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# South Asia's Growth and Regional Integration An Overview



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## ■ Introduction

South Asia has experienced unprecedented growth, averaging close to 6 per cent per annum since the 1990s. This growth is impressive because many developing countries grew more slowly during this period. As India accounts for more than three quarters of the region's gross domestic product (GDP), its growth has had a decisive impact on the overall regional growth. India grew at 3.2 per cent during 1965–81, accelerated to 5.1 per cent during 1981–7, and then to 6 per cent during 1987–2004. While India has led the way, the other South Asian countries including Bangladesh and Pakistan have also shown remarkable improvements in economic growth (Ahmed, 2006). It is this steady rise in growth that has attracted the world's attention to the South Asia region.

Growth in South Asia was triggered by first-generation policy reforms, including greater global integration, macroeconomic stabilisation, and economic deregulation (Ahmed, 2006). Trade restrictions including import tariffs were reduced. The scope of the state was reduced through economic deregulation to enhance the role of the private sector as the engine of growth. These reforms made the South Asian countries more stable, competitive, and adaptable. It helped to overcome three key constraints to growth (Spence, 2005):

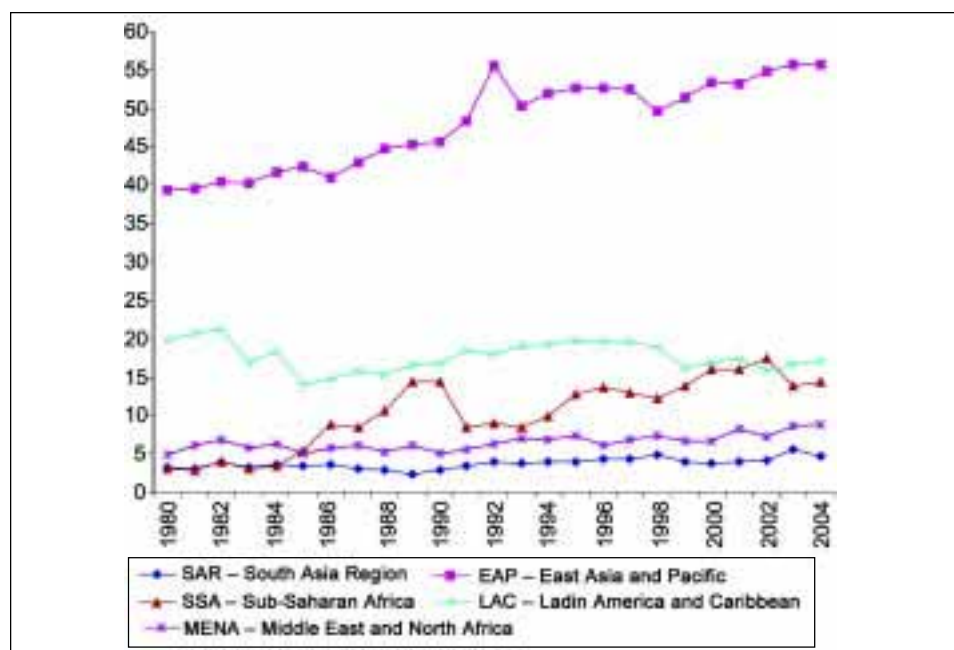
- Exports to the rest of the world relaxed the constraint from capacity to consume domestically.
- Inflow of remittances relaxed the constraint from capacity to save domestically.

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- In-bound technology and knowledge transfers through increased trade rapidly moved the production possibility frontier outward.

While South Asia made significant progress in integrating with the global economy, integration within the region remained limited. South Asian countries have maintained a higher level of protection within the region than with the rest of the world. Restrictive policies within the region have neutralised the beneficial effects of common cultural affinity, common geography,<sup>1</sup> and the ‘gravitational’ pull of proximity on movement of goods and people within the region.

South Asia is the least integrated region in the world, where integration is measured by intraregional trade in goods, capital, and ideas. Intraregional trade as a share of total trade is the lowest for South Asia. There is little cross-border investment within South Asia. The flow of ideas, crudely measured by the cross-border movement of people, or the number of telephone calls, or the purchase of technology and royalty payments, are all low for South Asia. In South Asia, only 7 per cent of international telephone calls are regional, compared to 71 per cent for East Asia. Poor connectivity, cross-border conflicts, and concerns about security, have all contributed to South Asia being the least integrated region in the world (Figure 1.1).



**Figure 1.1: Intra-regional Trade: South Asia is the Least Integrated Region in the World (Per Cent of World Trade)**

Sources: UN COMTRADE, SITC 1 classification and GDP from *World Development Indicators*.

The rapid growth experienced by South Asia has, however, generated interest in, and political support for, increased regional integration. On 6 January 2004, the South Asian countries signed a South Asia Free Trade Agreement (SAFTA). The prospect that rapid growth will facilitate regional integration raises two fundamental questions. Is rapid growth sustainable in South Asia? If so, what role can regional integration play?

Is growth sustainable? South Asia has made significant progress in implementing the first-generation policy reforms. Increasingly, South Asia faces the challenge of second-generation policy reforms, which have become the key downside risks to growth. These include:

- High cost of doing business
- Weak institutions
- Weak knowledge economy
- Weak infrastructure

Despite past progress, the cost of doing business in South Asia remains high. Corruption and energy supply have been identified as the two biggest problems faced by the firms in South Asia. The problem of infrastructure deficit was ignored in the past because of political reasons (opposition to increasing costs when services were almost free once) and economic reasons (many consumers doubt that increasing charges will improve services, given decades of corrupt public administration). The competitiveness of South Asia is constrained by inadequate education and poor/low level of skills. Although South Asia, and in particular India, has made a name for itself in high-skill services and high-skill manufacturing (Kochar et al., 2005) South Asia lags on most indicators of knowledge economy (for example, gross enrollment rates for secondary education was 49 per cent for South Asia compared to 69 per cent for East Asia in 2004).

The policymakers in South Asia have begun to address the second-generation policy reforms (Ahmed, 2006). They have deepened attention to microeconomic policies aimed at reducing the cost of doing business and improving competitiveness. There is increased attention to improving institutions and governance by expanding market-based allocation of resources, improving transparency through better disclosure and market discipline, reforming regulation to minimise corruption and opportunities for rent seeking, and seeking opportunities to introducing better checks and balances to improve governance. Policy reforms are being implemented to encourage private and public partnerships in the provision of infrastructure services. These reforms have, however, started recently and they need to be deepened and sustained. Political opposition is a challenge that needs to be met with determination, especially in regards to establishing proper institutional arrangements required for sustaining these second-

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generation reforms. With the full implementation of the second-generation policy reforms, South Asia should be able to sustain high growth rates in the future.

Is regional integration desirable? Regional integration creates both challenges and opportunities. The challenge is to minimise the possible harmful effects of regional integration. The economic characteristics of the South Asia region, such as the small regional market relative to the world both in terms of GDP and trade flows, and the high level of external protection, would suggest that focusing on regional integration alone may not generate the beneficial productivity and growth effects in South Asia. South Asia is a relative newcomer to global integration. Despite liberalisation, it lags other regions (for example, East Asia) on openness. When external protection is high, trade diversion is likely to dominate trade creation, and so the risks that regional integration will become a drag on growth in South Asia is high. There are three reasons why South Asia will need to further lower external trade barriers: to generate classical gains from trade, to lessen the chances that trade diversion will occur, and to reduce income transfers between member countries resulting from regional integration and the tensions that can arise from such transfers (Hoekman and Schiff, 2002). History shows that a successful regional integration is often preceded by global integration.

But regional integration also provides opportunities to make progress in areas that otherwise would not take place in the absence of regional cooperation. Some of these opportunities include addressing the problems of energy shortage, relaxing the mobility constraints for lagging and landlocked regions, overcoming high transaction cost due to poor trade facilitation across regions, and reaping the positive benefits emerging from reputation effects/political risk premium/peace dividend through regional cooperation. The gains from these opportunities can contribute to higher sustained growth. Importantly, better economic cooperation can lead to better political relations thereby reducing conflicts and associated social and economic costs.

Regional cooperation can play an important role in addressing the problem of energy needs in the region. Energy endowments differ among the South Asian countries, but energy trade in the region is low. Only India, Bhutan, and Nepal currently trade in electricity. Bangladesh is endowed with natural gas reserves, but gas trade is constrained by the region's inadequate infrastructure and political misconceptions. Pakistan and Afghanistan can play an important role as transit states for the rest of South Asia, as they provide the best route for access to Central Asia's energy.

Regional cooperation, along with national initiatives, could play a useful role in ensuring that no region/country in South Asia is left behind. Rising inequality across regions and within countries is becoming a concern to the policymakers as rising inequality is a threat to the region's growth and stability. Several lagging regions in South Asia are border economies. They suffer from the disabilities typically associated with landlocked countries or geographical isolation. Examples include north-east India,

north-west Pakistan, northern Bangladesh, and parts of Nepal and Afghanistan. Typically, these subregions have poor connectivity with the markets within the country and with the neighbouring countries. Regional cooperation on transport and trade facilitation can transform these landlocked regions into land-linked regions. There are other areas where the region can benefit through cooperation. These include tourism, education, health, and professional services, where the risk of trade diversion is low.

In conclusion, provided external protection is further reduced globally, regional integration could play a beneficial role in allowing the South Asian countries to gain from geographical proximity, improved transport and trade facilitation, improved management of cross-border resources (for example, energy and water), and reduced conflict and friction.

Against the backdrop mentioned earlier, this book looks at several aspects of South Asia's growth and how regional integration can contribute to its growth. The two themes are not tightly linked in a causality sense. Rather, the themes emerged as an outcome of a knowledge partnership between the South Asia Chamber of Commerce; National Chambers of Commerce in Bhutan, Bangladesh, India, Maldives, Nepal, Pakistan, and Sri Lanka; and the World Bank. This partnership resulted in the first South Asian Association for Regional Cooperation (SAARC) Business Conclave that was held in November 2005 in New Delhi. This Conference was organised by the Federation of Indian Chamber of Commerce and Industry and SAARC Chamber of Commerce and brought together the private sector, academics, civil society, and policymakers from all South Asian countries to discuss growth and regional integration. Several authors were invited to prepare background papers for this conference on issues of growth and regional integration. The book is essentially an edited compilation of these background papers.

The book is divided into three parts:

- Part 1, Growth and Regional Integration, comprises this overview.
- Part 2, Is Growth Sustainable? includes papers on growth accounting by Susan M. Collins, investment and business climate by Mary C. Hallward-Driemeier, property rights institutions by Ana Margarida Fernandes and Aart C. Kraay, improving technology, skills and innovation by Carl J. Dahlman, and energy infrastructure by David Newbery.
- Part 3, Is Regional Integration Desirable? includes papers on trading choices by Arvind Panagariya, trade facilitation and exports by John H. Arnold, and trade facilitation and regional integration by John S. Wilson and Tsunehiro Ostuki.

This overview chapter summarises some of the key issues on growth and integration drawing on the analysis of the papers in this volume. While there is a broad consensus on the key challenges that South Asia faces to sustain growth, there are differences in

views on the role that regional integration should play in South Asia. The differences in views nevertheless enrich the evolving thinking on the subject as well as the political dynamics by bringing different perspectives from researchers, private sector, policymakers, and the civil society on the desirability of regional integration in South Asia.

## ■ Is Growth Sustainable?

What are the sources of growth in South Asia? What will it take for South Asia to increase growth rates from 6 to 10 per cent per annum? What role will business climate, institutions, knowledge economy, and infrastructure play in sustaining growth?

### Sources of Growth

South Asian economies have achieved impressive rates of economic growth since the 1980s. Chapter 2, on economic growth in South Asia by Susan M. Collins, explains that output for India, Pakistan, Bangladesh, and Sri Lanka has grown more rapidly since 1980 than for any other region except East Asia. Table 1.1 shows the key features of South Asia's growth. During the period 1980–2000, India and Bangladesh increased their GDP growth rates relative to the rates they had sustained in the two decades

**Table 1.1: South Asia: Selected Indicators**

<i>Region/Period</i>	<i>GNI Per Capita (PPP)<sup>a</sup></i>	<i>Population (Millions)<sup>a</sup></i>	<i>Annual Rates of GDP</i>	<i>Change Labour Force</i>	<i>Investment Share Per Cent</i>
<b>India</b>					
1965–80			3.2	2.2	17.5
1980–4	US\$3,116	1,080	5.8	1.8	22.6
<b>Bangladesh</b>					
1973–80			3.7	2.1	10.1
1980–4	US\$1,969	139	4.3	2.3	19.0
<b>Pakistan</b>					
1965–80			5.8	2.7	16.6
1980–4	US\$2,174	152	5.2	2.9	18.4
<b>Sri Lanka</b>					
1965–80			4.7	2.2	19.0
1980–4	US\$4,208	19	4.6	1.5	25.1
<b>South Asia</b>					
1965–80			3.6		16.6
1980–4	US\$2,854	1,447	5.5	1.9	21.9
<b>East Asia Pacific</b>					
1965–80			6.7		26.4
1980–4	US\$5,332	1,870	8.0	2.0	33.5

*Source:* World Bank, 2006.

