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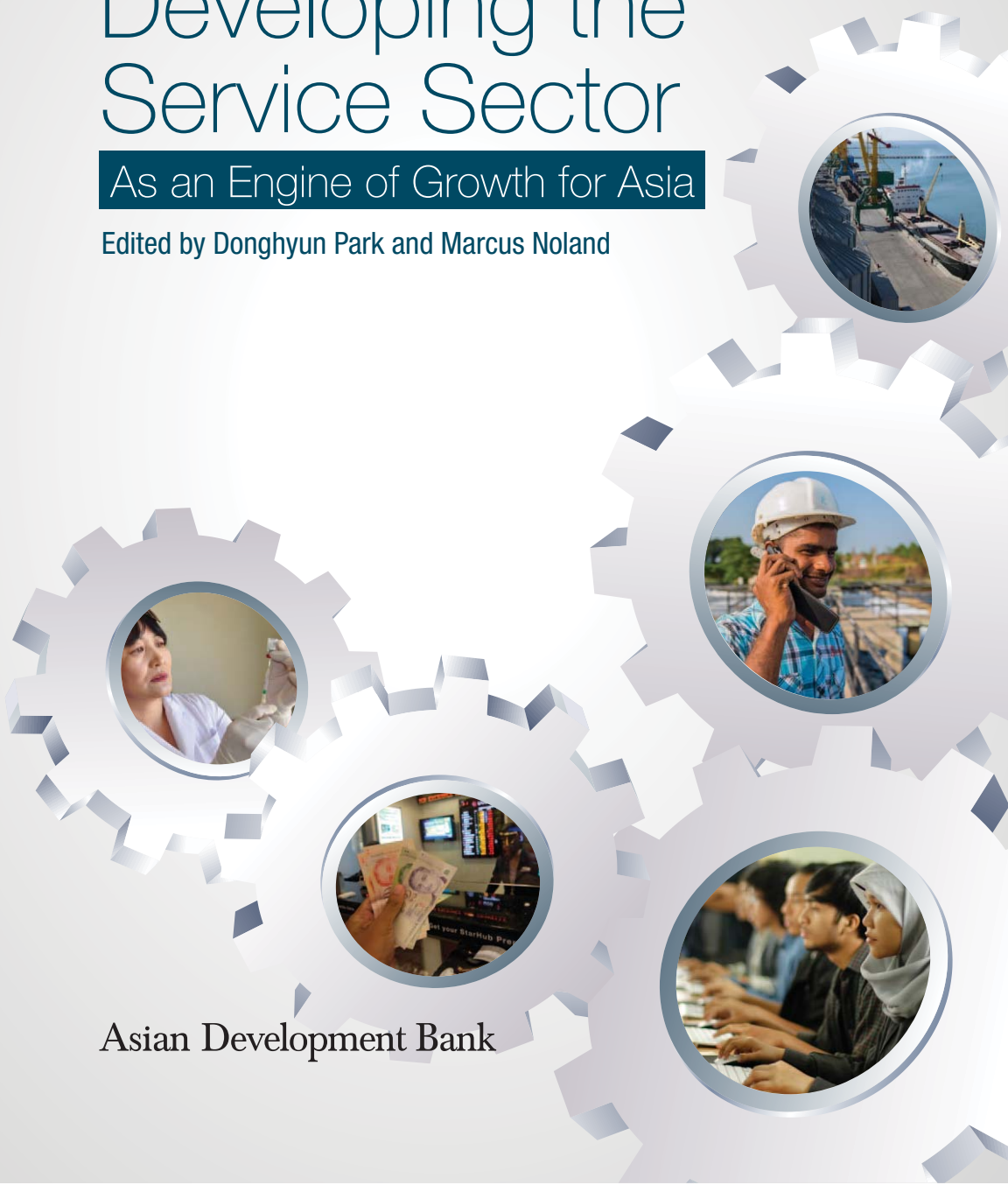
Developing the Service Sector

As an Engine of Growth for Asia

Edited by Donghyun Park and Marcus Noland



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Foreword

Developing the service sector can yield far-reaching benefits for Asia's economy. Due to its labor-intensive nature, a large and growing service sector can generate millions of jobs for the region's huge workforce and thus promote more inclusive growth. Extensive synergies between the service and industry sectors mean that service sector development can lift productivity throughout the economy. Those synergies are all the more evident in modern, high value-added service industries such as finance, information and communication technology, and professional business services. In light of the growing tradability of services, partly a consequence of technological progress, upgrading its service industries will augment Asia's gains from international trade in services.

The service sector already accounts for a substantial share of developing Asia's output, employment, and growth. Since Asian economies are following the well-trodden path of structural change—agriculture giving way to industry and services taking the lead in the postindustrial phase—the sector is expected to play an even bigger role in the coming years. In addition, the rapid expansion of Asia's middle classes, a natural by-product of the region's sustained rapid growth, is fueling demand for education, healthcare, financial, and other services.

The quantitative expansion of the service sector does not, however, in and of itself guarantee that services will become an engine of growth for Asia. For the sector to play that role, it must become more productive, efficient, and innovative. The region's service industries currently suffer from extremely low productivity, often less than 10% of Organisation for Economic Co-operation and Development levels. To a large extent, this is because the region's service sector remains trapped in traditional, low-productivity industries. The shift to modern services that enjoy higher productivity and offer better wages will transform the sector into a genuine, dynamic engine of growth and will strengthen the link between services and inclusive growth. Such a shift requires overcoming a wide range of impediments. In particular, Asian economies need to muster the political will to ease the excessive regulations that protect vested interests and stifle competition and innovation in all too many service markets.

This book takes an in-depth look at the barriers that stand in the way of service sector development in Asia to systematically assess the prospects for the sector to be an engine of growth. It covers a number of themes that are relevant for the sector throughout the region including trade, foreign direct investment,

the relationship between services and growth, and the emerging information technology–business process outsourcing industry. It also includes studies on the service sectors of five major Asian economies: the People's Republic of China, India, the Republic of Korea, the Philippines, and Thailand. The book is the key output of an ADB regional technical assistance research project financed by the e-Asia and Knowledge Partnership Fund established by the Republic of Korea at the Asian Development Bank. The project benefited from in-depth collaboration with the Peterson Institute for International Economics, one of the world's top think tanks.

I would like to thank Donghyun Park for his outstanding overall leadership, coordination, and management of the study; Marcus Noland for his superb leadership from the Peterson Institute side; and Gemma Estrada for her high-quality technical contributions and administrative support. Thanks are also due to Joseph Zveglich for his strategic support and guidance throughout the study, and to Minsoo Lee and Peterson Institute researchers for their intellectual contributions. Valuable support from Judith Goldman as copy editor and from Alvin Tubio as graphic designer is also gratefully acknowledged. Last but not least, I wish to thank the many external experts who contributed their invaluable expertise to this study.

Changyong Rhee
Chief Economist, Asian Development Bank

Abbreviations

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
BOPS	Balance of Payments Statistics
BPM5	Balance of Payments Manual Fifth Edition
CDIS	Coordinated Direct Investment Survey
CEPII	Centre d'Etudes Prospectives et d'Informations Internationales
EU	European Union
FDI	foreign direct investment
FTA	free trade agreement
GATS	General Agreement on Trade in Services
GDP	gross domestic product
ICT	information and communication technology
IMF	International Monetary Fund
ISA	international services agreement
IT-BPO	information technology–business process outsourcing
ITU	International Telecommunication Union
Lao PDR	Lao People's Democratic Republic
M&A	mergers and acquisitions
MFN	most-favored nation
NIE	newly industrialized economy
OECD	Organisation for Economic Co-operation and Development
PMR	product market regulation
PRC	People's Republic of China
R&D	research and development
RCA	revealed comparative advantage
SMEs	small and medium-sized enterprises
SOE	state-owned enterprise
TFP	total factor productivity
TPP	Trans-Pacific Partnership
UK	United Kingdom
UNCPC	United Nations Central Product Classification
UNCTAD	United Nations Conference on Trade and Development
US	United States
WEF	World Economic Forum
WTO	World Trade Organization

PART I

Services as an Engine of Growth

CHAPTER 1

Developing the Service Sector as an Engine of Growth for Asia: Overview

Marcus Noland, Donghyun Park, and Gemma B. Estrada

Abstract

The maturing of the manufacturing sector in developing Asia combined with the relative backwardness of the service sector has made service sector development a top priority. Our central objective is to broadly survey and analyze the current state of the sector to assess its potential as an engine for inclusive economic growth. Our analysis indicates that services are already an important source of output, growth, and jobs in developing Asia; however, their productivity greatly lags behind that of the advanced economies which implies ample room for further growth. The impact of the service sector on poverty reduction is less clear, but there is limited evidence of a positive effect. One key challenge for all of Asia is to improve the quality of service sector data. Developing the sector will be a long and challenging process; creating more competitive service markets by removing a wide range of internal and external policy distortions is vital for improving its productivity. As important as policy reforms are, complementary investments in physical infrastructure and human capital will also be necessary to achieve a strong service sector.

A. The Need to Strengthen the Sector

An integral part of economic growth and development is the structural transformation of output and employment as a country grows and develops. A well-known fact is that during industrialization, the share of agriculture in output and employment falls, and the share of manufacturing and services correspondingly rises. Beyond a certain point as the manufacturing sector matures, productivity growth in manufacturing offsets employment growth and the employment share of services continues to increase while the employment share of manufacturing begins to decline. Currently, some very open economies in East and Southeast Asia have a strong comparative advantage in manufacturing, but that share of manufacturing output may peak and decline as the economy eventually rebalances in response to rising incomes and as domestic demand with its larger service component increases in importance. Industrialization in much of East and Southeast Asia has gone on for quite some time; the scope for further growth of the manufacturing sector is increasingly limited.

While export-oriented industrialization has transformed East and Southeast Asia into the factory of the world, the region's record in the service sector has been much less impressive. Asia does have some well-known success stories such as India's emergence as the world's leading information technology–business process outsourcing (IT-BPO) exporter (Dossani 2010). The Philippines is also emerging as a major IT-BPO hub; however, even in those countries, only some tradable service industries are performing well while the sector as a whole is not. Overall there is a general perception that in Asia, a weak service sector lags behind a strong, internationally competitive manufacturing sector and that where there are strong service sectors, there are concerns that they are effectively enclaves with weak backward and forward links to the rest of the economy. This is very important since low productivity in the service sector can retard overall economic growth. The growing tradability of services and the resulting emergence of global supply chains in services, for example in healthcare, presents new growth opportunities for a region that is heavily involved in the global supply chain in manufacturing.

There are a number of interrelated factors that further strengthen the case for a more vibrant Asian service sector. For one, while Asia has grown faster than the rest of the world for decades, the global financial and economic crisis of 2008 and 2009 has threatened prospects for future growth. The crisis originated in the advanced economies and hit them harder, and their recoveries have been noticeably weaker. In the euro zone, recovery has additionally suffered from the ongoing sovereign debt crisis. This has significant adverse ramifications for Asia's export and growth prospects since advanced economies are still a large market for its manufactured exports even though their share has been declining. At a

time when the manufacturing export engine is stalling, igniting the service sector engine can help offset the loss of momentum in economic growth.

The global financial crisis has thus increased the urgency to rebalance economies (ADB 2009) as its pronounced effect on exports and growth shattered any notion that Asia had decoupled from the business cycles of the advanced economies. More fundamentally, it highlighted the risks of disproportionate dependence on exports and a corresponding need to strengthen domestic demand. As a result of strong, sustained growth, millions of Chinese, Indians, Indonesians, and other Asians are joining the ranks of the middle class every year. This implies considerable potential growth for private consumption and domestic demand. Relative to manufactured goods, services tend to be less tradable and more geared toward domestic consumption.[1] Developing the service sector goes hand in hand with strengthening domestic demand, especially since services account for much of private consumption. Service sector development is thus the supply side of the rebalancing equation. From a global perspective, advanced economies have a comparative advantage in areas like business services. Liberalizing imports of such services can thus contribute not only to the competitiveness of Asian economies but also to global rebalancing.

A dynamic service sector can also contribute to Asia's quest for inclusive growth. Education and employment are especially important in reducing inequality (ADB 2012). In the past, export-oriented industrialization gave Asia the best of both worlds—lots of jobs and rapid growth. Going forward, however, Asia will find it more challenging to achieve high growth and high employment. While the demographic transition toward older populations is already under way, for the most part Asia is still a relatively young region with hundreds of millions of job seekers joining the workforce every year. Furthermore, as noted, the manufacturing sector is maturing in many economies, so its capacity to create jobs will be more limited. Relative to manufacturing, services tend to be labor intensive, therefore expanding the sector can contribute significantly to employment and thus to inclusive growth.

B. Heterogeneity and Measurement Problems

Compared to agriculture, mining, and most of all manufacturing, the service sector has long occupied a diminished place in both the public imagination and in economic research. One reason is its sheer diversity as it encompasses an enormous range of industries and activities which discourages simple mental imagery or easy encapsulation (Table 1.1).[2] In Asia, the heterogeneity of the sector is compounded by the enormous heterogeneity of the region itself. Asian

countries are at very different stages both in the development of their service sectors and of their overall economies. Not surprisingly, this heterogeneity has far-reaching policy implications; policies fostering the service sector must necessarily be country and industry specific.

Table 1.1
Economic Sectors and their Two-Digit NAICS Codes

NAICS Code	Sector
11	Agriculture, forestry, fishing, and hunting
21	Mining
22	Utilities
23	Construction
31–33	Manufacturing
42	Wholesale trade
44–45	Retail trade
48–49	Transportation and warehousing
51	Information
52	Finance and insurance
53	Real estate and rental and leasing
54	Professional, scientific, and technical services
55	Management of companies and enterprises
56	Administration and support and waste management and remediation services
61	Educational services
62	Healthcare and social assistance
71	Arts, entertainment, and recreation
72	Accommodation and food services
81	Other services (except public administration)
92	Public administration

NAICS = North American Industry Classification System.
Source: United States Census Bureau.

Heterogeneity also entails profound analytical implications. Eichengreen and Gupta (2009) argue that the broad aggregation of services obscures two distinct "waves" of sector growth. The first occurs in "traditional" services (such as personal services) early in development at relatively low levels of income while

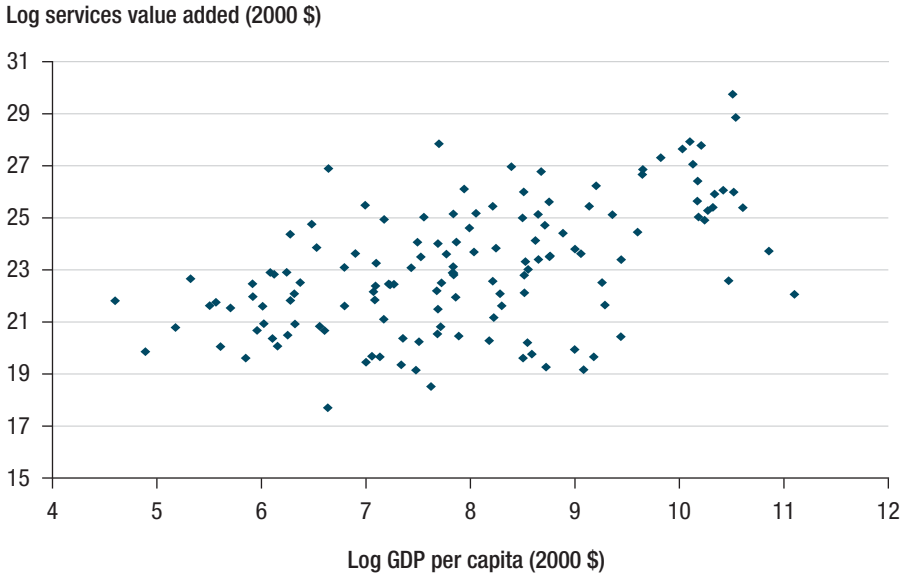
the second occurs later at higher incomes in industries such as communication, computers, and technical and business services that use information technology and possess greater scope for cross-border tradability. For some purposes it may be useful to focus on a more limited subset of activities such as business services where the prospects for high wages and cross-border trade appear relatively high and political sensitivities may be less acute than in education or health. These possibilities may not be inconsiderable. Jensen (2011) points out that in the United States (US) in 1960, business services employed fewer than half the workers involved in manufacturing but that by 2007 they employed more than twice as many.

The analytical challenges created by the sector's diversity are compounded by basic problems of measurement as the output of many services is hard to gauge (public education, for example). In addition, in many countries services are highly regulated, insulated from competition, and subject to administered or otherwise controlled prices (again, think public education). If neither output nor quantity is amenable to measurement, assessing productivity is difficult in stark contrast to agriculture, mining, and manufacturing where output is standardized and enormous attention has been devoted to understanding the determinants of productivity. These analytical challenges are even further compounded at the large service divisions of many of today's major multinational corporations with their origins in manufacturing such as General Motors or General Electric. Indeed, part of the apparent intensification of service sector activity may reflect the changing nature of a firm, specifically outsourcing and offshoring with the latter also affecting measuring productivity in sectors that use services such as manufacturing (Yuskavage et al. 2008, Houseman et al. 2011). These cross-sector connections are key. After surveying numerous studies, Francois and Hoekman (2010) concluded that service sector performance may be a major factor in economy-wide productivity growth and that both domestic and cross-border service sector policies may be key drivers in economic development.

C. Service Sector Development and Per Capita Income

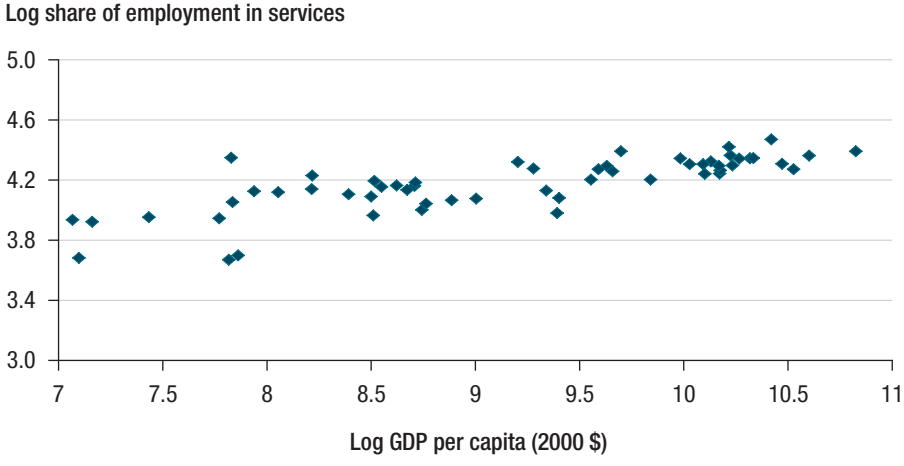
Economists have a troubling tendency to look for lost keys under the lamppost which may have contributed to the scarcity of research on services compared with that on other sectors. If this under-emphasis was ever justified, the growth of the service sector relative to other parts of the economy makes it untenable today. Service output is positively correlated with per capita income and employment shares globally as shown in Figures 1.1 and 1.2, respectively and with educational attainment (Figure 1.3).

Figure 1.1
Snapshot of Global Log Services Value Added against Log Gross Domestic Product Per Capita, 2009



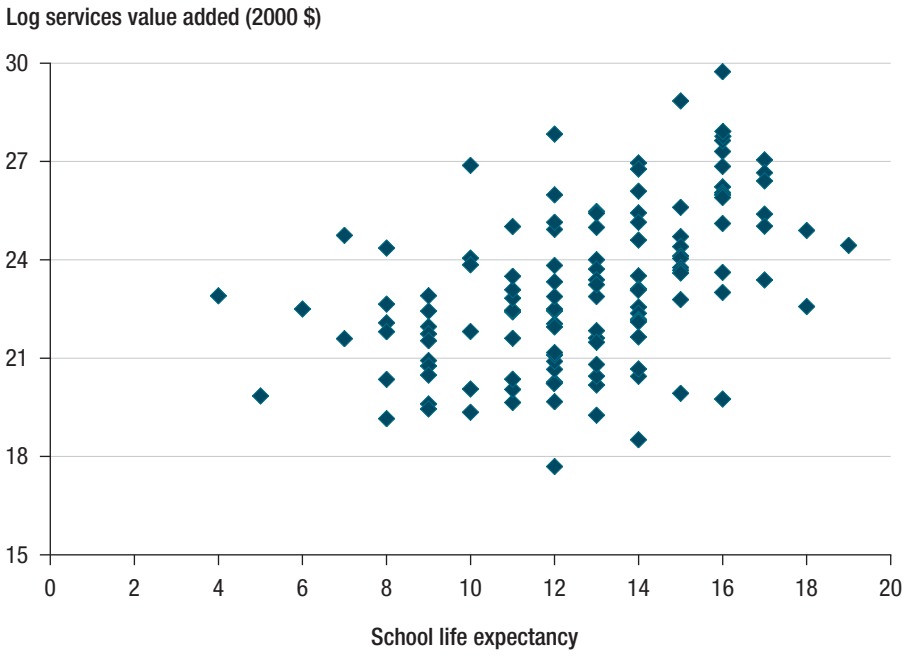
GDP = gross domestic product.
Source: World Bank. World Development Indicators database (accessed 24 February 2012).

Figure 1.2
Snapshot of Global Log Employment in Services against Log Gross Domestic Product Per Capita, 2009



GDP = gross domestic product.
Source: World Bank. World Development Indicators database (accessed 24 February 2012).

Figure 1.3
Snapshot of Global Log Services Value Added against School Life Expectancy, 2009



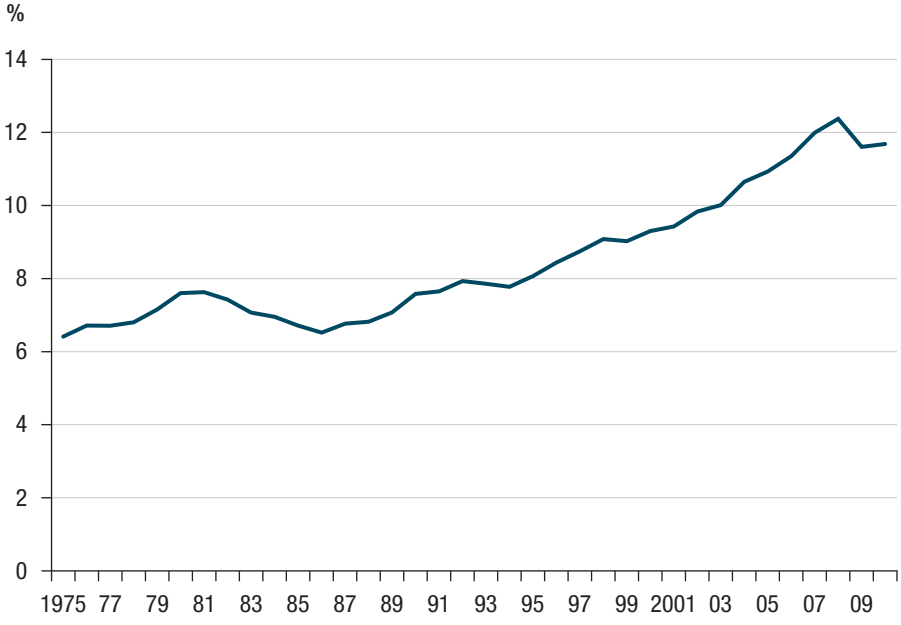
Note: School life expectancy is the total number of years of schooling (primary to tertiary) that a child can expect to receive, assuming that the probability of enrollment in school at any particular future age is equal to the current enrollment ratio at that age.

Sources: Central Intelligence Agency. The World Factbook; World Bank. World Development Indicators database (both accessed 24 February 2012).

Eichengreen and Gupta argue that output rises at a decelerating rate until it levels off at around $1,800 per capita (2000 purchasing power–adjusted dollars) and then accelerates to about $4,000 per capita before leveling off again. It also appears that the per capita income threshold for the second takeoff has declined since 1990, presumably reflecting the diffusion and increased applicability of information and communication technology (ICT).[3] Educational attainment is connected to the capacity to successfully adapt innovations originating abroad to the local environment. The second wave appears to be more acute in democracies, in countries near major finance centers, and in economies relatively open to trade. To this list one could presumably append educational attainment. These tendencies suggest a process in which cross-border trade and investment are important diffusion mechanisms with democracies being more open to ICT,

possibly placing a greater emphasis on education, and carrying a lower foreign investment–risk premium. Globally cross-border trade in services has risen steadily as a share of world income for the past 25 years (Figure 1.4).

Figure 1.4
Global Trade in Services as a Share of World Gross Domestic Product

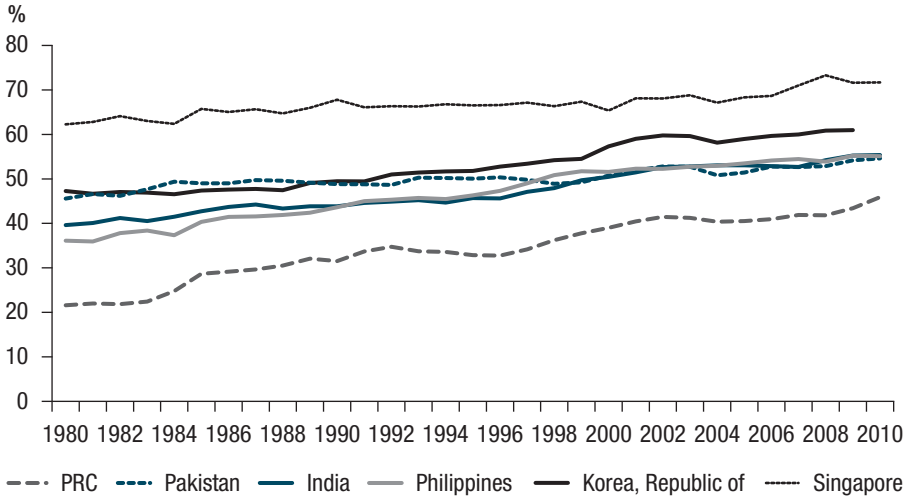


Source: World Bank. World Development Indicators database (accessed 24 February 2012).

Figures 1.5 and 1.6 present data on the service sector share of national income and employment, respectively, for selected Asian economies. The sector has steadily increased in prominence over a 30-year period and now accounts for most of the national income in India, the Republic of Korea, Pakistan, the Philippines, and Singapore as well as a majority of employment in Hong Kong, China; the Republic of Korea; Malaysia; the Philippines; and Singapore.

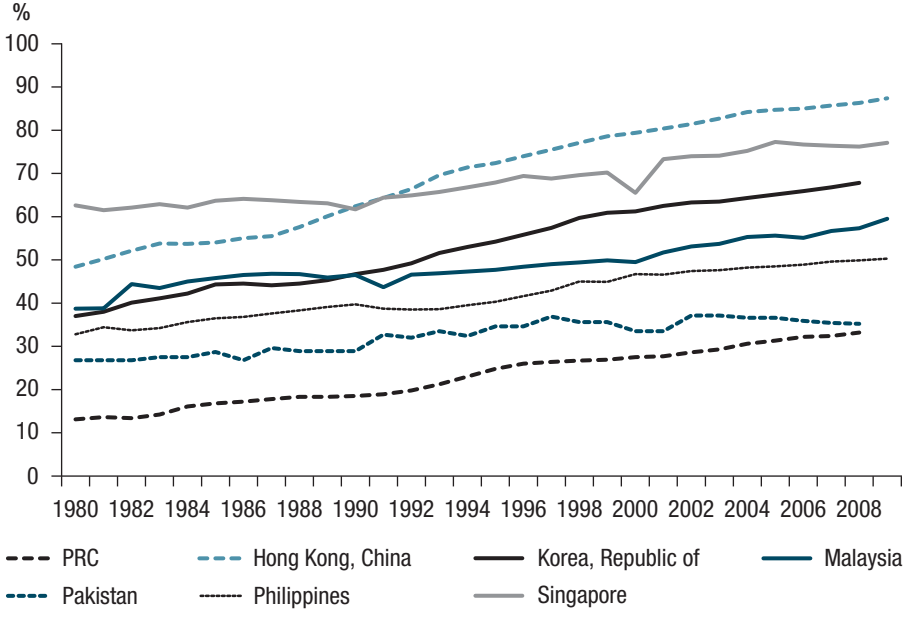
Yet while services clearly play an increasingly prominent role in many Asian economies, the steady expansion of cross-border trade in services is less evident. Although it is true that global trade in services has risen over time, relative to national income the pattern in Asia is less clear (Figure 1.7). This may be partly due to policy impediments to cross-border exchanges such as national regulations that block or impede foreign providers from gaining a foothold in national markets.

Figure 1.5
Services as % of Gross Domestic Product in Selected Asian Economies



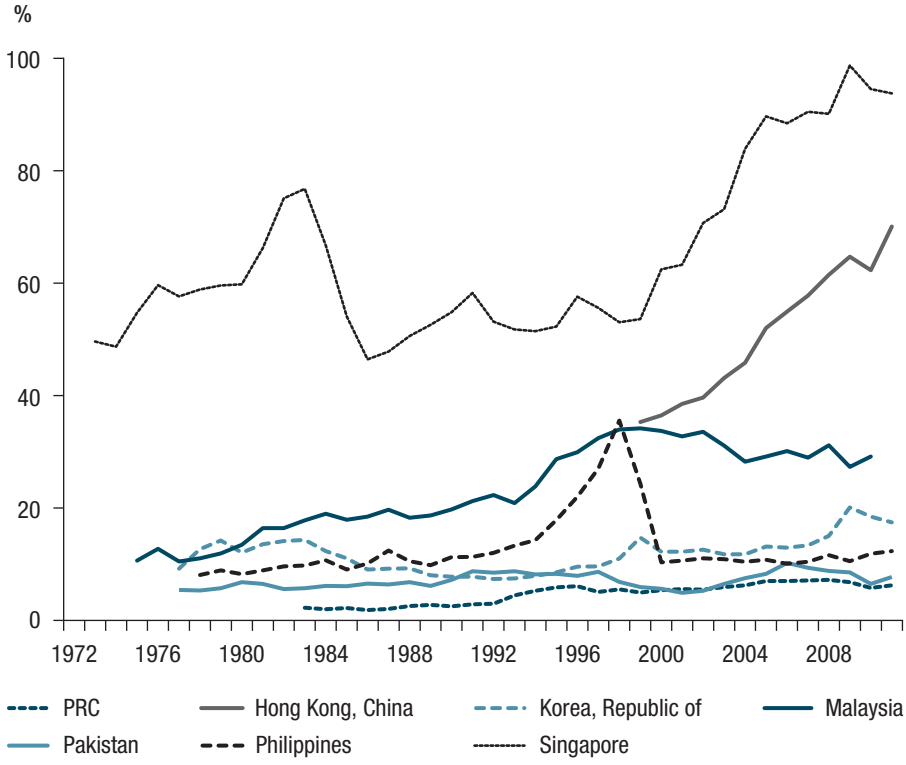
PRC = People's Republic of China.
Source: World Bank. World Development Indicators database (accessed 24 February 2012).

Figure 1.6
Service Employment as % of Total in Selected Asian Economies



PRC = People's Republic of China.
Source: World Bank. World Development Indicators database (accessed 24 February 2012).

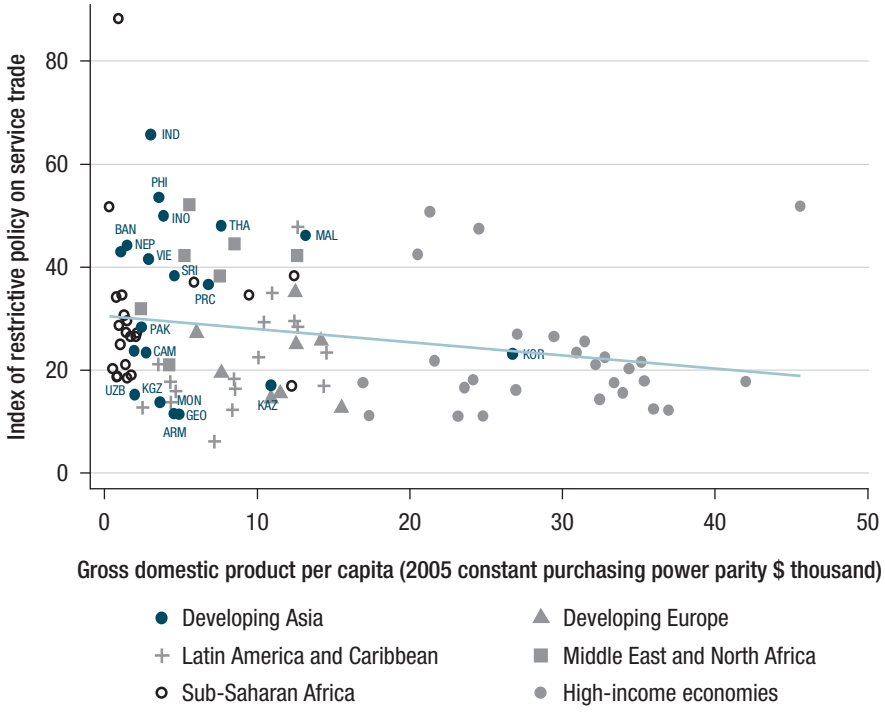
Figure 1.7
Trade in Services as % of Gross Domestic Product in Selected Asian Economies



PRC = People's Republic of China.
Source: World Bank. World Development Indicators database (accessed 24 February 2012).

Trade in services has been dealt with unevenly multilaterally, regionally, and bilaterally. The General Agreement on Trade in Services (GATS) identifies four modes: (i) trade in which physical interaction between the buyer and seller is unnecessary like trade in goods; (ii) consumption abroad where the consumer travels to the provider (tourism); (iii) commercial presence where the provider establishes a facility in the client's country (investment); and (iv) temporary movement of service providers to the client (migration). These modes involve different issues and complicate negotiations because countries have distinct comparative advantages and interests in liberalizing the range of service activities associated with different modes of delivery.

Figure 1.8
Restrictive Service Trade Policies by Gross Domestic Product Per Capita



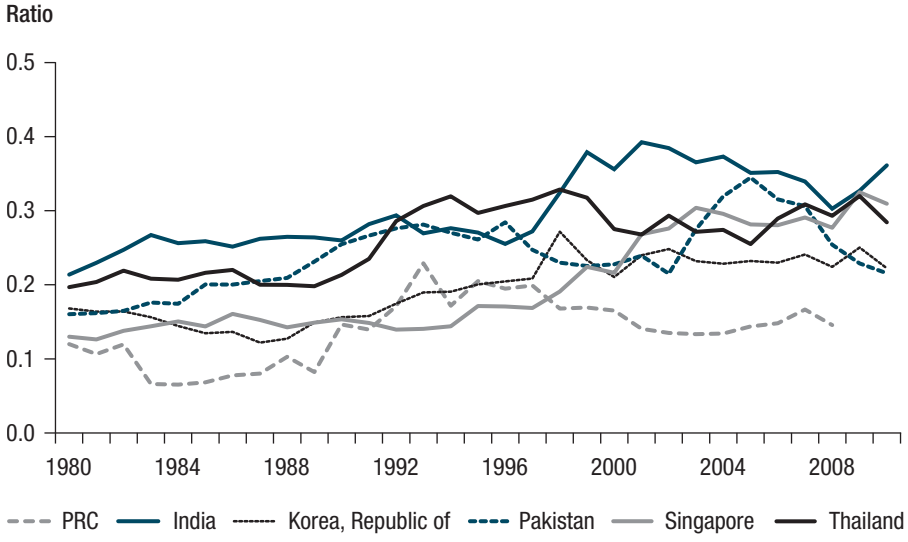
ARM = Armenia, BAN = Bangladesh, CAM = Cambodia, GEO = Georgia, IND = India, INO = Indonesia, KAZ = Kazakhstan, KGZ = Kyrgyz Republic, KOR = Republic of Korea, MAL = Malaysia, MON = Mongolia, NEP = Nepal, PAK = Pakistan, PHI = Philippines, PRC = People's Republic of China, SRI = Sri Lanka, THA = Thailand, UZB = Uzbekistan, VIE = Viet Nam.

Note: Data on restrictiveness of policies on service trade are from 2008 to 2011 and on gross domestic product are from 2010.

Sources: Borchert et al. (2012); World Bank. World Development Indicators database (accessed 16 April 2012).

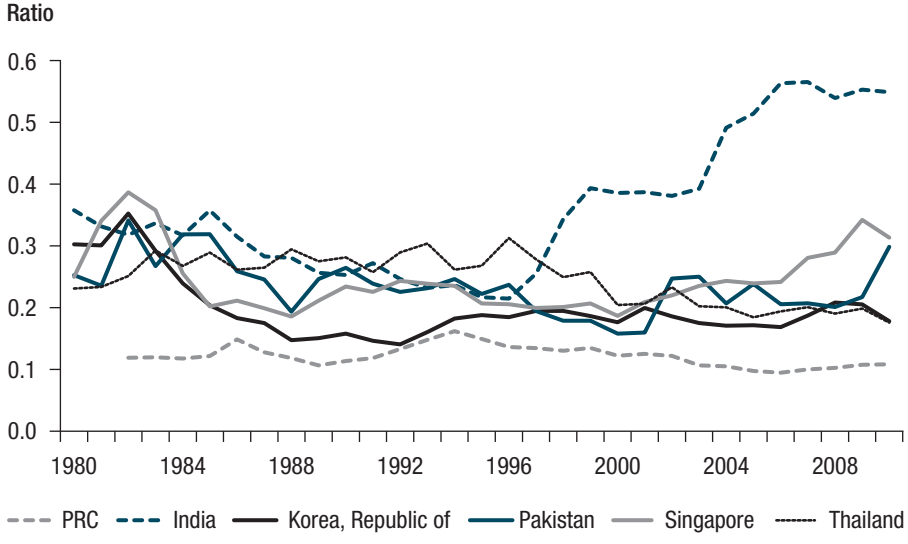
Restrictive trade policies on services tend to decline with per capita income (Figure 1.8). Presumably causality runs in both directions; i.e., more open economies tend to grow faster and get rich while for political reasons, rich economies with large service sectors tend not to impose restrictions on these important and politically influential industries. However, differential performance with respect to importing and exporting services (Figures 1.9 and 1.10) suggests that the competitiveness of Asian service providers may also be an issue.

Figure 1.9
Ratio of Service Imports to Goods Imports in Selected Asian Economies



PRC = People's Republic of China.
Sources: World Bank. World Development Indicators database (accessed 24 February 2012); authors' estimates.

Figure 1.10
Ratio of Service Exports to Goods Exports in Selected Asian Economies



PRC = People's Republic of China.
Sources: World Bank. World Development Indicators database (accessed 24 February 2012); authors' estimates.

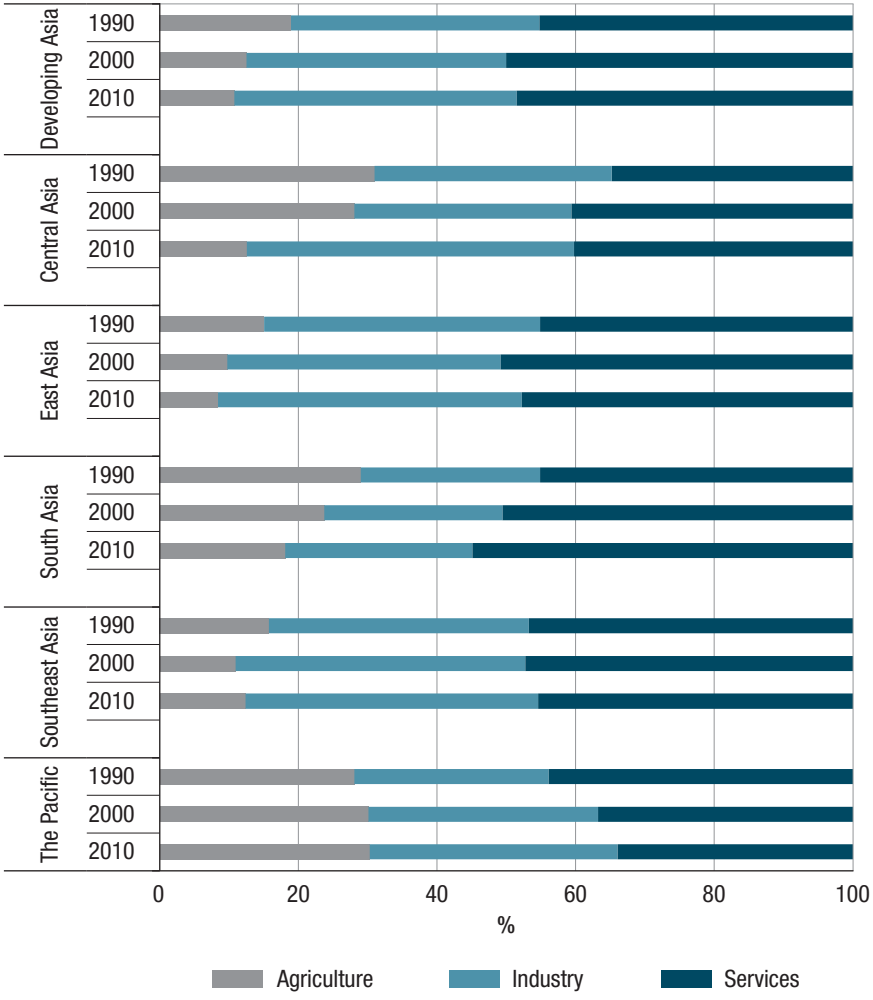
D. The Basic Facts

Across the region, the service sector has clearly been on the rise both in terms of output and employment. From about 45% of the average share in 1990, the sector now accounts for 48.5% of gross domestic product (GDP) in developing Asia, but there is some variation (Figure 1.11).[4] In East Asia, the sector comprises about 48% of GDP mainly due to the newly industrialized economies (NIEs)—Hong Kong, China; the Republic of Korea; and Taipei,China—with shares of about 60%–90% (Figure 1.12), but the People's Republic of China (PRC) has also witnessed a significant rise of roughly 20 percentage points over the past 3 decades. The sector has been less dynamic in Southeast Asia as only in the Philippines and Singapore does it account for more than 50% of GDP. A uniform pattern of a rapidly growing sector can be seen across South Asia most notably in India, Nepal, and Sri Lanka where shares have risen by 15–20 percentage points. In Central Asia, the surge has been quite dramatic as independence in the 1990s resulted in the rise of new service activities. Owing to their geographic conditions and significant tourism industries, most Pacific countries have maintained large service sectors.

The service sector is a key provider of jobs. The majority of workers are now employed in services in several economies including Kazakhstan, Malaysia, the Maldives, the Philippines, and the NIEs (Figure 1.13). In 1990, only Singapore and Hong Kong, China had service employment shares of over 50% while in Bangladesh, Cambodia, the PRC, and Viet Nam, less than 20% of the workforce was employed in services though since then the shares have risen by about 10–20 percentage points. Despite the rapid rise in India's sector, the employment share remains low at 27%. This holds true for other South Asian economies particularly Bangladesh, Pakistan, and Sri Lanka where service employment shares are quite low relative to their output.

The service sector is now not only a large part of the economy, it has also been a huge contributor to overall growth. In the past 10 years, the service sector accounted for more than 50% of GDP growth in most economies in Asia (Figure 1.14). Even during the more subdued growth in the 1990s, the sector contributed to most of the growth and was higher in South Asia than in other parts. In India, the Maldives, and Sri Lanka, roughly 60% of the growth from 2000 to 2010 was due to services. In Southeast Asia, the sector contributed to over 50% of the growth in Indonesia, Malaysia, the Philippines, and Singapore, but in East Asia, particularly in the PRC; the Republic of Korea; and Taipei,China, industry rather than services is still driving overall growth. As noted in ADB (2007), the service sector has played an important role in South Asian countries and in the Philippines where the pace of industrialization has been slow; in fact, the modern service sector drove overall growth in South Asia (Bosworth and Maertens 2010, Ghani 2010).

Figure 1.11
Sector Shares of Gross Domestic Product in Developing Asia by Region

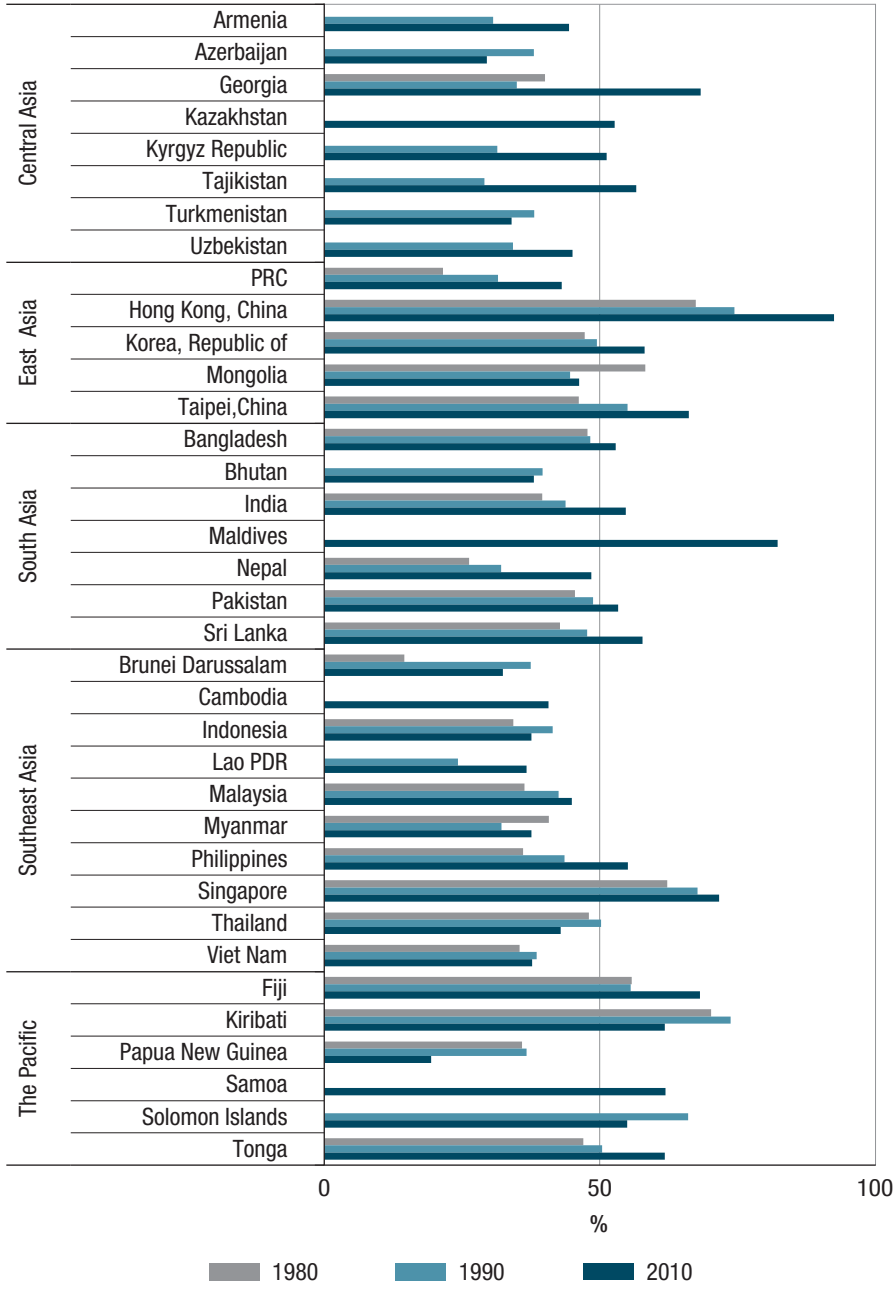


Note: Economies covered are those with data around 1990, 2000, and 2010. Central Asia includes Armenia, Azerbaijan, Georgia, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan. East Asia covers the People's Republic of China; Hong Kong, China; the Republic of Korea; Mongolia; and Taipei,China. South Asia covers Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka. Southeast Asia comprises Brunei Darussalam, Indonesia, the Lao People's Democratic Republic, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam. The Pacific includes Fiji, Kiribati, Papua New Guinea, Solomon Islands, and Tonga.

Sources: Authors' estimates using data from ADB (2007), Asian Development Outlook database, CEIC Data Company, and the World Bank's World Development Indicators database (databases accessed 16 April 2012).

Figure 1.12

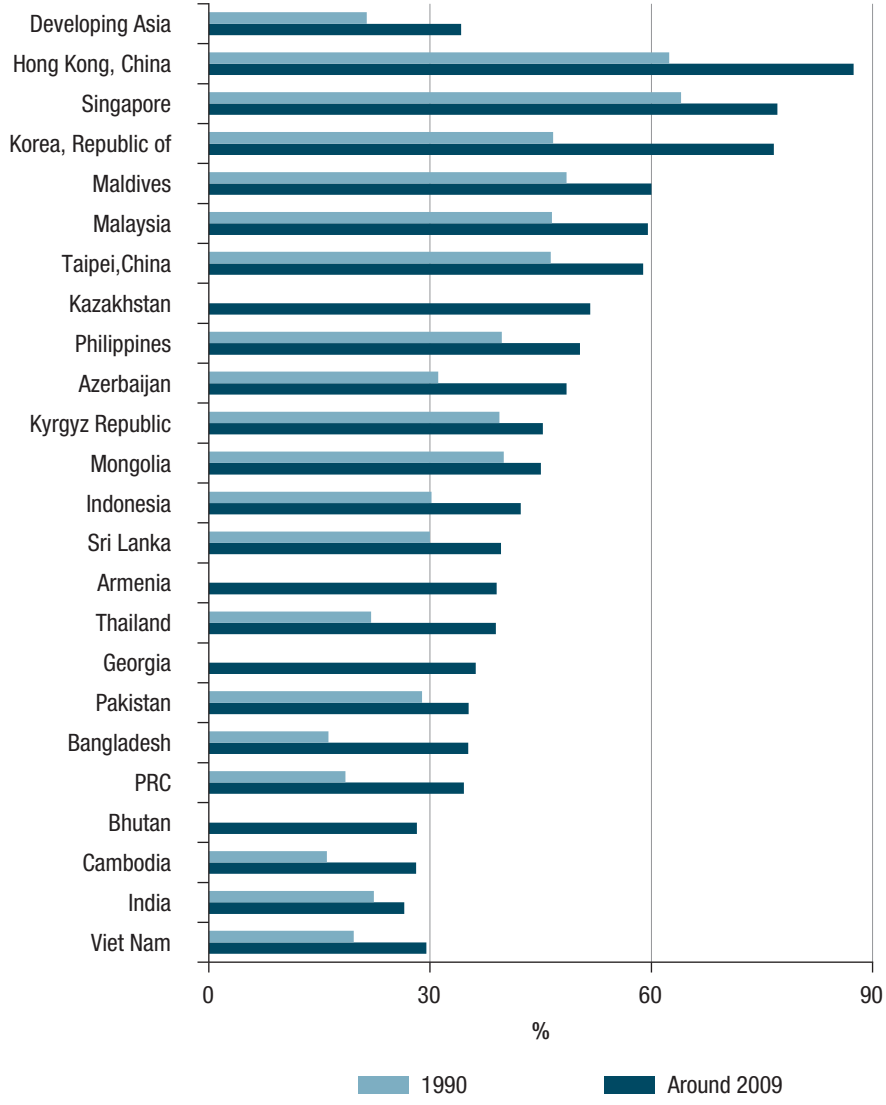
Service Sector Share of Gross Domestic Product in Developing Asia by Economy



Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Sources: ADB (2007); Asian Development Outlook database; CEIC Data Company; World Bank. World Development Indicators database (databases accessed 16 April 2012); authors' estimates.

Figure 1.13
Share of Services in Employment in Developing Asia by Economy

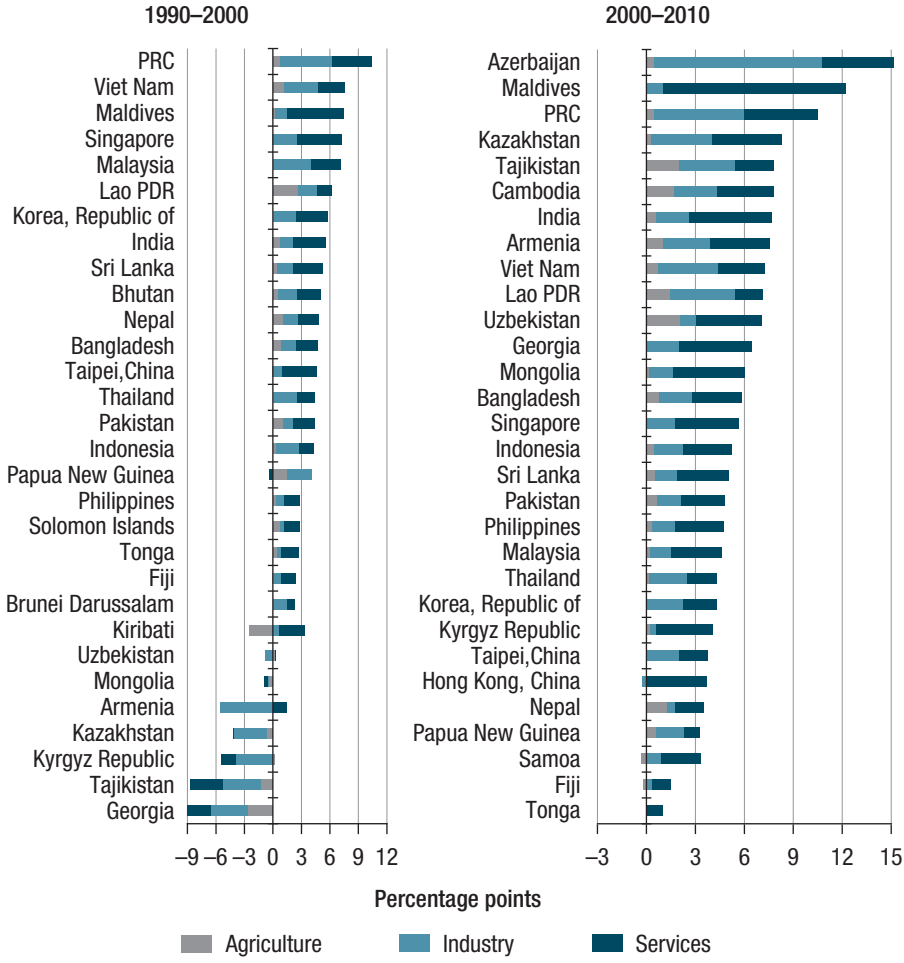


PRC = People's Republic of China.

Note: Latest data refer to 2006 for Cambodia and the Maldives; 2007 for Georgia; 2008 for Armenia, the Kyrgyz Republic, and Pakistan; and 2010 for Bangladesh and India. Initial data refer to 1991 for Bangladesh and Singapore, 1993 for Cambodia and Mongolia, and 1994 for India.

Sources: CEIC Data Company; International Labour Organization. Key Indicators of the Labor Market database (both accessed 16 April 2012); authors' estimates.

Figure 1.14
Sector Contributions to Annual Gross Domestic Product Growth in Developing Asia by Economy



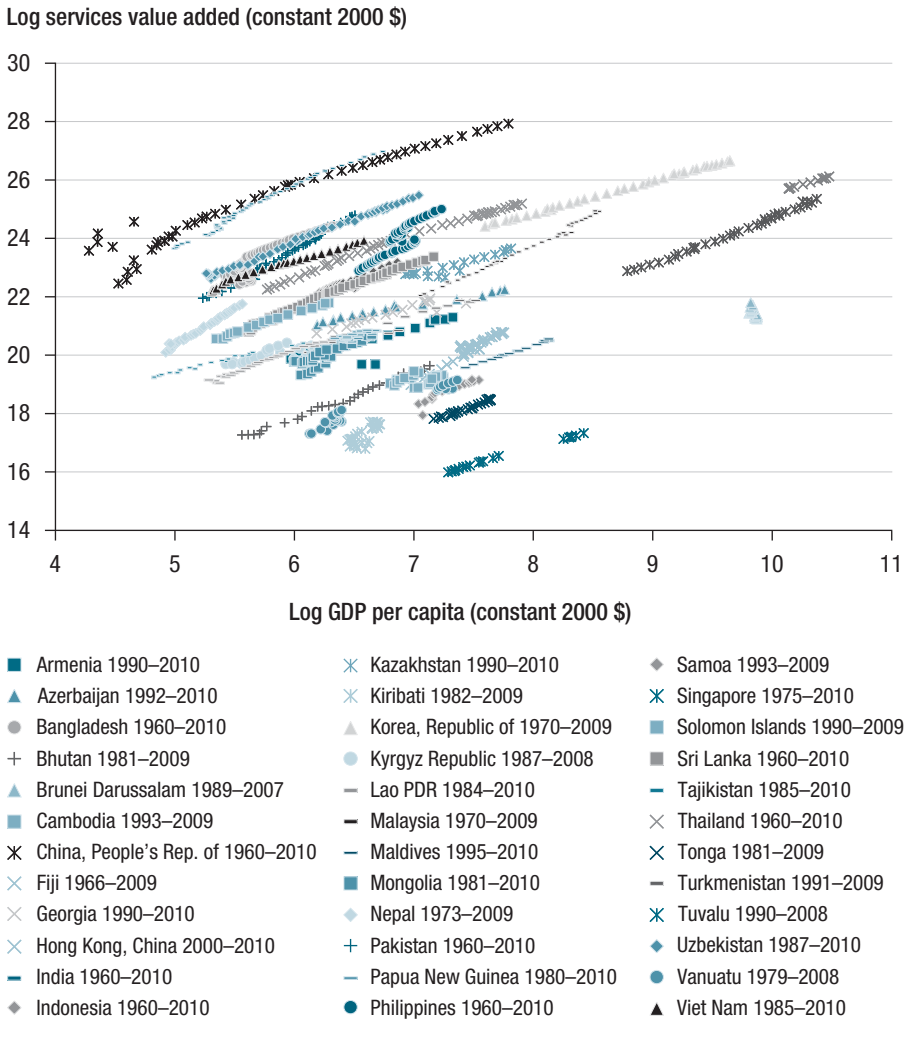
Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Note: The contribution of each sector in gross domestic product growth is equal to the real growth of this sector during the period weighted by its share in gross domestic product in the initial year.

Sources: Authors' estimates based on data from CEIC Data Company and the World Bank's World Development Indicators database (both accessed 16 April 2012).

The global and regional trends identified in the previous section appear to apply broadly to developing Asia though missing, fragmentary, and insufficiently disaggregated data impede complete documentation. Panel data for developing Asia clearly demonstrate that the growth of services is correlated with a rise in incomes (Figure 1.15) and in educational attainment (Figure 1.16).

Figure 1.15
Log Services to Log Gross Domestic Product Per Capita Relationship in Developing Asia, 1960–Present

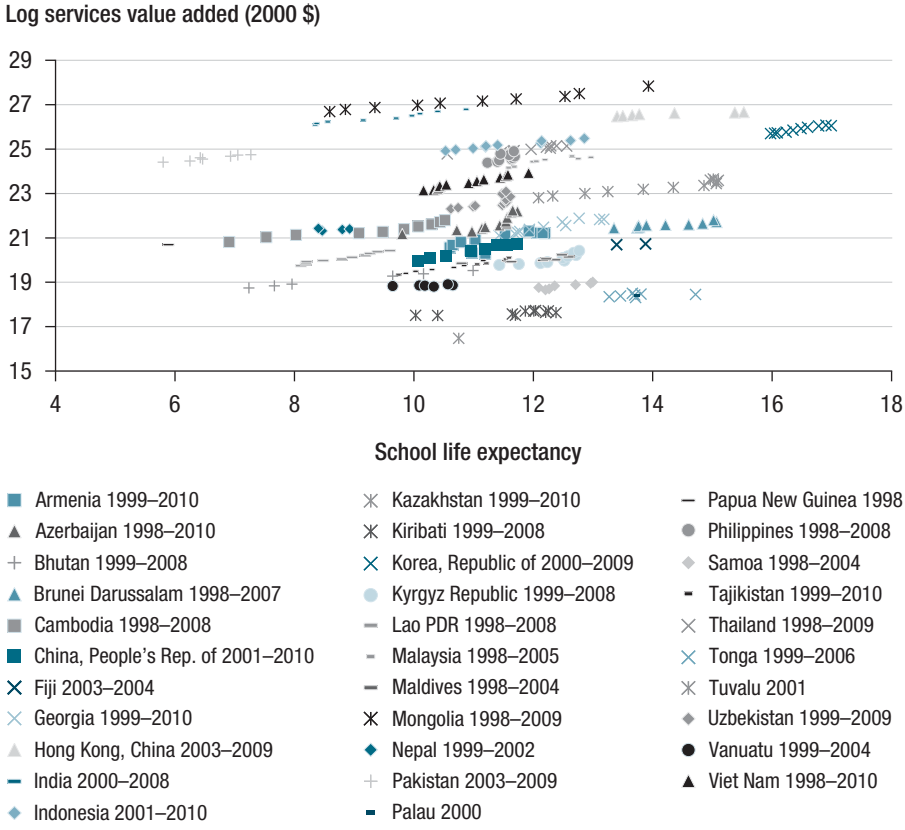


GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.

Note: Observations include all available observations between 1960 and the present for developing Asian economies.

Sources: World Bank. World Development Indicators database (accessed 24 February 2012); authors' estimates.

Figure 1.16
Log Services to School Life Expectancy in Developing Asia, 1998–present

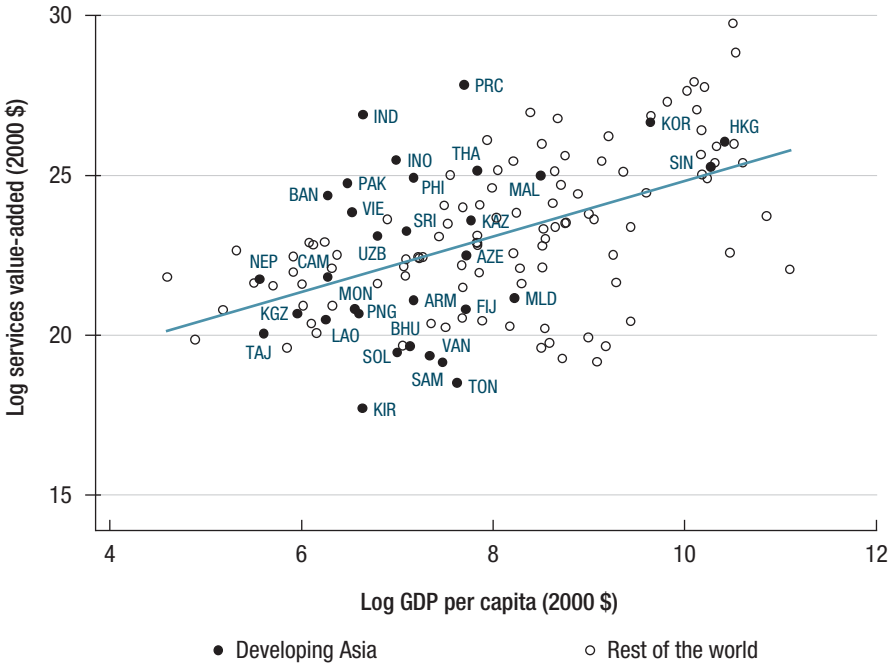


GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.

Sources: World Bank. World Development Indicators database; UNESCO Statistical Database (both databases accessed 24 February 2012); authors' estimates.

Developing Asian economies are not, however, consistently above or below an international norm established by regressing the natural logarithm of value added by services against per capita GDP (Figure 1.17). While most developing Asian economies lie above the regression line, i.e., have larger than expected service sectors (Bangladesh; Cambodia; the PRC; Hong Kong, China; India; Indonesia; Kazakhstan; the Republic of Korea; Malaysia; Nepal; Pakistan; the Philippines; Singapore; Sri Lanka; Thailand; Uzbekistan; and Viet Nam), a significant number are below the line (Armenia, Azerbaijan, Bhutan, Fiji, Kiribati, the Kyrgyz Republic, the Lao People's Democratic Republic, the Maldives, Mongolia, Papua New Guinea, Samoa, Solomon Islands, Tajikistan, and Tonga).[5]

Figure 1.17
Snapshot of Log Services Value Added against Log Gross Domestic Product Per Capita in Developing Asia and the Rest of the World, 2009



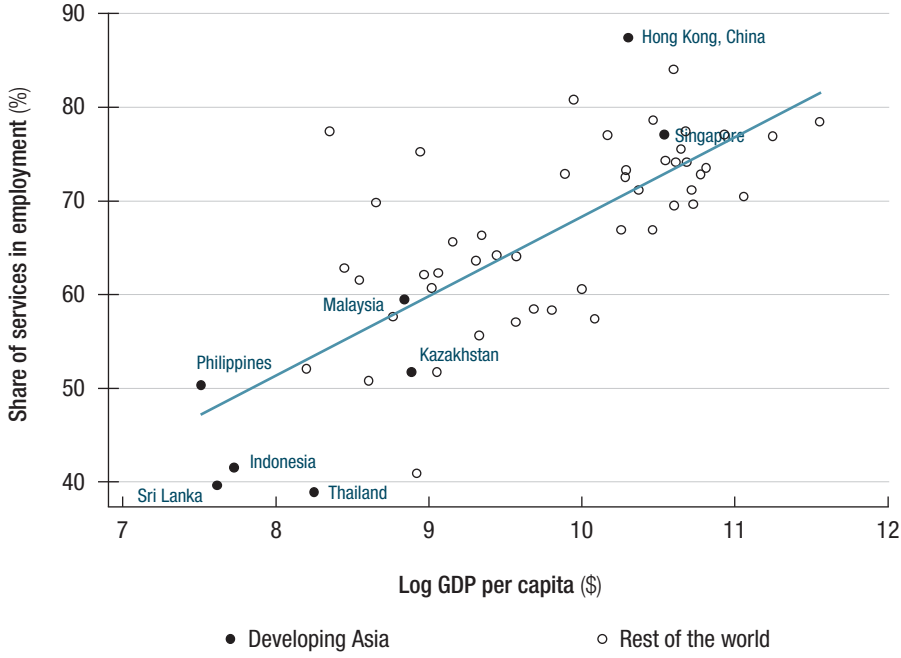
ARM = Armenia; AZE = Azerbaijan; BAN = Bangladesh; BHU = Bhutan; CAM = Cambodia; FIJ = Fiji; GDP = gross domestic product; HKG = Hong Kong, China; IND = India; INO = Indonesia; KAZ = Kazakhstan; KIR = Kiribati; KOR = Republic of Korea; KGZ = Kyrgyz Republic; LAO = Lao People's Democratic Republic; MAL = Malaysia; MLD = Maldives; MON = Mongolia; NEP = Nepal; PAK = Pakistan; PHI = Philippines; PNG = Papua New Guinea; PRC = People's Republic of China; SAM = Samoa; SIN = Singapore; SOL = Solomon Islands; SRI = Sri Lanka; TAJ = Tajikistan; THA = Thailand; TON = Tonga; UZB = Uzbekistan; VAN = Vanuatu; VIE = Viet Nam.

Source: World Bank. World Development Indicators database (accessed 24 February 2012).

A similar analysis can be performed on employment data, albeit with a smaller sample, and once again the performance of developing Asia is mixed with greater than expected employment in services in Hong Kong, China; Malaysia; the Philippines; and Singapore; and with Indonesia, Kazakhstan, Sri Lanka, and Thailand below the regression line (Figure 1.18). In short, those countries below the international norm in both income and employment tend to be poorer suggesting that developing Asia's challenges are concentrated in economies in which underperformance implies the greatest social cost.

These aggregate figures do not shed light on critical issues that may have a significant impact on development outcomes for the rest of the economy such as

Figure 1.18
Snapshot of Share of Labor in Services against Log Gross Domestic Product Per Capita in Developing Asia and the Rest of the World, 2009



GDP = gross domestic product.
Source: World Bank. World Development Indicators database (accessed 24 February 2012).

the extent of backward and forward links from the service sector to the rest of the economy or the diffusion of productivity advances. For example, a country may have a large ICT industry, but it may essentially be an enclave oriented toward the global market that does not enhance the productivity of the rest of the economy. Another example would be tourism based on natural cultural or historical endowments with little spillover to the rest of the local economy.

E. Low Productivity

Although the sector has been rapidly growing, it continues to be dominated by traditional activities like wholesale and retail trade, hotels and restaurants, real estate, transport, personal services, and public administration (Table 1.2). Modern services like information and communication, finance, and professional

Table 1.2
Share of Services in Value Added in Selected Economies, 1990 and 2010 (%)

Economy	Total Services		Trade		Hotels and Restaurants		Transport and Storage		Real Estate and Dwellings		Public Administration, Community, Personal, and Other Services		Communication, Finance, and Business Services	
	1990	2010	1990	2010	1990	2010	1990	2010	1990	2010	1990	2010	1990	2010
Developing Asia														
PRC	31.5	43.4	6.8	8.5	1.6	2.1	3.8	4.9	2.1	7.3	7.9	11.2	9.4	9.4
Hong Kong, China	87.2	92.9	21.8	24.0	3.0	3.3	7.7	8.1	5.1	5.2	30.3	27.9	19.4	24.4
India	46.1	54.7	11.8	15.1	1.0	1.4	6.4	6.4	5.0	6.1	13.3	14.5	8.8	11.2
Indonesia	42.4	37.7	13.5	10.9	3.2	2.8	6.1	3.4	2.9	2.6	10.1	10.2	6.5	7.8
Korea, Republic of	51.5	58.5	11.8	8.6	2.4	2.3	4.7	4.2	6.5	7.2	14.8	20.1	11.2	16.1
Malaysia	44.9	46.0	10.9	11.9	2.2	2.3	3.8	3.3	5.4	4.1	8.3	9.7	14.4	14.6
Philippines	50.8	55.1	14.7	17.4	–	–	3.2	3.9	5.8	6.5	15.7	13.4	11.5	13.9
Singapore	67.8	71.7	13.1	16.5	3.5	2.2	11.4	8.6	3.6	4.1	9.6	10.7	26.6	29.6
Taipei,China	55.0	66.2	13.4	18.8	1.7	2.0	4.6	3.3	6.4	8.9	17.5	20.8	11.4	12.4
Thailand	50.9	43.0	17.8	13.1	5.4	4.7	4.5	4.1	2.2	1.4	9.7	12.0	11.3	7.7
OECD														
United States	73.4	80.2	12.9	11.6	3.4	3.8	3.0	2.8	12.1	12.2	23.0	24.8	18.9	25.1
Japan	59.8	72.6	12.8	12.3	–	–	4.9	4.5	9.4	13.0	19.1	25.7	13.6	17.2
France	69.2	79.7	11.8	10.6	2.3	2.6	4.6	5.0	9.8	13.4	21.7	26.1	18.9	22.0

– = data not available.

OECD = Organisation for Economic Co-operation and Development, PRC = People's Republic of China.

Note: Initial data for Hong Kong, China and Malaysia refer to 2000; for Indonesia 1993; and for the Philippines 1998. Latest data for the PRC and Japan refer to 2009.

Source: Authors' estimates based on data from CEIC Data Company (accessed 25 April 2012).

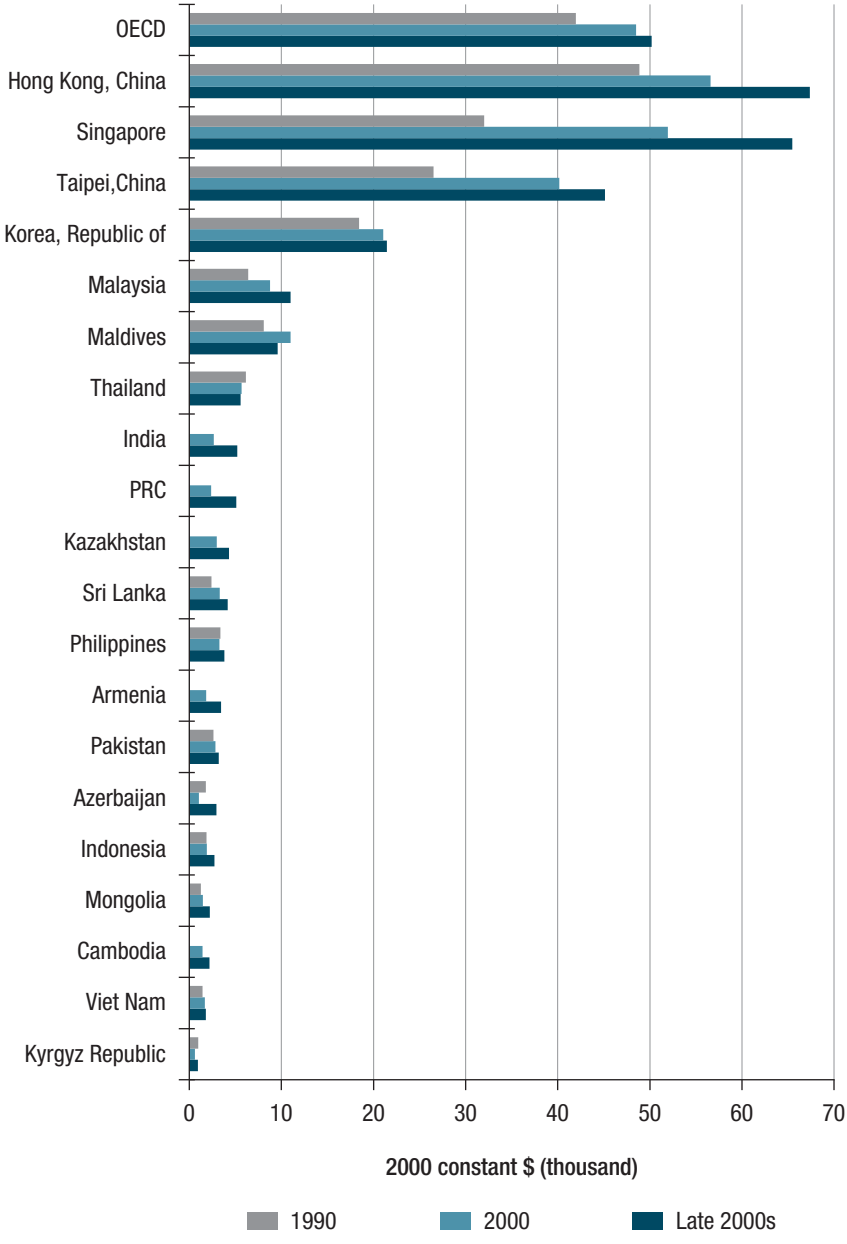
business services comprise only about 8%–12% of the economy in the PRC; India; Indonesia; Taipei,China; and Thailand. In advanced Organisation for Economic Co-operation and Development (OECD) economies such as France, Japan, and the US, on the other hand, modern services account for about 17%–25%. In Asia, only Hong Kong, China; the Republic of Korea; and Singapore have comparable sectors. Modern services are tradable internationally and thus offer countries opportunities to both increase and diversify foreign trade. Advanced economies have shifted toward a larger modern service sector that tends to have higher productivity and better wages compared with traditional services.

A huge gap separates Asia's productivity in services from that of OECD members. For most Asian economies, labor productivity is less than 10% of the productivity in OECD members (Figure 1.19) though a few have already caught up, i.e., Hong Kong, China in 1990 and Singapore in 2000 with Taipei,China not far behind. For most developing Asian economies, however, crude estimates based on an average growth in productivity of 4% from 2000 to 2009 indicate that it might take 15–30 years to reach even 20% of the OECD's current labor service productivity, though historical data for the PRC and India indicate it will take about 10 years as their growth rates are 8%. In contrast, there are countries with productivity levels that have barely changed in the past decade. For example, while the Republic of Korea's productivity level is already 40% that of other OECD members, growth in labor productivity has been less than 1%, and according to some estimates, total factor productivity growth has actually been negative (Schiff 2007, Hyundai Research Institute 2010). Similarly for Thailand, the growth of labor productivity in services has been stagnant. In some economies with relatively large service sectors such as Pakistan, the Philippines, and Sri Lanka, labor productivity growth rates have averaged only 2%–3%.

As with services, there is a large gap between the industrial productivity of Asian developing economies and that of OECD economies (Figure 1.20), but the gap is more dramatic in the service sector than in the industry sector (Figure 1.21). This reflects the more mature Asian industry sector though in South Asian countries, particularly India, the Maldives, Pakistan, and Sri Lanka, the reverse is true as their service sectors are closer to OECD levels than their industry sectors. Overall, however, most economies face the daunting task of closing the productivity gap in either industry or services.

The wide gap in labor productivity of services between OECD and developing Asian economies suggests that much remains to be done. On a positive note, this implies that there is plenty of room for expanding productivity and thus for services to contribute to Asia's future economic growth. While a major shift toward a larger service sector has occurred in most economies, not much has changed in terms of the composition of services. Judging by the pace at which the mix of service activities has evolved, achieving a more sophisticated

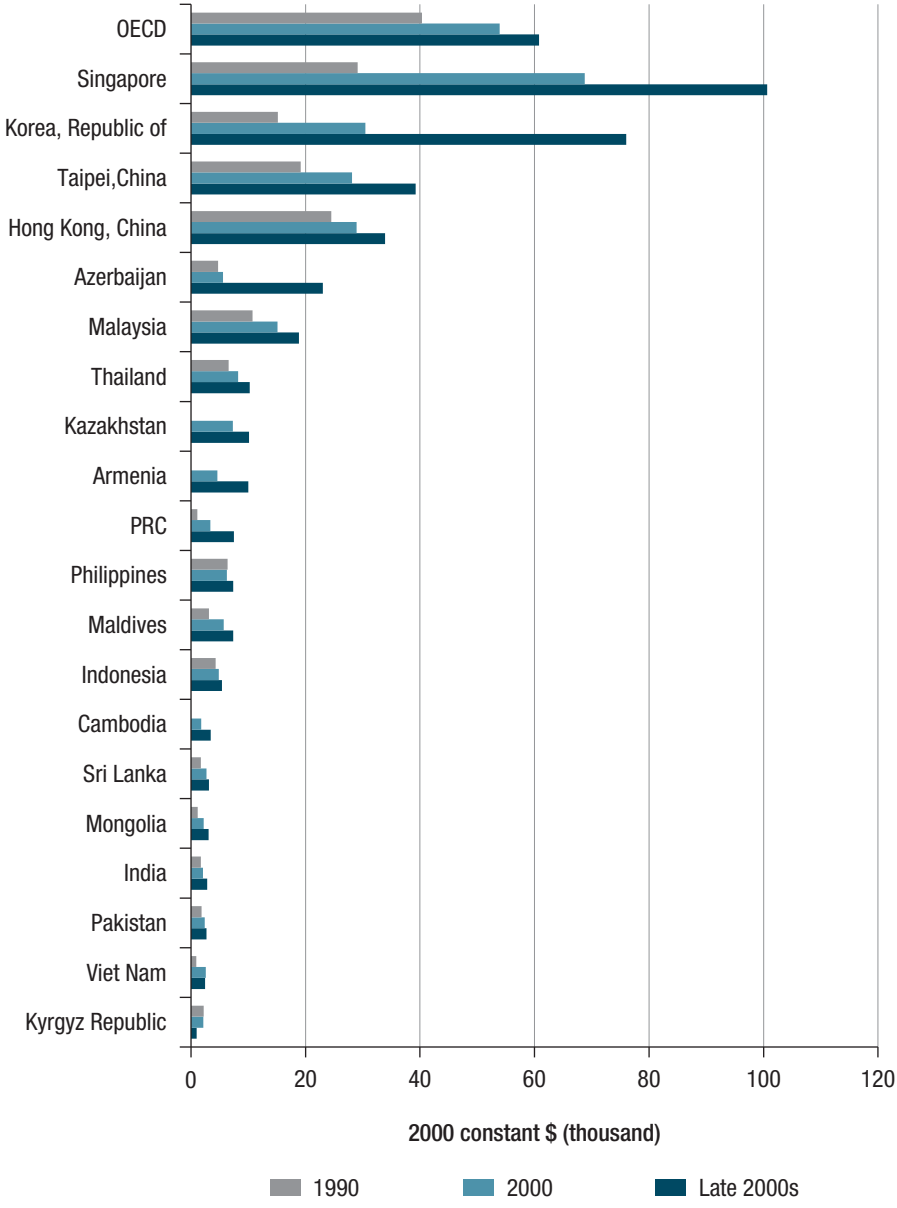
Figure 1.19
Labor Productivity in Services in Developing Asia versus the OECD



OECD = Organisation for Economic Co-operation and Development, PRC = People's Republic of China.

Sources: ADB estimates using data from ADB (2007), CEIC Data Company, International Labour Organization (2011), and the World Bank's World Development Indicators database (accessed 16 April 2012).

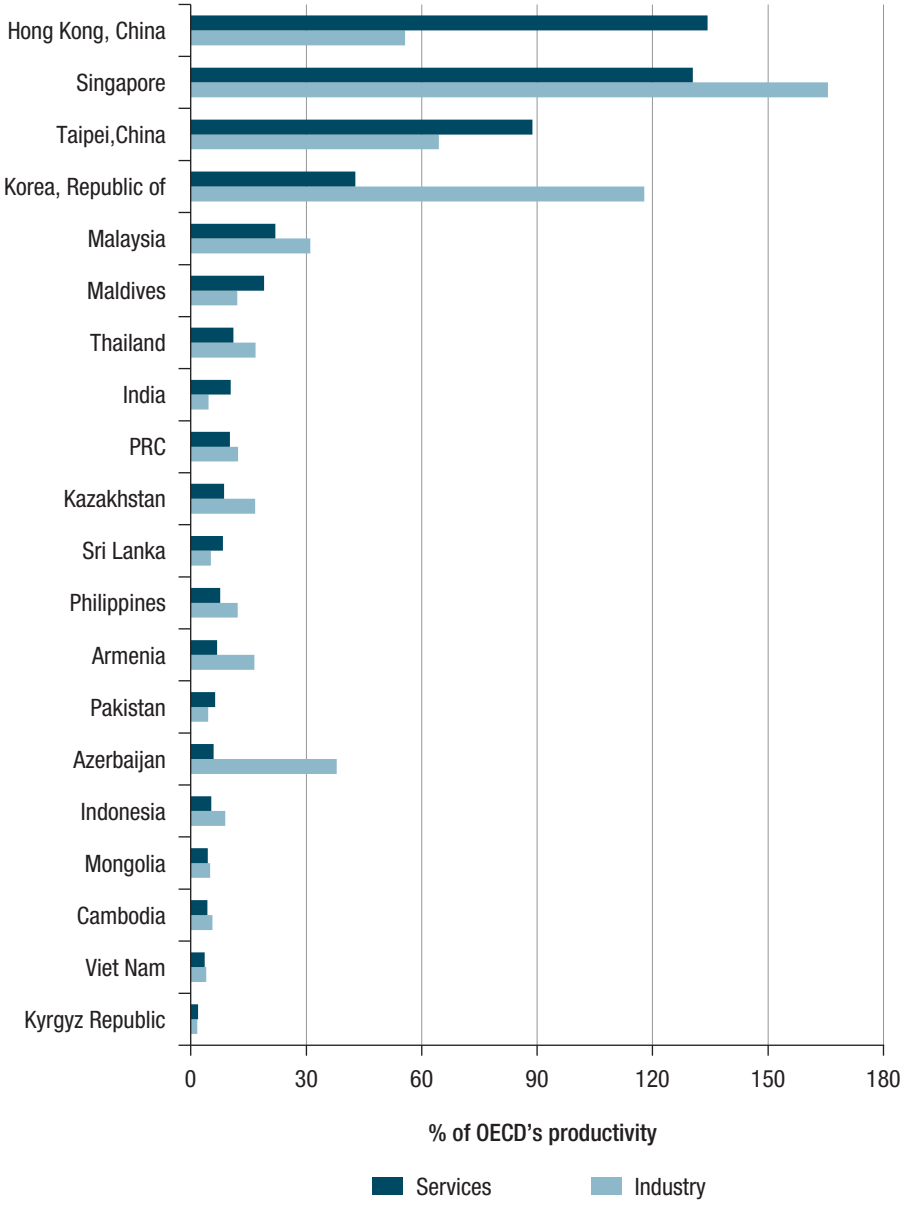
Figure 1.20
Labor Productivity in Industry in Developing Asia versus the OECD



OECD = Organisation for Economic Co-operation and Development, PRC = People's Republic of China.

