rural poverty by 0.36 per cent and increased total output by 0.55 per cent.\(^{22}\) Extending bank branches into rural areas also increased non-primary sector output and non-agricultural employment.
The depth of financial sector development in the region can be understood through two indicators: proportion of domestic bank credit as proportion of GDP, and M2/GDP ratio.

The South Asia region has large variation in bank credit/output ratios ranging from 13.2 per cent (Bhutan) to 122.8 per cent (Maldives) in 2007 suggesting diversity in financial sector development (Figure 1). The coefficient of variation including Bhutan was 49.5 per cent in 2007 and excluding Bhutan was 35.6 per cent. As Figure 1 shows, only in Maldives, a small island country in the Indian Ocean, has bank credit as ratio of its total output exceeded 100 per cent. Maldives is one of only six countries in Asia that have bank credit ratios over 100 per cent, alongside China, Hong Kong, South Korea, Malaysia and Thailand.

Von Furstenberg and Fratianni have measured the level of financial development by the ratio of liquid liabilities to GDP (M2/GDP) (1996).23 The M2/GDP ratio varies across South Asian countries, showing different levels of financial development in the region (Figure 2). In 1984 (earliest year for which data are available for all countries), the M2/GDP ratio ranged from 17.7 per cent in Bangladesh to 39 per cent in Pakistan. In 2007, due to economic reforms in many countries within the region, the ratios ranged from 36.5 per cent in Sri Lanka to 68.8 per cent in India, although these ratios were still lower than some of the high income countries such as Australia (85.3 per cent) and the United States (79.2 per cent).

The reforms have led to significant changes in the financial sector in the region. As an example of the success of these financial reforms, the region’s largest country India has experienced a period of marked stability in the banking sector even through the global economic crisis, in contrast to financial turmoil in other parts of the world. Indian banks are above minimum capital requirements and have less exposure to international assets.24

Financial stability has emerged as one of the major goals of the central bankers. Thus the financial soundness of commercial banks is extremely important. Studies of the financial soundness of banks usually rely on two indicators: non-performing loans and capital adequacy ratio. As for the South Asian region, in Bangladesh, banks’ non-performing loans as percentage of their gross loans were 34.9 per cent in 2000, which reduced to 11.2 per cent in 2008. During a similar period in India, banks’ gross non-performing assets (NPAs) as percentage of their gross loans was 12.8 percent, which declined to 2.3 per cent in 2008 (Table 3).
Another commonly used indicator of bank soundness is capital to risk weighted asset ratio. The Basel Committee on Banking Supervision has specified this ratio at 8 per cent under the Basel I framework. In the Indian context, the overall capital adequacy ratio of banks at 13.2 per cent as at end March 2009 was well above the Basel norm and was even higher than that of many advanced and emerging economies. If the different bank groups are considered, the average capital adequacy ratio in India during the period 2001–09 was highest for the foreign banks at 13.7 per cent, followed by the private banks at 12.6 per cent and public sector banks at 12.3 per cent. Other South Asian countries too have maintained capital adequacy ratios higher than those required by the Basel norm. The 2009 report of the Committee on Financial Sector Assessment, set up in India in 2006, concluded that the ‘Indian financial system was essentially sound and resilient and that systemic stability was by and large robust’.25 In India the return on equity, an indicator of the banking institutions’ efficiency at using capital, increased from 12.5 per cent in 2007–08 to 13.2 per cent during 2008–09.

Another indicator of financial sector development in the South Asia region is availability of information. A crucial role of the financial institutions is to collect and analyse

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Table 3: Non-performing loans as percentage of gross loans

<table>
<thead>
<tr>
<th></th>
<th>Bangladesh</th>
<th>India</th>
<th>Pakistan</th>
<th>Sri Lanka</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>34.9</td>
<td>12.8</td>
<td>19.5</td>
<td>–</td>
</tr>
<tr>
<td>2001</td>
<td>31.5</td>
<td>11.4</td>
<td>23.4</td>
<td>15.3</td>
</tr>
<tr>
<td>2002</td>
<td>28.1</td>
<td>10.4</td>
<td>21.8</td>
<td>15.3</td>
</tr>
<tr>
<td>2003</td>
<td>22.1</td>
<td>8.8</td>
<td>17.0</td>
<td>–</td>
</tr>
<tr>
<td>2004</td>
<td>17.5</td>
<td>7.2</td>
<td>11.6</td>
<td>–</td>
</tr>
<tr>
<td>2005</td>
<td>13.2</td>
<td>5.2</td>
<td>8.3</td>
<td>–</td>
</tr>
<tr>
<td>2006</td>
<td>12.8</td>
<td>3.3</td>
<td>6.9</td>
<td>–</td>
</tr>
<tr>
<td>2007</td>
<td>14.5</td>
<td>2.5</td>
<td>7.2</td>
<td>–</td>
</tr>
<tr>
<td>2008</td>
<td>11.2</td>
<td>2.3</td>
<td>9.1</td>
<td>–</td>
</tr>
</tbody>
</table>