*Notes:* PPP, purchasing power parity; GNI, gross national income. These data are for 2004.

prior to 1980. Sri Lanka maintained a steady pace throughout from the decade of the 1960s. Pakistan maintained rapid growth until the 1980s but growth faltered in the 1990s. South Asia, as a region, has increased the growth rate by nearly 2 percentage points since the 1980s. East Asia Pacific also increased its GDP growth rate by 1.3 percentage points. Growth rates of these magnitudes are impressive achievements that have helped South Asia to reduce poverty rates and raise living standards.

Table 1.2 reports the growth decomposition for the South Asian countries. At 3.3 per cent per annum since 1980, growth in output per worker in South Asia has been well above the world average, rivalling East Asia's experience (3.9 per cent). Total factor productivity (TFP) – a measure of efficiency with which resources are used –

**Table 1.2: Sources of Growth, South Asia, 1960–2003**

Region/Period	Output	Labour Force	Output per Worker	Contribution of		
				Physical Capital	Education	Factor Productivity
<b>India</b>						
1960–70	4.06	1.94	2.08	1.05	0.30	0.72
1970–80	3.00	2.26	0.72	0.63	0.36	–0.27
1980–90	5.79	1.87	3.85	1.02	0.33	2.46
1990–2003	5.59	2.11	3.41	1.33	0.47	1.57
1960–2003	4.67	2.05	2.57	1.03	0.37	1.15
<b>Bangladesh</b>						
1970–80	1.53	2.46	–0.91	–0.23	0.30	–0.97
1980–90	4.75	2.55	2.15	0.47	0.18	1.49
1990–2003	4.84	2.17	2.62	1.10	0.34	1.16
1960–2003	3.84	2.25	1.55	0.64	0.24	0.66
<b>Pakistan</b>						
1960–70	7.22	2.44	4.67	3.75	0.35	0.54
1970–80	4.68	3.04	1.59	0.68	0.23	0.68
1980–90	6.28	2.63	3.55	0.98	0.92	1.61
1990–2003	3.82	2.71	1.08	0.46	0.04	0.57
1960–2003	5.37	2.71	2.60	1.39	0.36	0.83
<b>Sri Lanka</b>						
1960–70	4.57	2.36	2.16	0.02	0.33	1.80
1970–80	4.40	2.10	2.25	1.51	0.39	0.33
1980–90	4.19	2.04	2.11	2.04	0.22	–0.15
1990–2003	4.64	2.05	2.53	1.10	0.34	1.08
1960–2003	4.46	2.13	2.28	1.16	0.32	0.78
<b>South Asia</b>						
1960–80	3.8	–	1.5	1.0	0.3	0.3
1980–2003	5.5	–	3.3	1.1	0.4	1.8
1960–2003	4.7	–	2.5	1.0	0.4	1.1
<b>East Asia less China</b>						
1960–80	7.0	–	4.0	2.2	0.5	1.2
1980–2000	6.4	–	3.9	2.4	0.5	0.9
1960–2000	6.7	–	3.9	2.3	0.5	1.0

Source: Susan Collins (see Chapter 2).

surged for South Asia in the 1980s, after two decades of little growth. TFP contributed twice as much to growth in South Asia as in East Asia, while increases in capital per worker contributed just half as much. However, increases in education contributed far less to growth in South Asia compared to East Asia. Increases in education among the South Asian economies have not been impressive; that is, average years of schooling remains quite low in South Asia.

Where will South Asia need to focus to sustain growth in the future? The sources of growth analysis in Table 1.2 show that both capital accumulation and productivity growth played important roles. Investment rates grew substantially from a low average rate of about 12 per cent per year in the 1970s to 23 per cent in the decade of 2000s (Ahmed, 2006). Similarly the contribution of TFP growth increased significantly in the post 1980 period relative to the 1960–80 period. As explained in detail in Ahmed (2006), these developments resulted from the markedly improved overall policy environment in South Asia. Since both capital accumulation and productivity matters, a prudent policy is to foster both. For the future, much of the potential productivity gains for South Asia will come from the reallocation of labour from agriculture, where productivity is relatively low, to the rest of the economy (manufacturing and services), where it is considerably higher. However, for South Asia to successfully shift underemployed workers out of agriculture into higher productivity activities in the manufacturing and services sectors, it will need to make investments to increase both physical and human capital stocks. Without the appropriate physical infrastructure, and human skills, the structural transformation of South Asia will be hampered.

What will it take for South Asia to boost its growth rate from 6 to 10 per cent? In addition to improving productivity, investment rates will need to rise substantially. Output growth rates of about 6 per cent per annum in South Asia are consistent with maintaining investment rates of 23–24 per cent of GDP, the average in recent years. However, increasing the region's growth rate to 10 per cent will require increasing the investment rate to more than 35 per cent. As explained below, the infrastructure gap in South Asia is large, and meeting this gap will require substantial additional investment. Higher investment could be achieved by reducing fiscal deficits, by lowering the cost of doing business, and by improving institutions. Increased physical capital stock will need to be accompanied by human capital stock. The average year of schooling for South Asia is low at 5 years compared to nearly 15 years for Korea. Increasing human capital stock will require increased emphasis on the knowledge economy.

### **Cost of Doing Business**

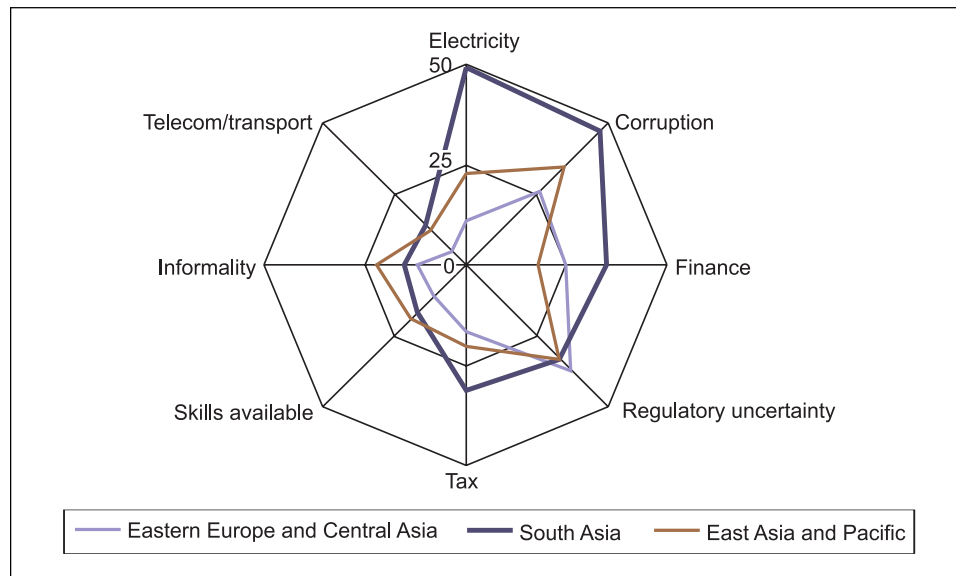
Increasing investment rates will require improving the investment climate and reducing the cost of doing business. How does South Asia compare with other regions on the cost of doing business and investment climate? Chapter 3, on investment climate by



Mary C. Hallward-Driemeier, uses cross-country data on the cost of doing business and firm level surveys that were carried out in Bangladesh, India, Pakistan, and Sri Lanka to assess the investment climate. Firm level surveys on the investment climate draw data directly from firms and cover both objective and subjective indicators. They cover eight indicators that influence investment decisions, from policy uncertainty and corruption to reliability of electricity and labour regulations.

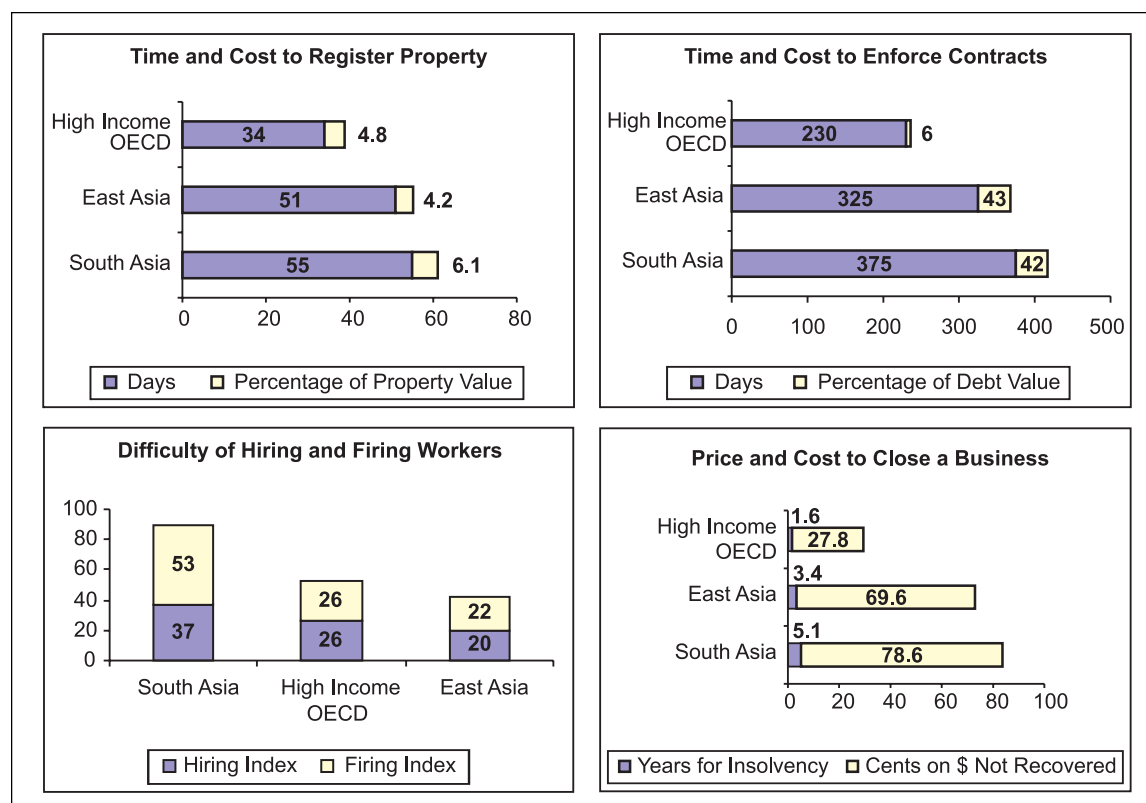
Figure 1.2 shows a comparison of the investment climate in South Asia with East Asia and Central Europe. Access to infrastructure has been cited as the number one problem faced by the firms in South Asia. The key concern for most firms is the access to reliable electricity. Corruption figures as the second biggest problem facing the firms in South Asia. When officials have discretion in how particular regulations will be implemented; there is an opportunity for unofficial payments to determine the outcomes. The costs of these bribes and the uncertainty of the standards that will be imposed can reduce the incentive to invest or to expand. Across South Asia the size of bribes was reported to be between 2.2 and 2.5 per cent of firm sales (see Figure 1.2).

Figure 1.3 compares the cost of doing business in South Asia with East Asia and Organisation for Economic Cooperation and Development (OECD) countries. Despite substantial deregulation, regulatory burden, particularly tax, customs, and labour regulations, remain high in South Asia. Access to finance has improved but



**Figure 1.2: Share of South Asian Firms Reporting the Issues as a 'Major' or 'Severe' Constraint on the Operation of their Business**

Source: Investment Climate Surveys, Mary C. Hallward-Driemeier (see Chapter 3).



**Figure 1.3: Cost of Doing Business is High in South Asia**

Source: World Bank, 2005.

credit information and secured lending systems lag other regions. Time to enforce a contract, or register a property, is high in South Asia relative to East Asia. Policies combined with institutions influence the investment climate and cost of doing business.