Sources: ADB estimates using data from ADB (2007), CEIC Data Company, International Labour Organization (2011), and the World Bank's World Development Indicators database (accessed 16 April 2012).

Figure 1.21
Comparative Labor Productivity in Developing Asia, late 2000s



OECD = Organisation for Economic Co-operation and Development, PRC = People's Republic of China.

Note: Computed by dividing average labor productivity in an economy by the average labor productivity in OECD.

Sources: ADB estimates using data from ADB (2007), CEIC Data Company, International Labour Organization (2011), and the World Bank's World Development Indicators database (accessed 16 April 2012).

and modern service sector will likely be a long process; Asian economies can, however, initiate bold steps to hasten it. While moving toward modern, high-productivity services is a desirable path for economies with traditional, low-productivity ones, services should also be directly instrumental in bringing about more inclusive growth and in alleviating poverty.

Promoting growth in services will require tackling both internal and external distortions. Liberalizing trade and foreign direct investment in services can promote productivity and efficiency for the same reasons it does in trading goods. One specific channel is importing modern business services from advanced economies, but in order to ensure the growth of the sector as a whole rather than that of a few high-productivity enclaves, it is vital to remove domestic distortions such as excessive regulations. A more competitive market resulting from removing internal and external distortions is the key to productivity growth.

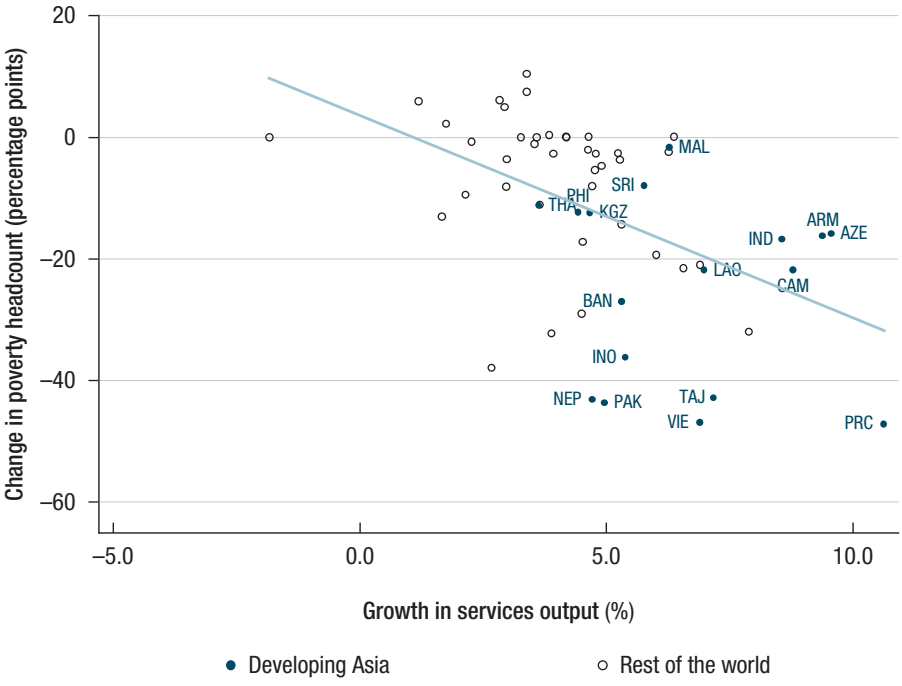
A more productive service sector has a positive effect on manufacturing and on the rest of the economy. For example, efficient ICT and transportation can promote productivity across the entire economy. A strong, modern service sector, in particular business services such as design, prototyping, and marketing, can help middle-income Asian countries move up the value chain and thus escape the middle-income trap.

The government can help lay the foundation for a vibrant service sector through both policy reform and investments in physical infrastructure and human capital. Compared with the PRC's pro-manufacturing policy bias that has stunted its service sector, the rise of India's IT-BPO industry due to a lack of regulations shows that removing policy distortions can help. At the same time, the government can take active measures to create a more conducive environment, e.g., investing in physical infrastructure such as telecommunications and education/human capital as both are essential for a vibrant IT-BPO industry.

F. Poverty Reduction and Inclusive Growth

Growth in the service sector is correlated with poverty reduction (Figure 1.22); the question is whether one can say anything more definitive. Once the initial level of poverty is taken into account, a number of variables related to economic performance and institutional characteristics might affect poverty alleviation. In the former category, structural factors such as the differential growth of the agriculture, industry, and service sectors or the growth of public consumption are obvious possibilities. High levels of physical and human capital accumulation in the latter case, particularly with respect to women, may be associated with rapid and inclusive growth. There is also some evidence that countries with

Figure 1.22
Change in Poverty and Annual Growth in Service Output in Developing Asia and the Rest of the World, 1990–2010



ARM = Armenia, AZE = Azerbaijan, BAN = Bangladesh, CAM = Cambodia, IND = India, INO = Indonesia, KGZ = Kyrgyz Republic, LAO = Lao People's Democratic Republic, MAL = Malaysia, NEP = Nepal, PAK = Pakistan, PHI = Philippines, PRC = People's Republic of China, SRI = Sri Lanka, TAJ = Tajikistan, THA = Thailand, VIE = Viet Nam.

Source: Authors' estimates based on data from the World Bank's World Development Indicators database (accessed 16 April 2012).

scarce land resources may have somewhat distinct developmental trajectories; this profile may be particularly amenable to growth with equity (Leamer 1987). Institutionally, there is some evidence that democracies tend to have more inclusive growth though the direction of causality is debatable, and it would not be surprising if there were long-lasting legacies from formerly centrally planned economies (Perotti 1996). However, the problem that immediately arises is that these characteristics are highly correlated, and this high degree of collinearity may frustrate precise identification of the causes. As shown in Table 1.3, a reduction in poverty is highly correlated with the initial level of poverty, with the growth of the service sector, and with many other variables as well. Apart from its initial level, the three variables most highly correlated with a change in poverty levels

Table 1.3
Correlations with Poverty Reduction Variables

	Poverty Change	Initial Poverty Level	Service Growth	Agriculture Growth	Manufacturing Growth	Female Education	Polity IV
Poverty change	1.0000						
Initial poverty level	–0.7333***	1.0000					
Service growth	–0.3700***	0.1264***	1.0000				
Agriculture growth	–0.3940***	0.3987***	0.1704***	1.0000			
Manufacturing growth	–0.3602***	0.2236***	0.5745***	0.2729***	1.0000		
Female education	0.2111***	–0.4907***	0.0428*	–0.0687***	–0.1599***	1.0000	
Polity IV	0.2655***	–0.4992***	–0.0521**	–0.1459***	–0.1535***	0.4954***	1.0000
Former CPE	–0.2190***	0.0120	0.3815***	0.2196***	0.2019***	0.3209***	–0.1503***
Developing Asia	–0.4688***	0.2490***	0.5202***	0.2122***	0.3465***	–0.0089	–0.0135
Government consumption	–0.2177***	0.1251***	0.2958***	0.0554**	0.0434*	0.0492***	–0.0510***
Investment	–0.1477***	–0.0694***	0.1817***	–0.1905***	0.3107***	0.1954***	0.0129
Arable land	0.2416***	–0.1516***	–0.2273***	0.0399*	–0.0246	0.2739***	0.0655***
Urban population	0.5728***	–0.7051***	–0.3148***	–0.2088***	–0.4383***	0.4809***	0.4802***

	Former CPE	Developing Asia	Government Consumption	Investment	Arable Land	Urban Population
Poverty change						
Initial poverty level						
Service growth						
Agriculture growth						
Manufacturing growth						
Female education						
Polity IV						
Former CPE	1.0000					
Developing Asia	0.3049***	1.0000				
Government consumption	0.3152***	0.0428**	1.0000			
Investment	–0.0376	0.1578***	0.0102	1.0000		
Arable land	–0.0976***	–0.2047***	–0.0321*	–0.1258***	1.0000	
Urban population	–0.0356	–0.3452***	–0.1766***	0.0181	0.2197***	1.0000

"***" means significant at 1%, "**" at 5%, and "*" at 10%.

CPE = centrally planned economy.

Source: Authors' estimates based on data from the World Bank's World Development Indicators database (accessed 24 February 2012), Barro and Lee (2010), Polity IV Project, and Penn World Tables.

are the share of urban population (associated with a slower reduction in poverty), being an Asian developing country, and growth in the output of services (both associated with more rapid poverty reduction). It is therefore reasonable to expect that the performance of the service sector may have a significant impact on poverty reduction and inclusive growth.

To examine this possibility more definitively, multivariate regressions were estimated on data for 56 economies including 17 in developing Asia from 1990 to 2010 using the common convergence growth model in which the rate of change is estimated conditional on the starting value of the dependent variable. These regressions are reported in Table 1.4. This approach to analyzing poverty reduction was previously explored from 1990 to 2005 by Ghani and Kharas (2010). This is but one indicator of inclusive growth; others include the level of employment or the employment of traditionally disadvantaged groups such as women.

Controlling for initial level of poverty, change in poverty was regressed against growth in service, agricultural, and manufacturing outputs. We also explored a number of other potential drivers of poverty reduction: educational attainment, particularly female educational attainment; Polity IV democracy scores (per Kuznets, a reduction in inequality with rising per capita income may reflect a greater weight on poverty reduction due to democratization); physical investment; government consumption; urbanization; the abundance of arable land; status as a former centrally planned economy; status as a developing Asian country; and sample period. In this multivariate framework, most of the potential regressors were found not to be robustly correlated with poverty reduction. As expected, initial poverty level was consistently correlated with poverty reduction, indicating that countries with higher poverty rates tend to have faster rates of poverty reduction. The results of the basic model (Specification 1 in Table 1.4) indicate that growth in the output of services is significantly associated with poverty reduction while neither agricultural nor manufacturing output growth was significant. Additionally, former centrally planned economies exhibited more rapid rates of poverty reduction. The results are broadly in line with those of Ghani and Kharas.

In Specification 2, the share of females attending secondary school or higher at the beginning of the sample period is included. Female education is significantly associated with poverty reduction, and service output growth, initial poverty level, and status as a former centrally planned economy remain significant.

In Specification 3, the centrally planned economy variable is removed as well as the insignificant manufacturing and agricultural growth variables. In their place a developing Asia binary variable is introduced. To be clear, it is not theoretically obvious why specific regions of the world should exhibit distinctive results. That said, status as a developing Asian country appears to be significantly correlated with poverty reduction.

Specification 4 reincorporates status as a former centrally planned economy into the model while retaining the developing Asia dummy variable. The developing Asia dummy absorbs so much sample variation that the coefficients on several apparently robust regressors, including the service variable, become statistically insignificant.

In Specification 5, the Polity IV score is substituted for the developing Asia dummy variable along with the remaining regressors from Specification 2. As a consequence of the collinearity between female education and the polity score, the estimated coefficients for these variables are not statistically significant though they are jointly significant at the 90% confidence level. In Specification 6, the former centrally planned economy dummy is replaced with the developing Asia dummy. As with Specification 4, developing Asia absorbs sufficient sample variation to render the service output, female education, and polity score coefficients insignificant. Jointly, the three variables are significant at the 95% confidence level. Similarly, female education and service production are jointly significant at the 90% confidence level. In short, it appears that female educational attainment, service output, and the democracy indicator are all correlated with poverty reduction, but teasing out the precise relationship is hampered by multicollinearity.

In specifications 7 through 9, the female education variable is dropped while the democracy variable is retained. Specification 7 uses the former centrally planned economy control and produces significant results for all variables included with the polity score indicating a significant correlation with poverty reduction. Specification 8 includes the developing Asia dummy without the former centrally planned economy variable. The results from equations 4 and 6 are repeated as the inclusion of the developing Asia dummy renders the coefficients for the service and polity score variables insignificant. Finally, Specification 9 includes the former centrally planned economy and developing Asia controls along with the polity score variable. Unlike Specification 4 in which the coefficient on status as a former centrally planned economy was insignificant, in Specification 9, the estimated coefficients on both the former centrally planned economy and developing Asia dummies are significant. A country's polity score is also significantly correlated with poverty reduction in this specification. Growth in the output of services, however, is not significant in this case.

In sum, a visual inspection of the data along the lines of Figure 1.22 confirms that service output is associated with inclusive growth. The simple correlations reported in Table 1.3 show that the growth of services is the structural characteristic more highly correlated with a reduction in poverty. The high degree of multicollinearity among the variables of interest frustrates identifying the precise causal channels, but the multivariate regressions reported in Table 1.4

Table 1.4
Cross-Country Regressions on Change in Poverty Headcount (at $1.25 a day), 1990–2010

Independent Variable	(4.1)	(4.2)	(4.3)	(4.4)	(4.5)	(4.6)	(4.7)	(4.8)	(4.9)
Initial poverty Level	–0.421*** (0.072)	–0.465*** (0.072)	–0.437*** (0.068)	–0.428*** (0.071)	–0.501*** (0.067)	–0.450*** (0.069)	–0.485*** (0.062)	–0.405*** (0.059)	–0.447*** (0.062)
Former CPE	–7.681*** (2.465)	–6.007* (3.231)		–3.781 (3.536)	–8.136** (3.780)		–8.682*** (2.611)		–6.169** (2.632)
Developing Asia			–6.816** (3.088)	–6.819* (3.533)		–7.651** (3.251)		–8.791*** (2.942)	–6.560** (2.963)
Services output growth	–1.179*** (0.438)	–1.138** (0.480)	–0.908* (0.515)	–0.711 (0.509)	–1.076** (0.498)	–0.846 (0.550)	–1.171** (0.456)	–0.913 (0.553)	–0.673 (0.483)
Agricultural output growth	–0.358 (0.819)	0.105 (0.778)							
Manufacturing output growth	0.051 (0.326)	–0.104 (0.425)							
Share of females attending secondary school or higher in 1990		–0.123* (0.070)	–0.129** (0.056)	–0.097 (0.071)	–0.071 (0.085)	–0.108 (0.070)			
Polity Index (index range = –10 to 10)					–0.387 (0.267)	–0.217 (0.233)	–0.427* (0.220)	–0.292 (0.205)	–0.363* (0.204)
Constant	21.706*** (5.905)	24.941*** (7.251)	18.572*** (6.078)	18.917*** (6.554)	24.111*** (6.173)	16.898** (6.289)	22.193*** (5.714)	10.667* (6.008)	16.463*** (5.991)
Observations	56	52	54	52	52	52	56	56	56
R-squared	0.685	0.692	0.706	0.716	0.708	0.716	0.707	0.711	0.730

"***" means significant at 1%, "**" at 5%, and "*" at 10%.

CPE = centrally planned economy.

Note: Robust standard errors are reported in parentheses. All regressions control for time period.

Source: Authors' estimates based on data from the World Bank's World Development Indicators database (accessed 24 February 2012), Barro and Lee (2010), Polity IV Project, and Penn World Tables.

establish that while there is evidence that service growth is associated with poverty reduction, the relationship does not appear to be robust. What can be said definitively is that there is no evidence that growth in the output of services is associated with increasing poverty.

G. Gender Equality and Environmentally Sustainable Growth

In addition to poverty reduction, greater gender equality is another key dimension of more inclusive economic growth, especially expanding access to education and employment opportunities to women. Asian economies have recently been paying more attention to the environmental costs of rapid industrial growth; developing the service sector could contribute to more environmentally sustainable growth.

1. Gender Equality

As an economy evolves from agriculture to manufacturing and services, developing the service sector increases employment opportunities for both men and women but especially for women since service jobs tend to be less physically demanding than manufacturing jobs. Indeed, the *World Development Report* (World Bank 2012) shows that across 77 countries, services accounted for a higher proportion of female employment than male employment while the reverse was true in manufacturing.

Ghani (2010) supports the view that the growth of services is key to female employment. He finds that countries where services account for a higher share of employment have higher female labor force participation rates. In India and Pakistan, the service sector has experienced the largest growth in female labor force participation over the past 3 decades. The thriving modern service sector in India opened up huge employment opportunities for women; in fact they currently account for 30% of the ICT workforce which is higher than the share of women in service employment overall. But while advances in ICT can open up new job possibilities for women, they can also bring female job insecurity and wage disparities rooted in gender gaps in access to education and in acquiring skills. Addressing such gaps will be crucial to enhancing the potential of the service sector to reduce gender disparities in the labor market.

2. Environmentally Sustainable Growth

As noted earlier, as countries grow richer, the relative importance of services in the economy tends to rise. In addition, the general public in richer countries tends to demand a cleaner environment and consequently invests more to protect it. A cleaner environment and a service-oriented economy may not be independent of each other. Relative to agriculture and manufacturing, the service sector tends to be less resource intensive and thus places less strain on the environment. For example, food and beverage manufacturing uses agricultural products, land, water, fuel, and electricity in addition to labor input. In contrast, an ICT firm is highly dependent on labor and electricity only. Furthermore, its exports can be sent through the internet and so require less transport and energy costs than manufactured exports.

The relationship between services and the environment can also be analyzed in terms of the potential impact of certain environmental risks. For example, climate change will affect the availability of resources, but the impact will be less serious on the service sector than on the agriculture and industry sectors. There are services such as tourism, transport, and telecommunications that can be adversely affected by severe changes in the environment (Krechowicz and Fernando 2009), but considering their relatively low resource intensity, environmental changes are expected to have less direct impact on services than on other sectors. This suggests that resource degradation and depletion will pose bigger constraints to expanding output in agriculture and manufacturing and that it may be less environmentally costly to expand services.

H. Urbanization and the Informal Economy

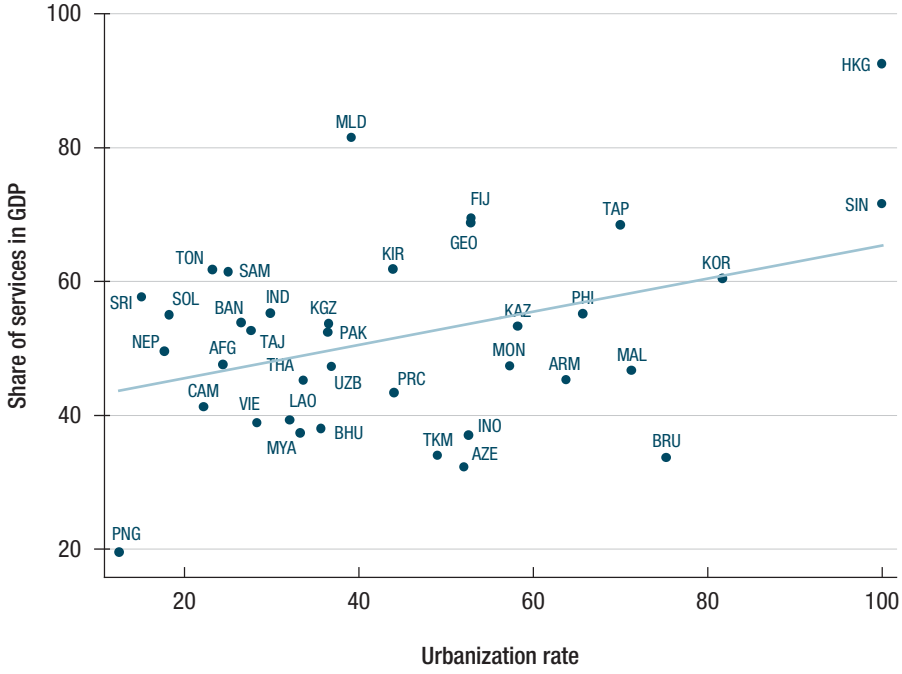
Asian economies are increasingly becoming more urbanized. Several cities in the region such as New Delhi, Seoul, and Shanghai are among the largest megacities in the world. Urbanization can be viewed as a natural consequence of economic growth. For the service sector, urbanization can be a major driver of growth especially in the early stages when it tends to generate more activity in the informal sector.

1. Urbanization

Urbanization is associated with higher incomes that in turn raise the demand for a wide array of services; thus, both traditional and modern services thrive in urban locations. Service industries tend to locate in urban areas for proximity

to both clients and suppliers as face-to-face interaction with clients is important for retailing, education, healthcare, and other community and personal services. Service industries also often cater to varying business activities, so they will locate in areas with dense and diverse business settings (Kolko 2010). The evidence for Asia indicates that more urban economies have larger service outputs and employment shares (Figures 1.23 and 1.24). The rapid urbanization of Asian economies is therefore another reason to expect that services will become more important as a source of growth and jobs.

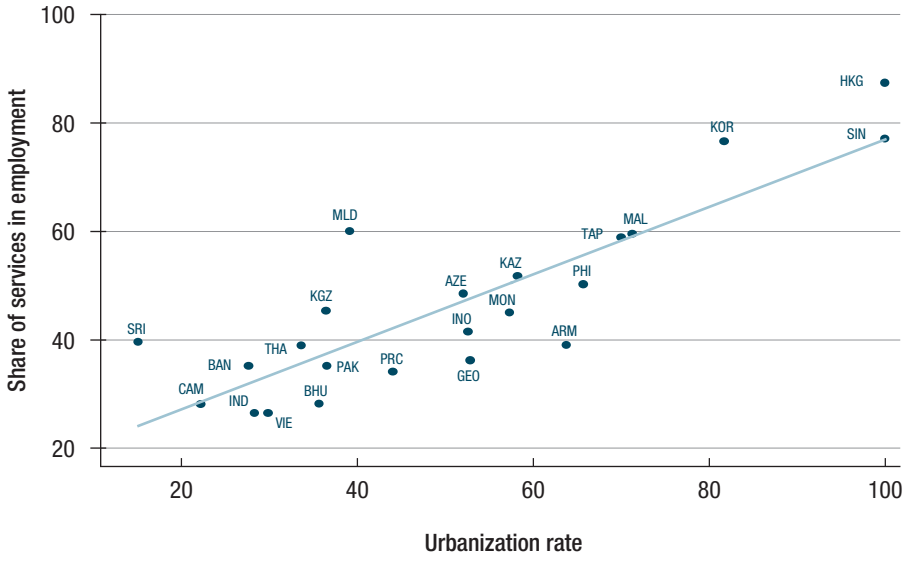
Figure 1.23
Urbanization Rate and Share of Services in Gross Domestic Product in Developing Asia, 2009 (%)



AFG = Afghanistan; ARM = Armenia; AZE = Azerbaijan; BAN = Bangladesh; BHU = Bhutan; BRU = Brunei Darussalam; CAM = Cambodia; FIJ = Fiji; GDP = gross domestic product; GEO = Georgia; HKG = Hong Kong, China; IND = India; INO = Indonesia; KAZ = Kazakhstan; KGZ = Kyrgyz Republic; KIR = Kiribati; KOR = Republic of Korea; LAO = Lao People's Democratic Republic; MAL = Malaysia; MLD = Maldives; MON = Mongolia; MYA = Myanmar; NEP = Nepal; PAK = Pakistan; PHI = Philippines; PNG = Papua New Guinea; PRC = People's Republic of China; SAM = Samoa; SIN = Singapore; SOL = Solomon Islands; SRI = Sri Lanka; TAJ = Tajikistan; TAP = Taipei,China; THA = Thailand; TKM = Turkmenistan; TON = Tonga; UZB = Uzbekistan; VIE = Viet Nam.

Sources: CEIC Data Company; World Bank. World Development Indicators database (accessed 16 April 2012).

Figure 1.24
Urbanization Rate and Share of Services in Employment in Developing Asia, 2009 (%)



ARM = Armenia; AZE = Azerbaijan; BAN = Bangladesh; BHU = Bhutan; CAM = Cambodia; GEO = Georgia; HKG = Hong Kong, China; IND = India; INO = Indonesia; KAZ = Kazakhstan; KGZ = Kyrgyz Republic; KOR = Republic of Korea; MAL = Malaysia; MLD = Maldives; MON = Mongolia; PAK = Pakistan; PHI = Philippines; PRC = People's Republic of China; SIN = Singapore; SRI = Sri Lanka; TAP = Taipei,China; THA = Thailand; VIE = Viet Nam.

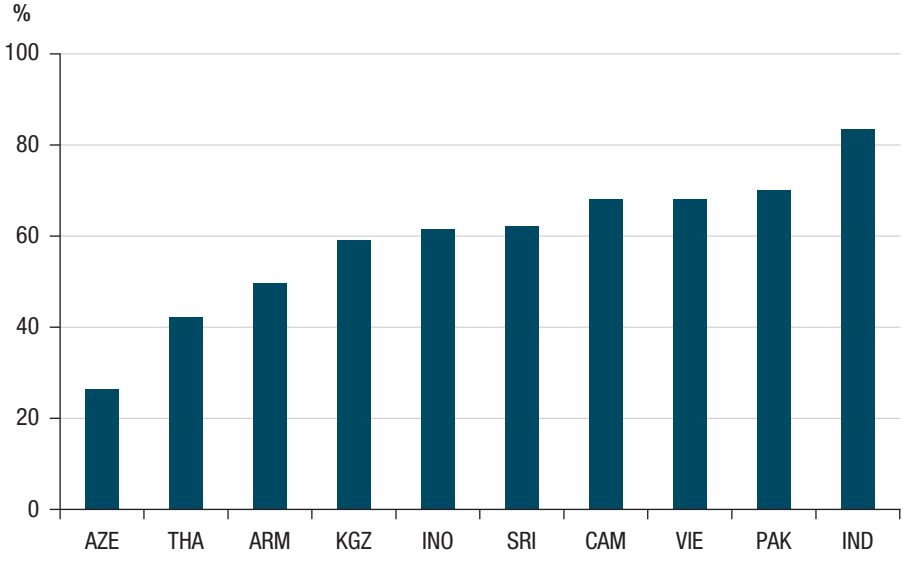
Note: Employment data refer to 2006 for Cambodia and the Maldives; 2007 for Georgia; 2008 for Armenia, the Kyrgyz Republic, and Pakistan; and 2010 for Bangladesh and India.

Sources: CEIC Data Company; World Bank. World Development Indicators database (both accessed 16 April 2012).

2. Informal Sector Employment

The informal sector, which is often dominated by services, is a large part of the economy in many Asian countries. The informal sector accounts for over 60% of non-agricultural employment in Cambodia, India, Indonesia, Pakistan, Sri Lanka, and Viet Nam (Figure 1.25). One factor that may well link services and the informal sector is the importance of both in providing jobs in urban areas, especially in low-income economies or at the early stages of urbanization. Many urban migrants settle for work in the informal sector because their low skill levels and limited education make it easier for them to find work as street vendors, peddlers, or assistants in small shops. At substantially higher-income levels though, the importance of the informal sector diminishes (ADB 2005) while that of the service sector in general increases even more.

Figure 1.25
Share of the Informal Sector in Non-Agricultural Employment in Selected Asian Countries



ARM = Armenia, AZE = Azerbaijan, CAM = Cambodia, IND = India, INO = Indonesia, KGZ = Kyrgyz Republic, PAK = Pakistan, SRI = Sri Lanka, THA = Thailand, VIE = Viet Nam.

Note: Data for Cambodia refer to 2001; Pakistan to 2004; India to 2005; Armenia to 2008; Azerbaijan, Kyrgyz Republic, Indonesia, Sri Lanka, and Viet Nam to 2009; and Thailand to 2010.

Sources: International Labour Organization (2011); ADB (2005).

I. Quality of Service Sector Data

It would be desirable to focus the discussion on a more narrowly defined range of services relatively suitable to liberalization and clearly economically linked to the performance of the rest of the economy. What one immediately confronts, however, is the dearth of data. Indeed, one of the central messages of this book is the need to greatly expand efforts to collect basic data as one cannot manage what one cannot measure. This is an activity that the Asian Development Bank (ADB) is ideally positioned to support.

Table 1.5 summarizes data available for developing Asian economies based on a survey of their bureaus of statistics and labor. It may well be incomplete; we welcome the identification of any missing sources. Nevertheless, even as an incomplete first effort, it invites caution. There is a tendency for occupational employment and wage data to be available at finer levels of disaggregation

Table 1.5
Available Data on Services in Selected Developing Asian Economies

Selected Asian Economies	Economic Data on Services			Employment Data on Services		
	Types of Data	Level of Disaggregation in Services	Years Available	Types of Data	Level of Disaggregation in Services	Years Available
China, People's Republic of	Services value added	13	2005–present	Average wages by sector	14	2003–present
	GDP by sector	6	1978–present	Employment by sector	14	2003–present
Hong Kong, China	Exports and imports of services by sector	7	2006–present	Average wages by sector	6	2005–present
	GDP by sector	8	2005–present	Employment by sector	6	2005–present
Korea, Republic of	Service industry survey (sales, number of establishments, employment)	6	1996–2007	Average wages by sector	12	2011
	GDP by sector	12	1985–present	Employment by sector	17	2004–present
India	Net domestic product by sector	10	2005–present	Employment by sector	Full 4-digit Indian NIC coding system	2010
	Classification of output/value added by sector	10	2000–present	Employee compensation by sector	10	2000–present
Malaysia	Revenue/expenses by sector/occupation	37	1971–2007	Employment by sector/ occupation	37	1971–2007
	Value of fixed assets by sector/occupation	37	1971–2007	Total wages by sector/ occupation	37	1971–2007
Philippines	GDP by sector	6	2009–present	Employment by occupation	17	1990–present
				Employment by sector	11	2001–2009
Singapore	Value added by sector	7	2004–present	Employment by occupation	25	2010
	Number of establishments by sector	7	2004–present	Employment by sector	12	2011
Taipei,China	GDP by sector	5	1986–present	Employment by sector	55	2011
				Wages by sector	55	2011

GDP = gross domestic product, NIC = national industrial classification.

Sources: Country bureaus of labor and statistics.

than sector output or value-added data that in turn are reported with greater granularity than data on international transactions. This unevenness appears to be at least in part a function of bureaucracies with labor ministries tending to take the lead on employment data, economic or industrial ministries on output data, and the finance ministry or central bank on international transactional data. Greater coordination and consistency across reporting sources could improve the usefulness of this information.

Data for Malaysia are reported in Table 1.6 covering 38 service activities with those that might be considered "business services" in bold-face type.[6] For most, data on revenue, expenditures, employment, wages, and capital stock are reported. While Table 1.6 reports only on 2007, the data go back to 1971 (albeit not for all services) which would permit the calculation of changes over time in wage rates, apparent profitability, labor and total factor productivity, and other indicators of interest. This would allow us to begin to analyze how these activities responded to major changes in regulations, openness to trade, and other policies.

The Malaysian data, although among the best in the region, do not contain information on international transactions nor are they broken down into figures for local and foreign producers. These lacunae simply underscore that while the available data allow the analysis of issues of interest, there are significant limitations. ADB again would appear to be ideally suited to offer technical assistance and in some cases even financial support for collecting and disseminating a richer set of indicators on this increasingly important component of economic life.

J. Conceptual Issues

We first explore the relative role of manufacturing and services in the growth and development of Asian economies. Second, we examine the links between productivity in services and productivity in other sectors of the economy, especially industry. Finally, we look at the potential contribution of service sector development to inclusive growth along with the role of Asian governments in fostering more dynamic service sectors.

1. The Either-Manufacturing-or-Services Fallacy

Some Asian countries, most notably India and to a lesser extent the Philippines, have succeeded in leveraging ICT and other new technologies to boost service exports and growth. Some point to the experiences of those countries as evidence

Table 1.6
Service Employment Snapshot for Malaysia, 2007

Industries/Occupations (business services highlighted in bold)	**Revenue** (1 million Malaysian ringgit)	**Expenditure** (1 million Malaysian ringgit)	**Total Employment** (1,000 persons)	**Salaries and Wages** (1 million Malaysian ringgit)	**Value of Fixed Assets** (1 million Malaysian ringgit)
Lawyers	2,109	1,525	36	701	354
Accountants	1,464	1,089	23	604	183
Architects	1,146	953	12	310	243
Building draftsman	28	22	1	8	6
Engineers	4,956	4,427	27	1,179	492
Surveyors	1,079	912	12	313	202
Private schools	5,887	5,204	84	2,001	5,814
Driving schools	251	221	5	76	169
Medical services	2,991	2,329	31	631	857
Dental services	308	217	4	67	92
Veterinary services	71	60	1	12	18
Private hospitals	4,372	4,020	31	864	3,050
Accommodation	8,461	7,157	103	1,683	19,328
Stock, share, commodity brokers, and foreign exchange services	3,202	2,035	10	471	492
Real estate agents	344	306	4	89	87
Advertising agencies	2,078	1,949	6	290	154
Motion picture projection services	234	200	1	15	134
Bus transport (2006 data)	1,168	1,267	16	294	836
Road haulage (2006 data)	6,724	6,420	48	1,066	2,510
Shipping companies	13,041	9,634	21	872	15,445
Inland water transport (2006 data)	199	182	2	34	106
Air transport	20,478	23,751	23	1,406	13,386
Train/light rail services	727	862	7	199	4,153
Other cargo services (2006 data)	1,222	983	6	155	476
Stevedoring companies (2006 data)	200	187	3	52	44

continued on next page

Table 1.6 continued

Industries/Occupations (business services highlighted in bold)	**Revenue** (1 million Malaysian ringgit)	**Expenditure** (1 million Malaysian ringgit)	**Total Employment** (1,000 persons)	**Salaries and Wages** (1 million Malaysian ringgit)	**Value of Fixed Assets** (1 million Malaysian ringgit)
Storage and warehousing services (2006 data)	569	492	3	86	529
Parking lot services (2006 data)	447	386	4	65	469
Highway operation services	4,256	2,664	6	162	14,010
Port operation services (2006 data)	3,335	2,524	10	396	6,364
Travel agencies and tour operator services (2006 data)	5,443	5,256	15	346	572
Shipping agencies (2006 data)	946	813	4	146	241
Forwarding agencies (2006 data)	3,472	3,116	13	363	755
Post and courier services (2006 data)	2,359	1,988	24	547	469
Telecommunication services	40,118	31,977	44	2,261	24,384
Computer services	14,711	13,395	47	2,528	1,943
Wholesale trade (2008 data)	–	–	108	4,206	–
Retail trade	–	–	313	5,576	–
Motor vehicle trade	–	–	56	1,725	–
Total	158,398	138,521	1,167	31,797	118,366

– = no data available.

Source: Government of Malaysia, Department of Statistics.

that service-led growth offers a viable alternative to the traditional manufacturing-led growth strategy. According to this line of reasoning, technological progress allows countries to skip industrialization and move straight into the post-industrial phase. Regardless of the validity of the hypothesis—and clearly there are alternative pathways to development—framing a growth and development strategy as a matter of either manufacturing or services is a dangerous fallacy (Leamer 1987).

The hypothesis is dangerous because it can be used as an excuse for the failures of the manufacturing sector; it is no accident that its advocates tend to highlight countries that have failed to develop a strong one, e.g., the Philippines. While India has often been hailed as a paragon of service-led growth, in fact the manufacturing sector has also grown rapidly and has contributed significantly. Although we should not downplay IT-BPO industry contributions, its output and employment are not nearly enough to carry India's growth on its own.

Framing the growth and development strategy of Asian economies in terms of either manufacturing or services is not particularly meaningful because a country needs both sectors. Indeed, while their relative importance evolves over time, they both account for a large share of output and employment in most countries in Asia and elsewhere, and development is likely to be maximized when they progress symbiotically. The real challenge for developing Asia is to address the structural and policy impediments that stand in the way of efficient manufacturing and service sectors. In India, for example, augmenting the quantity and quality of physical infrastructure will boost the productivity of its manufacturing sector.

Where industrialization has not run its course—and most of Asia falls into this category—the productivity of the manufacturing sector remains low. This implies that the sector will remain a key driver of growth and jobs for years to come, especially under a sound institutional and policy environment. It is more fruitful to look at comparative advantage from a dynamic perspective. While it is tempting to write off the industrialization prospects of the Philippines, for example, we should remember that comparative advantage evolves over time. In addition, both services and manufacturing are far from monolithic and include a wide, diverse range of industries. Therefore, there are likely to be some industries in both sectors in which a country may have a comparative advantage. While ICT and other new technologies have opened up a lot of new possibilities in the service sector, especially by improving their tradability, a good balance between services and manufacturing remains the most viable growth strategy for Asia.

2. Services Complement Industrial Productivity

The service sector plays an important role in raising the productivity of manufacturing and other sectors of the economy. This particularly applies to business services as they provide key intermediate inputs such as finance, legal services, human resources, marketing, and ICT. Rather than handling these tasks internally, manufacturing firms may find it more cost-efficient to outsource them to specialized firms. The trend toward specialization and the corresponding growth of the global IT-BPO industry indicate how outsourcing, including offshoring, has become an integral part of running a viable and

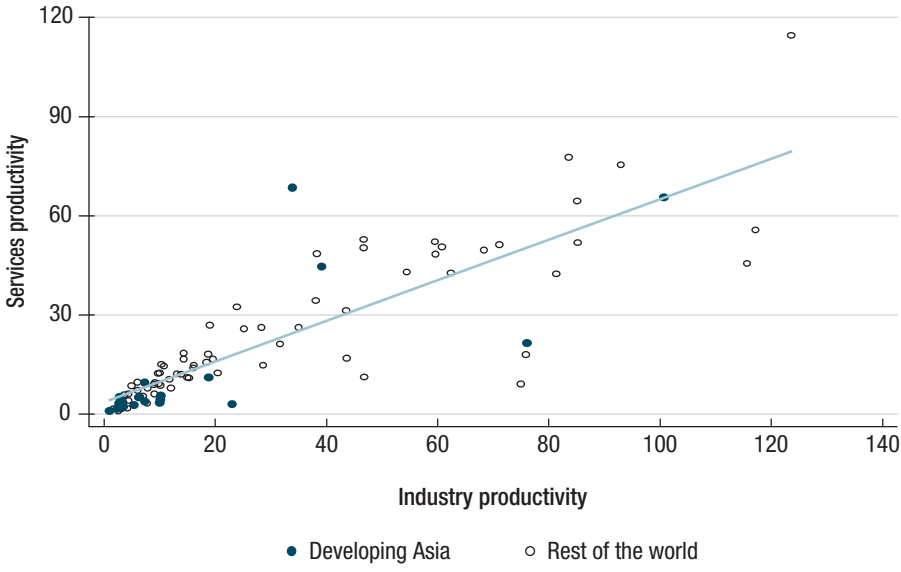
competitive business. By unloading tasks to specialized service providers, manufacturing companies can concentrate on their core activities and on improving production and making innovations and technological upgrades. The important relationship between services and industry becomes more apparent as economies develop, produce more diverse goods, and require more efficient business systems. Figure 1.26 reveals that there is a high degree of correlation between productivity in services and industrial productivity. While likely to primarily reflect factors that affect labor productivity in both industry and services, e.g., human capital and physical infrastructure, the strength of the correlation suggests a relationship to labor productivity in the two sectors as well.

A limited set of studies has examined the links among services and other sectors and broadly indicates the critical role of services in lifting productivity throughout the economy. Francois and Hoekman (2010) surveyed studies that explore the impact of the service sector on the rest of the economy and indicate the importance of services in raising aggregate productivity as well as in explaining differences in aggregate productivity levels and growth rates across countries. A study by Pilat and Wölfl (2005) indicates how services directly contribute to total output and final demand as well as to providing intermediate inputs. In addition, the increase in value added to manufactured goods by the service sector indicates the growing interdependence between services and manufacturing. The relationship between the size of the service sector and productivity and living standards was examined in a study by Eichengreen and Gupta (2009). They found a positive correlation between the share of output of services and income per capita, but it held only for services that were either a combination of traditional and modern ones consumed mainly by households, such as education and healthcare, or modern services intended for both households and businesses. Their study further found that modern services not only had the highest productivity growth among service industries but also that their share in output tended to rise rapidly at high income levels.

3. Inclusive Growth and the Role of Government

Until now, Asia has relied largely on the trickle-down effect to spread the benefits of economic growth. The implicit assumption is that growth in and of itself, especially the sustained, rapid growth Asia has enjoyed, will automatically benefit the entire population, at least eventually. This assumption is not entirely without basis as early, resource-scarce, East Asian industrializers—notably the PRC; the Republic of Korea; and Taipei,China—did in fact experience "growth with equity" to a remarkable degree, but this was linked at least in part to specific characteristics including high ratios of population to arable land, recovery from

Figure 1.26
Correlation of Labor Productivity in Services and Industry in Developing Asia and the Rest of the World, Late 2000s (2000 constant $)



Note: Data from 2005 to 2010.
Source: World Bank. World Development Indicators database (accessed 16 April 2012).

warfare, and productivity-boosting land reforms that are unlikely to be generally reproducible elsewhere (Noland and Pack 2003).

In recent years, however, Asia has witnessed growing popular demand for inclusive growth that directly and more widely benefits more of the population. Expanded access to education and to productive employment are key ingredients of inclusive growth. Services tend to be labor intensive, so developing the sector can promote inclusive growth by creating jobs. Crucially, this includes not only jobs in modern service industries but also jobs in traditional ones.

We should avoid generalizing about manufacturing versus services for creating jobs as some manufacturing industries tend to be more labor intensive than others while the same is true for services. As noted earlier, East and Southeast Asian economies were able to leverage their ample supply of labor by investing in labor-intensive manufacturing industries. Nevertheless, general manufacturing requires a larger stock of physical capital—factories and machines—than services and is thus more skewed toward capital than services. Capital is typically held by the wealthy few while even the poor are endowed

with unskilled labor. A shift in economic structure toward services can thus help to reduce poverty and inequality. The evidence resoundingly confirms that services have been a major source of jobs in Asia.

The policy question now facing Asian governments is this: What policies can they pursue to stimulate the growth of the service sector beyond enabling reforms? Those policies include easing entry to boost competition, reducing the regulatory burden, improving access to capital especially for entrepreneurs and small and medium-sized enterprises, reducing taxation on labor, and increasing the flexibility of labor markets more generally by equalizing tax treatment across sectors as manufacturing is often treated preferentially. One area in which active government intervention can make a big difference is ICT infrastructure, especially broadband. ICT has large spillover effects on services and served as a catalyst in transforming non-tradable services into tradable ones. Telecom liberalization that brings down prices is key in this context. With respect to the efficiency of public services and utilities, privatization has largely fallen out of favor; fostering more competitive markets remains the more basic challenge.

K. Concluding Observations

For reasons of employment, international relations, and internal stability, Asia must strengthen its service sector. In lower-income economies, traditional services account for much of the sector whereas in the higher-income ones, modern services play a bigger role. This diversity necessarily means that they face different priorities in developing their sectors, but strengthening modern services remains a common challenge. The intangible nature of many services does not detract from their very real economic effects, especially in employment but also in broader economic dynamism. For example, efficient energy, transportation, and distribution networks boost the productivity of the manufacturing sector.

The service sector already accounts for a large share of Asia's output and employment. This is hardly surprising since industrialization, during which the share of output and employment in both services and industry typically rises at the expense of agriculture, is underway in most of Asia including in its poorer, less-developed economies. The growth of the service sector has in fact already made a sizeable contribution to economic growth and has the potential to reduce poverty in a region that is still home to almost two-thirds of the world's poor.

There is plenty of scope for further growth and development in Asia's service sector as traditional services still account for a large share, and partly as a result, the sector lags far behind the OECD in terms of efficiency. This yawning productivity gap between Asian and OECD economies implies a wide range of

structural and policy impediments that must be removed in order for Asia to fully unleash the potential of the sector as an engine for growth and job creation. Given the diversity of the region, there is obviously not a single template for reforms. Specific policies will have to be tailored to local circumstances.

Nevertheless, there are recurrent themes. First and foremost is encouraging competition in service provision. Often this will require removing burdensome regulations that typically protect incumbent firms and thus stifle competition and innovation (Wölfl et al. 2010). International experience historically shows that regulatory reforms often deliver significant economic benefits, such as higher labor productivity and lower prices (OECD 2005). Where services are currently provided by public entities, competition can be achieved through regulatory reforms that foster competition and choice, short of privatizing them. An example would be opening education to private providers.

Regulatory reform may be a necessary condition, but it is unlikely to be a sufficient one. Strengthening labor and capital markets must complement regulatory reform to encourage the establishment and growth of new and innovative service providers.

Competition can also be imported. External barriers that impede trade in services and the local establishment of foreign providers also hinder competition in domestic service markets. Reducing such barriers can not only promote efficiency and productivity in services but can also contribute directly to exports and growth, e.g., India's success as an IT-BPO exporter. The overall guiding principle for Asian policy makers must be to create a more competitive environment for their service industries.

Notes

1 It is true that technological progress, for example in information and communication technology, is making services more tradable, but overall, services remain less tradable than goods.

2 Furthermore, the definition of services is not always clear cut; for example, potable water, electricity, and other public utilities are defined as part of the industry sector rather than service sector.

3 ICT comprises various goods and services such as telecommunications, audio and video, computers and related equipment; electronic components; telecommunications and business network services; databases; data processing; software design and development, maintenance, and repair; and news-related service transactions (World Bank and International Telecommunication Union 2012).

4 Developing Asia is defined as Afghanistan; Armenia; Azerbaijan; Bangladesh; Bhutan; Brunei Darussalam; Cambodia; People's Republic of China; Cook Islands; Fiji; Georgia; Hong Kong, China; India; Indonesia; Kazakhstan; Kiribati; Republic of Korea; Kyrgyz

Republic; Lao People's Democratic Republic; Malaysia; Maldives; Marshall Islands; Micronesia, Federated States of; Mongolia; Myanmar; Nauru; Nepal; Pakistan; Palau; Papua New Guinea; Philippines; Samoa; Solomon Islands; Singapore; Sri Lanka; Taipei,China; Tajikistan; Thailand; Timor-Leste; Tonga; Turkmenistan; Tuvalu; Uzbekistan; Vanuatu; and Viet Nam.

5 This listing (and the one for employment that follows) could well change if one adopted a nonlinear norm as do Eichengreen and Gupta (2009). Please refer to Chapter 2 for an empirical analysis based on the nonlinear models of Eichengreen and Gupta (2009).

6 A separate issue is which services are tradable (Chapter 5).

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CHAPTER 2

Is the Service Sector in Asia an Engine of Growth?

Donghyun Park and Kwanho Shin

Abstract

The underdeveloped service sector has the potential to become a new engine of economic growth in developing Asia where traditionally export-oriented manufacturing has powered the economies. The central objective of this chapter is to empirically analyze the prospects for the service sector as a future engine of growth. Our analysis of 12 Asian economies indicates that the service sector has already contributed substantially to growth in the past and that somewhat surprisingly, labor productivity in services has grown at a healthy pace. Overall there is substantial cause for optimism about the role of the service sector as an engine of growth though in countries where the sector is currently struggling like the Republic of Korea and Thailand, developing it will be more challenging.

A. Introduction

Developing Asia has been the star performer in the world economy for the past few decades. In the 1960s, newly industrialized economies (NIEs) like Hong Kong, China; the Republic of Korea; Singapore; and Taipei,China began the remarkable transformation from a struggling group of developing economies into the most dynamic component of the global economy. The NIEs followed the Japanese blueprint of export-oriented industrialization and were in turn followed by members of the Association of Southeast Asian Nations (ASEAN) such as Indonesia, Malaysia, and Thailand. The region's two giants—the People's

Republic of China (PRC) and India—were the next to emerge, powered by market-oriented economic reforms and the opening up of their economies to foreign trade and investment. Still others such as Viet Nam are now following in their footsteps. Sustained, rapid growth has moved developing Asia from the sidelines of the global economy to the forefront as it has outperformed not only the maturing, advanced economies but also other parts of the developing world and continues to do so. An important by-product of this stellar performance has been an unprecedented reduction in poverty.

Broadly speaking, economic growth comes from an accumulation of productive factors, i.e., capital and labor, and from productivity growth. It is true that increased productivity has contributed substantially to developing Asia's economic growth in the past,[1] particularly the reallocation of surplus rural workers from low-productivity agriculture to high-productivity manufacturing. Much of the increase was, however, also driven by factor accumulation. Favorable demographic trends led to the rapid growth of the labor force, and heavy investments in education and a flexible labor market enabled Asia to fully take advantage of those favorable demographics. In addition, high saving and investment rates allowed Asian countries to quickly accumulate physical capital. In countries like Malaysia and Singapore, large inflows of foreign direct investment (FDI) further augmented the stock of physical capital. The consequent explosion of machines, factories, buildings, roads, and ports greatly expanded productive capacity. In short, both factor accumulation and productivity growth played major roles in Asia's economic growth.

Going forward, several considerations suggest that the service sector will become a more important source of growth for Asia.[2] For one, there is a well-established, positive relationship between the share of services in gross domestic product (GDP) (or employment) and GDP per capita.[3] The share of services is higher in richer countries than in poorer countries, and it rises as a country's GDP per capita rises over time. Many Asian countries are at or approaching the income levels when the share of services tends to increase. This fact alone implies a larger future role for the sector in the economy and in economic growth. Nevertheless, while the service sector has grown in both absolute and relative terms across Asia, a wide range of internal barriers (e.g., excessive regulations) and external barriers (e.g., restrictions on imports and FDI) prevent it from realizing its full potential. Removing those barriers will allow the sector and the economy as a whole to grow faster. On the demand side, the rapidly expanding middle class has a growing appetite for a wide range of services from tourism to healthcare to finances.

The global financial and economic crisis of 2008 and 2009 will increase the momentum to shift from manufacturing to services in Asia. The crisis originated in the advanced economies and hit them harder than it hit developing countries,

and thus far recovery has been visibly firmer in developing countries. The outcome for Asia is a less benign external environment in which the advanced countries have weaker growth prospects and hence smaller appetites for imports, so manufacturing exports to the European Union (EU), Japan, and the United States (US) will be a less forceful engine for growth. Aside from this less favorable global environment, fundamental factors are at work as well. Manufacturing is maturing in some Asian economies and productivity has reached high levels implying that the scope for manufacturing-led growth will be more limited than in the past though in countries like India and the Philippines, there is still plenty of room for manufacturing to grow.

High past investment rates have left Asia with a large stock of physical capital. Diminishing marginal returns on capital imply that although investments will continue to make a sizeable contribution to growth, productivity growth is likely to play a relatively bigger role in the future. Given the growing weight of services and the growing weight of productivity growth in economic growth, productivity growth in service industries will be pivotal for Asia's future growth.

B. Evolution of the Service Sector

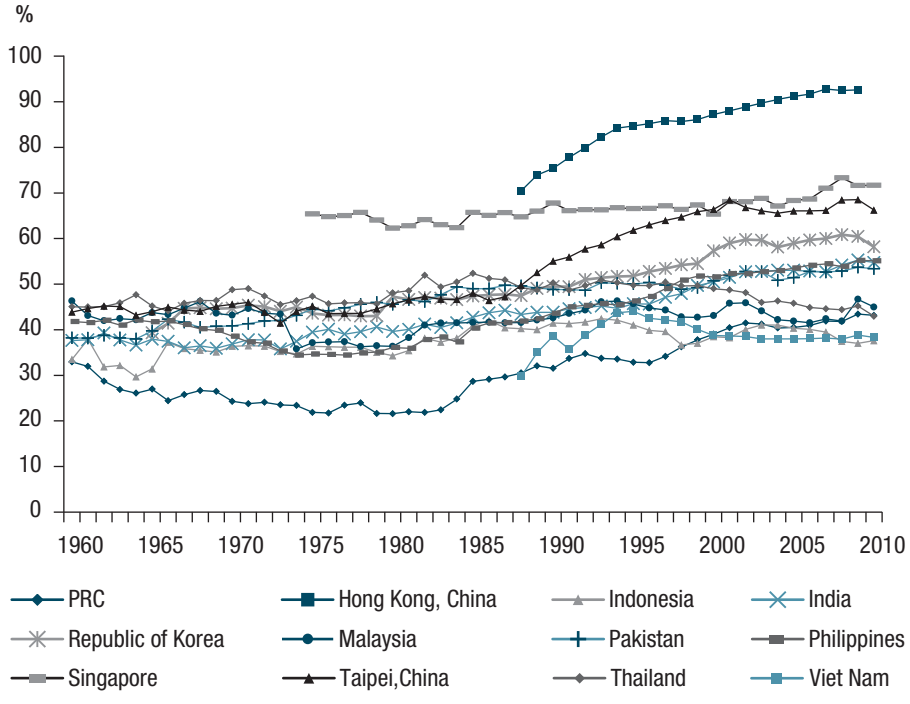
We look at the share of services in total output and employment in 12 economies: the PRC; Hong Kong, China; India; Indonesia; the Republic of Korea; Malaysia; Pakistan; the Philippines; Singapore; Taipei,China; Thailand; and Viet Nam. Data are from the World Bank's World Development Indicators database. In advanced economies, the share of the service sector in employment is greater than the share of the manufacturing sector which in turn is greater than the share of the agriculture sector. Hong Kong, China; the Republic of Korea; Malaysia; Singapore; and Taipei,China all fit this pattern. The shares of those three sectors in GDP are in the same order except in Malaysia.[4]

Typically, at the beginning of industrialization the share of employment in agriculture decreases and the shares in both industry and services increase as surplus workers from rural areas migrate to cities and find work in factories and shops. Subsequently, the share of employment in industry starts to stagnate, but the share in services continues to rise as the economy moves into the postindustrial phase. Shares in GDP follow a similar but slightly different pattern during industrialization. The share in GDP of agriculture continuously declines, but the share of industry increases much more rapidly at the start of industrialization than the share of services does, then it starts to stagnate and the share of services rises rapidly.

The evolution of the shares of the service sector in GDP and employment in Asia largely mirrors this international historical experience (Figures 2.1a

and 2.1b). Quite clearly, the service sector is playing a large and growing role in both though there is a great deal of heterogeneity in its relative importance as emphasized by Ghani (2010). To some extent that heterogeneity is rooted in the wide range of income and development levels in Asia as the share of services in GDP and in employment tends to rise with per capita income, but income and development explain only part of it. India's service sector, for example, is larger than that of other countries at similar income levels whereas the reverse is true for the PRC. In addition, there is also a great deal of heterogeneity with respect to the growth rate of the share of services in GDP and employment. For example, in 1980 the share of services in employment was similar in Indonesia and the Philippines but by 2010 it was noticeably higher in the Philippines.

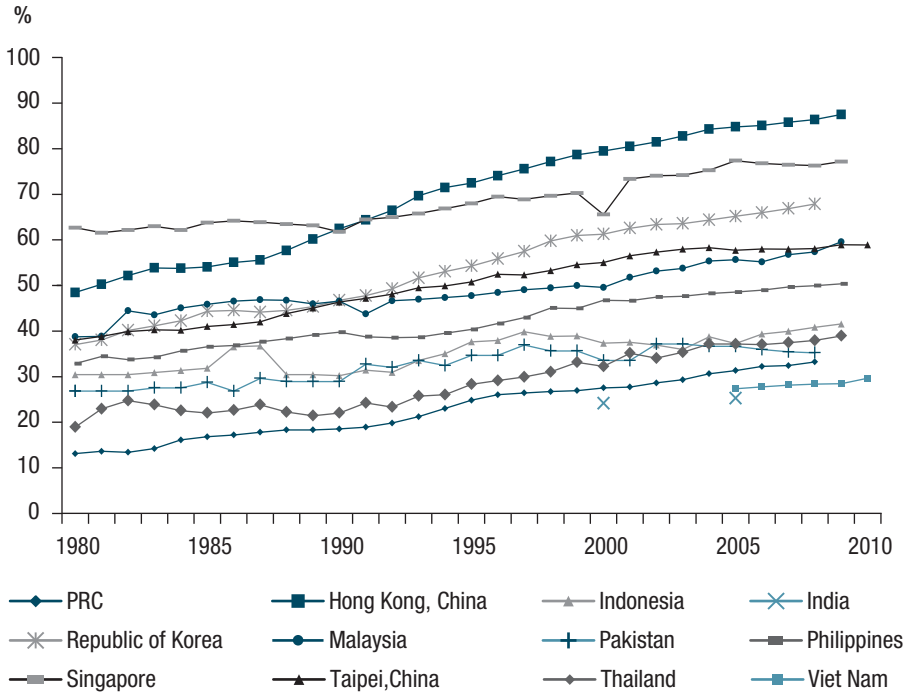
Figure 2.1a
Share of the Service Sector in Gross Domestic Product in 12 Asian Economies, 1960–2010



PRC = People's Republic of China.

Sources: Authors' estimates using the World Bank's World Development Indicators database (accessed 14 March 2012) and national sources for Taipei,China and Viet Nam.

Figure 2.1b
Share of the Service Sector in Employment in 12 Asian Economies, 1960–2010



PRC = People's Republic of China.

Sources: Authors' estimates using the World Bank's World Development Indicators database (accessed 14 March 2012) and national sources for Taipei,China and Viet Nam.

Table 2.1 shows the real GDP growth rate in agriculture, industry, and services for 1960–1980, 1980–2000, and 2000–2010. On average, the real GDP growth rate of the service sector was lower than that of the industry sector during the first two periods, but in the second period, the gap between the two narrowed sharply and they were quite comparable. In fact, by the third period, the service sector outperformed the industry sector.

Table 2.2 shows growth rates in labor productivity in the same three sectors in 1980–2000 and 2000–2010. While it is widely argued that increased productivity in services is inherently difficult to achieve, Table 2.2 shows that some economies have in fact been able to realize substantial gains. Furthermore, the gap between the average labor productivity growth rates in the service and industry sectors narrowed sharply from 2000 to 2010.

While the PRC is industrializing, the growth rate of GDP in the service sector is quite comparable to that in the industry sector. Table 2.2 suggests that

Table 2.1
Real Growth Rate in Gross Domestic Product of Agriculture, Industry, and Services in Selected Asian Economies, 1960–2010 (%)

Economy	Period 1 (1960–1980)				Period 2 (1980–2000)				Period 3 (2000–2010)			
	Agriculture	Industry	Services	Aggregate	Agriculture	Industry	Services	Aggregate	Agriculture	Industry	Services	Aggregate
China, People's Rep. of	3.82	6.41	0.57	3.23	4.88	10.89	10.95	9.40	4.11	10.86	10.52	9.95
Hong Kong, China	–	–	–	–	–	–	–	–	–3.71	–2.77	4.28	3.04
India	2.68	5.99	5.43	4.32	3.02	5.67	6.74	5.35	2.94	7.63	8.89	7.43
Indonesia	3.59	8.36	5.89	5.88	2.78	6.18	5.42	5.21	3.39	3.99	6.77	5.08
Korea, Rep. of	2.79	12.03	6.01	6.62	2.40	8.31	6.63	6.87	1.35	5.32	3.59	4.20
Malaysia	4.59	8.05	8.90	7.55	2.01	7.60	6.54	6.37	2.89	2.85	6.35	4.51
Pakistan	3.59	8.11	6.26	5.52	4.13	5.77	5.40	5.12	2.63	5.91	5.00	4.67
Philippines	4.06	6.56	4.76	5.28	1.57	1.44	3.10	2.25	2.81	4.10	5.43	4.65
Singapore	2.01	9.16	7.84	8.25	–4.29	6.87	7.52	7.24	–4.31	5.08	5.78	5.54
Taipei,China	3.56	11.81	9.35	9.26	0.48	4.87	8.02	6.63	0.03	5.80	2.85	3.76
Thailand	4.61	9.92	7.40	7.31	2.67	7.89	5.47	5.96	2.07	5.18	3.70	4.22
Viet Nam	–	–	–	–	3.65	8.67	6.74	6.40	3.52	8.70	7.09	6.99
Average	3.53	8.64	6.24	632	2.12	6.74	6.59	6.07	1.47	5.22	5.85	5.34

– = data not available.

Notes: Agriculture refers to International Standard Industrial Classification (ISIC) divisions 1–5 and includes forestry, hunting, and fishing. Industry refers to ISIC divisions 10–45 which comprise mining, manufacturing, construction, electricity, water, and gas. Service refers to ISIC divisions 50–99 that cover wholesale and retail trade; transport; and government, financial, professional, and personal services. We use 2000 market prices for all countries except for Taipei,China and Viet Nam for which 2006 and 1994 market prices are used, respectively. Due to the lack of data for Viet Nam, the second period average is calculated by using 1988–2000 data.

Sources: World Bank's World Development Indicators online database and national sources for Taipei,China and Viet Nam (accessed 14 March 2012).

Table 2.2

Growth Rate of Labor Productivity in Agriculture, Industry, and Services in Selected Asian Economies, 1980–2010 (%)

Economy	Period 2 (1980–2000)				Period 3 (2000–2010)			
	Agriculture	Industry	Services	Aggregate	Agriculture	Industry	Services	Aggregate
China, People's Rep. of	4.52	7.88	5.30	7.46	6.10	7.93	8.07	9.54
Hong Kong, China	–	–	–	–	–0.24	1.67	1.88	2.34
India	–	–	–	4.46	2.05	2.02	5.41	4.90
Indonesia	–1.66	0.98	–4.98	–1.43	3.25	1.40	3.83	3.34
Korea, Rep. of	6.14	6.38	2.03	4.78	5.59	5.74	1.57	3.32
Malaysia	0.50	1.79	0.91	1.68	4.26	2.05	2.10	2.08
Pakistan	1.52	5.43	1.64	2.82	–1.81	3.54	4.39	2.24
Philippines	0.71	–1.35	–1.21	–0.29	1.13	1.89	1.84	1.75
Singapore	–7.36	4.17	4.54	4.40	–8.58	5.29	0.78	1.88
Taipei,China	3.27	3.70	4.33	4.78	3.00	5.16	1.17	2.75
Thailand	2.01	3.29	1.05	3.88	2.94	2.71	0.08	2.44
Viet Nam	–	–	–	4.46	3.00	0.73	3.10	4.38
Average	1.07	3.59	1.51	3.36	1.72	3.34	2.85	3.41

– = data not available.

Note: See note for Table 2.1. Since the employment data start from 1980, we do not report statistics for period 1. Due to the lack of data, the second period average is obtained by using 2005–2010 for Viet Nam and 2000–2005 data for India.

Sources: World Bank's World Development Indicators database and national sources (accessed 14 March 2012).

the growth of the service sector, particularly from 2000 to 2010, was mainly due to increased labor productivity. In Hong Kong, China, the growth of the economy is mainly due to the growth of the service sector as the other sectors are small and even show negative growth rates. India's economy showed rapid growth particularly in the third period when the growth rates of the service sector in GDP and in labor productivity are higher than those of the industry sector. Figure 2.1 suggests that the engine driving growth in Indonesia is the industry sector. Interestingly, however, the growth rates in GDP and labor productivity in the service sector are higher than those of the industry sector in the third period. In the Republic of Korea, the real GDP growth rate of the service sector is particularly low, and the labor productivity growth rate of the service sector is even more problematic.

In Malaysia, the growth rate of the service sector in GDP was quite comparable to that of the industry sector in the first two periods and in the third period was much higher than the industry rate. The growth rate of labor productivity in the sector was, however, lower than that in industry from 1980 to 2000 but similar from 2000 to 2010. In Pakistan, the GDP growth rate of the service sector has always been lower than that of the industry sector, but the rates were comparable in the last two periods. The growth rate of labor productivity in the service sector was lower than industry in the second period but higher in the third. In the Philippines, the growth rate of the service sector in GDP was lower than that in industry in the first period but higher in the last two, and the growth rates in labor productivity in both sectors were negative from 1980 to 2000 but were positive and comparable from 2000 to 2010.

In Singapore, the growth rate of the service sector in GDP was much lower than that of the industry sector in the first period but was slightly higher in the last two while the growth rate of labor productivity in the service sector was comparable to that in industry in the second period but was much lower in the third. In Taipei,China, both growth rates were high in the second period but were much lower in the third. In Thailand, the growth rate of the service sector in GDP was lower than that of industry in all three periods, and the gap between services and industry was even wider for labor productivity. In Viet Nam, the growth rate of the service sector in GDP was quite high in the last two periods even though it was lower than the rate in industry; the rate for labor productivity was available for the third period only but was quite high.

One interesting feature of the service sector is that a growing range of services is increasingly tradable as a result of technological advances, especially in information and communication technology (ICT). The share of sector output that is exported is reported in Table 2.3 for selected economies worldwide. Most Asian economies show an increase over time though the PRC (2000–2009), Indonesia (2000–2009), Malaysia (2000–2009), Pakistan (1990–2000),

Table 2.3
Service Sector Export Ratios in Selected Economies (%)

Economy	Services Exports/Services Value Added		
	1990	2000	2009
Asia			
China, People's Republic of	5.2	6.5	6.0
Hong Kong, China	–	28.1	46.7
India	3.7	7.8	13.0
Indonesia	5.2	8.2	7.3
Korea, Republic of	8.6	11.5	16.1
Malaysia	20.6	34.5	32.2
Pakistan	8.2	3.9	4.8
Philippines	16.8	8.1	11.9
Singapore	51.0	49.7	75.6
Thailand	15.0	23.1	25.2
Viet Nam	–	22.4	15.3
Latin America			
Argentina	3.1	2.7	6.4
Brazil	1.8	2.6	2.9
Chile	12.9	10.8	10.6
Mexico	5.3	3.8	3.0
Eastern Europe			
Czech Republic	–	22.9	19.8
Hungary	21.9	23.1	23.2
Developed Countries			
France	10.0	9.4	7.8
Germany	6.6	7.1	10.8
United Kingdom	9.6	12.8	15.7
United States	3.9	4.1	5.2

– = data not available.

Note: Latest data for Hungary and the United States refer to 2008.

Source: Authors' estimates based on data from the World Bank's World Development Indicators database (accessed 14 March 2012).

the Philippines (1990–2000), Singapore (1990–2000), and Viet Nam (2000–2009) are exceptions. In general, city states with sophisticated service sectors such as Singapore and Hong Kong, China export a large share of their outputs while countries with large populations like the PRC, India, Indonesia, and Pakistan export lower shares though India's share is large compared with the others. The Republic of Korea exports a smaller share compared with other mid-sized countries, and somewhat surprisingly, Asian economies export larger shares than Latin American and developed economies do. The share exported in Eastern Europe is relatively large as well.

C. Per Capita Gross Domestic Product and the Share of the Service Sector in Gross Domestic Product and Employment

It has been widely accepted that as per capita income increases, the shares of services in both employment and GDP rise. This relationship is often characterized as linear or quadratic (Kongsamut et al. 1999, Buera and Kaboski 2009). More recently, however, Eichengreen and Gupta (2009) have argued that there are two distinct waves of sector growth. According to them, the share of output begins to rise at relatively modest incomes but at a decelerating rate as growth proceeds which they call the first wave. It then begins to rise again in a second wave at higher income levels. The first wave is characterized by traditional services—lodging, meal preparation, house cleaning, beauty and barber shops—while the second wave is dominated by modern services—banking, insurance, computing, communication, and business services.

Following Eichengreen and Gupta, these waves can be characterized by a quartic relationship between the service sector share of GDP and per capita GDP that we estimated as follows:[5]

$$\frac{S_{it}}{GDP_{it}} = \text{constant} + \sum_{T=1}^{2} \theta_T D_T + \alpha_1 Y_{it} + \alpha_2 Y_{it}^2 + \alpha_3 Y_{it}^3 + \alpha_4 Y_{it}^4 + \in_{it}$$

where S_{it}, GDP_{it}, and Y_{it} are the value added, GDP, and log per capita GDP, respectively, for country *i* at time *t*. D_T is a period dummy: D_1 for 1970–1989 and D_2 for 1990–2010. The dummies are included to allow for different intercepts for different time periods. Our sample was collected from the World Bank's World Development Indicators and covers 157 countries from 1960 to 2010. Since employment data are available from 1980, we include only D_2 in the regression of the employment share equation.

Table 2.4 reports two estimation results—without period dummies (Column I) and with period dummies (Column II)—and includes country-fixed effects. In both cases, all the per capita GDP terms of the first to the fourth orders are highly significant confirming the quartic relationship. When we include the two period dummies in the second column, their coefficients are positive and significant suggesting different intercepts in different periods; in fact, the more recent the period, the higher the intercept.

Table 2.4
Relationship between Service Sector Gross Domestic Product Share and Log Per Capita Gross Domestic Product
[Dependent Variable: Services/Gross Domestic Product (%)]

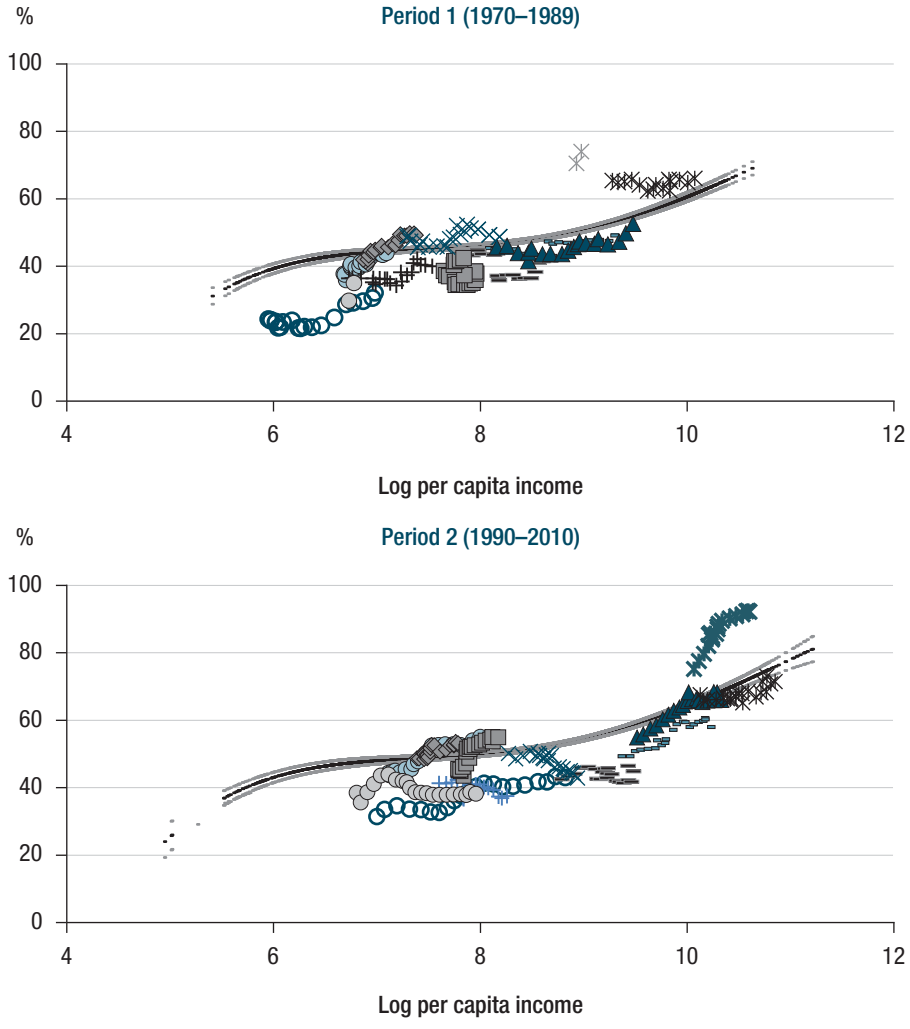
Independent Variable	I	II
Log per capita income	361.920***	414.668***
	(4.631)	(5.472)
Log per capita income, squared	–62.647***	–72.132***
	(–4.252)	(–5.050)
Log per capita income, cube	4.703***	5.453***
	(3.865)	(4.623)
Log per capita income, quartic	–0.126***	–0.149***
	(–3.381)	(–4.132)
Dummy for 1970–1989		1.069***
		(2.927)
Dummy for 1990–2005		4.929***
		(12.604)
Country-fixed effects	yes	yes
Observations	5,402	5,402
Number of countries	157	157
R-squared	0.199	0.249

*** = Coefficient is significant at 1% level.

Note: t-statistics are in parentheses. Column I shows the quartic relationship with a common intercept for all years. Column II allows the intercepts to differ in periods 1970–1989 and in 1990–2010.

Sources: Authors' estimates using data on per capita income after 1980 from the World Bank's World Development Indicators database (accessed 14 March 2012) and before 1980 from Maddison (2003). Data on the service sector share of gross domestic product are from the World Bank's World Development Indicators database (accessed 14 March 2012).

Figure 2.2
Service Sector Share of Gross Domestic Product and Per Capita Gross Domestic Product for 12 Asian Economies



PRC = People's Republic of China.

Note: The figure shows the estimated relationship and 5% confidence interval for two periods based on the regression in Column II, Table 2.4.

Sources: Authors' estimates using the World Bank's World Development Indicators database and national sources (all data accessed 14 March 2012).

Figure 2.2 shows the actual shares of the service sector in GDP in the 12 Asian economies and compares them with the typical pattern in different periods predicted by the quartic line fitted on the basis of the estimation in Column II of Table 2.4. Those estimations allow for different period dummies.[6] In the figures we also denote the 95% confidence bands by grey lines. If an observation lies above the fitted line, the share of services in GDP is higher than in other countries with similar per capita GDP, and the reverse is true for observations below the fitted line. We can observe a number of distinct patterns among Asian economies implying a high degree of heterogeneity. The share of the service sector in GDP lies below the predicted line in both Period 1 (1970–1989) and Period 2 (1990–2010) for the PRC, Indonesia, the Republic of Korea, Malaysia, and Viet Nam. The share of the service sector in GDP lies above the predicted line in both periods for Hong Kong, China but below it in Period 1 then above it in Period 2 for India and the Philippines. For Singapore and Thailand, the share lies above the predicted line in Period 1 but below it in Period 2 while for Pakistan the share lies more or less on the line in both. In Taipei,China the service sector lies below the predicted line in Period 1 but on it in Period 2.

Table 2.5 reports the same regression results except that the dependent variable is the share of the service sector in employment rather than in GDP. The results indicate that there is a similar quartic relationship between the share of the service sector in employment and per capita GDP.

Figure 2.3 shows the actual shares of the service sector in employment in the 12 Asian economies and compares them with the typical pattern in different periods predicted by the quartic line fitted on the basis of the estimation in Column II, Table 2.5. If an observation lies above the fitted line, the share of services in employment is higher than in other countries with similar per capita GDP, and the reverse is true for observations below the fitted line. Several different patterns emerge. The share of the sector in employment lies below the predicted line in Period 1 (1970–1989) and Period 2 (1990–2010) for the PRC; Indonesia (which recently approached the predicted line); Pakistan; Taipei,China; and Thailand, and it lies on the predicted line in Period 1 but above it in Period 2 for Hong Kong, China. India and Viet Nam have data for only a few years in Period 2, and they both lie below the predicted line. The Republic of Korea, Malaysia, the Philippines (recently above the predicted line), and Singapore (at the beginning slightly above the predicted line) lie more or less on the predicted line while Taipei,China lies below the predicted line in Period 1 but on it in Period 2.

These findings can be used to interpret the relative performance of the service sector. For example, if the share of the sector in a country's employment is on the predicted line but its share of GDP lies below the predicted line, we can infer that compared with other countries with the same per capita GDP, its service sector workforce produces less GDP, i.e., that the sector is performing poorly.

Table 2.5
Relationship between Service Sector Employment Share and Log Per Capita Gross Domestic Product
[Dependent Variable: Employment in Services/Total Employment (%)]

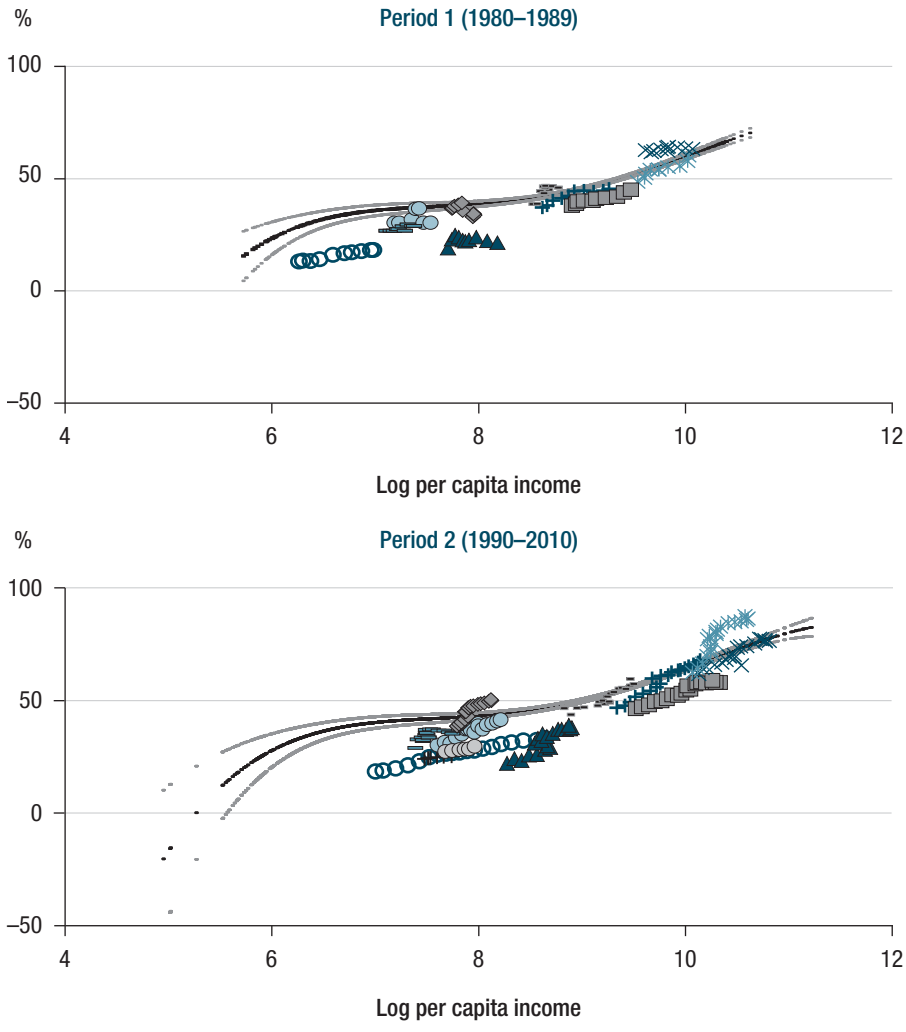
Independent Variable	I	II
Log per capita income	1,432.62***	1,013.29***
	(5.722)	(4.173)
Log per capita income, squared	–248.977***	–177.987***
	(–5.708)	(–4.210)
Log per capita income, cube	18.957***	13.694***
	(5.659)	(4.220)
Log per capita income, quartic	–0.529***	–0.386***
	(–5.532)	(–4.169)
Dummy for 1990–2005		4.345***
		(13.117)
Country-fixed effects	yes	yes
Observations	2,222	2,222
Number of countries	139	139
R-squared	0.393	0.439

*** = Coefficient is significant at 1% level.

Sources: Authors' estimates using data on the service sector share of employment from the World Bank's World Development Indicators database (accessed 14 March 2012). For others, see note for Table 2.4.

According to this line of reasoning, our findings suggest that the performance of the service sectors in the 12 economies falls into three broad categories:[7] (i) better than the international norm in Hong Kong, China; India; and Pakistan; (ii) more or less in line with the international norm in the PRC, the Philippines, and Viet Nam and arguably in Indonesia; Singapore; and Taipei,China; and (iii) below the international norm in the Republic of Korea and Thailand and arguably in Malaysia. As noted earlier, while the relative importance of services in Asia is high and growing, there is a great deal of heterogeneity that extends to the sector's performance as well.

Figure 2.3
Service Sector Employment Share and Per Capita Gross Domestic Product for Individual Economies



PRC = People's Republic of China.

Note: The figure shows the estimated relationship and 5% confidence interval for two periods based on the regression in Column II, Table 2.4.

Sources: Authors' estimates using the World Bank's World Development Indicators database and national sources (all data accessed 14 March 2012).

D. Can the Sector Be an Engine of Growth?

To answer this question we investigated (i) the contribution of the agriculture, industry, and service sectors to GDP growth; (ii) the productivity of the service sector relative to the industry sector; and (iii) determinants of service sector productivity.

1. Contribution to Gross Domestic Product Growth

We focused on the three most recent decades. The contribution of each sector in each decade was calculated by dividing the log difference in the value added by the sector by the log difference in aggregate GDP, multiplied by the share of each sector. The first three columns in each panel (1980s, 1990s, and 2000s) in Table 2.6 sum up to 100%. The last column in each panel is the aggregate GDP growth rate in each decade. Overall, the service sector makes the biggest contribution to GDP growth. In the 1980s, it contributed the most in the Philippines (81.7%); Singapore (71.2%); Taipei,China (67.9%); the Republic of Korea (55.3%); Pakistan (53.2%); and Thailand (51.0%). In the 1990s, services made the biggest contribution in Taipei,China (77.8%); Singapore (64.0%); India (61.1%); the Philippines (58.3%); the Republic of Korea (57.2%); and Pakistan (51.6%). In the 2000s, services were tops in Hong Kong, China (107.3%); Singapore (69.1%); Malaysia (67.0%); India (65.7%); the Philippines (62.8%); Indonesia (56.4%); and Pakistan (55.3%).

In general, the service sector's contribution tends to be greater in more advanced economies. As the economy grows, the sector becomes larger; hence overall growth depends more on its performance. In this sense, the performance of the service sector in the Republic of Korea is noticeably weak relative to its per capita GDP while the performance of the sector in India and Pakistan is noticeably strong.

2. Labor Productivity

Several explanations have been offered in the literature as to why growth in labor productivity is low in the service sector.[8]

- Services are intensive in labor rather than in capital which makes it difficult to achieve innovation which is embodied in capital.
- Service sector firms are too small to devote adequate resources to research and development or to risk new production techniques.
- International competition is weak because most services cannot be traded.
- Much of the employment in services reflects underemployment of individuals who cannot find jobs in other places.