Note: Data on Afghanistan, Nepal and Maldives are not available.
information, to channel investible funds to the investment projects that yield the highest return, and thus, to stimulate investment and growth. Theoretically, presence of information asymmetry has been cited as one of the characteristics of underdeveloped financial markets and is a major reason for the lack of credit available to small borrowers. The credit depth of information index constructed by the World Bank measures rules affecting the scope, accessibility and quality of credit information available through public or private credit registries to assist in lending decisions. The index ranges from 0 to 6, where 0 is lowest and higher values indicate better information. In Maldives and Afghanistan, the credit depth of information index was 0 for the years 2004–09. The index for Sri Lanka (5) was highest among all countries in the region, although other countries have been improving their index as evident in Figure 3. In India the index has improved steadily from 0 in 2004 to 4 in 2009, reflecting the establishment of credit information companies in the country.

![Credit Depth of Information Index](image)


**Figure 3: Credit Depth of Information Index**

Another source of stability and confidence in the financial system is well developed legal rights. The legal rights index measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders. Its strength is measured on a scale of 0 to 10, with higher values indicating better legal rights. Across the region, the legal rights index ranged from 2 in Bhutan to 8 in India in 2009. The coefficient of variation in the region is thus 36.6 per cent, which is an improvement on 53.4 per cent in 2004.

Payment and settlement systems are vital not only for development of the financial sector but also for effective transmission of monetary policy. The ability to transfer money and settle financial claims smoothly and securely through payments and settlements also sustains public confidence in the financial system. The payments system in India has evolved over the years and the Reserve Bank of India, India’s central bank, has played an important role in developing the payments and settlements system in the country. Major achievements were enactment of the Payment and Settlement Systems Act 2007, and two regulations that came into effect on 12 August 2008: (1) Board for Regulation and Supervision of Payment and Settlement Systems Regulations 2008; and (2) Payment and Settlement Systems Regulations, 2008. These legally empowered the central bank to regulate and supervise the payments and settlements system.

The annual turnover under various payments and settlement systems in terms of value as percentage of GDP in India rose from 8.6 per cent in 2005–06 to 12.9 per cent in 2008–09. The payments and settlement systems in other countries in the region such as Bhutan, Pakistan and Nepal are still in early stages of development. Pakistan's central
bank in 2008 launched the Pakistan Real Time Interbank Settlement mechanism, a real
time gross settlement system for wholesale payment transactions, and is working
towards modernisation of the retail payments and settlements system. In Sri Lanka, the
Payments and Settlements Act was passed in 2005 and provides regulation, supervision
and monitoring of payments, a clearing and settlement system, regulation of providers
of money services, and electronic presentation of cheques.

The cost of intermediation is high in the South Asian countries. The interest rate spread,
that is, the spread between the interest rate charged on loans to prime customers and
the interest rate paid by the commercial banks on deposits, is still high in the region
despite financial sector reforms. In 1978 the interest spread was 2.0 per cent in Nepal,
4.0 per cent in Bangladesh and 9.5 per cent in Sri Lanka. In 2008 these figures had risen
to 5.8 per cent in Nepal and 6.7 per cent in Bangladesh but had declined slightly to 8.0
per cent in Sri Lanka (Figure 4).

![Figure 4: Interest Rate Spreads in South Asia](image)

Among the reasons for high interest spreads are lack of competition and still high ratios
of non-performing loans in some of the South Asian countries. Other reasons may
concern the perception of higher risks and weak financial intermediation as the rates
cover credit risk and cost of funding. Metzger argues that the precautionary approach
some banks adopted as they introduced new financial products – for example, credit
cards – for a significantly larger range of the population could also be a factor leading to
high interest rate spreads. In the case of Bangladesh, Shah identified high default
culture, high interest rates on government savings bonds and on government
borrowings, and the poor pricing strategies of banks. Among different types of banks,
the interest spreads of foreign banks have been particularly high at 9.02 per cent in
2008 compared to 5.85 per cent for state owned banks and 5.36 per cent for private
banks. This is also reflected in the high profitability ratios for foreign banks, whose return
on assets was 3.10 per cent and return on equity was 20.4 per cent in 2007. Average
lending rates across the region ranged within 12 to 16 per cent in 2007. Our
calculations show that the coefficient of variation during the period 1995–2007 was
higher at 22 per cent in Sri Lanka and 26 per cent in Nepal, compared to 5.5 per cent in
Bhutan and 6.3 per cent in Bangladesh.