## Institutions

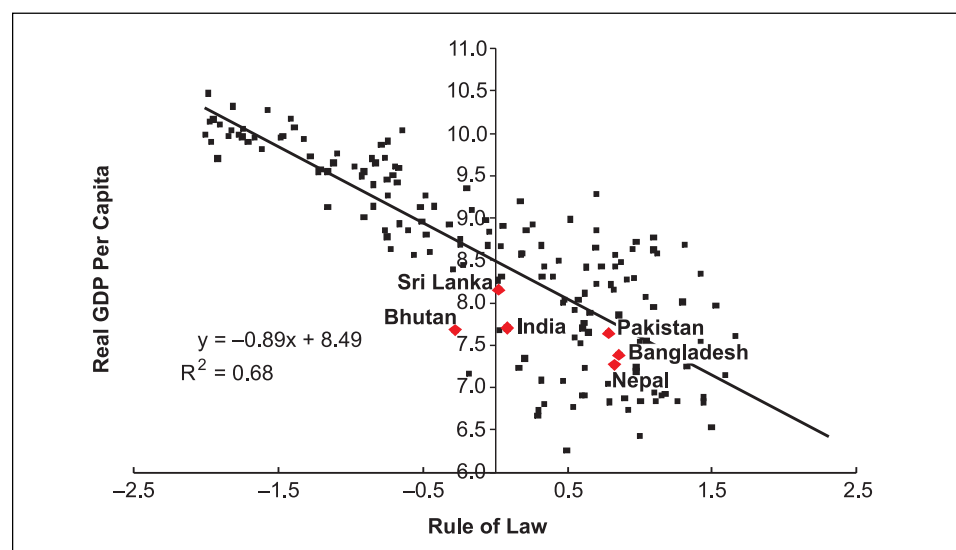
It is increasingly recognised that weak institutions are a drag on growth and development (World Bank, 2001). The cost of poor institution and governance is largely borne by the poor (World Bank, 2006a). In the literature, five types of institutions have been identified as important for growth and development (Rodrik, 2002; Knack, 2006):

- Market-creating institutions (property rights, rule of law)
- Market regulating institutions (financial services, telecom, transport)
- Market stabilising institutions (central bank, budget rules)
- Social insurance or market-substituting institutions (provision of education, health)

- Institutions for conflict management or market legitimising institutions (democracy, equity, justice).

What is the relationship between institutions and growth? How should institutions be measured? Can institutions be *unbundled* to identify those that are more critical for growth? How does South Asia compare on institutions with other parts of the world? Chapter 4, on growth and institutions in South Asia by Ana Margarida Fernandes and Aart C. Kraay, is an attempt to investigate the links between institutions and growth in the context of South Asia. It is worth emphasising that institutions are difficult to measure, and the link between institutions and growth is complex. Although cross-country data are available to assess how South Asia is doing relative to other regions, time series data are not available to judge whether institutions in South Asia have improved or deteriorated over time.

Several researches have produced evidence to suggest that there is a strong positive correlation between measures of institutional quality and log-levels of per capita income. Figure 1.4 shows one such typical relationship. On the horizontal axis is a widely used measure of rule of law produced by Kaufmann, Kraay, and Mastruzzi (2005) who combine information from a large number of cross-country sources measuring perceptions of governance and construct composite indicators summarising these perceptions. The rule of law measure in particular captures the perceptions of



**Figure 1.4: Rule of Law and Per Capita Incomes**

Source: Kaufmann, Kraay, and Mastruzzi, 2005.

Note: Real GDP per capita refers to 1996 and rule of law to 2004. Higher values of the rule of law measure correspond to worse outcomes.

individuals, firms, commercial risk rating agencies, nongovernmental organisations, think tanks, and multilateral development banks on issues relating to the protection of property. For example, it captures perceptions of the likelihood that property will be expropriated by the state, the likelihood that contracts will be enforced, the likelihood that property is secure from crime, and so on.

Figure 1.4 shows a strong negative correlation between this broad measure of institutional quality and the levels of development: Countries with worse institutional quality are on average poorer than countries with good institutional quality. A further striking feature is the relative position of countries in the South Asia region. All countries in the South Asia region fall below the regression line. Bangladesh, Pakistan, and Nepal have fairly poor scores on this measure, which place them in the bottom quartile of all countries, while India, Sri Lanka, and Bhutan fare much better, around the median of all countries worldwide.

However, interpreting the relationship between growth and rule of law is not easy. The evidence provided by this research has been controversial. In particular, the research has not been able to reconcile the very low rating on the rule of law for South Asia with the regions sustained rapid growth, among the highest in the world. In general, the low rating on governance as a whole for South Asia emerging from the Kaufmann, Kraay, and Masturazzi research in the face of the region's rapid sustained growth has generated considerable debate. The debate centres on two issues: First, are we measuring the right things when ranking governance performance? And second, is there necessarily a causal relationship between institutions and growth, and which way does this causality run?

The measurement issue has led to research seeking to unbundled governance and institutions. Acemoglu and Johnson (2005) unbundled institutions into two distinct dimensions, and identified them as important determinants of growth. The first of these, which they refer to as 'property rights institutions', capture the extent to which private property is secure from predation by the state (for example, through outright expropriation or, less dramatically, from corrupt officials demanding bribes in exchange for favours to the firm or individual). The second, which they refer to as 'contracting institutions', captures how the effectiveness of institutions that are used to mediate disputes between private parties, such as the courts and the judicial system.

Using the framework mentioned earlier, Fernandez and Kraay (chapter 4) measure the property rights and contracting institutions for the South Asian countries using macro and micro data. They measure property rights institutions using the Kaufmann, Kraay, and Mastruzzi (2005) measure of corruption. While perceptions of corruption are clearly not institutions themselves, the prevalence of corruption is considered a good proxy for the absence of well-functioning institutions that prevent the arbitrary or abusive exercise of authority. They measure contracting institutions using an estimate

of the length of time required to resolve a dispute over an unpaid commercial debt, constructing by using the World Bank's annual *Doing Business* report.

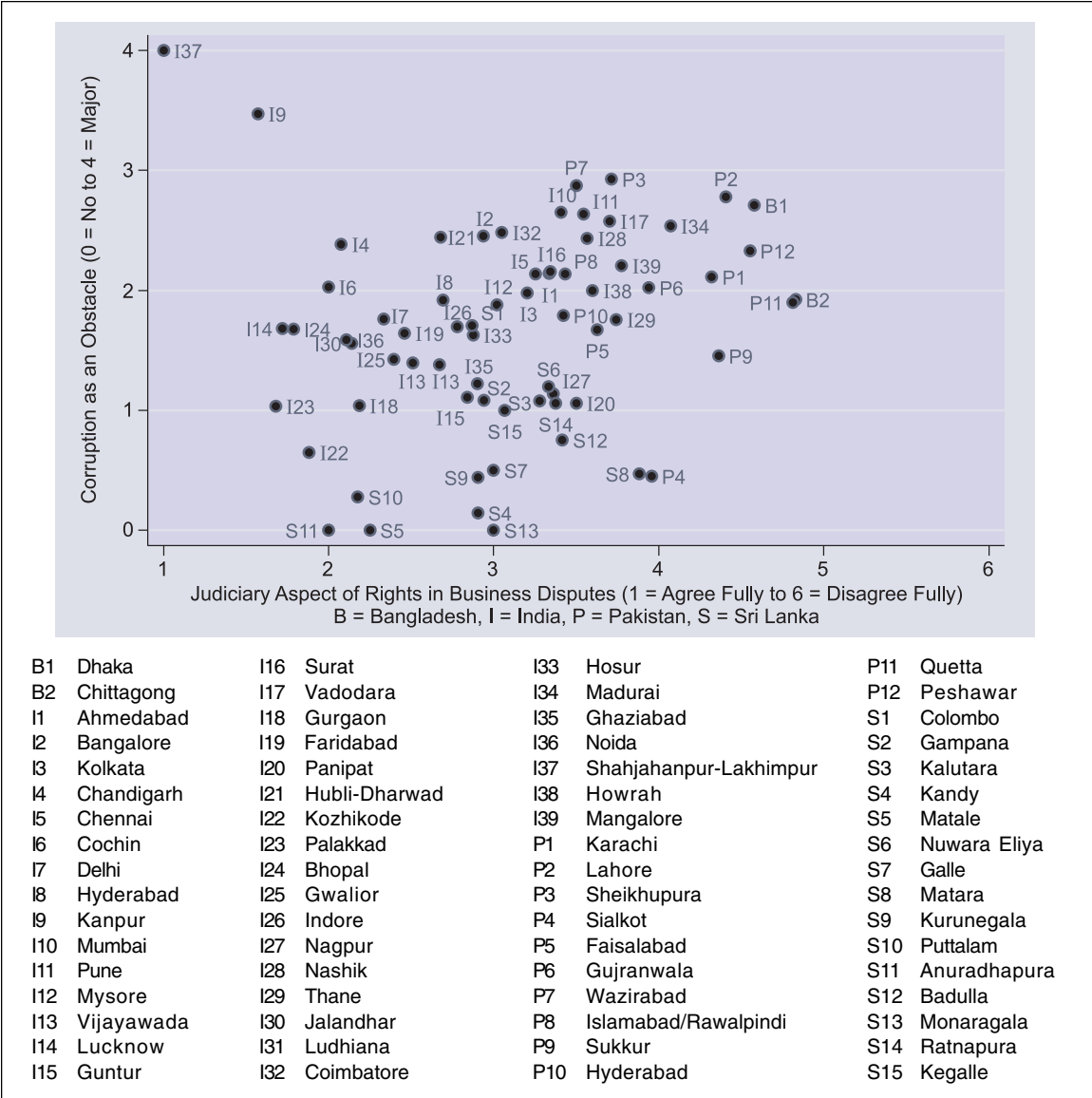
They find great diversity on institutional performance within South Asia. Bangladesh, Sri Lanka, and Pakistan have better contracting institutions compared to India, but India has better property rights institutions. They find that property right institutions are more critical, relative to contracting institutions, to growth in South Asia.

The poor performance of countries such as Bangladesh on corruption based on the views of firms in these countries suggests that this is an area where reforms, although difficult, are likely to have substantial impact. The evidence for India points to deficiencies in contracting institutions, which can be interpreted more broadly as failures in the overall regulatory environment. While cross-country evidence suggests that institutional weaknesses in this dimension have smaller development impacts than do property rights institutions, this does not mean that there are no returns to improvements in this area. In fact, firm-level evidence suggests that firms need to develop alternative strategies to circumvent weak contracting institutions, and it is likely that these alternative strategies are inefficient compared with the benchmark of good contracting institutions.

Do institutions vary within countries? Fernandez and Kraay investigate this using firm level data. Figure 1.5 shows on the horizontal axis the judiciary aspect of rights in business disputes as the proxy for contracting institutions, and it shows on the vertical axis the importance of corruption as an obstacle to business. As indicated by the labels, the data points in the figure represent each of the cities in Bangladesh, India, Pakistan, and Sri Lanka. Each data point corresponds to an average at the city level of the firm-level measures of contracting and property rights institutions.

The striking feature of Figure 1.5 is that there is tremendous variability of institutional quality within countries. For India, variability in institutional quality within the country exceeds variability across countries. India has some of the best and worst performers on institutional performance in South Asia. The city of Kanpur in the state of Uttar Pradesh (a lagging region) in India has the worst performance on property rights in the region, while Kozhikode (Kerala) and Gurgaon (Haryana), both leading states, do well on institutional performance. The measure on institutional quality is worse according to the firm-level measures than according to the cross-country measures (Figure 1.5).

However, there remains the major question of how South Asia sustained high growth rates despite weak institutions. A large part of the answer is that South Asia has performed very well in implementing major policy reforms that are good for growth (Ahmed, 2006). So, making a sharp distinction between good policies and good institutions is not very helpful because policies and institutions are interrelated through a time dimension. Many good policies can be implemented immediately



**Figure 1.5: Contracting and Property Rights Institutions Across Cities: Bangladesh, India, Pakistan and Sri Lanka**

Note: City averages of the variables judiciary respects rights in business disputes and corruption as an obstacle to business from the PICS data are shown.

while institutions are built over time. Sustained good policies help build institutions. Indeed, it can be argued that not all institutions are weak in South Asia (Subramanian, 2006). Many of them have improved over time with the implementation of the first-generation policy reforms. First, aspects of market creating institutions improved

starting in the 1980s, as the policymakers substituted planned allocation with market-based allocation of resources. Global integration also helped to strengthen market creating institutions. Second, market stabilising institutions improved as the policymakers strengthened economic management. The good aspects of the market stabilising institutions have resulted in South Asia averaging one of the lowest inflation rates in the world. Output variability in South Asia over the period 1960–2000 has also been low compared to other regions. Third, institutions on conflict management have helped to avoid extreme outcomes in South Asia, such as famines (Sen, 1981), or the disintegration of states (for example, Soviet Russia, Yugoslavia, and Sudan). Some researchers have credited South Asia with achieving large growth responses with small policy changes. It is the underlying institutions that helped magnify the effect of policy changes on growth. Governance institutions have improved as a result of the increased role of the civil society, access to information, and education.