Table 2.6

Contributions to Gross Domestic Product Growth by Sector in Selected Asian Economies, 1980s–2000s (%)

Economy	1980s				1990s				2000s			
	Agriculture	Industry	Services	Aggregate	Agriculture	Industry	Services	Aggregate	Agriculture	Industry	Services	Aggregate
China, People's Rep. of	21.3	35.4	43.4	8.9	7.6	52.4	40.1	9.9	4.5	52.8	42.7	10.0
Hong Kong, China	–	–	–	–	–	–	–	–	–0.1	–7.2	107.3	3.0
India	21.3	29.0	49.7	5.3	13.2	25.8	61.1	5.4	7.2	27.1	65.7	7.4
Indonesia	12.7	45.2	42.1	6.2	8.1	55.0	36.9	4.2	9.5	34.1	56.4	5.1
Korea, Rep. of	3.2	41.5	55.3	8.1	1.7	41.1	57.2	5.6	1.3	51.2	47.6	4.2
Malaysia	9.6	47.2	43.2	5.8	1.4	54.7	43.9	6.9	5.1	28.0	67.0	4.5
Pakistan	18.8	28.0	53.2	5.9	26.1	22.4	51.6	4.3	13.1	31.6	55.3	4.7
Philippines	10.7	7.7	81.7	1.7	10.3	31.4	58.3	2.8	7.7	29.5	62.8	4.7
Singapore	–0.4	29.2	71.2	7.5	–0.1	36.1	64.0	7.0	–0.1	30.9	69.1	5.5
Taipei,China	–0.1	32.4	67.7	7.2	–0.1	22.3	77.8	6.1	0.0	50.2	49.8	3.8
Thailand	6.9	42.0	51.0	7.6	3.8	53.5	42.6	4.3	4.0	54.3	41.7	4.2
Viet Nam	–	–	–	–	16.1	46.6	37.3	7.3	10.2	50.3	39.5	7.0
Average, 12 economies	**10.4**	**33.8**	**55.8**	**6.4**	**8.0**	**40.1**	**51.9**	**5.8**	**5.2**	**36.1**	**58.7**	**5.3**

– = data not available.

Note: The contribution of each sector in each decade is calculated by dividing the log difference in the value added by the sector by the log difference in the aggregate gross domestic product (GDP) (multiplied by the weights). The first three columns in the three panels (1980s, 1990s, and 2000s) sum up to 100%. The last column in each panel is the aggregate GDP growth rate in each decade.

Source: Authors' estimates using data from the World Bank's World Development Indicators database (accessed 14 March 2012).

Hence it has long been argued that as economies become more service oriented, growth slows down. As the manufacturing sector matures and resources are reallocated to the service sector, increasing productivity and hence economic growth becomes more challenging. This line of reasoning underlies the widely held notion that services cannot be a driver of growth for developing economies; however, we saw earlier that in parts of Asia, the growth rate of labor productivity in the service sector is quite high.

Table 2.7 shows that labor productivity in both the manufacturing and service sectors increases as per capita GDP increases. Columns I to III are pooled, ordinary, least square estimation results of regressing the labor productivity of both sectors and their relative labor productivity on per capita GDP. The coefficient of the log per capita GDP is slightly higher when the dependent variable is the log labor productivity of the service sector (Column I) rather than the log labor productivity of the industry sector (Column II).

Figures 2.4a and 2.4b show the actual log labor productivity of the service sector and the industry sector, respectively, as well as the estimated trends. When we regress the labor productivity of the service sector relative to that of the industry sector on per capita GDP, the coefficient is positive and significant (Column III). The results seem to suggest that labor productivity in services grows faster than that in industry, which is counterintuitive.

This estimation does, however, have limitations, especially that other control variables are not included in the regression. In columns IV to VI, we report the results of panel estimations with fixed effects that eliminate unobserved but time-invariant, country-specific variables and hence focus on the time-series variations within economies. Now the results are reversed. The coefficient of the log per capita GDP is much lower when the dependent variable is the log labor productivity of the service sector rather than the log labor productivity of the industry sector (columns IV and V). The coefficient is also negative and significant when the dependent variable is the relative productivity of the service sector (Column VI). Hence the panel estimation results indicate that in general, labor productivity grows more slowly in the service sector than in the industry sector.

3. Determinants of Service Sector Productivity

The above findings suggest that labor productivity in the service sector is not entirely determined by per capita GDP. We examined the more general determinants of labor productivity in the sector based on the equation typically adopted in the literature on empirical growth.[9]

Table 2.7
Relationship between Log Labor Productivity and Log Per Capita Gross Domestic Product

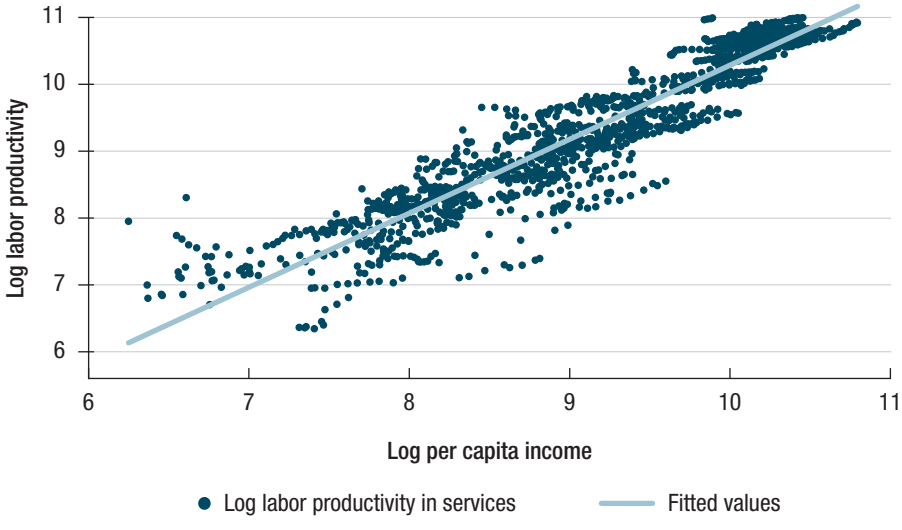
Dependent Variable	I	II	III	IV	V	VI
	Log Labor Productivity in Services	Log Labor Productivity in Industry	Log Relative Labor Productivity	Log Labor Productivity in Services	Log Labor Productivity in Industry	Log Relative Labor Productivity
Log per capita income	1.106***	1.058***	0.048***	0.493***	0.916***	–0.423***
	(104.957)	(90.972)	(4.663)	(35.052)	(56.101)	(–21.732)
Country fixed effects				yes	yes	yes
Observations	1,469	1,469	1,469	1,469	1,469	1,469
Number of countries	94	94	94	94	94	94
R-squared	0.882	0.849	0.015	0.472	0.696	0.256

*** = Coefficient is significant at 1% level.

Note: t-statistics are in parentheses. Columns I, II, and III are pooled, ordinary, least square estimations. Columns IV, V, and VI are panel fixed effects estimations.

Source: Authors' estimates using data from the World Bank's World Development Indicators database (accessed 14 March 2012).

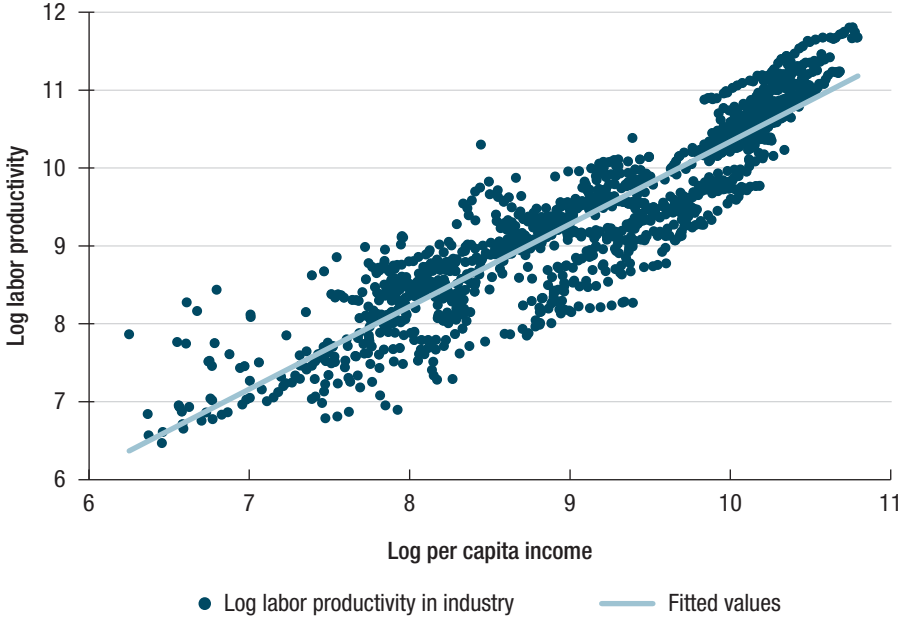
Figure 2.4a
Log Labor Productivity in Services and Log Per Capita Income



Note: The linear prediction line is derived from the regression in Column I, Table 2.7.

Source: World Bank. World Development Indicators database (accessed 14 March 2012).

Figure 2.4b
Log Labor Productivity in Industry and Log Per Capita Income



Note: The linear prediction line is derived from the regression in Column II, Table 2.7.
Source: World Bank. World Development Indicators database (accessed 14 March 2012).

We divided the sample into 5-year periods from 1975 to 2010 and calculated the growth rate of 5-year average labor productivity in the service sector then regressed that rate on explanatory variables at the initial year of each period. We used the initial-year explanatory variables to avoid problems with endogeneity. The specification of the empirical model is as follows:

$$g_{it,t+5} = c_0 + c_1 Y_{it} + c_2 Service\ Trade_{it} + c_3 Urban_{it} + c_4 Democracy_{it} + c_5 Proximity_i + c_6 Nontropic_i + c_7 AGE_{it} + c_8 Latitude_i + c_9 Total\ Human_{it} + c_{10} Higher\ Human_{it}$$

$g_{it,t+5}$: the growth rate of 5-year average labor productivity for country i from t to t+5
Y_{it} : log per capita income for country i at t
$Service\ Trade_{it}$: log trade in services (% of GDP) for country i at t
$Urban_{it}$: urban population (% of total population) for country i at t
$Democracy_{it}$: institutionalized democracy score for country i at t

$Proximity_i$: log distance from United Kingdom (UK) or US (minimum) for country i
$Nontropic_i$: land outside the tropics (% of total) for country i
AGE_{it} : old age-dependency ratio (population over 65 as % of working-age population) for country i at t
$Latitude_i$: latitude of country centroid for country i
$Total\ Human_{it}$: average number of years of schooling for the population aged 15 and above for country i
$Higher\ Human_{it}$: average number of years of schooling at the secondary level and higher for the population aged 15 and above for country i

The explanatory variables are basically the same as those used by Eichengreen and Gupta (2009).[10] The major difference is that while they used the share of the service sector in GDP as the dependent variable, we used labor productivity growth as the dependent variable. There are also two more differences. First, we used trade in services rather than total trade as an explanatory variable. Second, since labor productivity is expected to be closely related to human capital, we included both total years of schooling and years of schooling at the secondary level and higher as additional variables. We included them separately because labor productivity is expected to be more closely related to higher levels of education. We used the institutionalized democracy score from the Polity IV data series; distance from Centre d'Etudes Prospectives et d'Informations Internationales; non-tropical area and latitude from Gallup et al. (1999); governance indicators from the World Bank; and aggregate governance indicators and all other data from World Development Indicators. See Eichengreen and Gupta (2009) for a more detailed description of and rationale for the explanatory variables.

The results are in Table 2.8. Panel estimations with random effects are in Column I and with fixed effects are in Column III which includes basically the same explanatory variables as in Eichengreen and Gupta. We also report panel estimations with random effects (Column II) and panel estimations with fixed effects (Column IV) where the two human capital variables are added as additional explanatory variables. In columns III and IV, the coefficients of the proximity (log difference from the UK or the US) and non-tropical area (land outside the tropics) and latitude are not reported because those variables do not vary with time.

Regarding Column I, the coefficient of the initial per capita GDP is negative and highly significant. This means that the lower the initial level of per capita GDP, the higher the subsequent growth rate of labor productivity in the service sector. This result is consistent with other studies in the empirical growth literature where the explanatory variable is typically the growth rate of output instead of

Table 2.8
Determinants of Labor Productivity in the Service Sector (Dependent Variable: Average 5-year Growth Rate of Labor Productivity)

	Random Effects		Fixed Effects	
Independent Variable	**[1]**	**[2]**	**[3]**	**[4]**
Log per capita income	–0.023***	–0.019***	–0.042***	–0.055***
	(0.005)	(0.004)	(0.012)	(0.015)
Log trade in services (% GDP)	0.009**	0.007**	0.012	0.020**
	(0.004)	(0.003)	(0.010)	(0.010)
Urban population (% total)	0.000**	0.000*	0.001	0.001*
	(0.000)	(0.000)	(0.001)	(0.001)
Institutionalized democracy score	–0.001	–0.001	0.000	0.000
	(0.001)	(0.001)	(0.001)	(0.001)
Log distance from UK or US (minimum)	0.005	0.004		
	(0.004)	(0.003)		
Land outside the tropics (% total)	0.015*	0.012*		
	(0.008)	(0.007)		
Old age dependency ratio (% of working-age population)	–0.001***	–0.001***	–0.001**	–0.002***
	(0.000)	(0.000)	(0.001)	(0.001)
Total years of schooling		–0.001		–0.025***
		(0.002)		(0.009)
Years of schooling higher than primary level		0.001		0.029***
		(0.002)		(0.011)
Latitude of country centroid	0.000	0.000		
	(0.000)	(0.000)		
Observations	266	262	266	262
Number of countries	73	30	73	30
R-squared	0.23	0.19	0.081	0.126

*, **, *** = Coefficient is significant at 10%, 5%, and 1%, respectively.

GDP = gross domestic product, UK = United Kingdom, US = United States.

Notes: Standard errors are in parentheses. The results are based on panel estimations with random effects (columns 1 and 2) and fixed effects (columns 3 and 4). Institutionalized democracy score is from the Polity IV data series; distance is from Centre d'Etudes Prospectives et d'Informations Internationales; non-tropical area and latitude are from Gallup, Sachs, and Mellinger (1999); governance indicators are from the World Bank's Worldwide Governance Indicators 1996–2007; years of schooling are from Barro and Lee (2010); and all other data are from the World Bank's World Development Indicators database (accessed 14 March 2012).

Source: Authors' estimates.

labor productivity. The coefficient of trade in services as a percentage of GDP is positive and significant at 5%. This implies that trade in services contributes to the growth of labor productivity in the service sector.[11] This is plausible since importing services exposes domestic service firms to foreign competition and forces them to become more efficient. Likewise, exporting services requires firms to be able to compete in foreign markets.

The coefficient of urban population is also positive and significant at 5%, whereas the coefficient of old age dependency is negative and significant at 1%. The other coefficients are not significant.

If we include the two human capital variables in Column II, all the results in Column I are preserved; however, neither coefficient is significant even at 10%. When we do not include the two human capital variables, the results of the fixed effects estimation in Column III are generally consistent with the results of the random effects model except that the coefficients of trade in services and urban population become insignificant. When we include the two human capital variables, however, both become significant either at 5% or 10%. Even more interesting is that both coefficients become highly significant at 1%, but the sign is negative for total years of schooling while it is positive for years of schooling at the secondary level and higher. This suggests that higher levels of education matter much more for increased labor productivity in the sector than lower levels do. Overall, our results suggest that labor productivity in the service sector in Asian economies has the potential to grow rapidly given the low level of per capita GDP, the high share of service sector output that is exported (Table 2.3), and the well-known emphasis on education.

E. Concluding Observations

While there are differences in the service sectors of the 12 Asian economies we studied, their overall experiences are consistent with well-established, international historical patterns of growth in shares of GDP and employment, i.e., as an economy industrializes, the shares of the industry and service sectors in both GDP and employment rise while those of agriculture fall, and in the postindustrial phase, the share of services rises while the shares of both industry and agriculture fall. Interestingly and significantly, we found that several Asian economies have been able to realize substantial labor productivity gains in the service sector which contradicts the conventional wisdom that this is difficult to achieve. Combined with significant growth in real output comparable to that of the industry sector, this suggests that services have already been a major source of growth in Asia. Another promising sign is that the share of service sector output that is exported has tended to rise over time in most Asian economies.

Our analysis of the well-known relationship between per capita GDP and the share of services in GDP/employment indicates that the share is higher than that predicted by per capita GDP in some economies while it is lower in others; however, the broader, more fundamental trend is an increase in the share of services as income rises. When we computed the contribution of agriculture, industry, and services to GDP growth, we found that in general the service sector made the biggest contribution. One highly significant finding was that the lower the per capita GDP, the greater the scope for growth in labor productivity in the service sector. Since the income level of much of Asia remains relatively low notwithstanding the region's rapid growth, this implies that there is still a lot of room for productivity growth in services. An equally significant result is that trade in services seems to have a significant and positive effect on productivity. We also found that the share of service sector output that is exported has been increasing over time and that it is higher than in some Latin American and developed economies.

Overall, our evidence suggests that the service sector has already contributed substantially to Asia's productivity and GDP growth in the past. Since Asia is rapidly becoming richer and since services tend to become more important as income levels rise, the sector is set to play an even bigger role in the future. The popular perception of Asia's service sector as lagging behind its manufacturing sector—world-class manufacturing and third-class services—is further cause for optimism about its future prospects. If even a relatively underdeveloped service sector contributes significantly to growth, then clearly a more developed sector can contribute even more, but a wide range of internal impediments (excessive regulations and state monopolies) and external impediments (barriers to trade in services and to foreign direct investment) are impeding progress. Removing those obstacles will unleash the full potential of the sector to generate jobs and growth. India and the Philippines have already begun to capitalize on this potential by exporting services.

Notes

1 In an influential paper based on primal growth accounting, Young (1995) argued that the rapid growth of East Asian economies was primarily due to rapid accumulation of capital; however, Hsieh (2002) found on the basis of dual estimates that the growth rate of total factor productivity in East Asia was significantly higher than that estimated by Young.

2 The importance of the service sector in the growth of Asian economies has been emphasized in various studies such as World Bank (2010) and ADB (2007).

3 See, for example, Fuchs (1981).

4 For Malaysia, the share of the service sector in GDP is approximately the same as the share of the manufacturing sector in GDP.

5 While Eichengreen and Gupta (2009) cover 1950–2005 for over 80 countries, our sample covers 1960–2010 and 157 countries.

6 To save space, we provide figures for periods 1 and 2 only.

7 Our classification is based on the relative labor productivity of the service sector comparing economies with similar per capita GDP. Another possible interpretation of the graphs is that if shares in both employment and GDP lie below the line, the smaller size itself is also an indication of less development. However, since the size of the sector depends on a number of specific characteristics such as natural resource endowment, it may be misleading to rely solely on size without controlling for those characteristics.

8 See, for example, Eichengreen et al. (2012) and the other studies cited therein.

9 Several empirical studies investigate the determinants of growth. See, for example, Barro and Sala-i-Martin (2003) and the other studies cited therein.

10 We do not include the explanatory variable governance that is used in Eichengreen and Gupta (2009) due to the fact that governance data are available only from 1996.

11 Francois (1990) demonstrated that liberalizing trade in services yields efficiency gains for both importing and exporting countries due to increased division of labor.

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PART II

Regional Studies

CHAPTER 3

The Information Technology and Business Process Outsourcing Industry: Diversity and Challenges in Asia

Raja Mikael Mitra

Abstract

Some countries and regions have been more successful than others in developing information technology–business process outsourcing (IT-BPO) service industries. India and the Philippines in particular have offered educated human resources at low cost, attractive fiscal incentives, and industrial parks although these factors alone do not explain the rapid growth of the industry there as other countries also had these strengths but failed to develop industries as rapidly. A wide range of factors driving and constraining industry development must be taken into account, namely human resources; financial, infrastructure, technology, legal, and regulatory developments; the roles of foreign companies, diasporas, and of indigenous entrepreneurs; the government; industry associations; civil society; production, trade, and knowledge networks; and the interplay of all these factors locally, nationally, and internationally. This analysis of IT-BPO industry developments in Asia points to continued expansion in domestic, regional, and global demand and supply. There is a need for timely, concerted efforts by key stakeholders to define strategies, programs, and projects to respond to opportunities and challenges at all levels. Experiences from Asian economies can offer lessons, but each situation has its own peculiarities. There is no single approach to developing an IT-BPO industry.

A. Introduction

Asia comprises of a diverse a set of economies with major differences in information and communication technology (ICT) development within and across economies. Some are advanced while others have little or no exposure to modern ICT. Nevertheless, all economies have much to gain from increased network readiness (WEF 2013). The importance of ICT and of ICT-enabled service industries is not limited to the direct impacts of generating income and new employment opportunities. More importantly, developing the industry and the use of ICT is essential to advancing all social groups and sectors of the economy. Coupled with investments in infrastructure, training, education, and research and with legal and regulatory reforms that can improve government transparency and efficiency and the business climate, ICT is indeed a key driver of innovation and structural transformation in all societies (Castells 2000, 2001).

Expanding the scale and scope of ICT and of ICT-enabled services has been a key feature in economic development worldwide for many decades, and ICT has become a significant factor in international trade and also a key driver in transforming the domestic economies of both developed and developing countries (Sudan et al. 2010). Moreover, the pace of the ICT and of other technology revolutions is escalating (Schmidt and Cohen 2013).

Policy makers often want to boost ICT development because it is perceived to have a major, positive socioeconomic impact across various sectors of the economy, not only on the upper and middle classes in cities but also on the poor and those living in rural areas. The evidence for this assumption is, however, often nebulous. Also, developing ICT industries is complicated by rapid changes in technology and by the fact that ICT comprises a widely diverse range of activities and individual firms. Nevertheless, the rapid expansion of the scale and scope of ICT and ICT-enabled industries offers many opportunities and challenges.

This chapter examines the dynamics of information technology–business process outsourcing (IT-BPO) in Asia from a historical and comparative perspective and identifies factors driving and constraining industry growth. It explores why some countries and regions have been more successful than others in developing IT-BPO industries and highlights lessons, opportunities, and challenges for further development.

Any analysis of ICT development is complicated by weaknesses in the data and by the lack of consistency in the definitions used (see Box 3.1). The distinction between ICT and ICT-enabled services is often blurred, and rapid structural changes in the industry offer further complications (OECD 2010). It is hard to compare countries and to draw firm conclusions about ICT development from comparative data compiled by organizations such as

the International Telecommunication Union (ITU), the Organisation for Economic Co-operation and Development (OECD), the United Nations Conference on Trade and Development (UNCTAD), and the World Economic Forum (WEF), or from reports published by industry associations such as the World Information Technology and Services Alliance, and consulting firms such as A. T. Kearney, Gartner, the Economist Intelligence Unit, the Everest Research Institute, Forrester Research, the International Data Corporation, and McKinsey and Company. Reports published by ITU, the OECD, the World Bank, and UNCTAD are typically rather rigorous in their analyses and use of data. The focus of OECD is mainly on developed economies while United Nations agencies and the World Bank focus on developing economies. Nevertheless, reports published by consulting firms can provide useful, up-to-date information, but the data and analyses should be used with caution due to differences in objectives, methodologies, coverage, and classifications of ICT and ICT-enabled services. Overall, however, there are major gaps in the literature in terms of substantive, regular analyses of the development of ICT and of ICT-enabled service industries in Asia and elsewhere.

B. Worldwide Production, Spending, and Sourcing

The development of the ICT industry has generally been highly global, but there are major differences among countries and industry conditions and in segments and type of firms. The development of ICT globally has had a profound effect on the growth of IT-BPO industries in both developed and developing economies although with major differences in terms of performance, industry structure, and type of firms.

Access to skilled labor and a low-cost business environment have been key factors underlying the expansion of IT-BPO exports from developing countries such as India and the Philippines; however, expansion can be fully understood only in the context of developments in technology, financing, entrepreneurship, industrial organization, education and innovative systems, worker migration and other related corporate strategies, and public policy. Such developments include the emergence of the internet and other technologies along with increased modularization in the production of goods and services (Mitra 2009, OECD 2010).

Globalization boosted by the transportation and ICT revolution along with the liberalization of trade and foreign investment regimes have spurred the internationalization of education, training, and research and have given impetus to furthering the development of production, trade, finance, and knowledge supply chains or networks for delivering an expanded range of goods and services (Cattaneo et al. 2010, McKinsey Global Institute 2005). The dynamic interplay

Box 3.1
Defining Information and Communication Technology and Information and Communication Technology–Enabled Services

Any analysis of information and communication technology (ICT) development is hampered by the rapid proliferation of new technologies and business models which result in weak data. Furthermore, definitions are often blurred and inconsistent which limits the scope for analyses. The following definitions are based on the terminology used by the Organisation for Economic Co-operation and Development (OECD), the International Telecommunication Union (ITU), the United Nations Conference on Trade and Development (UNCTAD), consulting firms like Gartner, and industry associations like the World Information Technology and Services Alliance (WITSA).

ICT comprises both goods and services. As used here, ICT is defined as computing and communication equipment, IT software and services, and communication services, including telecommunications, broadcasting, and media. It includes among other things, the manufacturing of computers, electronic components, and telecommunication equipment and covers wholesale and retail services related to that equipment as well as telecommunications, consulting services, and other computer-related activities like internet connectivity. ICT services are often referred to as "computer and information services" and consist of computer programming and information services like data processing, hosting and related activities, and web portals (UNCTAD 2011).

Information technology (IT) services refer to computing equipment and software products serving both external and domestic markets. Information technology outsourcing (ITO) refers to cross-border offshoring or outsourcing of software products and services.

ICT-enabled services (also called IT-enabled services or IT-based services) include business process outsourcing (BPO), knowledge process outsourcing, legal process outsourcing, and government process outsourcing among others. ICT-enabled services are normally not classified as ICT or IT services although the distinction is often blurred. Broadly speaking, BPO includes voice and non-voice services, knowledge and legal processing, and other ICT-enabled services. It should, however, be noted that these terms (including the term, ITO) typically refer to cross-border outsourcing/offshoring and do not explicitly cover domestic market services. In view of this, Gartner and others also use terms such as business process management and knowledge process management to cover both international and domestic markets.

The terminology relating to sourcing, outsourcing, and offshoring has not been standardized. Generally the term "outsourcing" refers to the procurement of material inputs or services by a firm outside the original firm. Outsourcing can be domestic (onshore) or international (cross-border or offshore). This study focuses on international sourcing (offshoring–outsourcing to developing countries, in particular). Offshoring, or offshore (out)sourcing, is defined as procuring a service or material input from a source in a foreign country. It includes both non-captive offshoring (sourcing to a firm in a foreign country) and captive offshoring (global in-house sourcing to a subsidiary in a foreign country). The terms offshoring and outsourcing are, however, not always favored as terms like "trade in services," "globally distributed work," "global service delivery," and "global sourcing" are perceived to be less contentious or more correct.

Sources: Adapted from Gartner (2013), OECD (2009, 2011), UNCTAD (2010, 2011, 2012), and WITSA (2010).

of these factors has resulted in a structural shift in the global economy in which the scale and scope of sourcing services worldwide both through non-captive offshoring (sourcing to a firm in a foreign country) and captive offshoring (in-house sourcing to a subsidiary in a foreign country) has increased. In parallel, changes in political situations and trends towards automation and cost equalization trigger reshoring, that is, locating back to the country of origin or the country close to the end users (Mitra forthcoming a).

Globally, there is considerable room for expanding the scale and scope of sourcing in multiple directions—from higher-income to lower-income countries and vice versa, among high-income countries, and between developing countries—all of which bodes well for expanding IT outsourcing and ICT-enabled service industries. These historical trends are likely to prevail barring interruptions by major political conflicts or disruptions precipitated by the public policy environment, severe security predicaments, technical breakdowns, or economic recessions (Mitra forthcoming a).

This transformation of the world economy is reflected in the growth and structural change in ICT demand, production, trade, and investment. As shown in Table 3.1, global ICT spending is dominated by large, high-income economies suggesting that it is highly correlated with gross domestic product (GDP). ICT spending in Asia is dominated by large economies, and ICT spending levels are highly correlated with per capita income levels as spending is substantially greater in higher-income economies such as Hong Kong, China; Japan; the Republic of Korea; Singapore; and Taipei,China than in lower-income Asian economies. Also, the data show that ICT spending growth rates are typically in line with the rate of growth in GDP and per capita income. This is reflected in the fact that ICT spending growth has been particularly high in rapidly growing Asian economies.

The sustained expansion of offshoring/outsourcing from the 1990s to the 2010s points to the potential for continued strong growth in offshore service delivery. The International Data Corporation estimated global IT services at $557 billion in 2008 compared with $115 billion for BPO and forecasts that global IT service spending is poised to continue to increase significantly in the 2010s and onwards (IDC 2013). Moreover, Figure 3.1 shows that spending on IT offshoring and BPO grew about threefold from 2004 to 2008.

The key global spending and production assumptions that will affect IT-BPO industry growth from 2010 and beyond include the following (Mitra forthcoming a):

- Global spending on IT-BPO will continue to grow and will undergo major structural changes as new technologies, applications, and business models develop in the medium and long term. Periods of sharp declines in global IT spending growth (e.g., following the international financial crisis in 2008) are atypical or temporary.

Table 3.1
Information and Communication Technology Spending on Services and Hardware in Selected Economies ($ million)

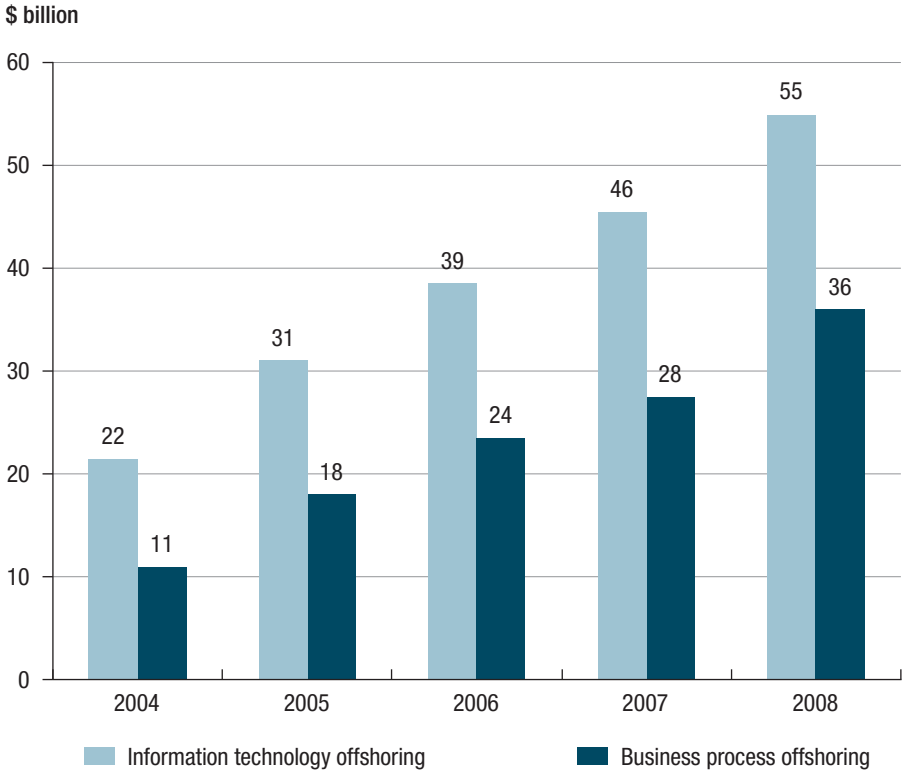
Region/ Economy	2003	2004	2008	2009	2010	2011	2012	2013
North America	919,067.1	984,113.6	1,189,035.7	1,135,620.7	1,204,411.3	1,291,882.0	1,368,600.9	1,434,553.2
Latin America	55,941.3	74,192.3	157,908.5	152,727.2	166,863.3	174,971.3	181,791.1	187,174.6
Europe (EU/EFTA)	693,317.4	800,585.1	1,049,518.5	981,260.1	1,035,641.0	1,134,495.6	1,203,294.1	1,270,263.5
Europe (Non-EU/EFTA)	35,671.6	48,572.8	96,238.6	85,225.1	91,361.2	99,865.4	107,045.0	114,004.8
Europe (combined)	728,989.0	849,157.9	1,145,757.1	1,066,485.2	1,127,002.2	1,234,361.0	1,310,339.1	1,384,268.3
Asia–Pacific	618,829.6	711,361.5	991,035.5	1,014,591.0	1,113,837.0	1,219,166.1	1,340,140.6	1,456,550.1
Australia	29,504.3	36,224.4	50,685.0	49,335.0	54,691.4	57,875.9	60,571.9	63,320.8
Bangladesh	1,005.9	1,368.2	6,980.9	8,169.4	9,454.2	10,903.4	12,311.6	13,588.4
PRC	137,947.0	172,910.5	327,593.3	350,810.5	382,694.5	427,284.7	486,536.1	553,390.6
Taipei,China	28,093.7	29,049.9	25,076.1	22,951.2	24,554.8	26,330.0	28,713.5	30,807.3
Hong Kong, China	9,972.7	11,636.2	18,713.2	17,177.3	18,824.1	20,340.4	21,677.4	22,996.9
India	19,044.8	26,967.6	56,394.9	62,930.9	79,051.8	96,431.3	112,340.1	124,601.2
Indonesia	5,808.2	6,867.9	16,518.0	19,423.7	23,972.6	27,359.9	30,545.7	32,721.4
Japan	284,613.0	304,704.9	325,019.0	331,762.7	348,136.5	363,851.1	385,107.3	400,727.5
Malaysia	14,152.9	16,517.9	22,463.7	20,945.4	23,725.1	25,996.4	28,321.1	29,839.6
New Zealand	4,866.6	5,565.1	7,361.5	6,813.7	7,392.6	7,827.8	8,248.6	8,614.8
Pakistan	2,644.9	3,271.7	6,336.3	6,162.3	6,503.4	7,099.5	7,745.4	8,343.5
Philippines	4,034.7	5,264.7	10,119.5	10,714.7	12,185.9	13,504.7	14,861.0	16,092.3
Korea, Rep. of	57,781.6	68,466.6	79,147.4	68,563.1	79,821.6	88,108.6	93,583.0	99,086.3
Singapore	8,329.1	9,407.5	13,750.8	12,312.5	13,156.2	13,886.8	14,625.2	15,346.3
Sri Lanka	456.3	560.7	2,083.5	2,417.3	2,786.3	3,127.4	3,466.7	3,698.6
Thailand	8,318.8	10,021.9	16,507.1	16,982.3	18,715.7	20,176.0	21,644.6	22,901.4
Viet Nam	2,255.1	2,555.9	6,285.2	7,118.9	8,170.2	9,062.3	9,841.5	10,473.2
Middle East	31,742.6	37,219.8	77,756.4	82,916.9	91,669.5	101,723.2	110,604.4	117,819.6
Africa	22,378.0	30,150.8	64,628.6	65,975.1	76,413.7	85,859.6	94,506.2	103,003.9
World Total	2,376,947.7	2,686,195.9	3,626,121.9	3,518,316.2	3,780,197.0	4,107,963.2	4,405,982.3	4,683,369.8

EFTA = European Free Trade Association, EU = European Union, PRC = People's Republic of China.

Note: Data after 2009 are forecasts.

Source: WITSA (2010).

Figure 3.1
Trends in Global Offshoring, 2004–2008



Note: Data cover offshoring and outsourcing to developing countries, Eastern and Central Europe plus Ireland and Canada.

Sources: Everest Research Institute (2009); author's estimates.

- Spending on BPO is likely to grow faster than and potentially overtake spending on IT outsourcing.
- Growth in IT spending will be especially pronounced in developing countries that lag behind in per capita income levels and penetration of ICT.
- Spending on outsourcing of IT-BPO services will grow faster than total spending on IT-BPO outlays.
- Exports and imports of IT-BPO services will continue to expand in scale and scope.
- Asia is expected to continue to experience rapid growth in ICT spending, production, and trade.

C. Diffusion and Impact

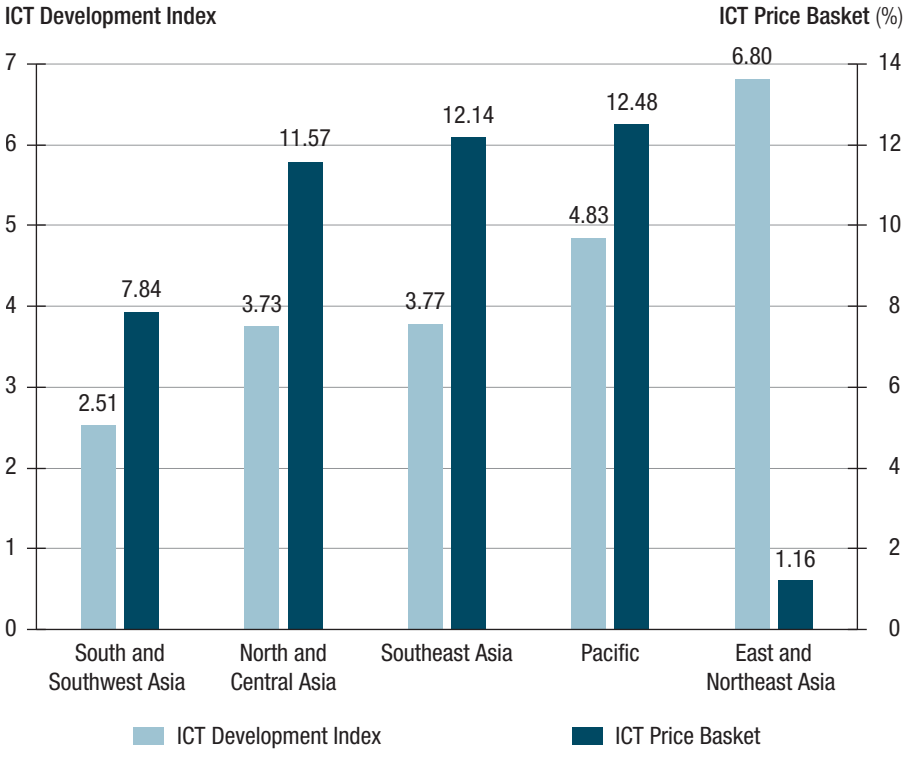
The ICT Development Index compiled by ITU tracks the overall progress countries make on becoming information societies. It is a composite made up of 11 indicators covering access, use, and skills, and measures the level and evolution of ICT developments over time taking into consideration the situations of both developed and developing countries. According to the 2011 ITU report *Measuring the Information Society*, the top 11 ICT economies in 2010 were the Republic of Korea in first place followed by Sweden; Iceland; Denmark; Finland; Hong Kong, China; Luxembourg; Switzerland; the Netherlands; the United Kingdom; and Norway. They largely correspond to the world's high-income economies given the strong correlation between the level of ICT development and GDP (ITU 2011).

As shown in Figure 3.2, East and Northeast Asia are well ahead of the rest of Asia in terms of ICT infrastructure and skills and offer relatively affordable services to individuals and businesses. South and Southwest Asia have managed to keep ICT at relatively affordable levels despite lagging infrastructure. The country-specific ICT development index data in Table 3.2 indicate the wide disparities in Asia and the Pacific.

Figure 3.3 shows the relationship between ICT connectivity, per capita income, and ICT prices as calculated in ITU indices. The figure reveals the strong correlation between ICT development and per capita income (0.885) for selected economies. In contrast, ICT prices and per capita income have an inverse relationship (–0.446) reflecting the regressive nature of the sector across the income spectrum. Moreover, as the price index increases, the ICT development index falls sharply with a negative correlation value of –0.597. In this regard, what is of even greater concern is that in the very countries that already have the lowest per capita income levels and the lowest ICT development indices, ICT prices have increased four- or fivefold. This underlines the close association between poverty and low ICT connectivity as well as high user prices that are not only out of line with other countries in the region but are also in countries where people are the least able to afford them. Disconnectedness in these countries can turn into a vicious circle that negates, particularly for the poorest, the benefits that the wider integration of the region can bring (Bonapace and Martinez-Navarrete 2011).

Determining why, when, and how ICT has an impact on economic growth is a complex affair; nevertheless, consensus has emerged among the majority of scholars that both the production and use of ICT contribute significantly to aggregate productivity (Jorgenson and Vu 2005). Total factor productivity increased from 21% of world economic growth from 1990 to 1995 to 29% from

Figure 3.2
Information and Communication Technology Readiness and Cost by Region in Asia and the Pacific, 2009



ICT = Information and communication technology.

Source: Adapted from Bonapace and Martinez-Navarrete (2011) based on the International Telecommunication Union (2011).

1995 to 2003. This development has been associated to a significant extent with the ICT revolution. The share of this gain attributed to the ICT sector has declined, while productivity growth in industries using ICT has accelerated. The two important components of the ICT industry are equipment manufacturing and IT-enabled services, both of which are highly concentrated regionally, and productivity gains resulting from these industries are currently captured largely by consumers in developed countries rather than by developing-country producers (Best and Kenny 2009). Nevertheless, the gains are also considerable in some developing countries, especially in modern cities, and are poised to become more significant in other areas as well (Mitra forthcoming a).

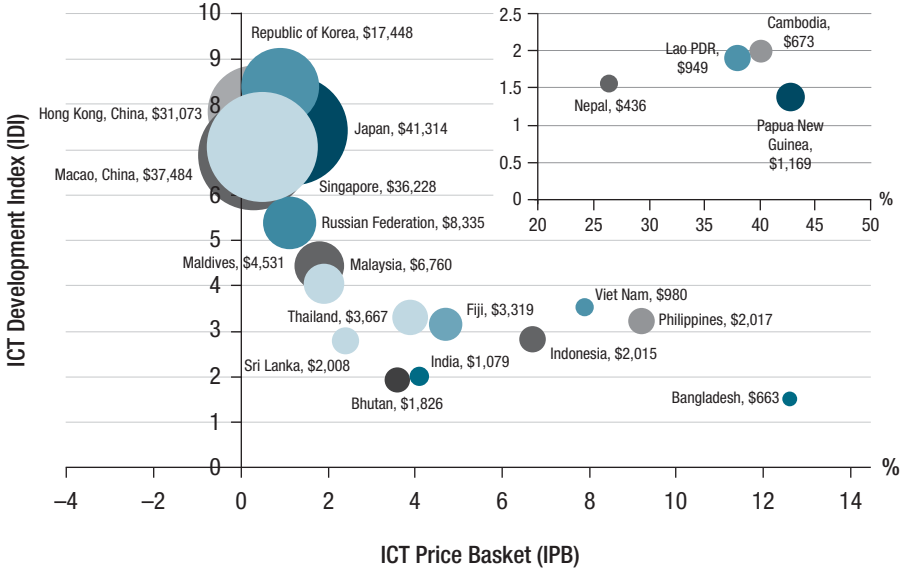
Table 3.2
Information and Communication Technology Development Index for Asia and the Pacific, 2008–2010

Economy	Regional Rank (2010)	Global Rank (2010)	IDI (2010)	Global Rank (2008)	IDI (2008)	Global Rank Change (2008–2010)
Korea, Republic of	1	1	8.40	1	7.80	0
Hong Kong, China	2	6	7.79	6	7.14	0
New Zealand	3	12	7.43	16	6.65	4
Japan	4	13	7.42	11	7.01	–2
Australia	5	14	7.36	14	6.78	0
Singapore	6	19	7.08	15	6.71	–4
Macao, China	7	21	6.84	27	5.84	6
Brunei Darussalam	8	43	5.61	44	4.97	1
Malaysia	9	58	4.45	57	3.96	–1
Maldives	10	67	4.05	66	3.54	–1
PRC	11	80	3.55	75	3.17	–5
Viet Nam	12	81	3.53	91	2.76	10
Mongolia	13	86	3.41	87	2.90	1
Iran	14	87	3.39	84	2.96	–3
Thailand	15	89	3.30	80	3.03	–9
Philippines	16	92	3.22	95	2.69	3
Fiji	17	94	3.16	90	2.82	–4
Indonesia	18	101	2.83	107	2.39	6
Sri Lanka	19	105	2.79	106	2.41	1
India	20	116	2.01	117	1.72	1
Cambodia	21	117	1.99	120	1.63	3
Bhutan	22	119	1.93	123	1.58	4
Lao PDR	23	121	1.90	119	1.64	–2
Pakistan	24	123	1.83	121	1.59	–2
Nepal	25	134	1.56	137	1.28	3
Bangladesh	26	137	1.52	135	1.31	–2
Papua New Guinea	27	143	1.38	139	1.24	–4
Average (simple)			4.06		3.61	

IDI = Information and Communication Technology (ICT) Development Index, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Source: International Telecommunication Union (2011).

Figure 3.3
Connectivity, Prices, and Incomes in Selected Economies



ICT = information and communication technology, Lao PDR = Lao People's Democratic Republic.

Note: The size of the bubble refers to gross national income (GNI) per capita, $ current, 2009. Data on GNI per capita from the UNESCAP *Statistical Yearbook for Asia and the Pacific 2011*, data on IPB (2010) and IDI (2010) are from the International Telecommunication Union (2011). The IPB is a composite based on user prices for fixed telephony, mobile telephony, and fixed-broadband internet services calculated as a percentage of average income. The IDI is a composite combining 11 indicators related to the level of networked infrastructure and access to ICT, the level of ICT use in society, and the level of ICT skills.

Source: Adapted from Bonapace and Martinez-Navarrete (2011).

D. Industry Growth, Structure, and Market Orientation

1. Overall Development Trajectories

All Asian economies are in the process of developing their IT-BPO industries, but there are significant differences. This raises questions on how and why economies or regions differ in the timing, scale, and scope of development and what the policy and other implications are. An in-depth analysis of these questions must cover a wide range of topics including the overall historical and economic development context, market orientation, and income level; specific

human resources and other factor market developments; legal and regulatory environments; fiscal and non-fiscal incentives; and the overall role and organization of the private sector, the government, and other local and foreign stakeholders.

As shown in Table 3.3, several Asian economies have established significant IT-BPO industries, but the timing of industrial development as well as the scale and scope of operations differ significantly. The size of the IT service industry (especially the domestic industry) is generally in line with the size of GDP and ICT spending and to some extent other overall ICT developments such as rankings provided by ITU (2012) and the World Economic Forum (WEF 2013). The most sizeable IT service industry (domestic and exports combined) is found in high-income countries such as Japan and the Republic of Korea followed by large developing countries such as the People's Republic of China (PRC) and India. Countries with high per capita incomes (and high ICT spending per capita) typically have larger ICT service industries on a per capita basis than countries with lower per capita income levels (or low ICT spending per capita), but a review of export performance does not imply that all countries or regions follow this pattern. India, for example, is a major exporter of IT-BPO services but lags behind many economies in terms of domestic ICT spending, ICT diffusion, per capita income levels, and a wide range of other socioeconomic indicators.

Furthermore, Asian economies differ significantly in market orientation and industry structure. In large, industrially advanced, high-income economies like Japan and the Republic of Korea, the ICT service industry is to a large extent mostly focused on the domestic market. Also, remuneration levels and value added per employee are typically higher compared to middle- and low-income economies. Among developing countries, the PRC has the largest industry serving a domestic market for telecommunication and other hardware, IT services, and software while India takes the lead in exporting IT-BPO services. Other developing Asian countries that have developed significant IT-BPO export industries include the PRC, Malaysia, the Philippines, Singapore, and Sri Lanka, and more recently also Thailand and Viet Nam. Countries lagging behind in efforts to develop a more sizeable and internationally competitive export industry include much of West and Central Asia, Bangladesh, Cambodia, Indonesia, the Lao People's Democratic Republic (Lao PDR), Myanmar, Nepal, the Pacific Islands, Pakistan, and Papua New Guinea (Akthar et al. 2009).

Several Asian economies have emerged as major global production centers for electronics and ICT hardware. The principal examples currently include the PRC; Japan; the Republic of Korea; Malaysia; the Philippines; Taipei,China; Thailand; and Viet Nam. The hardware industry has well-developed global production, trade, and research networks and sourcing or supply-chain networks

Table 3.3
Information Technology and Business Process Outsourcing Industry Revenue in Major Asian and Pacific Economies, 2008

Economy	Population (million, 2008)	GDP (Current $ billion, 2008)	GDP (Current $ per capita, 2008)	IT-BPO Industry Revenue ($ billion, 2008)	IT-BPO Industry Revenue (% of GDP, 2008)	IT- BPO Industry Revenue ($ per capita, 2008)	Global IDI Ranking (2010)
Less Developed Economies							
South Asia							
Bangladesh	145.5		547.8	0.6	0.8	4.1	137
India	1,190.9	1,224.1	1,027.9	51.5	4.2	43.2	116
Pakistan	167.4	163.9	978.8	1.7	1.0	10.2	123
Sri Lanka	20.2	40.7	2,013.9	0.6	1.5	29.7	105
Southeast Asia							
Indonesia	235.0	510.2	2,171.7	1.8	0.4	7.7	101
Malaysia	27.5	231.0	8,398.9	2.7	1.2	98.2	58
Philippines	90.2	173.6	1,925.2	6.1	3.5	67.6	92
Thailand	68.3	272.6	3,992.8	2.6	1.0	38.1	89
Viet Nam	85.1	91.1	1,070.2	0.6	0.7	7.1	81
Advanced Economies							
East Asia							
Hong Kong, China	7.0	219.3	31,425.8	1.4	0.6	200.0	6
Japan	127.7	4,849.2	37,972.2	104.5	2.2	818.3	13
Singapore	4.8	166.8	34,465.5	13.8	8.3	2,875.0	19
Korea, Republic of	48.9	931.4	19,028.0	10.5	1.1	214.7	1
Taipei,China	22.9	392.9	17,150.5	9.3	2.4	406.1	–
Pacific							
Australia	21.4	1,052.8	49,233.0	15.2	1.4	710.3	14
New Zealand	4.3	130.7	30,611.4	2.9	2.2	674.4	12

continued on next page

Table 3.3 continued

Economy	Population (million, 2008)	GDP (Current $ billion, 2008)	GDP (Current $ per capita, 2008)	IT-BPO Industry Revenue ($ billion, 2008)	IT-BPO Industry Revenue (% of GDP, 2008)	IT- BPO Industry Revenue ($ per capita, 2008)	Global IDI Ranking (2010)
Subtotal, less developed economies	2,030.1	2,786.8	2,193.4	68.2	2.4	33.6	
Subtotal, advanced economies	237.0	7,743.1	35,782.8	157.6	2.0	665.0	
Grand total	2,267.1	10,529.9	26,893.2	225.8	2.1	99.6	

– = data not available, GDP = gross domestic product, IDI = ICT Development Index published by ITU (2011).

Note: Information technology (IT) software and services and business process outsourcing (BPO) industry data are not strictly comparable across countries due to differences in industry classifications and coverage of domestic and external markets.

Sources: KPMG (2010); World Bank. World Development Indicators database (accessed 16 April 2013); ITU (2011); author's estimates.

covering several East and Southeast Asian economies, though there are rapid changes in the division of labor among those economies in addition to major volatility in demand. Compared with most other Asian economies, countries like India and the Philippines have experienced substantially rapid growth in IT-BPO exports, and so far global service outsourcing has continued to grow more steadily than the hardware industry even during slowdowns in overall economic growth in advanced developing countries. Compared to the manufacturing sector, however, ICT services are behind in developing intra-Asian production, trade, and research networks.

Moreover, there are major differences in the scale, scope, organization, and behavior of individual firms in the hardware and service industries. In Japan, several large electronics and ICT hardware firms have served local and international markets for several decades and have made major investments in research. Subsequently, the PRC; the Republic of Korea; and Taipei,China have also developed major manufacturing firms but with notable differences in terms of timing, industry structure, ownership, and corporate culture. The PRC has several large, state-owned and private corporations that until recently mainly focused on the domestic market. The Republic of Korea is dominated by large, indigenous industrial conglomerates with extensive worldwide sales.

Taipei,China has been extraordinarily dynamic in terms of indigenous small and medium-sized enterprise development. In contrast to the IT hardware and telecommunication industries, Asia has few large IT service and software firms that match the scale and scope of the operations of North American and European companies, although several firms in the PRC and India are up and coming. Also, India and the Philippines are so far the only countries in Asia that have established themselves as major BPO industry centers which in the case of India is manifest in large-scale operations of both indigenous and foreign firms as opposed to the Philippines were foreign corporations dominate.

2. Domestic Markets

Variations in the scale and scope of the domestic market for IT-BPO services are typically in line with the size and sophistication of the economy (Table 3.3) as measured by the size of GDP, per capita income, literacy rates, and the use of computers and broadband. In lower-income countries, the domestic market tends to be underdeveloped implying a significant opportunity for catching up as their economies grow. Moreover, it should be noted that countries differ in terms of the roles of local governments in dealing with foreign firms and in the scale and scope of local value added versus reliance on importing software and services.

Several factors point to the major potential to develop domestic markets in Asia (Mitra forthcoming a).

- Incomes are increasing resulting in more domestic ICT spending by the private and public sectors, households, and individuals.
- The number of persons with basic and higher education and computer literacy is large and growing.
- The economy in Asia overall has been transforming and expanding predominantly in urban areas with a high use of computers, internet, and other ICT. In addition, there has been rapid growth in the use of wireless telephones and other ICT in rural areas. Examples of applications with major growth potential include e-governance, finance, banking, insurance, postal services, infrastructure, media/entertainment, education, healthcare, public transport, energy and other utility management, and clean/green technology.
- The introduction of new, more affordable and cost-effective hardware and software and the widespread use of increasingly sophisticated wireless telephone and computer solutions with broadband, cloud computing, and other innovations offer major opportunities for rapid growth in domestic

IT-BPO markets. The ongoing ICT revolution implies that a large number of people are using low-cost computers, tablets, mobile phones, and other devices with internet and computing capabilities.

- The expanded scope for a wide range of entrepreneurial activities empowered by ICT has led to the increasingly rapid adoption of foreign technologies as well as to indigenous technological and business process innovations to serve domestic market needs that subsequently also could result in exports.

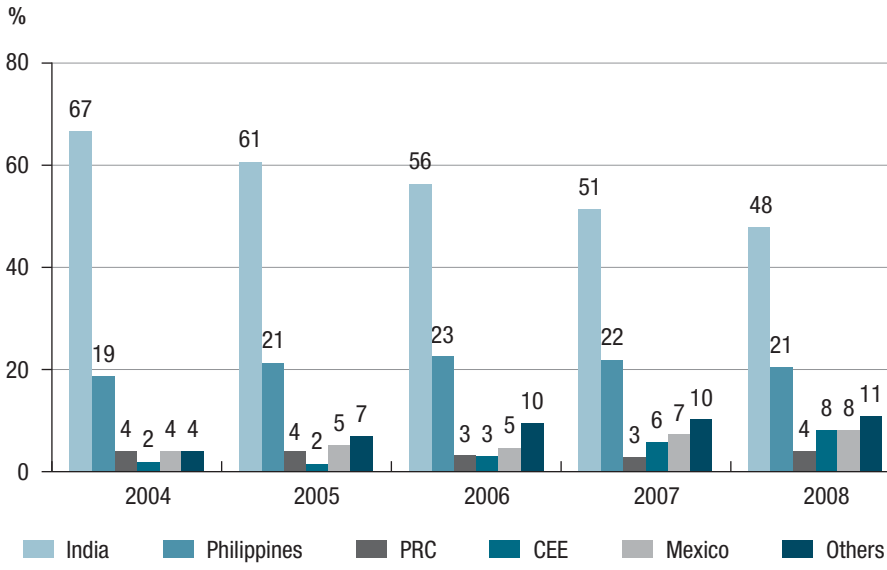
3. Export Markets

The global market for exporting IT-BPO services has expanded rapidly especially since the 1990s. Trade among advanced industrial economies traditionally has dominated this business, but developing countries have gradually emerged as significant participants as well with India as a prime example. While India has remained the largest exporter among developing countries, international competition has intensified as IT-BPO services have become a more substantial business niche in many countries. In terms of BPO, India's share of international offshoring (offshoring and outsourcing to developing countries and to Central and Eastern Europe) declined from around 67% in 2004 to around 48% in 2008. Much of this decline is explained by the rapid development of the industry in the Philippines (21% in 2008), Mexico (8% in 2008), and Central and Eastern Europe (8% in 2008) as shown in Figure 3.4. The PRC has found a lucrative business niche in Japan while the Eastern European countries serve German and Scandinavian markets.

E. Regional and Country-Specific Industry Developments

In Asia, the PRC, India, Malaysia, the Philippines, and Singapore are major exporters of IT-BPO services, but the PRC and higher-income countries such as the Republic of Korea are ahead in terms of developing their domestic markets for ICT products and services. Variations in industry size and structure and market orientation across countries (and regions) can be traced to differences in domestic and external demand; technology development; the historical context including political, corporate, and other cultures; the timing and stage of development; factor market endowment; agglomeration; infrastructure; the legal and regulatory environment; and the role of key stakeholders.

Figure 3.4
Business Process Offshoring to Developing Countries and to Central and Eastern Europe (%)



PRC = People's Republic of China.

Note: CEE includes Central and Eastern European countries. Others include Argentina, Brazil, Malaysia, Singapore, Central America, and the Caribbean region.

Source: Author's estimates, excluding offshoring to Canada and Ireland, based on data provided by Everest Research Institute (2009).

1. South Asia

India has been a star performer in developing an export-oriented IT-BPO industry and has inspired other South Asian countries to follow its example. All countries in the region are characterized by major disparities in economic development as some areas, groups, and institutions are sophisticated while others lag behind. As a whole, South Asia lags behind East Asia in most socioeconomic indicators including per capita income; literacy; ICT spending per capita; the diffusion and use of ICTs; the development of the domestic market for ICT services; and international rankings in terms of competitiveness, ease of doing business, and the overall efficacy of government interventions. While South Asia is generally weak in overall economic development and governance, it is also culturally heterogeneous and in many respects more open to foreign cultures than most of East Asia. Moreover, all the countries were under British colonial rule and hence have long-standing familiarity with that culture. That and costing advantages

have so far proved important in giving India and Sri Lanka an edge over many other Asian countries in developing IT-BPO exports (Mitra 2004).

☐ **India.** The IT-BPO industry in India continues to expand although at lower annual growth rates as the industry has become larger. The industry was estimated to have revenues of $108 billion in fiscal year (FY) 2012–2013 with IT services and software and engineering accounting for $74.2 billion and BPO accounting for $20.9 billion (export and domestic markets combined). Much of the industry continued to focus on exports, but the domestic market has gradually become substantial as well. Employment is expected to reach nearly 3 million while indirect job creation is estimated at 9.5 million (Table 3.4). As a proportion of GDP, revenues have grown from 1.2% in FY1997 to nearly 8% in FY2012–2013. The share of total exports (merchandise plus services) increased from less than 4% in FY1997–1998 to 23%–25% in FY2012–2013 (NASSOM 2009–2013).

India's success in developing an IT-BPO industry ensues from its early development of a large pool of technical, managerial, and entrepreneurial human resources coupled with strong external demand from the late 1980s onwards. These circumstances or inherent strengths and capabilities gave India "first mover advantages" in developing an export-oriented industry that initially focused on low-end IT services and subsequently also developed stronger capabilities in higher-end IT services and software, engineering services, and BPO exports. Early on, the development of IT services in India was driven by foreign and local private firms (and initially also by public sector entities). As the industry matured, many multinational corporations developed major operations in India at the lower as well as the higher end of the value chain serving both the global and the local markets. Moreover, Indian firms began to establish sales as well as production centers in a large number of developed and developing countries.

It is commonly agreed that access to a large pool of educated human resources that could be hired at a comparatively low cost and the pivotal role of entrepreneurial talent were key factors that enabled India to rapidly develop its export-based industry in the 1990s and 2000s. These facts alone, however, do not explain its success. India in fact had several principal strengths enabling it to respond swiftly to external demand (Mitra 2009).

- **Human resources and cultural factors.** India's principal advantage is its pool of human resources, namely its size; varied technical, managerial, and entrepreneurial competency; English language skills; multicultural adaptability; high domestic and international mobility; and low cost compared to high-income countries. All these features have been favorable in meeting industry requirements for skilled technical workers as well as for managers and entrepreneurs. Also, the Indian diaspora has played

multiple roles in developing the knowledge industry both internationally and in India.

- **Capital requirements and financing avenues.** Access to local and foreign capital and the existence of well-established financial institutions has gradually become more important to private sector–led industrial development. The availability of risk-willing capital has increased especially during the rapid appreciation of shares of Indian firms on domestic and foreign stock exchanges. Many foreign firms have invested in India and have established strategic alliances with Indian firms.
- **Infrastructure, major urban centers, industrial parks, and living conditions.** New and more efficient telecommunication technology and the growth in computer, telecom, and internet infrastructure have made the rapid expansion of IT-BPO industries feasible. Nevertheless, while the country's infrastructure has improved, it continues to lag behind most of East Asia in telecommunication, transportation, energy, and other infrastructure. Poor infrastructure has continued to be a major constraint on economic development in India; in fact, it can be argued that IT-BPO industries could have developed significantly faster if infrastructure had been better.

  Major urban centers (Bangalore, Chennai, Hyderabad, the New Delhi National Capital Region, Mumbai, and Pune in particular) with their comparatively better access to modern infrastructure, education, and other facilities have served as magnets for foreign and indigenous corporate investment and also for attracting talent from different parts of the country as they are perceived to offer greater career opportunities and better quality of life. Export-oriented industrial parks in major cities have played a pivotal role by providing land, physical infrastructure, and incubator facilities.
- **Legal and regulatory frameworks.** Gradual improvements in cyber, telecommunication, and intellectual property rights legislation and regulatory frameworks and special fiscal incentives and liberal labor laws for the service sector compared with those in the manufacturing sector have enabled the industry to expand.
- **Foreign and local firms, entrepreneurship, the Indian diaspora, institutional capabilities, and networks.** India's human resource strengths are complemented by institutional capabilities including legal and accounting services, financial and technical services, mass media and entertainment industry management consultants, industrial associations, indigenous and foreign private corporations, public sector institutions, and the academic community. Industry growth has been spurred by the fact that India offers a large pool of technical, managerial, and entrepreneurial talent for institutions to tap locally and overseas to make professional connections

Table 3.4
Information Technology–Business Process Outsourcing Industry Revenue and Employment by Service Type in India

Revenues and Employment	2003–2004	2008–2009	2009–2010	2010–2011	2011–2012	2012–2013p
REVENUES ($ billion)						
Export Market						
IT services	7.3	25.8	27.3	33.5	39.9	43.9
Software products and offshore software product development	0.8	2.0	2.1	2.4	2.7	2.9
Engineering services	1.7	7.6	7.9	9.0	10.3	11.2
Business process outsourcing	3.1	11.7	12.4	14.2	15.9	17.8
Total Exports	12.9	47.1	49.7	59.0	68.8	75.8
Domestic Market						
IT services (including engineering)	3.1	8.2	9.1	11.0	12.2	12.4
Software products	0.5	2.7	3.0	3.5	3.7	3.8
Business process outsourcing	0.3	1.9	2.3	2.8	3.1	3.1
Total Domestic	3.9	12.8	14.3	17.3	19.0	19.3
Total Export and Domestic Markets						
IT services and engineering services	12.1	41.6	44.3	53.5	62.3	67.5
Software products and offshore software product development	1.3	4.7	5.0	5.9	6.4	6.7
Business process outsourcing	3.4	13.6	14.7	17.0	19.0	20.9
Grand total IT services, products, engineering, and business process outsourcing except hardware	16.8	59.9	64.0	76.3	87.7	95.2
EMPLOYMENT (thousand)						
IT software and services exports	296	958	1,003	1,153	1,295	1,407
Business process outsourcing exports	216	738	770	826	879	917
Domestic market (IT software and services and business process outsourcing)	318	500	527	562	601	640
Grand Total	830	2,196	2,300	2,542	2,775	2,964

IT = information technology, p = provisional projections.

Note: Data refer to fiscal years ending 31 March.

Source: NASSCOM (2009–2013).

with foreign companies. The institutional capabilities and business networks in India and in the Indian diaspora in conjunction with other international knowledge and business networks have enabled the rapid development of the IT-BPO industry.

- **The private sector, government, and academia.** The role of the government has gradually evolved from focusing on investing in public education and research and in state corporations to facilitating private sector development and developing public–private partnerships. In India, both indigenous private sector and foreign multinationals have been the prime drivers of the rapid expansion of the IT-BPO industry in both the export and domestic markets.

  Early government policies and investments in education and public enterprises were also important in enabling long-term growth, but success did not result from large-scale government planning and investment in ICT. The emergence of new connectivity solutions and decisions by foreign companies to expand outsourcing and offshoring service delivery to low-cost geographies coupled with the dynamic response of the private sector and the spirit of a diverse set of entrepreneurs were the principal factors driving industry development.

  In spite of major weaknesses in the overall business environment in most parts of the country, private sector know-how and a swift response to new business opportunities coupled with self-reliance in tackling challenges in corporate strategy and in managing operations were key factors enabling the rapid development of the industry. Academia played an important role in educating and training students in large numbers, although with variations in quality in both government and private institutions. Also, there have been major shortcomings in matching the education and training requirements of the IT-BPO industry with end users. In fact, the record on fostering links between academia and industry in education and research has been mixed.

- **Agglomeration.** All of the above have been associated with the concentration of technical, managerial, entrepreneurial, and other talents in major cities and the development of various forms of local, national, and international production, trade, finance, and knowledge networks and links. This has resulted in multiple production, technological, educational, and other formal and informal connections between institutions and individuals in ICT as well as in other parts of the economy. Moreover, it can be argued that the industry got special impetus from factors such as branding and success breeding success.

The growth of the industry in India was the result of natural evolution reflecting supply and demand; market and physical infrastructure development; developments in public policy and corporate strategy; and changes in industrial organization and the role of industrial clustering and business and knowledge networks internationally, nationally, and at local firms. It did, however, also have certain "accidental" aspects such as timing in terms of external demand, time zone differences, and the emergence of individual champions. More crucial, though, were the unplanned or default advantages that resulted from access to a large, skilled, English-speaking workforce; low-cost workers (many of whom are graduates or professionals with little or no IT expertise); and the scarcity of attractive employment opportunities in other sectors of the economy. In addition, no other country was able to respond to the extraordinarily strong external demand from the late 1980s onwards as quickly as India primarily due to its human resource endowment. India did not have particularly unique or extraordinarily favorable government policies in ICT or in other fields, especially compared with East Asia; it did, however, have special strengths in terms access to a large pool of technical, managerial, and entrepreneurial talent (Mitra 2009).

❒ **Sri Lanka.** After India, Sri Lanka has so far been the most successful in exporting IT-BPO services in South Asia. It now has a larger industry than most Indian states aside from Andhra Pradesh, Karnataka, Maharashtra, the National Capital Region, and Tamil Nadu. Sri Lanka currently ranks 21st in the 2011 A. T. Kearney Global Services Location Index (Kearney 2011). As of 2011, there were more than 300 IT-BPO firms operating in the country employing about 63,000 people (compared to 34,000 in 2006) and generating more than $300 million in export revenue. With the end of the civil conflict and with active investment and reforms by the government, the IT-BPO industry could well reach its ambitious target to generate more than $1 billion in revenues by 2016 (Kearney 2012). Key drivers in developing the industry are access to a sizeable talent pool, a cost advantage, supportive government policies, and the fact that Sri Lanka is close to India and can take advantage of industry developments and access to the technical and managerial talent available there (Mitra 2006).

Bangladesh and Pakistan also have significant ambitions in ICT development, but they have so far not been able to keep up with India or Sri Lanka in IT-BPO industry expansion mainly because of the overall weakness of their economies and investment climates.

2. Southeast Asia

Southeast Asia is heterogeneous in terms of ethnic groups, size of populations, and historical legacy and has traditionally been more open to foreign cultures

than most of East Asia. There are major differences in overall social and economic development across and within countries, in the scale and scope of government interventions, and in the role of the private sector. These variations are reflected in differences in ICT development such as the potential to develop IT-BPO exports and domestic markets. Malaysia, the Philippines, and Singapore lead in IT-BPO industry development including in exports. Viet Nam started later and is attempting to catch up using strong government support. Indonesia and Thailand lag behind, though they also aspire to develop major IT-BPO industries. Lower-income countries such as Cambodia, the Lao PDR, and Myanmar are, on the other hand, thought to have little scope for developing sizeable IT service export industries.

Among the members of the Association of Southeast Asian Nations (ASEAN), Indonesia, Malaysia, the Philippines, and Thailand are ahead of South Asia but lag behind East Asia in socioeconomic indicators such as per capita income; literacy; ICT spending per capita; the diffusion and use of ICT and the development of the domestic market for services; and international rankings in competitiveness, ease of doing business, and e-readiness. Moreover, the region's colonial legacy differs from that of East Asia and is only partly in line with that of South Asia. Malaysia, Myanmar, and Singapore were under British colonial rule and hence are familiar with British culture and legal and business practices. The Philippines was a Spanish colony then came under American rule; Indonesia was a Dutch colony; Cambodia, the Lao PDR, and Viet Nam were French colonies; and Thailand was never a colony. These facts have had a significant impact on their education systems and overall scope to develop IT-BPO export industries.

❒ **Indonesia.** Indonesia is an example of a late starter, yet the government has major ambitions to develop ICT hardware and service industries to serve both the export and domestic markets. Compared with India and the Philippines, the scope for exporting IT-BPO services is, however, limited, one principal reason being constraints in English-language skills. Also, unlike several East and Southeast Asian countries, Indonesia has not been able to establish a large, internationally competitive hardware manufacturing industry. Nevertheless, there is a need to serve the sizeable local market for both ICT services and hardware as the population reached 242 million in 2012. Major advancements in broadband connectivity are critical for integrating and developing the domestic economy as well as its international interface.

Developing a major IT-BPO or ICT manufacturing industry may, however, prove to be harder than in the PRC or India. Indonesia must try its own model to serve both local and external demand. According to the government's ICT 2025 Vision, the country aims to become a prosperous information society by developing information infrastructure; by facilitating regulations, incentive systems, and institutional convergence; and by developing human resources.

☐ **Malaysia.** Malaysia developed an electronics industry early on based on multinational corporations offshoring assembly component manufacturing to serve regional and global markets. The industry started in the early 1970s, grew rapidly in the 1980s, and reached its peak in the 1990s, but subsequently the rate of new foreign investment declined as multinationals began to favor other lower-cost locations such as the PRC, Thailand, and Viet Nam and because progress in moving up the value-added chain was limited in Malaysia. While the growth of the hardware industry has slowed efforts to develop ICT services—primarily telecommunication and computer services—those services have, however, become a major feature in the country's economic development with the advent of the widespread use of personal computers and the internet, and the surge in outsourcing services to India and other locations starting in the early 1990s. In the 2000s, telecommunications grew at a compound annual growth rate of 10.5%, and computer services grew at 26.8% (MOSTI and PIKOM 2012).

Much of the IT service industry has been concentrated in Kuala Lumpur and the Klang Valley. The government has made major efforts to attract investment into Cyberjaya located between the Kuala Lumpur city center and the international airport, and efforts have also been made to develop the industry in other parts of the country. An example would be efforts to develop the Penang area into a center for higher-end electronics manufacturing as well as engineering, IT services, and other knowledge-based industries. Another example is the Iskander Malaysia project, a major high-technology industry township close to the Singapore border with the potential to attract investors and professionals who would have otherwise operated out of Singapore.

Malaysia differs from the Philippines (and from many other Asian countries) in that the government has been extraordinarily proactive and committed to investing large sums to promote electronics and ICT hardware and subsequently also ICT service industries, though to date the return on this investment has been moderate or low. IT services, and to a more limited extent the BPO industry, have continued to expand in the 2000s and as of 2011 employed about 300,000 people directly, but Malaysia has not been able to match India, the Philippines, or Sri Lanka in terms of BPO industry growth or the PRC or India in IT services and software products and engineering services.

The Malaysian experience indicates that both the government and the private sector can do a lot to promote ICT development but that the efficacy of government intervention is key. This is illustrated not only by success in attracting foreign investment and in establishing industrial parks but also in terms of the ability to solve problems resulting from fragmentation and the poor implementation of government and public–private partnership initiatives, ineffective subsidy regimes, and corrupt practices. Malaysia's mixed results in ICT development suggest that focusing exclusively on government and public–private

partnerships for investing in infrastructure and providing generous tax and other incentives may not be enough to enable major IT-BPO industry development, especially if the investments and policies are ineffective. The importance of early and sound investments in human resources and ensuring that such efforts are carefully monitored and managed is paramount. It is essential to educate, retain, and attract technical, managerial, and entrepreneurial talent and to ensure education and training investments are in line with industry demand. Malaysia continues to face major challenges in the scale, focus, and quality of education and in attracting and training foreign and Malaysian talent, including its diaspora, all of which are needed to enable industrial expansion in line with developments in the marketplace and with corporate priorities. Also, it needs to compete for more foreign investment and to establish more effective programs to strengthen local entrepreneurship and innovation.

Nevertheless, Malaysia has been an example of bold leadership as illustrated by its Vision 2020 of a technologically advanced society and a technologically enabled government. The government's 8th, 9th, and 10th plans (2010–2015) along with the Knowledge-Based Economy Master Plan, the Digital Transformation Program and several other government initiatives aim to transform the economy through innovation, knowledgeable and skilled human capital, and the widespread use of technology, in particular ICT. By 2020, the Digital Transformation Program is expected to increase the contribution of the digital economy from the current 12.5% to 17% of gross national income (MOSTI and PIKOM 2012).

❒ **Philippines.** The Philippines is second to India in success in establishing a sizeable BPO industry and appears poised to develop a major IT service industry as well. IT-BPO exports grew by 46% annually from 2004 to 2008 and continued to expand by 18%–30% annually from 2009 to 2012. It has outperformed other countries in developing BPO voice exports. IT-BPO export earnings grew from $100 million in 2001 to $1.5 billion in 2004 to $13.5 billion in 2012 and are projected to reach $16 billion in 2013. They may well reach $25 billion in 2016 which would be close to 8% of the GDP according to the Business Processing Association of the Philippines (BPAP). Moreover, BPO has also become a major generator of new job opportunities as direct, full-time employment grew from 100,000 in 2004 to 780,000 in 2012 and is projected to reach 926,000 in 2013 and may well reach 1.3 million in 2016. Furthermore, in addition to direct employment, it is estimated the industry will produce 3.2 million indirect employment opportunities by 2016. Much of the industry is likely to continue to be located in the Greater Metro Manila area or in Cebu, but significant growth is also expected in the so-called "next wave" cities (BPAP 2012, 2013).

The Philippine experience with BPO since 2000 demonstrates the scope for rapid growth in outsourcing services to developing countries. Most of the growth

has so far been at the lower end of service provision such as basic call centers and low-end, BPO non-voice services plus some knowledge process outsourcing and legal service outsourcing, IT services and software, and engineering services. The country has, however, considerable potential to expand the scale and scope of service delivery across many applications at the lower as well as the higher end of the value chain.

While it is can be misleading to compare the scale and scope of overall industry development and the roles of key stakeholders in the Philippines with larger economies such as the PRC and India, it is worth noting that the Philippines has outperformed other ASEAN countries in BPO exports mainly because of access to a large pool of service-minded people with English language and other skills coupled with the limited scope for full employment in other sectors. The successful development of industrial parks in Metro Manila and in other parts of the country has helped as have costing and productivity advantages and increased interest among multinational corporations in expanding the scale and scope of their offshoring and outsourcing operations to a wider range of countries (Mitra forthcoming b).

❒ **Singapore.** Singapore has outperformed other ASEAN members in ICT as well as other aspects of economic development. It has given high priority to ICT development since the 1980s with the government acting as a direct and indirect catalyst. It has also focused on developing partnerships between government, private industry (both foreign and local), and academia. Early on, the government placed strong emphasis on investing in advanced telecommunication infrastructure and in ICT education, training and research, and institutional capacity building. Under the Intelligent Nation 2015 (iN2015) plan, Singapore aims to be a world leader in harnessing ICT and to create 80,000 additional jobs, 90% home broadband use, 100% computer ownership for all homes with school-aged children, a threefold increase in ICT export revenue to $42 billion (S$60 billion), and a twofold increase in the value added by the information and communication (infocomm) industry to $18 billion (S$26 billion). As of 2011, the infocomm industry generated $58 billion (S$83 billion) in revenue, of which 70% was exports—40% software, IT, and telecommunication services (IDA 2013a, 2013b). Singapore has emerged as a world-class center in ICT development, logistics, finance, management consulting, education, research, and other knowledge economy services and is an example for other countries to follow.

❒ **Thailand.** Thailand has become a major center for offshoring electronics and other manufacturing, but it has not succeeded in developing a major IT-BPO service industry though the government has declared its intention to do so. Several factors impede the rapid development of a competitive export industry, notably shortages of skilled and experienced technical, managerial,

and entrepreneurial human resources and persons with strong English-language skills. Aside from mobile telephony, Thailand scores rather poorly in terms of networked economy readiness. The institutional environment has so far not been particularly favorable to developing ICT services, and the government has been less ardent in pushing the digital development agenda nationwide compared to many other ASEAN countries (WEF 2013). Nevertheless, the Second ICT Master Plan (2009–2012) has strategies for improving the labor force to support a knowledge- and innovation-based society, for developing ICT infrastructure, and for enhancing the competitiveness of the ICT industry. The goal is that people at all levels of society will be smart and information literate for their own benefit and for the society as a whole.

❒ **Viet Nam.** Like Thailand, Viet Nam has become a major center for offshoring electronics and other manufacturing, but it has so far not been able to develop a sizeable IT-BPO service industry for several reasons, especially shortages of skilled and experienced technical, managerial, and entrepreneurial human resources and persons with strong English-language skills and multinational corporation concerns about data and intellectual property rights and e-security. In addition, concerns about the overall quality of the regulatory and business environment have hampered development (WEF 2013). The government has nonetheless declared plans to develop a sizeable IT-BPO industry along with major investments in ICT infrastructure, training and education, and e-government. By 2020, Viet Nam's goal is to be an above average ASEAN member in terms of rank as an information society. It aims to change its socioeconomic structure so that it will have an advanced, networked, knowledge-based economy that will contribute significantly to successful industrialization and modernization (Nguyen et al. 2009).

3. East Asia

East Asia's high-income economies (Hong Kong, China; Japan; the Republic of Korea; Taipei,China; and major urban areas in coastal PRC) are ahead of most other parts of Asia in socioeconomic indicators including per capita income, literacy, industrial competitiveness, ICT spending per capita, the diffusion and use of ICT, and the development of the domestic market for IT services. East Asian languages and cultures dominate, and except for Hong Kong, China and Macao, China, these economies have not been European colonies which has not hindered their catching up with Western economies in technical and economic development but appears to have hampered their ability to compete with India and the Philippines in exporting IT-BPO services to Europe and North America.

Within East Asia, there are significant variations in the scale and scope of IT-BPO domestic and export markets due to differences in historical legacy, economic development trajectories, factor market endowments, industrial organization, and government policies. High-income, industrially advanced economies such as Japan; the Republic of Korea; and Taipei,China are major centers for internationally competitive ICT hardware export industries and are also advanced in supplying hardware and services in their domestic markets. The PRC is, however, poised to play an increasingly central role due to the size of its domestic market and to opportunities to further develop exports of ICT hardware and services. The size of its population, its rapid economic growth and structural transformation, and the fact that the government is placing major emphasis on investing in ICT and other infrastructure, developing human resources, and research in ICT and a wide range of industries and technologies using ICT imply that the PRC will be an increasingly prominent participant in ICT development in Asia and globally. The country is, in fact, a major regional and global investor in and exporter of computer and telecommunication technology.

❒ **Hong Kong, China.** Traditionally Hong Kong, China has been open to foreign trade and to new, modern service and technology developments, but so far government authorities have played a rather limited role in fostering ICT development compared with the Republic of Korea, Singapore, and Taipei,China, for example. Nevertheless, public policy and corporate decision makers have perceived the development of ICT services as a strategic priority, one principal reason being the need to retain its position as a global center for finance, banking, commerce, and other international business all of which depend on ICT. Realizing this, policy makers set out the Digital 21 IT Strategy to make Hong Kong, China a leading digital city. Earlier government initiatives include the 1999 launch of the Cyberport project to boost the development of local IT firms and multimedia businesses. The project has resulted in major real estate development but has so far not met expectations for attracting private IT-BPO industrial investment. Also, Hong Kong, China has not been able to capitalize on the rapid ICT development in the PRC in terms of exporting ICT goods or IT-BPO services to the mainland. In fact, the record in terms of developing a major ICT industry has been rather modest compared with that of Singapore and Taipei,China. Hong Kong, China ranks the lowest among Asian's tiger economies in term of networked economy readiness, but it ranks high (just behind Singapore) among Asian economies in terms of innovation and the overall quality of the business environment (WEF 2013).

❒ **Japan.** Japan was an early pioneer in developing an internationally competitive electronics and ICT hardware industry in Asia, and the country itself is a large consumer of ICT hardware and services. Moreover, it has also repeatedly affirmed ambitions to develop a sizeable IT service and software

industry though to date efforts have focused primarily on the local market. The government has played a significant role in fostering ICT development for several decades. Currently, the overall strategic ambition "i-Japan" (formerly e-Japan) is to foster innovations and strengthen international competitiveness and to establish the foundation for an advanced IT-enabled society. The focus is on three areas: promoting e-government, devising countermeasures against cyber crime, and promoting green ICT. Japan has not yet been able to establish itself as a major exporter of IT services and software, and compared to advanced industrial economies in the West, Japanese firms have showed limited interest in outsourcing IT-BPO services to other countries with the exception in recent years of expanding operations in the PRC and the US.

❒ **People's Republic of China.** ICT development in the PRC has in many respects been more impressive than that in India leaving aside the fact that India has done better in developing an IT-BPO export industry. Nonetheless, it is hard to compare their performances due to major differences in industry growth trajectories and in their overall economic, political, and cultural backgrounds. The PRC is well ahead of India in developing a sizeable, internationally competitive electronics and ICT hardware manufacturing industry that serves both domestic and international markets. It also has a larger ICT service industry than India, but growth in services has to a large extent been in the domestic market rather than in exports. The PRC is also well ahead of India in terms of penetration of computers, telecommunication, and broadband services. Furthermore, most PRC exports of IT and ICT-enabled services are directed to East Asia, primarily to Japan and the Republic of Korea. While the PRC has ambitions to be a major global participant, it continues to lag behind India in IT-BPO exports and has so far not been able to establish a major foothold in markets in North America and Western Europe (Tschang and Xue 2005, OECD 2007).

The government has played a considerably more prominent role in ICT development than the Government of India and other Asian economies. This includes major efforts to invest in infrastructure, human resources, research, industrial parks, and state enterprises. Furthermore, the central and several provincial government authorities have made major efforts to attract foreign investment, to stimulate local entrepreneurship, and to enact specific policies to develop export industries. Nevertheless, industry development continues to be impeded by problems in the business environment such as excessive red tape and concerns regarding intellectual property rights (WEF 2013). According to the 12th Five-Year Plan, the PRC will continue to focus on developing its domestic market but will also give high priority to developing a sizeable IT-BPO export industry. The plan identifies promising outsourcing service niches, seeks to attract new foreign investment, and intends to build 10 target outsourcing cities. There are currently strong niche hubs in Beijing, Dalian, Hangzhou, Shanghai,

Shenzen, and several other locations that provide product engineering, product testing, research and development, and other IT-BPO export services. The plan also aims to establish thousands of small and medium-sized service providers to cater to both the domestic and international markets (Li 2011, Yu 2010).