In recent years stock markets have also been developing in South Asia. Three major
reasons for this development are banking sector turmoil in East Asia, comprehensive

**Source:** Based on World Bank Online database,
financial sector reforms in countries across the region covering all segments of the financial sector, and the need for financing infrastructure projects. The total number of listed companies, however, varies sharply across the region, ranging from five in Maldives to 4,946 in India. The secondary markets too are underdeveloped. With India as the exception, the secondary markets are not liquid mainly due to unavailability of adequate information to the investors. The major investors are financial institutions including central banks, credit institutions, mutual and pension funds, and insurance companies. Figure 5 shows the heterogeneity in secondary markets in the region, while traded stocks as percentage of GDP varied sharply across the countries.

Despite substantial financial sector reforms undertaken by the South Asian countries, a number of challenges still remain. A major issue facing the region is low access to finance in almost all the South Asian countries. Low access to finance not only limits the opportunities that could be made available to the poor but also prevents the poor from taking alleviative measures to come out of the poverty trap. Another issue that needs to be tackled is the pro-cyclicality of South Asian systems. Pro-cyclicality also faces other regions including those in the developed world, as the current global crisis has revealed. This requires regulatory procedures stronger than those used hitherto. Development of other financial products such as securitisation and hedging is also limited in the region. The development of innovative products needs to take into account overall financial stability since the spill-over from financial sector to real sector can cause huge distress to the poor and to the economy as a whole. This points to the need to increase prudent regulation that is ‘incentive-compatible, across institutions and over time, while balancing possible adverse impacts on innovation and efficiency’.

Appendices A to C in this paper show movements in inflation, interest rates on savings deposits and domestic bank credit as ratios of GDP across the countries in the region. The figures reveal similar trends in the countries’ movements in these ratios in recent years, suggesting possible evidence of convergence in the region. Although the coefficient of variation in the growth rate of the consumer price index was high until 2003 (101.1 per cent), this has come down over the years and was 45.9 per cent in 2008. In fact, variation in the growth of consumer prices and the Food Price Index has almost converged within the region. The average rise in food prices at 16.1 per cent in 2008 is higher than in consumer prices 11.9 per cent has implications for poverty in the
region, as food constitutes the most significant part of the consumption basket within the region (Figure 6).

![Figure 6: Coefficient of Variation in CPI and Food Price Index in South Asia](image)


Financial Cooperation in South Asia

Although the East Asian financial crisis of 1997 did not have significant direct impact on the South Asian countries, it did drive home lessons about the vulnerability and fragility of the financial system and its impact on the real sector. As Reddy observed:

> It is useful to recall that the acute sense of interdependence aroused by the financial ‘contagion’ in 1997 convinced the Asian economies of the importance of economic cooperation, one that reflected their common interests and priorities as well as strengthened their voice in the global arena. Among others, this led to two parallel movements – one in South Asia in the form of the SAARC Initiative and the other in East Asia reflecting the ASEAN+3 Initiative.

Acknowledging the need to strengthen South Asian countries’ financial systems through institutional development and surveillance mechanisms, at the tenth summit of the South Asian Association for Regional Cooperation (SAARC) in Colombo, Sri Lanka it was decided to discuss and work to coordinate key macroeconomic policy issues and finance among the Central Banks of the region.36 SAARCFINANCE, a regional network of SAARC Central Bank Governors and Finance Secretaries, with Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka, and Afghanistan as members, was set up in September 1998 with the objective of member countries sharing their experiences on macroeconomic policy issues.

The broad objectives of the SAARCFINANCE network are to promote cooperation among central banks and finance ministries through staff visits and regular exchange of information, consider and propose harmonisation of banking legislation and practices, work towards a more efficient payment system mechanism within the SAARC region, strive for higher monetary and exchange cooperation, share experiences and ideas and forge closer cooperation between SAARC member states on their macroeconomic policies, and study global financial developments and their impact on the region including discussions relating to emerging issues in the financial architecture, IMF and World Bank and other international lending agencies.
Other objectives include developing joint strategies whenever feasible; planning common approaches for mutual benefit particularly in the context of liberalising financial services; training staff of the Ministries of Finance, Central Banks and other financial institutions of the SAARC member countries in subjects relating to economics and finance; exploring ways to network the training institutions within the SAARC region specialising in various aspects of monetary policy, exchange rate reforms, bank supervision and capital market issues; promoting research on economic and financial issues for the mutual benefit of SAARC member countries; and considering any other matter on the direction/request of SAARCFINANCE, Finance Ministers, Council of Ministers or other SAARC bodies.38

One significant move towards monetary integration has been knowledge sharing among the member countries through seminars, conferences and research projects of regional importance. At the 17th meeting of SAARCFINANCE Central Bank Governors, the idea of a regional payment system was agreed in principle and it was decided to develop a framework tentatively called the Regional Cooperation on Payments and Settlement System. The SAARC payment initiative was launched in 2007 with the objective of implementing a region wide payments system for cross-border flows by 2015. Also a status paper was prepared on formation of South Asia Credit Bureau Associations for the SAARC Region.