In conclusion, the first-generation policy reforms aimed at maintaining a stable macroeconomy, strengthening the role of the private sector, reducing the scope of the state, and global integration have contributed to growth. However, while the role of state has been curtailed, the effectiveness of the state has not improved. Cost of doing business and corruption are still high in South Asia. The delivery of basic services has not improved as much as needed in South Asia (as an example of the Indian case, see World Bank, 2006b). Inequality is on the rise. The second-generation policy reforms will need to focus on improving the effectiveness of the state.

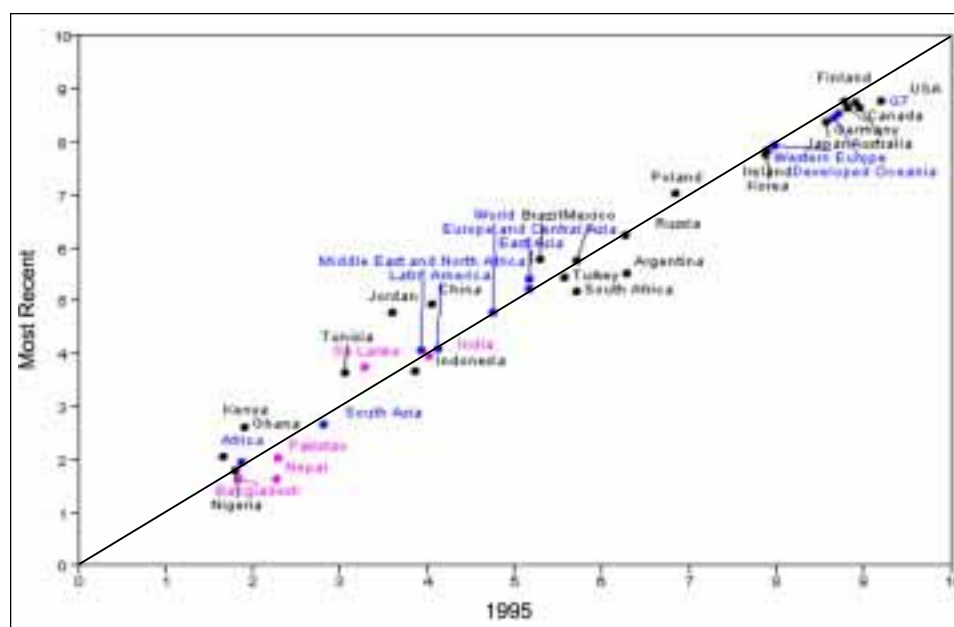
## **Knowledge**

The generation and application of new technology, knowledge, or ideas is widely acknowledged to be a crucial driver of growth and competitiveness (Romer, 1993). Given the rapid rate of development and dissemination of new knowledge globally, low capital and labour costs can no longer be viewed as the only drivers of competitiveness and growth. Although they continue to be important, new drivers of competitiveness have emerged, including the ability to rapidly redeploy resources in order to capture new opportunities; ensure the quality, skills, and flexibility of labour force (and management); keep up with rapidly changing technological and organisational advances; move to higher value parts of value chain (research/design and marketing, branding, and managing of customer information); make effective use of information technologies to reduce transactions costs; and improve capacity to respond quickly to changing opportunities and threats.

Chapter 5, on technology, skills, and innovation by Carl J. Dahlman, compares South Asia with the rest of the world on different indicators of knowledge economy. The key indicators of knowledge economy include:

- Education
- Innovation
- Information infrastructure
- Institutional regime governing knowledge

South Asia does poorly compared to other developing regions, except Africa, on knowledge economy (Figure 1.6). Within South Asia, India does the best, although it does not show improvement over time. Its higher knowledge economy index is largely due to its high index on innovation, given the large absolute size of scientists and engineers in research and development (R&D) as well as the absolute volume of scientific and technical publications.<sup>2</sup>



**Figure 1.6: Overall Knowledge Economy Index for South Asia: 1995 Versus the Most Recent**

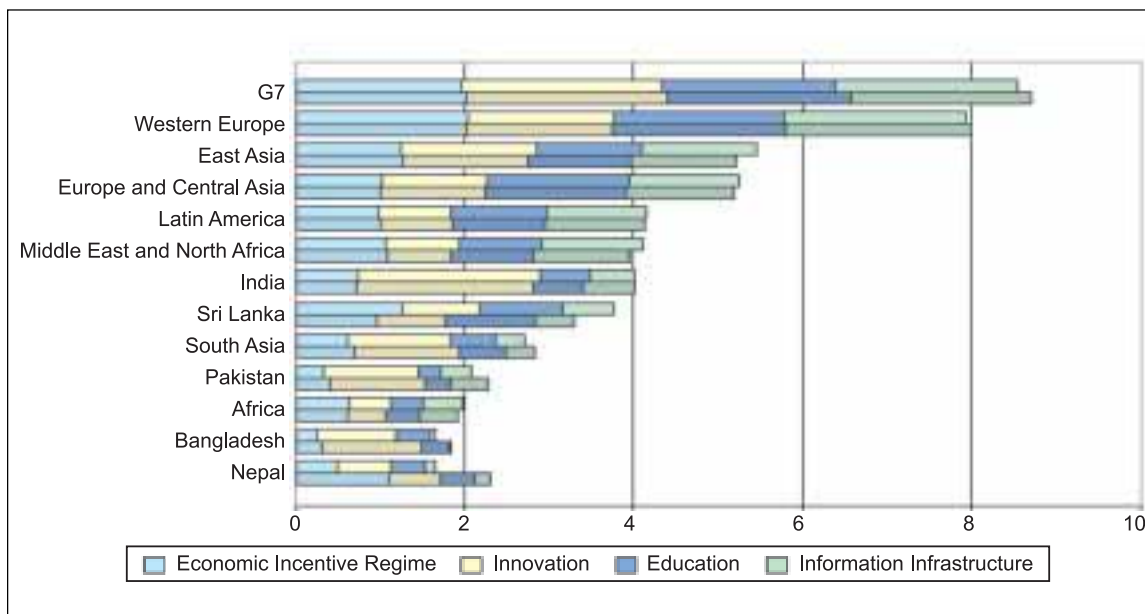
Source: [www.worldbank.org/kam](http://www.worldbank.org/kam), Carl J. Dahlman (see Chapter 5).

Note: The horizontal axis represents the relative position of the country or region in 1995. The vertical axis represents the position in the most recent years (generally 2000–3). The graph is split by a 45 degree line. The most advanced countries are on the north-eastern section of the diagonal. But the position relevant to the diagonal is also critical. Those countries or regions that are plotted below the line indicate a regression in their performance between the two time periods. Countries or regions that are marked above the line signify improvement between the two time periods, while those countries that are plotted on the line indicate stagnation. The KAM methodology allows the user to check performance in the aggregate knowledge economy index (KEI), as well as the individual pillars that define them: economic incentive regime, education, and information communications technologies, and the innovation index. This figure has been computed using the unweighted variables for the innovation index.



Sri Lanka is the second highest among the South Asian countries, and it shows some improvement over the period. The biggest improvement is in the economic incentive and institutional regime, where it gets the highest ranking among the South Asian group. It made significant improvements in the information and communication technology (ICT) index where it moves from second to first. While it makes a small improvement in the innovation index, it actually loses ground in the education variable even though it still remains the highest in education among the group.

Pakistan, Bangladesh, and Nepal all lose ground in the aggregate knowledge economy index (KEI). Most notable is the sharp fall in the economic incentive regime in Nepal which considerably pulls down its overall average. Nepal also loses in the ICT indicator. Pakistan also loses in the economic incentive, and in the ICT indicator as well as in the education indicator, and ends up with the lowest score among the group in the later. Bangladesh slips most in the innovation index and also slips in the economic incentive regime, but makes some gains in the ICT and a smaller gain in the education index (Figure 1.7).



**Figure 1.7: Comparison of KEI Component Parts for World Regions with South Asian Countries (Most Recent in Top Line, Compared to 1995 Bottom Line for Each Group)**

Source: [www.worldbank.org/kam](http://www.worldbank.org/kam).

Note: The top bar represents the most recent aggregate KEI score for a selected region or country, split into the four KE pillars. Each colour band represents the relative weight of a particular pillar to the overall country's or region's knowledge readiness, measured by the KEI. The first line for each country is its position in the most recent years for which data are available (generally 2002–3). The second line is for 1995. This figure has been computed using the un-weighted variables for the innovation index.

Education is becoming more important because of the increase in speed of the creation and dissemination of new knowledge. Education is the fundamental enabler of the knowledge economy and a key to long-term competitiveness and growth. What is critical is no longer just basic or even secondary education, but higher education and the constant upgrading of skills. This is a challenge for all countries of the world but especially for South Asia.

The development of a knowledge economy demands a flexible education system. It begins with basic education that provides the foundation for learning; continues with secondary and tertiary education that develops core, including technical skills; and encourages creative and critical thinking that is key to problem solving and innovation, extending into a system of lifelong learning. Such a system is one that encompasses learning from early childhood to retirement and includes formal training (schools, training institutions, and universities) and non-formal learning (on-the-job training, and skills learned from family members or people in the community). The basic elements of such a system are comprehensiveness, new basic skills (acting autonomously, using tools interactively, and functioning in socially heterogeneous groups), multiple pathways, and multiple providers (Figure 1.8).

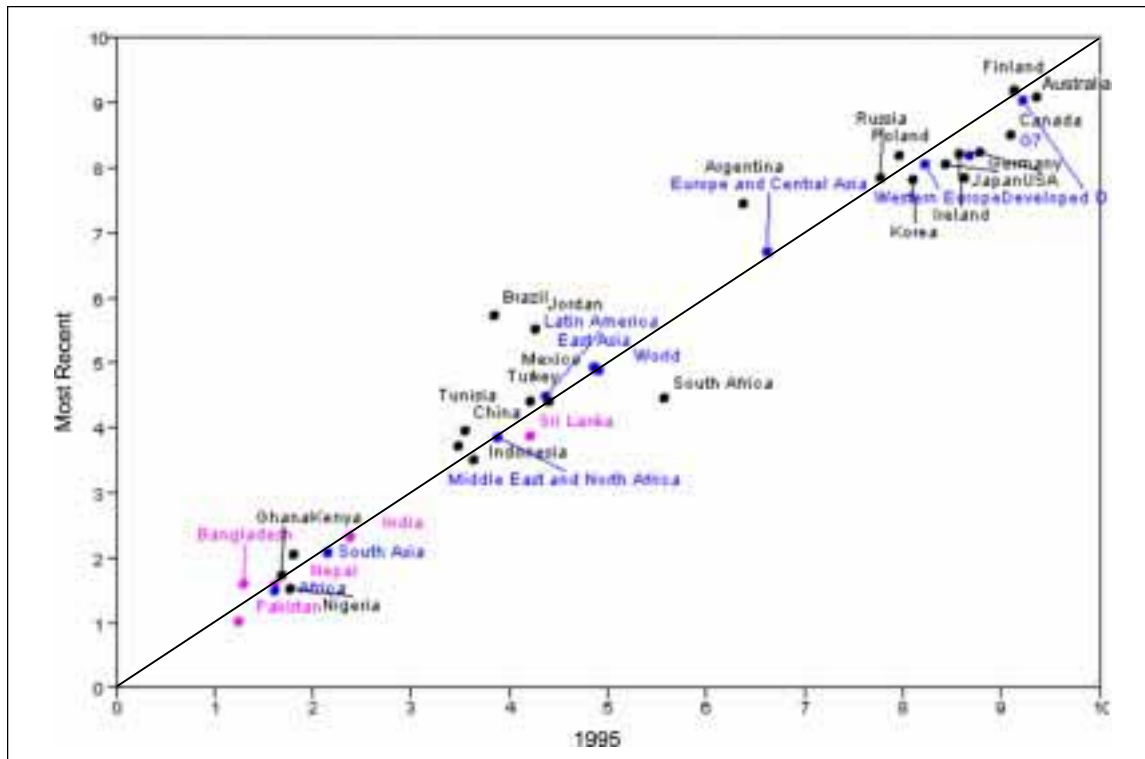


Figure 1.8: South Asia on Education

South Asian countries are in a relatively weak position in terms of education and skills. As a group they have high illiteracy rates, low enrollment ratios at the secondary and tertiary levels, very low average educational attainment among the adult population, extremely low percentage of professional and technical workers among the labour force, low quality of math and science education, little staff training even among firms in the modern sector, and a serious problem of emigration of the highly skilled workers.