❒ **Republic of Korea.** The government has placed a high priority on ICT development for several decades, and the ICT industry has been the principal contributor to the country's economic growth at around 30%–40% of GDP in the 2000s which is more than in any other OECD member. While ICT (mainly hardware) constitutes around 16%–17% of the total economy, it has been over 30% of total export volume since 2000. The government began to emphasize ICT in the late 1980s but laid down a more concrete foundation for intervention during the 1990s. Since then the policy has been based on the assumption that a broadband network would play a critical role in economic growth and transformation. During the Asian financial crisis in the late 1990s, the country utilized the effectiveness of economic returns on this investment which eventually helped its speedy recovery. Based on the successful upgrading of the broadband network, the government set out a comprehensive vision in 2002 to foster the development of an information society efficiently using ICT to create new value in the economy, in the government itself, in the private sector, and in households. In 2004, the government introduced IT 839 Strategy which comprised 8 services, 3 types of infrastructure, and 9 new growth engines. This comprehensive initiative has greatly influenced the direction of the ICT industry as substantial government and private sector investments after 2004 were channeled to areas identified in it (NIA 2010).

The government announced a new IT strategy in 2008 that aimed at promoting ICT industry development, convergence, and a wide range of applications of ICT in business, society, and private life. This initiative identified several sectors in which ICT can play important roles including e-government, auto-electronics, and energy efficiency. The country is expected to increase its IT outsourcing revenues from $16.1 billion in 2010 to $20.3 billion by 2014, and the government plans to invest $341 million in the software industry. Moreover, IT market spending is projected to increase from $17.8 billion to $25.6 billion by 2015 with an emphasis on building a cloud computing platform, IT outsourcing, and developing specific solutions and services. The further development of both the ICT manufacturing and service industries and markets should also foster greater interaction with the PRC and with other Asian countries (KPMG 2010).

❒ **Taipei,China.** Taipei,China has made major strides in developing a sizeable and internationally competitive ICT industry. It is a global leader in electronics manufacturing and also has ambitions to develop a more substantial IT service and software industry to serve local and external clients. Early on, the ICT industry was helped by close relations with the United States (US), by

the role played by its diaspora and returning residents, and by developing links and business and knowledge networks in California's Silicon Valley in particular. Since 2000, Taipei,China has developed strong ICT industry links with the PRC; currently a large number of its firms and professionals are working in ICT on the mainland (Saxenian 1994, Breznitz 2006).

Government policies and investment, public–private partnerships, a large and vibrant small and medium-sized enterprise sector and the role of the overseas community have all been major factors enabling rapid ICT industry advancement. Moreover, the business and economic development philosophy has put a major focus on "coopetition" rather than primarily relying on competition. Unlike pure competition and true collaboration, coopetition strongly emphasizes that firms need to collaborate and to compete simultaneously (Breznitz 2006).

Rapid change in technology, in business models, and in markets has created major challenges for the private sector, the government, and other the key stakeholders. In 2011, the government commenced construction on the largest IT park in Asia inspired by Akihibara Electronic Town in Japan. It will include an incubator for research and development. The government's goal for 2020 is to attract more electronics companies to invest in innovative product lines and to develop IT services and software businesses to strengthen the competitiveness of the ICT and other high-technology industries. The goal of the government's Intelligent [Taipei,China] Project is to achieve balanced development between the living environment and industry for the next 10 years (Intelligent [Taipei,China] 2012).

F. Asian Diversity and Lessons

As previously discussed, there are major variations in industry structure and market orientation; factor endowment; the development of industrial hubs; and the scale, scope, and quality of government interventions; and the role of the private sector in IT-BPO industry development in Asia. Also, there are fundamental differences in the timing and the pattern of development as the roles of various stakeholders have changed over time. All these factors need to be examined to explain differences in development; to evaluate past, present, and future prospects; and to distill lessons.

The PRC differs a great deal from India, the Philippines, and other Asian counties in terms of the size, structure, and organization of its ICT hardware, telecommunications, IT service, and BPO industries as well as in the scale and scope of government involvement in the development of these industries. The IT-BPO industry has so far principally focused on serving the needs of a rapidly growing and now sizeable domestic market. Smaller Asian economies cannot

compare with the larger ones in IT-BPO development potential. However, this does not mean that they cannot develop software and other ICT industries that are significant relative to their sizes and that can be significant in terms of serving both domestic and international markets.

Malaysia differs from India and the Philippines in that most of its early efforts to develop an export industry focused on comparatively higher-end services, finance, and accounting rather than lower-end IT and BPO services. Moreover, the development of the ICT sector has received extraordinarily strong support from a wide range of government-led programs and projects though their effectiveness has varied. Even though Malaysia, Viet Nam, and other countries have made major investments and have provided a wide range of incentives to develop IT-BPO industries, the Philippines has so far scored far better in BPO exports.

The Philippines has outperformed other ASEAN countries in BPO industry growth mainly because of special advantages in culture and human resources plus success in developing industrial parks. This has been combined with costing and productivity advantages and increased interest among multinational corporations in expanding the scale and scope of their offshoring operations to a wider range of countries.

In contrast to India, the Philippines—along with most other developing countries—has a very short history in developing a software and IT service industry. While IT-BPO services have experienced major growth in the Philippines since the early 2000s, the industry is still in an early phase of exploring the potential across various applications at the lower and higher ends of the value chain. Compared with India, the PRC, and the Republic of Korea, the Philippines and many other developing countries are weak in local entrepreneurship, science and technology capacity, the industrial base, and the size of the local market. Hence, the focus to date has been on call centers and more recently also on non-voice BPO, knowledge processing, and IT service exports. Compared to India, the industry in the Philippines is dominated by captive offshore delivery operations of multinationals while indigenous firms have yet to play a major role.

India has more than 50 years of IT service industrial development. It was the first among developing nations to establish a sizeable, export-oriented IT service industry and subsequently became a major participant in software, engineering, knowledge processing, and BPO services. Initially, government investment in education, science and technology, state enterprises, and industrial parks was of fundamental importance, but subsequently the foreign and local private sectors became the prime drivers.

Some parts of India are comparatively advanced while others lag behind in socioeconomic development including the diffusion and use of ICTs. Nevertheless,

the country has a large pool of technical, managerial, and entrepreneurial talent with higher education who are familiar with the Anglo-Saxon culture. This and the fact that salaries typically are low compared to advanced developing countries has enabled the country to rapidly establish a sizeable IT-BPO export industry in several major cities despite the fact that India lags behind the PRC and most of East and Southeast Asian economies in terms of overall socioeconomic indicators and the efficacy of government intervention.

In short, the high growth in IT-BPO services in India (and also in the Philippines and in other countries) has resulted from the interplay of global, national, and local developments. The high growth in IT-BPO industries in India was primarily driven by globalization and technological developments that produced a networked economy in which the global mobility of labor, capital, technology, information, and knowledge and the mobilizing of managerial and entrepreneurial talent were central. The rapid growth in external demand and the surge in foreign investment combined with the country's ability to dynamically adapt its industrial organization, entrepreneurship, corporate strategy, and business models to respond to that demand with its large pool of talent and its costing advantages led to success (Mitra 2009, 2013).

Openness to and alertness in responding to changes in the global business environment and fostering technology and other forms of international cooperation are central to developing IT-BPO industries. Rapid growth has largely depended on the ability to adjust government policies, legal and regulatory frameworks, finances, industrial organization, and business models in different international markets to global changes in technology and business strategies. In the case of India, this was coupled with access to human resources and costing advantages and the dynamism of private market forces including the pivotal role of multinational corporations.

Developing industrial hubs can pay off substantially if it is done effectively in close partnership with relevant stakeholders. Industrial agglomeration and providing an enabling business environment in large cities is central for establishing and expanding the IT-BPO industry. Big cities can serve as pivotal centers for developing and attracting technical, managerial, and entrepreneurial talent, for developing intra- and inter-industry links, for scaling up, for innovation and moving up the value chain, and for fostering international connections. Smaller cities and rural areas can play important roles in providing human resources to major cities, and in the long run they may also be significant industry hubs for small-scale operations.

G. Conclusions

There are several common factors that drive and constrain ICT development in Asia and globally, yet Asia also shows a great deal of diversity in overall economic, political, and social development and hence in trajectories for developing IT-BPO industries. Access to educated human resources at low cost, fiscal incentives, and the development of industrial parks have been key factors underlying the expansion of the IT-BPO export industry in the PRC, India, Malaysia, and the Philippines. While important, these characteristics do not fully explain their performance as other countries or regions with these characteristics have been unable to develop industries as rapidly. Also, it does not explain the timing of industry take off and why there are major differences in growth trajectories among countries. It is important to take into account the interplay locally, nationally, and internationally of a wide range of specific aspects driving and constraining industry development, namely historical background including policies, the economy, and culture; domestic and international demand; financing; infrastructure and technology; legal and regulatory policies; and the roles of foreign companies and indigenous entrepreneurs, the government, partnerships, industry associations, civil society, individual champions, diasporas, and other networks.

This analysis of the IT-BPO industry in Asia finds major potential for continued expansion in domestic, regional, and global demand and supply. It further illustrates a diverse set of experiences from which both local and foreign stakeholders can learn and also demonstrates the need for global and regional collaboration in training, education, and research and in developing legal and regulatory frameworks. There is a need for a wide range of timely and concerted efforts by key stakeholders to define strategies, programs, and projects to respond to opportunities and challenges at all levels.

While not a panacea for socioeconomic development, ICT is increasingly central to economic growth and structural transformation in all Asian economies. The corporate and public policy implications for IT-BPO industry development in the PRC, India, Malaysia, the Philippines, and other economies as outlined in this chapter are relevant to other geographies as well, yet each country or region has its own peculiarities. There is no single approach to developing the industry. Each region, country, city, sector, firm, social group, or individual needs to develop approaches that are relevant to the local and global conditions at any given place and time.

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CHAPTER 4

A New Look at Foreign Direct Investment in the Service Sectors in Asia

Jacob Funk Kirkegaard

Abstract

The lack of timely, theoretically sound, comprehensive analyses of the service sector is due to the lack and limitations of data. Greenfield investments and mergers and acquisitions (M&As) in the service sectors of Asian Development Bank members in Asia and the Pacific are analyzed as a new source. The service sectors received considerably larger amounts of foreign direct investment than the manufacturing and raw materials sectors did. Greenfield transactions were by far the most important mode of entry accounting for 75% of all inward investments; however, among the most developed economies, M&As accounted for the majority. In monetary terms, service sector inflows were more or less evenly distributed across the top three income groups but were much less in the low-income economies. The percentages of gross domestic product were, however, broadly similar. Organisation for Economic Co-operation and Development (OECD) members accounted for roughly 75% of the total investment of $2 trillion split relatively evenly among the United States, the European Union (27), and regional OECD-level economies, and there were sizeable flows from the People's Republic of China to Hong Kong, China and from Malaysia to Singapore and from middle-income economies to low-income ones. Preliminary policy options are suggested.

A. Introduction

Why do services matter? Why do they matter particularly for Asia right now? What do we actually know about them? The answer to the first question has been self-evident for a while as services have grown to account for the majority of economic activity in the region. Asia's and the world's most advanced economies are today overwhelmingly "service economies" whether in terms of economic output, employment, or even increasingly their international trade and investments.

The answer to the second question is manifest when considering the challenge ahead in realigning growth. Today, as Asia looks to refocus its economic future away from export-dependent growth to a more evenly balanced economy with a greater role for domestic consumption, the need for regional leaders to implement economic reforms and policies to secure the rapid expansion of and job creation in the service sector is greater than ever. Without competitive and innovative service sectors, Asia risks developing bisected economies split between highly competitive but gradually less and less labor-intensive primary and manufacturing sectors and large but inflexible, uncompetitive, and non-innovative service sectors. Relying on imitation rather than invention to generate sustainable service sector growth will not suffice to power Asia's continued economic transition to fully developed economy status. Without vibrant service sectors, large parts of the region risk prolonged periods of stagnation in the middle-income trap.

The answer to the third question, however, is invariably more tenuous as especially in Asian economies that are not Organisation for Economic Co-operation and Development (OECD) members, there is a lot we do not understand about how these diverse sectors actually function; the current extent of their global and regional integration; and what type of economic policy initiatives might promote sector growth, job creation, and innovation. While the potentially very large aggregate economic benefits of liberalizing trade and investment in the service sector is conceptually acknowledged and has been empirically established,[1] little scholarly consensus exists on the actual impact of the many global regional and bilateral service sector initiatives to date.[2] This chapter aims to address this lack of understanding, especially of the potential impact the service sector can have on job creation.

B. A New Source of Data Is Needed

Analyzing the service sector is a relatively recent discipline compared with analyzing the manufacturing sector which can trace its roots back to Adam

Smith and David Ricardo. By most accounts, independent service sector research emerged as a separate scholarly branch only in the mid-1980s triggered by the Uruguay Round of multinational trade negotiations in 1986 in which the service sector was included for the first time.[3] Before that, the literature either did not treat services independently or assumed that the standard theoretical tools and concepts for manufacturing and investment analysis such as comparative advantage could be directly applied to the sector.[4]

The most important reason for the lack of timely, theoretically sound, and comprehensive analyses of the service sector is, however, the lack and limitations of data. This is aggravated by the sheer diversity of the sector and by the intangible nature and multiple modes of service delivery[5] that make services difficult and very costly to measure consistently, comprehensively, and validly. Even in the United States (US) which has the most wide-ranging service sector data in the world, many academic and government reports have highlighted critical deficiencies.[6]

There is a distinct risk that the general dearth and the resulting skewed global availability of scarce service sector data—it comes almost exclusively from OECD members—will lead to similarly geographically skewed results, reflecting empirical circumstances as they exist only in the OECD. In a rapidly globalizing world where emerging markets now account for more than half of global gross domestic product (GDP),[7] this is an untenable situation that risks undermining support for new service sector policy initiatives outside the OECD. In Asia for instance, leaders may have to draft new policies for their sectors without comprehensive, empirical data on which to base them.

1. Traditional Sources of Foreign Direct Investment Data in Asia

Standard data on foreign direct investment (FDI) are collected by national statistical agencies in accordance with the guidelines in the International Monetary Fund (IMF) *Balance of Payments Manual* Fifth Edition (BPM5)[8] and are then compiled and published by international organizations like the IMF and the United Nations Conference on Trade and Development (UNCTAD). It is important to understand, however, that there are substantial weaknesses with the validity of these data making their use for analyzing the service sector in a diverse region like Asia potentially problematic. First of all, there is the issue of different collection standards. Of the 48 Asian Development Bank (ADB) members in Asia and the Pacific, just 14 currently observe the IMF's verifiable Special Data Dissemination Standards for coverage, periodicity, timeliness, quality, and integrity of data[9] while only 18 are members of the IMF General

Data Dissemination System, a voluntary, capacity-building exercise aimed at encouraging members to improve data quality.[10] Care should therefore be taken when comparing national FDI data even though they are published in the IMF's *Balance of Payments Statistics* (BOPS).

This issue is aggravated by the composite nature of BPM5-compliant FDI data. The direct investment category in BOPS comprises not only the initial transaction between a foreign investor and the investment enterprise but also all subsequent transactions between them. Direct investment flows thereby include[11]

- equity capital (equity, shares, and other capital contributions);
- reinvested earnings (direct investor's share of earnings not distributed as dividends and earnings of wholly-owned branches not remitted to the direct investor); and
- other direct investment capital or intra-company debt transactions (borrowing and lending funds between direct investors and subsidiaries, branches, and associates including both loans to subsidiaries from direct investors and loans from subsidiaries to direct investors).

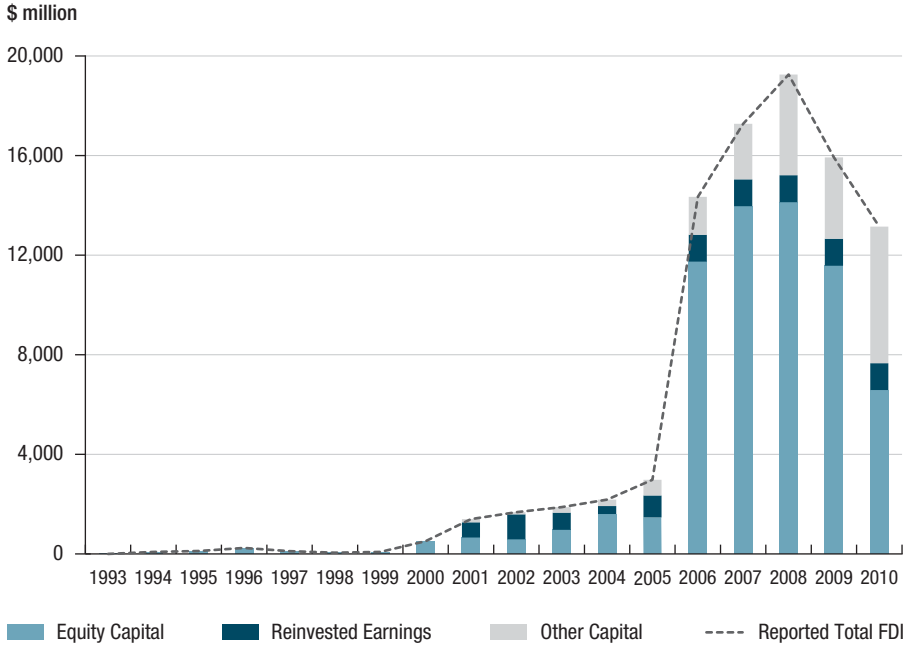
These three components are conceptually quite different and require separate collection efforts by statistical authorities. Initially, new FDI is almost invariably equity capital that can frequently be tracked by monitoring mergers and acquisitions (M&As), as well as new greenfield investments of 100% equity capital. Data on reinvested earnings and other capital categories, in contrast, are available in quarterly and annual financial statements of multinational firms or in large industry surveys.

Given the ongoing improvements and expansion in data collection in Asia, the composite nature of BPM5 data raises concerns when interpreting standard FDI data time series. This is illustrated in Figure 4.1 on India.

There are two clear breaks in the flow: a relatively modest rise starting in 2000 and 2001, and a much larger increase in 2005 and 2006. Until 2001, however, outward FDI consisted of equity capital only. The increase from 2001 to 2005 was largely due to reinvested earnings and other capital categories.[12] Other attempts to interpret the increased outflows of Indian FDI after 2000 would be erroneous.

The question of focus must be considered when using the BOPS reporting and collection framework to produce most of the FDI data used in academic research and analysis. The BOPS focus is on collecting timely data on cross-border activities, in particular the flow of transactions between individual countries, and on updating data on trade balances, current account balances, FDI inflows and outflows, and international investment positions. As a result of the completeness of this reporting framework, data on FDI flow from BOPS is a complex aggregate of equity, reinvested earnings, and intra-company debt. Much of the academic research on and theories about the role of FDI is not,

Figure 4.1
Outward Foreign Direct Investment in India, 1993–2010



FDI = foreign direct investment.
Source: International Monetary Fund. 2012. Balance of Payments Statistics. March.

however, terribly concerned with cross-border transactions and financial flows; instead, interest often centers on the assumption that we care who owns what and where[13] and that foreign ownership of enterprises makes a difference and often plays a critical role in diffusing technology and knowhow between countries as a strategy for penetrating foreign markets and for optimizing costs in complex global supply chains. This is a very different analytical focus than recording all cross-border transactions which is what the BOPS were designed to do and what they currently do.

In addition, recorded values of composite direct investments in the BOPS may represent very different things depending on which subcategory dominates; this has significant implications for the theoretical interpretation of this data. The implications for cross-border technology transfers would, for example, be different for FDI transactions that consist largely of new equity capital rather than reinvested earnings or intra-company loans, with far better prospects in case of the former. In some ways it might be preferable for scholars interested

in the broader effects of foreign investments in an economy to rely solely on the equity capital component. This is particularly so as a large body of literature on the effects of corporate tax systems on decisions of multinationals on dividend payments and capital structure suggests that these types of capital flows (e.g., the reinvested earnings and other capital categories in recorded total FDI flow data) heavily influence ongoing tax optimization strategies.[14] Ultimately, a precise theoretical interpretation of many reported values of aggregate FDI flows and stock values as extracted from BOPS and international investment positions may be difficult to deduct.

There is an additional and far more fundamental flaw in the standard sources of data for analyzing the economic effects of FDI on host economies: BPM5-compliant data are aggregate and economy wide and are not broken down by sector of investment. Moran (2011) described them in the following way:

> FDI flows come in at least three—probably four—separate forms: FDI in extractive industries, FDI in infrastructure, and FDI in manufacturing, plus the under-researched field of FDI in services. Each form presents such distinctive policy challenges for developing-country host authorities, and generates such diverse impacts on the developing host economy, as to undermine the usefulness of any research that does not disaggregate the FDI flows…..The use …of aggregate data is like asking whether or not the FDI tree produces fruit punch (apples, oranges, bananas, and pears)? …. The idea that FDI has some generalized positive or negative impact on host-country growth does not make sense. More importantly, phrasing the question this way obscures what may be very different kinds of effects, and muddles what are very distinctive policy challenges.

This critically important issue is obviously directly relevant to analyzing FDI in the service sector and renders the standard data sources useless. This chapter therefore required new sources of information about the flows of investment into and out of Asian service sectors.

2. A New Source of Data

Data from new sources[15] are a prerequisite for any meaningful analysis of the service sector. One such source on foreign investment flows into and out of countries is the information readily available from financial markets on individual M&As and on greenfield investments. The shift to micro sources is well advanced in the more recent international trade and investment literature. Relying increasingly on data from individual firms, researchers have focused on the behavior of multinational firms, with an explicit emphasis on their

heterogeneity and their margins and products when determining global trade and investment flows. Using data on M&As and greenfield transactions to measure FDI trends in the global economy is a natural continuation of this trend in analysis that will offer more service-specific and geographic detail than traditional data.

Utilizing FDI data broken down by mode of entry moreover follows the recommendations for a "supplemental FDI data series" of the *OECD Benchmark Definition of Foreign Direct Investment* (fourth edition) which suggests that, "[S]uch a subset of FDI data will allow refinement of the qualitative analysis of FDI in home and host countries."[16] Especially from the perspective of the destination country, it may matter greatly whether FDI comes in the form of newly created assets (greenfield investments) or as transfers to foreign control of existing domestic assets (M&A).[17]

A detailed analysis of the service sector using these data moreover is a natural application of the aggregate data for M&A and greenfield transactions in the *World Investment Report* that UNCTAD has published annually since 2005.[18] The strengths and weaknesses of these two sources and their overlaps with and differences from traditional BPM5-compliant FDI data are presented in detail in Kirkegaard (forthcoming).

C. Transactional Foreign Direct Investment in ADB Regional Members

1. Cumulative Transactional Data vs Balance of Payments Statistics

Transactional FDI data offer a new source of information about cross-border investment flows in substantially more detail than traditional BOPS data do. The methodology is very different, although cumulative transactional values are virtually identical with the most recent BPM5-compliant FDI data from the IMF's Coordinated Direct Investment Survey (CDIS) for those Asian countries where both data points are available. Tables 4.1a and 4.1b show cumulative transactional FDI data values for all regional members of ADB for which information is available[19] and contrast them with the latest CDIS data for 2010.

Table 4.1a shows a cumulative inward value at the end of 2011 of $4.1 trillion with the People's Republic of China (PRC) the largest recipient by a sizeable margin at $1.1 trillion followed by Australia and India at just over $500 billion; Hong Kong, China; Indonesia; Japan; Singapore; and Viet Nam at around $200 billion; and the Republic of Korea and Malaysia with more

Table 4.1a
Cumulative Asian Inward Transactional Foreign Direct Investment and Coordinated Direct Investment Survey Data ($ million)

Inward Transactional Foreign Direct Investment			Comparison with Coordinated Direct Investment Survey 2010 Data		
ADB Regional Member	2011 Cumulative Transactional FDI	% of 2011 GDP	2010 Cumulative Transactional FDI	2010 CDIS FDI Stocks	Difference between Transactional FDI and CDIS FDI Values
Cook Islands	1.2	–			
Vanuatu	11.3	2			
Marshall Islands	44.5	–			
Micronesia, Fed. States of	65.9	–			
Bhutan	309.4	21	223.7	54.9	168.8
Solomon Islands	360.9	43			
Samoa	519.4	82			
Nepal	1,420.3	8	1,288.3	522.3	766.0
Fiji	1,497.0	42			
Maldives	4,335.1	223			
Afghanistan	4,580.3	25			
Tajikistan	5,075.1	78			
Mongolia	5,304.8	62			
Kyrgyz Republic	6,104.6	103	5,675.5	1,033.8	4,641.7
Myanmar	6,950.9	13			
Armenia	7,693.2	76	6,882.7	4,338.2	2,544.5
Lao PDR	8,294.7	105			
Brunei Darussalam	9,908.3	64			
Bangladesh	10,643.7	9	10,153.6	6,196.3	3,957.3
Sri Lanka	10,895.6	18			
Cambodia	12,157.5	95			
Turkmenistan	12,802.1	50			

continued on next page

Table 4.1a continued

Inward Transactional Foreign Direct Investment			Comparison with Coordinated Direct Investment Survey 2010 Data		
ADB Regional Member	2011 Cumulative Transactional FDI	% of 2011 GDP	2010 Cumulative Transactional FDI	2010 CDIS FDI Stocks	Difference between Transactional FDI and CDIS FDI Values
Georgia	13,251.0	92	11,259.7	8,145.0	3,114.7
Uzbekistan	19,827.9	44			
PNG	19,868.6	157			
Azerbaijan	29,243.4	47	27,950.8	7,648.1	20,302.6
Pakistan	65,752.5	31	62,359.0	18,818.0	43,541.0
New Zealand	71,215.0	44	66,987.8	69,021.2	–2,033.4
Kazakhstan	79,876.0	45	71,111.0	81,093.6	–9,982.6
Taipei,China	82,545.3	18			
Philippines	88,085.1	41	84,763.1	21,321.7	63,441.4
Thailand	90,719.0	26	85,145.0	139,175.9	–54,031.0
Malaysia	111,789.9	40	96,335.1	101,629.6	–5,294.5
Korea, Rep. of	140,399.3	13	130,251.1	134,160.2	–3,909.1
Hong Kong, China	180,433.6	74	165,448.7	985,416.0	–819,967.4
Japan	192,335.9	3	174,767.2	214,879.7	–40,112.5
Indonesia	198,115.4	23	170,042.8	154,157.9	15,884.9
Singapore	201,971.6	78	175,021.0	461,416.8	–286,395.8
Viet Nam	244,105.3	199			
India	528,244.4	32	461,603.6	213,588.0	248,015.6
Australia	563,194.8	38	498,752.8	481,393.9	17,359.0
PRC	1,107,208.7	15	983,139.5	1,569,605.6	–586,466.2
Total	**4,137,158.3**	**19***	**3,289,161.9**	**4,673,616.6**	**–1,384,454.7**

– = data not available, ADB = Asian Development Bank, CDIS = Coordinated Direct Investment Survey, FDI = foreign direct investment, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China.

* Includes only available GDP.

Sources: International Monetary Fund. World Economic Outlook database (accessed April 2012); CDIS; author's calculations.

Table 4.1b
Cumulative Asian Outward Transactional Foreign Direct Investment and Coordinated Direct Investment Survey Data ($ million)

Outward Transactional Foreign Direct Investment			Comparison with Coordinated Direct Investment Survey Data 2010 Data		
ADB Regional Member	End-2011 Cumulative Transactional FDI Value	% of 2011 GDP	2010 Cumulative Transactional FDI Value	2010 CDIS FDI Data	Difference between Transactional FDI and CDIS Values
Bhutan	0.0	0			
Maldives	0.0	0			
Turkmenistan	0.0	0			
Uzbekistan	0.2	0			
Marshall Islands	0.3	–			
Solomon Islands	6.4	1			
Vanuatu	9.1	–			
Micronesia, Fed. States of	13.4	–			
Fiji	33.1	1			
Nepal	40.5	0			
Cook Islands	50.2	–			
Myanmar	103.7	0			
Tajikistan	110.7	2			
Afghanistan	155.9	1			
Lao PDR	182.6	2			
Cambodia	211.5	2			
Armenia	220.8	2	137.8	83.0	54.8
Kyrgyz Republic	262.2	4	262.2	1.5	260.7
Mongolia	264.7	3			
Bangladesh	570.2	1	461.7	98.3	363.3
Georgia	593.3	4			
Brunei Darussalam	645.4	4			

continued on next page

Table 4.1b continued

Outward Transactional Foreign Direct Investment			Comparison with Coordinated Direct Investment Survey Data 2010 Data		
ADB Regional Member	End-2011 Cumulative Transactional FDI Value	% of 2011 GDP	2010 Cumulative Transactional FDI Value	2010 CDIS FDI Data	Difference between Transactional FDI and CDIS Values
Samoa	666.5	106			
PNG	1,873.2	15			
Pakistan	2,511.7	1	2,284.5	1,346.7	937.9
Sri Lanka	5,634.5	10			
Kazakhstan	8,884.9	5	7,871.9	15,682.0	–7,810.1
Azerbaijan	11,187.8	18	10,706.6	5,790.1	4,916.5
Philippines	12,057.5	6	11,307.3	3,491.1	7,816.2
Viet Nam	14,159.7	12			
Indonesia	26,508.2	3			
New Zealand	37,455.1	23	31,422.8	16,861.6	14,561.2
Thailand	44,025.1	13	36,085.1	24,845.3	11,239.8
Taipei,China	140,073.9	30			
Malaysia	148,766.5	53	141,422.6	96,757.9	44,664.8
Singapore	215,472.9	83			
Hong Kong, China	252,023.2	104	221,537.7	812,955.4	–591,417.8
India	278,230.1	17	235,407.5	49,030.7	186,376.8
Korea, Rep. of	278,623.2	25	242,763.1	143,157.2	99,605.9
PRC	384,740.5	5			
Australia	469,126.3	32	426,745.1	367,676.0	59,069.1
Japan	932,588.8	16	814,644.2	831,075.7	–16,431.4
Total	**3,268,083.6**	**15***	**2,182,798.0**	**2,368,852.6**	**–185,792.4**

– = data not available, ADB = Asian Development Bank, CDIS = Coordinated Direct Investment Survey, FDI = foreign direct investment, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China.

* Includes only available GDP.

Sources: International Monetary Fund. World Economic Outlook database (accessed April 2012); CDIS; author's calculations.

than $100 billion. As a share of 2011 GDP, however, PRC inflows amounted to only 15%, half of India's 32% and far less than Viet Nam's 200%. Cumulative inward transactions represented approximately 75% of GDP in Singapore and Hong Kong, China which was more than the 40% registered in Malaysia and the Philippines, the 25% in Indonesia and Thailand, and the low rates of 13% in the Republic of Korea and 3% in Japan. Among the smaller economies, Cambodia, the Lao People's Democratic Republic (Lao PDR), and Papua New Guinea recorded inward transactions of approximately 100% or more of GDP while for ADB members as a whole, the figure was 19% of 2011 GDP.

Cumulative transactional FDI values in 2010 totaled $3.3 trillion which was considerably less than aggregate inward CDIS FDI flows of $4.7 trillion. The vast majority of this discrepancy between transactional FDI values and CDIS FDI data is attributable to greater CDIS values in the PRC and Hong Kong, China. The reasons for these discrepancies can be numerous given the differences in data collection methodologies; however, it is noteworthy that in the 2010 CDIS data, more than 70% of Hong Kong, China's inward FDI originated from just two destinations—the British Virgin Islands and the PRC—while about 60% of the PRC's inward FDI originated from the British Virgin islands and Hong Kong, China. It seems likely that the principal reason for the large discrepancies is that transactional FDI data are collected based on ultimate ownership and to a significant extent eliminate round tripping and the role of tax havens. As a result, while the correlation between the two datasets is unsurprisingly quite high at 0.83,[20] cumulative transactional FDI data values would seem to be the superior source for the two economies in question.

In addition to the large discrepancies for the PRC and Hong Kong, China, Table 4.1a shows considerably higher transactional FDI values in 2010 for India, the Philippines, and Pakistan while the values are noticeably lower for Japan, Singapore, and Thailand. Of the 21 ADB members with 2010 CDIS data, 12 have higher transactional FDI values and 9 have lower values.

The total cumulative outward flow in 2011 in Table 4.1b is $3.3 trillion which was roughly 15% of regional GDP. Japan was by far the largest outward investor at almost $1 trillion followed by Australia; the PRC; the Republic of Korea; India; Hong Kong, China; Singapore; Malaysia; and Taipei,China at more than $100 billion each. As a share of GDP, Japan's 16% and India's 17% are roughly on a par with the regional average. Hong Kong, China; Singapore; Malaysia; Australia; Taipei,China; and the Republic of Korea were more intensive outward investors while the PRC at just 5% of 2011 GDP in cumulative outward transactions is not yet a particularly intensive foreign investor.

Outward transactional FDI in 2010 of $2.2 trillion was comparable to the CDIS total of $2.4 trillion although that could be because CDIS data are not as available. While the correlation between the two datasets is 0.81, there is once

more a large discrepancy for Hong Kong, China where CDIS recorded almost $600 billion more than the transactional data did. Again the possible reasons are numerous, but the fact that 85% of Hong Kong, China's outward CDIS FDI went to the British Virgin Islands and the PRC suggests that ultimate ownership is again the issue.

Apart from Hong Kong, China, Table 4.1b registers significantly greater outward transaction totals in Australia, India, the Republic of Korea, and Malaysia. When compared with CDIS data, higher cumulative transactional totals outnumber lower ones by four to one possibly indicating more comprehensive outward FDI data collection in non-OECD members in Asia.

2. Transactional Foreign Direct Investment in ADB Regional Members by Sector

Before analyzing service sector transactional FDI, it is valuable to briefly examine the relative distribution of all inward and outward FDI in the raw materials, manufacturing, composite, and service sectors. Table 4.2 breaks down cumulative transactional FDI from 1988 to 2011 by sector.

The service sector had the most inward and outward FDI followed by the raw materials, manufacturing, and composite sectors. Given the traditional importance of manufacturing in Asian FDI, it is striking that in terms of investments it is third. Table 4.2 moreover illustrates that ADB members were net recipients of transactional FDI in all four sectors, though more so in the composite and service sectors. Since the composite sector typically includes vertically integrated industries and therefore transactions that could be classified

Table 4.2
Cumulative Recorded Transactional Foreign Direct Investment from 1988 to 2011 in ADB Regional Members by Sector ($ million)

Sector	Inward Transactional FDI	Outward Transactional FDI	Net
Raw materials	1,101,109	981,043	120,066
Manufacturing	1,011,598	818,809	192,789
Composite	647,394	406,612	240,782
Services	1,377,058	1,061,619	315,439
Total	**4,137,158**	**3,268,084**	**869,075**

ADB = Asian Development Bank.

Source: Author's calculations using transactional micro data from Thomson Reuters and fDi Intelligence (both accessed 12 December 2012).

in both the manufacturing and service sectors, to ensure that service sector transactions are as comprehensively covered as possible, the composite sector will from here on be merged with the service sector.

D. Inward Transactional Foreign Direct Investment in Services in Detail

Probably the key advantage of using transactional FDI data is the far superior level of detail they offer. This chapter's detailed data analysis will emphasize economy-specific, sector, and entry mode data at the expense of creating a time series. The focus will be on a descriptive analysis of cumulative economy pair, sector, and entry mode transactional FDI values estimated over the broadest available and relevant time periods and expressed in cumulative dollar investment inflow terms.

Given the large differences in economic development among ADB regional members, they were classified according to the World Bank's *World Development Indicators* as follows:[21]

- OECD-level economies ($12,276 or more): Australia; Brunei Darussalam; Hong Kong, China; Japan; New Zealand; the Republic of Korea; Singapore; and Taipei,China.
- Upper-middle income economies ($3,976 to $12,275): Azerbaijan, the PRC, Cook Islands, Kazakhstan, Malaysia, the Maldives, and Thailand.
- Lower-middle income economies ($1,006 to $3,975): Armenia, Bhutan, Fiji, Georgia, India, Indonesia, the Lao PDR, the Marshall Islands, the Federated States of Micronesia, Mongolia, Pakistan, the Philippines, Papua New Guinea, Samoa, Solomon Islands, Sri Lanka, Turkmenistan, Uzbekistan, Vanuatu, and Viet Nam.
- Low-income economies ($1,005 or less): Afghanistan, Bangladesh, Cambodia, the Kyrgyz Republic, Myanmar, Nepal, and Tajikistan.

The discussion will focus on trends in low, lower-middle and upper-middle income economies and how they differ from OECD-level economies.

1. Investment Flows by Service Type

Table 4.3 shows cumulative inward transactional FDI between 1988 and 2011 by type of service and recipient's income group.

Investments in financial services, construction and real estate, and transport accounted for roughly $1 trillion in cumulative inflows or about half of the total.

Table 4.3
Inward Transactional Foreign Direct Investment by Type of Service and Income Group for ADB Regional Members, 1988–2011 ($ million)

Type of Service	Total	Income Groups			
		OECD-Level	Upper-Middle	Lower-Middle	Low
Financial services	340,169	197,074	90,706	48,766	3,623
Construction and real estate	324,641	89,489	122,291	110,662	2,198
Transportation services	302,103	116,173	120,953	62,179	2,798
Telecommunications services etc.	197,273	107,713	27,162	59,891	2,507
Automotive original equipment manufacturers etc.	164,407	18,902	95,978	48,709	818
Hotels and tourism	143,083	32,638	81,748	28,048	650
Food, tobacco, and related stores	133,134	60,417	38,911	33,253	554
Software and information technology services	90,740	35,842	21,242	33,542	113
Consumer products etc.	85,952	35,504	39,908	10,200	340
Warehousing and storage	57,694	9,485	14,659	33,323	227
Business services	51,559	23,680	13,620	14,080	179
Leisure and entertainment	50,809	27,006	16,074	7,650	80
Textiles and related stores	46,295	19,083	14,600	11,752	860
Non-automotive transport original equipment manufacturers etc.	20,333	2,966	5,662	11,424	281
Healthcare	16,260	10,641	2,535	2,997	87
Total	**2,024,452**	**786,614**	**706,048**	**516,475**	**15,315**
Total as a share of group gross domestic product in 2011 (%)	9	8	9	10	7
Total, excluding financial services	1,684,282	589,540	615,341	467,710	11,692
Total, excluding financial services as a share of group gross domestic product in 2011 (%)	7	6	8	9	5

ADB = Asian Development Bank, OECD = Organisation for Economic Co-operation and Development.

Sources: International Monetary Fund. World Economic Outlook database (accessed April 2012); author's calculations.

Significant investments of between $100 billion and $200 billion were made in automotive original equipment manufacturers and related services, food and tobacco, hotels and tourism, and telecommunications and equipment services. Software and information technology services and consumer products and related retail each received from $80 billion to $100 billion, while warehousing and storage, business services, leisure and entertainment, and textiles and related stores received about $50 billion. Non-automotive transport original equipment manufacturers and related services and healthcare had the lowest levels of investments at $20 billion or less.

Table 4.3 clearly shows that FDI in the low-income ADB members' service sectors has to date been only $15 billion which might suggest modest future potential as a driver of economic growth and job creation, yet when viewed as a share of group GDP in 2011, FDI is only slightly below the average for all ADB members (5% versus 7%). This indicates scope for rapid growth provided the economies of the low-income group expand more rapidly in the future.

Cumulative inflows of more than $500 billion into the lower-middle income group, on the other hand, make it clear that significant potential to attract large investments in the service sector exists in still relatively poor economies. Indeed, at 10% of 2011 GDP, this group has the highest inward investment share. The fact that the upper-middle income group's total is close to that of the OECD-level group similarly suggests that these countries also offer sizeable opportunities for foreign investors.

Excluding financial services does not materially change this situation as non-financial investments remain relatively evenly distributed across the income groups, and lower-middle economies at 9% of 2011 GDP have the highest share. In dollar terms, the upper-middle group at $615 billion attracted more non-financial service investments than the OECD-level group.

2. Investments by Source and Income Group

Table 4.4 breaks inflows down by source into OECD, non-OECD, and intra-ADB groups, and further breaks the last category into the four income groups. Recipient ADB members are similarly broken into income groups.

Approximately 75% of the FDI comes from OECD countries; OECD-level Asian economies, the US, and the European Union (EU)-27 each account for about half a trillion in cumulative inflows. Upper-middle income countries account for more than $160 billion in cumulative intra-regional investments, lower-middle income countries account for about $50 billion while unsurprisingly low-income countries are insignificant outward investors at just $772 million in recorded transactions. Apart from the OECD members, the largest regional investors are

Table 4.4
Inward Transactional Foreign Direct Investment by Source and Income Group, 1988–2011 ($ million)

Total		Income Groups							
		OECD-Level		Upper-Middle		Lower-Middle		Low	
OECD	1,406,262	OECD	570,936	OECD	481,809	OECD	346,153	OECD	7,363
Non-OECD	618,190	Non-OECD	215,677	Non-OECD	224,239	Non-OECD	170,322	Non-OECD	7,952
Total	2,024,452	Total	786,614	Total	706,048	Total	516,475	Total	15,315
Intra-ADB	765,108	Intra-ADB	298,432	Intra-ADB	283,093	Intra-ADB	175,274	Intra-ADB	8,309
OECD	551,952	OECD	196,832	OECD	237,115	OECD	114,934	OECD	3,070
Upper-Middle	162,843	Upper-Middle	85,673	Upper-Middle	27,997	Upper-Middle	46,329	Upper-Middle	2,844
Lower-Middle	49,541	Lower-Middle	15,886	Lower-Middle	17,818	Lower-Middle	13,456	Lower-Middle	2,381
Low	772	Low	42	Low	163	Low	555	Low	13
Top 10 Sources		**Top 10 Sources**		**Top 10 Sources**		**Top 10 Sources**		**Top 10 Sources**	
United States	501,863	United States	247,253	United States	139,378	United States	114,213	Malaysia	1,717
United Kingdom	191,960	United Kingdom	92,482	Hong Kong, China	81,288	United Kingdom	48,905	India	1,618
Japan	167,408	PRC	59,898	Japan	69,595	Japan	43,250	Korea, Rep. of	1,427
Singapore	125,471	Singapore	57,466	Germany	50,252	UAE	40,177	United Kingdom	1,261
Hong Kong, China	120,800	Japan	53,734	United Kingdom	49,312	Germany	33,370	UAE	1,025
Germany	102,986	Australia	37,645	Singapore	42,427	Malaysia	29,787	United States	1,018
PRC	73,984	Hong Kong, China	27,505	France	35,909	Singapore	25,387	Japan	829
France	73,356	Canada	23,742	Russian Federation	24,221	Korea, Rep. of	22,617	PRC	641
Malaysia	71,961	Malaysia	23,512	Korea, Rep. of	21,444	France	15,053	Viet Nam	573
UAE	62,270	France	22,278	Malaysia	16,944	Canada	15,035	Russian Federation	572
EU-27	504,046	EU-27	178,666	EU-27	190,606	EU-27	131,927	EU-27	2,846

ADB = Asian Development Bank, EU = European Union, OECD = Organisation for Economic Co-operation and Development, PRC = People's Republic of China; UAE = United Arab Emirates.

Source: Author's calculations using transactional micro data from Thomson Reuters and fDi Intelligence (both accessed 12 December 2012).

Singapore; Hong Kong, China; and the PRC. The United Arab Emirates are the only sizeable non-OECD investor outside the region.

Looking at service investments in only Asian OECD-level economies, again about 75% is from OECD sources while just under 40% is intra-ADB investments mostly from one OECD-level economy to another. It is noteworthy that the PRC is the third largest individual investor in Asian OECD-level economies, mostly in Hong Kong, China[22] and that Malaysia also has sizeable service sector investments "flowing upwards" in that group, mostly into Singapore.[23] Investments in upper-middle income economies are roughly distributed in a similar geographic manner as investments in OECD-level economies, although the most developed economies in the region play a considerably larger role in intra-regional investments accounting for almost $240 billion out of a total of $280 billion.

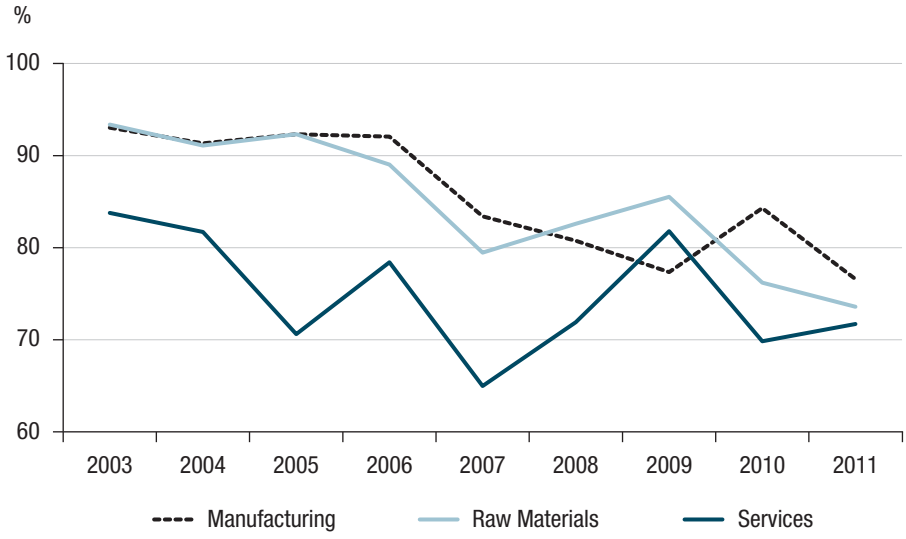
OECD investors also account for the lion's share of investments in both of the lower groups, but upper-middle income economies also invested $46 billion in lower-middle and $3 billion in low-income economies. In addition, India and Viet Nam were among the top 10 individual investors into the service sectors in the least developed economies in the region.

3. Investments by Sector, Mode of Entry, and Income Group

Breaking FDI data down by mode of entry—greenfield or M&A—provides a novel basis for analyzing management strategies and the impact on the host economy of incoming FDI, a key area of interest for policy makers. FDI is often associated with positive economic outcomes and technology transfers from advanced foreign investors to domestic firms, with job creation the most generally sought-after outcome by host governments. Greenfield investments in which foreign investors directly add to domestic capital stock and create new jobs are naturally preferred over M&As where existing domestic assets and jobs are bought by foreign investors. If, however, service firms are taken over by significantly more advanced foreign investors that can increase productivity and reduce prices for other domestic sectors, M&As would be more acceptable. This analysis of mode of entry should therefore help gain regulatory approval for more FDI in the service sectors of ADB members.

Figure 4.2 plots the share of greenfield investments to total investments in the manufacturing, raw materials, and service sectors (composite + services) from 2003 to 2011 in ADB regional members where data on both greenfield transactions and M&As were available. Initially, over 90% of the projects in both the manufacturing and raw materials sectors were greenfield compared with approximately 85% in services, but M&As gradually became more important

Figure 4.2
Greenfield Foreign Direct Investments in ADB Regional Members by Sector, 2003–2011



ADB = Asian Development Bank.

Source: Author's calculations using transactional micro data from Thomson Reuters and fDi Intelligence (both accessed 12 December 2012).

after 2006 so that by 2011, greenfield projects accounted for about 75% of total inward transactional FDI in all three sectors.

Table 4.5 shows greenfield and M&A FDI in the service sectors of individual ADB members from 2003 to 2011. Greenfield investments accounted for 40% to 60% in all OECD-level economies (Australia; Hong Kong, China; the Republic of Korea; Japan; Singapore; and Taipei,China) except New Zealand (22%); they were around 90% of investments in the PRC, India, Pakistan, and Viet Nam and in the smaller members. In Indonesia, Kazakhstan, Malaysia, the Philippines, and Thailand, greenfield investments accounted for approximately 80% of total inflows. This wide range and the very high level of greenfield investments in some middle- and low-income ADB members reflects several circumstances. First of all, there are relatively few suitable targets for M&As in many lower-income economies with less sophisticated firms. Secondly, high shares of M&As would require a substantial existing service sector in the destination economy. This is not often the case in more rural and manufacturing-based, lower-income countries. Thirdly, the service sectors in more developed economies are substantially more open to foreign investors[24] which makes M&As both legally possible and more financially feasible.

Table 4.5
Inward Transactional Foreign Direct Investment in the Service Sector by Destination and Mode of Entry, 2003–2011 ($ million)

Destination	Greenfield	M&A	Greenfield Share (%)	Destination	Greenfield	M&A	Greenfield Share (%)
PRC	542,559	39,291	93	Maldives	4,310	25	99
India	213,837	31,782	87	Turkmenistan	4,049	47	99
Australia	68,318	103,703	40	Uzbekistan	3,240	847	79
Hong Kong, China	43,282	77,616	36	Armenia	2,600	983	73
Japan	44,670	60,643	42	Lao PDR	2,250	174	93
Singapore	57,992	43,132	57	Brunei Darussalam	1,166	11	99
Viet Nam	92,556	536	99	Myanmar	1,054		100
Indonesia	38,144	19,561	66	Afghanistan	900		100
Korea, Rep. of	26,255	21,613	55	Kyrgyz Republic	592	210	74
Pakistan	39,487	3,071	93	Tajikistan	752	17	98
Philippines	28,950	6,095	83	Mongolia	723	9	99
Malaysia	26,803	6,938	79	Nepal	691		100
Thailand	27,401	6,244	81	Fiji	505	158	76
Kazakhstan	22,023	5,222	81	Samoa	500		100
Taipei,China	14,733	11,075	57	Papua New Guinea	256	215	54
New Zealand	5,404	19,699	22	Bhutan	187		100
Azerbaijan	10,120	192	98	Solomon Islands	110	14	89
Georgia	7,019	558	93	Micronesia, Fed. States of	66		100
Sri Lanka	7,135	345	95	Marshall Islands		45	0
Cambodia	5,652	77	99	Vanuatu		4	0
Bangladesh	4,110	1,231	77	**Total**	**1,350,401**	**461,384**	**75**

Lao PDR = Lao People's Democratic Republic, M&A = merger and acquisition, PRC = People's Republic of China.

Source: Author's calculations using transactional micro data from Thomson Reuters and fDi Intelligence (both accessed 12 December 2012).

Table 4.6 breaks FDI down by type of service, mode of entry, and income group of the recipient from 2003 to 2011 where data on both greenfield transactions and M&As are available. Again, greenfield investments are by far the most important mode of entry for service sector FDI accounting for 75% of the total inflow. There are, however, sizeable differences among service types. Just over 33% of total investments in healthcare were greenfield while in financial services they accounted for just over 50%, but investments in all other types of services were almost wholly greenfield and in automotive original equipment manufacturers and related services, hotels and tourism, textiles and related stores, and warehousing and storage they were more than 90%.

The sizeable difference in the relative importance of greenfield investments among income groups is again visible. Greenfield investments are much less important than M&As in OECD-level economies while they completely dominate the other income groups.

It is beyond the scope of this chapter to make a detailed analysis of why greenfield investments dominate and M&As are so relatively rare in some economies and service types, but as noted earlier, partly as a result of their lower levels of economic sophistication the low-income ADB Asian members will have few eligible targets for foreign acquisitions especially by multinational companies from OECD members. Furthermore, a liquid and transparent local stock market greatly facilitates the possibility for M&As.

In the service sector, a long-term regulatory shift that in several parts of the world has led to sizeable increases in M&As is transactions in which foreign companies take a controlling interest in the equity of a formerly state-owned company. In most OECD members, privatization mostly targets domestic buyers, but privatization in developing countries, especially in capital-intensive service industries like telecommunications and gas and power utilities, frequently involves foreign companies. UNCTAD (2000) found that in Latin America and Eastern Europe, foreign acquisitions of state assets accounted for the majority of total proceeds in several service sectors.

It is less obvious that privatization has been a major source of government revenue or M&As among ADB members. The World Bank's International Finance Corporation Privatization Database[25] which includes over 10,000 individual government divestments between 1988 and 2008 shows that only about 33% of globally recorded privatization proceeds (worth a total of $773 billion) flowed to national treasuries in the region. Of these, the PRC alone accounted for almost $200 billion which means that the rest of the ADB members accounted for just over $80 billion or 10% since the late 1980s. Considering the remarkable economic development in the region over this period, that is a very low level of revenue that will likely have added to the relatively limited importance of M&As in regional inward FDI.

Table 4.6

Inward Transactional Foreign Direct Investment by Service Type, Income Group, and Mode of Entry, 2003–2011 ($ million)

Sector	Total			OECD-Level			Upper-Middle Income		
	Greenfield	M&A	Greenfield Share (%)	Greenfield	M&A	Greenfield Share (%)	Greenfield	M&A	Greenfield Share (%)
Automotive OEM and related services	152,522	6,716	96	9,495	4,891	66	94,120	1,437	98
Business services	29,670	17,165	63	6,828	12,530	35	10,495	3,044	78
Construction and real estate	263,799	50,026	84	42,318	38,095	53	110,028	10,854	91
Consumer products and related retail stores	67,931	14,103	83	20,626	11,714	64	37,765	1,519	96
Financial services	148,349	129,541	53	41,789	98,962	30	69,182	16,965	80
Food, tobacco, and related stores	66,736	44,602	60	13,758	29,515	32	31,321	6,223	83
Healthcare	5,853	10,077	37	748	9,570	7	2,193	340	87
Hotels and tourism	119,997	12,785	90	13,524	10,835	56	78,863	1,743	98
Leisure and entertainment	42,782	5,571	88	19,925	4,702	81	15,609	460	97
Non-automotive transport OEM and related services	17,367	2,526	87	719	2,004	26	5,129	395	93
Software and information technology	66,266	16,071	80	20,839	8,042	72	17,733	2,627	87
Telecommunications services and equipment	79,998	85,326	48	24,036	54,215	31	19,408	5,603	78
Textiles and related stores	40,062	4,549	90	14,517	2,989	83	13,443	1,088	93
Transportation services	192,678	61,199	76	24,480	48,339	34	113,303	5,577	95
Warehousing and storage	56,391	1,128	98	8,217	1,092	88	14,623	36	100
Total	**1,350,401**	**461,384**	**75**	**261,820**	**337,494**	**44**	**633,216**	**57,912**	**92**

Sector	Lower-Middle Income			Low Income		
	Greenfield	M&A	Greenfield Share (%)	Greenfield	M&A	Greenfield Share (%)
Automotive OEM and related services	48,090	388	99.2	818		100.0
Business services	12,168	1,591	88.4	179		100.0
Construction and real estate	109,255	1,077	99.0	2,198		100.0
Consumer products and related retail stores	9,200	870	91.4	340		100.0
Financial services	34,149	13,231	72.1	3,229	383	89.4
Food, tobacco, and related stores	21,103	8,864	70.4	554	1	99.9
Healthcare	2,825	167	94.4	87		100.0
Hotels and tourism	26,995	171	99.4	615	35	94.6
Leisure and entertainment	7,169	409	94.6	80		100.0
Non-automotive transport OEM and related services	11,239	126	98.9	281		100.0
Software and information technology	27,580	5,402	83.6	113		100.0
Telecommunications services and equipment	34,665	24,889	58.2	1,888	619	75.3
Textiles and related stores	11,254	459	96.1	847	13	98.5
Transportation services	52,599	6,799	88.6	2,296	485	82.6
Warehousing and storage	33,323	0	100.0	227		100.0
Total	**441,615**	**64,444**	**87.3**	**13,750**	**1,535**	**90.0**

M&A = merger and acquisition, OEM = original equipment manufacturer.

Source: Author's calculations using transactional micro data from Thomson Reuters and fDi Intelligence (both accessed 12 December 2012).

4. Investments by Source, Mode of Entry, and Income Group

A further way to look at the relative importance of mode of entry is to break it down by source. Table 4.7 shows investments by mode of entry, source, and recipient income group.

Table 4.7 shows several trends. Of all investments made by upper-middle income countries in Asia, only 52% were greenfield which is noticeably lower than the other income groups. Investors in the upper-middle income intra-ADB group preferred M&As mainly concentrated in "upward flowing" investments into OECD-level economies where the weight of greenfield investments drops to just 18%. Most of the investments came from the PRC and Malaysia and went to Hong Kong, China and Singapore, respectively. This suggests that investors from these two countries were either seeking to acquire advanced know-how and additional capabilities from their targets, or had enough cheap capital to purchase expeditious market entries, or perhaps were denied other ways of entering these more developed economies. Investors in OECD-level economies from lower-middle income countries such as India followed a similar pattern investing 52% in greenfield transactions.

D. Concluding Remarks and Policy Implications

New sources of information to complement traditional BPM5-compliant FDI data from international organizations to analyze the service sector are needed to support investment initiatives. This chapter uses transactional FDI data on individual greenfield investment projects and M&As as sources for a detailed analysis of cross-border investment flows in the service sector among ADB members in Asia and the Pacific. The breakdown of investments by mode will be of particular importance for regional policy makers as they seek to identify the service types most likely to create jobs.

Although this analysis yields generally comparable aggregates, compared to the latest available IMF data from the CDIS for ADB regional members, the service sectors overall received considerably larger amounts of FDI than the manufacturing and raw materials sectors though the amounts varied substantially among individual economies. Given the traditional prominence of and policy makers' interest in FDI in the manufacturing sector, this was a surprising result.

The three services with the most inward transactional FDI were financial, construction and real estate, and transportation that together accounted for about half of the total (Table 4.3). The remainder was more or less evenly distributed across the other 12 services with the exception of healthcare which received noticeably less than others. In monetary terms, service sector inflows

Table 4.7

Inward Transactional Foreign Direct Investment by Mode of Entry, Income Group, and Source ($ million)

Total				OECD-Level				Upper-Middle Income			
Source	Greenfield	M&A	Greenfield Share (%)	Source	Greenfield	M&A	Greenfield Share (%)	Source	Greenfield	M&A	Greenfield Share (%)
OECD	939,431.5	281,488.7	77	OECD	218,884.3	207,762.1	51	OECD	422,219.8	26,121.8	94
Non-OECD	410,969.7	179,895.3	70	Non-OECD	42,935.5	129,731.6	25	Non-OECD	210,996.6	31,790.0	87
Total	1,350,401.2	461,384.0	75	Total	261,819.8	337,493.7	44	Total	633,216.4	57,911.9	92
Intra-ADB	485,804.9	208,624.5	70	Intra-ADB	80,483.0	158,105.1	34	Intra-ADB	244,124.7	32,307.0	88
OECD	365,624.9	126,969.3	74	OECD	59,237.1	87,805.7	40	OECD	202,623.8	28,212.6	88
Upper-Middle	79,154.0	73,516.9	52	Upper-Middle	13,468.6	63,253.2	18	Upper-Middle	23,978.3	3,631.5	87
Lower-Middle	40,265.6	8,138.4	83	Lower-Middle	7,735.7	7,046.2	52	Lower-Middle	17,359.9	462.9	97
Low	760.4	0.0	100	Low	41.5	0.0	100	Low	162.8	0.0	100
Top 20 Sources				**Top 20 Sources**				**Top 20 Sources**			
United States	305,732.9	120,398.2	72	United States	82,268.2	93,914.0	47	United States	126,026.8	10,651.7	92
Japan	142,504.2	21,260.8	87	United Kingdom	31,806.5	29,730.3	52	Hong Kong, China	63,974.4	13,994.0	82
United Kingdom	100,253.1	57,017.1	64	PRC	5,688.8	48,200.8	11	Japan	66,820.0	1,957.4	97
Hong Kong, China	79,776.8	27,186.8	75	Japan	36,368.6	14,836.1	71	Germany	49,121.9	794.9	98
Singapore	54,687.3	47,508.7	54	Singapore	4,562.9	32,016.8	12	United Kingdom	43,465.7	3,993.9	92
Germany	94,210.6	5,972.3	94	Australia	5,614.6	21,203.2	21	Singapore	30,148.8	10,692.4	74
Malaysia	46,740.5	21,261.1	69	Canada	3,111.2	18,000.3	15	France	32,558.7	1,638.6	95
PRC	18,052.6	49,783.3	27	Malaysia	7,231.1	13,390.7	35	Russian Federation	22,566.6	1,654.2	93
France	58,285.0	7,223.9	89	Hong Kong, China	6,743.2	12,214.7	36	Korea, Republic of	20,556.4	621.1	97

continued on next page

Table 4.7 continued

Top 20 Sources				Top 20 Sources				Top 20 Sources			
Source	**Greenfield**	**M&A**	**Greenfield Share (%)**	**Source**	**Greenfield**	**M&A**	**Greenfield Share (%)**	**Source**	**Greenfield**	**M&A**	**Greenfield Share (%)**
UAE	58,264.0	3,572.5	94	Germany	11,884.5	4,840.4	71	Malaysia	14,544.0	2,134.5	87
Korea, Republic of	47,613.0	5,420.8	90	France	11,373.9	5,141.5	69	Taipei,China	16,224.1	128.3	99
Canada	25,670.6	18,383.3	58	India	6,538.7	3,427.9	66	Bahrain	15,018.3	0.0	100
Russian Federation	34,216.0	3,543.3	91	Italy	8,485.8	978.6	90	UAE	14,218.2	443.5	97
Australia	13,686.0	22,244.1	38	Netherlands	3,715.9	4,812.0	44	Switzerland	12,172.8	1,867.9	87
India	23,276.3	3,960.5	85	Korea, Republic of	3,437.1	4,413.7	44	Italy	9,721.5	1,723.2	85
Switzerland	24,484.1	2,559.1	91	Switzerland	5,845.9	487.4	92	India	10,305.4	111.8	99
Taipei,China	25,602.6	966.4	96	UAE	3,694.3	2,489.2	60	Netherlands	9,471.8	573.9	94
Italy	22,733.9	3,111.2	88	Sweden	3,372.5	1,945.9	63	Sweden	9,096.9	260.9	97
Netherlands	19,429.3	5,869.4	77	Bermuda	848.5	3,144.8	21	Canada	7,634.5	284.5	96
Sweden	15,702.0	2,604.8	86	New Zealand	1,199.0	2,362.4	34	Thailand	6,986.2	212.5	97
EU-27	360,387.5	88,061.4	80	EU-27	79,070.0	51,947.2	60	EU-27	175,909.9	9,841.7	95
Lower Middle Income				**Low Income**							
OECD	**292,655.7**	**47,099.7**	**86**	**OECD**	**5,671.7**	**505.0**	**92**				
Non-OECD	**148,959.2**	**17,343.8**	**90**	**Non-OECD**	**8,078.5**	**1,029.8**	**89**				
Total	**441,614.8**	**64,443.5**	**87**	**Total**	**13,750.2**	**1,534.8**	**90**				
Intra-ADB	**153,336.7**	**17,794.3**	**90**	**Intra-ADB**	**7,860.6**	**418.1**	**95**				
OECD	100,724.3	10,930.5	90	OECD	3,039.8	20.5	99				
Upper-Middle	38,968.5	6,534.5	86	Upper-Middle	2,738.7	97.6	97				
Lower-Middle	13,088.7	329.3	98	Lower-Middle	2,081.3	300.0	87				
Low	555.3	0.0	100	Low	0.8	0.0	100				

Top 20 Sources				Top 20 Sources			
Source	Greenfield	M&A	Greenfield Share (%)	Source	Greenfield	M&A	Greenfield Share (%)
United States	96,419.7	15,832.5	86	Malaysia	1,635.9	72.8	96
United Kingdom	24,181.6	22,831.4	51	India	1,317.9	300.0	81
Japan	38,486.1	4,467.3	90	Korea, Republic of	1,407.0	20.4	99
UAE	39,361.1	604.8	98	United Kingdom	799.4	461.5	63
Germany	32,688.5	337.0	99	UAE	990.3	35.0	97
Malaysia	23,329.5	5,663.1	80	United States	1,018.3	0.0	100
Singapore	19,795.0	4,799.4	80	Japan	829.5	0.0	100
Korea, Republic of	22,212.4	365.6	98	PRC	641.3	0.0	100
Canada	14,887.3	98.5	99	Viet Nam	573.0	0.0	100
France	14,236.3	443.8	97	Russian Federation	405.4	167.0	71
Russian Federation	9,486.7	1,704.6	85	Germany	515.8	0.0	100
Hong Kong, China	8,798.9	978.1	90	Turkey	444.2	0.0	100
PRC	9,405.6	298.0	97	Saudi Arabia	0.0	330.1	0
Taipei,China	7,832.4	79.3	99	Thailand	314.3	4.5	99
Austria	7,628.5	17.6	100	Hong Kong, China	260.3	0.0	100
Netherlands	6,130.5	483.6	93	Sweden	256.8	0.0	100
Switzerland	6,386.3	203.8	97	Taipei,China	236.2	0.0	100
Thailand	5,220.8	389.4	93	Qatar	230.2	0.0	100
Sri Lanka	5,256.7	6.0	100	Singapore	180.6	0.1	100
India	5,114.2	120.7	98	Cyprus	129.7	40.0	76
EU-27	103,223.0	25,811.1	80	EU-27	2,184.6	461.5	83

ADB = Asian Development Bank, EU = European Union, M&A = merger and acquisition, OECD = Organisation for Economic Co-operation and Development, PRC = People's Republic of China, UAE = United Arab Emirates.

Source: Author's calculations using transactional micro data from Thomson Reuters and fDi Intelligence (both accessed 12 December 2012).

were somewhat evenly distributed across OECD-level, upper-middle, and lower-middle income groups but were much less in the low-income economies. The percentages of GDP were, however, broadly similar. It is therefore not true that cross-border service sector investments in Asia are overwhelmingly entering only the most developed economies.

OECD members accounted for roughly 75% of total recorded inward service sector FDI of about $2 trillion relatively evenly split among the US, the EU-27, and regional OECD-level economies (Table 4.4). Total intra-ADB investment flows accounted for 37% or $765 billion of total regional inflows, with upper-middle, lower-middle, and low-income countries accounting for 25%. There were sizeable upward flows into the service sectors of OECD-level economies, especially from the PRC and Malaysia into Singapore and Hong Kong, China, respectively. Middle-income countries were also sizeable investors into the service sectors of the low-income ADB members.

Greenfield transactions were by far the most important mode of entry into the service sectors accounting for fully 75% of all inward investments; however, among the most developed economies, M&As accounted for the majority of total inflows while greenfield was the overwhelmingly preferred mode in the poorer economies. M&As were most prevalent and accounted for at least 33% of total investments in healthcare; telecommunications; financial services; food, tobacco, and related stores; and business services. Upward flows into the more developed service sectors occurred mostly in the form of M&As, especially originating in the PRC, India, and Malaysia.

Several policy implications can be drawn from this preliminary analysis. First of all, whatever trade and investment restrictions exist in the service sectors in Asia and the Pacific today—and they are formidable—they have not prevented transactional investment inflows from surpassing those going into the manufacturing and raw materials sectors. This is a strong signal to Asian policy makers that there is very significant foreign investor interest in entering the service sector. Future moves to liberalize the sector will in all probability be met with an overwhelmingly positive response from investors: open up and they will come.

Secondly, it is clear that foreign investors have been willing to invest sizeable sums in Asian and Pacific economies at all levels of development. As a share of GDP, the investment intensity in Asia is the same across income groups, which is only slightly less true in nonfinancial services. There is, in other words, no empirical foundation for a claim that poorer countries can open up for foreign investments only when they reach a certain threshold of economic development.

Thirdly, the sizeable upward flows of intra-ADB, nonfinancial service investments from countries like the PRC, India, and Malaysia would indicate that they have relatively little to fear from advanced foreign entrants into their

domestic service sectors as their firms are already taking over companies and entering the advanced economies in the region.

Finally, as the vast majority of inward service sector FDI is greenfield investments, there is no reason why more foreign investment in the service sectors will not have a significant positive impact on job creation. The relative weight of greenfield investments is roughly 75% which is the same today as in the manufacturing and raw materials sectors; there is little reason to think that the jobs created in the service sectors will be noticeably fewer than those created in the other sectors.

Notes

1 Hoekman (2006) and Hoekman and Mattoo (2008).

2 Hoekman and Sauvé (1994), Roy et al. (2006), Dee (2005), Ochiai et al. (2007), and Fink and Molinuevo (2007) surveyed different samples of regional and bilateral agreements and concluded that the overall commitments in services did not go much beyond the General Agreement on Trade in Services (GATS). At the same time though, regional and bilateral agreements—especially investment agreements and agreements involving the United States and other large industrialized nations—have tended to specify coverage beyond the commitments made in the GATS. See also Mattoo and Sauvé (2008).

3 Feketekuty (1988), Sapir and Winter (1994), Findlay and Warren (2000), Adlung et al. (2002), Hoekman (2006), and Copeland and Mattoo (2008).

4 Hindley and Smith (1984) and Deardorff (1982).

5 The GATS in 1994 recognized and codified four different modes of supply; cross-border supply, consumption abroad, commercial presence, and presence of natural persons. Technological innovations and the spread of the commercial internet have since, through for instance purely web-based services, arguably added to these four. See also Mirza and Nicoletti (2004). Only GATS commercial presence mode is directly related to foreign direct investment (FDI).

6 Feenstra et al. (2010); Houseman (2008); National Academy of Public Administration (2006a, 2006b, 2007a, 2007b); National Research Council (2006); Sturgeon (2006); and General Accounting Office (2004, 2005).

7 International Monetary Fund (IMF). World Economic Outlook Database (accessed April 2012).

8 This chapter generally refers to the IMF's *Balance of Payment Manual* 5th edition (BPM5). The IMF released the sixth edition in 2010 which changes some definitions of FDI (IMF 2011).

9 The 14 ADB members are Armenia; Australia; Georgia; Hong Kong, China; India; Indonesia; Japan; Kazakhstan; the Republic of Korea; the Kyrgyz Republic; Malaysia; the Philippines; Singapore; and Thailand. See http://dsbb.imf.org/Pages/SDDS/CountryList.aspx

10 These are Afghanistan, Azerbaijan, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, the People's Republic of China (PRC), Fiji, Kiribati, the Maldives, Nepal, Pakistan, Papua New Guinea, Solomon Islands, Tajikistan, Tonga, Vanuatu, and Viet Nam. See http://dsbb.imf.org/Pages/GDDS/CountryList.aspx

11 See BPM5:87f.

12 "Up to 1999/2000, direct investment in India and direct investment abroad comprised mainly equity flows. From 2000/2001 onward, the coverage has been expanded to include, in addition to equity, reinvested earnings, and debt transactions between related entities … Because of this change in methodology, data for years before 2000/2001 are not comparable with data since then." (IMF 2012).

13 Many countries today require approval for FDI to ensure that it does not pose national security threats. See Graham and Marchick (2006) for an in-depth analysis of the Committee on Foreign Investments in the US.

14 Hufbauer (1992); Hufbauer and Assa (2007); Desai and Hines (2001); Desai et al. (2005a, 2005b, 2006, 2007); and the research summarized in Organisation for Economic Co-operation and Development (OECD 2008a).

15 Jensen (2011) also compiled a new data source specifically for service sector research.

16 OECD (2008b:31).

17 A sizeable body of literature already exists on the causes and effects of the choice of FDI mode between mergers and acquisitions (M&As) and greenfield. See for instance Görg (2000), Norbäck and Persson (2002), and Nocke and Yeaple (2004).

18 http://www.unctad.org/Templates/Page.asp?intItemID=1485&lang=1

19 No greenfield or M&A transactions were recorded for Kiribati, Nauru, Palau, Timor-Leste, Tonga, or Tuvalu.

20 The vast differences in gross domestic products should show up in aggregate numbers for inward FDI at relatively similar levels, irrespective of different data methodologies.

21 Available at http://databank.worldbank.org/ddp/viewClassifications?HIERARCHY=Classification&DIMENSION=WDI_Ctry

22 More than $50 billion of PRC investments went to Hong Kong, China.

23 About $17 billion of Malaysian investments went to Singapore.

24 See for instance OECD's FDI Regulatory Restrictiveness Indices at http://www.oecd.org/investment/fdiindex.htm

25 Available at http://rru.worldbank.org/Privatization/

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CHAPTER 5

Tradable Business Services, Developing Asia, and Economic Growth

J. Bradford Jensen

Abstract

Developing Asia should be importing more business services from the developed world given the importance of business services as intermediate inputs in many economic activities and the apparent comparative advantage and lower relative cost of producing them in the developed world. Developing Asia currently has a relatively small and expensive business service sector. While education is likely to resolve this issue in the long term, in the short run it makes sense to import them. To move up the value chain in manufacturing, developing Asia will need access to efficient, leading-edge services in engineering, design, development, testing, marketing, advertising, logistics, and distribution. Rapidly growing countries would also benefit from importing the skills and expertise required to develop cost-efficient, state-of-the-art infrastructure as it is a key input in manufacturing and in raising living standards. Many of these services are tradable, but developing Asia has relatively high barriers to trade in services. It would benefit from liberalizing that trade as it has benefited from liberalizing trade in goods. The potential for productive trade in business services between developing Asia and providers in the developed economies is large. Reducing policy impediments is a necessary condition for capitalizing on this opportunity.

A. Overview

Developing Asia is overlooking an opportunity for increased growth and development through trade in business services and would benefit from liberalizing this trade as it has benefited from liberalizing goods trade. This argument rests on these key findings.

- Business services are important to growth. Business services are important intermediate inputs to a broad range of activities including infrastructure and higher value-added manufacturing. Furthermore, business services are associated with higher levels of economic development.
- Developing Asia has relatively small business service sectors. While it is difficult to draw conclusions regarding business services in developing Asia because of a lack of detailed data, it appears to be relatively under-endowed, i.e., business services make up a relatively smaller share of economic activity and appear to be relatively more expensive (based on relative wages) than in developed economies.
- Business services are tradable. Many business service activities are tradable, and developed economies have relatively large and inexpensive business service sectors. There appear to be significant opportunities for gains from trade in business services.
- Developing Asia has relatively high barriers to trade in services.

The empirical analysis in this chapter is less than satisfying due to the relative paucity of research on the service sector. A major contributing factor to this paucity is the lack of data. Even in developed economies, the service sector is not as well measured as the manufacturing sector (or agriculture sector), and the links between sectors are not well understood. This chapter will rely on rough evidence and on fragments of empirical research and will appeal to economic theory to make the arguments. A primary policy conclusion is that to better understand the service sector and its role in economic growth, better data need to be collected and published.

In spite of the lack of data, it is nonetheless possible to discern an overlooked opportunity for developing Asia to increase growth by reducing the relatively high barriers to service imports. Reducing barriers would enable these economies to take advantage of the standard gains that come with trade, i.e., better and less expensive intermediate imports from countries that have a comparative advantage in these activities. Access to less expensive business services would undoubtedly increase productivity in the manufacturing and the service sectors and would facilitate growth in developing Asia.

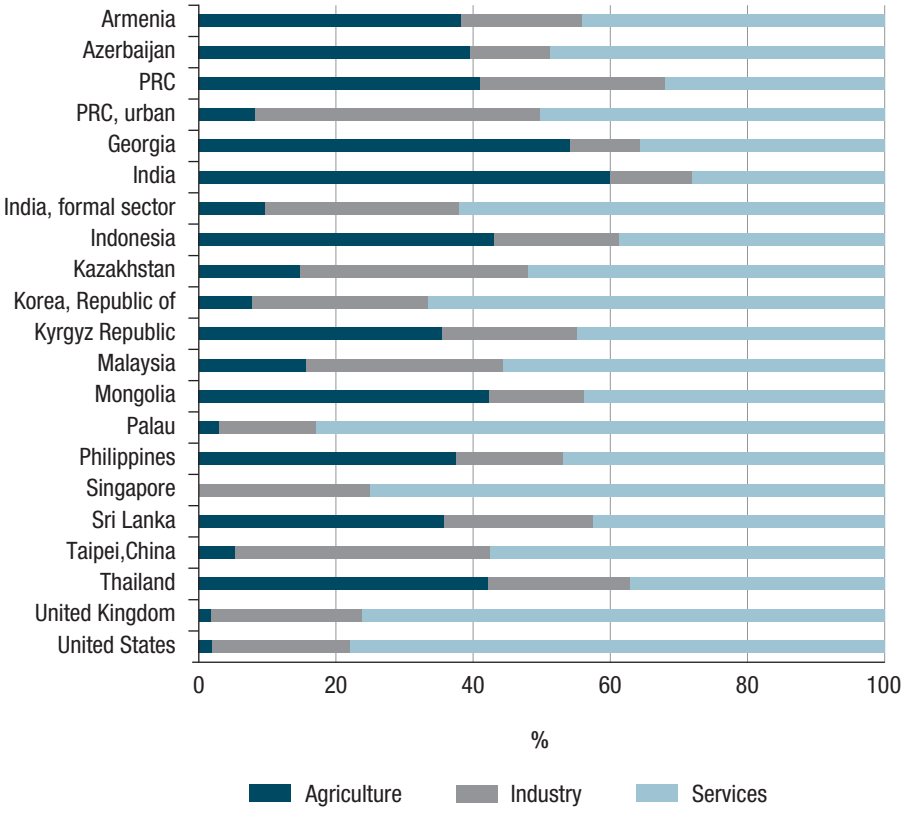
B. Business Services and Economic Development

The service sector is large and diverse, encompassing activities ranging from hotels, travel, tourism, education, hair salons, healthcare, finance, computer system design, architecture, engineering, accountancy, and attorneys to name a few, and it accounts for a large share of employment in many countries. Figure 5.1 shows the shares of employment in services, agriculture, and industry for developing Asia, the United Kingdom (UK), and the United States (US). There is considerable variation in the size. In the more advanced economies such as the UK and the US, the service sector share is greater than 70%, and the Republic of Korea and Singapore also have high employment shares. Meanwhile in the People's Republic of China (PRC) and India, countries with lower per capita incomes, the service sector accounts for only about a third of employment, but even that is larger than the share of manufacturing. Figure 5.1 shows that large service sectors are not the exclusive domain of advanced economies, and there appears to be a positive relationship between the service sector share of economic activity and living standards.

In Chapter 1, Noland, Park, and Estrada report labor productivity for a broad range of developing Asian economies and averages for Organisation for Economic Co-operation and Development (OECD) members. Labor productivity in the service sector overall lags in developing Asia, and the low levels of productivity are a concern. While the existing literature on the relationship between the service sector and other sectors is limited, in a key survey Francois and Hoekman (2010) reviewed a range of studies covering a number of countries that demonstrated the broad-based impact of a competitive service sector. They cited studies showing that service sector productivity is a key driver of aggregate productivity growth differences across developed economies. They also cited a range of studies showing that increased levels of competition in the service sector—and the higher levels of service provision that such competition encourages—have a positive impact on manufacturing productivity and lead to increases in manufacturing exports.

The links between service sector size and productivity and living standards is explored by Eichengreen and Gupta (2009). They analyzed the relationship between the service sector share of gross domestic product (GDP) and income per capita and found a positive correlation overall, but they also found that the relationship did not hold for all services. Disaggregating the service sector into three groups, they observed that a group they call "traditional services" (retail and wholesale trade, transport and storage, and public administration and defense) actually had a negative relationship with income per capita. They observed a positive relationship for the other two groups: a mixture of traditional and modern services consumed primarily by households (education, healthcare and social services, accommodation and restaurants, and other personal services)

Figure 5.1
Sector Shares in Selected Economies, 2007



PRC = People's Republic of China.

Sources: Central Intelligence Agency (2007); International Labour Organization. Laborsta database (accessed 24 April 2012).

and modern services that are primarily business services (including financial intermediation, computer services, communication services, and legal and technical services).

The Eichengreen and Gupta results suggest that one issue with discussing the "service sector" as a unit is that it is so large and diverse it is difficult to analyze as a single entity. In this chapter, I will focus on what I call "business services;" they are the services included in the North American Industrial Classification System (NAICS) categories in the 50s.[1] These activities include information; finance and insurance; real estate; professional, scientific, and technical services; management; administrative support; and waste remediation.

Business services provide key intermediate inputs to a range of other sectors including manufacturing. Banking, legal services, marketing, research and development, design, engineering, project management, software, and telecommunications are crucial inputs to other activities throughout the economy and have the capacity to improve the quality, efficiency, and competitiveness of firms. In addition, these services establish key links to the global economy, and as a result, they are key drivers of export growth (even of manufactured goods).

1. Business Services Are Different

In addition to providing key intermediate inputs in many other sectors, business services are qualitatively different from personal services (NAICS 60s, 70s, and 80s) and from wholesale and retail trade (NAICS 40s). One important dimension on which business services differ from other service types (and even the manufacturing sector) is the share of workers with college and advanced degrees and their average wages.

Table 5.1 shows the share of workers with a college degree or an advanced degree for a range of US sectors. Note that business services are relatively education intensive. About 40% of workers have a college degree while about 25% of workers in the manufacturing sector have one. The share of workers with advanced degrees shows similar patterns. Associated with these higher levels of educational attainment are higher average earnings; business services average the highest. The fact that business services have higher educational and skill requirements will be an important theme in this chapter.

Table 5.1
Education and Earnings in Selected Sectors in the United States, 2007

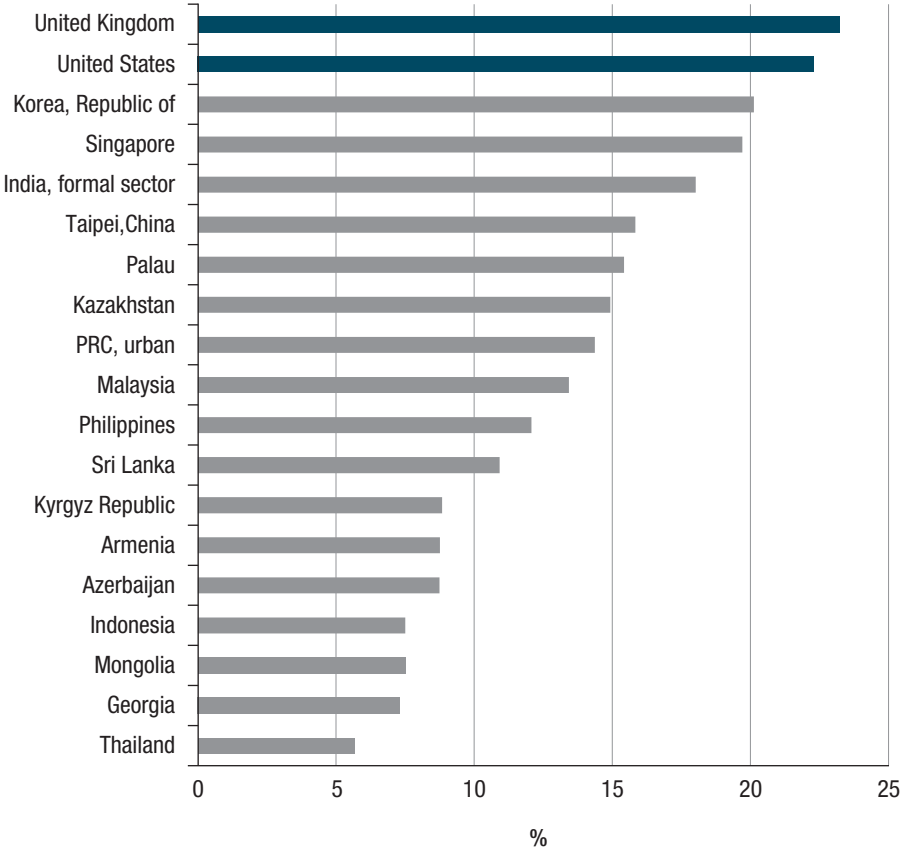
Sector	Workers with a College Degree (%)	Workers with an Advanced Degree (%)	Average Earnings ($)
Manufacturing	23	7	49,081
Business services	44	14	59,096
Personal services	36	16	35,261
Wholesale and retail	19	3	35,819

Source: Author's calculations using Census Bureau (2007).