Common development issues in the South Asia region require regional cooperation, coordination and mutual learning from each other’s experiences. Global crisis and turmoil in the financial sector globally have further reinforced the need to strengthen regional financial cooperation. The initiative of the South Asian countries to cooperate and learn from each other’s experience is thus encouraging in this context.
3. Factors Influencing Regional Financial Cooperation

In contrast to a number of studies seeking to explain determinants of international financial integration, studies on the determinants of regional financial integration are limited. Network externalities have been cited as an important factor for international as well as regional integration. However determinants could differ between the two as regional integration may have further requirements that include adequate institutional development in the regionally integrating countries, sufficient infrastructure in both physical and human capital, and a nurturing political climate. Furthermore, there is no hierarchy in the sequence of financial integration. Thus a country could be far more integrated globally than at the regional level. India is one such example.

Wakeman-Linn and Wagh have identified the major factors impeding regional integration in sub-Saharan Africa to be limited inter-regional trade, lack of political will, underdeveloped infrastructure (both economic and financial), and limited supervision and regulatory prowess. Garcia and Woolridge suggest that the three major forces driving regional financial integration (and even global financial integration) are advances in communications and technology that enable financial transactions and investment beyond domestic borders, unilateral policy actions by national governments to liberalise their nation’s financial sector, and the standardisation and harmonisation of procedures with international practices.

Vo’s 2007 study considers the following as the most significant national variables influencing financial integration: capital controls policy, level of economic development, depth of financial market and capital market development, economic growth, political and investment climate, and trade openness. Following Vo, we examine South Asian regional financial cooperation in terms of the characteristics of the countries concerned, recognising that a country’s domestic and foreign policies influence regional integration outcomes. Even more so, a country’s financial structure reflects the level of integration with other countries. The factors we consider in our study are capital controls policy, level of economic development, financial market development, economic growth, political and investment climate and trade openness. Our choice of variables is more or less dictated by data availability as data on the South Asia region are limited.

Capital Controls

Capital controls (administrative and market based) are defined as measures meant to affect the cross-border movement of capital. Legal restrictions on cross border capital flows are often taken as an indicator of the extent of capital mobility across the countries and of financial integration. Removal or lessening of controls is expected to lead to greater integration and vice versa. But Garcia and Wooldridge point out that this has several shortcomings due to three major factors: restrictions placed may not be actually binding; there could be national discrimination against foreign participants that may not be due to any national rules; and measures may be imposed only temporarily.

There is no well defined measure of the extent or intensity of capital controls. While it is difficult to measure capital control restrictions, many studies have used the IMF’s Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER) as an indicator of capital controls. The index of economic freedom constructed by the Heritage Foundation is another such indicator, which measures the extent of economic freedom of an individual by how much s/he is allowed to work, produce, consume and invest unconstrained by the government. The index score ranges from 0 to 100, where 100 is the maximum freedom and 0 is the least. The index is built on 10 sub-components of freedom: business freedom, trade freedom, fiscal freedom, government
spending, monetary freedom, investment freedom, financial freedom, property rights, freedom from corruption and labour freedom.

Absolute investment freedom in a country is defined as freedom to invest both internally and externally without any barriers whatsoever. The criteria used to set the score of investment freedom are national treatment of foreign investment (controls on foreign investment), foreign investment restrictions, restrictions on land ownership, sectoral investment restrictions, expropriation of investments without fair compensation, foreign exchange controls and capital controls. As stated earlier, a score of 100 implies maximum freedom and 0 is least freedom. Globally, investment freedom in 2010 ranged from the minimum score of 5 in Venezuela to the maximum score of 95 in Ireland and Luxembourg. Our study uses this measure to gauge the extent of investment freedom and capital controls in the South Asia region. In recent years the South Asian economies have substantially liberalised their foreign direct investment (FDI) policy regimes, resulting in a rise in net inflow of FDI to the region from $2.9 billion in 1995 to over $29 billion in 2007. Comparative data on FDI inflows of nations in the South Asian region and selected developed countries in the Asia–Pacific region as percentage of gross domestic product appear in Table 4.

Table 4: FDI Flows in South Asia and Selected Developed Countries in Asia–Pacific, per cent of GDP