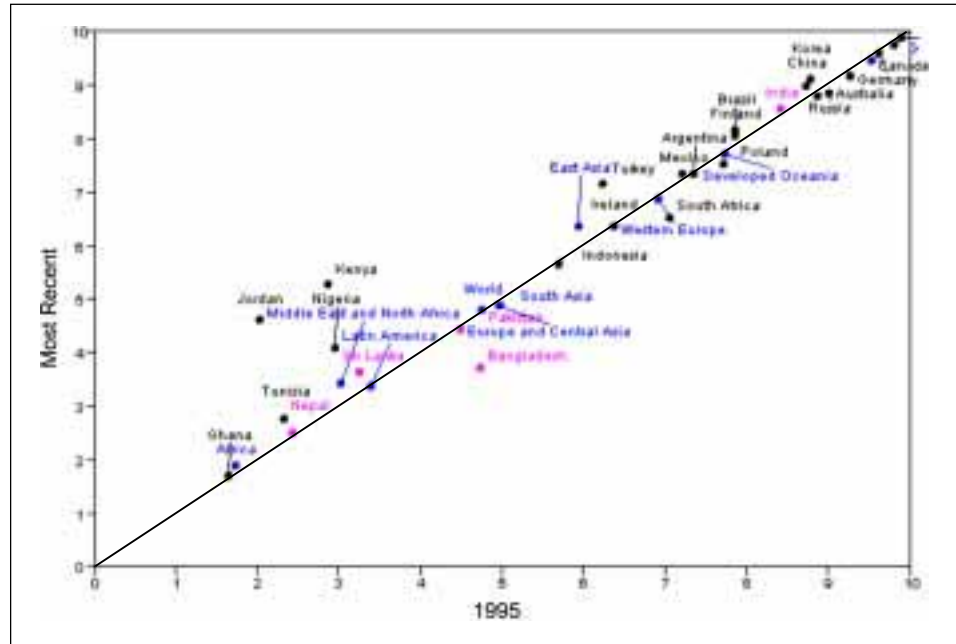
There is considerable variation with the South Asia region. Nepal and Bangladesh are much weaker on all the variables. Pakistan ranks somewhat better. Sri Lanka and India score much higher. Sri Lanka has the highest literacy, enrollment rates, and average educational attainment.

However, India is ranked higher in terms of the quality of science and math education, extent of staff training, and availability of management education. India has the world-renowned Institutes of Technology and Institutes of Management, which produce world-class graduates. These institutes, along with many other lesser known regional colleges, have given India a critical mass of highly skilled people. These high quality English-speaking human resources are a large part of the reason why India has been able to develop the information technology export services that have moved up from simpler back office functions and call centres to software design and innovation services. Many of the highly skilled Indians have immigrated to the United States and Europe in search of higher paying jobs. However, some of this brain drain has been turned into a brain gain as they have started to outsource highly skilled services from India.

This strong high-skilled information and communication technology (ICT) service sector has not developed in the other South Asian countries because of their smaller scale and less prevalence of English in their education systems. However, this is a very small sector in India relative to its total population, and the average levels of educational attainment are also very low. Therefore, improving education and skills is a challenge for all the South Asian countries including India.

Innovation is another important element of competitiveness and growth as there is greater mobility of factors, products, services, and knowledge. The innovation system plays an important role in acquiring, creating, adapting, and disseminating knowledge, which is crucial for success in the knowledge economy. It consists of the network of institutions, rules, and procedures that affect how the country acquires, creates, disseminates, and uses knowledge. Innovation in a developing country does not just concern domestic development of knowledge on the global frontier. It also concerns the application and use of existing knowledge to the local context. For the countries of South Asia, which are still far behind the global frontier in many sectors, tapping into and making effective use of existing global knowledge will likely have a

greater economic impact than directing most of its resources to develop frontier knowledge, no matter how prestigious the latter may be (Figure 1.9).



**Figure 1.9: South Asia on Innovation**

As a region, the South Asian countries do better on the innovation pillar than on any of the others, and that is largely because of the capabilities of the large countries, India in particular, but also Pakistan and to a lesser extent Bangladesh. The main strength comes from the large absolute number of scientists and engineers in R&D as well as the number of scientific and technical journal articles. Bangladesh also has strength in the high science and engineering enrollment ratios in higher education, although this advantage is diluted by the very low tertiary enrolment rates.

Another area of relative strength is a strong state of cluster development, although this is mostly concentrated in India (where it includes not just IT services but pharmaceuticals, textiles, and metal engineering industries), Pakistan (medical instruments, sporting goods, textiles, and garments), and Sri Lanka (textiles and garments).

The overall formal R&D effort of the South Asian countries is very small. R&D expenditures as a share of GDP average 0.48 per cent, with a high of only 0.78 per cent in India. In general, the vast majority of the research done in the South Asian economies is done in public R&D laboratories. An area where India shows some strength though is in patenting. India has a large public research network and recently

there have been some reforms that are strengthening the incentive regime to produce more commercially relevant output.

The private sector, with the exception of some of the larger Indian groups, does very little research. In addition, the relatively little research done by the public sector is not commercially relevant, and there are poor mechanisms to get it out to the productive sectors. It is also generally quite burdensome to start up new businesses particularly technology-based business that face the additional challenge of raising funds for risky new technology projects. The overall business environment is somewhat more supportive in Sri Lanka. Another area of weakness of the innovation system in the South Asian countries is the poor links between university and company researchers. This is a little stronger in India than in the other countries, but is still quite weak by the standards of developed countries.

However, not all innovations are done through formal research. In all countries there are informal innovation efforts. In India some of these efforts are being collected through an organisation called the Honey Bee network, which has documented more than 12,000 small indigenous innovations, mostly in the agricultural sector. Furthermore, the government is beginning to pay attention to supporting and scaling up this indigenous effort.

All five countries with a partial exception of Sri Lanka, however, do not draw very much on global knowledge. This is revealed by the very low share of foreign direct investment to GDP, which is just a fraction of 1 per cent for all countries except Sri Lanka (where it is 1.4 per cent), and by very low formal purchase of foreign technology as shown by very low royalty or licensing fee payments (US\$0.33 per person in India where it is the highest followed by US\$0.12 in Pakistan, and virtually nil in the others). This contrasts with the situation of East Asian countries where the average share of gross direct foreign investment as a share of GDP is 8.26 per cent and the average royalty and licensing fees per population are US\$30.82. In addition, with the exception of Sri Lanka, the share of manufactured trade (imports and exports as proxy for access to embodied knowledge and pressures to keep up with global technology) in GDP is less than 25 per cent (and in India it is only 13 per cent) compared to an average of 99 per cent for East Asian countries.

In conclusion, the South Asian countries are significantly behind the global frontier in education and innovation and ICT. There is considerable diversity among the five South Asian countries. India is clearly ahead in its skills, technology, and innovation capability because of its much larger size and the critical mass in the absolute number of highly skilled population, number of researchers in R&D, resources allocated to R&D, and the vast network of public research laboratories, universities, and large private companies that are already undertaking research. Nepal is at the other extreme because of its very small population, much lower per capita income, and much less developed technology infrastructure.

There are many generic actions that are similar across the South Asian countries, and all the countries share the need to find more effective ways to extend education and technology to the large part of their population that is outside the modern economy. Sharing the experiences that each country has in dealing with the issues identified would be very beneficial to others. In addition, countries that are less advanced in a particular area could learn from those that have more experience of successful programmes in that area. There is also scope for collaboration across countries in tackling similar issues and even in doing joint research on common problems. An excellent example of such knowledge sharing across a region as well as a formal framework for joint research is given by the European Community's programme in education and in research. Besides regional collaboration, the key policy actions needed to strengthen knowledge economy and competitiveness include improving the economic incentive and institutional regime, strengthening education and skills, tapping global knowledge, and networking and collaboration.

## **Infrastructure**

Modern infrastructure, particularly electricity, telecoms, and roads, is critical to economic development. As noted earlier, a part of the reason for high cost of doing business in South Asia is the inadequacy of infrastructure. Electricity provides light, the ability to use modern equipment, computers, and access to ICT. Telecoms facilitate information exchange and access to the rest of the world, while transport infrastructure is critical for trade and by lowering transport costs extends the market and increases competition. Studies of the productivity of infrastructure suggest that infrastructure has strong complementarities with other human and physical capital. If there is a surplus of infrastructure, more investment adds little to total output, but if there is a deficit, then shortages constrain total output, magnifying the impact, so that the return to reducing that deficit can be very high indeed. In Chapter 6, David Newbery deals with South Asia's challenges in the provision of one major infrastructure service, electricity.

Firm level surveys of investment climate, as mentioned earlier, have identified infrastructure, particularly power, as a major constraint to growth in South Asia. The concern on lack of electricity is striking in South Asia compared to other regions in Asia. In India, for instance, investment climate surveys have found that, on average, manufacturers face almost 17 significant power outages per month versus 1 in Malaysia and less than 5 in China. In Pakistan, the typical business estimates that it loses 5.6 per cent in annual sales revenue owing to power outages against a reported loss of 2 per cent by its Chinese counterparts. In Bangladesh, the most frequent common complaint is the constraint imposed by the poor electricity system.

Cross-country data reinforce the findings of the firm level surveys. Despite some recent improvements, infrastructure coverage and quality in the region do not compare

well with the rest of the world. South Asia ranks the last among all world regions in terms of road density, rail lines, and mobile tele-density per capita. It is slightly ahead of the Sub-Saharan Africa region in terms of mainlines coverage, electricity, improved water sources, and sanitation. South Asia is the only region in the world that has no city that can provide 24/7 piped water. Poor transport and communications still hinder the integration of many rural areas into the wider economy. For example, in Pakistan urban tele-density is 28 per 1,000 households versus 0.9 for rural areas. Rural access to all-season roads is as low as 39 per cent in Bangladesh and 30 per cent in Nepal.

When compared to its neighbour East Asia and the Pacific (EAP) and one of its main economic competitors China, South Asia region and India have significantly stayed behind in terms of infrastructure expansion and improvement. The gap in infrastructure coverage between South Asia and East Asia has enlarged more dramatically in the past decade. While in 1980 India was characterised by higher levels of infrastructure coverage (that is, electricity, paved roads and mainlines), during the 1990s China poured substantial investments in infrastructure and overtook India and South Asia infrastructure coverage by 2002. Were the region to try to reach China's present level of infrastructure stocks per capita by 2015, it would have to invest more than 12 per cent of GDP each year for the next 10 years (Table 1.3).

The challenges involved in addressing the infrastructure deficit, and in particular the shortcomings in policies and service delivery that has led to this infrastructure deficit, is enormous. The politicisation of tariff setting for services has led to prices well below costs, and those services are not well targeted to the poor.

**Table 1.3: Infrastructure Stocks in South Asia, East Asia, and China, 2003**

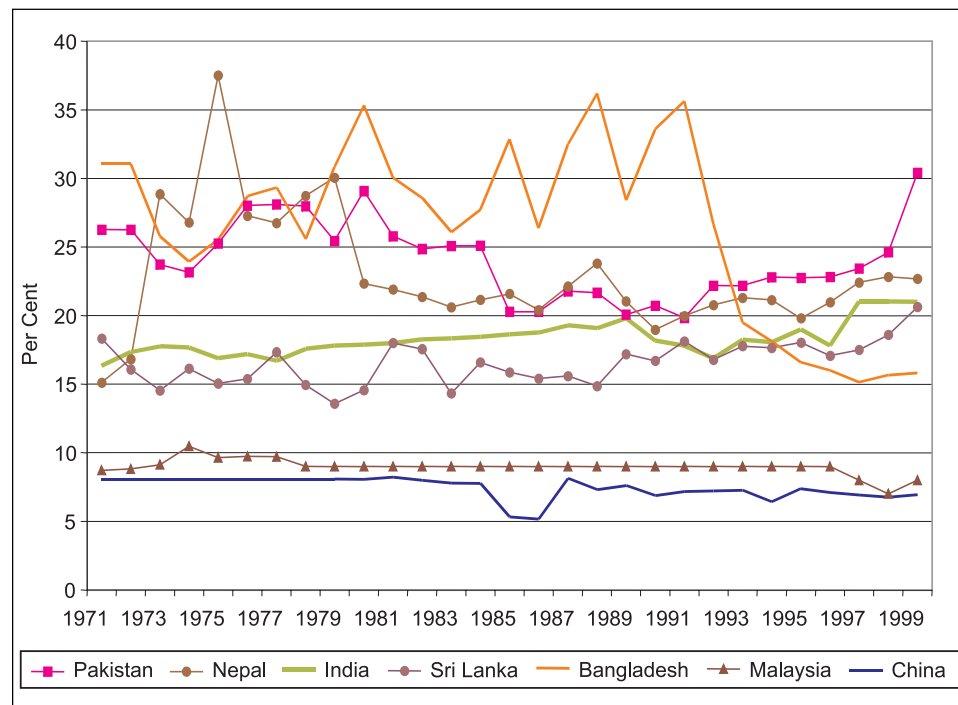
<i>Sector</i>	<i>India</i>	<i>China</i>	<i>South Asia</i>	<i>EAP (2000)<sup>a</sup></i>	<i>Latin America and the Caribbean</i>
Electricity generation capacity (million kilowatts)	126.3	356.1	151.9	66.5	
Paved roads (km per 1,000 km <sup>2</sup> )	267.2	171.6	227.5		
Rail routes (km per 1,000 km <sup>2</sup> )	19.2	6.3	14.6		
Mainlines (lines per 1,000 hab)	46.3	209.0	38.9 (35)	49.0 (76 in 2003)	192.0
Mobile (lines per 1,000 hab)	24.7	215.0	22.6 (37)	48.0 (96 in 2003)	249.0
Access to improved water <sup>b</sup> (per cent of population)	88 (86)	77.0	86 (72)	75.0	90.0
Access to improved sanitation (per cent of population) <sup>b</sup>	34 (30)	44.0	39 (48)	60.0	77.0

*Sources:* EAP Infrastructure Flagship, *World Development Indicators*, and SASEI databases.