2. Business Services in Developing Asia

Figure 5.2 provides a more detailed look at the share of total employment accounted for by business services for a subset of developing Asian economies. It is notable and unfortunate that even this relatively aggregated level of data is not available overall for either the PRC or India. For the PRC, business service data are available only for "urban" PRC which accounts for only about 15% of the labor force. Thus this is a less than comprehensive (and likely misleading) perspective on the composition of the economy.[2] The data on India are also less than comprehensive with detailed industry data available only for the formal sector.

Figure 5.2
Share of Business Services in Total Employment in Selected Economies, 2007



PRC = People's Republic of China.

Source: International Labour Organization. Laborsta database (accessed 24 April 2012).

The business service sectors in most developing Asian countries are small relative to the size of those in the UK or the US and with the exception of the Republic of Korea and Singapore tend to be relatively small even in "urban" PRC. "Formal sector" India has a reasonably large business service industry though this is probably not representative of the country as a whole.

3. Business Services Are Underdeveloped

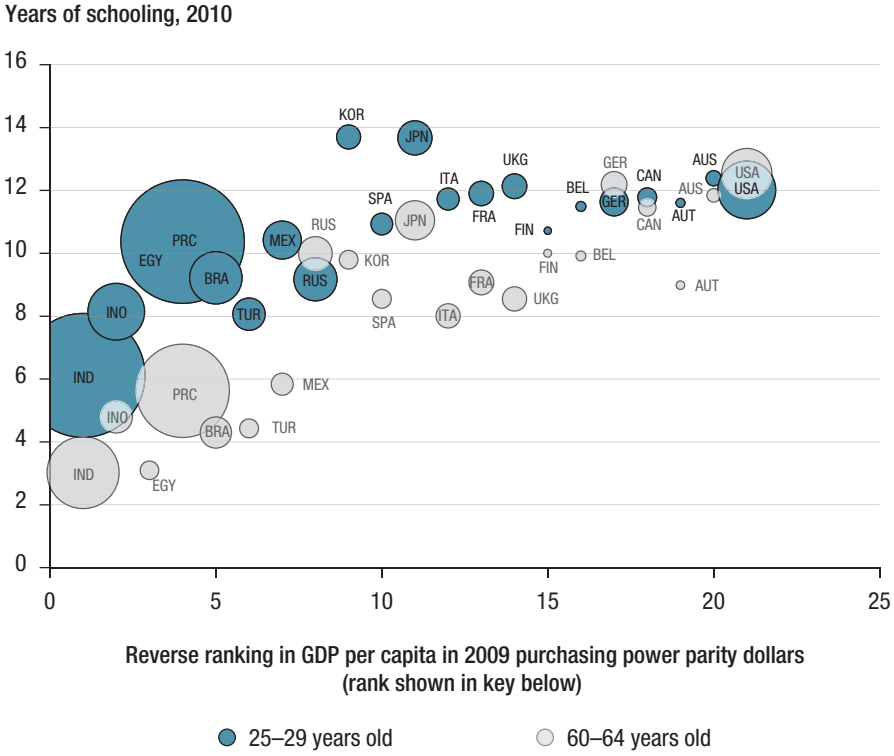
The data presented thus far suggest that business services are skill intensive. A key theme of this chapter is that skills are an important driver of size and productivity in business services. To understand the prospects for growth (and the associated productivity growth and higher living standards associated with a robust business service sector), we need to examine information on educational attainment in developing Asia.

Figure 5.3 shows the average level of educational attainment for selected countries for 60–64 year olds (with the size of the bubble representing the size of the labor force) in 2010. The most striking feature is how big an outlier the US is in terms of educational attainment for the cohort of people at the peaks of their careers. The US has historically had an abundance of skilled workers. While it is difficult to prove definitively, it seems likely that the skill endowment patterns that have existed for at least the past 40 years have played an important role in shaping the size and productivity of the business service sectors across countries. Because business services are skill intensive, countries with skilled workforces are likely to have larger (as a share of the labor force) and more productive sectors. The historically relatively low levels of educational attainment in developing Asia are undoubtedly a prime contributor to the level of development of business services.

History is not, however, destiny. Figure 5.3 also shows average educational attainment for the 25–29-year-old cohort for the same group of countries. Most striking in this figure are the dramatic increases in average educational attainment across a range of emerging markets. As educational attainment in developing Asia converges with that in the UK and the US, it seems likely that the size and productivity of their business service sectors will also converge. Thus, in the long run, the source of increasing productivity (and of the subsequent increases in productivity throughout the economy from improved access to these important intermediate inputs) is increases in educational attainment.

The studies by Eichengreen and Gupta (2009) and Francois and Hoekman (2010) suggest that healthy and efficient business service sectors are an important input into productivity and growth across an economy, so it seems likely that until increases in educational attainment work their way through their economies, growth prospects in developing Asia will be hampered by constraints on their business services.

Figure 5.3
Average Years of Schooling by Age Cohort in Selected Economies, 2010



AUS = Australia (20), AUT = Austria (19), BEL = Belgium (16), BRA = Brazil (5), CAN = Canada (18), EGY = Egypt (3), FIN = Finland (15), FRA = France (13), GDP = gross domestic product, GER = Germany (17), IND = India (1), INO = Indonesia (2), ITA = Italy (12), JPN = Japan (11), KOR = Republic of Korea (9), MEX = Mexico (7), PRC = People's Republic of China (4), RUS = Russian Federation (8), SPA = Spain (10), TUR = Turkey (6), UKG = United Kingdom (14), USA = United States (21).

Note: Bubble size indicates the size of the workforce.

Source: Barro and Lee (2010).

4. Opportunities in Trade

Developing Asia currently appears to be constrained by a small and relatively inefficient service sector, but in the long run, increases in educational attainment will alleviate this problem. Figure 5.3 suggests that developing Asia is making rapid gains in educational attainment, but it might take decades for those gains to translate into changes in the structure of their economies. Is it possible to alleviate this constraint in the short run? When countries lack natural resources such as

oil, they often engage in international trade to get them. What are the prospects for developing Asia to trade in services to mitigate the impact of its small and inefficient sector?

Most of us are accustomed to thinking of trade as trade in goods. Commodities such as wheat, copper, and crude oil as well as manufactured goods such as clothing, furniture, consumer electronics, automobiles, and jet aircraft have long been shipped all over the world. One can visit any port or border crossing and see evidence of this kind of trade. So when we speak of "trade in goods," or "merchandise trade," it is not difficult to conjure up a clear mental image.

Trade in services, however, is somewhat harder to conceptualize. Because services are intangible, the image of trading a service comes less readily to mind. Yet services are traded and in a variety of ways. The General Agreement on Trade in Services (GATS)[3] provides a useful definition of what is meant by "trade in services" (WTO 1995):

For the purposes of this Agreement, trade in services is defined as the supply of a service:

- from the territory of one Member into the territory of any other Member;
- in the territory of one Member to the service consumer of any other Member;
- by a service supplier of one Member, through commercial presence in the territory of any other Member;
- by a service supplier of one Member, through presence of natural persons of a Member in the territory of any other Member.

The GATS definition embodies what are generally referred to as the four modes of trade in services:

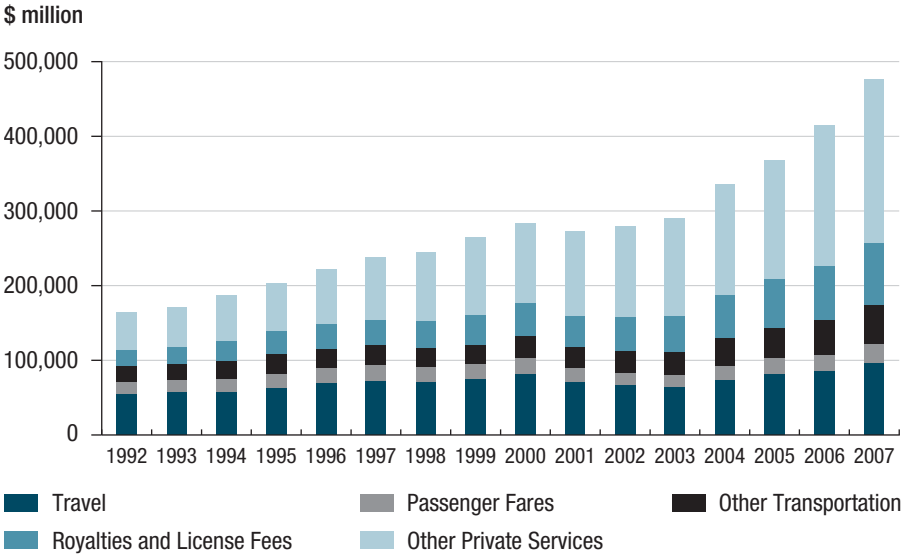
- Mode 1 is cross-border provision, for example when software is produced in one country and shipped via the internet to another.
- Mode 2 is consumption abroad, for example when a vacationer travels to a resort in another country and purchases hotel accommodations, meals, and other services there.
- Mode 3 is commercial presence in a foreign country, for example when a restaurant chain opens a branch outside its home country.
- Mode 4 is temporary movement of natural persons across borders, for example when a business consultant travels to visit a foreign client.

Mode 3, also called foreign direct investment, is undoubtedly beneficial to both outward investment by companies abroad and inward investment by foreign companies into a country. For example, the expansion of US service firms abroad allows them to take advantage of their successful business models around the world when trade in services via the other modes is not possible.

Such investment undoubtedly increases total firm sales and generates profits for their headquarters that benefit the owners and their workers, increases the tax base where the headquarters are located, and offers a range of other benefits both domestically and in the foreign markets served. Unfortunately, identifying and measuring the impact of these benefits is very difficult. Therefore, for the sake of tractability, we will focus on the other three modes.

Figures 5.4 and 5.5 show trends in exports and imports of services in the US from 1992 to 2007.

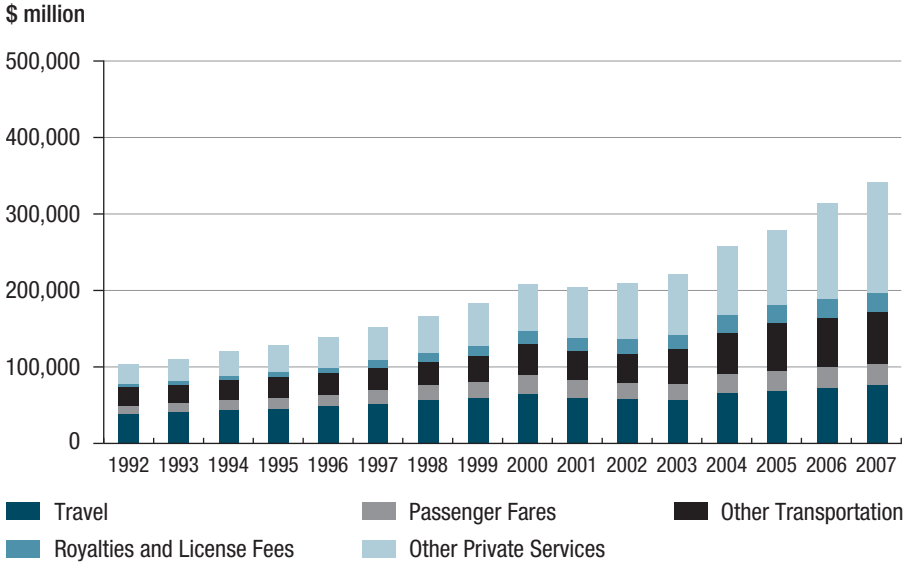
Figure 5.4
Composition of Service Exports from the United States, 1992–2007



Source: Bureau of Economic Analysis.

Service trade increased steadily from 1997 to 2007 with both exports and imports roughly doubling and exports growing slightly faster in the last few years of the decade. The Bureau of Economic Analysis of the US Department of Commerce divides private services into five main groups: travel, passenger fares, other transportation, royalties and license fees, and "other private services," a catchall category that includes education; financial services; insurance services; telecommunications; and business, professional, and technical services which corresponds roughly to the "business services" that are the focus of this chapter. Although all of the categories show growth, other private services grew the fastest with both imports and exports more than doubling. Other private services also

Figure 5.5
Composition of Service Imports into the United States, 1992–2007



Source: Bureau of Economic Analysis.

contributed the most to overall service growth, accounting for more than half of the increase in exports and about half of the increase in imports.

The data presented in Figures 5.4 and 5.5 suggest increases in trade in business services by the US with the rest of the world. To understand the potential scope for increased trade in services, it would be desirable to examine developments like this in more detail; unfortunately, existing data are generally deficient in this regard, so a new methodology for identifying at a very detailed level which service activities are tradable was developed.

C. A New Approach to Identifying Tradable Services

Jensen (2011) developed a concept called "tradability" and applied it empirically to a range of service industries and occupations. Tradability is based on the geographic concentration of production within the US to identify industries and occupations that appear to be "traded" within the country.[4] Using geographic concentration as an indicator of international trade potential, we can arguably measure what has thus far gone unmeasured, i.e., we can identify in detail which service activities appear to be "traded" within the US and thus "ought" to be traded internationally.

The basic idea is simple. If we observe that more of a service is produced in one location than consumers in that location are likely to want to consume, then the excess must be consumed elsewhere. That implies that the service is somehow being "shipped" to a different location. If a service can be shipped from one US location to another, there is no inherent reason why it cannot be shipped from a US location to a foreign location, i.e., traded. Therefore that service is, in principle, tradable.

An important advantage of this methodology is that it can identify both service industries and service occupations that appear to be traded within the US. This matters because many of the service activities that are reportedly going offshore are tasks within larger production processes. For example, bank call centers can be relocated offshore without entire banks or the banking industry moving offshore. Occupations correspond more closely to these distinctions between activities than do industries.

After using the methodology to classify industries and occupations as tradable or non-tradable, we can then examine how much US service activity is potentially exposed to import competition and which service activities offer prospects for increased exports. We can also observe the number of workers employed in these activities.

1. The Intuition behind the Approach

Goods that are traded tend to be geographically concentrated whether to capitalize on increasing returns to scale, or to gain access to inputs like natural resources or workers with specific skills, or for other reasons whereas goods that are not traded tend to be more evenly distributed across geographic space or more precisely, to be distributed coextensively with demand.

The notion of using geographic concentration to identify tradable activities is related to the long tradition among geographers and regional economists of using the geographic concentration of economic activity to identify a region's export or manufacturing base. The idea was that if a region specializes in a manufacturing activity—Boeing and airplanes in Seattle—it is likely to export the product in which it specializes.

The measure used to determine whether a region specializes in a particular activity is typically some variant of a location quotient. A location quotient measures a region's share of industry output or employment and compares that share with (divides it by) a measure of the region's share of overall demand (typically measured using the region's share of total population or of total employment, as in Table 5.2). If a region has a larger share of an industry's activity than is predicted by demand, the region is considered to specialize in the activity.

The example of aircraft production in Seattle can be used to illustrate this concept. Seattle's share of US aircraft manufacturing employment is about 11%, and its share of total US employment is about 1.6%. Thus, Seattle has a much greater share of aircraft production employment than of total employment; its location quotient for aircraft production is 11 divided by 1.6, or about 6.9. It is safe to assume that this concentration of aircraft production is not due to people in Seattle consuming more airplanes than other parts of the country; rather, they "export" planes to the rest of the country and export them to other countries in exchange for other goods and services. We can be quite comfortable thinking of Seattle as specializing in aircraft production and exporting aircraft.

Table 5.2 from Jensen (2011) reports location quotients for selected, large metropolitan areas and for selected industries in the US. It shows clearly that several other manufacturing industries are geographically concentrated just as aircraft is in Seattle (the location quotients are highlighted in the table). For example, motor vehicle production is concentrated in the Detroit area with a location quotient of 11.5. Again, this is not because people in the Detroit area purchase 11.5 times more cars than the rest of the country but because Detroit has specialized in motor vehicle production and exports cars in exchange for other goods.

Table 5.2 also shows that some manufacturing industries do not exhibit geographic concentration. For example, in none of the metropolitan areas listed do structural metals have a location quotient above 1; the location quotient for gypsum and lime production exceeds 1 in only two areas and never exceeds 2.[5] Both of these industries produce goods with relatively low value by weight which suggests that shipping them from city to city may be too costly to be worthwhile. Whatever the reason, these manufacturing industries appear to be not traded.

Economists have long thought of services as non-tradable because many services require, or seem to require, face-to-face interaction. The quintessential services of this type are personal services like haircuts or visits to the dentist's office. Because these services are difficult to provide at a distance, they tend to be distributed in proportion to the population in a region; we do not see large concentrations of these service activities in one place so their location quotients are uniformly low. For example, Table 5.2 shows that the location quotients for grocery stores, dentists' offices, and barber shops and beauty salons are all close to 1, indicating that these services are not being traded across metropolitan areas.

Other services do not, however, require face-to-face interaction, and many of these do appear to be traded within the US. For example, in addition to its concentration in aircraft production, Seattle has a disproportionate share of US employment in software publishing with a location quotient of about 6.9. Boston, Raleigh-Durham, and San Francisco also show large concentrations of software production. Again, this is not because people in Seattle or these other

Table 5.2
Location Quotients for Selected Areas and Industries in the United States

Industry	Boston	New York	Raleigh-Durham	Detroit	Las Vegas	Seattle	San Francisco	Los Angeles
Cement, concrete, lime, and gypsum product manufacturing	0.5	0.4	0.9	0.4	1.8	1.3	0.4	0.7
Structural metals, and tank and shipping container manufacturing	0.7	0.4	0.7	0.7	0.7	0.9	0.6	0.7
Aircraft and parts manufacturing	0.9	0.5	0.3	0.4	0.2	6.9	0.2	1.8
Motor vehicles and motor vehicle equipment manufacturing	0.1	0.1	0.3	11.5	0.1	0.3	0.3	0.4
Grocery stores	1.0	1.0	1.4	1.0	0.9	0.9	0.9	0.9
Software	3.5	0.7	3.9	0.8	0.1	6.9	4.7	1.0
Motion pictures and video industries	0.7	1.8	0.5	0.7	0.9	0.7	1.6	5.7
Internet service providers	1.0	0.7	1.3	0.3	0.8	2.2	7.2	1.4
Securities, commodities, funds, trusts, and other financial investments	2.5	3.2	0.6	0.6	0.5	0.7	1.5	0.9
Scientific research and development services	2.9	0.9	4.8	0.6	0.3	1.4	3.1	0.9
Travel arrangements and reservation services	1.3	1.2	0.5	1.0	3.0	1.8	1.0	1.3
Offices of dentists	1.1	1.1	1.2	1.3	1.2	1.3	1.4	1.1
Other amusement, gambling, and recreation industries	0.8	0.7	0.7	1.0	7.1	1.4	1.0	1.2
Barber shops and beauty salons	1.0	1.0	0.8	1.1	0.9	0.9	1.0	1.1

Source: Jensen (2011).

cities consume more software than people do in other parts of the country; rather, Microsoft and other software publishers based in Seattle and these other cities (the San Francisco metro area includes San Jose and Silicon Valley) produce software and then export it in exchange for other goods and services. Software is thus a service that is traded with other regions.

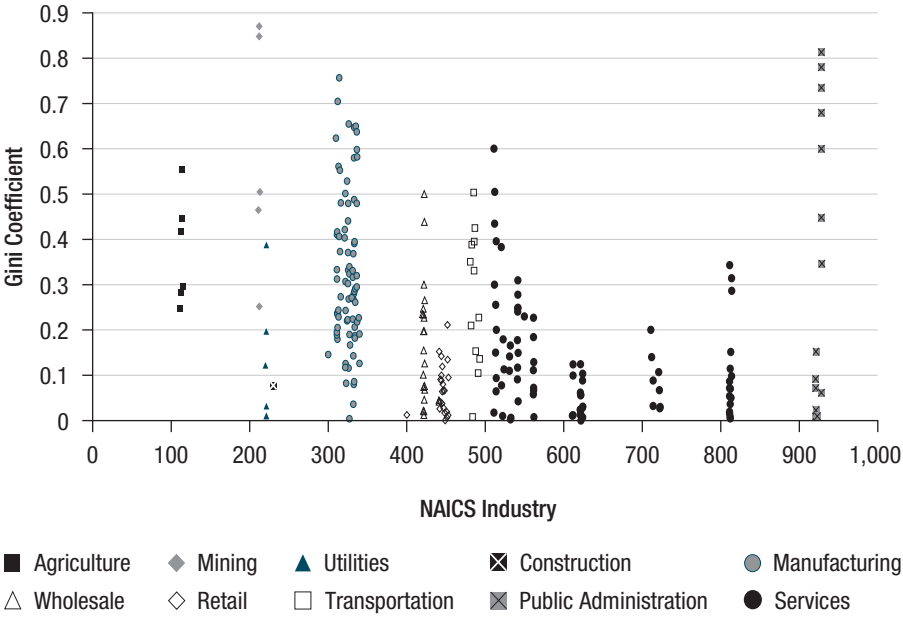
Nor is it just software and other information media (such as movies in Los Angeles) that are geographically concentrated. Table 5.2 reports several other examples including internet service providers (concentrated in Seattle and San Francisco), scientific research and development services (Boston, Raleigh-Durham, and San Francisco), and travel arrangements and reservation services (Las Vegas which not surprisingly also has a significant concentration of "other amusement, gambling, and other recreation activities"). Although not reported in the table, travel arrangements and reservation services which are very similar in nature to call center operations are also concentrated in some small cities in the upper Great Plains like Minot, North Dakota and Aberdeen, South Dakota.

We can use the geographic concentration of production to distinguish between service activities that are tradable and those that require face-to-face interaction and are thus less likely to be traded. Again, the idea is that when a good or a service is traded, its production can be concentrated in a particular region to take advantage of any economies in production. As a result, most regions will not support local production of the good or service while one or a few will devote a disproportionate share of their productive activity to the good or service and then trade it.[6]

2. Tradable Industries

Figure 5.6 from Jensen and Kletzer (2006) plots the Gini coefficients from decennial census data for all industries by their three-digit NAICS codes. The resulting pattern is generally consistent with our expectation that industries known to be tradable will be geographically concentrated. For example, industries in the goods-producing sectors (agriculture, mining, and manufacturing) are typically in the top two Gini classes. Only 5 of the 92 industries in these sectors are in class 1: cement and concrete, machine shops, miscellaneous manufacturing, structural metals and tanks, and printing and related activities. All of these industries seem not to be traded either because of a high weight-to-value ratio (such as cement and concrete) or because they include a range of potentially dissimilar activities (miscellaneous manufacturing). Most agriculture, mining, and manufacturing products are considered tradable; so, as a first approximation, defining only the lowest geographical concentration category (class 1) as non-tradable seems appropriate for these sectors.

Figure 5.6
Geographic Concentration of Industries



NAICS = North American Industrial Classification System.
Source: Jensen and Kletzer (2006).

Although manufacturing industries tend to be more geographically concentrated than industries in the service sector, many service industries also exhibit levels of concentration consistent with being traded within the US. In addition, these same industries conform to our expectations about what service activities might be tradable. For example, software publishing, sound recording, motion picture production, and securities and commodities trading all exhibit high geographic concentration. By contrast, retail banking and videotape rental exhibit low geographic concentration, again consistent with what one would expect.

Within the information industries, those with the lowest Ginis are newspaper publishers, motion picture theaters except drive-ins, television broadcasting, radio stations, and wired telecommunication carriers. These all tend to rely heavily on local inputs or require a physical presence to provide the service. The information industries with the highest Ginis are record production, music publishers, cable and other subscription programming, integrated record production and distribution, and "other motion picture and video industries."

Within professional, scientific, and technical services, some of the low-Gini industries are portrait photography studios and veterinary services. High-Gini industries in this group include payroll services and research and development in the social sciences and humanities. These results are also consistent with our expectations about the ability to provide these services over distances. Industries within the education, healthcare, and "other services (except public administration)" category tend to have low Gini coefficients suggesting low tradability.

As another check on the usefulness of geographic concentration in identifying tradable activities, Jensen (2011) reports the correlation between the locational Gini coefficient and the exports-to-sales ratio for 473 six-digit NAICS manufacturing industries and that between the Gini and the share of establishments that export. The correlations are strong providing further evidence that geographic concentration is a useful proxy for tradability.

For a subset of business service industries in NAICS sectors 51, 54, and 56, similar export information is available. Jensen (2011) reports the same correlations for these industries as for the manufacturing industries above; the correlations are very strong. Again, these results suggest that a number of service industries are tradable within the US and by extension that international trade seems technologically feasible.

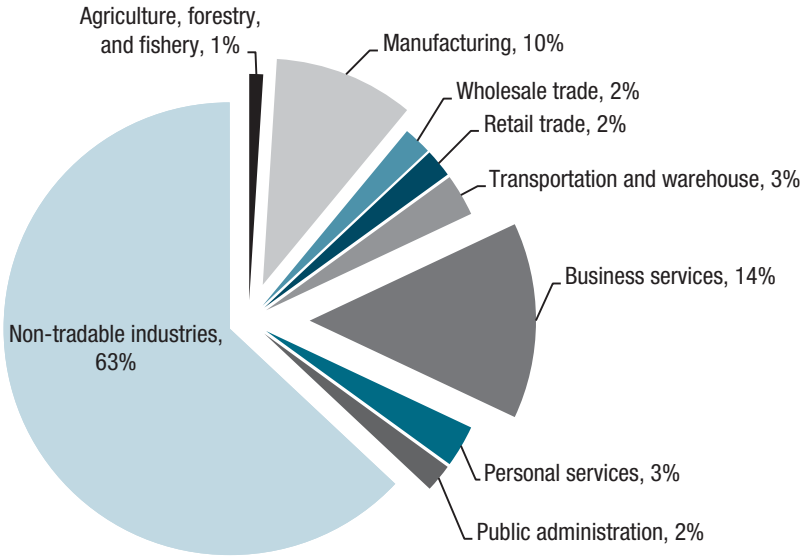
3. Number of Workers in Tradable Services

Figure 5.7 from Jensen (2011) shows that in contrast to traditional characterizations of services as predominantly non-tradable, a significant share of total US employment is in tradable service industries. For example, more workers are in tradable business service industries alone (14% of all workers) than in tradable manufacturing industries (10%). True, some large services (such as education, healthcare, personal services, and public administration) have low shares of employment in tradable industries; however, because the business service sector is much larger than the manufacturing sector, the amount of business service activity that is technically feasible to trade internationally is quite large.

4. Characteristics of Workers in Tradable Service Industries

The ability to identify which service activities are tradable and which are not is important because it will allow a better understanding of which services are likely to be traded, which services the US is likely to import and to export, and what the implications of increased trade in services are likely to be. Resolving the

Figure 5.7
Employment Shares for Tradable versus Non-tradable Industries in the United States, 2007



Source: Jensen (2011).

types of activities that can be provided at a distance is necessary for determining the size and scope of tradable services.

Workers in tradable activities are indeed different from workers in non-tradable activities, and the differences are striking (Table 5.3).

Workers in tradable service activities are on average more educated (and apparently more skilled) than those in non-tradable activities. The share of workers with a college degree in tradable services is double that in non-tradable services (and double that in manufacturing); the share of tradable service workers with advanced degrees is also double that in the others. Moreover, workers in tradable activities have significantly (more than 30%) higher average earnings than workers in non-tradable activities. Jensen (2011) reports this qualitative finding holds not only in the aggregate but also across similar industries within the same sector and across detailed occupations within major occupational groups, although the exact numbers differ. The earnings differences persist even after controlling for detailed worker characteristics that typically explain such differences. These differences will have important implications for whether increased trade in services will have an adverse impact on the US economy or on US workers.

Table 5.3
Worker Characteristics for Selected Industries in the United States, 2007

	Non-tradable Industry	Tradable Industry
Manufacturing (NAICS 30s)		
Number of workers	2,235,432	12,994,490
Average earnings ($)	44,014	49,952
Share with bachelor's degree (%)	16	24
Share with advanced degree (%)	3	7
Share in tradable occupations (%)	26	34
Professional Services (NAICS 50s)		
Number of workers	8,038,246	18,430,199
Average earnings ($)	42,226	66,454
Share with bachelor's degree (%)	29	50
Share with advanced degree (%)	7	17
Share in tradable occupations (%)	31	60

NAICS = North American Industrial Classification System.
Source: Jensen (2011).

D. Gains from Trade and the Role of Relative Prices

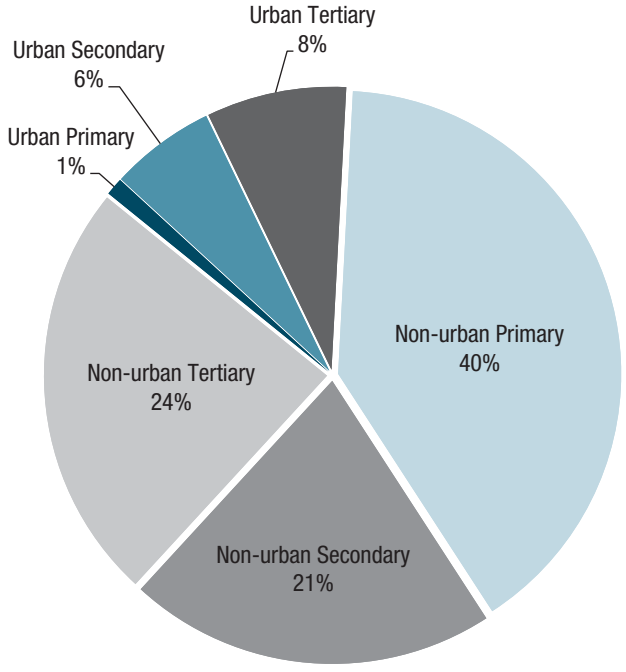
Traditional gains from trade come through specialization according to comparative advantage. Intuitively, a key signal of the possibility for mutually beneficial trade is differences in relative prices. If we were to think of the world in a simple two-goods (manufacturing and business services) and two-country (US/European Union and developing Asia) setup, we would want to compare the relative prices between manufacturing goods and business services.

The data presented above showed that developing Asia, particularly in the large countries, has smaller business service sectors than the UK or the US and also generally lower labor productivity in services than the OECD. This is suggestive evidence, but it makes sense to try to push the data a bit harder and see whether we can identify proxies for relative prices. Because price data for services have a range of limitations and issues, I focus instead on wages in the PRC and the US as a proxy for relative prices. This is admittedly imperfect, but given the severe data limitations, it seems to be the best we can do.

I focus on the PRC because it is one of the most populous developing Asian countries, it is growing rapidly, and it is an important global market. In addition, some details on employment and payroll are available. While the data are not as rich as that for the US, there appears to be enough detail to draw broad conclusions regarding the prospects and potential benefits from trade in services between developing Asia and the developed economies. (For related information on India, see Gonzales et al. 2012.)

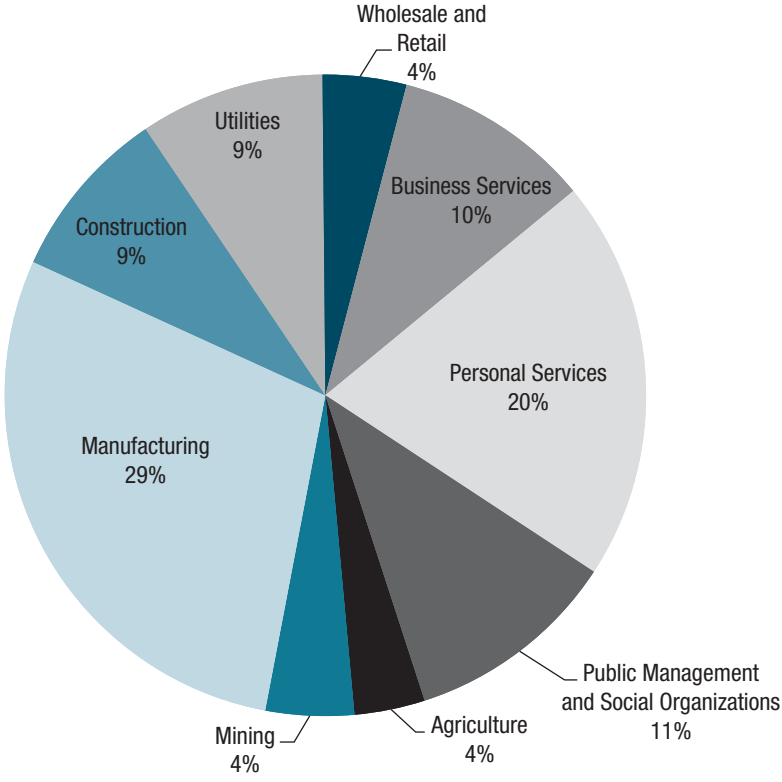
One shortcoming is that detailed industry data are again available only for urban PRC. With a labor force of about 120 million people, it is roughly the same size as that of the US labor force and though big and globally important (and thus worth examining), urban PRC is not representative of the country overall. Figure 5.8 shows the composition of the labor force for all of the PRC with separate shares of total employment by sector and by urban/non-urban location. Non-urban PRC's biggest sector is the primary sector (agriculture and mining) accounting for 40% of the total labor force. In contrast, the primary sector accounts for only about 8% of the urban labor force.

Figure 5.8
Employment by Sector in the People's Republic of China, 2008



Source: Government of the People's Republic of China (2008).

Figure 5.9
Employment in Urban Areas in the People's Republic of China, 2008



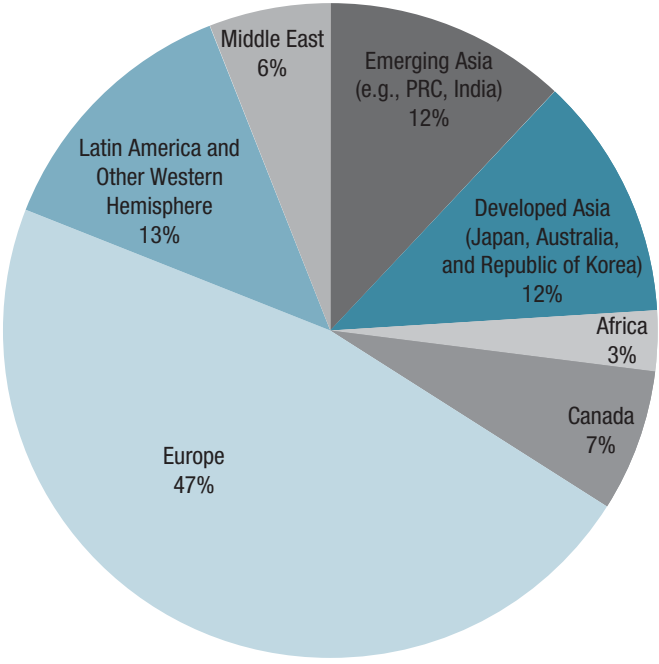
Source: Government of the People's Republic of China (2008).

Figure 5.9 provides a more detailed breakdown of the labor force in urban PRC. The share accounted for by business services is about 10%. This is less than half the share in the UK or the US. The PRC overall would have an even lower share of employment in business services if one assumes that non-urban tertiary services are unlikely to be "business" services.

The relative wages of urban business service workers are about 77% higher than those of urban manufacturing workers while in the US, business service wages are only 22% higher than manufacturing wages. Given that manufacturing wages in non-urban PRC are probably lower than manufacturing wages in urban PRC, the difference in relative prices is likely understated. Furthermore, if we examine the categories that are most likely to contain tradable business services, the wage differentials are even greater. Thus, the 77% to 22% differential is likely to understate the true relative price differences.

Drawing on work from the ADB–Peterson Institute for International Economics project (Chapter 1), imports of services in developing Asia do not appear to account for a larger share of imports (or GDP) than in the UK or the US. This is unexpected given the persistent differences in available skills. As discussed above, developing Asia has relatively small business service sectors, and as they provide key intermediate inputs for many other sectors in an economy, this suggests that developing Asia should be importing more services relative to GDP than developed economies. This does not, however, appear to be the case. Figure 5.10 in fact shows that about two-thirds of US business, professional, and technical service exports go to the developed world.

Figure 5.10
Destinations of Business, Professional, and Technical Service Exports from the United States



PRC = People's Republic of China.
Source: Bureau of Economic Analysis.

E. Impediments to Trade in Services in Developing Asia

Given the apparent comparative advantage in producing business services in the developed world, their lower relative prices there, and the importance of business services as intermediate inputs to many economic activities, it seems that developing Asia should be importing more business services from the developed world. One possible reason for the low level of service imports is policy impediments.

1. Licensing

The variety of service activities, the intangible nature of some services, and the sometimes complex interactions between producers and consumers in service delivery make identifying and quantifying impediments to trade in services quite difficult.[7] In addition, because service transactions are not subject to tariffs to the same extent as traded goods, no tariff schedules exist to use as a measure of impediments to trade. Instead, the barriers to trade in services are more diffuse and sometimes more subtle than those for merchandise.

There are legitimate reasons for some of the restrictions that countries impose on service trade. An important one is consumer protection. Many services, particularly the types of business services on which this study focuses, present significant asymmetries in information between producers and consumers. For example, consumers often find it difficult to judge the quality of the service provided by a lawyer or a doctor. Lawyers know the law and doctors know medicine far better than the average consumer which is precisely why consumers consult them. For activities where these asymmetries are important, countries have developed regulations to try to mitigate the problems that they can cause. Education and licensing requirements are examples of this type of regulation.

Mattoo and Mishra (2008) describe how to obtain a license in a variety of professions within the US. Although the process tends to be more open there than in many other countries, it is still time consuming, and the requirements vary because licensing is typically mandated by state governments rather than by the federal government, so there are state medical boards, state boards of architecture, state engineering boards, state accounting boards, state bar associations, and so on.

In general, obtaining a license involves several steps. A typical first step is verifying educational credentials, training, and experience. Since university and training programs in some countries are not formally accredited, that can be time consuming and unpredictable. Sometimes remedial training is required.

The next step is often a professional examination that may duplicate examinations taken in the applicant's home country. There are often other requirements. Mattoo and Mishra report, for example, that several US states require accountants to be residents of the state as a condition for licensing. This, of course, discriminates not only against foreign professionals but also against out-of-state US professionals. Work experience in the profession may also be required. In medicine, for example, a foreign medical graduate on a J1 visa must work for 3 years in an underserved area in order to become licensed in the US.

Frequently, states have different requirements for those who qualify from within the state, from other states, and from foreign countries. As Mattoo and Mishra report:

> For example, California requires 4 years of experience for licensure if an engineer is educated from a non-accredited program, whereas Pennsylvania requires a minimum of 12 years of experience. Similarly, international medical graduates are required to complete 3 years of postgraduate training in states such as Alaska, Colorado, Delaware, Washington DC, and Missouri whereas the requirement is only 2 years of post-graduate training in states such as California, Florida, and Illinois. Architecture is an exception in that it has a centralized and strong national body, the National Council for Architectural Registration Boards, which works with State Boards to establish qualification, registration and licensing policies.

Despite this heterogeneity in licensing requirements across states, the US has relatively low impediments to service trade. Other countries impose licensing and accreditation procedures and requirements that make it more difficult for foreign professionals to practice.

2. Types of Impediments

An exhaustive list of impediments to service trade is beyond the scope of this chapter; however, it is possible to provide examples of types and ranges. Several groups have made concerted efforts to measure impediments to service trade, e.g., the Australia Productivity Commission studies that constructed indices of impediments in a variety of countries (Findlay and Warren 2000). The following is a list of some of the most significant restrictions to professional service trade from one of those studies:

- Requirements on the form of establishment,
- Foreign partnership restrictions,
- Ownership and investment restrictions,

- Nationality requirements,
- Residency and local presence requirements,
- Licensing and accreditation of foreign professionals,
- Limitations on the scope of activities,
- Multi-disciplinary practice restrictions.

In addition to these regulations, service firms can face other impediments. Mattoo and Mishra note that, "Quotas and fiscal discrimination, in the form of restrictive visa regimes, prohibitions, and economic needs tests on foreign providers, as well as discriminatory treatment in taxes and government procurement…" are possible additional barriers. Discriminatory government procurement practices are a potentially important impediment and are likely to become even more important.

3. Quantifying Impediments

An ongoing World Bank project described in Gootiiz and Mattoo (2009) and Borchert et al. (2012) seeks to measure impediments to trade in services in countries around the world. The project collects survey information on actual policies that impede service trade and to date has data from 32 developing and transition economies and 24 developed countries.

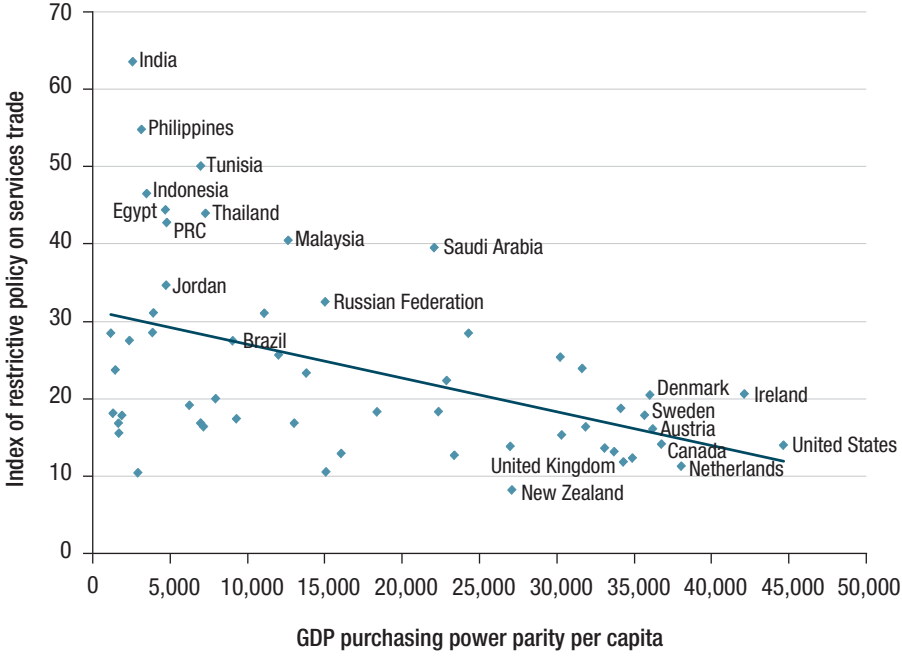
The industries included in the project are financial services (retail banking, life and automobile insurance, and reinsurance); telecommunications (fixed and mobile); retail distribution; transportation (air passenger, road and rail freight, maritime international shipping, and maritime auxiliary services); and selected professional services. For each industry, the project covers the most relevant modes of supplying the service: cross-border trade (in financial, transportation, and professional services); commercial presence or foreign direct investment (in all sectors); and the presence of individuals (in professional services).

In the 32 developing and transition economies, surveys were sent to local law firms familiar with the policy regimes. In the 24 developed countries, information was collected from various publicly available sources including documents detailing commitments under the GATS and industry-specific databases and was summarized for each country. The survey information and the summaries were confirmed by government trade officials in 2008.

The World Bank researchers used the data to calculate an index of the overall restrictiveness of service trade policies for each country or economy. Figure 5.11 reproduced from Gootiiz and Mattoo plots this restrictiveness index against GDP per capita for a large sample of countries. The resulting scatter plot shows a fairly strong negative correlation. Countries with higher

income per capita tend to have less restrictive barriers to service trade while some but not all countries with low incomes per capita have some of the highest levels of service trade restrictions. Some relatively poor countries like Cambodia, Ghana, Mongolia, Nigeria, and Senegal have relatively low levels of service trade restrictions—possibly the result of reform programs under World Bank and International Monetary Fund auspices as well as aspirations toward World Trade Organization accession. Gootiiz and Mattoo note that some of the most restrictive policies are in large or rapidly growing economies like the PRC, Egypt, India, Indonesia, Malaysia, the Philippines, Saudi Arabia, and Thailand.

Figure 5.11
Trade Restrictiveness and Per Capita Income, 2006



GDP = gross domestic product, PRC = People's Republic of China.
Source: Gootiiz and Mattoo (2009).

4. Opportunities for Growth

Francois and Hoekman (2010) reviewed studies that demonstrate that liberalizing service trade increases productivity in the manufacturing sector. Increased trade would improve the level of service in telecommunications, finance, and other business services in developing countries for both businesses and consumers. Furthermore, these types of business services are important intermediate inputs in producing goods and are the types of inputs that distinguish commodities from higher value-added manufactured goods. To move up the value chain in manufactured goods, developing Asia will need access to efficient, leading-edge services in engineering, design, development, testing, marketing, advertising, logistics, and distribution. Given the current relatively small size of the business service sector, it seems unlikely that developing Asia can be self-sufficient in these activities in the near term. Importing these services is an obvious way to provide them.

A specific example of the importance of business services for faster growth is in infrastructure. A huge infrastructure boom is already underway in the rapidly growing countries in developing Asia. Some estimate that over $40 trillion could be spent on infrastructure of all types worldwide over the next 25 years, most of it in the developing world.[8] Developing Asia needs roads, harbors, airports, energy infrastructure, water and sewer systems, telecommunication infrastructure, and residential and commercial construction on an unprecedented scale. The skills and expertise required to develop cost-efficient, state-of-the-art infrastructure could be imported. Infrastructure is a key input into moving up the value chain in manufacturing and is also a key input into raising living standards. The potential for a mutually beneficial relationship between rapidly growing economies in developing Asia and business service providers in the developed economies is large. Reducing policy impediments in the service sector is a necessary condition to capitalize on this opportunity.

F. Policy Recommendations

- Developing Asia should reduce policy impediments to trade in business services. Developing Asia has relatively small and expensive business service sectors. While education is likely to resolve this issue in the long term, in the short run it makes sense to import services from the developed world and to take advantage of the gains to trade in a large and important sector. Developing Asia has benefited significantly from liberalizing goods trade; the same potential exists in business services.

- Developing Asia should continue to make education a priority. The long-term solution for fixing the small and expensive business service sector is to increase the level and prevalence of skills. Several countries have made dramatic progress in this regard and are likely to reap the rewards from this investment. More countries need to aggressively improve education.
- All countries should collect and publish more detailed information on the service sector and service sector trade. The service sector is a large, growing, and important source of economic growth. To understand what is happening in the sector requires a much richer view than is currently possible. This seems like a natural place for ADB to contribute.

Notes

1 I use the US data as a benchmark for many empirical analyses as the US service sector data tend to be the most detailed for large countries.

2 Urban PRC has a different composition than the PRC overall: In the country as a whole, the primary sector accounts for 40% of employment; for urban PRC the primary sector accounts for 8%.

3 General Agreement on Trade in Services. http://www.wto.org/english/docs_e/legal_e/26-gats.pdf

4 This section draws heavily on Jensen and Kletzer (2006). Here and later, when for brevity's sake we say that an industry or occupation is "tradable," we of course mean that its output is tradable.

5 The area with the largest location quotient for this industry, Las Vegas, was experiencing a construction boom in 2007 when these data were gathered. Gypsum and lime are important inputs in construction. Thus, in this case the relatively high location quotient could be due to unusually high local demand for the industry's goods.

6 The relationship between the geographical concentration of production and trade, particularly exports, has a long tradition in both economic geography (where the measure used is the location quotient) and trade analysis (where the measure used is revealed comparative advantage). The measure of economic concentration used here is different from both these measures, but all the measures are similar in that they compare the share of production (or exports) in a particular region to an "expected" baseline.

7 The OECD is currently developing a service trade restrictiveness index. See the OECD's website for more information. This section draws on these efforts.

8 Timmins (2010) and Walters (2010).

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CHAPTER 6

Prospects for Negotiations on Trade in Services

Jeffrey J. Schott, Minsoo Lee, and Julia Muir

Abstract

Trade and investment in services are difficult to measure, and the barriers that inhibit the free flow of services are hard to quantify. As a result, very little attention has been paid to dismantling those barriers. This chapter surveys international precedents involving Asian countries in which services have been included in bilateral and regional trade pacts, assesses the prospects for trade negotiations, and explores how trade negotiations could be pursued over the next decade through the Trans-Pacific Partnership and a plurilateral approach among groups of World Trade Organization members. In developing Asia, free trade agreements have largely excluded services or have committed only to maintaining current practices in a narrow set of service industries. This is also true for agreements between developing countries that have less substantial commitments to liberalize services than those between developing and developed countries. Multilateral negotiations have also underperformed as substantive discussions on services in the Doha Round never really got underway. Developing Asian economies should make negotiations in services a priority in their regional arrangements and should expand coverage of services in those pacts to the broad range of infrastructure services that are included in other agreements in force or under construction.

A. Introduction

Services are often given short shrift in trade negotiations. The subject surfaced in multilateral talks only late in the postwar era with the conclusion of the General Agreement on Trade in Services (GATS) at the end of the Uruguay Round of multilateral trade negotiations (WTO 1995). The GATS drew on provisions in path-breaking trade pacts such as the Australia–New Zealand Closer Economic Relations Trade Agreement and the Canada–United States (US) Free Trade Agreement, though the resulting multilateral rules were much more limited with regard to the scope and depth of liberalizing existing trade barriers than the regional pacts were.

To date, most trade pacts have focused more on trade in goods than in services, and most obligations undertaken with regard to services have simply been commitments to maintain current practices. The focus on services has been particularly narrow in negotiations among developing countries, including those in Asia, with the effect of discouraging investment and limiting the availability of productive services across the economy.

Services span a wide range of government jurisdictions, complicating the task of formulating a coherent approach to trade policy and negotiations. The slow pace of negotiations on trade in services is at least partly due to the complexity of dealing with the broad range of policy measures affecting their provision. Unlike merchandise trade in which reducing border restrictions via tariffs and quotas was for many decades the fodder of trade talks, the main barriers to trade and investment in services are imposed through quotas or outright bans on foreign participation in the marketplace, discriminatory licensing and subsidies, public procurement practices, and discriminatory access to distribution networks (Francois et al. 2007). In addition, service "products" are often non-storable and intangible which creates different barriers to trade than those that apply to goods (Fontagné et al. 2011). To be sure, some restrictions serve legitimate purposes, but others mask protectionist intent. Trade negotiations seek to address the latter.

The basic principles that govern liberalizing trade in services are unconditional most-favored nation (MFN) treatment, national treatment, transparency, and the absence of local-presence requirements. GATS obligations cover national treatment and market-access commitments for listed activities (which in principle should be augmented through successive rounds of negotiations). In addition, GATS Article VI.4 outlines disciplines on certain domestic regulations related to licensing and technical standards to ensure regulatory measures are based on objective and transparent criteria and are not more burdensome than necessary to ensure the quality of the services. However, as outlined in the 2012 World Trade Organization (WTO) *World Trade Report*,

progress in this area has been slow, and the level of openness across services sectors and countries varies significantly (WTO 2012). Many developing and emerging Asian economies have made only low-level commitments in GATS and have not supplemented those reforms very much in their bilateral negotiations.

Trade negotiations can contribute to economic growth by reducing or removing impediments to trade and investment in services. Such reforms would enhance competition in the domestic economy, would spur innovation and productivity gains in agriculture and manufacturing as well as in service industries, and would contribute to net job creation.

This chapter assesses the prospects for service trade negotiations and the challenges and opportunities they pose for developing countries. We believe that Asian countries should give more priority to services in trade talks as part of their overall development strategies.

B. Services in Regional Trade Pacts

We first assess the provisions of the free trade agreement (FTA) among the members of the Association of Southeast Asian Nations (ASEAN); we then analyze the FTAs between the People's Republic of China (PRC) and ASEAN, the PRC and New Zealand, and Malaysia and New Zealand; we then assess those pacts against the more comprehensive results of the Republic of Korea–US (KORUS) FTA. All these agreements have been implemented over the past 5 years. Table 6.1 summarizes the coverage and content of key components of those pacts.

The degree of liberalization in trade in services varies considerably among the first four pacts. On one end of the spectrum is the ASEAN–PRC pact. Services were negotiated separately after the agreement entered into force in July 2007, and the commitments on services are quite limited. While this pact increases market access to a number of service industries such as construction and engineering, tourism and travel, transport, and education, the agreement does not provide MFN treatment or bar local-presence requirements. It also excludes subsidies and government procurement practices and exempts important sectors from national treatment. The New Zealand–PRC and New Zealand–Malaysia agreements are similar in their use of a "positive list" to schedule reform commitments, MFN obligations, and GATS Mode 4 commitments.[1] Although the New Zealand–Malaysia pact uses a positive-list approach,[2] the agreement includes a novel provision whereby Malaysia agreed to renegotiate its commitments on services with New Zealand if it concludes a negative-list agreement with another country in the future. Such forward-looking provisions establish a useful precedent for agreements that schedule commitments via a positive-list approach.

Table 6.1
Services Provisions in Selected Free Trade Agreements

	ASEAN–PRC	New Zealand–PRC	Malaysia–New Zealand	Republic of Korea–United States
Entry into force	July 2007, updated November 2011[a]	October 2008	July 2010	March 2012
Negotiating modality	Positive	Positive	Positive[b]	Negative
Notable exclusions[c]	• Government procurement • Subsidies or grants provided by either party • Air transport services	• Government procurement • Subsidies or grants provided by either party • Air traffic rights • Services supplied by the government	• Government procurement • Subsidies or grants provided by either party • Cabotage in maritime transport • Air traffic rights	• Government procurement • Subsidies or grants provided by either party • Air transport services
Most-favored nation (MFN) treatment	No	Applied to select sectors:[d] • Environmental services • Construction • Engineering • Computer services • Tourism • Services incidental to agriculture and forestry	Applied to select sectors: • Private education • Environmental services • Engineering • Computer • Services incidental to mining	Yes, applied to all service sectors
National treatment	Yes, with exceptions. In the PRC: • Computer services In ASEAN countries: • Communication • Construction • Tourism • Energy • Real estate • Financial services • Health related services	Yes, with exceptions. In New Zealand: • Audiovisual • Telecommunications • Engineering In the PRC: • Legal services • Architecture • Medical doctors • Scientific consulting • Construction • Insurance • Banking • Tourism	Yes, with exceptions. In New Zealand: • Services incidental to animal husbandry • Telecommunications • Audiovisual services In Malaysia: • Architecture • Engineering • Education • Financial services • Veterinary services	Yes

continued on next page

Table 6.1 continued

	ASEAN–PRC	New Zealand–PRC	Malaysia–New Zealand	Republic of Korea–United States
Local presence requirements	Yes	No	No	No
Mode 4 provisions	Yes	Yes, separate chapter	Yes, separate chapter	Yes

ASEAN = Association of Southeast Asian Nations, PRC = People's Republic of China.

[a] The Framework Agreement on Comprehensive Economic Cooperation between the PRC and ASEAN was signed in 2002. This agreement included merchandise trade only. In 2007 the PRC and ASEAN signed a separate agreement on services, which was updated in 2011. Article 4 of the ASEAN–PRC agreement states that Parties agree to enter into negotiations to progressively liberalize trade in services, beyond those undertaken by ASEAN members and the PRC under the General Agreement on Trade in Services (GATS).

[b] Malaysia agreed to renegotiate its services commitments with New Zealand on a negative list basis if and when it concludes a negative list agreement with another country in the future.

[c] In the ASEAN–PRC FTA special treatment is given to Cambodia, the Lao People's Democratic Republic, Myanmar, and Viet Nam, allowing them to open fewer sectors, liberalize fewer types of transactions, and progressively extend market access in line with their respective development situation.

[d] MFN treatment does not apply to FTAs already in force at the date of entry into force of the New Zealand–PRC agreement.

Source: Individual free trade agreements.

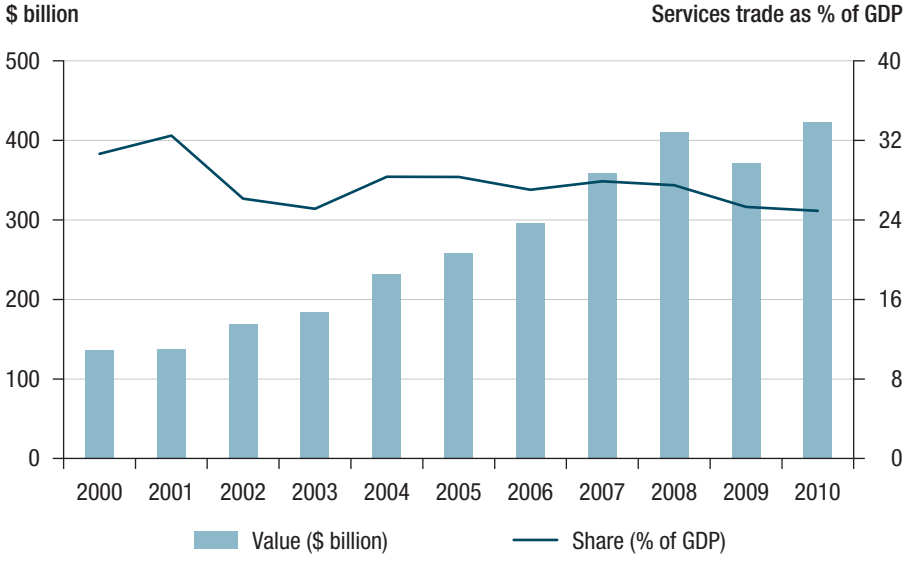
At the other end of the spectrum is the KORUS FTA which offers much broader coverage of services. It is the only agreement that uses a negative-list approach and provides unconditional MFN and national treatment. The one area where it falls short, however, is its coverage of Mode 4. The limited obligations on the movement of natural persons is due primarily to a US congressional mandate that "immigration" issues broadly defined should not be discussed in the context of a trade pact (Schott 2007).

1. Intra-ASEAN Free Trade Agreement

Trade in services among the ASEAN countries has grown rapidly during the last decade. Total trade in services (exports plus imports) increased on average 12% a year between 2000 and 2010, reaching more than $400 billion in 2010 or 25% of aggregate output (Figure 6.1).

Transportation, travel, and other business services account for the majority of ASEAN's service exports and imports (Table 6.2). These three comprised 85% of total service exports and 79% of imports in 2010. Financial services and computer and information services also play a large role in ASEAN service trade. Exports of these services more than doubled over the last decade and accounted for nearly 10% of total service exports in 2010.

Figure 6.1
Total Trade in Services of ASEAN



ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product.
Source: Authors' estimates using United Nations Service Trade Database.

Table 6.2
Distribution of Service Trade of ASEAN (%)

	Exports		Imports	
Subsector	2000	2010	2000	2010
1. Transportation	31.8	24.5	43.3	40.8
2. Travel	35.1	32.5	17.9	21.0
3. Communications services	1.7	1.7	1.5	1.4
4. Construction services	1.3	1.1	2.3	1.0
5. Insurance services	1.4	1.7	4.4	3.9
6. Financial services	3.5	6.5	1.3	1.5
7. Computer and information services	0.7	2.1	0.8	1.0
8. Royalties and license fees	0.2	1.1	10.1	11.1
9. Other business services	23.5	28.2	17.2	17.2
10. Personal, cultural, and recreational services	0.1	0.2	0.3	0.3
11. Government services, n.i.e.	0.6	0.5	0.8	0.6

ASEAN = Association of Southeast Asian Nations, n.i.e. = not included elsewhere.
Source: Authors' estimates using United Nations Service Trade Database.

The ASEAN FTA initially covered only trade in goods; agreements on trade in services and investment came later. In December 1995, the ASEAN members signed the ASEAN Framework Agreement on Services which outlined three main objectives: (i) enhance cooperation in services among member states in order to improve the efficiency and competitiveness of their service suppliers and to diversify production capacity and the supply and distribution of services within and outside ASEAN; (ii) substantially eliminate restrictions on trade in services among member states; and (iii) expand the depth and scope of liberalization beyond what was undertaken in the GATS to realize a free trade area in services.[3] There are currently four ASEAN bodies responsible for advancing these goals:

- The Coordinating Committee on Services: business services, construction, healthcare, logistics and transport services, telecommunication and information technology services, and tourism;
- The Coordinating Committee on Investment: services incidental to manufacturing, agriculture, fishery, forestry, and mining and quarrying;
- The Air Transport Sector Negotiation of the Air Transport Working Group; and
- The Working Committee on ASEAN Financial Services Liberalization under the ASEAN Framework Agreement on Services.

Five rounds of negotiations have taken place since 1995, each employing a different approach. The first round (1996–1998) followed the "request and offer approach" similar to the GATS. The negotiations focused on financial services, maritime transport, telecommunications, air transport, tourism, construction, and business services. Negotiations started with an exchange of information among member states on their existing commitments under GATS and other service trade regimes. During the second round (1999–2001), ASEAN adopted the "common subsector approach" where member states were requested to schedule commitments in subsectors for which at least four member states had already made commitments under the GATS or other previous packages. The threshold of four member states was modified to three under the "modified common subsector approach" during the third round of negotiations (2002–2004), thereby increasing the number of subsectors to be scheduled for liberalization. During this round, negotiations started using the ASEAN minus X formula wherein countries could proceed with liberalization at different paces. This change allowed some countries to proceed while others could opt out and join at a later stage. The fourth round (2005–2007) required member states to schedule commitments on a minimum number of services from two sets of subsectors: a mandatory list comprising 65 subsectors and a list of 19 subsectors from which countries are required to schedule at least 5.

Based on the *ASEAN Economic Community Blueprint* adopted in November 2007 (ASEAN Secretariat 2012a), the target minimum number of new service subsectors (based on GATS W/120 classification) to be scheduled for each round (every 2 years) up to 2015 is 10 in 2008, 15 in 2010, 20 in 2012, 20 in 2014, and 7 in 2015.[4]

Additional efforts to dismantle barriers to trade in services were outlined in the blueprint. One of its key pillars is the free flow of trade in services. The blueprint focuses on five priority services: air transport, e-ASEAN, healthcare, tourism, and logistics. These were selected based on comparative advantage in natural resource endowments, labor skills, cost competitiveness, and the value-added contribution to ASEAN economies. Under the blueprint, "substantially all" restrictions are supposed to be phased out over 8 years; priority services are to implement reforms within 3 years though more sensitive ones such as logistics have longer adjustment periods.

An analysis of the progress on the blueprint shows mixed results. During the five rounds of negotiations, ASEAN members concluded seven packages of commitments; however, the extent of commitments to reform and their implementation vary among countries. The *ASEAN Economic Community Scorecard* (ASEAN Secretariat 2012b) reports that roughly 65 services were scheduled for liberalization under the seventh package, but these commitments contain few provisions beyond existing GATS commitments (Zhang and Shen 2011).

Analyses by Dee (2010) and Arunanondchai and Fink (2007) found the most positive results in healthcare and medical services. In these areas, ASEAN countries that are WTO members have bound relatively liberal regimes in their national schedules. Further progress could be achieved through mutual recognition or harmonization of quality standards, both for individual professionals and for healthcare institutions.

In transport services, most ASEAN countries have taken a relatively liberal approach to many aspects of maritime regulation, but none meets the blueprint target of allowing at least 51% foreign ownership by 2010 in all maritime services. Shepherd and Pasadilla (2012) also found that the minimum foreign ownership requirement for logistics services is not met by most countries. In air transport services, the blueprint target stipulates that foreign ownership limits be raised to 70% by 2010 for domestically established companies. Effective liberalization of trade in air transport services requires the reform of both investment laws and withholding clauses in service agreements; substantial ownership by an ASEAN community of interests rather than substantial domestic ownership is thus the target.

In banking services, many ASEAN countries have not reached the blueprint targets for increasing foreign equity limits. In the wake of the Asian financial crisis in 1997, several members undertook significant reforms of their prudential

regulations and loosened restrictions on foreign ownership on an MFN basis; however, the majority of ASEAN members have yet to reform foreign ownership restrictions as stipulated in the blueprint.

The ASEAN Scorecard also provides an assessment of progress on liberalizing priority services and reports initiatives undertaken in these areas. For example, ASEAN members have developed the Tourism Strategic Plan (2011–2015) to promote the region as a single tourist destination, to develop a set of ASEAN tourism standards and certifications to enable tourism professionals to work in any ASEAN member state, and to allow visitors to travel throughout ASEAN with a single visa.[5] ASEAN members also developed mutual recognition arrangements (MRAs) that address criteria for licensing and certifying professionals. To date, the ASEAN economic ministers have signed MRAs on engineering services, nursing services, architectural services, surveying qualifications, accountancy services, medical practitioners, and dental practitioners.

The scorecard also reports that the MRAs for engineers and architects have already been implemented, while work on those for nursing, medical, dental, accountancy, and surveying is ongoing. Setiati and Mugijayani (2011) found that implementing the MRA on engineering and architectural services and establishing registration procedures, standards, and criteria were well advanced; however, they noted significant shortcomings in that the MRAs do not include monitoring information exchanges among member states and do not identify best practices for assessing engineers and architects. In addition, significant barriers remain (particularly under Mode 3 and Mode 4) in terms of limits for foreign equity shares, land ownership, prohibition of employment in some sectors, and restrictions on hiring foreign workers.

Despite these notable achievements, ASEAN countries still need to implement significant reforms. Shepherd and Pasadilla identify priority areas and policies that ASEAN should focus on to improve trade and investment flows in services (Table 6.3). The authors emphasize "backbone" services such as telecommunications; transport, distribution, and logistics; finance; healthcare; education; outsourcing services and business processing; and business and professional services. The policy priorities outlined in Table 6.3 concentrate on reducing transaction costs and boosting productivity across all sectors of the economy.

2. ASEAN–People's Republic of China Free Trade Agreement

The ASEAN–PRC agreement took almost a decade to negotiate and to enter into force (Zhao and Webster 2011). The PRC and ASEAN first signed the Framework Agreement on Comprehensive Economic Cooperation in

Table 6.3
Policy Priorities

Service Sector	Policy Focus
Telecommunications	• Regulations that allow operators to connect to existing networks without discrimination and allow the development of internet-based telephony. • Reducing barriers to entry for foreign companies can boost competition, thereby lowering prices and improving service provision. • Licensing arrangements to facilitate entry without discrimination against foreign service providers.
Transport, distribution, and logistics	• Restriction on commercial presence. • In logistics: role of government monopolies in some logistics-related sectors.
Finance	• Commercial presence and intra-corporate fees. Myanmar is almost completely closed to foreign providers; Viet Nam, Malaysia, Thailand, and the Lao PDR are the next most restrictive; Brunei Darussalam and the Philippines are less restrictive than the ASEAN average; and Cambodia and Indonesia are relatively more open in terms of commercial presence.
Health services	• People-related regulations, e.g., licensing, training of local staff; number of nationals in foreign hospitals. • Type of establishment and scope of ownership.
Education services	• Commercial presence, e.g., restriction to establish branch or satellite campuses. • Denial of privileges to foreign-owned schools and students. • Discriminatory measures in the provision of research grants. • Indonesia and the Philippines have absolute restrictions on the establishment of foreign-owned universities.
Business process outsourcing and other off-shored services	• Availability of a large pool of human resources • Foreign direct investment restrictions • Rules on data security and intellectual property rights
Business and professional services	• Mutual recognition agreements to facilitate trade in professional services at the same time ensuring consumer protection

ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.
Source: Shepherd and Pasadilla (2012).

November 2002 which aimed to progressively liberalize trade in goods and services, to create a transparent and liberal investment regime, and to foster closer economic cooperation. The framework presaged a free trade area covering trade in goods by 2010 for ASEAN 6 (Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, and Thailand) and by 2015 for Cambodia, the Lao

People's Democratic Republic, Myanmar, and Viet Nam. The commitments were undertaken incrementally starting with the Early Harvest Program (2004) covering liberalization on specific agricultural tariffs,[6] the Agreement on Trade in Goods in 2005, the Agreement on Trade in Services in 2007, and the Agreement on Investment in 2009. The FTA took effect in January 2010.

The 2007 Agreement on Trade in Services called for progressive liberalization of discriminatory measures with respect to trade in services and the expansion of the depth and scope of reforms beyond those committed under the GATS. The PRC undertook commitments in 26 services, including construction, environmental preservation, transportation, recreation, and business services. In return, ASEAN members committed to liberalize finance, telecommunications, education, tourism, construction, and healthcare (Yang 2009); however, Shepherd and Pasadilla (2012) note that neither the PRC nor ASEAN, with the exception of Singapore and to some extent Malaysia, made commitments in the FTA that went substantially beyond their GATS obligations. Yang further identified the services for which the PRC and ASEAN have an advantage as well as those that need further development (Table 6.4) and pointed out that there are complementarities in the service sector between the parties.

The ASEAN–PRC agreement also stipulates that countries shall negotiate additional packages of specific commitments on trade in services. In November 2011, the second package was signed and entered into force on 1 January 2012. The PRC improved market access in commercial services, construction and distribution, finance, tourism, transportation, and financial services. ASEAN members agreed to WTO-plus commitments in tourism, air and maritime transportation, and business and construction services (PRC–ASEAN Business Council Chinese Secretariat 2011). Travel and transportation account for about 60% of total ASEAN trade in services (Table 6.2), so including those services was particularly important. The volume of transportation trade from the PRC to ASEAN has significantly increased in recent years and should further benefit from the growth in cargo and passengers due to Mekong River development projects.

3. New Zealand–People's Republic of China Free Trade Agreement

Many Asian FTAs—particularly intra-Asian FTAs—take a gradual approach to liberalization, focusing first on merchandise and then only years later implementing reforms on services and investment (Zhang 2011). In contrast, the New Zealand–PRC FTA included provisions on both goods and services when it first entered into force on 2 October 2008. All preceding agreements

Table 6.4
Service Trade between the PRC and ASEAN

Country	Sectors with Advantage/Potential	Sectors Needed to be Developed
PRC	Construction, marine transportation, travel, computer and information	Financial services, insurance, consulting
Brunei Darussalam	Travel and related services, financial services, cooperative exploitation of oil and natural gas	Commercial services, transportation
Cambodia	Travel and related services, construction and related engineering	Commercial services, telecommunication services, environment, and public facility
Indonesia	Transportation, communication, post and cable services, consulting	Financial services, insurance, travel
Lao PDR	Electricity, travel and related services	Transportation, communication
Malaysia	Travel and related services, financial services	Commercial services
Myanmar	Energy exploitation, construction, mining	Energy and human resource exploitation, travel, transportation, and communication
Philippines	Information and related services, paging hub, commercial purchasing services	Travel, banking, and security
Singapore	Air transportation, financial services, hotel, exhibition services	Gambling, construction
Thailand	Travel, environment, and financial services	Construction and related services
Viet Nam	Labor services	Education, commercial services, technological services, financial services

ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Source: Table 3, Yang (2009).

of the PRC–ASEAN; Chile; Hong Kong, China; Macao, China; and Pakistan—were concluded without a service component. Commitments on services were eventually included in these agreements but only as side agreements negotiated years later.

The New Zealand–PRC FTA takes a positive-list approach to trade liberalization similar to the GATS in the WTO. The PRC incorporated the language on services from its existing GATS schedule but augmented the

agreement by making additional commitments in all four modes that go beyond its WTO commitments. The PRC's commitments in this FTA cover a broader range of service industries and obligations related to services such as transparency measures, standards, and competition policies, and also offer more significant liberalization than other Asian FTAs. These "GATS-plus" commitments include greater access for New Zealand service suppliers in computer and related services, management consulting, education, environmental services, sporting and recreational services, air transport, and road transportation services (Government of New Zealand 2008).

The PRC improved Mode 3 access for environmental services by allowing wholly owned foreign enterprises to operate domestically and expanded its commitments on air transport to allow investment in more subsectors such as computer system services related to air transport. New Zealand service providers may now establish joint ventures with PRC companies with a non-controlling stake. In computer services, the PRC removed all restrictions related to consultancy services on Mode 1, Mode 2, and Mode 3. New commitments included in the agreement are provisions in all three modes for storage, warehousing, and freight forwarding in road transportation services and for sporting and recreational services. These services had been completely excluded from the PRC's GATS schedule. The country also expanded its commitments on management consulting services.

Significant commitments were also made to increase purchases of education services in New Zealand. The PRC agreed to include 8 New Zealand universities, 20 institutes of technology, and 6 degree-conferring private training establishments duly approved and accredited on its ministry of education study abroad website. The PRC and New Zealand also established a reciprocal doctoral research scholarship program that funds students in both countries for 5 years. In addition, both countries agreed to evaluate and improve mutual recognition of qualifications and academic degrees through the New Zealand–PRC Education Joint Working Group. PRC concessions in education services are particularly important to New Zealand where education is the second largest service export (Government of New Zealand 2008).

The PRC and New Zealand also made important commitments on the movement of natural persons (Mode 4). The FTA specifies five categories of persons: business visitors, contractual service suppliers, intra-corporate transferees, skilled workers, and a new category of installers and servicers.[7] The length of stay permitted depends on the country and ranges from 3 months to 3 years. For example, the PRC allows entry for up to 3 months for installers and service providers, and allows business visitors to stay for up to 6 months compared to the 90-day maximum contained in its GATS schedule. New Zealand allows professionals and intra-corporate transferees to stay for up to 3 years and allows

all other service providers a stay of up to 3 months. In addition, the PRC agreed to expedite the processing of visas for service suppliers and business persons, and New Zealand agreed to expedite the applications and approvals for certain PRC visas and to create a new group-transit visa for PRC nationals.

Compared to other regional Asia–Pacific trade agreements, the New Zealand–PRC FTA is relatively comprehensive and provides greater GATS-plus commitments than the ASEAN–PRC FTA which includes commitments on only a very narrow range of services. For example, the PRC commitments exclude key services such as tourism, distribution, education, communication, and financial services all of which are important drivers of ASEAN economies (Trewin et al. 2008).

The 2-year review of the New Zealand–PRC FTA reported noteworthy progress on education and tourism. Two-way trade in services has grown markedly, particularly in new areas such as business consulting, aviation training, software and internet-related services, and landscape design (Government of New Zealand 2010). Further progress is being made on education through work by the New Zealand–PRC Education Joint Working Group to expand joint training programs and research and development and in advancing mutual recognition of vocational qualifications.

Despite these notable achievements in expanding trade, this FTA has a number of shortcomings. One is the exclusion of services procured by the governments of the PRC and New Zealand, although the two countries may negotiate a future agreement on them. The main shortcoming, however, is the lack of comprehensive MFN obligations. The agreement grants MFN treatment to only seven services: environmental services, construction, services incidental to agriculture and forestry, engineering services, integrated engineering, computer and related services, and tourism. In the case of agricultural and forestry services, the PRC confers MFN treatment only on Organisation for Economic Co-operation and Development (OECD) members. In addition, the agreement allows both parties to, "…adopt or maintain any measure that accords differential treatment to third countries under any free trade agreement […] in force or signed prior to the date of entry into force" of the New Zealand–PRC FTA (Government of New Zealand 2008). These restrictive MFN provisions are not conducive to expanding market access over time as the countries enter into agreements with other countries. However, compared to intra-Asian FTAs, the MFN provisions in the New Zealand–PRC FTA are fairly progressive as most intra-Asian FTAs do not commit to MFN treatment for their FTA partners. For example the ASEAN–PRC; ASEAN–Republic of Korea; PRC–Hong Kong, China; PRC–Macao, China; Australia–Singapore; and New Zealand–Singapore FTAs do not contain MFN disciplines (Trewin et al. 2008).

4. Malaysia–New Zealand Free Trade Agreement

The Malaysia–New Zealand FTA was signed in October 2009 and entered into force in July 2010. It builds on provisions included in the ASEAN–Australia–New Zealand FTA as well as Malaysia's and New Zealand's commitments under the GATS. It also augments the previous pact's provisions on market access, national treatment, and MFN treatment.

The main achievement of the agreement is the expansion of market access for service suppliers. Malaysia increased the number of services subject to liberalization—particularly education, environmental services, tourism, veterinary services, management consulting, and maritime services—which is noteworthy as Malaysia did not commit to any liberalization in environmental services under its GATS schedule nor did it include environmental services in any previous FTAs. In this FTA, however, Malaysia agreed to include wastewater management, cleaning of exhaust gases, natural and landscape protection, and noise abatement services. In maritime services, Malaysia agreed to raise the equity limit for New Zealand service suppliers from the 30% commitment in the ASEAN–Australia–New Zealand FTA to 49%.

In turn, New Zealand expanded market access for Malaysian service suppliers. Its commitments included three new service areas: those incidental to mining, mailing list compilations, and washing and dry cleaning. It also reduced restrictions on market access in seven others: services incidental to animal husbandry, wholesale trade services, non-life insurance services, insurance intermediation services, maritime transport, air transport, and commission agent services.

In addition to improved market access, the Malaysia–New Zealand FTA includes ASEAN–Australia–New Zealand FTA-plus provisions on MFN obligations and the movement of natural persons. In particular, it grants MFN treatment to specific areas of commercial interest including private education; environmental, engineering, and computer services; and services incidental to mining. This improves substantially on the ASEAN–Australia–New Zealand FTA which does not include MFN treatment for any services. On Mode 4, New Zealand maintained the provisions included in the ASEAN–Australia–New Zealand FTA. In contrast, Malaysia substantially expanded its Mode 4 obligations by providing New Zealand business persons greater market access to Malaysia. This was achieved by broadening the definition of "business person," removing market testing for intra-corporate transferees, increasing the length of stay for business persons or service suppliers from 5 to 10 years, and improving the time frame for processing applications for temporary access.

5. Services in the Republic of Korea–United States Free Trade Agreement

The KORUS FTA achieved substantial improvements in market access for foreign suppliers and investors beyond commitments already embodied in the Republic of Korea's GATS schedule and also introduced new bindings in sectors that were excluded under GATS. The FTA uses a negative-list approach, grants MFN and national treatment to all service industries, and provides market access without local presence requirements.

The US and the Republic of Korea made GATS-plus commitments in insurance, telecommunications, financial and business services, and tourism and travel services among others. For example, the Republic of Korea agreed to allow US financial service companies 100% ownership of Korean financial institutions, including the establishment of bank branches and insurance companies (US–[Republic of] Korea Business Council 2007). Under the Republic of Korea's GATS schedule, only minority stake joint ventures were permitted in some financial services such as investment advisory or securities trading services, and the establishment of branches was very restricted. The Republic of Korea also expanded market access for insurance, banking, and asset management services and agreed to remove the restriction on the transfer of customer data into and out of the country (US International Trade Commission 2007). Under the KORUS FTA, US and Korean insurance providers will have greater access to each other's markets for direct life and non-life insurance, reinsurance and retrocession, insurance intermediation, and services auxiliary to insurance. GATS-plus commitments in telecommunications also include the removal of foreign investment restrictions. For example, under GATS, the Republic of Korea limits foreign investment to 49% of total voting share, but under the KORUS FTA, wholly owned subsidiaries will be allowed to operate in the country. The KORUS FTA also grants national treatment for network interconnections, number portability, and dialing parity for foreign telecommunication service providers. In addition, the Republic of Korea further liberalized or locked in changes in broadcasting and cable quotas undertaken just before the formal negotiations began at the least restrictive level allowed under current law.

These provisions should create significant new business opportunities, especially through the improved commitments on commercial presence in areas like banking where the Republic of Korea had been particularly closed off to foreign suppliers. The expanded market access in financial services achieved in the KORUS FTA will help US financial institutions increase their presence in the Korean market, and the additional trade and investment from US suppliers will help promote competition and will provide diversified financial services more efficiently throughout the Korean economy.

In addition to GATS-plus provisions, the Republic of Korea made new commitments on legal services, education, healthcare, express delivery, and sports and recreation services which had been excluded from its GATS schedule. For example, for the first time, Korean officials agreed to allow foreign legal consulting services in the domestic market. The KORUS FTA allows US firms to establish joint ventures in legal services and permits US law firms to enter into cooperative agreements with local law firms and to establish offices to provide legal consultancy services (US Department of Commerce 2011). In express delivery services, the two countries agreed to reduce customs clearing time to no longer than 4 hours instead of the 6-hour target included in past US FTAs. Commitments on express delivery also include a commitment to reform Korea Post (the state-owned enterprise that is one of the largest providers of insurance, banking, and express delivery services), to reduce the number of services Korea Post provides, and to ensure independent regulation on a par with private service providers (Cooper et al. 2011).

Other notable provisions include a separate chapter on electronic commerce (e-commerce) and the inclusion of government procurement of services, an area that is normally excluded from service agreements. The two countries also agreed to provide equal treatment for electronically delivered services and similar products delivered physically through binding obligations to provide non-discriminatory and duty-free treatment for all digital products transmitted electronically. They further agreed to facilitate paperless trading by making trade administration documents available to the public in electronic form. The provisions included in the agreement on government procurement of services expand market access (e.g., by including digital and information technology products) and lower the threshold value for central government contracts from $203,000 to $100,000 (US Department of Commerce 2011).

The main deficiency of the KORUS FTA is its lack of commitments on Mode 4. The only notable provision is a commitment by the US to extend the validity of L-1 visas for intracompany transferees to 5 years instead of the 1–3 years that existed previously (Schott 2010).

C. The Doha Round: What Was Not Done and What Could Have Been Achieved

Article XIX of GATS mandates WTO members to "…enter into successive rounds of negotiations […] with a view to achieving a progressively higher level of liberalization" on specific commitments (WTO 1995). WTO members agreed in the Uruguay Round to begin new negotiations on services in 2000; they began in January 2000 and at the Doha Ministerial Conference in November

2001 were included as part of the "single undertaking" of the Doha Round. Since then negotiations on services have focused on four main areas: market access; domestic regulations; GATS rules on safeguard measures, government procurement, and subsidies; and the implementation of modalities for the least-developed countries.

With regard to rules on emergency safeguard measures, subsidies, and government procurement, participants have not been able to agree on disciplines that go beyond existing GATS commitments; consequently no text was tabled, and the discussion remained conceptual in nature (WTO 2011). The only area in which negotiations progressed was regarding special treatment for the least-developed countries, but even then, differences arose over the terms of a proposed waiver that would excuse WTO members from their MFN obligation under GATS when granting preferential treatment to service suppliers originating in them.

1. A Lost Opportunity in 2008

In May 2008, the Chairman of the Doha Round negotiating group on services issued a sobering report outlining the elements required to complete negotiations. At the time, 71 participants had submitted initial offers, and 30 of those had also submitted revised offers. Of the 71 offers, 13 were from Asian economies including the PRC; Hong Kong, China; India; Indonesia; Japan; the Republic of Korea; Macao, China; Malaysia; Pakistan; the Philippines; Singapore; Taipei,China; and Thailand. Overall, the offers from both developed and developing economies focused primarily on business and financial services and to a lesser extent on telecommunications and tourism (Marchetti and Roy 2008). Scant progress was made on key areas such as professional services, maritime transportation, construction, distribution, healthcare, and environmental services (Marchetti and Roy 2008, Borchert et al. 2011).

The May 2008 report identified the main problems in the Doha Round as the participants' ambitions, their reluctance to bind existing and improved levels of market access and national treatment, and limited offers with respect to the treatment of services and modes of supply of export interest to developing countries (especially Mode 4). Left unsaid was the sad truth that the negotiations on services did not progress very far because many developing-economy participants insisted on agreement on the modalities for liberalizing agriculture and non-agricultural market access before seriously engaging in talks on services. Substantive negotiations on services thus never really got started.