<table>
<thead>
<tr>
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</thead>
<tbody>
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<td>0.0</td>
<td>0.4</td>
<td>0.6</td>
<td>0.2</td>
<td>0.1</td>
<td>0.5</td>
<td>0.8</td>
<td>1.3</td>
<td>1.1</td>
<td>1.0</td>
<td>–</td>
</tr>
<tr>
<td>Bhutan</td>
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<td>–</td>
<td>0.0</td>
<td>0.1</td>
<td>0.1</td>
<td>0.2</td>
<td>0.5</td>
<td>1.1</td>
<td>0.6</td>
<td>7.1</td>
<td>–</td>
</tr>
<tr>
<td>India</td>
<td>0.6</td>
<td>0.6</td>
<td>0.8</td>
<td>1.1</td>
<td>1.1</td>
<td>0.7</td>
<td>0.8</td>
<td>0.8</td>
<td>1.9</td>
<td>2.2</td>
<td>3.1</td>
</tr>
<tr>
<td>Maldives</td>
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<td>2.1</td>
<td>2.1</td>
<td>1.9</td>
<td>1.9</td>
<td>2.0</td>
<td>1.9</td>
<td>1.3</td>
<td>1.5</td>
<td>1.4</td>
<td>–</td>
</tr>
<tr>
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<td>0.0</td>
<td>0.3</td>
<td>–0.1</td>
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<td>0.0</td>
<td>0.0</td>
<td>–0.1</td>
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<td>2.0</td>
<td>3.4</td>
<td>3.7</td>
<td>3.8</td>
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<td>Sri Lanka</td>
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<td>0.8</td>
<td>0.4</td>
<td>0.5</td>
<td>1.1</td>
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<td>3.8</td>
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<tr>
<td>China</td>
<td>4.9</td>
<td>4.3</td>
<td>3.2</td>
<td>3.3</td>
<td>3.4</td>
<td>2.9</td>
<td>2.8</td>
<td>3.5</td>
<td>3.9</td>
<td>4.3</td>
<td>3.4</td>
</tr>
<tr>
<td>Hong Kong</td>
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<td>36.6</td>
<td>14.3</td>
<td>5.9</td>
<td>8.6</td>
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<td>23.7</td>
<td>26.2</td>
<td>29.3</td>
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</tr>
<tr>
<td>Korea</td>
<td>0.3</td>
<td>1.6</td>
<td>1.8</td>
<td>0.7</td>
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<td>0.6</td>
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<td>0.8</td>
<td>0.4</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Australia</td>
<td>3.3</td>
<td>1.5</td>
<td>3.4</td>
<td>2.2</td>
<td>4.4</td>
<td>1.8</td>
<td>6.2</td>
<td>–5.3</td>
<td>3.6</td>
<td>4.6</td>
<td>4.5</td>
</tr>
<tr>
<td>New Zealand</td>
<td>5.3</td>
<td>2.4</td>
<td>7.7</td>
<td>–0.1</td>
<td>2.6</td>
<td>2.9</td>
<td>2.5</td>
<td>1.4</td>
<td>7.4</td>
<td>2.0</td>
<td>–</td>
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</tbody>
</table>


Liberalisation measures for FDI are related to foreign equity participation and favourable fiscal incentives such as tax holidays, tax exemptions, and 100 per cent repatriation of capital, profits and dividends. In Sri Lanka expatriates income is taxed at a concessional rate of 15 per cent for five years. Other incentives provided by governments in the region are provision of infrastructure and protection of foreign investment. The countries have also signed bilateral agreements with a number of countries.

Level of Development

Similar to Vo, we take GNI per capita and level of education as indicators of development. In a comprehensive study, Edison, Levine et al. considered secondary school enrolment as a factor influencing financial integration. Similarly, in their regression model to examine the effect of financial integration on economic growth, Schularick and Steger took average years of schooling into account, besides initial income, average consumer price inflation and budget deficit.

Saxena and Baig have considered a similar level of development among countries aspiring to integrate to be an important criterion in promoting regional financial integration. Yet Vamvakidis has shown that being close to a large neighbouring country with both a higher GDP per capita and a more open economy leads to positive spillovers.
Country Size

A contradictory factor as it performs a promotional and binding role but could also be a cause of lesser regional integration, particularly in an atmosphere of mutual distrust and hostility, is country size. A large country helps in increasing market size, and is beneficial for the small countries that can diversify their exports and manufacturing in general. It can also offer other advantages such as spillover of knowledge and technology, and increased FDI. However, a country’s large size can also lead to suspicions on the part of smaller countries that the large country may become hegemonic and interfere in the region against small countries’ wishes. Large size can therefore aggravate mutual distrust and hostility and even stall the process of integration.\textsuperscript{50} We see examples of the negative consequences of large country size for financial integration in South Asia, particularly between India and Pakistan and between India and Bangladesh. As Ranjan et al. have observed, ‘There are causes of concern as at times India is criticized for having a big brotherly attitude by other members’.\textsuperscript{51} In this study we consider total population as an indicator of the country’s size.

Financial Market Development

The level of domestic financial development is often considered as an indicator of regional financial development. We take bank credit as proportion of GDP as an indicator of banking (financial) development. In some studies stock market indicators such as size, efficiency and liquidity in the stock market are also used as indicators of domestic financial development. Yet in the South Asian context, banks are the predominant financial intermediary.\textsuperscript{52} We therefore restrict our statistical analysis to banks, and take bank credit’s proportion of GDP as the indicator of banking development.