*Notes:* (a) Infrastructure stocks for EAP countries do not include stocks of China. (b) Water and sanitation figures correspond to 2002.

Regarding electricity supply, Newbery notes that while not all South Asia countries suffer from the same problems, as a generalisation the region has inherited the legacy of state-owned vertically integrated electricity supply industries, often with the characteristic politicisation of tariff setting that leads to excessively cheap electricity to domestic consumers, high levels of non-technical losses (that is, theft or failure to collect bills), high levels of debt or arrears, high levels of manning, and poor commercial performance (as measured by the ability of revenues to cover costs). As a result, it is difficult for the sector to finance its investment needs on commercial terms. The shortage of revenue leads to poor maintenance with frequent equipment failures (for example, as measured by transformer failures and low generation availability), resulting in power shortages and load shedding. Figure 1.10 gives time series of losses, although for India these are considerably below those reported by various states.

Prompted by the apparent success of reforms in Latin America, many South Asian countries in the region have considered or embarked upon reform programmes to allow private investment in the sector. The main obstacle to private investment is the fear that once the investment is sunk, it will not be allowed to earn a remunerative



**Figure 1.10: Electricity Losses in South Asia and China**

Source: World Bank, 2002, David Newbery (see Chapter 6).



return. The electricity sector is particularly problematic as private investors supply an essential service directly to a large fraction of the voting population in competition with underpriced supply from the state-owned sector. As prices will have to rise to ensure that the investments are remunerative, the price rise will be associated with the reforms that brought in private investors, and will be doubly resisted on that account. Many of the current beneficiaries of opaque accounting, cross-subsidies, patronage in the appointment of regulators and senior management, and so on will have an interest in preserving the status quo, including the low prices that deter efficient commercial competition.

There remain reasons for being optimistic. Governments are increasingly confronting the challenges of poor sector performance. In the power sector, South Asia provides examples of innovative approaches to expanding rural access and to improving performance, including cooperative rural schemes in Bangladesh, and a thriving private sector playing an extensive role in small scale renewable-based power in Sri Lanka.

Perhaps the main leadership role that governments in the region could contribute would be to agree and enforce a regional energy charter to underwrite increased energy trade. Such steps have been effective in integrating the transition countries of Central Europe into the European Union, and stimulating foreign direct investment (FDI) into the power sector, and might have similarly stimulative effects in South Asia, quite apart from creating profitable trade opportunities and increasing regional security of supply and greater resilience against external oil shocks. Opening access to industrial customers would help assure the financial viability of investments in cross-border infrastructure.

In conclusion, South Asia can sustain high growth provided it can aggressively manage the downside risks arising from a poor investment climate, weak institutions, weak knowledge economy, and a poor infrastructure. At the same time, it needs to complete any remaining agenda on global integration and macroeconomic stabilisation.

We now turn to the second issue, which deals with the role of regional integration in supporting high growth in South Asia.

## ■ Is Regional Integration Desirable?

Regional integration can promote growth through several channels: agglomeration benefits, increased investments as a result of enlarged markets and economies of scale, flow of information and technology and knowledge spillovers, increased foreign direct investments, and deeper integration through regulatory cooperation and harmonisation. These benefits of regional integration typically materialise when external protection is low or when integration is between north-south rather than south-south (Hoekman and Schiff, 2002). When external protection is high, trade diversion dominates trade creation. Countries are more likely to benefit from north-south

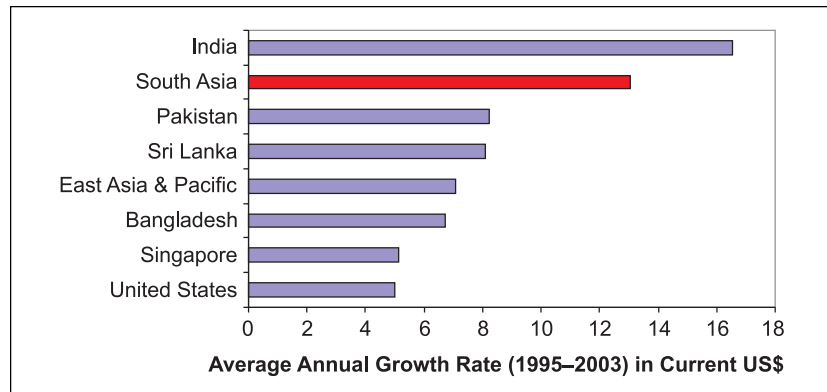
integration because endowment differences are larger between north-south, and this will encourage countries to exploit their comparative advantages better. Knowledge and technology spillovers are also likely to be higher between north-south. Since institutions that protect property rights and promote competition are likely to be superior in industrialised countries, north-south integration is likely to generate more benefits from deep integration. But regional integration can also provide opportunities that are unlikely to be addressed between north-south, and where a case can be made for a regional approach (for example, energy trade, transport and trade facilitation, and reduced conflict and friction).

This section examines whether regional integration is desirable for South Asia. Is there evidence on agglomeration benefits arising from integration in South Asia? Is trade preference in South Asia likely to lead to trade diversion rather than trade creation? What role can regional cooperation play in addressing energy shortage in South Asia? Can integration play a role in ensuring that lagging regions and landlocked countries have full access to markets?

### **Agglomeration Benefits**

There is not much evidence on agglomeration benefits from regional integration in South Asia, at least not in the manufacturing sector, although a potential role for it in the services sector can not be ruled out. Unlike East Asia and the European Community, South Asia has not benefited from the neighbourhood effects of regional integration. The benefits of integration are clearly evident in the manufacturing sector in East Asia, where production networks have been formed within the region to take advantage of economies of scale, specialisation, and agglomeration. The literature on new trade theory, new growth theory, and new economic geography all highlight the role that integration can play in enhancing productivity and growth by taking advantage of economies of scale and specialisation, which, in turn, could give rise to agglomeration at the regional level (Feenstra, 2006; Massahisa et al. 1999).

Unlike East Asia, South Asia appears to have done well in the services sector, benefiting from outsourcing and specialisation. South Asia is the fastest growing region in the export of services. Exports of services from South Asia grew at 14 per cent per annum over the period 1995–2003 compared to less than 8 per cent for East Asia (Figure 1.11). It is not only India that did well, but Pakistan and Sri Lanka, too, which have grown faster than East Asia in service exports. Bangladesh services exports have also grown fairly rapidly, averaging about the rate in East Asian economies. India and Bangladesh have performed well in the exports of computers and information communications and other commercial services, while Pakistan has done well in the export of transport services and Sri Lanka in travel services.



**Figure 1.11: South Asia Has Done Well in Service Exports**

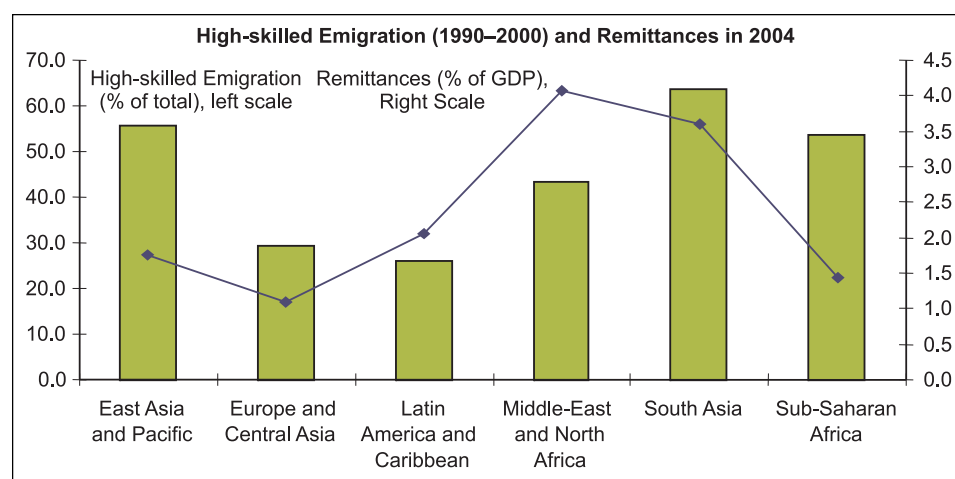
There are two different channels through which services can be exported. It can be outsourced to another country or labour can migrate to produce the services in that country. We do not have data on labour migration by sectors, but we have data on the skill composition of labour migration and remittances inflow. Remittances inflow and the skill composition of labour migration are other crude indicators on South Asia's performance on exports.

First, as a region, South Asia has the largest ratio of remittances to GDP. This ratio significantly exceeds FDI inflows. Inflow of remittances into South Asia has in many respects performed the same functions for South Asia as FDI inflows have done for East Asia. It is an important source of capital and ideas for the region.

Second, global demand for South Asian skills is high, as reflected by the skill composition of labour migration to Organisation for Economic Cooperation and Development (OECD) countries. Nearly 64 per cent of the labour force that migrates out of South Asia to OECD belongs to the high skill category. This ratio is significantly higher for South Asia compared to other regions. The proportion of workers that migrate out of South Asia to OECD countries with low skills is small compared to the medium and high skill categories.

Why did East Asia benefit from outsourcing in the manufacturing sector while South Asia seems to be doing the same in the services sector? This question cannot be fully addressed here. In part, the growth of the manufacturing sector in South Asia was constrained by poor physical infrastructure. But infrastructure was not a binding constraint for the services sector. English language and IT skills strengthened the competitiveness of South Asia in the services sector. The services sector in South Asia has also benefited from a relatively liberal regulatory regime, which attracted FDI and the flow of ideas and technology from abroad (Figure 1.12).

However, service exports from South Asia are largely global and not regional. Like the manufacturing sector, services sector also benefit from economies of scale



**Figure 1.12: Remittances Inflow and Skill Composition of Labour Migration**

Sources: *Global Economic Prospects*, 2006; World Bank, 2006d; and Docquier and Marfouk, 2004.

and specialisation. But transportation costs for the services sector are significantly low compared to the transportation costs in the export of manufactured goods. The Internet and modern telecommunication have resulted in the transportation cost of exporting IT services to the United States, for example, being no more expensive than transporting it to Sri Lanka. Nevertheless, there is a potential for South Asian countries to gain from liberalising regional trade in education, health, and tourism at the regional level.