In July 2008, the Chair of the Trade Negotiations Committee convened a "signaling conference" to assess the progress that had been made and how the

current offers on liberalizing trade in services might be improved. The chair's report indicates that participants were prepared to issue new or improved offers and identified 13 services in which these improvements could be made. Particular attention was given to business and financial services, telecommunications, and environmental and energy services. Discussions on audiovisual, distribution, education, and healthcare services were fairly shallow; only a few participants signaled a "general" interest in further liberalization, and no concrete offers or recommendations were made. Despite indications of a willingness to undertake additional liberalization, new, substantive offers were not forthcoming. In April 2011, the chair's report concluded that no significant progress had been made since July 2008, and that sizeable gaps remained between offers and requests.

Ongoing research by the World Bank (Gootiiz and Mattoo 2009, Hoekman and Mattoo 2011) shows that the Doha Round offers were on average twice as restrictive as policies currently applied by WTO members; however, South Asian offers did significantly improve upon their Uruguay Round commitments. In contrast, the East Asian and the Pacific offers did not improve much on existing policies (Borchert et al. 2011), and Bangladesh, Cambodia, Mongolia, and Viet Nam did not submit any offers on services. In sum, if the Doha Round had been concluded with the offers that had been made, the agreement would not have achieved much new liberalization in services but would have locked in some of the reforms that participants had already implemented (Hufbauer et al. 2010).

2. Foregone Benefits of a Doha Round Deal

To be blunt, WTO negotiators lost a great opportunity by keeping service negotiations on the sidelines for most of the Doha decade. This tactical blunder contributed importantly to the impasse in the Doha Round and prevented participants from reaping substantial trade and welfare gains. Table 6.5 summarizes the findings on the extent of that loss by the Centre d'Etudes Prospectives et d'Informations Internationales (CEPII) on behalf of the European Commission, the Peterson Institute for International Economics, and the World Bank.

Quantifying barriers to trade in services is complex, and negotiating strategies to create equal treatment necessarily must traverse a fine line between "legitimate" regulatory constraints (e.g., prudential safeguards for financial services) and those that mask protectionist intent. In the academic literature, various methodologies are deployed to measure the level of restrictiveness or openness of trade regimes and to calculate the tariff equivalent of regulatory barriers to trade in services. Estimates for average tariff equivalents of service trade barriers generally are much higher than those applied to non-farm goods

Table 6.5
Summary of Studies on Gains from Liberalization in Service Trade

Study	Methodology	Main Findings
Centre d'Études Prospectives et d'Informations Internationales (CEPII), 2011	• Dynamic computable general equilibrium (CGE) model to compare the trajectory of the world economy with the liberalizations outlined in the Doha Development Agenda (DDA), to a dynamic baseline scenario where the DDA is not concluded. • Use draft modalities from December 2008, and updated in April 2011. • Assume 3% reduction in barriers in services trade. • Tariff equivalent barriers of services are from CEPII (Fontagné et al. 2011). • Services barriers take two forms: – An export tax in the case of communication and transport services. – Additional iceberg trade cost in the case of other services. • The scenarios are implemented in 2012. Phasing out is applied linearly over 5 years for developed countries, and 10 years for developing and recently acceded countries 12 years.	**World:** • The estimated GDP gains from a 3% reduction in services barriers are $15 billion, or 10 percent of total GDP gains (agriculture plus+ non-agricultural market access [NAMA] plus+ services). • Services exports would increase by $34 billion, or 10% of total exports. **Asia:**[a] • The estimated GDP gains are $4.8 billion, or 32% of total GDP gains from services liberalization. • Results show that services exports for all Asian countries, except India, will stagnate. – The largest sectoral gains in terms of value added are in construction and transportation. – The PRC accounts for 16% of these gains, followed by ASEAN, which accounts for 6%.
Peterson Institute for International Economics (PIIE), 2010	• Partial equilibrium analysis to calculate the impact of a 10% reduction in barriers to services trade for a sample of 21 countries.[b] • Use tariff equivalent barriers estimates reported in Wang et al. (2009), with adjustments to a few of the tariff equivalent values. • Assume the 10% reduction could be achieved by various changes in policies across countries, and that these would be binding commitments in the General Agreement on Trade in Services (GATS) schedules that actually lower the applied level of services barriers.	**World:** • The estimated gains in GDP from trade gains (exports plus imports) amounts to $45.5 billion. **Asia:** • Services exports (among the sample 21 countries) are estimated to increase by $11.5 billion. The PRC accounts for approximately 30% of these exports; Japan and the Republic of Korea account roughly 20% and 15%. • Imports would increase by $21.5 billion. The PRC accounts for 34% of this total and India accounts for roughly 20%.

World Bank, 2011	• A survey of applied trade in services policies in 32 developing countries and 24 OECD countries. • Compares applied policies with these countries' GATS commitments in services, and the best offers that they have made in the current Doha negotiations. • Summarizes key restrictions in each sector to construct restrictiveness index for services trade policies. • These are then mapped on a 5-point scale ranging from 0 (no restrictions) to 1 (highly restricted). • Sector results are aggregated across modes of supply using weights that reflect the relative importance of the different modes for each sector.	**World:** • The best offers submitted in the Doha negotiations improve on Uruguay Round (UR) commitments by 10% but are on average 2.3 times more restrictive than actual policies in the respective countries. • Overall actual policy is substantially more liberal than UR commitments, and Doha offers improve somewhat upon UR commitments, but the offer gap still remains large.[c] **Asia:**[d] • Southeast Asian Region (SAR) has a services trade restrictiveness index (STRI) of 40.7, while East Asia and the Pacific (EAP) has an STRI of 39.9 (the highest STRI after the Middle East and North Africa, and Gulf Cooperation Council groupings). • SAR and EAP countries have restrictive policies in place. However, the Doha offers submitted by SAR countries improve more on their UR commitments than the Doha offers submitted by EAP countries. • At the sector level Doha offers from SAR and EAP are the most in telecommunications and maritime shipping. They offer the least in retail distribution, maritime auxiliary, and professional services.

ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product, OECD = Organisation for Economic Co-operation and Development, PRC = People's Republic of China.

[a] Asia refers to ASEAN; the PRC; India; Japan; the Republic of Korea; Taipei,China; and "rest of Asia" (Bangladesh, Pakistan, Sri Lanka, Afghanistan, Bhutan, the Maldives, and Nepal).

[b] Includes Argentina, Australia, Brazil, Canada, the PRC, Colombia, the European Union, India, Indonesia, Japan, the Republic of Korea, Malaysia, Mexico, Norway, Pakistan, the Philippines, South Africa, Switzerland, Thailand, Turkey, and the United States.

[c] The "offer gap" refers to Doha offers minus actual policies.

[d] The author aggregates "Asia" into two regions; Southeast Asia Region (SAR) and East Asia and the Pacific (EAP).

Sources: Borchert et al. (2011); Decreux and Fontagné (2011); Hufbauer et al. (2010).

and range from single digits for the US and the European Union (EU) to more than 60% in developing Asia (Hufbauer et al. 2010, Table B2).

The authors of the CEPII study (Decreux and Fontagné 2011) used the tariff equivalents estimated by Fontagné et al. (2011) for 9 services and 65 countries based on the Global Trade Analysis Project and computed the average protection applied by each importer using a fixed-effects methodology. Overall, they found that developed countries had the lowest levels of protection in services and that transport was the most liberalized and construction was the most protected.

The CEPII authors applied these tariff equivalents to their model and assumed a 3% reduction in protection in all industrialized, Latin American, and Asian economies (excluding Central Asia). Their results showed that the largest gains in terms of additional exports would be in the EU at roughly $15 billion of additional exports representing more than half of their projected increase in world trade in services. Exports of services from Asian economies would stagnate except in India where an additional $120 million of exports was estimated as a result of liberalization. In terms of the impact on value added in services in Asia, construction and transportation would benefit the most and financial and business services the least.

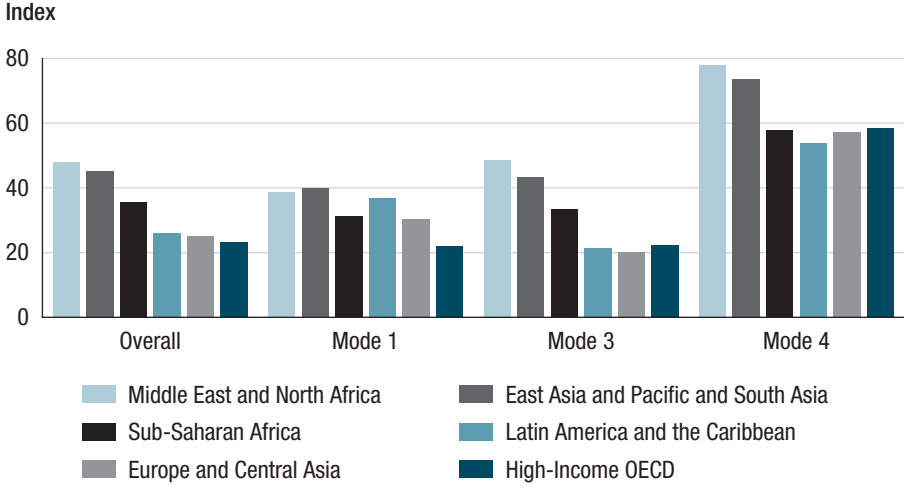
In the Peterson Institute analysis conducted by Hufbauer et al. (2010), the authors placed special emphasis on the findings on tariff equivalents reported by Gootiiz and Mattoo (2009). Since those results were available only regionally, however, the authors used the country results reported by Wang et al. (2009) to make their calculations with adjustments in certain countries. OECD members had the lowest barriers to trade in services while in Asia, the PRC, India, Indonesia, and Pakistan had the most restrictive barriers in place. If WTO liberalization resulted in a 10% reduction in the tariff equivalent of service trade barriers, total world exports and imports of services would each increase by around $50 billion. Developing countries would garner significant gains: an additional $35.3 billion in imports and $16.1 billion in exports. Among those countries, the PRC and India would see the largest boost in trade, with total imports and exports growing by $16.4 billion and $9.8 billion respectively and accounting for about half of the trade gains for all developing countries (see Table 1.2 in Hufbauer et al. 2010). The increased exports and imports would in turn generate permanent annual gross domestic product (GDP) gains of more than $20 billion for developing countries or about half of the estimated global GDP increase from reforms in trade in services. Again, the PRC and India would garner about half of the total GDP gains accruing to developing countries.

The World Bank study (Borchert et al. 2011) used its ongoing research on actual or applied trade policies in services for 56 countries in 5 areas: financial services, telecommunications, retail distribution, transportation, and selected professional services. The most relevant modes of supply were included for each

service. For example, for financial and professional services, the authors included commercial presence (Mode 3) and the movement of natural persons (Mode 4) in professional services. To measure the restrictiveness of service trade policies, the authors compiled a summary of key restrictions for each service-mode combination. From this the authors assessed policy regimes and mapped them onto five broad categories ranging from completely open to completely closed with variations in between that took into account the requirements for entry and operation. Each regime was then assigned a service-trade restrictiveness index on a scale from 0 (completely open) to 100 (completely closed).

In their previous work, Gootiiz and Mattoo (2009) compared the policies in place in South Asia and East Asia and the Pacific with those in five other regions. Their results showed that Asian and Pacific economies had the most restrictive policies in place compared with those in Latin America, Africa, Eastern Europe, and OECD members. The only region that had higher barriers was the Middle East and North Africa (Figure 6.2). By delivery mode, on average Asia and the Pacific had the most restrictive policies on the cross-border supply of services (Mode 1), albeit only marginally more so than those of the Middle East and North Africa. Barriers to trade via commercial presence (Mode 3) and movement of

Figure 6.2
Services Trade Restrictions Index by Region



OECD = Organisation for Economic Co-operation and Development.

Note: Regional Services Trade Restrictions Index (STRI) is calculated as simple averages of individual country's STRI.

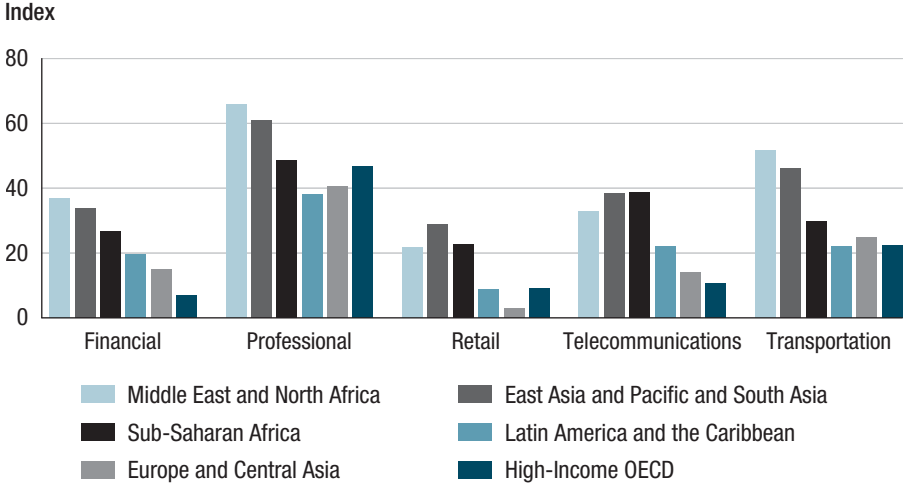
Source: World Bank. Services Trade Restrictions Database.

natural persons (Mode 4) were also high compared with other developing regions except for the Middle East and North Africa. There was much more variation in levels of restrictiveness on service types. The authors found, for example, that East Asia and the Pacific had relatively low barriers in retail services, whereas retail was one of the more protected services in OECD members.[8]

The 2011 study found that developing countries had significantly liberalized their service sectors over the past 10 to 20 years with notable improvements in telecommunications and financial services. The authors did, however, find that substantial protectionist policies remained in transport and professional services in both developing and developed economies. This was especially true in Asia where trade in professional services was the most restricted followed by transportation and telecommunications in East Asia and the Pacific and financial services in South Asia (Figure 6.3).

An analysis of the policies in place in South Asia and in East Asia and the Pacific showed that both regions had equally restrictive policies; however, East Asia and the Pacific had a smaller binding gap than South Asia meaning their applied policies were closer to their Uruguay Round commitments. The Doha Round offers submitted by South Asian countries significantly improved upon Uruguay Round

Figure 6.3
Services Trade Restrictions Index, by Sector and Region



OECD = Organisation for Economic Co-operation and Development.

Note: Regional Services Trade Restrictions Index (STRI) is calculated as simple averages of individual countries' STRI.

Source: World Bank. Services Trade Restrictions Database.

commitments—especially those offers submitted by India and Pakistan—while the offers submitted by East Asian and Pacific economies did not improve significantly on their Uruguay Round commitments (Borchert et al. 2011).

D. Prospects Going Forward

The Doha Round negotiations have made little progress in increasing market access and in reducing barriers to trade in services for two broad reasons. First, they were linked to the successful outcome on two other pillars (agriculture and non-agricultural market access) and were not seriously addressed as participants tried to resolve the more contentious issues in those areas. Second, the prospective gains from the WTO negotiations seemed to be distributed unevenly prompting participants to conclude that they would not justify the domestic political risk of seeking changes in existing policies (Schott 2011). As a result, negotiations on services stagnated; the offers that were submitted were shallow. The most protected services were not subjected to substantive negotiations, and the offers did not reflect the liberalization that had already taken place (Borchert et al. 2011). The lack of substantial progress has led to a number of proposals to move away from offer-request negotiations to a plurilateral approach.

In the past, most of the liberalization in trade in services has taken place unilaterally or by including a service component in preferential trade arrangements. Hoekman et al. (2010) found that "applied" service policies (i.e., those currently in effect) are more liberal than the liberalization commitments made by WTO members in the GATS. In other words, countries provide more open access to their markets than they are willing to guarantee through multilateral trade obligations. Similarly, Roy et al. (2007) and Marchetti and Roy (2008) found most preferential agreements cover more than their GATS commitments do though the latter study showed that many Asian countries have made limited "GATS-plus" commitments in their preferential agreements. For example, ASEAN members like Indonesia, Malaysia, and Thailand have not improved much on their GATS commitments; the same is true for India and to some extent the PRC. In fact, very few Asian countries have made significant improvements on their existing GATS commitments. Singapore, in contrast, has made significant reforms in trade in services by introducing new binding commitments for cross-border trade and commercial presence that go beyond what was negotiated in its GATS schedule.[9]

In large measure, the Uruguay Round effectively bound existing policies, ensuring that WTO members would not introduce new protectionist measures in areas covered by GATS commitments. If the Doha Round had concluded, it would have had the same effect; however, now that its conclusion seems unlikely,

future liberalization will likely take place through three channels: the unilateral removal of barriers to trade; preferential trade agreements that include a service component; and/or a plurilateral accord that could set the course for new multilateral trade obligations. We examine the two most promising initiatives: negotiations on the Trans-Pacific Partnership (TPP) and on an international service agreement (ISA).

1. The Trans-Pacific Partnership

In the absence of progress in the Doha Round, the TPP is the most comprehensive trade agreement currently under negotiation. TPP negotiations began in March 2010 and currently involve 11 countries: Australia, Brunei Darussalam, Canada, Chile, Malaysia, Mexico, New Zealand, Peru, Singapore, the US, and Viet Nam. Japan and the Republic of Korea may join the talks in 2013. In that event, the TPP would be even more substantial, covering 13 countries with a combined GDP of $28 trillion and more than $6 trillion in exports of goods and services.

Ultimately the TPP is expected to become a central pathway toward the long-term goal of the Free Trade Area of the Asia–Pacific envisaged by Asia–Pacific Economic Cooperation (APEC) leaders almost 2 decades ago. Adding new members will be a challenge, but if successful, the expansion would achieve meaningful progress in removing barriers to trade in services and could give a significant boost to exports. Estimates by Petri et al. (2012) indicate that the TPP would lead to a 2.7% increase in exports of services by 2025, while expanding the TPP to other APEC countries would boost that figure to almost 18%.

Under the TPP agreement, services are negotiated as part of the overall "high-standard" agreement mandated by TPP leaders. Liberalization in services is negotiated on a negative-list approach which basically requires participants to schedule "non-conforming measures" that would not be covered by TPP obligations (Elms and Lim 2012). Such an approach would provide maximum coverage of MFN, national treatment, and transparency obligations and thereby augment rules and market access commitments already embodied in the GATS. Negotiators also are seeking to improve transparency and to streamline regulations to ensure they are not unnecessarily burdensome.

To those ends, officials will likely look to existing agreements like the KORUS and the New Zealand–Malaysia FTAs for negotiating precedents. The KORUS FTA contains very high standards on financial services, insurance, and express delivery services while the New Zealand–Malaysia FTA contains GATS-plus market access commitments in education, environment, maritime, tourism, management consulting, and veterinary services. If the TPP includes such provisions, it will substantially upgrade the breadth and quality of liberalization in

trade in services undertaken by participating countries in their existing bilateral and regional trade pacts.

2. An International Service Agreement

At a conference in June 2011, the Services Task Force of the Pacific Economic Cooperation Council and the Asian Development Bank Institute (PECC and ADBI 2011) produced a report in favor of a plurilateral approach to negotiating an agreement on services outside the Doha Round. The Council included this question in its 2011 annual survey of opinion leaders: "Should APEC members take the lead in promoting a plurilateral agreement on services?" Responses were overwhelmingly positive: 72% of all those who answered responded yes and only 5% dissented. This positive response was shared to almost the same degree by government officials (70%) and by business leaders (76%).

In January 2012, the idea of a plurilateral agreement on services began to take shape when a group of self-selected industrialized and advanced developing economies held their first planning session in Geneva on how to advance liberalization of trade in services. The initial group of 16 was joined by an additional two at the next meeting in March 2012, and Israel and Turkey joined in May 2012. The group now includes Australia; Canada; Chile; Colombia; Costa Rica; the EU; Hong Kong, China; Israel; Japan; the Republic of Korea; Mexico; New Zealand; Norway; Pakistan; Peru: Singapore; Switzerland; Taipei,China; Turkey; and the US. The goal of the group is to develop an ISA within the WTO but outside the Doha Round negotiations that will establish new rules governing trade and investment in services and will broaden market access commitments. The group has not yet decided whether such liberalization would be implemented on an MFN or on a conditional MFN basis. Actual negotiations are unlikely to begin until 2013 (Inside US Trade 2012).

The payoffs of such an ISA would be significant. According to Hufbauer et al. (2012), a 50% cut in tariff-equivalent barriers to trade in services could add $78 billion in exports among the current ISA participants. The Asian economies participating in the talks account for over a third of these gains, and important developing economies such as Indonesia, Malaysia, and Thailand and larger ones like the PRC and India are not yet involved. Including them in the ISA would substantially boost export gains and would benefit developing Asian economies that have done very little to liberalize services, particularly infrastructure and financial services, and that would stand to gain substantially from opening up trade.

Before negotiations on an ISA can advance very far, however, participants need to address two basic issues: should the agreement follow a negative- or a

positive-list approach to scheduling concessions, and should obligations be applied on a conditional or an unconditional MFN basis. Ideally, the agreement would move away from the GATS positive-list approach and adopt a negative-list negotiating modality. Under the negative-list approach, all services and measures are included in the agreement, and generally all of the disciplines apply to them without limitations unless otherwise specified. The positive list allows each country to select which services will be included and what type of market access and treatment each will receive. The positive-list approach is more limiting with regard to the coverage in each participant's schedule. In contrast, the negative-list approach obliges participants to review the entire range of regulatory measures and restrictions in the service sector and to identify those that should be placed on a list of "non-conforming" measures (i.e., those measures or services where the core disciplines of market access, national treatment, and unconditional MFN will not be applied).

Regarding conditional or unconditional MFN treatment, Article II of the GATS spells out an unconditional MFN obligation between all WTO members but allows members to make exemptions; however, if the ISA is outside the WTO, it need not apply unconditional MFN to non-members. Conditional MFN treatment may be the wiser choice in this agreement considering the fact that several important countries have not yet agreed to participate and would be "free riders" on prospective liberalization if the accord is implemented on an MFN basis.

E. Conclusion

To date, trade negotiations have focused more on dismantling barriers to merchandise trade than on barriers to trade in services and investment. This lack of attention can be attributed in part to the nature of and difficulty in identifying and understanding those impediments. Service data are incomplete and too aggregated to provide the kind of information needed to understand the detailed characteristics of the service sectors in each economy. It is thus hard to develop and assess negotiating strategies without solid estimates of the restrictiveness of specific service trade barriers and the impact of negotiated obligations and commitments in trade agreements on the ability of service providers to trade and invest in a specific market. We nevertheless offer three main findings.

First, FTAs negotiated between developing and developed countries have produced more substantial commitments to liberalize services than those negotiated between developing countries. This is evident from the analyses of the five FTAs considered in this chapter. FTAs like the ASEAN and PRC–ASEAN initially focused on dismantling barriers to merchandise trade

and addressed barriers to service trade and investment only years later in a supplemental agreement. Even then, intra-Asian arrangements cover services to a limited degree. For example, there has been scant progress in key services such as professional services and telecommunications in East Asian and Pacific economies and little liberalization in financial services in South Asia (Borchert et al. 2011).

Second, multilateral negotiations on services also have underperformed. In the Doha Round, the insistence by developing-economy participants that modalities for liberalizing agriculture and non-agricultural market access be completed before seriously engaging in talks on services meant that substantive negotiations never really got started. In the Doha Round, 13 Asian participants presented initial offers that did not presage changes in existing barriers to trade and investment. In contrast, evolving initiatives in trade in services in Asia and the Pacific and plurilateral proposals in the WTO seek to achieve more substantial trade and investment reforms across a broader range of services, particularly infrastructure services that are important contributors to productivity growth across the economy.

Third, developing Asia has not been active in service trade negotiations in the GATS/WTO and has undertaken only token obligations in regional trade arrangements. In most instances, these commitments have codified current practices and have not helped propel domestic economic reform. However, there is something to be said for the importance of policy predictability in encouraging investment, so making current restrictive policies more transparent and locking them in may have positive, though hard to quantify, benefits.

To that end, we advocate a stronger effort by developing Asian economies to make negotiations on services a priority in their regional arrangements and to expand the coverage of services in those pacts to a broad range of infrastructure services that are included in other FTAs in force or under construction like the TPP. In addition, they should volunteer to participate in prospective new plurilateral service initiatives like the ISA and should seek to include obligations for developed country signatories to provide administrative and technical support to help developing Asia establish and implement the required new regulatory regimes.

Notes

1 The four modes of supply for service delivery in the GATS are Mode 1: cross-border trade; Mode 2: consumption abroad; Mode 3: commercial presence; and Mode 4: the movement of natural persons.

2 Under a positive-list approach, a country lists each service type and mode of supply in its national schedule indicating what type of access and what type of treatment they are willing to offer foreign suppliers. Under a negative-list approach, all service industries are subject to liberalization unless indicated in a list of reservations or non-conforming measures.

3 Doing so will require ASEAN countries to keep pace with new trends and technological innovations, to benchmark international standards for greater efficiency and competitiveness, and to build up human capital (ASEAN Secretariat 1995).

4 W/120 is a comprehensive list of 160 service industries covered under the GATS compiled in July 1991 by the WTO to facilitate the Uruguay Round negotiations (http://unstats.un.org/unsd/tradekb/Knowledgebase/Sectoral-Classification-List-W120).

5 http://www.aseansec.org/25795.htm

6 The program covered eight categories of agricultural products with some exclusions. The Philippines is the only ASEAN member that did not participate.

7 Installers or servicers include persons who install or service machinery and/or equipment. The installation or servicing is done by the supplying company as a condition of purchase.

8 Guillin (2011) found similar results. For example, East Asian economies had much lower tariff-equivalent barriers in travel and business services than OECD members; however, the opposite was true for computer and government services where East Asian economies had much higher tariff-equivalent barriers.

9 Under a scoring system developed by Marchetti and Roy (2008), where 0 represents no commitment and 100 indicates full commitment in all services across modes 1 and 3, Singapore doubles its "score" on service commitments from roughly 25 in GATS to over 80 in its FTAs.

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CHAPTER 7

The Service Sector in Lower-Income Asian Economies

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Abstract

In the past 10 years, the service sector has been a significant contributor to overall economic growth in Bangladesh, Cambodia, Nepal, Papua New Guinea, Uzbekistan, and Viet Nam. Service sector growth has been supported by strong industrial growth in some while in others the critical factors have been liberalization, structural reforms, government support, and foreign investments. To increase the labor productivity of the sector and to realize its potential to contribute to inclusive growth, these countries must address the lack of human capital and the high costs of setting up new businesses and of doing business that stifle entrepreneurship and private enterprise. These impediments also stand in the way of developing the industry sector and of broader economic growth and development. Policy reforms that ease those impediments will help to achieve balanced growth in which the service and industry sectors support and reinforce each other. As services tend to be more labor intensive, they can foster inclusive growth by serving as an engine for job creation.

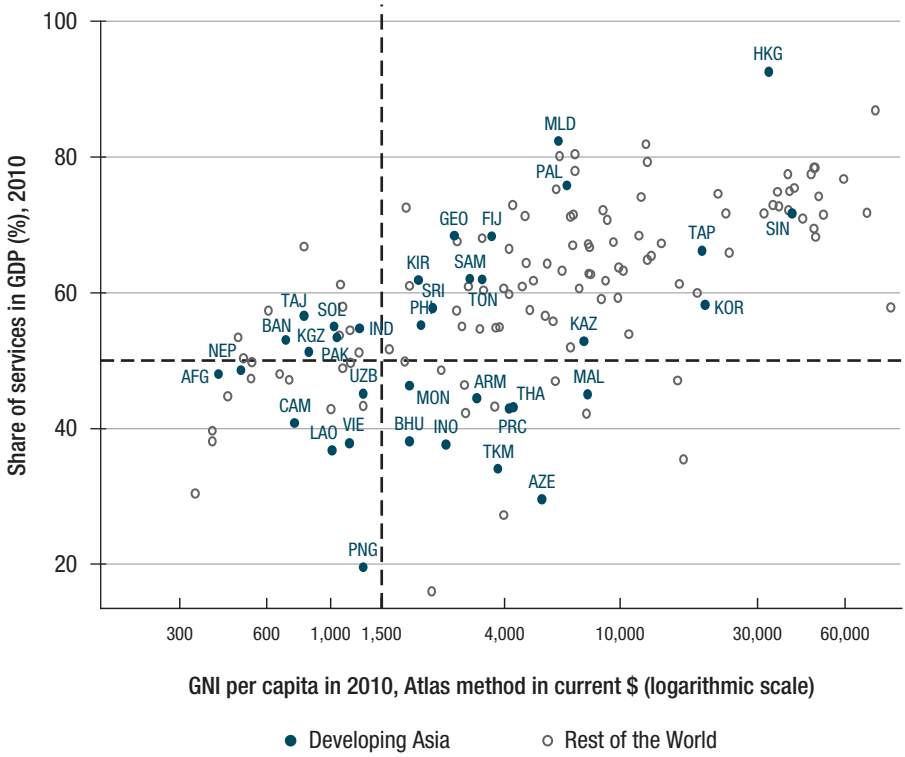
A. Introduction

In general, the share of the service sector in gross domestic product (GDP) tends to rise with per capita income and tends to be smaller in lower-income countries (Figure 7.1). In developing Asia, however, the sector's share in lower-income economies varies from 20% to 57%. We define lower-income economies as those with per capita incomes of $1,500 or less in 2010 and that belong to the lower third of the per capita income distribution in the region. While Cambodia, the Lao People's Democratic Republic (Lao PDR), Papua New Guinea, Uzbekistan, and Viet Nam have service output shares that are low relative to other economies at similar income levels, Bangladesh, India, the Kyrgyz Republic, Nepal, Pakistan, and Tajikistan have shares of around 50% or more. What is common among the first set of countries except for Cambodia is their relatively high levels of industrialization: industry's share of output ranges between 30% and 45% compared to only 15%–30% in the latter set of countries. Therefore, there are some lower-income countries where the share of services in GDP is relatively low but the share of industry is comparable to or even higher than in countries at higher income levels.

In some lower-income economies, strong service sector growth has been supported by a rapidly growing industry sector. Although still relatively small, if recent growth trends continue, their service sectors are expected to expand substantially in the coming years. The sectors in Uzbekistan and Viet Nam grew in the past 5 to 6 years at an annual average of 13% and 8%, respectively, and their industry sectors have rapidly expanded as well leading to strong overall economic growth. The service sector in Cambodia in the same period grew about 7% a year which was equal to the growth of its industry sector. Despite its small service economy, the average growth of 9.5% in Papua New Guinea was higher than its industrial growth of 7.9% in the same period.

Other factors that have helped service sector development in lower-income countries in addition to industrial growth were liberalization, structural reforms, explicit government incentives, foreign investment, and service trading. In Viet Nam, liberalization led to the rapid expansion of the retail, telecommunication, and transportation industries. In addition, the country's entry into the World Trade Organization in 2007 and several bilateral trade agreements have led to higher foreign direct investment (FDI) in services. In Papua New Guinea, the removal of the state monopoly in the mobile telephone market, greater competition in the aviation industry, and structural reforms in the finance sector contributed to robust output and employment growth in the service sector. In Uzbekistan, direct government support for services was provided through tax incentives to small businesses in financial and banking

Figure 7.1
Service Output Shares at Various Per Capita Income Levels



AFG = Afghanistan; ARM = Armenia; AZE = Azerbaijan; BAN = Bangladesh; BHU = Bhutan; CAM = Cambodia; FIJ = Fiji; GDP = gross domestic product; GEO = Georgia; GNI = gross national income; HKG = Hong Kong, China; IND = India; INO = Indonesia; KAZ = Kazakhstan; KGZ = Kyrgyz Republic; KIR = Kiribati; KOR = Republic of Korea; LAO = Lao People's Democratic Republic; MAL = Malaysia; MLD = Maldives; MON = Mongolia; NEP = Nepal; PAK = Pakistan; PAL = Palau; PHI = Philippines; PNG = Papua New Guinea; PRC = People's Republic of China; SAM = Samoa; SIN = Singapore; SOL = Solomon Islands; SRI = Sri Lanka; TAJ = Tajikistan; TAP = Taipei,China; THA = Thailand; TKM = Turkmenistan; TON = Tonga; UZB = Uzbekistan; VIE = Viet Nam.

Sources: ADB. Asian Development Outlook database; World Bank. World Development Indicators database (both accessed 16 April 2012).

services as well as to insurance firms and to health and recreation centers. Incentives were also provided by the government to banks to extend loans to small and medium-sized enterprises (SMEs), including those in the service sector. In Cambodia, strong tourism has helped expand the country's hotels and restaurants, transport and communications, and retail trade industries.

In South Asian lower-income economies, the surge of service exports, particularly in information and communication technology (ICT) and related

industries has been an important driver of service sector development (Ghani 2010). ICT development can be largely attributed to regulatory reforms and foreign investments (Cecot and Wallsten 2010), but while the service sectors of South Asian economies have grown markedly, their industrial sectors have lagged far behind.

In this chapter we analyze the service sectors in Bangladesh, Cambodia, Nepal, Papua New Guinea, Uzbekistan, and Viet Nam including an overview of the sector, the main barriers to growth, and policy options to unleash its potential to contribute to inclusive growth.

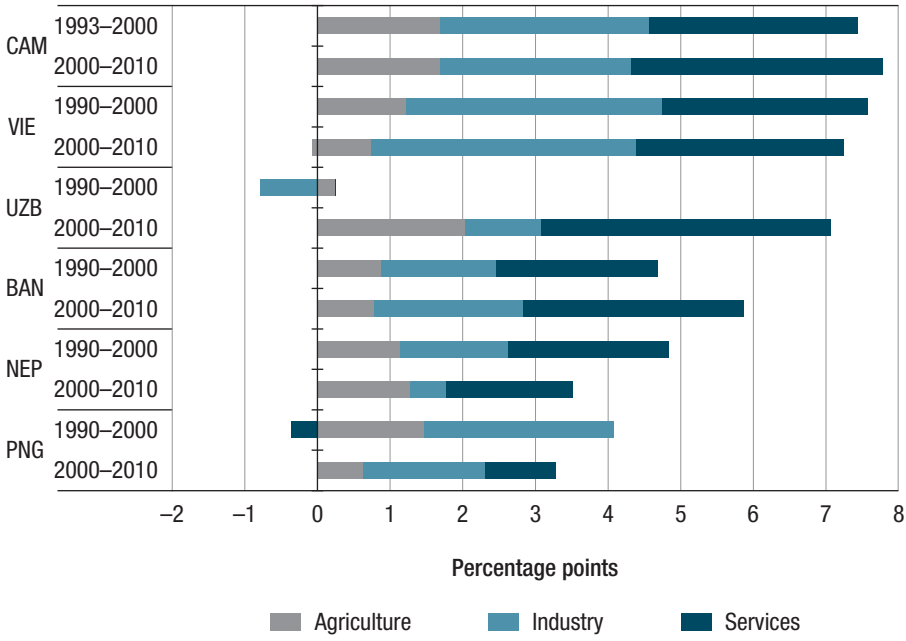
B. Country Experiences

In the past 10 years, the service sector has been a huge contributor to overall growth across economies in developing Asia (Chapter 1). This pattern is also evident in some lower-income economies in the region. In Bangladesh, Cambodia, Nepal, and Uzbekistan, services contributed more to growth than either industry or agriculture did from 2000 to 2010. What is striking about these economies is that compared to the 1990s, growth proceeded more rapidly from 2000 to 2010 with the service sector as the key driver overall (Figure 7.2). In Papua New Guinea and Viet Nam, industry contributed more to growth, but services still contributed significantly at about 30% and 40%, respectively. The service sector constituted 53% of the output in Bangladesh in 2010 compared with 48.3% in 1990; 48.5% in Nepal compared with 32.1%; and 45.1% in Uzbekistan compared with 34.3% (Figure 7.3). These figures are higher than those of the People's Republic of China (PRC) but somewhat comparable to those of Malaysia.

A key issue is whether growth in the service sector has led to significant job creation and to improvements in productivity. In terms of employment, low-income economies are still primarily agricultural, but there is some evidence that services have contributed substantially to employment growth in the past decade. In Bangladesh, services contributed to about one-third of the growth in employment from 2000 to 2010 which was more than industry did. In Viet Nam, the contribution of services to employment growth was close to that of industry at around 50% for about the same period while in Cambodia, the contribution to employment growth between 2000 and 2008 was only about 23%, but it was still more than double that of industry.

As shown in Chapter 1, the productivity of the service sector in developing Asian economies is much lower than that of advanced countries with lower-income economies having the biggest productivity gaps, and as in Asia's middle-income economies, traditional services dominate. Modern financial services

Figure 7.2
Contributions to Economic Growth by Sector in Selected Asian Economies

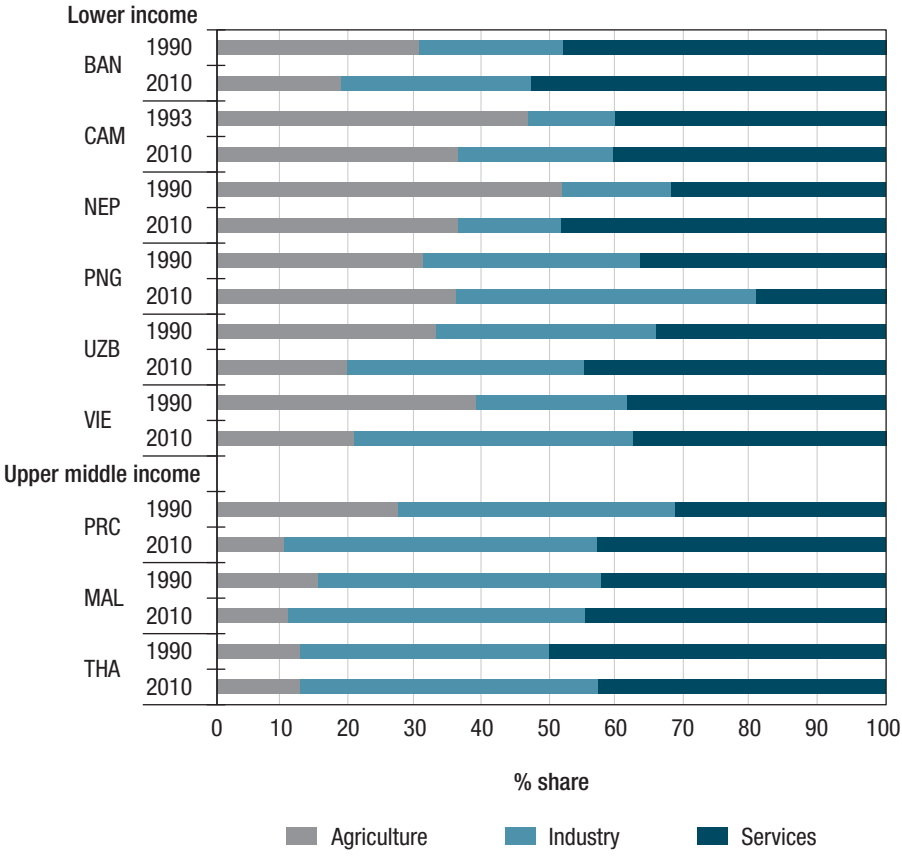


BAN = Bangladesh, CAM = Cambodia, NEP = Nepal, PNG = Papua New Guinea, UZB = Uzbekistan, VIE = Viet Nam.
Source: Authors' estimates based on data from the World Bank's World Development Indicators database (accessed 16 April 2012).

account for only 2%–4% of the total value added to lower-income economies compared with 4%–8% in the PRC, Malaysia, and Thailand (Table 7.1). As a share of output, the service sectors of Bangladesh, Cambodia, Nepal, and Uzbekistan are already comparable to or even greater than those of the upper middle-income economies, but they need to raise their productivity levels as our estimates indicate that they are only about 22%–30% of the average for the PRC, Malaysia, and Thailand. Their low-income levels imply great potential to catch up and for productivity increases as Park and Shin empirically demonstrate in Chapter 2.

Although the service sectors of lower-income economies are expanding, the dominance of traditional activities clearly indicates that they remain in the "first wave" of sector growth according to Eichengreen and Gupta (2009). As their study highlights, the transition to the "second wave" in which modern services become more important requires more openness to information technologies and taking advantage of opportunities for cross-border trade in services.

Figure 7.3
Output Shares by Sector in Selected Asian Economies



BAN = Bangladesh, CAM = Cambodia, MAL = Malaysia, NEP = Nepal, PNG = Papua New Guinea, PRC = People's Republic of China, THA = Thailand, UZB = Uzbekistan, VIE = Viet Nam.

Source: Authors' estimates based on data from the World Bank's World Development Indicators database (accessed 16 April 2012).

The increasing globalization of services provides a huge opportunity for lower-income economies to harness growth by developing their sectors. Using the experience in South Asia, Ghani (2010) highlights that globalization of service exports provides opportunities for developing countries to find areas outside manufacturing where they can specialize and achieve dramatic growth. Lower-income economies can learn from the experience of India which has successfully exported business process outsourcing services. One key factor that has driven India's success is human resources, particularly the size and competence of its

Table 7.1
Share of Services in Value Added in Selected Asian Economies, 2010

Economy	Total Services	Wholesale and Retail Trade	Hotels and Restaurants	Transport, Storage, and Communication	Financial Services	Real Estate and Business Services	Public Administration, Community, Social, Personal, and Other Services
Lower income							
Bangladesh	53.0	14.9	0.8	10.7	1.8	6.8	17.9
Cambodia	40.7	9.9	4.8	8.1	1.5	5.8	10.7
Nepal	49.5	14.4	1.6	8.5	4.1	8.4	12.5
Uzbekistan	45.1	8.2	0.2	17.1	3.9	0.0	15.7
Viet Nam	42.9	16.4	4.6	4.8	2.1	4.0	11.1
Upper middle-income							
PRC	43.4	8.5	2.1	7.3	5.2	9.1	11.2
Malaysia	46.0	11.9	2.3	6.5	8.5	7.1	9.7
Thailand	43.0	13.1	4.7	6.8	4.1	2.3	12.0

PRC = People's Republic of China.

Note: While it would have been ideal to combine modern services (comprising communication, finance, and business services) into one group, this is not possible due lack of more detailed data for lower-income economies.

Source: Authors' estimates based on data from CEIC Data Company (accessed 5 December 2012) and Uzbekistan's State Statistics Committee.

workforce (Chapter 3). This indicates the need for lower-income economies to invest in their human capital to successfully take part in the global trade in services and to sustain sector growth.

In addition to addressing gaps in human capital, there are other barriers that lower-income economies need to overcome to unleash the potential of their service sectors. Policies that make it difficult to do business can severely limit growth in services as well as in the overall economy. Lower-income countries tend to fare poorly in terms of providing a conducive business environment.

For example, Papua New Guinea ranked 101, Cambodia ranked 138, and Uzbekistan ranked 166 out of 183 economies in the World Bank's *Doing Business* report in 2012. Heavy regulatory burdens, costly and unreliable supplies of basic utilities such as electricity, lack of a skilled workforce, and poor governance are all detrimental to the growth of the service sector. There is also a clear need to achieve robust industrial growth to generate opportunities for complementary service industries. For lower-income countries that have managed relatively high industrial growth alongside strong service sector growth, the challenge is to sustain the momentum in both.

1. Bangladesh

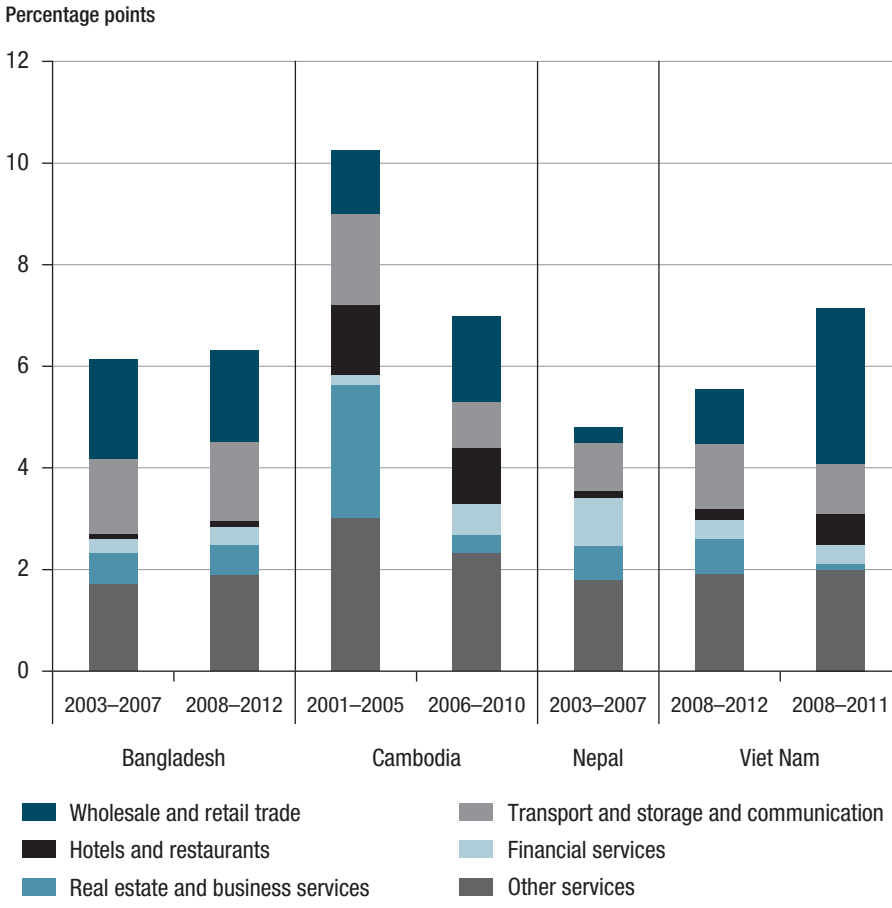
The annual growth rate of the service sector in Bangladesh reached 6.3% between fiscal year (FY) 2008 and FY2012, maintaining the momentum achieved from FY2003 to FY2007. Transportation, storage, communication, hotels and restaurants, and financial services all grew robustly. During the past 5 years, wholesale and retail trade accounted for 28.5% of service growth closely followed by transport, storage, and communication at 24.6% (Figure 7.4). Improvement in infrastructure, better macroeconomic management, and regulatory reforms in banking, telecommunications, health, and education all contributed to the strong growth in services.

Traditional services like wholesale and retail trade and transport and storage are more dominant than modern ones like financial services and telecommunications although lately the latter has been growing quite rapidly. In the last 5 years, output in financial services grew by over 9% a year. Employment in finance, business services, and real estate combined has also expanded at a faster rate in recent years (Figure 7.5).

The robust growth in financial services reflects the country's significant progress in delivering finance and improving financial inclusion after its pioneering work in microfinance. Bangladesh Bank (the central bank) strongly encouraged credit flows to marginal farmers, to those from underdeveloped areas, and to women through various measures such as expanding credit lines for SMEs, refinancing schemes with microfinance institutions, opening facilities for small depository accounts for farmers, and promoting mobile phone banking.

The liberalization of the telecommunication industry that began in the 1990s led to the industry's rapid growth in the past 5–10 years. Liberalization led to issuing more licenses to private sector operators and consequently to the rapid increase in demand for mobile phone subscriptions from 3.8 million in 2004 to 89.5 million as of March 2012.

Figure 7.4
Contributions to Service Sector Growth by Subsector in Bangladesh, Cambodia, Nepal, and Viet Nam



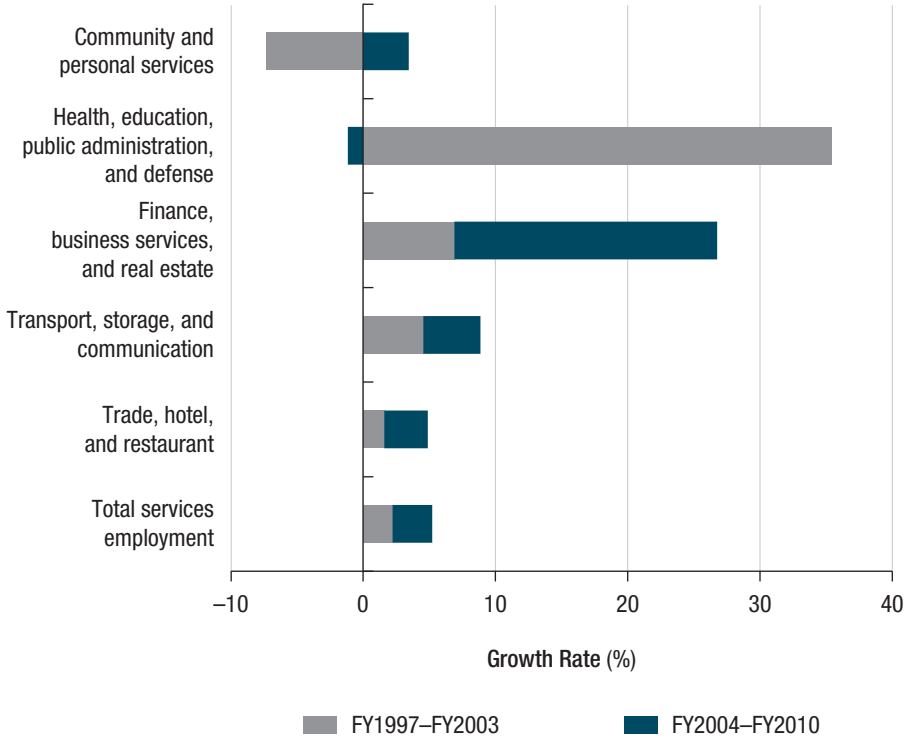
Note: Other services cover public administration, community, social, personal, and other services. Data for Bangladesh and Nepal refer to fiscal years.

Source: Authors' estimates based on data from CEIC Data Company (accessed 5 December 2012).

Like other South Asian countries, Bangladesh experienced a surge in ICT exports which increased from $24.8 million in 2000 to $458.7 million in 2011 and outperformed both Pakistan and Sri Lanka.

Notwithstanding recent gains, there are several factors that continue to inhibit more rapid growth in services. One key constraint is the poor quality of education, and another is the weak investment climate that restricts FDI inflow and transfers of technology to the service sector. To acquire the skills needed

Figure 7.5
Employment Growth by Service Industries in Bangladesh



FY = fiscal year.
Sources: Bangladesh Bureau of Statistics *Labour Force Survey*, various issues; ADB estimates.

to make the transition to higher value-added, modern services, investing in education and improving its quality are crucial. The country also needs to invest more in physical infrastructure and in providing basic utilities. There is also a need to improve the business climate through deeper policy and regulatory reforms. In financial services, systemic risks in the banking sector arising from liquidity pressures, limited prudential oversight, and weak bank governance must be addressed and risk management controls, most notably in state-owned commercial banks, must be adopted.

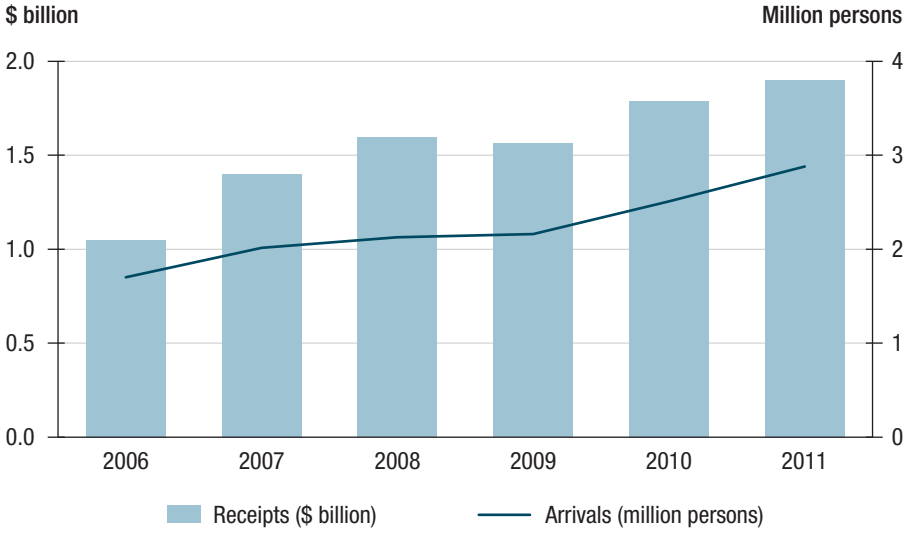
2. Cambodia

From 2006 to 2010, Cambodia's, service sector expanded by 7.0% annually which was slightly greater than the country's overall economic growth of 6.7%. As seen

in Figure 7.4, the growth in services was mainly driven by expanding wholesale and retail trade and by hotels and restaurants which altogether accounted for nearly 40%.

Cambodia's service sector has largely been driven by tourism which has been a major earner of foreign exchange and an important source of income and employment for the country's formal and informal sectors (Figure 7.6). In 2010, the tourism industry generated about 302,578 jobs (ADB 2005, 2010).[1] Large international tourism arrivals have supported the expansion of hotel and restaurant businesses, as well as other industries such as wholesale and retail trade and transport and communications, all three of which grew between 6% and 9% a year from 2006 to 2010.

Figure 7.6
Tourism Indicators for Cambodia, 2006–2011



Source: Ministry of Tourism.

A significant development in Cambodia's service sector has been in financial services. While they accounted for only about 1.5% of value added, this industry grew at a robust 17% annually from 2006 to 2010. Following the country's transformation into a market economy in the early 1990s, financial services expanded rapidly driven by strong private sector participation and supported by growing public confidence. Private sector credit increased to about 30% of nominal GDP in 2011 from 12.2% in 2006 and 6% in 2001. A recent development expected to further spur growth in financial services was the creation of the

Cambodian Securities Exchange in July 2011. Stock trading commenced on 18 April 2012 following an initial public offering of $21 million of shares in the Phnom Penh Water Supply Authority, one of three state-owned enterprises planned for listing in 2012.

In recent years, real estate has also seen significant developments. From 2005 to 2008, output expanded at 8.6% annually, but this led to overheating. With the onset of the global financial crisis and the subsequent lack of liquidity, in 2009 the prices of commercial and residential real estate declined by about 33% and 28%, respectively. Moreover, real estate output contracted from 2009 to 2010, but a doubling in the value of approved construction projects in 2011 suggests a degree of recovery.

As with other sectors in Cambodia, services remain hampered by (i) inadequate infrastructure like transport and basic utilities, especially in rural areas; (ii) the high cost of electricity as well as logistics and transportation costs; (iii) inadequate implementation of policies, laws, and regulations including numerous bureaucratic procedures; (iv) tax administration, governance, and corruption issues; and (v) lack of a skilled workforce and of institutional capacity. These constraints need to be addressed to drive down the cost of doing business and to further improve the competitiveness of the service sector.

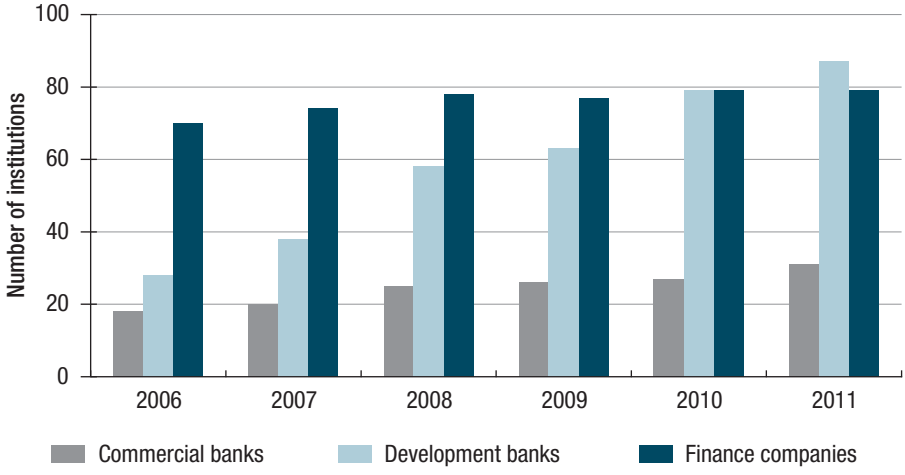
For the tourism industry, authorities should exert greater efforts to diversify and strengthen value chains including within the Greater Mekong Subregion and the Association of Southeast Asian Nations networks. This will enable the tourism industry to fully tap into regional markets and to improve its competitiveness.

3. Nepal

From FY2008 to FY2012, Nepal's service sector grew by an average of 5.6% per year which was greater than the growth in agriculture (4.1%) and industry (1.9%). Among the biggest contributors to that growth were wholesale and retail trade and transport, storage, and communications (Figure 7.4). Wholesale and retail trade has remained the biggest industry buoyed by strong remittance inflows and tourism earnings. The country's service sector demonstrated strong resilience to the global economic crisis despite its heavy reliance on tourism. To support tourism, campaigns such as the "Visit Nepal Year 1998" and "Nepal Tourism Year 2011" were initiated, although the latter seems to have attracted mostly budget tourists from neighboring countries as reflected by a significant rise in tourist arrivals without a commensurate rise in earnings.

The service sector is largely composed of traditional industries, but modern financial services are gradually gaining ground. As of FY2012, financial services

Figure 7.7
Number of Financial Institutions in Nepal, 2006–2011



Source: Nepal Rastra Bank (2011).

accounted for about 9% of value added, up from 6% in 2001. From FY2008 to FY2012, the output of financial services rose by 5.8% annually, supported by a growing number of banks and financial institutions (Figure 7.7). As of July 2011, there were 31 commercial banks, more than 80 development banks, and 79 finance companies; however, financial services exhibited some moderation in growth in FY2011 as deposits were reportedly shifted from big commercial banks to smaller financial institutions which led to frequent liquidity shortages and a rise in interbank rates. As seen in Figure 7.4, the contribution of financial services to total service growth declined from FY2008 to FY2012 compared with the previous 5-year period.

The surge in telecommunications was also behind the rapid growth in the service sector. Telecommunications reached approximately 50% of the population in 2011, up significantly from 8% in 2007.

Looking ahead, the sector's contribution to growth and poverty alleviation hinges on a number of factors including how the political scenario evolves and how electricity and fuel shortages and labor market rigidities and tensions are addressed. The timely conclusion of peace process and of the draft of the constitution will help to spur growth. There is a need to hasten reforms in the Nepal Electricity Authority and the Nepal Oil Corporation to help address energy shortages. The labor tensions that have caused frequent disruptions in the tourism industry should likewise be immediately addressed.

In financial services, sustained growth will primarily require a return of depositor confidence in the banking industry which has been adversely affected by liquidity crunches and by the dissolution of two banks in 2011. In this regard, the central bank needs to strengthen its supervisory capacity—efforts are underway in this regard—to ensure that proper corporate governance becomes the norm.

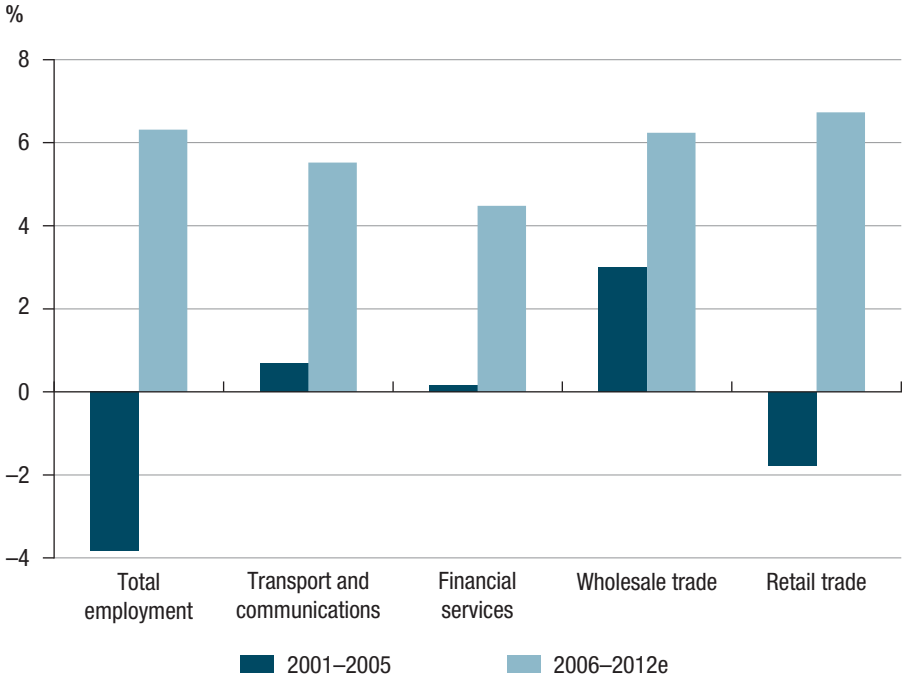
4. Papua New Guinea

Traditionally, Papua New Guinea's economy has been dominated by industry—which includes large mining and oil operations—and agriculture with cash crop exporters operating alongside much larger but highly diffused subsistence producers. In contrast, the service sector has remained small comprising mostly basic transport, finance, and logistics to support mining and agriculture as well as wholesale and retail trade. Over the last decade, however, this pattern has begun to change and the sector is beginning to diversify. Growth has been remarkable from an average of 2.8% per annum between 2001 and 2005 to an estimated 9.5% per annum between 2006 and 2012 which was greater than growth in the industry sector (7.9%). Finance and transport and telecommunications have been major drivers of this growth expanding by annual averages of 9.4% and of 21% respectively between 2006 and 2012.

Several factors have supported this impressive growth in services. The first was an unprecedentedly long period of macroeconomic stability. The economy recorded its 10th consecutive year of growth in 2011 averaging 5.1% annually. Improved macroeconomic conditions were complemented by structural economic reforms that revitalized the banking industry by privatizing the Papua New Guinea Banking Corporation, that strengthened superannuation legislation and its oversight, that improved financial regulations, and that established the central bank as an independent entity with a clear mandate for price stability.[2] In 2006, reforms were also undertaken in telecommunications with the removal of the state monopoly in the mobile telephone market. Increasing competition has also been progressively introduced into the aviation sector with a number of new service providers challenging the state-owned monopoly Air Niugini and reducing freight and passenger costs.

Service sector growth has enlarged employment opportunities. After shrinking by an average of 4% per year between 2001 and 2005, employment in the formal sector increased by 6% annually between 2006 and 2012 supported by an expanding service sector. In particular, employment in transport and telecommunications increased from an average of 0.7% from 2001 to 2005 to 5.5% from 2006 to 2012, while in the same period employment in financial services rose by 4.5% from almost no growth (Figure 7.8).

Figure 7.8
Employment Growth in Services in Papua New Guinea



e = estimate.
Sources: Papua New Guinea National Budget 2012; authors' estimates.

Notwithstanding these improvements, the service sector remains small, and the economy continues to generate insufficient employment opportunities outside of mining and agriculture. Asian Development Bank (ADB) estimates show that despite a decade of economic growth, less than 10% of the economically active population is currently employed in the formal private sector. The service sector also continues to be restricted by the high cost of doing business. Adding to this cost are weaknesses in government service provision with expensive and unreliable basic utilities, uncertain land ownership systems, low educational outcomes, and ineffective maintenance of law and order.

Stimulating the next phase of service sector growth will require a range of coordinated policy actions including re-invigorating the microeconomic reform agenda to further strengthen competition, reducing bureaucratic barriers to creating new businesses, and addressing the ongoing gaps in government service delivery. Complementing these efforts must also be a renewed effort to improve the quality of service delivery by state-owned enterprises.

5. Uzbekistan

In the past 5 years, the service sector in Uzbekistan has emerged as a key source of value added and new jobs. It grew by 13.3% a year between 2007 and 2011, well above the 8.7% rate of overall economic growth. Strong growth in services was supported by macroeconomic stability anchored in trade and fiscal surpluses.

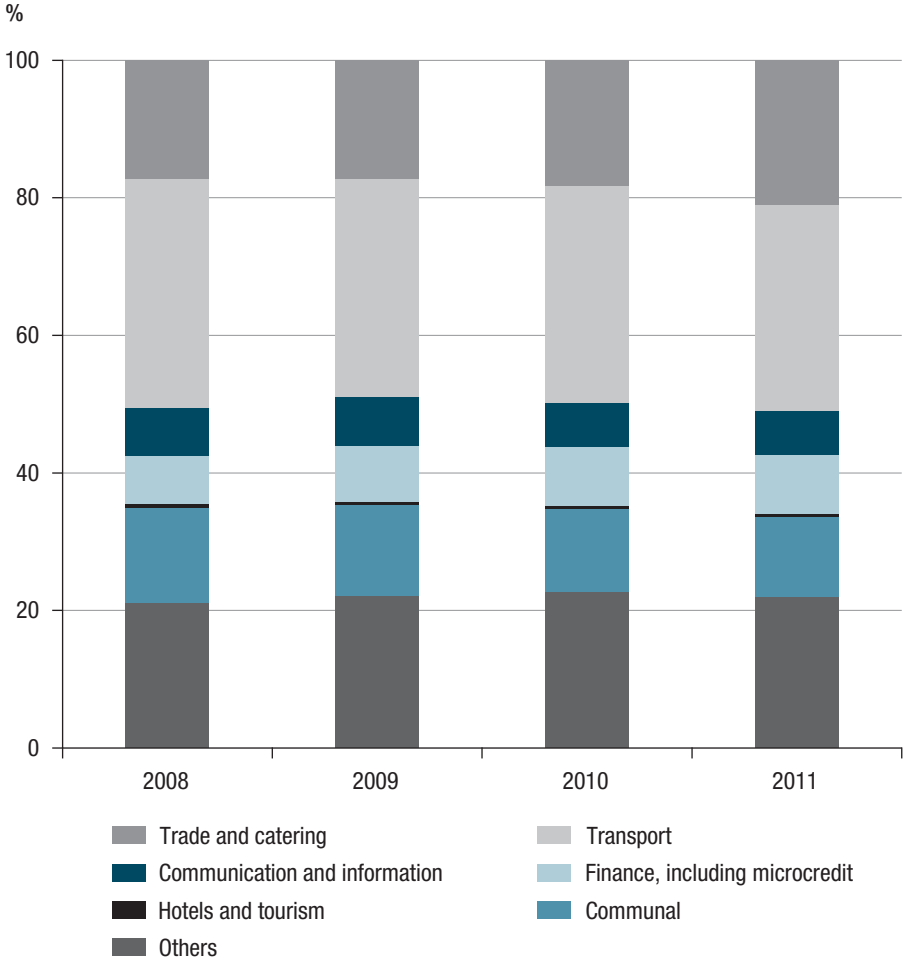
Government support has also been instrumental. From 2008 to 2011, the government provided incentives for commercial banks to increase lending to SMEs including those in service sector. In addition, the government provided soft loans to newly established service companies in rural areas through a special microcredit bank that from 2007 to 2010 extended loans amounting to $14 million for the purchase of capital goods. The government has also granted exemptions on profit and property taxes until 2014 to small businesses in finance and banking, to insurance firms, and to health and recreation centers.

Over the past 5 years, trade, financial services, and telecommunications were the main drivers in the service sector posting a combined 24% growth in 2011 supported mainly by strong domestic demand and domestic lending. In telecommunications, increasing foreign investment due to low penetration rates was the main growth factor. Between 2008 and 2011, the share of these three in service sector output increased from 31.2% to 35.9% (Figure 7.9).

Despite the impressive growth in services, a number of barriers and challenges to sustained growth remain. According to the most recent enterprise surveys, the significant regulatory barriers are (i) informal payments, (ii) excessive bureaucratic costs, (iii) tax burdens, and (iv) foreign currency restrictions. The current foreign exchange restrictions in particular render cross-border trade in services virtually non-existent. Lack of information on foreign markets, lack of internationalization, and tight government control of the cross-border trade in services are often cited by entrepreneurs as the main limiting factors for entry. Supporting this conclusion are the country's rankings in the World Bank's *2012 Doing Business* report. Uzbekistan is ranked 166 out of 183 economies in ease of doing business and lowest in trading across borders. Simplifying and increasing the transparency of legal and regulatory policies will encourage increased private sector participation in the service sector. In addition, increased access to finance and foreign exchange would unleash underutilized potential in the cross-border trade in services.

In the domestic service sector, tax exemptions and privileges should be extended not only to small businesses but to other groups as well. As SMEs accounted for only 46% of service sector output in 2011, supporting more market participants with greater absorptive capacities is also important for sustained service sector growth. In financial services, competition between private banks and state banks should be promoted to enable access to credit at lower cost

Figure 7.9
Composition of Service Sector Output in Uzbekistan, 2008–2011



Source: State Statistics Committee.

for private businesses, particularly micro loans for individual entrepreneurs. The quality of services provided by state-owned enterprises, especially the rail and air monopolies, needs improvement. This should be done through greater management accountability and performance orientation.

With its rich history and culture, Uzbekistan has enormous potential to develop tourism. Even though the country leads the region in the number of world heritage sites designated by the United Nations Educational, Scientific and Cultural Organization (there are four of them), tourism accounts for only

0.2% of service sector output and has seen little growth over the past 5 years. Although tourism is almost fully private, it needs government support to realize its potential including a comprehensive, state-led development strategy that combines improved tourism infrastructure with incentives for private sector operators.

6. Viet Nam

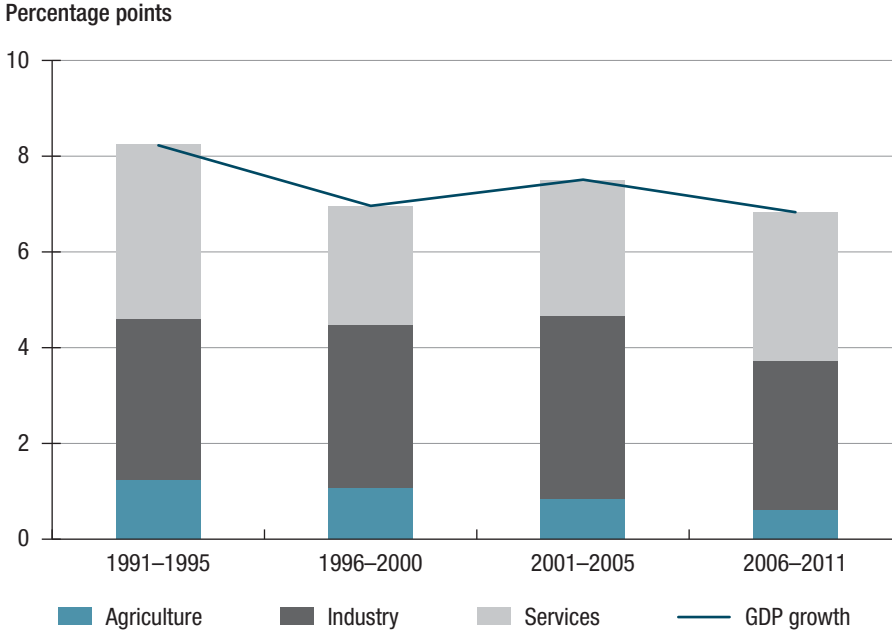
Viet Nam has achieved impressive growth since the launch of economic reforms in the late 1980s. An average growth rate of 7.4% between 1991 and 2011 has enabled the country to transform itself from among to poorest in Asia to middle-income status based on the World Bank's classification. The driver of this growth has mainly been industrial production and exports rather than services, though service sector growth has generally kept pace with overall economic growth. From 2006 to 2011, economic growth was relatively balanced with the industry and service sectors each accounting for over 40% (Figure 7.10). Within the sector, the major drivers of growth were finance, transport and telecommunications, hotels, and retail trade (Figure 7.4).

Strong growth in the service sector was supported by several factors. Robust industrial growth increased demand for support services such as air and land transport, shipping, and seaports, and the liberalization of services also created opportunities for rapid expansion in retailing, telecommunications, and transportation. Furthermore, accession to the World Trade Organization in 2007 and several bilateral trade agreements have paved the way for increased FDI especially in tourism and in residential and commercial real estate. Almost 50% of FDI from 2008 to 2011 was channeled into the service sector. The adverse impact of the global financial crisis on industry has in fact resulted in the service sector becoming the most significant contributor to growth since 2008.

Services are currently a major source of employment in Viet Nam with retail trade, transport, tourism, and public administration generating the most jobs. Currently around 30% of the total workforce is employed in the service sector. Despite impressive progress to date, the share of employment in the sector relative to the economy as a whole remains much lower than in other economies at a similar stage of development and is modest compared with other countries in the region. Furthermore, the share of services in the country's international trade is relatively small and has fallen by over 20 percentage points since 1995 as merchandise exports grew much faster than service exports.

The most important obstacles to developing an efficient service sector relate to competition and mainly stem from the dominant position of state-owned enterprises in many sectors. Among the other important impediments are

Figure 7.10
Contributions to Economic Growth by Sector in Viet Nam



GDP = gross domestic product.
Source: General Statistics Office.

underdeveloped physical infrastructure, scarcity of skilled human resources, and a less than optimal business environment.

Turning the Vietnamese service sector into a major engine of economic growth will require fundamental reforms of the policies that have an impact on its productivity. In particular, there is an urgent need to enable all firms to compete on an equal footing regardless of ownership. Reforming the financial sector will also be necessary due to the high degree of interconnectedness between state-owned enterprises and commercial banks, and further efforts are required to reduce bureaucratic barriers that discourage entrepreneurship. The government also needs to ensure that adequate financial resources are invested to improve physical infrastructure and to close skill gaps among workers. The government's socioeconomic development strategy recognizes the importance of these structural reforms in improving productivity and competitiveness. It put a priority on reforming state-owned enterprises and the finance sector in 2012, but successful implementation will be key to unleashing the service sector's potential to drive growth and to create employment during the next phase of Viet Nam's economic development.

C. Concluding Observations

The economic significance of the service sector varies widely across the lower-income countries of developing Asia. In some the share of services in output is lower than in countries at similar income levels while in others the share is higher. Furthermore, the growth of the industry sector has accompanied and reinforced growth in the service sector in some countries whereas in others, services have grown despite feeble growth in industry. Despite such heterogeneity, overall the sector is a major source of output, employment, and growth. In light of international historical experience that the share of services in output rises with per capita income, services will continue to make substantial contributions in lower-income Asian countries as those economies are generally growing rapidly.

In Chapter 2, Park and Shin found a highly significant negative effect of per capita GDP on labor productivity growth in the service sector. Their analysis is based on the standard empirical framework used in the literature on economic growth and includes a large number of control variables. The finding implies that the lower the initial income level, the higher the subsequent growth rate of labor productivity in services. This supports the well-established empirical evidence of a negative relationship between per capita GDP and the GDP growth rate. Since developing Asia's lower-income countries by definition have low income levels, they have relatively ample scope for labor productivity growth and hence for growth in the service sector. Lower-income countries are still in the early stages of transforming their economies, so the share of agriculture in GDP is still relatively high while the shares of industry and services are correspondingly low. Again, there is plenty of room for both to grow in the future.

The big picture of the service sector in lower-income countries in developing Asia is broadly similar to that of the region as a whole. Services already account for a large share of output, employment, and growth and are expected to continue to play a major economic role in the coming years. In order to increase the labor productivity of the sector and hence fully unleash its potential to contribute to inclusive growth, however, developing Asia must overcome a wide range of impediments. What distinguishes those countries from the rest of the region is the severity of those impediments. For example, the lack of human capital, a key factor for many services, is more pronounced in lower-income countries due to their lower average education levels. Above all, the higher costs of setting up new businesses and of doing business in those countries stifle the entrepreneurship and private enterprise that are vital for a dynamic service sector.

Many of the impediments that stand in the way of service sector development in lower-income Asian countries also stand in the way of developing the industry sector and of broader economic growth and development. Therefore, pursuing policy reforms that ease those impediments will help to achieve balanced growth

in which the service and industry sectors support and reinforce each other. For most of developing Asia, this well-balanced growth offers the most promising way forward for sustaining rapid growth into the future. Balanced growth also holds the most promise for involving more of the population and for spreading benefits as widely as possible. As services tend to be more labor-intensive than industry, they can foster inclusive growth by serving as an engine for job creation.

Notes

1 The Greater Mekong Subregion Strategy Draft Final Report (2005 p. 33) indicates that one job is generated per $5,159 expenditure in 2009 dollars.

2 Reforms have spurred impressive growth in financial services with a range of banking and nonbanking institutions providing a growing range of services. The privatized national bank renamed the Bank of the South Pacific is now also playing an increasingly important regional role challenging the traditional dominance of major Australian banks in Fiji, Niue, and Solomon Islands. Indirect and multiplier effects have also been substantial given that increased access will enable the provision of other services in the future, including mobile banking.

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PART III

Country Studies

CHAPTER 8

Features, Restrictions, and Policy Recommendations in the Service Sector of the People's Republic of China

Wang Wei

Abstract

The development of the service sector in the People's Republic of China has not kept pace with the country's overall economic development. The share of employment in services is still lagging behind that of output and is also below the international norm. Moving from traditional services to modern business services has been the focus in recent decades, but the current structure is still dominated by low-end, traditional industries. In addition, due to the ongoing government strategy to make pilot reforms industry by industry, state-owned service providers still have a large market share, especially in some important service industries, and there are great disparities in development among non-state-owned service providers across various industries. Complicated institutional restrictions and a lack of effective institutional support and regulatory enforcement require in-depth reforms if the sector is to realize its potential. Strategic measures and policy options for promoting the sector in the next 10 years are suggested.

A. Introduction

Market-oriented reforms in the People's Republic of China (PRC), along with its opening up to the outside world, brought rapid industrialization, urbanization, and integration in international trade. The service sector[1] has likewise witnessed rapid, sustained development and has made great contributions to the overall economy in terms of its share of gross domestic product (GDP) and employment. As the contributions of the service sector to GDP growth and to employment have increased and have caught up with manufacturing, clearly the PRC is moving into a new stage of development with both sectors propelling economic growth.

The level of development of the service sector in terms of output and employment shares in the economy varies in different countries and is positively correlated with per capita income. As a developing country with a middle-income status, the development of the service sector in the PRC has been insufficient and has lagged behind its overall stage of development according to international norms. The gap in the development of the service sector between the PRC and the developed countries and also some selected developing countries is therefore still quite wide.

Major structural problems and systematic restrictions affect the sound development of the service sector in the PRC. The government should prioritize in developing the sector and adopt further reforms in the near future if it wishes to build a creative and modern society with higher income levels by 2030.

B. The Significance and the Development of the Sector

1. An Engine of Economic Growth

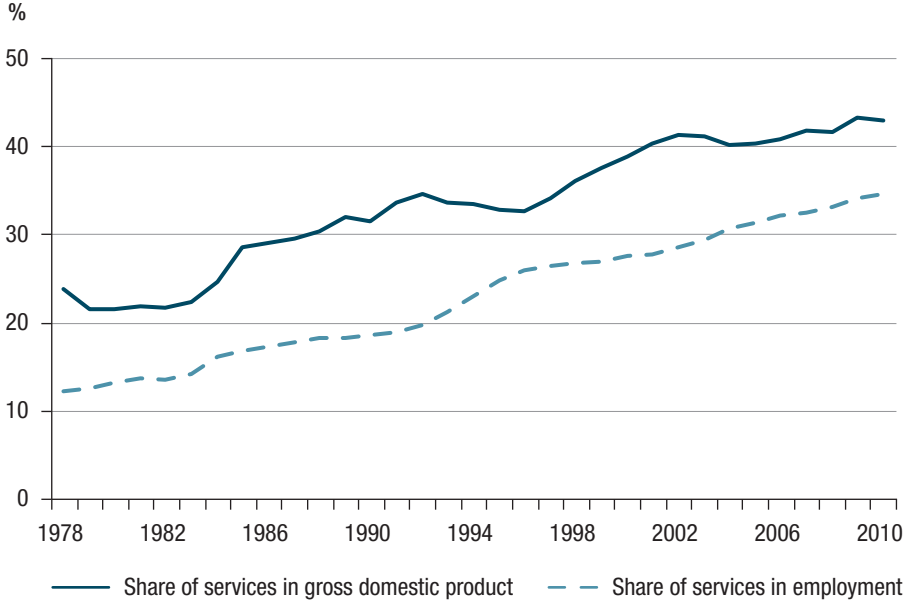
The service sector in the PRC has been growing rapidly in recent decades. From 1978 to 2010, its average annual growth rate was 11% which was higher than the average annual GDP growth rate of 9.9%. Similarly, the employment opportunities provided by the service sector stood at 263.3 million in 2010, 5.4 times that of 1978, which shows that the sector provided 7 million incremental jobs annually over the past 3 decades.

The contribution of the service sector to the economy has increased significantly. Since 1978, the manufacturing sector has been the major contributor to the national economy; however, the contribution of the service sector to GDP and to total employment has caught up in recent years. Figure 8.1 shows that the

share of the service sector in total GDP increased from 23.9% in 1978 to 43.1% in 2010 and that the gap between output in manufacturing and services narrowed from 24 percentage points to 4.4 percentage points. The share of employment in the service sector in the overall economy grew from 12.2% in 1978 to 34.6% in 2010, close to that of agriculture.[2]

More importantly, the service sector has made great contributions to inclusive growth through job creation. From the late 1970s to 2010, total employment grew by 337 million, of which 208 million was generated by the service sector, especially by wholesale and retail trade, catering and hotels, transportation, and warehousing which are low market entry and labor intensive. In 2010, employment in wholesaling and retailing and in catering and hotels was about 81.3 million and accounted for 31% of employment in the service sector or 11% in the overall economy. From 2000 to 2010, the average annual incremental employment in such industries was 3.4 million which accounted for 52% of incremental employment in the service sector.

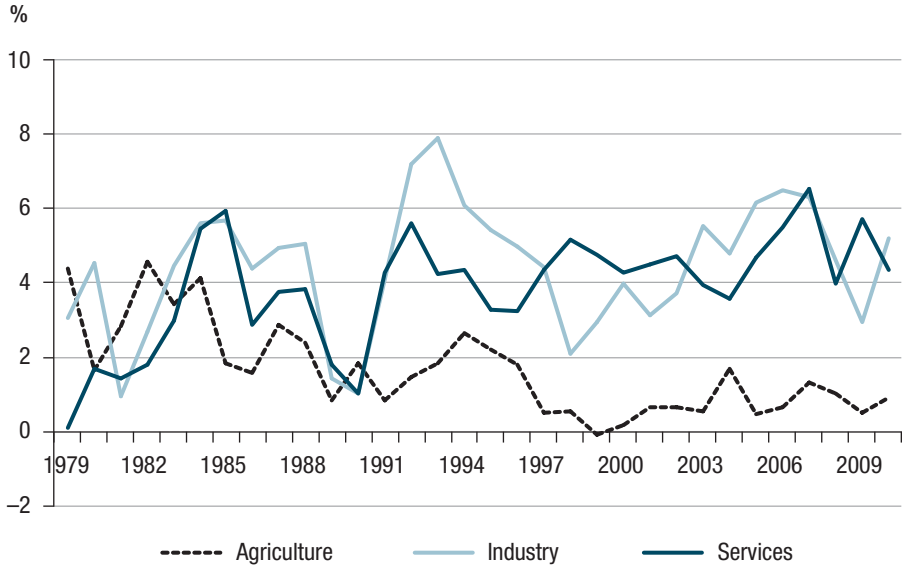
Figure 8.1
Contribution of the Service Sector to Gross Domestic Product and Employment in the People's Republic of China, 1978–2010



Source: *[People's Republic of] China Statistical Yearbook 2011.*

The service sector in the PRC has become an important engine for economic growth. Although its contribution to GDP growth has fluctuated, since 2000 it has remained at over 40% up from 20% in 1978. More importantly, the average contribution to GDP growth was almost equal to that of the industry sector from 2000 to 2010 (Figure 8.2).