Economic Growth

We may easily assume that economic growth is a factor in financial integration. Yet its place is unclear. Vo and Daly have argued that economic growth leads to financial integration.\textsuperscript{53} However a number of studies have argued the reverse – that financial integration leads to economic growth – and still other studies have found that internationally, financial integration does not necessarily lead to economic growth.\textsuperscript{54} Thus, at the international level, the relationship between the two remains unclear. As for regional financial integration, a few studies have examined the relationship with economic growth. Vamvakidis’s much quoted 1998 study argues that if neighbouring countries trade with each other, regional financial integration influences economic growth.\textsuperscript{55} But for the present study ‘neighbouring’ is problematical since, as noted above, his concept of neighbouring countries includes countries not necessarily located within the same geographic region. Taking a group of 15 EU countries, Borota and Kutan examined the impact of FDI inflows and capital formation. They found that while capital formation had no impact on economic growth, FDI inflows had a technology induced growth effect on the economy.\textsuperscript{56} Following Vo’s 2007 study, in this study we take real income per capita and GDP growth rate as two determinants of regional financial integration.

Political and Investment Climate

Mutual confidence and trust building\textsuperscript{57} are crucial requirements not just in international but also in regional financial integration. One factor that is particularly relevant in the South Asian context is lack of trust and hostility towards neighbouring countries. The relationship between the region’s two major countries, India and Pakistan, has been marked by mistrust and hostility for decades over Kashmir.\textsuperscript{58} Evidence of neighbourly hostility can be seen in high military expenditure as proportion of GDP for India and
Pakistan and of internal hostility in the case of Sri Lanka, although for Pakistan in particular the figure has reduced significantly in recent years (Figure 7). Military expenditure/GDP ratio for Pakistan has dropped from 7.0 per cent in 1988 to 3.3 per cent in 2008, while for India it has fallen from 3.6 per cent to 2.5 per cent.

![Figure 7: Military Expenditure as Percentage of GDP](<http://databank.worldbank.org/ddp/home.do?Step=12&id=4&CNO=2>)

Some observers posit resolution of the political conflict between India and Pakistan as a necessary condition for advancing intra-regional trade. Using the probit model on a sample of 34 developed and developing countries, Brada and Mendez predicted in an ex ante approach which country will join the integration scheme based on its political affiliations. Their study found that among the economic and political factors that influence regional integration, good bilateral political relations, geographic proximity, common border, openness to trade and small size of country were the most significant. Besides conflict, factors impeding financial integration at the national level may be institutional environment, enforcement of law and property rights. In an attempt to capture these variables in our analysis we consider political stability, rule of law, government effectiveness, and ease of doing business.

**Trade Openness**

Intra-regional trade has often been put forward as a significant factor in explaining the path of financial integration. Some studies have shown that finance follows trade. Rose and Spiegel's study found higher cross-border borrowings to countries with higher bilateral trade. In their study of trade and financial linkages between five large developed national economies and 40 other developed and emerging national economies for the period 1986–2000, Forbes and Chinn found close links between trade and stock market. Nevertheless the nature of the relationship between trade and finance remains unclear. Other studies argue that rather than finance following trade the process is inverse, with FDI playing a major role in promoting trade.

Trade openness in the South Asia region is low, as indicated above. One example of the significant block of tariff barriers in the region is the list of sensitive commodity imports. In 2008 Bangladesh’s list had 1,249 items from least developed countries and 1,254 from non-least developed countries. India had 763 items from least developed countries, Pakistan had 1,183, Nepal had 1,210, Sri Lanka had 1,065, Maldives had 671 and Bhutan had 157. Although intra-regional trade is low in the region, informal trade across national borders and through third party countries such as Dubai in case of India–Pakistan is high. If informal trade is considered as well as formal trade, intra-SAARC...
trade as a proportion of SAARC’s world trade in 1999 was 6.48 per cent, which compares to 4.46 per cent for just the official trade.\textsuperscript{66}

Trade freedom is a key item on the Heritage Foundation’s index of economic freedom. Trade freedom is a composite measure of tariff and non-tariff barriers and is built on the trade weighted average tariff rate and non-tariff barriers. These include restrictions relating to quantity, price, regulation, investment, customs and direct government restrictions. Our study considers the trade freedom index of countries in the region as well as trade openness ratio.

Other Factors

Among the factors not considered in Vo’s 2007 study are geographical proximity and language barriers. Several studies claim geographical proximity is an important factor in determining regional economic and financial integration.\textsuperscript{67} Consistently, Garcia-Herrero et al. maintain that in contrast with geographical proximity, geographical distance lowers cross-country financial investment due to asymmetric information.\textsuperscript{68} On this basis we could expect regional financial integration to increase within the South Asian region since its countries are geographically close to each other and some share common borders, particularly India, Pakistan, Nepal and Bangladesh. Sharing language can also be an important networking factor in financial integration, particularly in the regional context.\textsuperscript{69} In South Asia, however, there is considerable diversity in the languages spoken, making this factor unlikely to be important for regional financial integration.
4. Data, Methodology and Results