## Trade

The acceleration in growth in South Asia took place in an environment of declining trade barriers. Table 1.4 presents data on exports and imports of goods and services as proportions of GDP. Export and import ratios rose in the South Asian countries

**Table 1.4: South Asia is a Recent Global Integrator: Exports and Imports of Goods and Services as Proportion of the GDP**

Country	Exports/GDP		Imports/GDP	
	1990	2004	1990	2004
Bangladesh	6.1	15.5	13.5	20.8
India	7.1	19.1	8.6	22.5
Pakistan	15.5	16.0	23.4	14.9
Sri Lanka	29.2	36.4	38.0	45.5
China	19.2	34.0	15.7	31.4
World	19.0	23.9	19.3	23.9

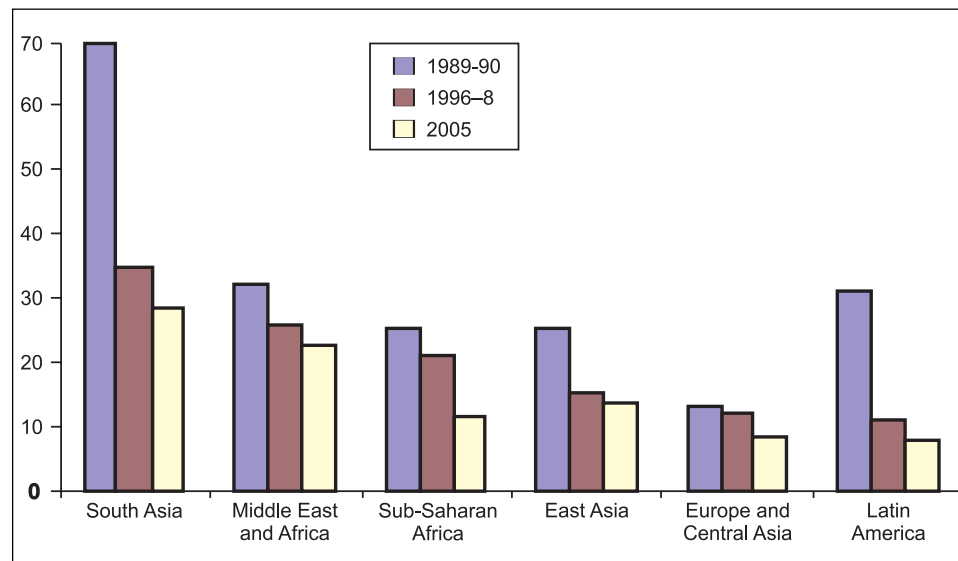
Source: World Bank, 2005a.

between 1990 and 2004, except the imports/GDP ratio in Pakistan. In India, exports/GDP ratio rose from 7.1 to 19 per cent and Imports/GDP ratio from 8.6 to 22.5 per cent. Likewise, in Bangladesh, exports rose from 6.1 per cent of the GDP in 1990 to 15.5 per cent in 2004 while imports rose from 13.5 to 20.8 per cent over the same period.

The collapse of the Soviet Union and the success of China under outward-oriented policies convinced the policymakers in the region that rapid growth could not be achieved without wholesale opening of the trade regimes. Unilateral trade liberalisation policies, which had begun to be introduced in the second half of the 1980s, were introduced on a more systematic basis in the 1990s. These changes contributed to a more rapid expansion of South Asia's trade with the outside world. But South Asia is still relatively protected. South Asia's export to GDP and import to GDP ratios are lower than the world average.

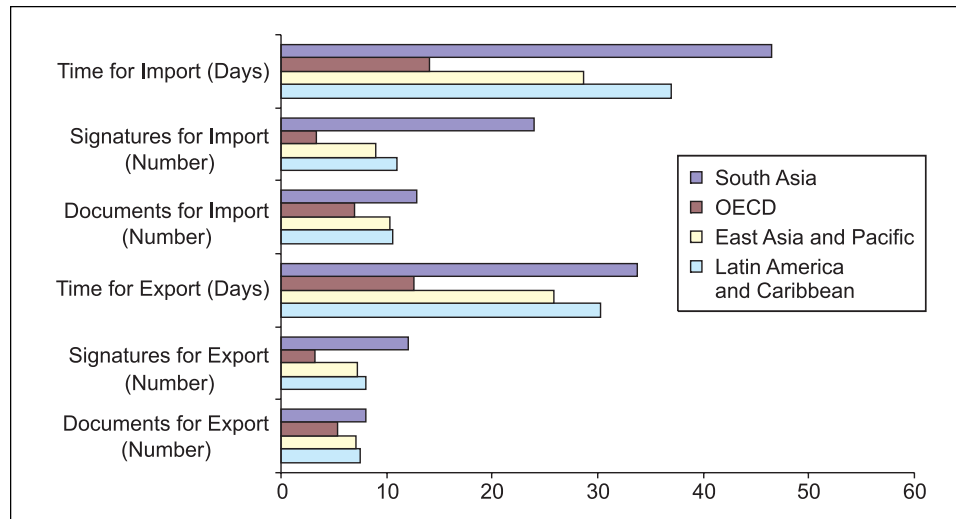
Import tariffs, though lower now, still remain high relative to other regions. Tariffs in South Asia for example in the mid-1980s were nearly 70 per cent on an unweighted average basis (Figure 1.13). Tariffs have come down in South Asia, from 70 to about 35 per cent in the 1996–8 period and to 28 per cent in 2005. But the rest of the world has liberalised even faster.

Although South Asia has significantly reduced import tariffs, the cost of trading across borders is one of the highest in the world for South Asia (Figures 1.14 and



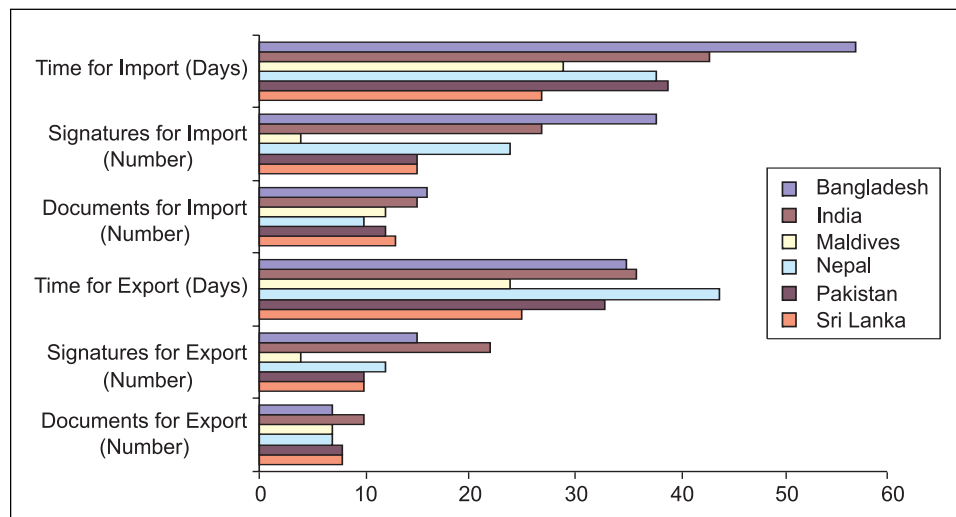
**Figure 1.13: South Asia Has Reduced Import Tariffs: Unweighted Average Tariffs, 1986–2005**

Sources: World Bank, World Trade Organisation, International Monetary Fund.



**Figure 1.14: Cost of Trading Across Borders for South Asia: An International Comparison**

1.15). Cost of trading across borders is the transaction costs involved in meeting the procedural requirements for exporting and importing; that is, the number of documents needed to export or import, number of signatures needed to export or import, and the number of days it takes to export or import. Often, costs of trading across borders can exceed other costs of doing business such as cost of getting credit, enforcing contracts, hiring and firing workers, or protecting investors. It takes



**Figure 1.15: Cost of Trading Across Borders for South Asian Countries**

on average more than 33 days to export from South Asia compared to 12 days from OECD countries and more than 46 days to import into South Asia compared to 14 days for OECD.<sup>3</sup>

Efforts to promote better regional integration and cooperation in South Asia have suffered from regional political conflicts, primarily between India and Pakistan. However, the prospects are improving albeit slowly. The umbrella regional cooperation entity South Asia Agreement on Regional Cooperation (SAARC) provides the overall regional forum for political level dialogue. Several agreements have been reached with varying degrees of implementation and mixed outcomes. One such agreement concerns the promotion of free trade through the South Asia Free Trade Agreement (SAFTA).

Will South Asia gain from SAFTA? SAFTA can potentially help reduce conflicts, and promote better political ties among neighbours, especially India and Pakistan, just like the European Economic Community, which joined France and Germany into a tight economic union. SAFTA can also help to switch trade from informal to formal channels (for example, the bulk of India-Pakistan trade is routed through Dubai, which is costly). SAFTA can become a forum for addressing the concerns of the landlocked lagging regions. However, in Chapter 7, Arvind Panagariya cautions against expending too much political capital in pushing SAFTA. He argues for South Asian countries to push multilateral trade liberalisation instead of focusing on regional trade agreements (Baysan, Panagariya and Pitigala, 2006; Newfarmer and Pierola, 2006).

Panagariya notes that SAFTA faces many challenges. First, a critical factor in determining whether SAFTA would raise or lower the real incomes of the South Asian countries depends on whether it will be predominantly *trade creating* or *trade diverting*. Thus, for example, when Bangladesh allows Indian cement to be imported duty-free and this leads the more efficient Indian cement industry to outcompete the less efficient Bangladesh cement industry, there is trade creation: Increased imports into Bangladesh represent a shift from high-cost Bangladeshi producers to low-cost Indian producers. On the other hand, if duty-free access to Indian computers into Bangladesh allows the less efficient Indian computer manufacturers to displace more efficient Korean suppliers who remain subject to the duty, there is trade diversion: Increased imports from India in this case represent a switch from low-cost outside sources to the high-cost within-union sources of supply. Some characteristics of the South Asia region (for example, small regional market relative to the world both in terms of GDP and trade flows, high level of protection among SAARC countries) increase the probability that SAFTA is likely to be largely trade diverting.

The second challenge is the political economy of the selection of excluded sectors and rules of origin. When countries are allowed to choose sectors that can be excluded from tariff preference of free trade, domestic lobbies make sure that the sectors in which they may not withstand competition from the union partner are the ones that

get excluded. On the other hand, lobbies go along with free trade in the sectors in which they are competitive and the preference will threaten the imports from outside countries. In the same vein, lobbies tend to go for tight rules of origin or outright quantitative restrictions in precisely those sectors in which they fear the competition from the partner most. On the other hand, when the threat is mainly to the imports from outside countries, they are willing to accept greater liberalisation. The rules of origin can also be subject to abuse by the bureaucrat administering them. In cases where imports from the partner may be threatening an inefficient domestic competitor, bureaucratic discretion may be employed to block entry of the imports.

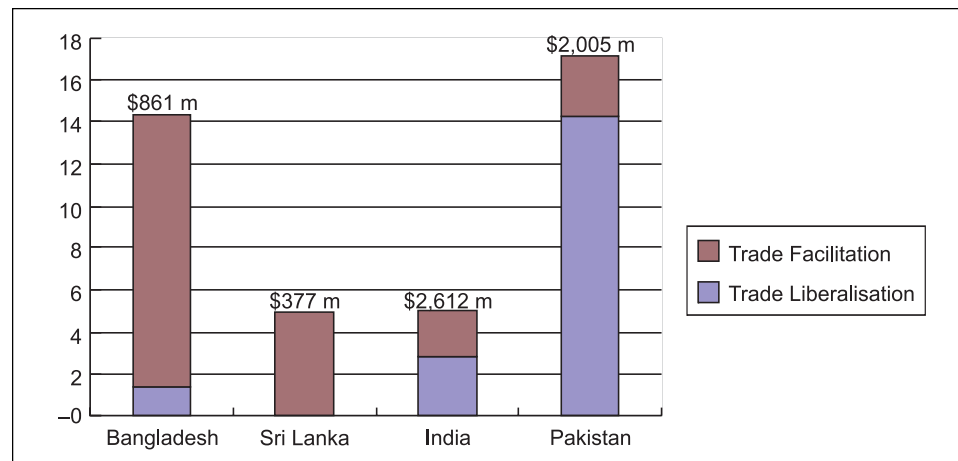
The reservations to the SAFTA based on sectoral exceptions and rules of origin were applied extensively under the Sri Lanka-India Free Trade Agreement. For example, the top 20 exports of Sri Lanka (to the world and not just India) at the 6-digit HS level accounted for 46 per cent of Sri Lanka's total exports in 1999. India subjects 15 out of these 20 products to either a tariff rate quota (meaning the tariff preference applies only up to a pre-specified quantity of imports) or negative-list exception. Thus, the exclusionary policies applied with potency to products in which Sri Lanka showed the greatest comparative advantage. The rules of origin and rules of destination requirements further restrict exports. For example, apparel exports from Sri Lanka are not only subject to the tariff rate quota of 8 million pieces but at least 6 million of these pieces should be manufactured from fabrics of Indian origin exported to Sri Lanka from India. Likewise, exports of tea from Sri Lanka at the preferential tariff are not to exceed 12.5 million kilograms within a calendar year. Both products are also subject to a uniquely South Asian restriction called the rule of destination: The preference applies only if the products enter through specific Indian ports.

The third challenge is that SAFTA overlooks the role of the services sector. The welfare effects of trade preferences for services are likely to be more positive compared to trade preference for goods, as preferential liberalisation in services leads to trade creation with little or no trade diversion. Loss of tariff revenue from services is less of an issue and it allows countries to take advantage of increasing returns to scale. Regulatory cooperation, of particular importance in services, may be more practical at a regional level rather than global level, as there is less of a free rider problem at the regional level. But purely on efficiency grounds, most-favoured national liberalisation is to be preferred, as it offers access to most competitive service providers and avoids complexity of negotiations, and other gains from trade (more intense competition, knowledge spillovers) are likely to be bigger if liberalisation is non-discriminatory. Nevertheless, certain forms of regulatory cooperation (air service agreements, recognition of educational qualifications, and mutual recognition of standards) are more feasible and desirable within a smaller group of countries. If regional agreements create large markets and do not impose stringent ownership-



related rules of origin, they may assist in attracting foreign direct investments (FDI) when economies of scale matter.