Figure 8.2
Contribution to Gross Domestic Product Growth by Sectors in the People's Republic of China, 1979–2009



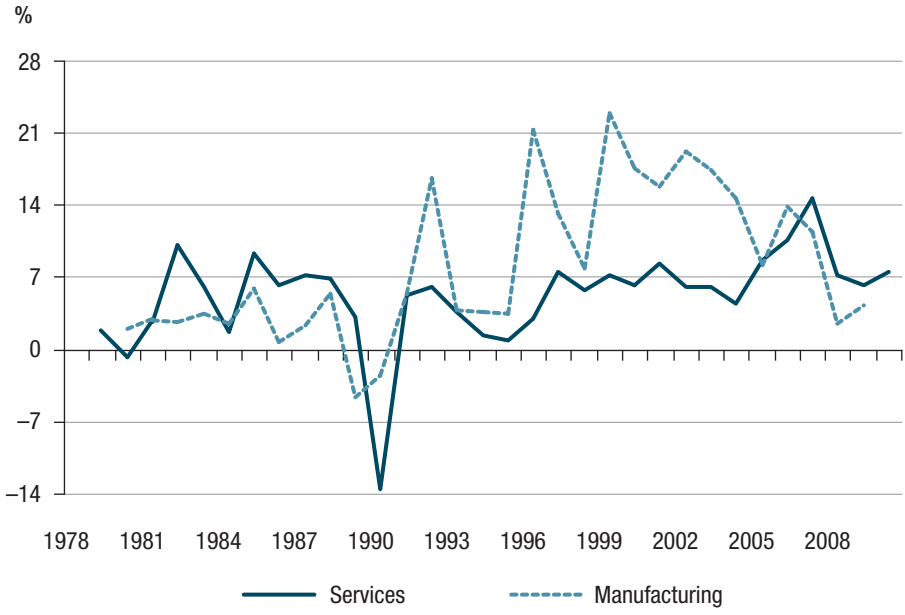
Source: *[People's Republic of] China Statistical Yearbook 2011.*

2. Significance in the Overall Economy

The service sector has helped in raising the efficiency of the economy of the PRC. Since 2000, labor productivity in the sector has increased at an average annual rate of 7.6%, 3.3 percentage points higher than from 1978 to 2010. More importantly, from 2005 to 2010, annual productivity growth in the manufacturing sector was 1.1 percentage points lower than that of services, whereas the rate had been twice that of the service sector from 1990 to 2005 (Figure 8.3). The total factor productivity (TFP) of the service sector has also registered a positive change and an upward trend since 1997. The average annual TFP growth rate of the service sector was 1.9% from 1997 to 2009 which was a sharp contrast to the

0.1% from 1981 to 1996. Compared with nearly all of the value added based on the input of capital and labor from 1981 to 1996, the contribution of TFP to the growth of the service sector was 16.6% from 1997 to 2009 (excluding outliers due to statistical adjustments in 1990).

Figure 8.3
Growth in Labor Productivity in the Service and Manufacturing Sectors in the People's Republic of China, 1978–2010



Source: Author's calculation based on data from the *[People's Republic of] China Statistical Yearbook 2011*.

The service sector is becoming an important factor in the development of other sectors in the country. In 2007, the ratios of the intermediate input of services to the total value added of agriculture (including planting, forestry, animal husbandry, and fishing); mining; and construction were respectively 6.3%, 10.9%, and 15.0% which were 2.7, 4.4, and 8.0 percentage points higher compared with 1990. Although the ratio of intermediate input of the service sector to the manufacturing sector remained at 8% and did not show a significant change, it has also enjoyed rapid development since the manufacturing sector has expanded so quickly and has become the major manufacturing base of the world in recent decades.

3. Structural Upgrade

Moving from traditional services to modern business services has been the focus of the service sector in recent decades. Previously, transportation, warehousing, wholesaling, and retailing were the major components of the sector in the PRC, but since the 1990s, their importance has gradually declined and by 2010, their share of output in the sector was 30.9%, down from 43.1% in 1991. Business services—telecommunications, computers, software, finance, real estate, leasing, scientific research, geological surveys, water conservation, and environmental protection which is of vital importance to the efficiency and competitiveness of firms in other sectors—have been a major part of the sector since 1990 as their share of total output increased from 27.3% in 1991 to 38.5% in 2009 (Figure 8.4). This change indicates that the service sector in the PRC is undergoing a structural upgrade similar to the one that the Organisation for Economic Co-operation and Development (OECD) members experienced in the 20th century.

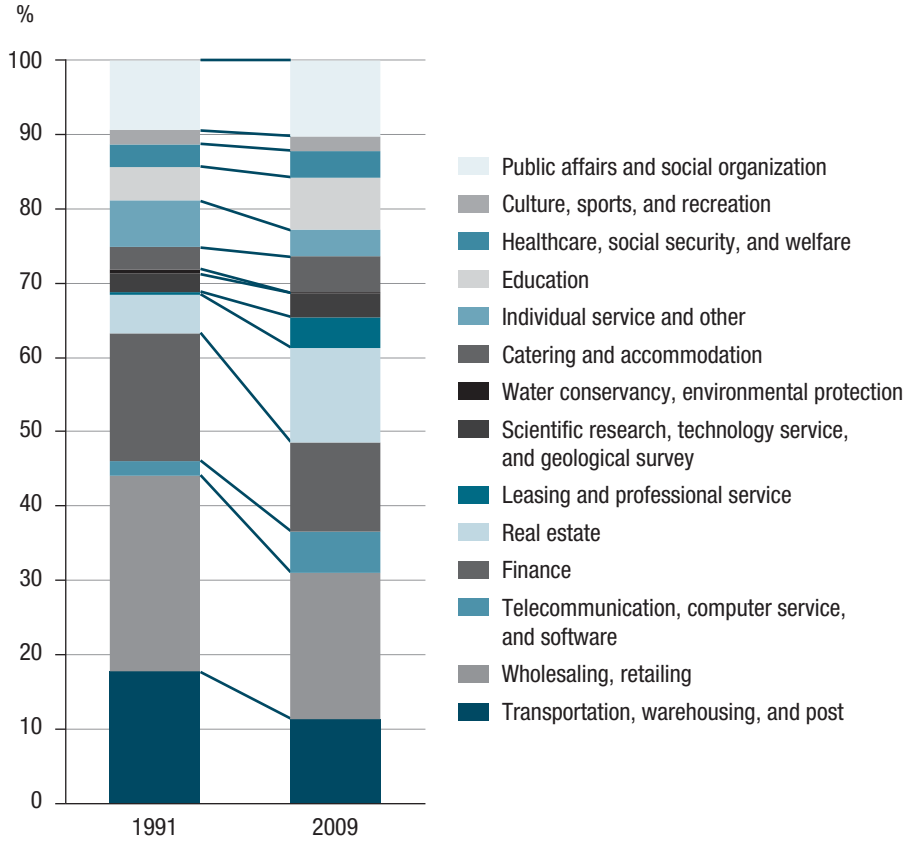
The fast growth of business services in the PRC has been driven by the emergence of new service industries based on technological innovations and outsourcing. For instance, telecommunication, computer, and software industries grew at an average annual rate of 24.9% from 1991 to 2009 which was 13 percentage points higher than the growth rate of the sector as a whole. Other new service industries, e.g., scientific research, driven by a great demand for outsourcing from various firms, have also grown rapidly. From 1991 to 2009, the output of research and technology services increased 24.5 times.

4. International Markets

After acceding to the World Trade Organization (WTO) in 2001, trade in services in the PRC expanded at an average annual rate of 17.4% until 2010, roughly twice the global rate in the same period. The PRC ranked fifth in the world in service exports in 2009 up from eighth in 2005 (MOC 2011). As an indicator of trade openness, the ratio of trade in services to GDP increased from 1.6% in 1982 to 6.2% in 2010.

Among the 12 general categories and 160 subcategories of trade in services outlined in the General Agreement on Trade in Services (GATS), the PRC opened 10 categories and 100 subcategories to foreign investors honoring its commitments to the WTO. As a result, foreign direct investment (FDI) in the service sector has enjoyed robust growth averaging 15.6% annually from 2001 to 2010. In 2010, total FDI in the service sector was $38.5 billion, which was equivalent to 47.3% of total FDI; this was up from 25.7% in 2001.

Figure 8.4
Change in the Composition of the Service Sector in the People's Republic of China from 1991 to 2009



Notes: The Industrial Classification of the National Economy (GB/T 4754-2002) has been used in statistics since 2005. The 1991 figures were adjusted by the author.

Source: Author's estimates based on data from the *[People's Republic of] China Statistical Yearbook* for 2009 and 2000.

Outsourcing services has also expanded rapidly. Taking advantage of the trend to shift the international service industry from developed countries to developing countries, the government has advanced outsourcing park projects in 20 pilot cities and has issued a series of supportive policies. With its large educated labor force and lower labor costs, the PRC is becoming one of the major destinations for outsourcing international services. The total volume of

contracts in 2010 exceeded $14.5 billion with an average annual growth rate of more than 20% from 2001 to 2010. The PRC now ranks second as a destination for international service outsourcing and accounts for 23% of the world market.[3]

5. Urbanization

Large cities have become the major areas for the development of the service sector in the PRC. With improvements in urbanization and the reallocation of economic resources among different regions, the sector has become concentrated in large cities, especially the 35 metropolises and central cities.[4] In 2010, the output of the service sector in the 35 large cities was 8.28 trillion yuan accounting for nearly 50% of the total. The concentration and the depth and breadth of development have been most noticeable in cities like Beijing and Shanghai where many emerging and flourishing high-end service industries have formed clusters like Central Business District, Financial Street, Logistics Park, Creative Industry Block, Software Industry Zone, and Service Outsourcing Base.

Services have in fact become the core of the economies in those large cities. In 2010, there were 287 cities with populations of 500,000 or more, and the average shares of their service sectors in GDP reached 47.8% which was higher than the national average of 43.4%. For the 35 large cities, however, the average share of the service sector in GDP was 52%; Beijing ranked first among all cities in the PRC with a service share of GDP of 75.5% in 2010.

While services tended to concentrate in large cities, manufacturing tended to move to small and medium-sized cities around the larger ones and even to new urban areas in the middle and western regions of the country. For example, while Beijing had a service share of 75%, neighboring cities like Tianjin and Tangshan gained more opportunities to promote manufacturing; shares of GDP in manufacturing in both cities are above 55%. This indicates that the development of the service sector promoted the reallocation of economic development among different cities and regions and improved the quality of urbanization in the country.

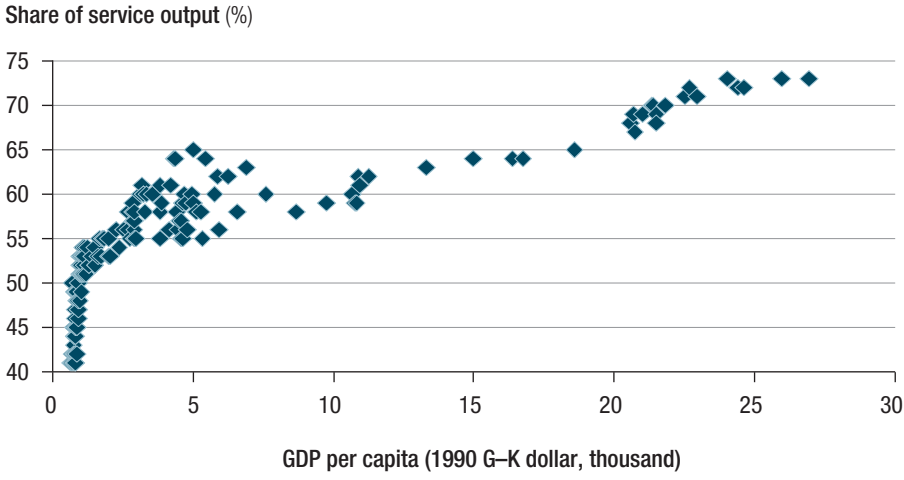
C. Gaps and Disparities

Compared with the improvements in the global economic structure and in light of the current requirements for economic development for the PRC, there are sizeable development gaps in the service sector, not only in terms of its share in GDP and employment, but also in terms of its structure, productivity, and competitiveness.

1. The Gap with International Norms

In the global context, the share of the service sector in GDP is positively correlated with GDP per capita (Figure 8.5), although the correlation is not strictly linear especially in the $3,000 to $10,000 range (1990 international $) (Ren and Wang 2011). In 2009, GDP per capita in the PRC was $7,359 (1990 international $) and the share of services in GDP was 43.4%, which is about 15 percentage points lower than an economy would generally reach at this level of GDP per capita. This indicates that the development of the service sector has lagged behind economic development.

Figure 8.5
The Relationship between GDP Per Capita and the Share of Service Sector Output in the People's Republic of China

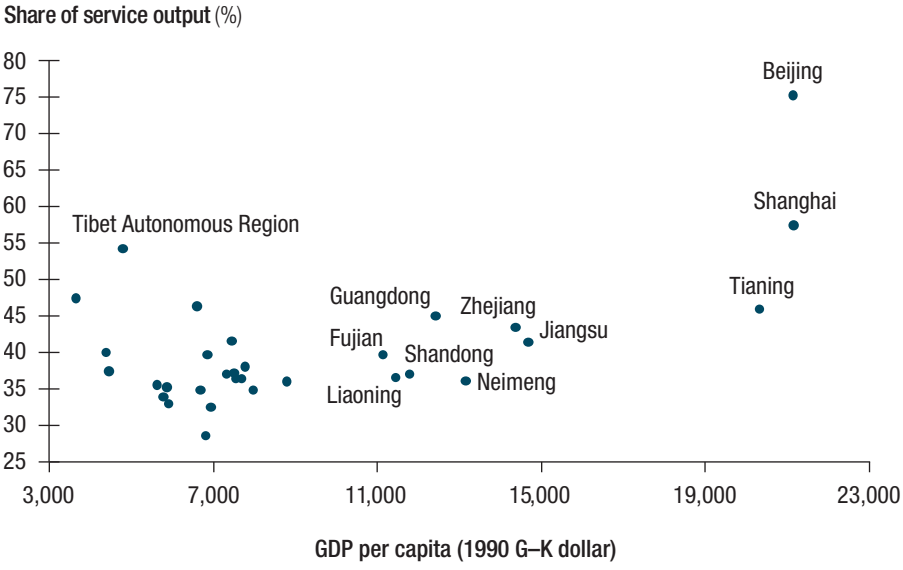


GDP = gross domestic product, G–K Dollar = Geary–Khamis international $.

Sources: Author's estimates using the World Bank's World Development Indicators database (accessed December 2011) and Maddison (1995).

In the domestic context, the level of development of the service sector is still quite low in most provinces and cities. Per capita GDP in the provinces varies between $4,000 and $15,000 (1990 international $). Except in Beijing, Shanghai, and the Tibet Autonomous Region, the average service share of GDP is about 40% or less (Figure 8.6). In terms of the 35 large cities, although the per capita GDP for most of them is basically more than $11,000 (1990 international $), there are only 8 large cities with service sector shares of GDP above 50% (Figure 8.7).

Figure 8.6
Development of the Service Sector in the Provinces in the People's Republic of China, 2010

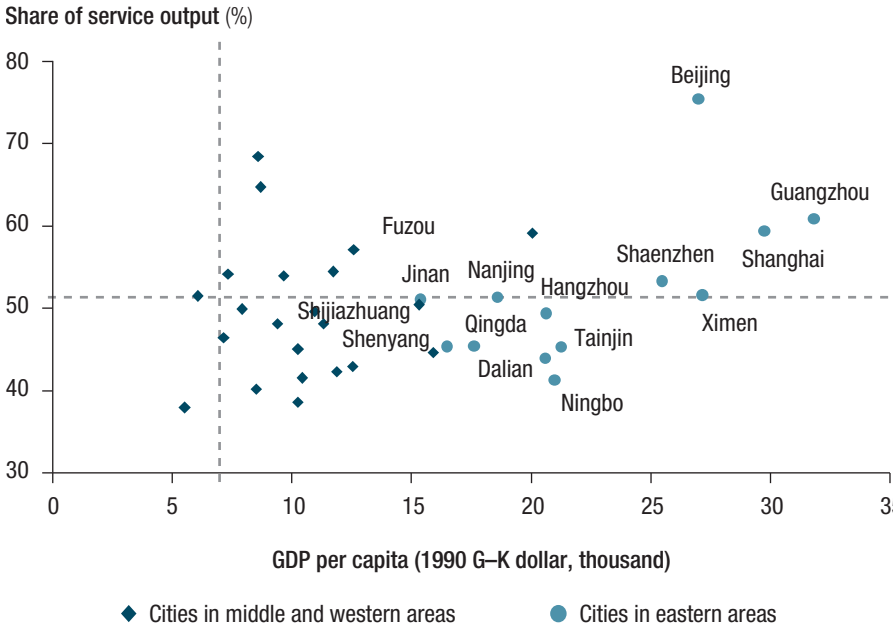


GDP = gross domestic product, G–K Dollar = Geary–Khamis international $.
Note: Data for the Tibet Autonomous Region are from 2009.
Source: *[The People's Republic of] China Statistical Yearbook 2011.*

Aside from an underestimate of the service sector statistically (Xu 2000), there are two plausible explanations for why the share of service output is not as high as international norms. One is due to the country's current development stage at the middle-income level and to the ongoing, rapid, in-depth industrialization in the PRC. It is similar to the transition in developed countries when the manufacturing sector grew rapidly and the service sector moved from traditional services to business services. It is typical that the share in GDP of services increases comparatively slowly while per capita GDP rises from $3,000 to $11,000 (Figure 8.5). Thus both the manufacturing and service sectors drive economic growth during the middle-income stage and the transformation to a higher level of industrialization (Ren and Wang 2011).

The other explanation is due to globalization. The PRC has become one of the most important manufacturing bases in the world. Over the past few decades, manufacturing has enjoyed rapid growth; its share in total global manufacturing output went from 3.15% in the 1990s to 21.2% in 2009 and ranked the country among the top manufacturing nations in the world.[5] Compared to

Figure 8.7
Development of the Service Sector in the 35 Large Cities in the People's Republic of China, 2010



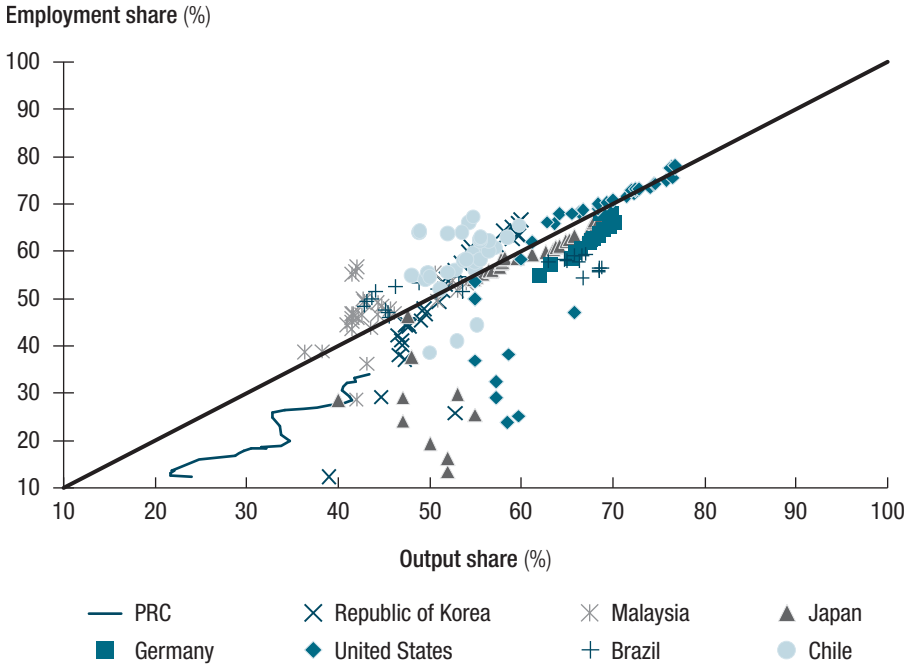
GDP = gross domestic product, G–K Dollar = Geary–Khamis international $.
Source: *[The People's Republic of] China Statistical Yearbook 2011*.

the strengthening of the manufacturing sector globally, the service sector has lagged behind with a share in GDP that is lower than the international norm for its level of per capita income.

2. The Gap between Employment and Output

The share of employment in the service sector in an economy is an important indicator for understanding the level of service sector development. It correlates positively with per capita GDP and shows an increasing tendency to synchronize with the share of output of services (Figure 8.8). As the share of services in GDP increases, the share of employment will grow as well. When the share of service output is 50% or more, employment will grow quickly and will gradually tend to converge with the share of output (Ren and Wang 2011).

Figure 8.8
Relation between Share of Employment and Share of Output of the Service Sector in Selected Economies



PRC = People's Republic of China.

Note: Data for Brazil are for 1981–2006, for Chile 1940–2007, for the PRC 1979–2009, for Germany 1991–2008, for Japan 1890–2007, for the Republic of Korea 1955–2008, for Malaysia 1957–2007, and for the United States 1870–2007.

Source: World Bank. World Development Indicators database (accessed December 2011).

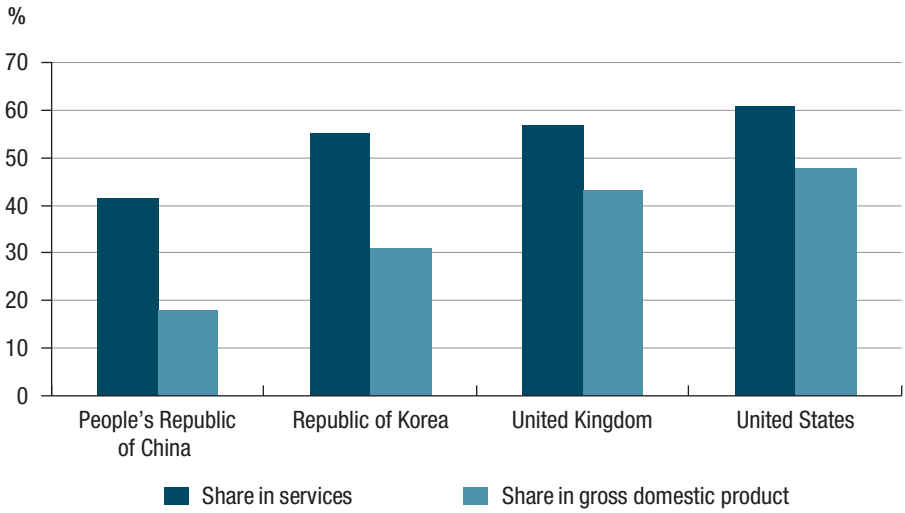
Although the service sector in the PRC has been the main destination for labor in the past few decades, the share of employment in services is still lagging behind that of output in the overall economy and is also below the international norm. The average gap has been 10 percentage points during the past 30 years.[6] Although employment in the sector has steadily expanded in recent years and has narrowed the gap to some extent, the situation has not appreciably changed. By 2010, the share of employment in the service sector was only 34.6%, 8.5 percentage points lower than the share of output (Figure 8.1). This indicates that the service sector has a limited ability to create jobs. The wholesaling and retailing industries, for example, have the largest employment in the sector at 70.3 million in 2010 which accounted for 9.1% of the total economy and 26% of the sector overall.

Taking into account the huge population of the PRC, however, that translates into only 5.2 persons to provide services for every 100 people. In contrast, job opportunities in wholesaling and retailing for every 100 people in 2008 were 6.2 in the United States (US), 8.7 in Brazil, 9.2 in Japan, and 11 in Hong Kong, China.[7]

3. The Gap between Traditional and Modern Services

In terms of composition, the current structure of the service sector in the PRC is still dominated by traditional low-end and labor-intensive industries while structural upgrading to modern, knowledge-intensive services[8] is at the initial stage. Rapid growth in knowledge-intensive service industries also represents the main direction of structural upgrading of the service sector worldwide; the aggregate share of such industries in GDP can reflect the level of development of the service sector in an economy. As shown in Figure 8.9, there is a huge gap in service composition between the PRC and some OECD members. In 2009, the share of modern service industries in GDP was about 18% in the PRC compared with 47.8% in the Republic of Korea.

Figure 8.9
Modern Service Industries as a Share of the Service Sector and of Gross Domestic Product in Selected Economies



Note: Modern service industries include information and communication technology, computer service and software, finance and insurance, scientific research and technical service, public administration and social organization, education, healthcare, social security and social welfare. For the Republic of Korea, the United Kingdom and the United States, the corresponding year is 2006; for the PRC it is 2009.

Source: *[The People's Republic of] China Statistical Yearbook* (2010).

4. Disparities among Providers

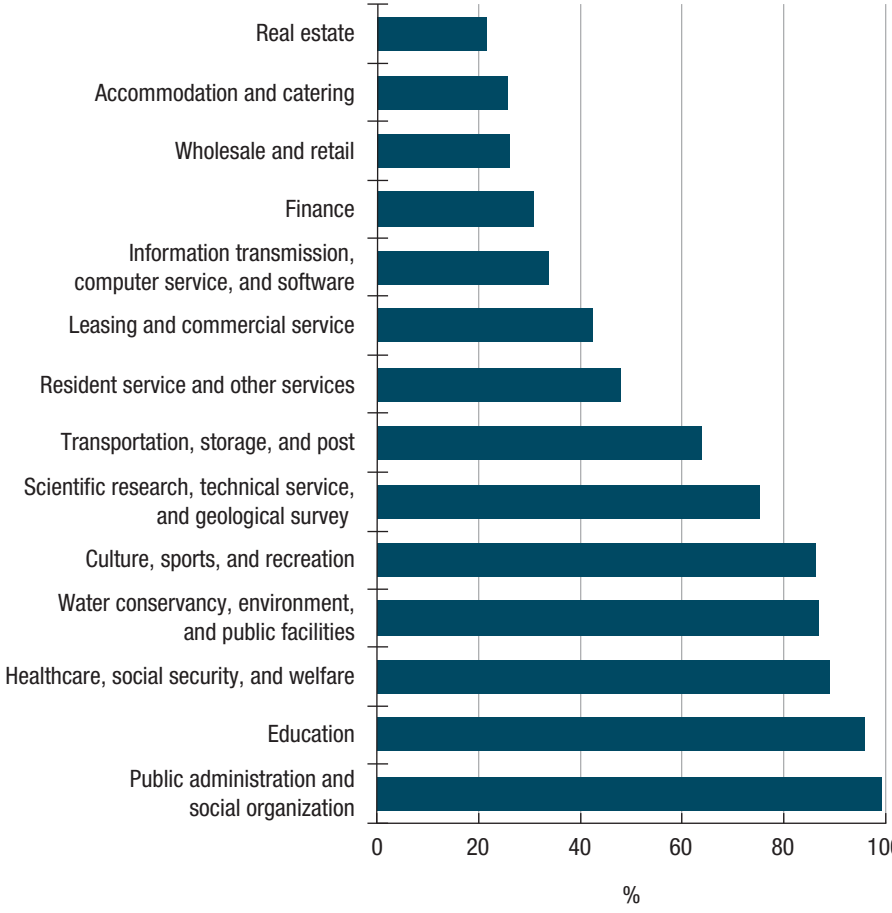
With the change from central planning to a market economy, the monopolies of state-owned service providers have been gradually relaxed in many industries, and competition in the sector has increased as a result. However, due to the government strategy to make pilot reforms industry by industry, state-owned service providers still have a large market share, especially in some important industries, and there are great disparities among non-state-owned service providers across various industries.

In terms of ownership, state-owned enterprises accounted for 2.8% of all firms in the PRC in 2009, while stated-owned service firms accounted for 29.2% of the service sector (NBS 2008). With regard to employment, state-owned service enterprises and units had an even greater concentration. In 2010, the employment share of state-owned units was 73.8% in the urban service sector which was much higher than the employment share of 12.5% in state-owned units in the manufacturing sector in the same period.

Secondly, there was great diversity in competition across various service industries. The share of employment in the state-owned education, healthcare, social security and social welfare, water conservation, environment and public administration, culture, sports and recreation industries was all above 85% while in telecommunication, information, and financial services it was about 50% and in real estate, catering and accommodation, and wholesale and retail trade it was below 30% (Figure 8.10).

Thirdly, there were great differences in consolidation and integration among various service industries. Although most service providers are small or medium-sized or even micro enterprises or self-employed businesses, there are still many large companies in the service sector in the PRC. In some services such as telecommunications and banking, the main participants are all very large companies, and the concentrations are very great. For instance, the top five commercial banks are all state-owned and accounted for 51% of the total assets in the banking industry in 2011. In the highly competitive service industries like wholesaling and retailing, catering, road transportation, and individual services; however, the concentration is quite low, and millions of small and medium-sized enterprises and self-employed businesses hold a dominant position in the market. Taking retailing as an example, although consolidation and integration have been improved via the chain-store format since the turn of the century, the market share of the top 100 chain-store companies increased from 5.4% in 2001 to just 11% in 2010.

Figure 8.10
Share of Employment in State-Owned Service Units by Industry in the People's Republic of China, 2010



Source: *[The People's Republic of] China Statistical Yearbook 2011*.

5. The Gap between Supply and Demand

The service sector is facing greatly increased demand but a slowly growing supply, especially in personal services such as education, healthcare, and culture. As both the standard of living and consumption have risen, the focus of urban and rural households has shifted from basic needs to education, medical care, communication, tourism, and recreation, and the demand for these services

is growing rapidly. For example, the average annual growth rate of per capita medical expenditures by urban households was 13% from 2005 to 2009, but the healthcare industry has not kept pace and has even declined to some extent. During the same period, the number of hospitals decreased from 60,397 to 59,918, and the number of medical professionals per 1,000 population, including doctors and nurses, decreased from 1.68 to 1.65. This implies that these service industries are not driven by market demand and that it is hard for them to meet the rising needs of urban and rural residents.

Secondly, there is a mismatch between service supply and demand, especially in producer services. As discussed earlier, the level of services as an intermediate input in the manufacturing industry is only 8.4% which is far behind the 15% in OECD members, and it has shown no signs of rising since 1990. Service imports, on the other hand, have grown rapidly during the past decade resulting in a growing trade deficit generated by producer services like transportation, insurance, and patent and franchise fees. The average annual growth rate of imports in insurance services was 21% from 1997 to 2008, and the size of the trade deficit was 12 times larger than that in 1997 (SAFE 2008).[9] This reflects the inability of the service sector to meet the requirements of the manufacturing sector completely and efficiently.

6. The Gap in Foreign Direct Investment

The country's lack of competitiveness is highlighted by the expanding deficit in trade in services since the latter half of the 1990s and by comparing the structure of service exports with developed countries or even with some other developing countries. Exports of tourism, transport, construction service, and other commercial services accounted for as much as 75.8% of total exports in services in 2009.[10] Although the export of services in finance, insurance, patent rights and royalties, and films and audiovisual products has grown rapidly in recent years, their shares of total service exports in 2007 were only 0.3%, 1.2%, 0.3%, and 0.1%, respectively, while in the US, the corresponding shares were 12.3%, 2.2%, 17.5%, and 3.3%. This sharp contrast shows that there is a relatively big gap between the PRC and the developed countries in knowledge-intensive services and that the PRC is not sufficiently competitive in the global service market.

In addition, the structure of FDI does not match the upgrading of the service sector. From 2005 to 2010, most FDI was in real estate which grew from 36.9% in 2005 to 43.6% in 2010. This was followed by leasing and professional services, wholesale and retail trade, and transportation with shares of 15.8%, 14.0%, and 6.6%, respectively. FDI in modern service industries accounted for only 11.4%. It is obvious that the current structure of FDI is not conducive for restructuring and upgrading the service sector.[11]

D. Obstacles and Constraints Facing the Service Sector

Given the ongoing transformation of the economic system from a centralized, planned economy to a market economy, there are still various institutional impediments to business, which makes it difficult for the PRC to make its service sector at par with its manufacturing sector. It is both urgent and necessary to explore in-depth reforms in order to provide a sound institutional and policy environment for the development of the service sector and for overall economic growth as well.

1. Complicated Institutional Restrictions

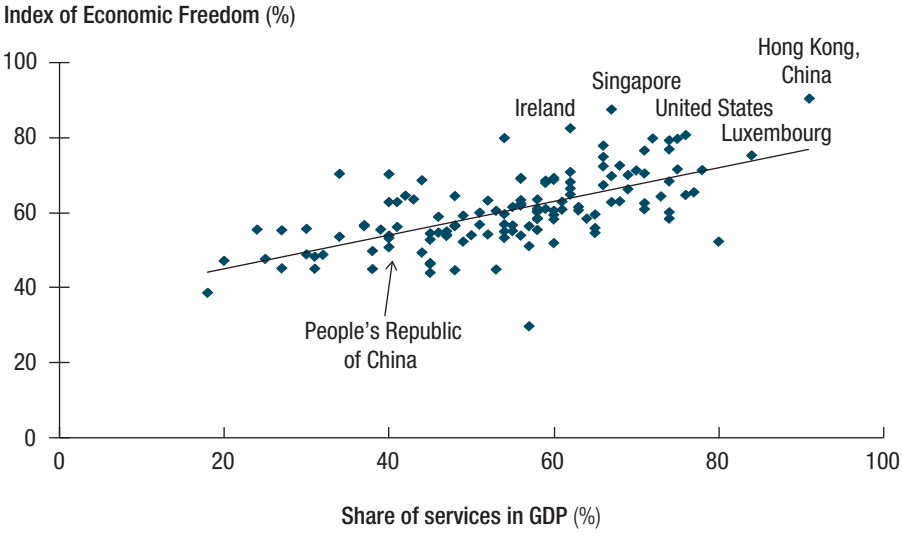
Based on a comparison of 135 countries and regions, the share of services in GDP correlates with the degree of economic freedom (Figure 8.11).[12] Developed countries and regions usually have a relatively high degree of economic freedom that enables them to enjoy a high level of service sector development. In contrast, most developing countries still have a low level of maturity in the service sector. In the PRC, the economic freedom score is about 50% out of a maximum 100% while the share of services in GDP is 40% which implies that the lag in service sector development can be explained by the imperfect market system to some extent.[13]

Based on a survey conducted by the Development Research Center of the PRC (DRC) in 2010,[14] the development of the service sector is restricted by complex institutional arrangements and mechanisms. As is shown in Figure 8.12, among the 11 categories of indicators that affect the development of the service sector, the top three are institutional environment (including the legal system and property protection), government functions, and industrial regulations (Ren and Wang 2011).

2. Lack of Effective Institutional Support

In general, there are various forms of service providers in a modern society, e.g., corporate enterprises, partnerships, cooperatives, non-profit institutions, and individual practitioners. Only corporate enterprises and self-employed businesses are protected by relevant laws and regulations in the PRC while the other forms are subject to unfair or even discriminatory treatment. One example of this is paying income tax. According to the Individual Income Tax Law, the highest rate for an individual proprietorship, a partnership, or a self-employed business stands at 35%; however the basic tax rate for corporations is 25% and

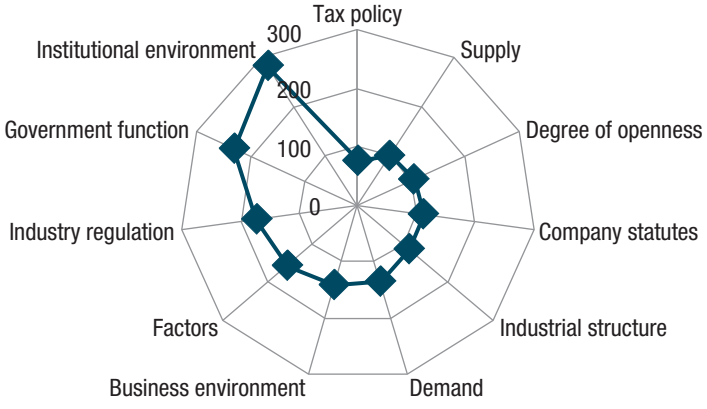
Figure 8.11
Relationship between Degree of Economic Freedom and Service Sector Development in the People's Republic of China and Selected Economies



GDP = gross domestic product.

Sources: World Bank. World Development Indicators database (accessed December 2011); The Heritage Foundation (2008).

Figure 8.12
Indicators of Restrictions on the Service Sector in the People's Republic of China by Category



Source: Ren and Wang (2011).

the preferential tax rate is 20% for micro and small businesses. Clearly, this puts individual firms and partnerships at a disadvantage.

Also, some business formats still suffer from a lack of recognition in terms of specific laws and regulations. For instance, a chain-store company with a series of outlets or commercial establishments in different locations is a common commercial format in many service industries. Although the State Council issued a document promoting chain stores in 1997, there have been no further specific legal provisions or regulations concerning their establishment and supervision since then. That is why all the outlets or commercial establishments of chain stores in different locations are treated as separate corporate enterprises. These companies cannot enjoy the benefits of scale in operations, unified business licensing and qualifications, or consolidated tax payments and have to bear heavier operational costs and lower profit margins. The average margin of the top 100 retail chain stores was 3% or less in the PRC from 2005 to 2010, but it was 8%–9% for the big retail chain stores in Japan in the same period (Aeon 2010).

Non-profit organizations face another set of problems. While they are recognized around the world as important providers in service industries such as medicine, education, culture, and social welfare, there are no clear, unified, legal definition and standard to regulate non-profit organizations in the PRC. There are many public, non-profit organizations in the service sector that could enjoy tax-free treatment according to the Corporate Income Tax Law,[15] but it is difficult for non-state-owned service providers to register as non-profit organizations since they need approval from both the relevant administrative department and from the business registration agency.

Finally, the reform of state-owned service institutions has not been pushed forward comprehensively but is instead at the design stage for trials in selected provinces. Traditionally, state-owned service institutions have provided services to society as affiliated units or branches of relevant government departments and have not had the freedom or the right to make business decisions or to allocate their human resources, revenue, or assets. In short, they are not self-motivated entities in the service market. This is the fundamental reason why the heavily state-dominated medical and healthcare, education, and culture and entertainment industries have developed so slowly in terms of supply and capacity and are unable to sufficiently meet the demand for services generated by the growing economy.

3. Lack of Regulatory Enforcement

The PRC has made great efforts to promote regulatory reform in the service sector to increase the degree of openness and of competition; however,

reforms have not been continuously promoted due to the lack of enforcement mechanisms. State-owned monopolies could not be broken up as quickly as expected and therefore continue to predominate in some service industries. For instance, in railroad transportation, education, healthcare, news and publishing, broadcasting, and television, the state still maintains a relatively high degree of ownership. In industries like telecommunications, even after splitting up and restructuring, a few very large state-owned enterprises still hold monopolies in various market segments.

Access for non-state-owned service providers in some markets has also been blocked. Since 2000, the State Council has issued many policy documents to encourage and support the development of the non-state economy including the private sector and small and medium-sized enterprises. The best examples are the two versions of the 36 Articles for the Non-State-Owned Economy.[16] Most of the policy measures in the 36 articles have yet to be implemented because all the relevant regulatory agencies issued similar documents instead of revising the current laws and regulations and putting them into effect. As a result, it is hard for non-state-owned service providers to overcome discriminatory and unfair treatment and gain access in the service market. This significantly restricts the development and overall competitiveness of the service sector in the PRC.

4. Inadequate Administrative and Regulatory Reforms

To build a market economy and to cultivate the service sector, both the government and its administrative system need reforms such as transforming government functions, updating regulatory measures and tools, and restructuring supervisory systems. In fact, inadequate administrative and regulatory reform has been one of the main restrictions on service sector development in the PRC.

Changing the way government functions has been comparatively slow, and government intervention is still quite strong in the service sector. In fact, currently the government is not only the regulator and supervisor in the service sector but also a key provider and a referee. The government not only takes the responsibility for making policies and guidelines but also exercises the power to allocate land, capital, and human resources and to set the price for services including rates of interests, transportation fees, tuition, and charges for medical treatment. As a key provider, the government sets up state-owned enterprises in the service sector. As a referee, although there has been some progress, it is hard for government agencies to be fair and objective while they assume the other two roles simultaneously. This state of affairs provides the government wide opportunities to intervene in the service sector and to block the formation of a market mechanism that allocates resources effectively and efficiently.

Currently, the administration of the service sector is fragmented because it involves a number of departments at different levels of government for any particular service industry. The logistics industry is an example. It involves 12 departments in the central government and all their corresponding agencies locally from provincial capitals to the grassroots.[17] Each of the 12 departments is in turn in charge of regulations and administrative responsibility for one or more aspects of the industry, and all have their own codes and standards. Therefore, logistics providers in the PRC face a complicated administrative set-up. Even within the government there is some confusion on how to push regulatory reform to promote the service sector. For example, opening up the sector under the framework of the Closer Economic Partnership Arrangement between Guangdong Province and Hong Kong, China required not only the support of the provincial and the Hong Kong, China authorities but also that of the local government which had to seek support and approval from relevant central government departments. Since it costs time to negotiate and coordinate with different local governments and with the local and the central governments, such a fragmented administrative system is a constraint to regulatory reform in the service sector.

In addition, the government lacks the capacity for adequate supervision, and a comprehensive supervisory framework has yet to be formulated. The government lacks legal and regulatory measures, an adept workforce, and specific tools and knowledge to oversee the service sector, especially emerging services. It needs to introduce modern regulatory measures and tools such as conditions for transparency and listing on market entry, benchmarking and industry codes on enterprise behavior, and credit reporting evaluation systems on performance. There is a great deal of room for improvement in supervision in the service sector.

Finally, the PRC does not have industry associations or legal and accounting firms to act as supervisors. Take the role of industry associations as an example. Although there are quite a number of industrial associations in the service sector, most of them are not independent since they basically grew out of government departments and still have close ties to them to get financial support, supervisory authority, and other resources. For example, the authority to grant professional qualifications and to formulate and implement industry codes and standards that is usually the function of associations in developed countries is still in the hands of the government in the PRC. Industry associations thus lack the will, ability, and means to provide services for the sector and therefore do not enjoy the recognition of service enterprises.

5. Policy Motivation toward Manufacturing

The way government performance is evaluated currently is not favorable for the development of the service sector as most indicators are based on economic achievement in terms of GDP growth, tax revenues, and capital investment. This explains why authorities at all levels are more inclined to pursue growth in manufacturing and capital investment. As a result, most preferential industrial policies at all levels are concentrated on manufacturing; there have been few substantial policy measures and public resources to support the development of the service sector in recent decades.

The taxation system and preferential tax policies are not favorable for the development of the service sector either. There is an obviously heavier tax burden on the sector than on manufacturing due to different tax structures and corresponding collection measures. In 2008, the top five taxable service industries were wholesaling and retailing, finance, real estate, leasing and business services, and individual services in all sectors, and the share of taxes paid to the total output of the industry were 29.6%, 38.8%, 26.6%, 25.1%, and 28.5%, respectively, while the share in manufacturing was only 21%.[18] The reason is that the tax categories and collection policies for service providers are quite different from the ones for manufacturing firms. For example, the business tax is one of the main taxes and is collected at 5% based on the total revenue of the service providers without any deductions for procurement or depreciation of fixed assets. The value-added tax, in contrast, is the major tax in the manufacturing sector, and its actual burden was approximately 3.1%.[19] Clearly, the heavy tax burden and its unfair calculations have discouraged service providers, blocked the outsourcing services of manufacturers, and hindered the creation of new service industries.

6. Imbalance between International and Domestic Markets

All in all, the PRC has not achieved a balance between catering to the world market and to its domestic market. Many foreign companies still enjoy preferential treatment compared with their domestic competitors. In order to promote economic development, some local governments provided foreign companies more favorable policies in terms of land use, fast-track permits, and subsidies on office rent and taxes. To some extent, this has widened the gap in competitiveness between domestic and foreign service providers.

More importantly, while emphasizing opening up to the outside world, it was unusual for governments at various levels to consider opening domestic markets to non-state-owned enterprises or to non-local service providers. The motivation was instead to further open the service sector to the outside world as part of the

country's commitment to the WTO. The problem is that the effect of opening up is quite different across various types of service industries. For industries already open to non-state-owned enterprises and non-local service providers before the PRC's accession to the WTO, e.g., wholesaling and retailing, road transportation, catering and accommodation, the policy contributed to promoting development and competition. For service industries not open before accession, the policy contributed little to increasing competition or to regulatory reform. Opening up to both world and domestic markets calls for institutional arrangements and intrinsic motivation to push forward in-depth reforms.

E. Strategic Measures and Policy Options for Promoting the Service Sector over the Next 10 Years

The slow pace of service sector development in the PRC is not only related to the country's economic development stage but is also closely connected with the current imperfect market system. Complicated institutional impediments, misleading incentive mechanisms, and an unclear policy orientation have become the major obstacles to the accelerated development of the sector.

During the 10th and 11th five-year plans (2000 to 2010), as part of the national development strategy the Central Committee and the State Council issued a series of policy documents on promoting service sector development.[20] Despite these measures, the service sector continues to suffer from deeply rooted, institutional obstacles, so its capacity to develop has not substantially improved. As a result, the development targets for the sector were not fully met in terms of share in GDP and total employment during the 11th Five-Year Plan from 2005 to 2010.[21]

In light of ongoing industrialization, urbanization, globalization, and economic reforms, there is great potential for the PRC to grow rapidly with the two engines of the manufacturing and service sectors. To realize its potential and to take advantage of the opportunity to enhance its service sector, the PRC should promote its development through in-depth, market-oriented reforms.

1. Development Orientation and Strategies

The PRC should promote service sector development not just to maintain its high rate of economic growth but also to benefit from contributions by the sector to structural upgrading, improving economic efficiency, increasing innovative

capacity, and creating employment. In this regard, it is necessary to promote the so-called harmonious development strategy and the following measures:

- the parallel development of new service industries with traditional services, through structural upgrading and business innovations, information technology applications, and professional training in the latter;
- the parallel development of business services with personal and community services such as healthcare and education, which could contribute to increasing living standards and to enhancing the quality of labor;
- the parallel development of the state-owned economy with the non-state-owned economy in all service sectors through in-depth reforms and by providing the proper policy environment and promoting fair competition;
- the parallel development of the service sector in large cities and in small and medium-sized cities and towns with relatively large populations and significant manufacturing, and the development of specific service activities in towns and rural regions to meet the demands of modern agriculture; and
- the parallel opening up of the service sector to both the local and international markets to encourage service providers to compete with their counterparts both domestically and globally, offering more support to domestic service providers so they can enter the global market.

2. Reform Priorities and Policy Options

On the whole, the service sector in the PRC will have various development opportunities in the next 10 years, but they will be accompanied by critical challenges. The government should put substantial efforts into reforms, in addition to providing stimulating and supportive policies for the sector. The specific tasks and priorities are the following:

- Reform regulations on market entry and thus expand development opportunities for all service providers.
- Reform the regulatory and supervisory systems to clarify the position of the government in the service sector and to advance its transformation, to promote the reform of the administrative framework, and to increase efficiency and transparency with new supervisory measures and tools.
- Reform institutional arrangements for various diverse service entities including in-depth reforms of state-owned enterprises and comprehensive reforms of state-owned service institutions from human resource management and the pension system to ownership, corporate governance, and wage and salary systems, and update legislation and regulations to safeguard various types of service industries.

- Reform support systems such as the government performance evaluation, taxation, and procurement.
- Strengthen the capacity of government and other intermediaries to regulate and supervise the sector through data collection and updated statistical systems, credit reporting systems, knowledge sharing, and staff training.
- Accelerate drafting the overall design and timetable for reform and promote pilot testing of comprehensive reforms in selected industries and regions. Service industries that are largely state-owned monopolies such as banking, telecommunications, education, broadcasting, social security, healthcare, sports, and other areas should pilot test regulatory reforms according to their different features and reform requirements. As for the regions and big cities with high concentrations of service industries, the government should explore comprehensive reform measures to test and ascertain the policy effects.

Notes

The author is grateful to Liu Tao and Xue Wei for their valuable comments and technical assistance.

1 According to PRC Industrial Classification and Codes for National Economic Activities (GB/T 4754–2002), the service sector mainly includes communications and transportation, storage and postal services, information transmission, computer services and the software industry, wholesale and retail trade, accommodation and catering, financial services, real estate, leasing and commercial services, scientific research, technical services and geological surveys, water conservation, managing the environment and public facilities, residential and other services, education, healthcare, social security and social welfare, culture, sports and recreation, public administration, and social organizations. In the PRC, scholars and government statistical departments often identify tertiary industries with the service sector.

2 In 2011, the employment share of the service sector in the overall economy was 35.7%. By overtaking the agriculture sector, the service sector provides the most job opportunities in the PRC.

3 See Ministry of Commerce, People's Republic of China. http://tradeinservices.mofcom.gov.cn/g/2012-03-29/96556.shtml

4 The 35 big cities include the 4 municipalities of Beijing, Shanghai, Tianjin, and Chongqing that are under the direct administration of the central government; the 26 provincial capitals (excluding the Tibet Autonomous Region); and the 5 large cities specially designated in the State Plan, i.e., Dalian, Ningbo, Xiamen, Qingdao, and Shenzhen.

5 See United Nations Statistics Division: The National Accounts Main Aggregates Database. http://unstats.un.org/unsd/snaama/dnlList.asp

6 That may be due to a lack of data. For example, in some low-end services such as catering, there are no complete statistics. Other countries may have similar problems.

7 The data for Brazil; Hong Kong, China; Japan; and the US in 2008 are based on *[The People's Republic of] China Statistical Yearbook of the Tertiary Industry* (2011). Employment in Hong Kong, China includes retailing, wholesaling, catering, and hotels.

8 Knowledge-intensive services include information and communication technology, computers and software, finance and insurance, scientific research and technical services education, healthcare, social security and social welfare, and public service.

9 Source: National Bureau of Foreign Currency of [the People's Republic of] China (2008). [The People's Republic of] China's Balance of Payments.

10 Ministry of Commerce. (The People's Republic of) China's Statistics of Trade in Services 2010.

11 *[The People's Republic of] China Statistical Yearbook* for 2005 and 2011.

12 The Heritage Foundation's 2008 Index of Economic Freedom. The index takes a broad and comprehensive view, measuring 130 countries' performances in 10 separate areas of economic freedom that have been grouped into four broad categories or pillars: rule of law (property rights, freedom from corruption); limited government (fiscal freedom, government spending); regulatory efficiency (business freedom, labor freedom, monetary freedom); and open markets (trade freedom, investment freedom, and financial freedom).

13 Although the indicator of economic freedom is not welcomed by most Chinese officials and academics, there is no replacement for it when evaluating the degree of marketization across countries. The indicators for restrictions of the World Bank would be a good choice if the number of countries were greater.

14 The survey uses 11 categories of influence indicators and 75 influence terms for factors that affect the development of services in banking, education, wholesale and retail trade, research and design, professional positions, computers and information services, logistics, and individual services.

15 Clause 4 of Article 26 in the Corporate Income Tax Law of the PRC and the Notice on Tax-Free Income for Nonprofit Organization Enterprises (No. 122 of Finance and Revenue [2009]) issued by the Ministry of Finance and the State Administration of Taxation have clarified the condition of tax-free income by restrictions on the service scope, content, and expenses of the non-profit organization.

16 There were two documents issued by the State Council simply called "36 Articles for the Non-State-Owned Economy." The earlier one is the Guiding Opinions on Promoting and Supporting the Non-State-Owned Economy by the State Council, issued in 2005. The newer one is the Guiding Opinions on Promoting and Leading the Healthy Development of Private Investment by the State Council issued in 2010. Both of these documents contained 36 policy measures aimed at developing the private sector and small and medium-sized enterprises.

17 The members of the National Committee on Logistics Industry Development include 12 departments and 3 industry associations: National Development and Reform Commission, Ministry of Commerce, Ministry of Railroads, Ministry of Transportation, Ministry of

Industry and Information, National Civil Aviation Authority, Ministry of Public Security, Ministry of Finance, China's Customs Head Office, National Administration Bureau for Industry and Commerce, National Administration of Taxation, General Administration of Quality Inspection, National Standardization Committee, China Federation of Logistics and Purchasing, and China Communications and Transportation Association.

18 Calculated by the author based on data from *[the People's Republic of] China Statistical Yearbook* (2009) and *[the People's Republic of] China Taxation Yearbook* (2009).

19 Value-added tax burden = value-added tax payment/sales revenue.

20 The State Council had issued documents on service development including Measures of the State Council on Accelerating the Development of the Service Sector (2005), and Measures of the General Office of the State Council on Implementing Relevant Policies for Accelerating the Development of the Service Sector (2010). The 12th Five-Year Plan for the Development of the Service Sector is yet to be approved by the State Council.

21 The target to increase the service share in total GDP and employment by 3 percentage points and 4 percentage points, respectively, set in the 11th Five-Year Development Plan had not been accomplished. The actual increments of the service share in total GDP and employment from 2005 to 2010 were 2.8 percentage points and 3.4 percentage points, respectively. Among all the indicators in the 11th Five-Year Development Plan, only the indicators on service share had not been realized.

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CHAPTER 9

The Service Sector in India

Arpita Mukherjee

Abstract

The service sector is the largest and fastest growing sector in India and has the highest labor productivity, but employment has not kept pace with the share of the sector in gross domestic product and has not produced the number or quality of jobs needed. There is no policy leading to inclusive growth, and multiple, uncoordinated governing bodies adversely affect the growth of the sector. Many regulations are outdated, and there are restrictions and barriers on foreign direct investment. While India is among the top 10 World Trade Organization members in service exports and imports, the growth and export of services is less than that of the People's Republic of China, and exports are competitive in only a few services and are concentrated in a few markets. Most of the poor in India do not have access to basic services such as healthcare and education, and infrastructure is weak so the cost of service delivery is high. Although India wants to be a knowledge hub, there is no uniformity in the quality and standards of education, and formal education does not guarantee employability. Policy measures are suggested for inclusive growth that will also enhance India's global competitiveness in services.

A. Overview

In developing countries like India, the service sector can lead to inclusive growth through backward and forward links (Banga 2005), by ensuring equitable access to basic services at low prices (Deloitte 2011), by creating employment opportunities, and by developing human capital.

India is among the world's rapidly growing economies. In 2010, the gross domestic product (GDP) grew at 10.6% compared to an average growth rate

of 7.5% in emerging and developing economies. Although the growth rate decreased to 7.2% in 2011, it was still higher than the average growth rate of emerging economies (6.2%).[1] The service sector has been a major contributor to India's GDP and to its growth. It is the second largest employer after agriculture. India's trade in services has increased overtime, and services account for the largest share in India's foreign direct investment (FDI) inflows and outflows.

The growth of India's service sector has drawn global attention. Unlike other countries where economic growth has led to a shift from agriculture to industries, in India there has been a shift from agriculture to the service sector. In this respect, India has been considered as an outlier among South Asian and other emerging countries (Ansari 1995). Gordon and Gupta (2003) and Jain and Ninan (2010) have, however, pointed out that with the rise in per capita income, the share of services in GDP increases. Kochhar et al. (2006) argued that India was a negative outlier in 1981 compared to other emerging markets as the share of services in value added and employment was below that of other countries. After the 1990s, the service sector grew, and in 2000 India became a positive outlier in terms of the share of services in value added but continued to be a negative outlier in terms of its share in employment.

The growth in the service sector in India has been linked to the reforms of the 1990s. In the first 3 decades after independence in 1947, India was largely an agrarian economy. The service sector started to grow in the mid-1980s, but growth accelerated in the 1990s when India initiated a series of economic reforms after the country faced a severe balance of payments crisis. Reforms in the service sector were a part of the overall reform program which led to privatization, the removal of FDI restrictions, and streamlining of approval procedures among others.

Existing literature shows that liberalization and reforms have contributed to the growth of the sector (Chanda 2002, Gordon and Gupta 2003, Jain and Ninan 2010). With economic growth and the rise in per capita income, demand changed from necessary to discretionary consumption and propelled the growth of services (Ablett et al. 2007), and the elasticity of demand for services at high incomes has contributed to the growth of the sector (Bhattacharya and Mitra 1990, Gordon and Gupta 2003). Technological progress and the availability of highly skilled manpower has led to the growth of services in information and communication technology (ICT) and ICT-enabled services (Chanda 2002). Developed countries now outsource services to developing countries like India leading to a rise in demand for services (Bhagwati 1984, Hansda 2001). Significant government expenditures on community, social, and personal services have also accelerated growth in the sector (Ansari 1995).

Some studies have pointed out barriers to growth in services including lack of decent employment (Basu and Maertens 2007), a poor business environment (Joshi 2008), lack of an integrated service sector policy (Banga 2005), and a

strong focus on skill-intensive services and higher education while a majority of the population remains unskilled and poorly educated (Kochhar et al. 2006).

1. Classification and Governance

The service sector can be classified either by using the country's own definition or by using the United Nations Central Product Classification (UNCPC). The UNCPC is used as a basis for international negotiations like those of the World Trade Organization (WTO). In India, the National Industrial Classification provides classifications for services. Since the sector is evolving, both have undergone changes. At present, the National Industrial Classification 2008 is used (Box 9.1) though there are differences between it and the UNCPC, e.g., construction is not a part of the sector in India while it is in the UNCPC.

Box 9.1
Activities Included in India's Service Sector in the National Industrial Classification 2008

- Wholesale and retail trade; repair of motor vehicles and motorcycles
- Transportation and storage
- Accommodation and food service activities
- Information and communication
- Financial and insurance activities
- Real estate activities
- Professional, scientific, and technical activities
- Administrative and support services
- Public administration and defence; compulsory social security
- Education
- Human health and social work activities
- Arts, entertainment, and recreation
- Other service activities
- Activities of households as employers; undifferentiated goods and services producing activities of households for own use
- Activities of extraterritorial organizations and bodies

Source: Extracted from *National Industrial Classification 2008*. http://mospi.nic.in/Mospi_New/upload/nic_2008_17apr09.pdf

Disaggregated data for many services are not available. Government departments such as the Central Statistical Organisation and the National Sample Survey Organisation under the Ministry of Statistics and Programme Implementation and the Reserve Bank of India have been trying to collect and collate disaggregated data; however, since services such as retailing and construction are largely in the noncorporate (informal or unorganized) sector, there is both misreporting and underreporting.

India has a quasi-federal governance structure; some services are under the jurisdiction of the central government (Union List), some are under the state governments (State List) and the remaining are under the joint administration of central and state governments (Concurrent List) (Box 9.2). Multiple ministries and central government departments regulate services such as energy and transport while others like construction and retail do not have nodal ministries. Services like telecommunications have one independent regulator while others like electricity have state regulators as well. Professional bodies regulate professions such as doctors, architects, and accountants.

Box 9.2
Jurisdictions in India's Service Sector

- Union List
  - Telecommunications, postal, broadcasting, financial services (including insurance and banking), national highways, mining services
- State List
  - Healthcare and related services, real estate services, retail, services incidental to agriculture, hunting, and forestry
- Concurrent List
  - Professional services, education, printing and publishing, electricity

Source: Author's compilation from the Constitution of India, 1950.

2. Contribution to Gross Domestic Product

Table 9.1 shows that over time, the share of services in GDP has increased while that of agriculture has declined. In the last decade, the share of services surpassed the combined share of agriculture and industry making it the most important contributor to the country's output. In fiscal year (FY) 2009, services accounted for 57.3% of India's GDP[2] which was less than that of countries such as the

Table 9.1
Average by Decade of the Share of Sectors in India's Gross Domestic Product
(%)

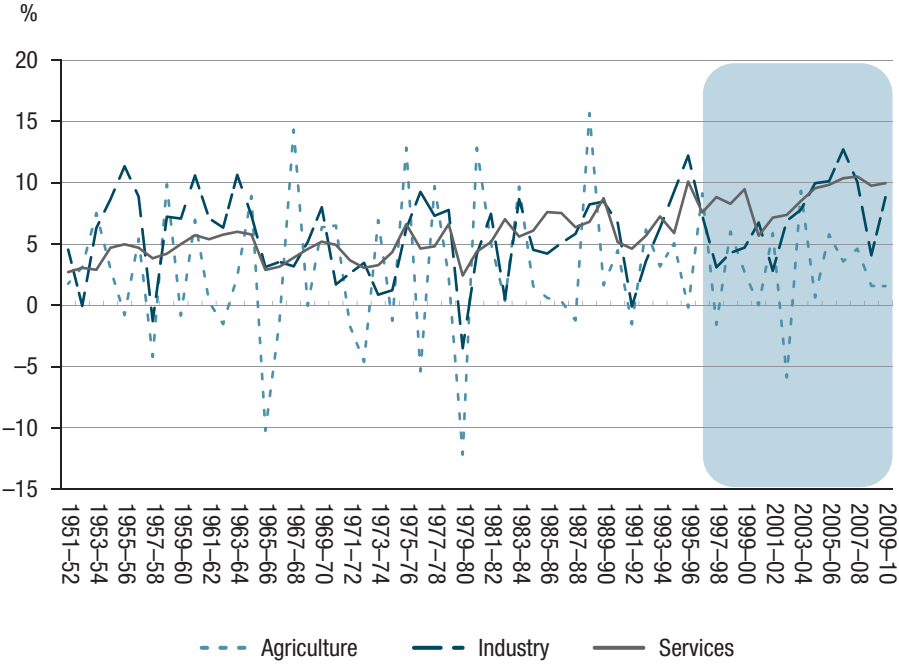
Sector	1950s	1960s	1970s	1980s	1990s	2000s
Agriculture	55.3	47.6	42.8	37.3	30.9	21.8
Industries	14.8	19.6	21.3	22.3	23.3	24.5
Services	29.8	32.8	35.9	40.3	45.7	53.7

Source: Author's calculations from National Income Accounts.

United Kingdom (UK) at 78.4% and the United States (US) at 78.2%, but higher than that of the People's Republic of China (PRC) at 41.8%.[3]

The growth of the service sector accelerated in the late 1980s, and in the late 1990s it surpassed the growth of industries to become the fastest growing sector of the Indian economy (Figure 9.1). In FY2009, the service sector grew at 9.96%

Figure 9.1
Growth of Economic Sectors in India



Source: Author's calculations from National Income Accounts.

compared to 8.81% growth in the industry sector and 1.57% in agriculture.[4] The compound annual growth rates of services in the PRC and India from 2001 to 2010 were 11.3% and 9.4%, respectively.[5] This implies that even though the present share of services in GDP for the PRC is lower than that of India, in the future the share of services will be higher and can even surpass that of India since it is growing at a faster rate.

There are variations in the growth and performance of different types of services. Business services, communications, and trade have grown faster than the overall sector has while others such as real estate, legal services, transport, storage, personal administration, and defense have grown at the same rate (Gordon and Gupta 2003). Domestic demand for services such as telecommunication and financial services along with exports of ICT have contributed to the high growth of these services.

Table 9.2 shows that after the 1990s, the share of all types of services in GDP increased but the share of community, social, and personal services declined in the sector overall.

In the 1950s and 1960s, transport, storage, and communication and trade, hotels, and restaurant services grew faster than the overall sector; while in the 1970s and 1980s, financing and business services started growing; and in the 1980s surpassed transport, storage, and communication and trade, hotels, and restaurants. From 2000 to 2010, transport, storage, and communication were the fastest growing followed by financing and business services (Figure 9.2).

3. Employment

There has been a lot of debate about the capacity of the service sector to generate employment. It has been argued that employment growth has not kept pace with income growth in the sector (Bosworth and Maertens 2010) or with the rise in its share of GDP (Kochhar et al. 2006). Furthermore, the change in the production structure from agriculture to services has not been reflected by a proportionate change in the occupational structure (Bhattacharya and Mitra 1990). As a result, service-led growth has been jobless growth (Banga 2005).

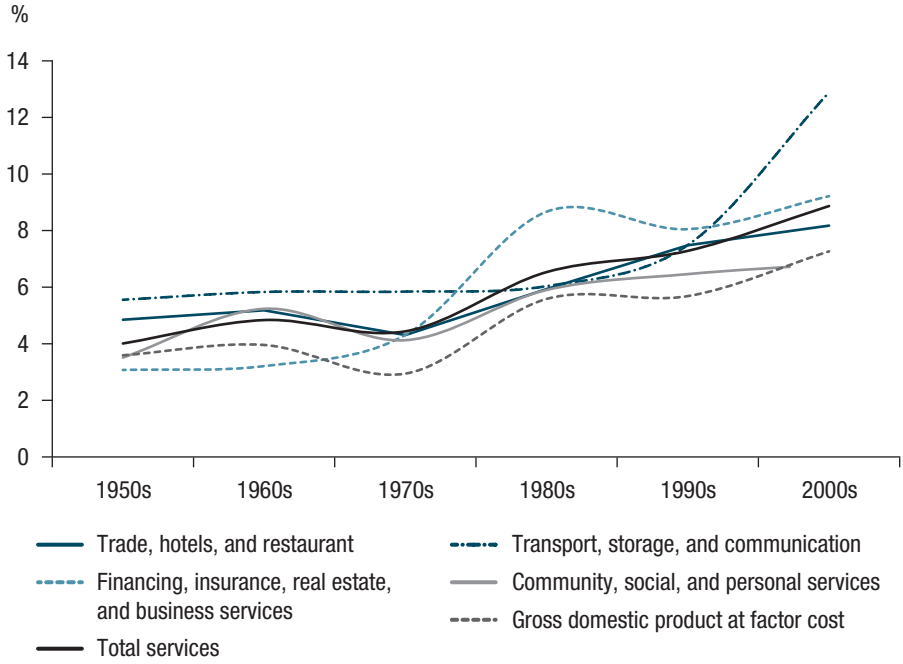
Table 9.3 shows that in FY1993, close to 63% of the population was engaged in agriculture while 22% worked in services (in both the formal and informal sectors). Over time, the percentage of people employed in agriculture has declined and employment in services has increased, although agriculture continues to have the highest share. Within services, there has been a change in the pattern of employment. The share of wholesale and retail trade has increased while the share of public administration and defense has declined.

Table 9.2
Average by Decade of the Share of Service Types in the Sector Overall and in Gross Domestic Product in India (%)

Items	1950s		1970s		1990s		2000s	
	Share in Services	Share in GDP	Share in Services	Share in GDP	Share in Services	Share in GDP	Share in Services	Share in GDP
Community, social, and personal services	35.0	10.4	35.1	12.6	30.3	13.9	26.1	14.0
Financing, insurance, real estate, and business services	25.2	7.5	20.3	7.3	26.2	12.0	27.3	14.7
Trade, hotels, and restaurants	28.5	8.5	30.2	10.8	28.5	13.0	29.4	15.8
Transport, storage, and communication	11.3	3.4	14.5	5.2	15.0	6.9	17.3	9.3

GDP = gross domestic product.
Source: Author's calculations from National Income Accounts.

Figure 9.2
Average by Decade in the Growth of Service Industries in India



Source: Author's calculation from National Income Accounts.

Table 9.3
Employment in Different Sectors and Service Industries as a Percentage of Total Employment by Fiscal Years in India

Category	1993–1994	1999–2000	2004–2005	2009–2010
Agriculture	62.8	61.7	58.5	53.2
Industry	15.2	15.9	18.1	21.5
Services	22.0	22.4	23.4	25.3
Wholesale and retail trade; repair of motor vehicles, motorcycles, and personal and household goods	7.7[a]	8.7	9.0	9.5
Hotels and restaurants	–	1.1	1.3	1.3
Transport, storage, and communications	3.4	1.1	3.8	4.3
Financial intermediation	1.0[a]	0.5	0.6	0.8
Real estate, renting, and business activities	–	0.6	0.9	1.3
Public administration and defense; compulsory social security	9.5[a]	2.5	1.8	2.1
Education	–	2.0	2.4	2.6
Health and social work	–	0.6	0.8	0.8
Other community, social, and personal service activities	0.3[a]	2.4	1.8	1.9

– = data not available.

[a] In FY1993, the National Industrial Classification 1987 was used.

Source: Author's calculations from the National Sample Survey Office reports on employment and unemployment in India, various issues.

In FY2009, services accounted for around 62% of total employment in the organized (formal) sector;[6] however, within the service sector, over 80% of the employment was in the unorganized (informal) sector. Finance, insurance, real estate, and business services and community, social, and personal services largely provide organized employment while retail and wholesale trade largely provide unorganized employment.

A large part of the organized employment in services is concentrated in the public sector; in fact, in FY1993, around 86% of the total was in the public sector, but by FY2009 it had declined to 75%. Trade, hotels, and restaurants are the only activities in which the share of the public sector is less than that of the private sector.

Overall, employment in the service sector in India is lower than its share in GDP, but it is growing. The sector has the largest share of organized employment, but within services, the organized share is small with the public sector dominating. The private sector has not been very successful in creating organized service sector employment.

4. Labor Productivity

It is difficult to do a productivity analysis in India since data on total employment are not calculated on a yearly basis and a great deal of employment in services is informal. Existing studies have, however, concluded that labor productivity has been the highest in the service sector, particularly in the decades after 1980. Using output data from National Accounts Statistics and employment data from other secondary sources, Bosworth and Maertens (2010) found that total factor productivity (TFP) was highest in service sector (Table 9.4).

Eichengreen and Gupta (2010) used the National Accounts Statistics and cross-country data from the European Union KLEMS[7] and showed that the skill content in both the manufacturing and service sectors is increasing over time. The authors divided the service sector into three groups (Table 9.5) and pointed out that productivity growth was the highest in Group 3. Within this group, the fastest growing types are business services, communications, and banking, and growth in exports has contributed to the growth of most services. Group 1 has low elasticity of demand and Group 2 has a cost-disease problem[8] leading to low productivity.

An ongoing productivity research study[9] funded by the Reserve Bank of India shows that from 1980 to 2008, TFP growth in India was highest in the service sector at 1.58% per annum followed by agriculture at 1.06% and

Table 9.4
Total Factor Productivity for Major Sectors in India, 1980–2006
(%)

Sector	1980–1990	1990–2000	2000–2006
Total Economy	2.2	1.8	2.1
Agriculture	1.9	0.7	0.9
Industry	1.5	0.6	1.6
Services	2.1	3.1	1.9

Source: Extracted from Bosworth and Maertens (2010). Table 2.3, p. 119.

Table 9.5
Categories of Services Based on their Productivity Growth

Group 1: Traditional services	Group 2: Hybrid of traditional and modern services	Group 3: Modern services
Retail and wholesale trade, transport and storage, public administration, defense	Education; healthcare and social work; hotels and restaurants; other community, social, and personal services	Financial intermediation, computer services, business services, communications, legal and technical services

Source: Author's compilation from Eichengreen and Gupta (2010).

manufacturing at 0.3%. Economy-wide estimates recorded an annual labor productivity growth rate of around 4.5% from 1980 to 2008 while the growth rates in labor productivity for services, agriculture, and manufacturing were 3.52%, 1.94%, and 5.45%, respectively. The study further found that labor productivity rates for services increased from 2.69% per annum from 1980 to 1999 to 6% from 2000 to 2008 due to growth in post and telecommunications, hotels and restaurants, and trade. Healthcare and social work, other services, and education registered lower rates which is a cause for concern.

The outcome of this study suffers from a lack of disaggregated data. For instance, it does not distinguish between growth in telecommunications and postal services. It is expected that the high productivity is largely driven by telecommunications since the postal service in India is still a government monopoly that suffers from overemployment.

It is difficult to compare different studies on productivity in services due to inconsistencies in the data and in classifications; however, the broad findings show that TFP in the service sector has been the highest and that communication services are one of the major propellers of growth in sector productivity in India.

5. Future Growth

India's economic growth slowed to 6.9% in 2012; nevertheless, it is projected to grow at 7.3% in 2013 which is higher than the 6% average projected growth rate for emerging and developing economies.[10] In the past decade with the rise in GDP and per capita incomes, the number of people below the poverty line has declined. Ablett et al. (2007) forecast that if the Indian economy grows at the rate of 7.3% between 2005 and 2025, then by 2025, 583 million Indians will be in the middle class which is the equivalent of the current population of Australia. The share of the middle class in the total population will increase from around

5% in 2005 to 41% in 2025, and they will account for 59% of the country's total consumption. With the increase in incomes, there has also been an increase in the literacy rate which is expected to improve further.[11] Moreover, India has one of the youngest populations in the world with 54% below 25 years of age.[12] All this is leading to a change in consumption patterns with an increase in demand for discretionary services like education, private healthcare providers, personal care, and hotels and restaurants. The Indian market is large and unsaturated, and most services have been opened up for foreign investment. India wants to be a knowledge-based hub, and the government is promoting exports of services. All these factors will drive the future growth of the service sector.

Indian government projections show that the sector will grow at a fast pace. The Planning Commission estimates that the economy will grow at 9.5% in the 12th Five Year Plan (2012–2017), and the service sector is projected to grow at the rate of 10%. Certain services like trade, hotels and restaurants, transport, storage, communications, finance, insurance, and real estate are expected to grow faster than the sector overall while others like community, social, and personal services may grow at a slower pace.

B. Assessing the Openness of the Service Sector

Reforms and liberalization along with technological developments; the growth of multinationals; new delivery models; and a large, unsaturated domestic market have enhanced India's trade and investment in services.

1. Trade

In the post-reform period (1991–2008), India's trade in services recorded substantial growth as the country became globally competitive in ICT services which increased exports manyfold and led to an increase in India's trade surplus (Alejandro et al. 2010). Service exports have contributed to inclusive economic growth by increasing the number of well-paid jobs and by reallocating labor to a high-productivity sector. Service exports have also increased tax revenues and have stimulated domestic demand, including demand for infrastructure.

Existing literature shows that there have been changes in the composition of trade from traditional services such as travel and transport toward knowledge-based and business services (Chanda 2002). Further, India has export potential in skill-based and labor-intensive services (Ministry of Finance 2007).

Trade in services has been growing rapidly in the past 2 decades. In the 1980s, it was valued at $6 billion and in 2010, it reached $240 billion. India's

service exports not only grew more rapidly than the country's merchandise exports, they also grew faster than global service exports. From 1980 to 2010, India's service exports grew at a compound annual growth rate of 13.2% while world exports of services grew at the rate of 7.84%. A substantial part of this growth (21.7%) was in the post-reform period (1991–2010).[13] In the 1980s and 1990s, India had a negative trade balance in services, but from 2004 on, the balance has been positive.

In the 1980s, trade in services contributed to 20% of India's total trade. In 2010, the share increased to 30.4% compared with the global average of 24%. Trade in services as a percentage of GDP increased from 3.2% in 1980 to 13.9% in 2010;[14] however, this is still low compared to the contribution of the service sector to India's GDP.

India's share in world trade in services increased from less than 1% to over 3% between 1980 and 2010, while its share in goods trade remained constant at 1%. While world trade in services is still dominated by the developed countries, emerging economies like the PRC and India are now among the top 10 exporters and importers of services among WTO members. In 2011, India was the eighth largest exporter while its rank in importing services remained seventh. The PRC was the fourth largest exporter of services.[15]

India has both export and import interests in services. With a huge English-speaking, skilled workforce available at competitive prices, the country has created a niche for itself in exporting knowledge-based services but needs foreign investment and best management practices in infrastructure services.

Developed countries are the major trading partners for India in services. By country, the US is the largest export destination followed by the UK and other European countries and other English speaking countries like Canada. India imports the bulk of its services from Australia, France, Germany, Japan, the Republic of Korea, the UK, and the US.

Export and import trends in different types of services show that from 2000 to 2010, financial services grew at an average annual rate of 34.6% followed by computer and information services at 22.6% and insurance services at 20.2%. From 1980 to 2010, exports of business services grew at an average annual rate of 12.6% compared to 12% in transport and 7.6% in travel services. In 2010, computer and information services were 48.5% of India's total service exports followed by other business services (23.4%), travel (11.4%), transportation (10.7%), and financial services (4.9%). Transportation services accounted for around 37.5% of India's total imports in 2010. From 1980 to 2010, imports of transportation services grew at an average annual rate of 11.5%.[16]

To understand the pattern of specialization in service trading and whether or not the sector in India is globally competitive, the revealed comparative advantage (RCA) was calculated using Balassa's index (Balassa 1965). If the

RCA is greater than 1, the country is said to have a comparative advantage in a particular service compared with rest of the world. Table 9.6 shows that India has a strong comparative advantage in computer and information services.

Table 9.6
India's Revealed Comparative Advantage in Service Exports

Sectors	1980	1990	2000	2005	2008	2009	2010
Communications	0.0	0.0	1.7	1.3	1.0	0.6	0.5
Computer and information	0.0	0.0	10.1	9.9	8.6	8.8	7.9
Construction	0.0	0.0	1.6	0.3	0.3	0.3	0.2
Financial	0.0	0.0	0.3	0.3	0.5	0.6	0.7
Government services n.i.e.	0.5	0.1	1.5	0.3	0.2	0.2	0.2
Insurance	0.7	1.4	0.9	1.0	0.7	0.7	0.7
Other business services	1.2	2.0	1.1	1.0	0.9	0.7	1.0
Personal, cultural, and recreational services	0.0	0.0	0.0	0.2	0.6	0.5	0.3
Royalties and license fees	0.0	0.0	0.1	0.1	0.0	0.0	0.0
Transport	0.5	0.8	0.5	0.5	0.5	0.6	0.5
Travel	2.0	1.1	0.7	0.5	0.5	0.5	0.5

n.i.e. = not included elsewhere.

Source: Author's calculation from the United Nations Conference on Trade and Development (UNCTAD) Database on International Trade—Services (accessed 2 March 2012).

2. Investments

In the post-liberalization period, the service sector has attracted significant foreign investment due to the availability of skilled labor at lower wages and the large and unsaturated domestic market. According to the A. T. Kearney Global Services Location Index, in 2011 India was the leading outsourcing destination among 50 countries followed by the PRC. India's rank is high due to human resources (2nd), but it ranked poorly in terms of business environment (43rd).

According to the A. T. Kearney FDI Confidence Index,[17] in 2012 India was the second most attractive destination for FDI after the PRC; however, the Inward FDI Performance Index of the United Nations Conference on Trade and Development (UNCTAD)[18] which compares the relative performance of 141 countries in attracting FDI found that India has performed poorly compared with other developing countries. In 2010, India was ranked 97th; comparative rankings for Brazil, the PRC, and Mexico were 69th, 79th, and 84th respectively. Thus, while multinational companies have shown confidence in India, the country has not been able to attract much FDI. This may be because the reform program has slowed recently creating uncertainties. The Inward FDI Potential Index which evaluates the host country's ability to attract FDI compared with other countries based on selected factors[19] shows that India improved its ranking from 86th in the 1990s to 79th in 2010. Thus, India has the potential to attract more FDI in the future if appropriate policy measures are undertaken and business hurdles are addressed.

Economic reforms in general and the liberalization of the FDI policy in particular have led to substantial increases in FDI since the 1990s. In the 1980s, India received $0.08 billion in FDI which increased to $42.5 billion in 2008 and then declined due to the global slowdown to $24.6 billion in 2010. Cumulative FDI equity inflows were $179 billion from April 2000 to August 2012.[20] In 2009, India's share of worldwide FDI was 2.44%, up from 0.15% in the 1980s; however, India's share declined to 1.98% in 2010.[21] The bulk of FDI in India is routed through Mauritius. Other important investing countries include Japan, Singapore, the UK, and the US.

At present, FDI is allowed in most but not all services in the sector (Table 9.7). In the post-liberalization period, the overall sector has been the largest recipient of FDI with a share of over 50% between 2000 and 2011. Financial services, telecommunication services, and computer software and hardware were large recipients.

In FY2010, India's FDI outflow in the service sector was $10.3 billion out of the total outflow of $14.6 billion.[22] In FY2011, 62.1% of India's outward investments were in services followed by the manufacturing sector at 31.4%. Within the sector, financial, insurance, real estate, and business services accounted for 29% of total outward investments followed by transport, communications, and storage (15.3%); and wholesale and retail trade and restaurants and hotels (11.5%). The major destinations included Mauritius, the Netherlands, Singapore, and the US.

Table 9.7
Foreign Direct Investment Limits in the Service Sector in India

Foreign Direct Investment Prohibited
Real-estate business or construction of farm houses; railway transport services (other than mass rapid transport systems); postal services; telegraph services; professional services (legal services, accounting, auditing and bookkeeping services, taxation services, atomic energy, lottery business)
Up to 20%
Banking services – public sector[a]
Up to 26%
Broadcasting services (terrestrial broadcasting, uplinking); print media;[a] and insurance services[a]
Up to 49%
Petroleum refining by public sector undertakings, air transport services for domestic scheduled passenger airline (100% for nonresident Indians), private security agencies, financial services,[a] cable networks
Up to 51%
Multi-brand retail trading[a]
Up to 74%
Broadcasting services (teleports, direct-to-home, mobile TV; and Headend in the Sky [HITS]); air transport services (non-scheduled air transport service); establishment and operation of satellites and telecommunication services
Up to 100%
Services incidental to mining,[a] oil and gas, services incidental to energy distribution, audio-visual services,[a] telecommunication services,[a] distribution services,[a] single-brand retail trading,[a] courier services for carrying packages, education services, healthcare and related services, tourism and travel-related services, transportation services

[a] In these services, additional conditions are imposed on foreign companies.

Source: Author's compilation from the *Consolidated FDI Policy 2012* of the Department of Industrial Policy and Promotion.

C. Barriers and Reforms

The analysis in the previous sections shows that the service sector has increasingly contributed to India's GDP, GDP growth, employment, trade, and investment; however, there are some concerns that are preventing the sector from contributing to inclusive growth. First, GDP growth has slowed down which has affected growth in the service sector. Second, the sector has not been able to create enough

employment either in terms of numbers or quality of jobs. Third, although India has been portrayed as a major exporter of services, the country's ranking among WTO members in service exports is lower than that of the PRC, and India is globally competitive in only one industry: computer and information services. Fourth, India has the potential to attract FDI, but it has not been successful in doing so. This section discusses some of these key barriers and suggests reforms that will enhance productivity and efficiency and help to attain inclusive growth.

- **Service sector focus in policy making.** There is no government policy on how the sector can lead to inclusive growth. This is partly because the focus is on agriculture and manufacturing, and the service sector has largely been left to grow on its own. There is no nodal ministry for services like retailing while for others like transport and energy there are multiple ministries with conflicting interests. The quasi-federal governance structure has led to multiple regulatory bodies, numerous regulations, and multiple clearance requirements. For example, there are around 13 regulatory bodies for higher education, and each of them functions in isolation.[23] There is an urgent need to focus on the service sector and to identify the key barriers faced by different types of services and then to undertake specific reforms. For instance, in road transport, reforms should focus on establishing a seamless supply chain by removing barriers to the interstate movements of goods. This can be done with the help of technology such as computerizing check posts at state borders and with regulations such as implementing single goods and service taxes.

  In the case of industries like energy, various government departments should work together to design a policy that will facilitate equitable access at affordable prices. The policy should lay down a short-term strategy (5 years coinciding with the 5-year plans) and a long-term strategy (10 to 15 years) for development. A nodal agency can be identified for each service and given the responsibility to see that the strategies are implemented. To standardize policies across states, the central government can come up with model regulations that the state governments can implement. It is important to note that there are disparities in performance across states and that poor states seem to do badly in service infrastructure and in delivering public services like healthcare and education. For inclusive growth, policies have to focus on state-specific requirements.