Data and Methodology

Following the suggestion of Cavoli, Rajan and Siregar, we use a multivariate methodology, that is, Principal Components Analysis with varimax rotation in an attempt to reduce multidimensionality of factors determining regional financial integration. To summarise, the variables taken into account by Vo that were used for the present study are ratio of total stock of assets and liabilities to GDP, ratio of stocks of liabilities to GDP, ratio of stock FDI and portfolio investment to GDP, ratio of stock FDI and portfolio investment inflows to GDP, ratio of flows of FDI and portfolio investment equity to GDP, ratio of inflows of FDI and portfolio investment equity to GDP, and ratio of stock FDI and portfolio equity inflows to GDP. These measures show the extent of financial integration of the country with the rest of the world, as indicated by other studies that have adopted similar indicators.

For capital control, Vo takes two measures: IMF's Restriction dummy variable, which takes the value of zero when there are no controls and one if there are controls, and following Miniane, an average of different sub-categories of capital control measures. The other measures are: lagged GDP per capita, secondary school enrolment, annual growth rate in real per capita GDP, international country risk index, inflation (consumer price index), trade openness measure, i.e., total imports and exports as share of GDP, stock market capitalisation to GDP to reflect size of the stock market, domestic stock market activity shown in total value of trades of stock on domestic exchanges as a share of GDP, and stock market turnover ratio as an efficiency indicator of the stock market. Stock market measures show the level of financial market development in the individual countries. The study also takes ratio of bank credit to GDP and ratio of liquid liabilities to GDP as indicators of financial depth, and tax policy and government tax share of GDP as indicators of tax policy.

As our study specifically concerns financial integration in South Asia, there are several data constraints. On capital restrictions, instead of using the IMF's AREAER, which is not publicly available, we have used the investment freedom index developed by the Heritage Foundation. For level of economic development, similar to Vo, we consider GNI per capita and the gross secondary school enrolment ratio. The other indicators used in our study are GDP growth rate, population, bank credit/GDP, political stability, ease of doing business, trade openness, trade freedom, rule of law, and government effectiveness (Appendix D).

Results

To identify the major factors governing regional financial integration in South Asia, we conducted a Principal Component Analysis (PCA) on 13 variables with varimax rotation. A low Kaiser-Meyer-Olkin measure, however, forced us to drop some variables. We subsequently retained six. The Kaiser–Meyer–Olkin measure of sampling adequacy worked out to 0.504. Bartlett’s test of sphericity $\chi^2 (15) = 45.181, p<.001$ indicated that correlations were adequate for conducting PCA. An initial analysis was run to obtain eigenvalues for each component in the data. Two components had eigenvalues over Kaiser’s criterion of 1 and in combination explained 70.3 per cent of the total variance. However, the scree plot lists four factors and shows inflexion after the fourth factor. Given Kaiser’s criterion on eigenvalues of 1, finally only two components were retained in the analysis. Table 5 shows the rotated component matrix using the extraction method of PCA.
<table>
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<th>Components</th>
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<td>Trade openness</td>
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<td>GNI per capita</td>
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<td>Political stability</td>
<td>0.841</td>
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<tr>
<td>Rule of law</td>
<td>0.476</td>
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<tr>
<td>Investment freedom</td>
<td>0.809</td>
</tr>
<tr>
<td>Bank credit/GDP</td>
<td>0.807</td>
</tr>
</tbody>
</table>

The items that cluster in the components show trade openness, higher per capita income, political stability and rule of law were the major factors determining regional financial cooperation in South Asia. Hostility and political instability were the major deterrents to increasing regional integration. Investment freedom and domestic financial development represented by ratio of bank credit to GDP were the second set of factors that determine the region’s financial integration.
5. Conclusion

The South Asia region comprises a heterogeneous group of countries, large and small, that are tied together by similar historical, cultural, and economic development issues. Yet it is also marked by a high level of hostility and mistrust among some of these countries. In recent years, leaders of the region have realised that enhancing regional cooperation and understanding can bring advantage for all member countries through raising economic growth and reducing poverty. This has led to a number of initiatives such as establishment of SAARC for economic cooperation in 1985 and SAARCFINANCE for financial cooperation in 1998. SAARCFINANCE is a network of Central Bank Governors and representatives of government to share experiences on macroeconomic policy issues while working towards the long term objective of achieving monetary integration and currency union.