Who will gain from SAFTA? Smaller countries have more to gain as they will have access to the large and rapidly growing markets in India. The results of a gravity model, used to estimate the current level of trade, and potential or predicted trade from improving trade facilitation and trade liberalisation, are reported in Figure 1.16. Pakistan and Bangladesh have a lot to gain from trade liberalisation within the region, especially when these gains are measured as a proportion of their total trade. India also gains in absolute terms but it is small relative to its total trade. Bangladesh and Sri Lanka have the most to gain from improved trade facilitation, as measured by bringing the ports, customs, and other regulations in South Asia to the same level as in East Asia.



**Figure 1.16: Who Gains from SAFTA?**

*Source:* John S. Wilson and Tsunehiro Ostuki (see Chapter 9).

*Note:* Actual trade, value of trade recorded in the UN COMTRADE data; predicted trade, value of trade predicted by a gravity model.

### Lowering the Infrastructure Constraint through Regional Cooperation

Regional cooperation will play a crucial role in meeting the infrastructure needs of the region. Trade and cooperation in energy (see Table 1.5) and water will help the SAARC countries address some of the common problems they have in infrastructure. Particularly in energy, increased trade within SAARC and between SAARC and other regions can help meet the region's growing energy demands. Energy security is a major concern for the SAARC region, given its net energy imports position and fast-growing demand coming from the growing economies and the need to expand

**Table 1.5: Long-Term Potential for Energy Trade in South Asia**

<i>Countries/Regions</i>	<i>Afghanistan</i>	<i>Pakistan</i>	<i>India</i>	<i>Bangladesh</i>	<i>Sri Lanka</i>	<i>Nepal</i>	<i>Bhutan</i>	<i>Iran, Turkmenistan, Uzbekistan, and Tajikistan</i>
Afghanistan								
Pakistan	High (including transit trading)							
India	High (via third country)	High						
Bangladesh	Low	Low	High					
Sri Lanka	Low	Low	Medium	Low				
Nepal	Low	Low	High	Low	Low			
Bhutan	Low	Low	High	Low	Low	Medium		
Iran, Turkmenistan, Uzbekistan, and Tajikistan	High	High (direct from Iran and via third country)	High (via third country)	Low	Low	Low	Low	High

access. Persistent and recurring electricity and gas shortages in the region highlight this concern.

The national energy systems – gas and electricity networks – in the SAARC countries are largely isolated from each other. There are no gas pipelines crossing the national borders, whether within SAARC or between SAARC and its neighbours. Electricity interconnections exist but are limited to India-Bhutan, India-Nepal, and Pakistan-Iran interconnections. South Asia lags most other regions in terms of trade in electricity and gas. Western and central Europe have seen a big increase in energy trade in recent years, particularly with the introduction of competition in domestic markets. Both in North and South America there is substantial amounts of energy trade. This is also growing in Africa with the development of regional power pools, as well as in East Asia through the Greater Mekong. Trade should be seen not just within the countries of South Asia but also between SAARC and other regions.

There are complementarities in the seasonal and daily demand patterns, in the supply system characteristics, and in resource endowments. The complementarities in the resource endowments in the region include hydropower in Bhutan and Nepal and the northern regions of India and Pakistan (including in Kashmir), gas resources in Bangladesh, and coal in India. Extending this to the neighbouring areas adds hydropower of Central Asia and natural gas to Iran, Qatar, Turkmenistan, and Myanmar.

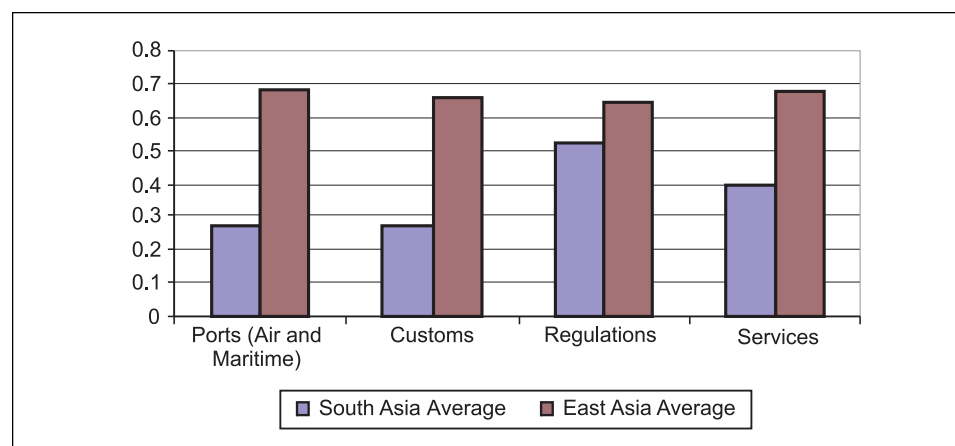
The economic potential of increased regional energy trade is well recognised and shared in the region. Indirect benefits include a larger market that is more attractive to local and global investors and businesses, faster economic development, and reinforcement to conflict resolution and confidence building measures at the political level. SAARC has initiated activities to increase energy cooperation. There are discussions on gas imports from Iran and Myanmar, and electricity imports from Central Asia and Iran. Cross-border investments in energy infrastructure are also being pursued in Bhutan, Bangladesh, and Afghanistan.

There are, however, at present significant barriers to increasing regional energy trade. Many of the barriers are political. With stronger political support, other barriers could be addressed more aggressively than the case has been. Given the positive impact of increased regional cooperation on the political process, this could result in an accelerating virtuous cycle, leading to a greater political stability and increased regional cooperation.

To benefit from regional energy trade, the SAARC countries will have to accelerate reform of their national energy sectors. Improving the commercial performance of utilities through better regulation and corporate governance, cost-reflective pricing of energy, non-distorting subsidy policies, and non-discriminatory access to transmission grids and to end-consumers will be important.

Better transport infrastructure is needed throughout the region, both within countries and between countries. However, streamlined procedures, reduced restrictions, as well as improved regional trade facilitation could possibly play an even greater role in generating substantially more trade (Figure 1.17). Chapter 8 by John H. Arnold and Chapter 9 by John S. Wilson and Tsunehiro Ostuki look at the role of trade facilitation in promoting export growth and inter-regional trade. Some of the impediments to trade at present reflect policies that increase border crossing times and enforce transshipment. The high transaction cost is a result of restrictive regulatory barriers (for example, complex customs and transit procedures, lack of standardisation, security checks) which are often characterised by uncertain delays, corruption, and smuggling. Crossings between India and Bangladesh are so heavily congested that queues often exceed 1,000 trucks on the Indian side with the result that crossing time can take 99 hours instead of 21 hours without delay. Trade can be more than doubled if appropriate regional agreements on roads, rail, air, and shipping are put in place enabling seamless movement.

Fluid transit arrangements have been developed in other regions that provide benefits for all parties, but South Asia seems stuck with borders that rupture transport systems. Of course, substantial increases in transit trade might require major investments in infrastructure. We should not lose sight of the opportunity for developing infrastructure to meet increasing interregional trade and potential traffic, for example, trade between India and China, transiting through India via Nepal, or Central Asian using gateways



**Figure 1.17: South Asia is Weak on Trade Facilitation**

*Source:* WMO database.

*Note:* A higher score implies better performance. Data on regulatory environment and service-sector infrastructure are not available for Pakistan. Ports, the quality of infrastructure of maritime and air ports; customs, administrative efficiency and transparency of customs; regulations, domestic regulatory environment; services, domestic service infrastructure.

developed through Afghanistan and the Pakistani ports. Of course, there is considerable scope for increasing the role of Bangladesh and the port of Chittagong in serving the transport needs of north-east India.

Better trade facilitation would reduce substantially the transactions costs of intra-regional trade. But streamlining transport and trade systems is also needed to facilitate interregional trade. As formal tariff barriers fall, transport-related costs are becoming one of the prime factors determining competitiveness. Many of South Asia's competitors have already dramatically reduced customs and port clearance times, South Asia risks being left behind. Privately managed port terminals, with international levels of productivity, are increasingly the norm, though Bangladesh remains an exception. But such terminals have to be complemented by full customs computerisation, port community IT systems, reliance on self-declaration and risk management systems, and streamlining of other non-customs trade-related procedures if South Asia is to make the transition from third world to first-class external transport systems.

Finally, one other area not covered in this volume where regional cooperation will have large pay-off concerns cross-border management of water resources. Watershed management and storage in Nepal would generate hydro and irrigation benefits in Nepal and flood control benefits in Bihar. Water storage in north-east India could provide hydropower and flood control in India and flood control and dry season water augmentation in Bangladesh. Similarly, there are significant cross-border water management issues between Afghanistan and Pakistan. High priorities include agreements between India and Bangladesh, and between Afghanistan and Pakistan on regional water issues.

## **Conclusions**

South Asia has experienced remarkable growth rate since the 1980s. This growth was triggered by reforms aimed at increasing global integration, improving macroeconomic management, and unleashing the private sector as the engine of growth. High growth rate, in turn, has created the interest in, and political space for, greater regional integration. This raises two issues of importance to the region: Is high growth sustainable? Is regional integration desirable?

Past growth was helped by the implementation of first generation policy reforms aimed at global integration, macroeconomic stabilisation, and reducing the scope of the state while strengthening the role of the private sector. These reforms have made South Asia more competitive, stable, and adaptable.

South Asia now faces increasing challenges from second-generation reforms. These include the high cost of doing business, weak institutions, weak knowledge economy, and poor infrastructure. Reforms in these areas are interrelated and hold prospects for large pay-offs. Increasing investment rates will require reducing costs of doing

business, improving institutions, and addressing the infrastructure constraint. South Asia also needs to expand its knowledge economy. Increases in both physical and human capital investments are needed to bring about the structural transformation of the economy, shifting unemployed and low-skill workers from agriculture and informal services (low productivity) to other sectors such as manufacturing and formal services (high productivity) which require high skills and better infrastructure. South Asia has begun to address the second-generation policy reforms and continued implementation will ensure sustainability of growth.

Is regional integration desirable? From the very narrow perspective of trade flows, the economic characteristics of the South Asia region, such as the small regional market relative to the world both in terms of GDP and trade flows, and the high level of protection, would suggest that focusing on regional integration alone will not generate the beneficial productivity and growth effects of integration. South Asia is a relative newcomer to global integration. Despite recent liberalisation, it lags other regions such as East Asia in terms of openness. When external protection is high, *trade diversion* is likely to dominate *trade creation*, and so the risks that regional integration will be a drag on growth in South Asia is high. History shows that a successful regional integration is often preceded by global integration.

Nevertheless, regional integration is desirable from other perspectives. Regional cooperation can be an effective tool in addressing energy shortage, ensuring that no region/country is left behind, landlocked regions/countries have full access to markets, and peace and stability are promoted. Above all, there is a need for greater people-to-people contact through improved connectivity, phasing out of visa restrictions, and liberalising the restrictions on the trade of services (for example, tourism, education, and health) where the risk of trade diversion is low. These initiatives would help increase investment and growth by reducing the infrastructure constraint and by lowering transaction costs. Better regional cooperation and integration can also increase welfare by improving the regional political environment, thereby reducing conflicts and associated social and economic costs.

## Notes

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1. India has a common (land) border with most South Asian countries in the region.
2. All the indicators in the methodology were scaled by population. However, because knowledge is not consumed in its use, for the innovation variables the indicator was also computed based on absolute values, which is how it is reported here. In the full keep alive memory (KAM) database it is possible to use the innovation variables normalised by population.

3. Most of the improvements have focused on seaports and airports (which facilitate global trade) rather than land borders (which facilitate intraregional trade). Currently, land border crossings suffer from lack of harmonisation of border procedures and lack of transparency, although there are ongoing efforts to reform customs, standardise cargo documents, and introduce risk management techniques and greater use of electronic data interchange (EDI) to expedite cargo flows. The requirement for back-to-back transfer of goods substantially increases the time and cost for intraregional trade. It is important to introduce modern procedures at these land borders and to coordinate activities of the agencies on both sides of the border so as to minimise the transactions involved in crossing the border. An important reform would be to allow the movement of goods in transit under customs seal either to a point of clearance behind the border or through the country to a third country destination. Other regions have taken active measures to reduce cost of trading across borders through regional cooperation. In Europe, once on land, the cargo moves effortlessly across borders. Too many checks and procedures breed corruption, and encourage trades to avoid them altogether, by smuggling across borders, which is significant within South Asia.

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