Even with these institutional initiatives for economic and financial cooperation, and indeed increased intra-regional trade in recent years, monetary and financial cooperation is still in its infancy in the region, as findings of this study indicate. Our examination of the factors likely to influence regional financial integration was limited by the data available for South Asia. Nevertheless it found that for South Asia, the major determinants of regional financial integration are trade levels, income and political stability. Consistent with other studies, it also found political stability and friendly intra-regional relations to be important factors, and thus improvement in both aspects will enhance regional cooperation, including financial integration of the region’s members.
Appendix A

Inflationary Trends in South Asia

Appendix Figure A.1: Growth Rate of Consumer Price Index, Bangladesh

Appendix Figure A.2: Growth Rate of Consumer Price Index, Bhutan

Appendix Figure A.3: Growth Rate of Consumer Price Index, India
Regional Financial Cooperation in South Asia

Appendix Figure A.4: Growth Rate of Consumer Price Index, Maldives

Appendix Figure A.5: Growth Rate of Consumer Price Index, Nepal

Appendix Figure A.6: Growth Rate of Consumer Price Index, Sri Lanka

Appendix B

Trends in Interest Rates of Savings Deposits in South Asia

Appendix Figure B.1: Interest Rates on Savings Deposits in Bangladesh, % per annum

Appendix Figure B.2: Interest Rates on Savings Deposits in Bhutan, % per annum

Appendix Figure B.3: Interest Rates on Savings Deposits in India, % per annum
Appendix Figure B.4: Interest Rates on Savings Deposits in Maldives, % per annum

Appendix Figure B.5: Interest Rates on Savings Deposits in Nepal, % per annum

Appendix Figure B.6: Interest Rates on Savings Deposits in Sri Lanka, % per annum

Appendix C

Domestic Bank Credit as Proportion of GDP in South Asia

Appendix Figure C.1: Domestic Bank Credit as Proportion of GDP, Bangladesh

Appendix Figure C.2: Domestic Bank Credit as Proportion of GDP, Bhutan

Appendix Figure C.3: Domestic Bank Credit as Proportion of GDP, India
Appendix Figure C.4: Domestic Bank Credit as Proportion of GDP, Maldives

Appendix Figure C.5: Domestic Bank Credit as Proportion of GDP, Nepal

Appendix Figure C.6: Domestic Bank Credit as Proportion of GDP, Sri Lanka

### Appendix Table D.1: Description of Variables

<table>
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<tr>
<th>Variables</th>
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<td>Level of Development</td>
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<td>Total Population</td>
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<td>Financial Market Development</td>
<td>Ratio of domestic bank credit to GDP</td>
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Notes


8 Detailed discussion of the economic development of countries within the region can be found in Asian Development Bank, ‘Countries in transition: A brief review of the emerging political economy of Bangladesh, Bhutan, the Maldives, and Nepal’, South Asia, Occasional Paper Series No. 3 (Manila, Philippines: Asian Development Bank, 2009); E. Ghani and S. Ahmed, Accelerating Growth and Job Creation in South Asia (Washington, DC: World Bank, Oxford University Press, 2009); M. Hossain, I. Islam and R. Kibria, South Asian Economic Development (2nd


11 The South Asia Free Trade Agreement or SAFTA was initiated in 2004 with the objective of reducing tariffs for intraregional trade in goods among the SAARC member countries. The Agreement eventually came into existence on 1 January 2006 after the ratification of all signatories. See Asian Development Bank, Development Partnership Program for South Asia.


15 Based on their per capita income of $936 to $3705, Bhutan, India, Maldives and Sri Lanka are classified as belonging to the low middle income group. The rest – Afghanistan, Bangladesh, Nepal and Pakistan – with a per capita income of $935 or lower, are classified as low income countries. For more details on countries in the region see <http://siteresources.worldbank.org/INTWDR2009/Resources/4231006-1225840759068/WDR09_22_SWDIweb.pdf>.


20 Since the global economic crisis, a different perspective on bank ownership has emerged with appearance of two models of bank ownership: the Anglo–Saxon model and the Asian model. The countries following the Anglo–Saxon model have suffered more than those following the Asian model.

21 RBI, *Report on trend and progress on banking in India*.

28 Ibid.
30 Ibid.
33 World Bank Indicators Online.
37 The South Asian Association for Regional Cooperation or SAARC was established in 1985 by seven countries: India, Bangladesh, Pakistan, Sri Lanka, Bhutan, Maldives and Nepal. Afghanistan became a member of SAARC in 2007.
45 This could also mean that capital control measures are endogenous as they become entangled with other macroeconomic measures and it is difficult to point out the exclusive impact of the controls. See IMF, ‘Global liquidity expansion’.
47 Schularick and Steger, ‘Does financial integration spur economic growth?’. 
48 Saxena and Baig, *Monetary cooperation in South Asia: Potentials and prospects. 
53 X.V. Vo and K.J. Daly, ‘The relationships between net private capital flows and economic growth in emerging Asian economies’, in M. Hoque (ed.), *International

55 Vamvakidis, ‘Regional integration and economic growth’.


57 Media coverage of relations between India and Pakistan often reports on the high trust deficit between these two nations.

58 Dash, ‘The political economy of regional cooperation in South Asia’.


65 Kumar and Singh, *India’s role in South Asia trade and investment integration*.

66 Saxena and Baig, *Monetary cooperation in South Asia*.