- **Regulatory reforms.** Some regulations do not take into account technological developments while others are outdated or do not follow international best practices. In areas like transportation, there is a lack of comprehensive regulations enabling integrated door-to-door service which increases waste in the supply chain. In addition, existing regulations do not take into account

the characteristics of new services such as direct selling and express delivery. Lack of prescribed standards and common accreditation also adversely affect services like construction and education.

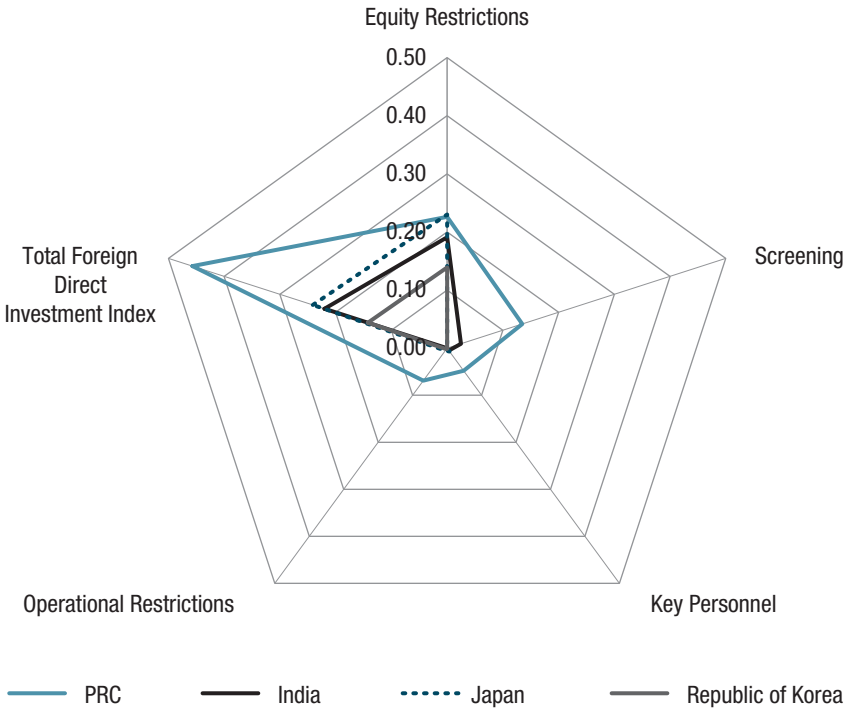
While deregulation and removing regulatory barriers are often necessary for service sector growth (Hoekman and Mattoo 2011, Jain and Ninan 2010), in India it may not necessarily be true. For example, the privatization of Indian airports led to an arbitrary increase in tariffs prior to the appointment of the Airport Economic Regulatory Authority. Since many services have erstwhile been public monopolies, the vested interests of the government and of public sector units adversely affect performance as they get preferential prices in commodities like energy. Moreover, government procurement is not always transparent, e.g., private companies working for the railways have to procure materials from vendors selected by the railways. In many services, especially infrastructure, it is often difficult for the private sector to enter and operate due to a lack of third party access and of transparent procedures for sharing scare resources among other problems. Thus, a lack of regulation is restricting the competition and efficient service provision necessary for inclusive growth.

Privatization should be accompanied by appropriate regulations based on global best practices. Regulations should be transparent and non-discriminatory, should take into account the evolving nature of the service sector and its links with other sectors, and should support its growth. Procedural hurdles can be removed by implementing one-stop clearances for projects and FDI. Monopolies in sectors such as railways and the post should be gradually phased out and at a minimum, commercially delivered services should be privatized. Public Procurement Bill 2011 should be implemented.[24] The need for regulators in specific areas should be examined and if required, independent regulators should be appointed.

- **Removal of FDI restrictions.** According to the Organisation for Economic Co-operation and Development's (OECD) FDI Restrictive Index 2010, India is considered more restrictive than the Republic of Korea and less so than the PRC and Japan (Figure 9.3) but is one of the few countries that has FDI restrictions on services that are hampering its ability to attract investment and best management practices.

  Since the government does not have adequate resources, it is important to encourage private and foreign investment in the service sector to facilitate inclusive growth. To attract FDI, the policy should be transparent, technology neutral, and should not distinguish between domestic and foreign companies. To counter any adverse impacts, regulations can be in place to monitor the sector.

Figure 9.3
Foreign Direct Investment Index for Selected Countries, 2010



PRC = People's Republic of China.

Note: The closer the score is to zero, the more open the economy. The index is based on combined scores of equity restriction, screening requirements, key personnel requirements, and operational restrictions.

Source: Kalinova et al. (2010), Table III-1, p. 19.

- **Service sector employment and education.** Employment opportunities and quality education are both necessary for inclusive growth. There is a skill shortage in information and communication technology (ICT) and organized retail. According to the Electronic and Computer Software Export Promotion Council, approximately 5,000 people are needed every year to meet the demand of the ICT industry, but the total available from educational and training institutes is only a third of this number. This is leading to a rise in salaries (average salary increase was 11% in 2012),[25] high attrition rates, and a high cost of operations. Studies (Mukherjee and Goyal 2012) have shown that although employees prefer to work in the formal sector for better salaries and job security, skill requirements are different, and it is not easy for employees to shift from the informal to the formal sector.

In India, the gross educational enrolment ratio is low, and there are wide variations in quality across institutions. Degrees granted by some private universities are not recognized even within India further affecting employability.[26] In many cases companies have to invest substantially in training employees. Critics have argued that the government's education policy and funding have focused on higher education and have neglected primary education (Kochhar et al. 2006). There are reserved seats for the so-called backward classes in higher education but not in primary education; this is not based on income. Also, labor productivity is lower in social services like healthcare and education which affects inclusive growth.

To create quality employment in the service sector, it is important to encourage growth in the formal sector. The government can work with industries and with educational institutions in public–private partnerships to identify skill requirements and design appropriate courses and training programs to facilitate their development. Today, private organizations can operate only as not-for-profit institutions in education. The government may consider allowing for-profit education while putting in place a regulatory framework to ensure that participants meet a required standard. This will facilitate private investment. Focusing on vocational training and developing appropriate curricula will increase the employability of students in the service sector. The quality of education can be improved through proper accreditation at international standards.

- **Taxes and subsidies.** India has a high corporate tax rate of 30%–40% compared to around 17% in Singapore and up to 25% in the PRC. For commodities like petroleum, there are multiple taxes and levies that vary across states. Sometimes, taxes have adverse impacts on the use of the most efficient technologies. For instance, although multi-axle vehicles are more efficient than single-axle vehicles, the motor vehicle tax is levied based on gross vehicle weight rather than on potential axle loads. This results in under-taxation of two-axle trucks. In the Union Budget for FY2012, the government proposed imposing a retrospective tax[27] which was sharply criticized by foreign investors. Cross-subsidization and inappropriate subsidies have led to misallocations of resources. In railways the average passenger tariff in India is 55% lower than in the PRC while the average freight tariff is 66% higher.[28] Similarly, while the commercial sector has to pay a higher power tariff, the agriculture sector, irrespective of land size, is highly subsidized.

  A number of tax reforms including the pending single goods and service tax and the Direct Tax Code Bill of 2010 should be implemented, and cross-subsidies should be minimized. For inclusive growth, subsidies should be targeted to the poor and needy.

- **Access and availability of infrastructure.** Unlike countries like the PRC, in India government investment in infrastructure is low and has not been able to meet demand. For instance, most ICT companies have to invest in power units due to the erratic power supply. This increases their costs. Companies in construction, ICT, hospital services, and retail, among others, find it difficult to acquire property due to the lack of urban planning, restrictive zoning regulations, outdated laws related to land conversion, and the lack of clear ownership and titles to land. This causes delays in project implementation. In addition, due to poor infrastructure planning, the full benefits of existing investments cannot be reaped. The government needs to act as a facilitator so that private developers have access to basic facilities like land. There is a need for proper urban and infrastructure planning. The focus should not only be on creating new infrastructure but also on efficiently using existing infrastructure.
- **Research and development and ICT.** Both can play key roles in inclusive growth by ensuring access to cheaper technology and by disseminating knowledge. In India, expenditures on research and development were low at around 0.8% of GDP in 2012.[29] The share in the private sector was only 0.25% of GDP compared to 1.2%–2.0% in emerging economies.

  In 2010, India had 1.53 internet subscribers per 100 inhabitants compared to 8.35 in the PRC and 35.68 in the Republic of Korea.[30] This is a cause for concern as India aspires to be a knowledge hub. Due to low ICT penetration, 67% of the revenue is from exports; the domestic market accounts for only 33%.[31]

  The Indian government can encourage investments in research and development through public–private partnerships and through fiscal incentives such as tax benefits, grants, and subsidies. ICT penetration can be increased through appropriate policies like tax incentives for setting up broadband infrastructure in rural areas or developing content in local languages. Low-cost consumer devices such as laptops, tablets, and personal computers can support ICT penetration.
- **Trade.** India's trade in services largely comprises computer and software services, and exports are concentrated in a few markets. For instance, the US accounted for 56.5% of total computer software/service exports in FY2009 followed by the European Union at 31.3%.[32] India needs to diversify its export basket and markets. A country cannot sustain its global position in trade in services by exporting manpower. Moreover, the movement of people is a sensitive issue. If India wants greater market access for the temporary movement of people, it has to remove FDI restrictions on a reciprocal basis. Unless India undertakes domestic reforms, it will be difficult to achieve.

D. Conclusions and the Way Forward

The service sector is the largest and fastest growing sector in India, it has the highest labor productivity, and it is projected to continue to grow at a fast pace. The share of services in India's total trade is higher than the global average, and India is among the top 10 WTO members in service exports and imports. There are, however, a number of concerns. India does not have a policy that can lead to inclusive growth, and numerous governing bodies and a lack of coordination among them adversely affect the growth of the sector. In many types of services, the regulations are outdated, and there are FDI restrictions and regulatory barriers. The sector has not been able to create sufficient employment either in terms of number or quality of jobs. India's service sector growth and exports of services are lower than that of competing countries like the PRC, and exports are competitive in a few services only and are concentrated in a few markets. There are wide variations in the growth of different types of services and great disparities in access to services; a major proportion of the poor in India do not have access to basic services such as healthcare and education. Infrastructure is weak, so the cost of service delivery is high. Although India wants to develop as a knowledge hub, there is no uniformity in the quality and standards of education, and formal education does not guarantee employability.

The service sector will be able to contribute to inclusive growth by enhancing investment, creating employment and human capital, and developing infrastructure. It is important for a developing country like India with a large, young population to generate quality employment and to move up the value chain. India needs private investments in key infrastructure services such as transport, energy, and telecommunications. It can attract FDI and private investment only with a stable, transparent, nondiscriminatory, competitive policy environment. If the reforms suggested here are implemented, they will enhance the productivity and efficiency of the service sector and lead to inclusive growth.

Notes

1 International Monetary Fund (2012).

2 Author's calculations from National Income Accounts. Please note that all calculations are made on GDP at real prices, constant at 1999–2000 and 2004–2005.

3 *Economic Survey of India 2011–2012.*

4 Author's calculations from National Income Accounts.

5 *Economic Survey of India 2011–2012.*

6 The organized sector consists of registered companies or units. These are professionally managed with transparent accounting systems and follow government regulations and legislation such as labor laws.

7 KLEMS refer to growth accounting with capital, labor, energy, material, and services.

8 Baumol's cost disease occurs when there is a productivity lag or low productivity growth due to the nature of the services.

9 The study is by researchers at the Indian Council for Research on International Economic Relations. This is a work in progress and findings of the project are not in the public domain.

10 *World Economic Outlook.* August 2012.

11 As per the United Nations Development Programme (2009), between 1980 and 2007, there has been an increase in adult literacy of 25% and in combined gross school enrolment of 20%.

12 For details, see http://nrhm-mis.nic.in/UI/Public%20Periodic/Population_Projection_Report_2006.pdf

13 Author's calculation using data obtained from the United Nations Conference on Trade and Development (UNCTAD) database on International Trade—Services (accessed 2 March 2012).

14 World Bank. World Development Indicators (accessed 12 December 2012).

15 World Trade Organization (2012).

16 UNCTAD database on International Trade—Services (accessed 2 March 2012).

17 The index is based on a survey of senior executives of multinational companies from 25 countries and shows the present and future prospects for FDI. For details, see Kearney (2011).

18 For details, see http://archive.unctad.org/Templates/WebFlyer.asp?intItemID=2471&lang=1; the lower the rank, the better the country's performance.

19 Factors are GDP per capita, the rate of GDP growth over the past 10 years, etc. For details, see http://archive.unctad.org/Templates/WebFlyer.asp?intItemID=2470&lang=1

20 Department of Industrial Policy and Promotion. 2012.

21 Compiled by the author from UNCTAD database on foreign direct investment (accessed 2 March 2012).

22 Extracted from Khan (2012), Table 3, p. 7.

23 Working Group Report for Twelfth Five Year Plan on Higher Education, Department of Higher Education.

24 Public Procurement Bill 2011 seeks to regulate any government purchase of more than $90,000 through transparent bidding.

25 Hewitt (2012).

26 Barber and Mourshed (2011).

27 The government in the 2012 Finance Bill has proposed amendments in the Income Tax Act of 1961 with retrospective effect to bring in taxes on net overseas mergers and acquisitions involving Indian assets.

28 Government of India, Planning Commission (2005).

29 *Economic Survey of India 2011–2012.*

30 ICT Statistics Database, International Telecommunication Union (accessed 11 May 2012).

31 Author's calculation from NASSCOM Strategic Review Report 2012.

32 Electronics and Computer Software Export Promotion Council. *w 2009–2010.*

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CHAPTER 10

The Service Sector in the Republic of Korea

Donghyun Park and Kwanho Shin

Abstract

There is a widespread perception that the service sector in the Republic of Korea lags behind its dynamic, world-class manufacturing sector. This chapter empirically analyzes the past performance of the sector and resoundingly confirms the conventional wisdom about its underperformance. In light of the country's high per capita income and development level, this is of particular concern. Possible factors underlying the poor performance include deindustrialization that is too rapid, a failure to move into higher value-added services, government regulations and restrictions to protect small and medium-sized enterprises that reduce competition, and low expenditures on research and development (R&D) and information and communication technology that constrain service innovation. Suggested policy options for strengthening the sector are to train and retrain workers dislocated from manufacturing for jobs in new service industries, to provide fiscal and other incentives to promote high value-added services, to directly stimulate R&D by providing tax credits and grants, to stimulate private venture capital, and to liberalize trade and foreign direct investment. Overall, the country faces a challenging but navigable path to developing a high value-added service sector.

A. Introduction

By any measure, the Republic of Korea has been one of the most successful economies in the postwar period.[1] Export-oriented industrialization endowed the country with a highly competitive manufacturing sector that produces and

exports among others, mobile phones, automobiles, electronic products, ships, and steel worldwide. There is, however, a general perception that the service sector has long lagged behind the dynamic, world-class manufacturing sector. There are a number of reasons why developing the service sector matters. For one, the fact that the country's manufacturing industries are globally competitive suggests that they have reached high productivity levels and that the scope for further productivity improvements is limited. In striking contrast, service sector productivity remains low compared to advanced economies—second lowest among Organisation for Economic Co-operation and Development (OECD) members after Poland (Cho 2009)—so there is plenty of scope for improvement. Put differently, developing the hitherto underdeveloped service sector can help to sustain growth at a time when the manufacturing sector is maturing and is subject to growing competition from less-developed countries such as the People's Republic of China (PRC). Furthermore, it will facilitate the country's transition to a postindustrial, service-led economy.

While growth has been respectable and the economy has continued to expand at a healthy pace since the Asian economic crisis in 1997, there has nevertheless been a clear loss of economic dynamism. Per capita income has reached levels where growth typically tends to slow down, though the weaker economic performance may partly reflect the difficult structural challenge of moving from a manufacturing-led economy to a more balanced one in which services play a larger role. In the case of a high-income, high-tech economy such as the Republic of Korea's, what are especially relevant in the context of service sector development are high-end services such as computing and business services as opposed to low-end services such as house cleaning and barber shops. In addition, while exports are skewed toward manufactured goods, there may be some high-end, tradable services in which the country has a potential comparative advantage, e.g., medical tourism.

The rapid demographic transition and growing levels of income inequality and relative poverty provide further need for a more robust service sector in the Republic of Korea (Jones 2012, Noland 2012). The country's exceptionally fast population aging has been driven by its extremely rapid decline in fertility to one of the lowest levels in the world at around 1.2 children per couple. It currently has the fourth youngest population among OECD members but will have the second oldest by 2050. A large and growing elderly population will increase the demand for certain types of services, e.g., healthcare. The physical frailty of the elderly implies a greater demand for long-term care and other services involving physical assistance, and the need for affordable, adequate, sustainable old-age income support can stimulate the demand for financial services. At the same time, growing income inequality points to a need to expand social spending. In this connection, public services that enhance the productivity of low-income

groups through education, training, and retraining and thus improve equality of opportunity are critical.

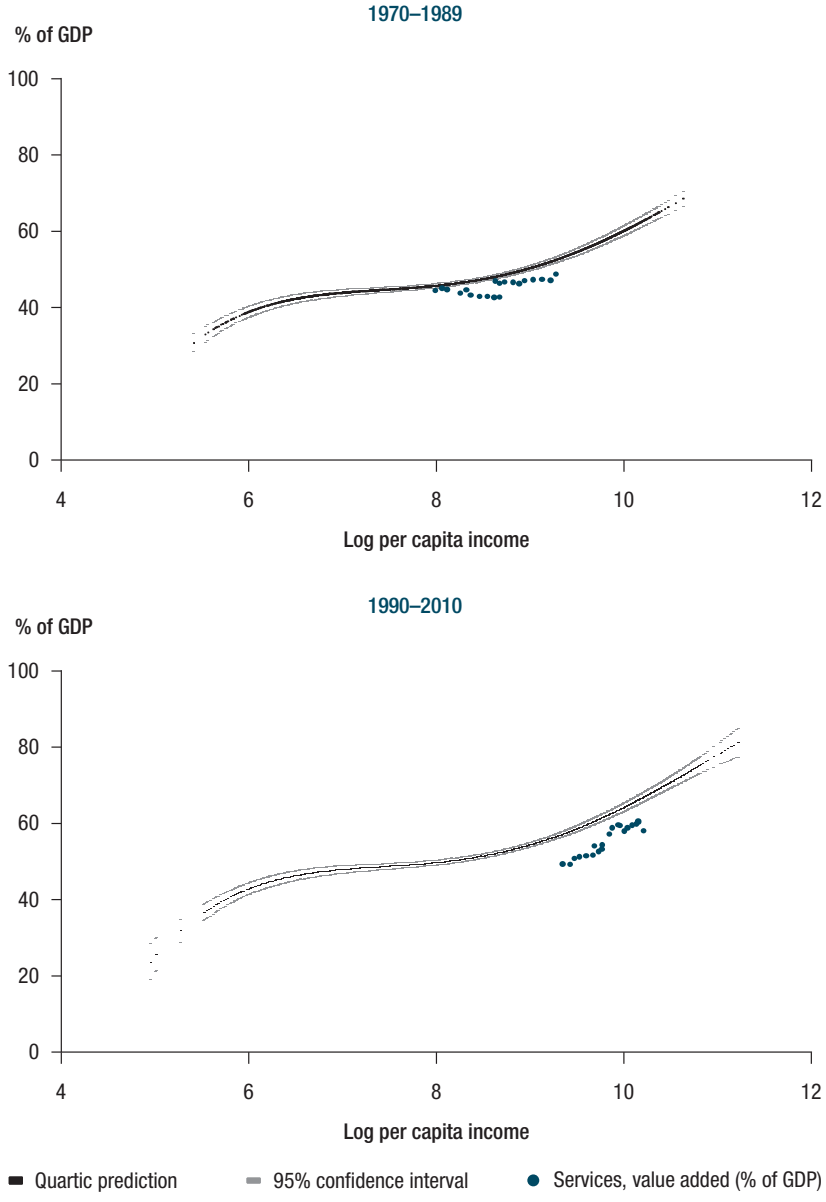
B. The Performance of the Service Sector

As noted above, there is a widespread perception that the sector performs poorly relative to the dynamic, world-class manufacturing sector.[2] Park and Shin (2012) shows that the share of agriculture in employment from 1980 to 2000 continuously declined, although it still exceeded 30% in 1980 even though industrialization started in the 1960s. The trend is consistent with the demographic change in rural areas during industrialization that leaves them with increasingly older populations. Up until the early 1990s, the shares of both industry and services in employment rose as rural residents, especially younger residents, moved to the cities. Since then, with the advent of deindustrialization and the shift into the postindustrial phase, the share of industry has fallen, but the share of services has continued to rise.

The shares of the three sectors in gross domestic product (GDP) from 1960 to 2000 follow a similar pattern. As might be expected, the share of agriculture fell sharply and continuously as the country industrialized. The share of industry rose steadily until the early 1990s when it peaked and has more or less stabilized since then, albeit with substantial volatility. On the other hand, the share of services in GDP rose steadily until the early 2010s although it has fluctuated at around 60% since then. A comparison of the evolution of the shares of services in employment and GDP since 1980 reveals a marked difference between the two. More precisely, the share of services in employment has grown noticeably faster and more consistently than its share in GDP. Growth in output has thus failed to keep pace with growth in employment in the service sector.

A well-known fact about economic growth and development is that the share of services in GDP tends to increase as a country becomes richer. Figures 10.1a and 10.1b show how the share of the service sector in GDP and employment in the Republic of Korea evolved over time as per capita GDP increased rapidly. We followed Eichengreen and Gupta (2009) and Park and Shin (Chapter 2) to estimate a quartic relationship between per capita GDP and the shares of the service sector in GDP and employment. Figure 10.1a shows and compares the actual shares of the service sector in GDP with the line fitted on the basis of the quartic regression for 1970–1989 and 1990–2010. We divided the sample period at 1990 because deindustrialization (in terms of employment) began about then. Figure 10.1b shows and compares the actual shares of the service sector in employment with the line fitted on the basis of the quartic regression for 1980–1989 and 1990–2010. Since employment data are available from 1980

Figure 10.1a
Service Sector Gross Domestic Product Share and Per Capita Gross Domestic Product in the Republic of Korea, 1970–1989 and 1990–2010

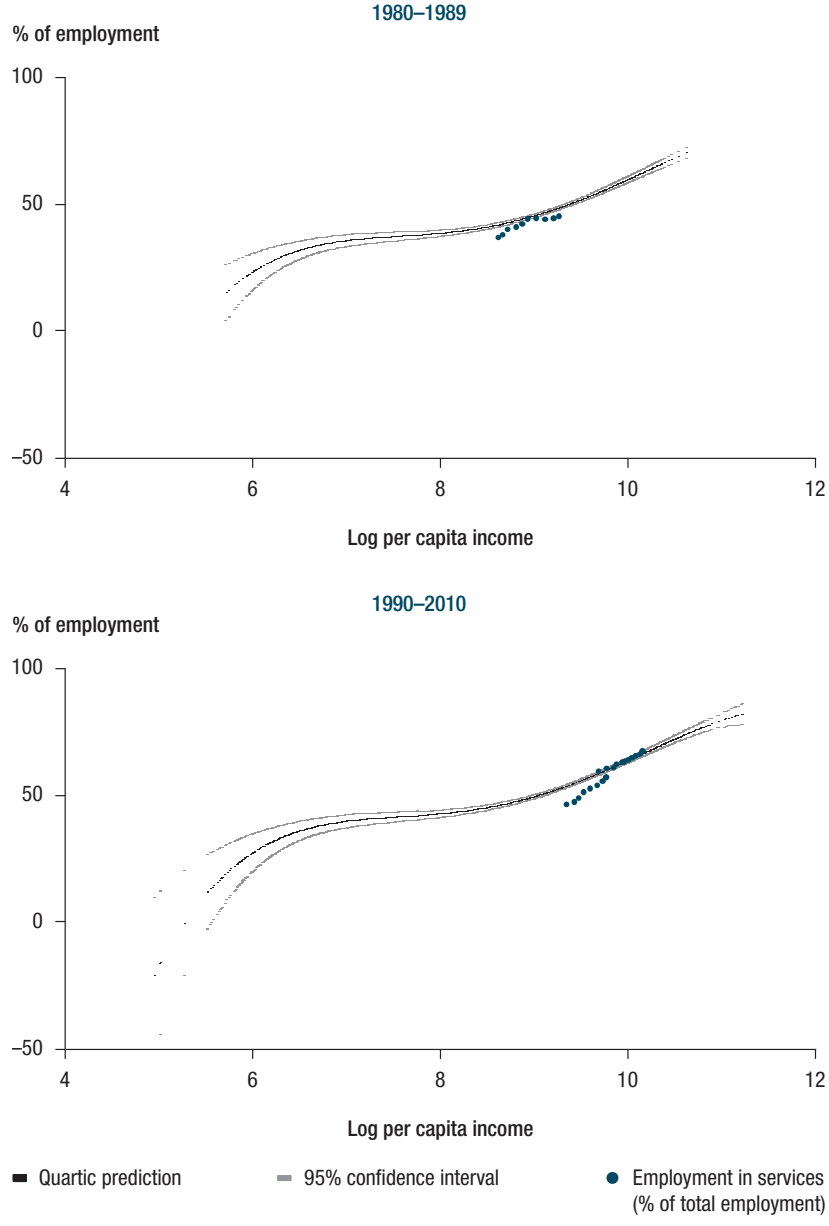


GDP = gross domestic product.

Note: The figures show the estimated relationship and 5% confidence intervals for two periods based on the regression in column II, Table 2.4, reported in Chapter 2.

Source: Chapter 2.

Figure 10.1b
Service Sector Employment Share and Per Capita Gross Domestic Product in the Republic of Korea, 1980–1989 and 1990–2010



Note: The figures show the estimated relationship and 5% confidence intervals for two periods based on the regression in column II, Table 2.5 reported in Chapter 2.

Source: Chapter 2.

onward, the first year in this figure is 1980. In both figures we denote the 95% confidence bands with grey lines. While the share of the service sector in GDP lies below the predicted line in both 1970–1989 and 1990–2010, the share of the service sector in employment lies more or less on the predicted line. This implies that labor in the service sector does not produce as much value added as it does in other countries at similar per capita GDP levels.

Table 10.1 reports the average output (value added) and employment shares of the service sector for various economies for various decades. Both output and employment shares of the service sector have continuously increased in most; however, in 2009 for example, the GDP share of services in the Republic of Korea is much lower than that in developed economies, and while the employment share is lower too, the gap is much smaller. Therefore, not only has growth in output in the sector lagged behind growth in employment over time, it has also lagged behind growth in developed economies. Both trends imply weak labor productivity in service sector. It is also striking to compare performance of the country's service sector to that of Taipei,China, another newly industrialized economy at a similar income level. In 2009 in Taipei,China, the share of GDP in services was 68.5% versus 61% in the Republic of Korea, and the share of employment was also higher at 67.8% versus 58.9%. The share of services in the Republic of Korea's GDP is comparable to that of South American and Eastern European countries, but its share of employment in services is higher except in Argentina. As emphasized by Eichengreen et al. (2012), the country's share of employment in services grew at an exceptionally rapid rate surging from 37% in 1980 to 67.8% by 2009. This suggests that deindustrialization may have been too rapid and that labor productivity growth in the service sector has not kept pace with it.

Table 10.2 reports the labor productivity growth rate for the same economies during the same period as Table 10.1. In Asian and Eastern European economies in general, the growth rate of labor productivity in services is lower than that in industry. This is in line with the widespread perception that Asian economies, especially those in East and Southeast Asia, have relatively well-developed manufacturing sectors and underdeveloped service sectors. The exception is India where the growth rate in services is much higher than that in industry. This is not surprising in light of India's well-known success as the world's foremost information technology–business process outsourcing service exporter.[3] In South American and developed economies, the growth rate of labor productivity in services is as high as or only slightly lower than it is in industry, but in the Republic of Korea, there is a huge gap between industry and services; in both the 1980s and 2000s, the difference is the largest compared with that in other economies. Again, in the international context, the country's service sector underperforms and underperforms noticeably.

Table 10.1
Output and Employment Shares of the Service Sectors in Selected Economies, 1980–2009 (%)

Economy	GDP Share				Employment Share			
	1980	1990	2000	2009	1980	1990	2000	2009
Asia								
PRC	21.6	31.5	39.0	43.4	13.1	18.5	27.5	–
Hong Kong, China	–	–	88.3	92.6	48.4	62.4	79.4	87.4
India	39.6	43.8	50.5	55.3	–	–	24.1	–
Indonesia	34.3	41.5	38.5	34.5	30.4	30.2	37.3	41.5
Korea, Republic of	47.3	49.5	57.3	61.0	37.0	46.7	61.2	67.8
Malaysia	36.3	42.6	43.1	46.2	38.7	46.5	49.5	59.5
Pakistan	45.6	48.8	50.7	54.2	26.8	28.9	33.5	35.2
Philippines	36.1	43.6	51.6	55.2	32.8	39.7	46.7	50.3
Singapore	62.3	67.8	65.4	71.6	62.6	61.7	65.5	77.1
Taipei,China	45.7	55.0	66.4	68.5	38.0	46.3	55.0	58.9
Thailand	48.1	50.3	49.0	45.2	18.9	22.0	32.2	38.9
Viet Nam	–	38.6	38.7	38.8	–	–	22.3	–
Latin America								
Argentina	52.4	55.9	67.4	60.7	–	67.6	76.2	75.2
Brazil	45.2	53.2	66.7	68.5	–	54.5	59.1	60.7
Chile	55.3	49.8	55.5	53.9	59.8	55.5	62.2	65.6
Mexico	57.4	63.7	67.8	61.3	–	46.1	55.1	62.1
Eastern Europe								
Czech Republic	–	45.0	58.0	60.5	–	–	55.3	58.3
Hungary	33.8	46.4	62.4	66.2	36.8	45.0	59.7	64.2
Developed countries								
France	63.3	68.7	74.2	79.2	56.2	64.8	69.5	74.1
Germany	56.5	61.2	68.5	72.7	–	–	63.7	69.5
United Kingdom	57.2	64.1	71.7	78.2	58.9	64.8	73.0	78.6
United States	63.6	70.1	75.4	77.4	65.7	70.7	74.3	78.6

– = data not available, GDP = gross domestic product, PRC = People's Republic of China.

Note: Due to the lack of data, we use data in 2008 instead of 2009 for the following countries: Hungary and the United States for GDP share; and the Republic of Korea, Pakistan, and the United States for employment share.

Source: World Bank. World Development Indicators database (accessed 1 February 2012).

Table 10.2
Labor Productivity Growth Rate in Selected Economies, 1980s, 1990s, and 2000s (%)

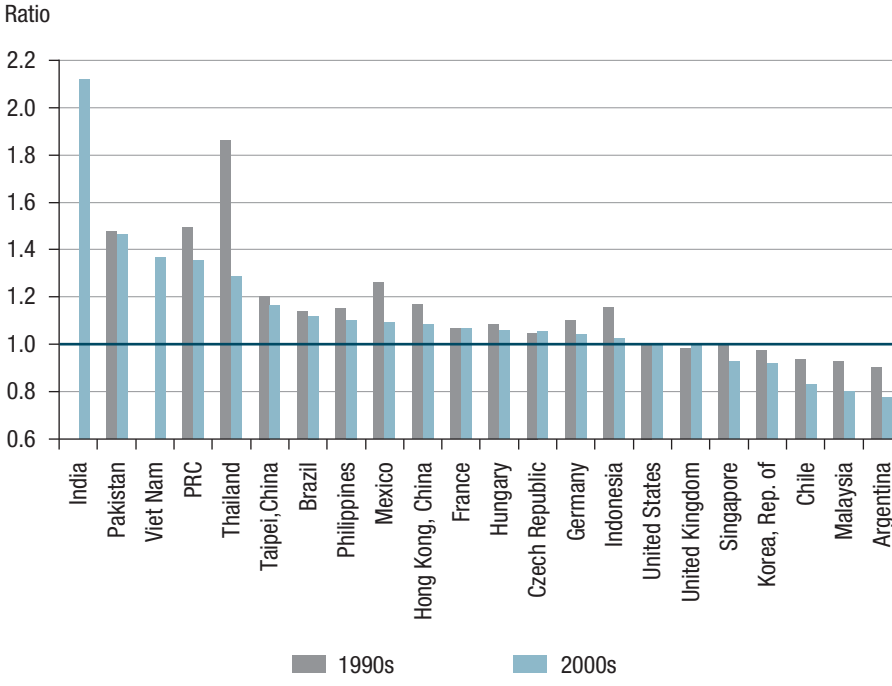
	Industry			Service		
Economy	**1980s**	**1990s**	**2000s**	**1980s**	**1990s**	**2000s**
Asia						
PRC	4.72	11.05	7.93	5.32	5.28	8.07
Hong Kong, China	–	–	1.67	–	–	1.88
India	–	–	2.02	–	–	5.41
Indonesia	6.74	–1.90	1.40	–6.85	–4.04	3.83
Korea, Republic of	4.79	7.09	5.74	1.65	1.43	1.57
Malaysia	0.36	3.22	2.05	0.77	1.05	2.10
Pakistan	5.09	5.88	3.54	2.85	0.02	4.39
Philippines	–2.11	–0.60	1.89	–1.68	–0.74	1.84
Singapore	2.62	5.72	5.29	4.72	4.37	0.78
Taipei,China	4.59	3.98	4.95	3.83	4.01	1.23
Thailand	3.64	2.85	2.71	2.65	–0.95	0.08
Viet Nam	–	–	0.73	–	–	3.10
Latin America						
Argentina	–1.80	6.10	0.75	4.05	2.34	0.72
Brazil	–0.71	0.03	–1.41	–1.98	–0.18	1.10
Chile	–0.89	4.40	–0.20	0.03	3.78	1.02
Mexico	–	–0.89	–0.22	–	1.12	–1.26
Eastern Europe						
Czech Republic	–	4.92	3.71	–	–0.24	2.14
Hungary	–	6.92	2.24	–	0.84	1.52
Developed countries						
France	2.92	1.81	0.60	1.04	1.00	–0.26
Germany	–	2.30	0.13	–	1.12	0.02
United Kingdom	1.22	3.29	0.92	0.97	1.77	0.81
United States	2.06	2.86	1.74	2.15	1.37	0.98

– = data not available, PRC = People's Republic of China.

Note: Most data are available up to 2009 except for the following with the most recent available year in parenthesis: the PRC (2007), India (2005), the Republic of Korea (2008), and Pakistan (2008).

Source: World Bank. World Development Indicators database (accessed 1 February 2012).

Figure 10.2
Relative Labor Productivity of the Service Sector in Selected Economies, 1990s and 2000s



PRC = People's Republic of China.

Note: Relative labor productivity of the service sector is calculated by dividing labor productivity of the sector by the aggregate labor productivity.

Source: Data from the World Bank's World Development Indicators database (accessed 1 February 2012) and authors' calculations.

Figure 10.2 shows the relative labor productivity of the service sector. The index is calculated by dividing the labor productivity of the sector by aggregate labor productivity. If it is greater (less) than 1, labor productivity is higher (lower) than aggregate labor productivity. Therefore, the index gauges whether service workers are more or less productive than workers in the economy as a whole. We measure it for the averages of the 1990s and 2000s. Labor productivity in services is higher than 1 in a number of economies, and in general, the less developed the economy, the higher it is. This is due to the large share of the agriculture sector in less-developed economies. Relative productivity is less than 1 in both periods and even declines between the 1990s and 2000s in the Republic of Korea. Given the country's income and development level, its relative labor productivity in services seems noticeably low.

According to Eichengreen and Gupta (2009), there are two distinct waves of service sector growth and development. In the first wave, the share of output begins to rise at relatively modest incomes but then at a decelerating rate as the economy grows. In the second wave, the share again rises at higher levels of income. The two waves are populated by different kinds of services. The first is characterized by traditional services—lodging, meal preparation, house cleaning, and beauty and barber shops—while the second is dominated by modern services—banking, insurance, computing, communication, and business services. Based on these findings, they defined three groups of services according to whether their shares of GDP have fallen, risen slowly, or risen rapidly over time.[4] The first group (group I) includes traditional services: retail and wholesale trade, transport and storage, and public administration and defense. In many countries, particularly in advanced ones, the share of this group in GDP has fallen noticeably over time. The second group (group II) is a hybrid of traditional and modern services and includes education; healthcare and social work; hotels and restaurants; and other community, social, and personal services. Its shares rise slowly with time. The final group (group III) consists of modern services consumed by both households and businesses and includes financial intermediation, computer services, business services, communication, and legal and technical services. The share of group III in GDP has been increasing very rapidly in recent years. In light of its high income and development level, what is most relevant and crucial for the Republic of Korea is to develop services in group III.

Tables 10.3a and b show the shares of groups I, II, and III in (a) output (GDP) and (b) employment. In each panel, the first column is the United States (US), the second column is the European Union (EU)-15 average, and the third column is the Republic of Korea. The share of group I in output decreased over time in all three cases; however, it was still large and comparable to that of either group II or III. In fact, in the Republic of Korea it still remains the largest group. The share of group II in output increased moderately over time while that of group III increased the most rapidly. The country's share of each group is lower than that of either the US or the EU-15, and the share of group III in output is particularly small. This is mainly due to the low share of other business activities that include all the services not related to real estate. They are a key area where productivity growth is high in many advanced economies. Other than business activities, the output share of healthcare and social work is also particularly small.

The share in employment shows a similar pattern. One difference is that the share of group I for the EU-15 did not decrease over time. The difference between the shares in the Republic of Korea and the EU is very small in groups I and II, but the difference remains large in group III. The share of employment in healthcare and social work and in other business activities is especially small.

Table 10.3a

Output Shares of the Service Groups in Various Years in the Republic of Korea, the United States, and EU-15 (%)

	1970			1980			1990			2000			2007		
	US (1977)	EU-15	Rep. of Korea	US	EU-15	Rep. of Korea	US	EU-15	Rep. of Korea	US	EU-15	Rep. of Korea	US	EU-15	Rep. of Korea
Group I	24.3	22.9	26.3	23.8	22.1	24.7	21.9	20.1	20.4	20.3	20.1	18.1	20.4	19.2	18.0
Public administration and defense	9.8	8.8	6.5	9.3	8.6	6.1	9.3	7.1	5.2	7.7	6.6	5.7	8.0	6.2	6.4
Wholesale trade	5.0	4.7	6.4	5.4	4.2	5.5	4.5	4.1	4.7	4.6	4.4	3.4	4.7	4.2	2.9
Transport and storage	3.4	5.2	5.9	3.4	5.5	6.6	2.8	5.0	4.8	2.9	5.0	4.6	2.7	4.9	4.9
Retail trade	6.1	4.1	7.6	5.7	3.8	6.6	5.3	3.9	5.6	5.1	4.1	4.4	5.1	3.9	3.8
Group II	13.8	10.9	9.5	14.2	15.1	9.2	16.9	16.1	11.8	17.8	17.7	13.3	19.2	17.8	15.3
Health and social work	4.9	3.6	1.0	5.3	5.3	1.0	7.0	5.9	2.1	7.0	6.5	2.7	8.2	6.6	3.9
Education	4.4	3.6	3.7	4.3	5.3	4.3	4.5	5.1	4.7	4.6	5.1	5.0	4.8	5.1	6.0
Other community, social, and personal	2.3	2.2	2.2	2.4	2.7	2.1	3.0	3.0	2.5	3.6	3.6	2.6	3.7	3.7	2.9
Hotels and restaurants	2.2	1.6	2.5	2.3	1.7	1.8	2.5	2.0	2.5	2.5	2.4	2.9	2.6	2.4	2.6
Group III	13.4	10.0	4.0	14.6	12.8	9.0	18.8	16.1	11.5	22.6	18.3	14.2	23.0	20.5	16.9
Financial intermediation	5.0	3.8	2.1	5.4	4.7	5.8	6.5	5.5	5.8	8.4	5.0	6.9	8.7	5.9	8.7
Post and telecommunication	3.4	2.1	0.8	3.4	2.4	1.4	3.2	2.6	2.0	3.2	2.5	2.4	2.9	2.6	2.4
Other business activities	5.0	4.0	1.0	5.7	5.7	1.8	9.1	8.0	3.7	11.0	10.8	5.0	11.5	12.0	5.8

EU = European Union, US = United States.

Source: Data from EU KLEMS (accessed 1 February 2012).

Table 10.3b

Employment Shares of the Service Groups in Various Years in the Republic of Korea, the United States, and EU-15 (%)

	1970			1980			1990			2000			2007		
	US (1977)	EU-15	Rep. of Korea	US	EU-15	Rep. of Korea	US	EU-15	Rep. of Korea	US	EU-15	Rep. of Korea	US	EU-15	Rep. of Korea
Group I	27.7	21.4	14.1	27.8	23.5	18.7	26.5	24.3	23.9	24.9	24.1	25.7	24.4	23.6	23.3
Public administration and defense	10.5	6.0	1.7	10.5	7.1	2.1	9.4	7.4	2.9	8.1	7.0	3.6	8.2	6.5	3.4
Wholesale trade	4.3	3.7	4.0	4.5	4.2	5.6	4.3	4.5	7.3	3.9	4.4	7.4	3.8	4.3	6.2
Transport and storage	3.5	4.2	3.5	3.4	4.3	4.0	2.9	4.2	4.6	3.0	4.2	5.1	3.0	4.3	5.2
Retail trade	9.3	7.6	4.8	9.5	8.0	7.0	10.0	8.2	9.2	9.8	8.5	9.7	9.5	8.5	8.5
Group II	24.8	14.5	14.7	25.0	18.2	13.8	28.1	21.6	15.5	30.4	24.8	22.7	33.3	26.5	27.0
Health and social work	6.9	4.7	0.9	7.2	6.4	1.0	9.0	7.8	1.5	10.1	9.2	2.0	11.4	9.9	3.2
Education	7.7	4.2	3.1	7.3	5.6	3.4	7.3	6.1	5.1	7.8	6.5	5.6	8.5	6.7	7.2
Other community, social, and personal	4.7	2.6	3.2	4.6	3.1	3.5	5.1	3.8	4.4	5.5	4.6	5.9	5.8	4.9	7.9
Hotels and restaurants	5.6	2.9	7.4	5.9	3.1	6.0	6.7	3.8	4.5	7.0	4.5	9.1	7.6	5.1	8.7
Group III	11.4	7.1	2.4	12.4	8.9	2.7	16.1	12.1	5.1	18.5	15.4	9.3	19.3	16.9	12.6
Financial intermediation	3.8	2.0	1.6	4.0	2.7	1.4	4.3	3.1	2.4	4.2	3.0	3.6	4.2	2.9	3.5
Post and telecommunication	2.1	1.6	0.4	2.1	1.7	0.5	1.9	1.7	0.5	1.9	1.5	0.9	1.6	1.4	1.2
Other business activities	5.5	3.6	0.3	6.3	4.5	0.8	9.9	7.2	2.2	12.4	10.9	4.8	13.5	12.6	7.9

EU = European Union, US = United States.

Note: Group classifications for the service sector follow Eichengreen and Gupta (2009). Due to lack of data, US data are for 1977 instead of 1970.

Source: Data from EU KLEMS (accessed 1 February 2012).

In other community, social, and personal services, and hotels and restaurants, the employment share of the Republic of Korea is particularly large. Areas in which the share of output is very low relative to the share of employment in group I are wholesale trade, transport, and storage; in group II include other community, social, and personal services; and in group III are other business activities. These are thus services in which the country suffers from serious labor productivity problems.

While labor productivity captures how productive workers are, total factor productivity (TFP) captures the efficiency with which all factors of production are used. Table 10.4a reports the growth rate of TFP by service group. We used TFP growth for industry value added from the EU KLEMS (capital, labor, energy, materials, services) database.[5] It calculates TFP growth by subtracting the weighted cost shares of growth in capital and labor inputs from the industry value-added growth at constant prices. Instead of using standard measures of labor input such as numbers employed or hours worked, it measures labor input as labor services which takes the heterogeneity of the labor force into account. Our key findings are the following. TFP growth in group III is not always higher, but it is higher than in groups I or II from 2001 to 2007 in all three economies. Despite its low level of technology relative to the US or the EU, the country's rate of growth in TFP in groups I and II is as low as it is in those two economies. The growth rate of TFP in group III is higher than in the US and the EU; however, this is probably due to the high growth rate of TFP in financial intermediation and in post and telecommunications. The growth rate of TFP in other business activities is particularly low. Our results for TFP growth are generally consistent with those for labor productivity growth (Table 10.4b).

In sum, the evidence resoundingly confirms the conventional wisdom that the service sector performs poorly and lags behind the country's world-class manufacturing sector. This implies that there is plenty of scope for development. A well-developed service sector can contribute a lot to economic growth and dynamism. Among services, business-related activities are the most far behind, yet it is precisely these services that are pivotal for strengthening the sector in a high-income economy. Other areas of the sector that perform poorly include wholesale trade; transport and storage; and other community, social, and personal services.

C. Possible Explanations for Service Sector Performance

We explore four possible explanations for the poor performance of the service sector internationally, especially relative to the country's income and development

Table 10.4a

Average Growth Rate of Total Factor Productivity in Different Periods by Service Group in the Republic of Korea, the United States, and EU-15 (%)

	European Union-15 (EU-15)				United States				Republic of Korea			
	1971–1980	1981–1990	1991–2000	2001–2007	1978–1980	1981–1990	1991–2000	2001–2007	1978–1980	1981–1990	1991–2000	2001–2005
Group I	0.00	1.05	0.66	0.47	–1.20	0.69	1.04	1.09	–3.72	1.87	1.23	0.87
Public administration and defense	–1.37	0.09	–0.20	–0.15	–1.95	–0.51	–1.56	–0.13	–1.38	–3.22	–1.69	0.23
Wholesale trade	–0.31	0.71	0.92	1.11	–0.70	1.19	4.76	1.28	–8.77	4.71	2.21	0.42
Transport and storage	1.12	1.87	0.98	0.02	1.15	2.15	0.86	2.01	1.46	1.60	2.16	1.95
Retail trade	0.59	1.68	0.88	0.79	–1.81	1.47	2.16	2.40	–6.00	2.68	3.72	1.05
Group II	0.13	–0.52	–0.52	–0.97	0.01	–0.87	–1.11	–0.12	–1.27	2.56	–0.37	–2.21
Health and social work	0.34	–0.30	–0.14	–0.59	0.43	–2.28	–2.13	–0.13	3.67	7.01	–1.79	–4.04
Education	0.46	0.29	–0.45	–1.08	–0.23	–1.59	–1.09	–1.64	–2.34	–1.68	0.23	–1.62
Other community, social, and personal	–0.06	–1.87	–1.36	–1.36	0.49	2.43	0.07	1.84	4.29	2.85	2.28	–2.20
Hotels and restaurants	–0.50	–1.27	–0.79	–0.93	–1.10	0.37	0.22	–0.05	–6.68	8.13	–2.67	–1.35
Group III	–0.28	–0.04	0.03	0.94	0.43	–1.90	–1.20	1.37	2.38	3.70	0.35	3.09
Financial intermediation	0.06	0.62	0.78	2.25	–2.68	–4.20	–0.62	1.37	5.61	4.74	0.57	5.65
Post and telecommunication	1.37	2.45	3.50	3.72	4.66	–0.58	–0.21	4.47	6.75	7.10	11.94	7.33
Other business activities	–0.87	–1.62	–1.57	–0.61	0.79	–0.62	–2.02	0.54	–8.81	0.33	–4.88	–3.34

Source: EU KLEMS database (accessed 1 February 2012).

Table 10.4b

Average Growth Rate of Labor Productivity in Different Periods by Service Group in the Republic of Korea, the United States, and EU-15 (%)

	European Union-15 (EU-15)				United States				Republic of Korea			
	1971–1980	1981–1990	1991–2000	2001–2007	1978–1980	1981–1990	1991–2000	2001–2007	1978–1980	1981–1990	1991–2000	2001–2005
Group I (weighted total)	1.38	1.40	1.89	1.03	–0.73	1.64	2.54	2.27	0.00	1.32	1.99	2.06
Public administration and defense	0.64	0.68	1.07	1.04	–1.40	0.93	–0.19	0.68	–2.97	–3.12	–0.51	1.62
Wholesale trade	1.00	1.06	2.98	1.50	1.22	2.93	6.62	2.95	1.17	4.20	2.61	2.93
Transport and storage	2.78	2.57	2.81	0.94	1.84	2.40	2.32	2.87	7.15	3.18	3.45	2.04
Retail trade	1.85	1.91	1.00	0.48	–2.11	1.60	3.01	3.08	0.99	3.96	3.05	1.96
Group II (weighted total)	0.63	–0.42	0.08	–0.39	0.21	–0.52	–0.51	0.62	1.71	1.99	–0.30	–1.19
Health and social work	0.46	–0.56	0.42	0.63	0.53	–1.57	–1.47	1.05	4.40	7.65	–0.57	–4.27
Education	0.65	0.17	0.17	–0.90	0.61	–0.57	–0.47	–0.95	0.38	–1.92	–0.06	–2.09
Other community, social, personal	1.07	–0.31	–0.40	–0.91	1.02	1.95	0.76	1.84	2.81	3.01	2.08	–0.76
Hotels and restaurants	0.43	–1.60	–0.51	–1.78	–2.76	0.09	0.59	0.35	3.31	7.54	–2.80	1.85
Group III (weighted total)	1.35	0.71	1.62	1.77	2.22	0.24	1.79	3.07	10.86	5.13	2.77	2.91
Financial intermediation	0.14	1.10	2.06	2.27	1.67	0.26	2.91	2.58	16.49	5.85	2.44	5.54
Post and telecommunication	3.28	3.76	7.44	5.36	6.22	1.01	2.93	6.45	13.49	10.46	12.09	5.58
Other business activities	1.87	–0.39	–0.45	0.05	0.79	–0.18	0.51	2.25	2.77	2.35	–1.40	–4.88

Note: Group I, II, and III values are weighted averages with the individual industry's value added used as weights. Due to data availability, the period covered for EU-15 countries is indicated in parenthesis as follows: Austria (1981–2007), Belgium (1981–2006), Denmark (1981–2007), Spain (1981–2007), Finland (1971–2007), France (1981–2007), Germany (1992–2007), Greece (not available), Ireland (1989–2007), Italy (1971–2007), Luxembourg (not available), the Netherlands (1980–2007), Portugal (not available), Sweden (1994–2007), and the United Kingdom (1971–2007).

Source: EU KLEMS database (accessed 1 February 2012).

level.[6] First, too rapid deindustrialization, most evident in the sharp rise in the share of services in employment, may have led to a lot of underemployment in marginal services jobs. Second, government regulations and restrictions designed to protect small and medium-sized enterprises (SMEs) and service sector jobs may constrain the growth of the sector. Third, relatively low research and development (R&D) expenditures in the service sector and low information and communication technology (ICT) investments may hinder innovation and thus movement to high value-added service activities. Fourth, barriers to trade and foreign direct investment (FDI) in services designed to protect domestic firms and industries from competition weaken the incentive to become more efficient.

1. Deindustrialization and Underemployment

As evident in Table 10.1, the share of services in employment grew at an exceptional speed.[7] The frantic pace of reallocating labor from manufacturing to services has made it difficult for some workers to find new jobs, so they have ended up in disguised unemployment in the service sector which contributes to low productivity growth, i.e., they are underemployed in marginal jobs. Based on a shift-share analysis, Eichengreen et al. (2012) found that roughly 70% of the growth in aggregate labor productivity in the country from 1970 to 2007 was attributable to the "within effect," i.e., economy-wide increases in productivity holding sector shares constant that are not due to the reallocation of workers. In particular, they found that it was manufacturing with its relatively fast productivity growth that mainly accounted for the within effect. The effect of the shift due to reallocating workers from low-productivity to high-productivity sectors is relatively minor. Therefore, it is clear that reallocating labor from the manufacturing sector to the service sector did not contribute a lot to productivity growth. On the contrary, the too rapid reallocation of labor to the service sector constrained its growth in productivity.

2. Government Regulations and Restrictions

While the objective of government regulations and restrictions on the service sector is to protect SMEs and jobs, there is a serious risk that they end up stifling the growth and dynamism of the sector. We follow Wölfl et al. (2010) to construct Table 10.5 based on the concept of product market regulation (PMR) indicators. According to Wölfl et al., the underlying idea behind the PMR indicators is to turn qualitative information such as laws and regulations that may affect competition into quantitative indicators. They seek to measure regulations that are potentially anticompetitive in areas where competition is viable and look primarily at

Table 10.5
Integrated Product Market Regulation Indicators in Selected Economies

	PRC	India	Indonesia	Japan	Rep. of Korea	OECD average
Product market regulation	**3.30**	**2.84**	**2.73**	**1.14**	**1.48**	**1.36**
State control	**4.63**	**3.58**	**4.36**	**1.43**	**1.99**	**2.04**
1. Public ownership	**5.33**	**4.00**	**5.10**	**2.01**	**2.76**	**2.93**
Scope of public enterprise sector	6.00	4.91	5.73	2.00	1.75	3.08
Government involvement in infrastructure sector	5.48	4.65	4.83	1.18	2.65	3.30
Direct control over business enterprise	4.50	2.45	4.74	2.85	3.88	3.20
2. Involvement in business operation	**3.94**	**3.15**	**3.63**	**0.85**	**1.22**	**2.42**
Price controls	4.38	1.13	3.00	1.40	1.78	2.64
Use of command and control regulation	3.50	5.18	4.25	0.31	0.67	2.53
Barriers to entrepreneurship	**2.89**	**2.73**	**1.86**	**1.37**	**1.14**	**1.42**
1. Regulatory and administrative opacity	**0.25**	**2.01**	**0.16**	**1.13**	**0.00**	**1.55**
License and permits system	0.00	2.00	0.00	2.00	0.00	1.87
Communication and simplification of rules and procedures	0.50	2.02	0.32	0.25	0.00	0.91
2. Administrative burdens on start-ups	**5.58**	**4.44**	**1.64**	**0.74**	**1.57**	**1.68**
Administrative burdens for corporation	5.25	4.50	1.00	1.75	2.75	1.36
Administrative burdens for sole proprietor firms	5.50	5.50	2.25	0.00	0.75	1.53
Sector-specific administrative burdens	6.00	3.33	1.67	0.46	1.21	1.55

continued on next page

Table 10.5 continued

	PRC	India	Indonesia	Japan	Rep. of Korea	OECD average
3. Barriers to competition	**2.83**	**1.74**	**3.79**	**2.24**	**1.85**	**1.77**
Legal barriers	1.43	0.86	4.57	1.43	1.14	1.52
Anti-trust exemptions	0.00	1.23	2.86	0.50	0.44	1.37
Barrier to entry in network sectors	5.39	3.56	3.92	3.68	3.52	1.57
Barrier to entry in services	4.50	1.33	0.00	3.36	2.31	1.76
Barriers to trade and investment	**2.40**	**2.22**	**1.97**	**0.62**	**1.30**	**0.63**
1. Explicit barriers to trade and investment	**2.52**	**2.84**	**2.33**	**1.24**	**1.00**	**1.08**
Barriers to FDI	3.36	2.52	2.88	1.48	1.01	1.34
Tariffs	2.00	4.00	1.00	0.00	2.00	1.31
Discriminatory procedures	2.21	2.00	3.13	2.25	0.00	1.08
2. Other barriers	**2.27**	**1.60**	**1.60**	**0.00**	**1.60**	**0.79**
Regulatory barriers	2.27	1.60	1.60	0.00	1.60	0.87

FDI = foreign direct investment, OECD = Organisation for Economic Co-operation and Development, PRC = People's Republic of China.

Source: OECD Indicators of Product Market Regulation database referring to the beginning of 2008 (accessed 1 February 2012).

policy settings instead of market outcomes. The economy-wide PMR indicator covers both general and sector issues in three domains: state control, barriers to entrepreneurship, and barriers to trade and investment.

Table 10.5 reports PMR scores in the three domains for the OECD average and for five Asian countries: the PRC, India, Indonesia, Japan, and the Republic of Korea.[8] The Republic of Korea's economy-wide PMR score is 1.48, a little bit higher than the OECD average (1.36) but much lower than that of other countries such as the PRC (3.30), India (2.84), and Indonesia (2.73). A lower score means fewer restrictions. The indicator for state control in the Republic of Korea (1.99) is lower than the OECD average (2.04), and the indicator for barriers to entrepreneurship is also lower (1.14) than OECD's (1.42), but at 2.75, the country does poorly on the score for administrative burdens on start-ups, especially for corporations, compared with the OECD average of 1.36. The Republic of Korea does particularly poorly on barriers to entry in services at 2.31 compared with

1.76 for OECD members and fares even worse than India and Indonesia. The country also scores poorly in the indicators for barriers to trade and investment at 1.30 versus OECD's 0.63. In particular, the score for tariffs (2.00) and other regulatory barriers (1.60) are worse than the OECD scores of 1.31 and 0.79, respectively.

Many of the government's restrictions on the service sector are geared toward protecting employment in SMEs. For this reason, it would be useful to examine their status (Table 10.6). The relative labor productivity as measured by the relative value added per person employed in SMEs for the service sector as a whole changed from 49% (26.1/53.3) of large firms in 2001 to 41% (61.1/148.1) in 2009 (as calculated from the bottom line). The problem of poor labor productivity in SMEs thus grew more acute since labor productivity growth over the past 10 years was considerably higher among large firms than among SMEs.

The problem is more severe in more traditional services. The relative labor productivity of SMEs in group I plunged from 52% to 29% during the same period. The relative productivity of SMEs declined from 58% to 36% in group II and from 92% to 66% in group III. A sizeable gap in productivity between large and small firms is evident in every group; however, as a result of different relative productivity growth, the gap is now smallest in group III. This reflects the fact that the regulations tend to protect SMEs engaged in more traditional services. More specifically, the gap is particularly large in wholesale and retail trade, hotels and restaurants, education, arts and sports, and real estate and renting where restrictive regulations are heavy and low-productivity SMEs can still survive. It is, however, worrisome that the productivity gap is also widening even in group III. Heavy government protection of SMEs is motivated by their high share in employment: it increased from 86.3% to 91.2% overall, from 90.9% to 95.7% in group I, from 92.1% to 93.9% in group II, and from 71.2% to and 78.9% in group III.[9]

3. Research and Development and Information and Communication Technology Investments

Another possible explanation for the poor performance of the service sector is relatively low R&D expenditures and low ICT investment, both of which hinder innovation in services and moving up the value chain toward higher value-added services.[10] R&D intensity in a sector is measured as expenditures as a percentage of value added in the sector. Data were collected from the OECD Structural Analysis (STAN) database indicators for 2004 to 2009, the most recent years available. The R&D intensity of the Republic of Korea's manufacturing sector is higher than the OECD average and is 9th highest out of 33 countries. In contrast, the R&D

Table 10.6

Comparison of Small and Medium-sized Enterprises and Large Firms in Service Sectors in the Republic of Korea

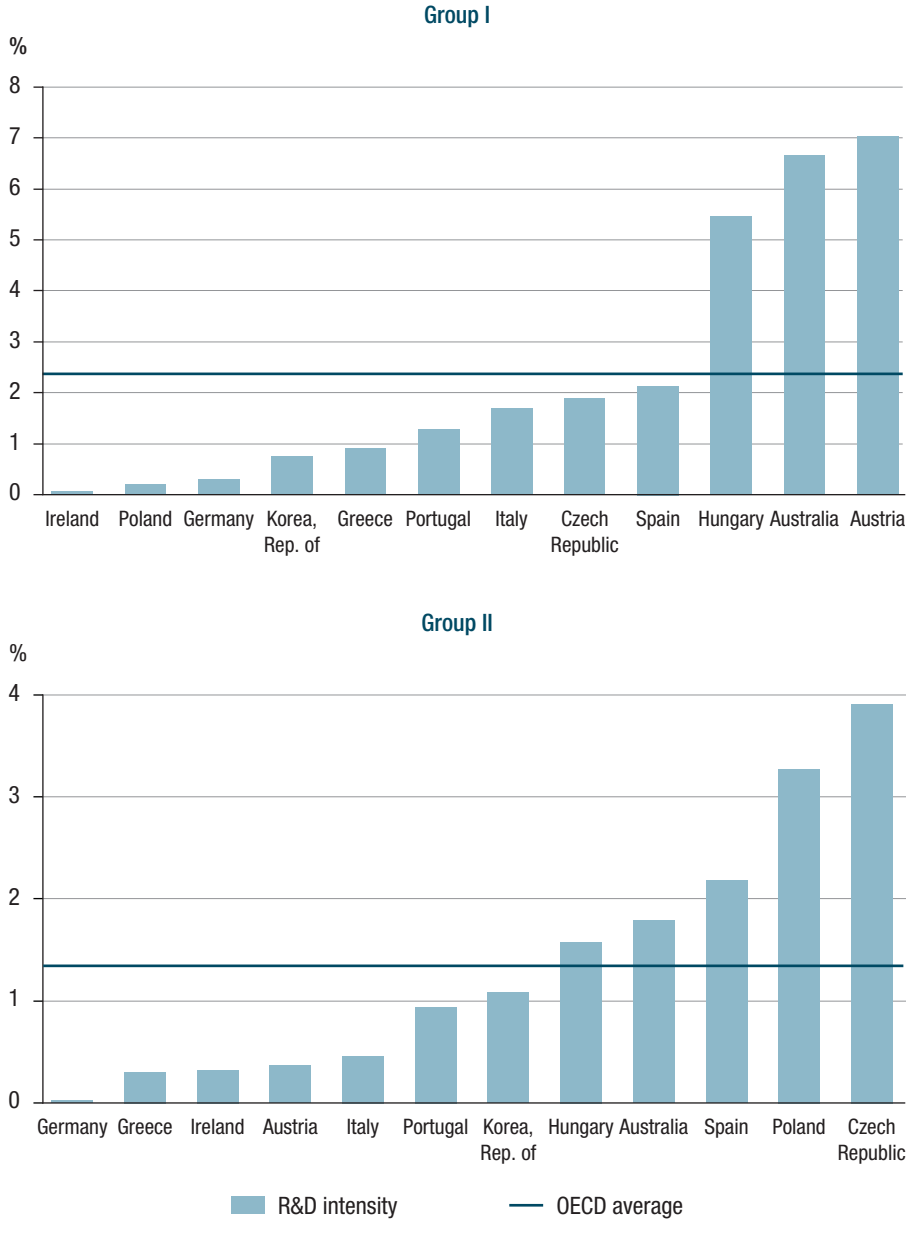
	Value-added per Person (Million won)				Operating Profit/Sales (%)				Salary/Sales (%)				Share of SMEs in Output (%)		Share of SMEs in Employment (%)	
	SMEs		Large firms		SMEs		Large firms		SMEs		Large firms					
Industry	2001	2009	2001	2009	2001	2009	2001	2009	2001	2009	2001	2009	2001	2009	2001	2009
Group I	33.0	64.0	63.9	220.4	15.0	7.3	6.3	7.2	5.2	6.9	4.5	6.7	83.7	86.6	90.9	95.7
Wholesale and retail trade	40.2	61.9	31.0	221.7	–	7.3	–	7.2	–	18.8	–	19.8	91.2	86.5	88.9	95.8
Waste disposal and reclamation	32.9	153.4	64.3	197.5	15.0	9.4	6.3	5.0	5.2	6.8	4.5	6.5	83.6	88.0	90.9	90.4
Group II	17.3	47.7	30.0	133.3	35.1	19.6	14.3	5.6	18.9	23.4	25.7	31.9	87.1	84.7	92.1	93.9
Hotels and restaurants	14.6	43.7	33.2	124.9	32.8	20.8	12.8	4.6	15.8	15.9	20.5	27.9	87.6	95.0	94.1	98.2
Education	16.3	40.8	26.1	124.3	32.3	17.4	19.0	6.5	36.5	34.1	35.5	24.8	70.6	92.2	79.4	97.3
Health and social work	32.0	58.4	31.8	113.1	38.5	19.4	19.8	3.2	22.3	35.3	32.7	41.3	95.7	71.1	95.7	82.7
Arts and sports	–	64.5	–	275.7	–	15.2	–	12.3	–	16.7	–	12.7	–	69.7	–	90.8
Repair and personal	18.5	42.4	29.8	87.7	39.3	21.5	11.3	0.7	16.6	19.9	25.7	38.2	89.5	96.6	93.2	98.3
Group III	33.5	90.6	36.6	136.8	23.7	11.6	11.2	9.5	24.0	28.8	27.1	24.4	69.4	71.2	71.2	78.9
Information and communication	–	155.8	–	304.6	–	8.7	–	10.9	–	23.3	–	20.4	–	69.6	–	81.7
Real estate and renting	26.6	88.3	24.2	338.7	34.1	10.6	5.1	11.1	18.4	20.0	15.2	8.3	77.7	63.3	76.0	86.9
Science and technology	35.4	98.1	48.1	172.0	–	17.1	–	8.3	–	32.9	–	35.9	79.5	76.0	84.1	84.7
Business services	35.5	49.2	37.5	25.3	21.0	9.0	13.1	2.4	25.5	44.6	30.8	68.9	62.8	80.8	64.1	68.4
Total services	26.1	61.1	53.3	148.1	19.0	10.4	8.3	7.7	9.1	13.5	8.7	17.7	75.6	80.9	86.3	91.2

– = data not available, SMEs = small and medium-sized enterprises.

Note: Group classifications for the service sector follow Eichengreen and Gupta (2009).

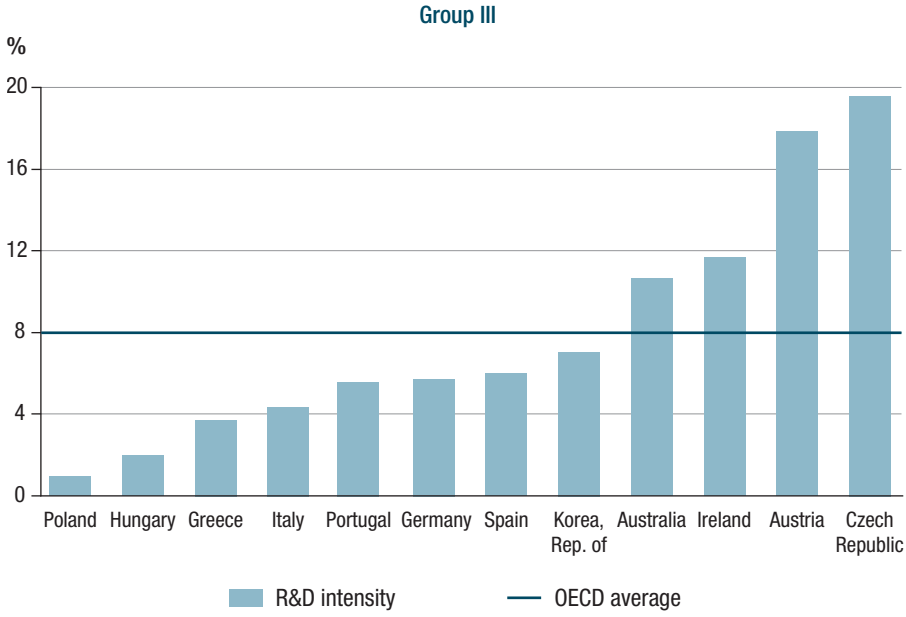
Source: Authors' estimates based on data collected from the Korea Federation of SMEs.

Figure 10.3
Research and Development Intensity of Service Groups in Selected Economies



continued on next page

Figure 10.3 continued



OECD = Organisation for Economic Co-operation and Development, R&D = research and development.

Notes: R&D intensity is measured as R&D expenditures as a percentage of value added in each group. Group classifications for the service sector follow Eichengreen and Gupta (2009). Group I includes wholesale and retail trade; group II includes hotels and restaurants and community, social, and personal services; and group III includes financial intermediation and real estate, renting, and business activities. R&D expenditure data are collected from OECD STAN Indicators and value-added data are from EU KLEMS. The data are for the most recent year available as follows: Australia (2004); Greece, Ireland, Poland, and Portugal (2005); Austria, Germany, Hungary, the Republic of Korea, and Spain (2006); and Czech Republic and Italy (2007).

Sources: OECD STAN Indicators and EU KLEMS databases (accessed 1 February 2012).

intensity of the service sector is lower than the OECD average and is only 18th out of 33 countries. Therefore, there are visibly more innovative investments in the manufacturing sector than in the service sector. This may help to explain why services lag behind manufacturing in productivity. As evident in Figure 10.3, for every service group, R&D intensity in the Republic of Korea is under the OECD average. The gap is largest for group I which is subject to the most regulatory restrictions and thus provides the least incentive for investing in R&D.

In the EU KLEMS database, ICT investment is defined as investment in computing equipment, communication equipment, and software. From ICT investment, the database constructs ICT capital, then based on the standard growth accounting exercise, value-added growth is disaggregated into the

contributions of capital—both ICT and non-ICT, labor, and multifactor productivity. In general, the ICT contribution is largest for group III followed by group II and is lowest in group I. This is intuitively plausible because modern services stand to gain the most from ICT. In general, the ICT contribution to value-added growth increases over time if we exclude the last sample period. Interestingly, the contribution declines in every country in the last period. As might be expected, the contribution is larger in group III, the modern service sector, than in groups I or II. When we compare the Republic of Korea with the US and the EU, the contribution of ICT capital is lower and is markedly lower for group I. The difference is smallest in group III. The only exception is telecommunications, the one area in group III in which the contribution of ICT capital actually exceeds that of the EU and the US.

4. Barriers to Trade and Foreign Direct Investment

Just like barriers to goods trade and barriers to FDI in manufacturing, the main objective of barriers to trade and FDI in services is to protect domestic firms and industries from foreign competition. The standard argument for opening up trade and FDI is also identical for both manufacturing and services: they encourage domestic firms and industries to become more efficient in order to survive foreign competition. By the same token, the standard argument against barriers to trade and FDI in both sectors is that they hamper productivity growth by diluting competition and hence the incentives of domestic firms to innovate and improve.

Table 10.7 reports the share of the service trade in total trade for 12 Asian economies along with selected major Latin American, Eastern European, and developed countries from 1990 to 2010. In most, the share of total trade has increased over time particularly in India and the United Kingdom (UK). It also has increased in the Republic of Korea, but the increase was minimal, particularly from 2000 to 2010. Compared to other Asian economies, the share of trade in services is not large; in fact, it is smaller than Hong Kong, China; Pakistan; the Philippines (except in 2000); and Singapore. The country's share was comparable to that of Latin American and Eastern European countries, and it was lower than that in most developed countries. The only exception is Germany which is well known for its strong bias toward manufacturing and relatively underdeveloped service sector. In the Republic of Korea, the share of services in imports was larger than that in exports (except in 1990) which was also true for Latin American countries, but in the Republic of Korea, the difference grew larger over time. In developed countries except in Germany and in Eastern Europe, the share of services in exports exceeded its share in imports.

Table 10.7
Service Trade Shares in Total Trade in Selected Economies (%)

Economy	Service Exports/Total Exports			Service Imports/Total Imports		
	1990	2000	2010	1990	2000	2010
Asia						
PRC	10.2	10.9	9.8	9.3	14.4	12.7
Hong Kong, China	–	16.6	21.2	–	10.5	10.4
India	20.2	27.8	35.5	20.6	26.3	26.6
Indonesia	8.5	7.4	9.6	22.0	27.9	16.9
Korea, Republic of	13.6	15.0	15.1	13.5	17.4	18.2
Malaysia	11.8	12.4	14.1	17.3	17.8	17.0
Pakistan	20.9	13.6	23.0	20.3	18.5	17.7
Philippines	28.4	8.3	22.1	12.6	10.8	15.6
Singapore	19.0	15.8	23.8	13.3	17.8	23.6
Taipei,China	9.4	11.6	12.8	20.3	15.4	12.9
Thailand	22.0	17.0	14.9	17.6	21.6	22.2
Viet Nam	–	15.8	9.4	–	18.8	11.4
Latin America						
Argentina	16.5	15.8	16.2	45.6	27.8	20.7
Brazil	10.7	14.7	13.6	26.7	23.0	25.7
Chile	18.1	17.5	13.2	22.7	21.9	17.6
Mexico	16.6	7.5	4.8	19.9	8.8	7.7
Eastern Europe						
Czech Republic	–	19.1	15.2	–	14.5	13.0
Hungary	24.0	17.0	17.5	21.8	13.1	15.1
Developed countries						
France	26.8	21.8	21.9	21.6	17.9	18.3
Germany	13.2	13.2	15.5	19.7	21.9	19.3
United Kingdom	23.6	29.6	36.8	18.5	23.0	23.1
United States	27.3	26.6	29.6	19.0	15.0	17.2

– = data not available, PRC = People's Republic of China.

Source: Authors' estimates using the World Bank's World Development Indicators database (accessed 1 February 2012).

Tables 10.8a and b report and compare the trade performance of selected major economies in the manufacturing sector (a) and the service sector (b). The Republic of Korea is the world's 5th largest exporter and 13th largest importer of manufactured goods. The fact that the country ranks among the world's five biggest exporters of manufactures is a vivid testament to its status as a globally significant manufacturer. While it generally runs a large trade surplus in manufactured goods, in contrast it plays a visibly smaller role in global trade in services as the world's 15th largest exporter and 11th largest importer. Most notably, its rank as an exporter of services is much lower than its rank as an exporter of manufactured goods (15th versus 5th) which further supports the notion that the service sector lags behind the manufacturing sector. In contrast to the large surplus in manufactures trade, the country runs a deficit in service trade.

With respect to FDI inflows, the share of FDI in the service sector of total FDI was much smaller than the OECD average in 2006. It grew but still remained smaller than the OECD average in 2010. Furthermore, the share of group III in total FDI inflows is lower in the Republic of Korea than the OECD average.

D. Policy Implications

The poor performance of the service sector and the possible explanations for it suggest policy options for improving performance. Some echo those of Pilat (2005) and Jones (2009) although they are more specific.

1. Policies for Deindustrialization and Underemployment

The very rapid rise in the share of employment of the service sector in conjunction with a markedly slower rise in its share of GDP implies that the sector has been absorbing surplus workers who are unable to find productive employment due to the structural transformation of the economy. Since many of those workers end up in marginal, low-productivity, low-wage service jobs, this reduces the productivity of the sector. The appropriate policy response does not involve slowing the pace of deindustrialization which reflects market forces and contributes to the dynamism and efficiency of the world-class manufacturing sector. Instead, it should be based on facilitating and mitigating the large adjustment costs associated with the structural shift from manufacturing to services. For example, more flexible labor markets can help to reduce the structural unemployment arising from deindustrialization. Similarly, more assistance to those workers seeking new jobs, e.g., well-designed training programs, can help workers dislocated from the manufacturing sector look for and find jobs in the new service industries that better match their qualifications.

Table 10.8a

Trade and Trade Balance in Manufacturing in Selected Economies, 2010 ($ billion)

Economy	Export	Rank	Trade Balance	Economy	Import	Rank	Trade Balance
Top 10							
PRC	1,478.1	1	617.8	United States	1,382.3	1	–536.3
Germany	1,044.2	2	318.9	PRC	860.3	2	617.8
United States	846.0	3	–536.3	Germany	725.4	3	318.9
Japan	685.3	4	334.2	France	444.2	4	–35.5
Korea, Rep. of	414.8	5	173.3	Hong Kong, China	397.1	5	–89.3
France	408.6	6	–35.5	United Kingdom	382.8	6	–98.0
Italy	368.1	7	61.7	Japan	351.1	7	334.2
Netherlands	326.1	8	29.3	Canada	308.5	8	–118.2
Belgium	309.2	9	33.0	Italy	306.4	9	61.7
Hong Kong, China	307.8	10	–89.3	Netherlands	296.8	10	29.3
Others							
United Kingdom	284.8	11	–98.0	Mexico	247.3	12	–20.7
Singapore	257.4	12	53.1	Korea, Rep. of	241.5	13	173.3
Mexico	226.5	13	–20.7	Singapore	204.3	15	53.1
Thailand	146.9	17	19.5	India	169.4	17	–29.2
India	140.3	18	–29.2	Brazil	141.3	20	–66.5
Malaysia	133.7	19	11.2	Thailand	127.4	22	19.5
Czech Republic	115.0	23	18.0	Malaysia	122.5	23	11.2
Hungary	78.1	26	14.9	Czech Republic	97.0	27	18.0
Brazil	74.9	27	–66.5	Indonesia	85.2	28	–25.9
Indonesia	59.2	28	–25.9	Hungary	63.2	30	14.9
Philippines	44.2	34	5.0	Argentina	48.1	36	–25.5
Argentina	22.6	43	–25.5	Chile	40.7	41	–31.7
Pakistan	15.9	44	–3.1	Philippines	39.2	43	5.0
Chile	9.0	54	–31.7	Pakistan	18.9	56	–3.1

PRC = People's Republic of China.

Source: Authors' estimates using the World Bank's World Development Indicators database (accessed 1 February 2012).

Table 10.8b
Trade and Trade Balance in Services in Selected Economies, 2010 ($ billion)

Economy	Export	Rank	Trade Balance	Economy	Import	Rank	Trade Balance
Top 10							
United States	544	1	142	United States	402	1	142
United Kingdom	239	2	70	Germany	263	2	–25
Germany	238	3	–25	PRC	193	3	–22
PRC	171	4	–22	United Kingdom	169	4	70
France	145	5	13	Japan	158	5	–17
Japan	141	6	–17	France	132	6	13
India	124	7	7	India	117	7	7
Spain	124	7	37	Italy	111	8	–12
Singapore	112	9	16	Ireland	107	9	–9
Hong Kong, China	106	10	55	Singapore	96	10	16
Others							
Korea, Rep. of	82.7	15	–11.2	Korea, Rep. of	93.9	11	–11.2
Thailand	34.0	27	–11.8	Brazil	62.6	18	–30.8
Brazil	31.8	29	–30.8	Hong Kong, China	50.9	21	55.1
Czech Republic	21.7	33	3.4	Thailand	45.9	23	–11.8
Hungary	19.1	34	3.2	Indonesia	26.1	29	–9.3
Indonesia	16.8	36	–9.3	Mexico	25.6	30	–10.2
Mexico	15.4	37	–10.2	Czech Republic	18.2	36	3.4
Philippines	13.2	40	1.9	Hungary	15.9	38	3.2
Argentina	13.2	41	–0.9	Argentina	14.1	40	–0.9
Chile	10.8	45	–1.0	Chile	11.8	44	–1.0
Viet Nam	7.5	50	–2.5	Philippines	11.3	46	1.9
Pakistan	6.4	52	–0.7	Viet Nam	9.9	48	–2.5
				Pakistan	7.1	53	–0.7

PRC = People's Republic of China.

Source: Authors' estimates using the World Bank's World Development Indicators database (accessed 1 February 2012).

2. Policies to Speed Up the Successful Transition to a Postindustrial Economy

Those policies are related to and complement policies to cope with deindustrialization that is too rapid. According to our analysis, what lies at the heart of the poor performance and underdevelopment of the service sector is a failure to move into higher value-added services. While the country's income is converging toward OECD levels, in one important sense its economic structure is not. Although the share of services in both employment and output has been rising, much of the growth has come from traditional services rather than from modern services. That is, while the service sector has experienced quantitative expansion, it has a lot of scope for qualitative improvement. The country's large service imports and persistent deficit in trade in services suggest that there is substantial demand for services. In particular, the high income and development levels imply a large demand for high-end services. One obvious policy implication is for the government to subsidize training and retraining workers so they can meet this demand. In addition, the government can provide fiscal and other incentives to promote high value-added services such as design and prototyping at the beginning of the global value chain and marketing and branding at the end of it. According to the smile-curve hypothesis, most of the value added in the global chain lies in the high-end services at both ends rather than in pure manufacturing or simply making things in the middle.

3. Deregulation

Our analysis indicates that the Republic of Korea's service sector faces substantial government regulations and restrictions aimed at protecting SMEs and the jobs they offer. Examples include strict entry and licensing requirements, stringent approval requirements, and significant government involvement and price controls. Since the very objective of the regulations is to protect a specific group of firms from competition, they are likely to be a significant contributor to the sector's poor productivity. According to Pilat (2005), OECD members' experiences with regulatory reforms have been by and large very positive. In many OECD members, deregulating air passenger transportation and road freight has delivered substantially lower prices, new services, and higher labor and capital productivity, but considering the often large adjustment costs of deregulation, e.g., a big supermarket chain wipes out small neighborhood stores, it is probably best to pursue it gradually.

4. More Research and Development and Information and Communication Technology Investment

The country's R&D expenditures and ICT investments are relatively low compared with those of other OECD members. This can be a significant constraint on innovation and on moving up the value ladder toward higher value-added services. Some of the policies that are beneficial for innovation in services are beneficial for innovation in general. For example, strengthening intellectual property protection will strengthen incentives for R&D and other innovative activities in both the service and manufacturing sectors. At the same time, given the potentially large, positive spillovers from service innovations, the government has to resolve the tradeoff between encouraging innovation and diffusing it to the rest of the economy. It is also possible to directly stimulate R&D in services by providing tax credits and grants. One industry that is a particularly powerful tool for improving service productivity is ICT which has revolutionized service delivery. To maximize the potential benefits of ICT for services, the government should ensure a competitive environment in the industry. Innovation will be especially helpful for the modern services in which the country is visibly behind.

In ICT-advanced countries such as the US, the private sector plays an important role, and many ICT investments are made via venture capital. Venture capital for ICT in the Republic of Korea slowed down markedly after the ICT bubble burst in 2001 and began to bounce back only in 2006[11] though this recovery was largely attributable to government support through policy funds such as the Korea Venture Fund. The heavy, direct involvement of the government in providing venture capital can result in inefficient allocations of funds. Policy should, therefore, be directed more toward stimulating private venture capital which eventually contributes to efficient ICT investment in the service sector.

5. Remove Barriers to Trade and Foreign Direct Investment in Services

Barriers to trade and FDI in services protect domestic firms and industries from foreign competition and thus dilute their incentives to innovate and raise their productivity. Therefore, liberalizing trade and FDI can potentially contribute to improving efficiency in the service sector. According to Pilat (2005), OECD studies find that trade and FDI in services deliver large benefits for OECD economies and developing countries alike. In the case of the Republic of Korea, it is widely believed that opening up various sectors to FDI as part of post-Asian financial crisis structural reforms brought about substantial productivity gains.[12]

In recent years, the country has been pursuing free trade agreements (FTAs) with trading partners in both the developed and developing worlds. In view of the potentially large benefits of trade in services, in the future policy makers should consider high-level FTAs that explicitly incorporate service trade. In fact, the recent agreements with the US and the EU are good examples of FTAs that seek to promote service trade. International investment agreements lubricate FDI in both services and industry, but even in their absence, policy makers can unilaterally reduce barriers to FDI.

E. Concluding Observations

The economic miracle in the Republic of Korea is largely based on a dynamic, world-class manufacturing sector that exports goods all over the world. Manufacturers such as Samsung, Hyundai, and LG are world leaders in their respective industries, and make and export a wide range of high-tech goods. High savings and investment rates enabled the country to quickly build up a large stock of physical capital in the manufacturing sector, but just as importantly, openness to advanced foreign technology and a well-educated workforce capable of learning and absorbing that technology allowed the manufacturing sector to rapidly achieve international standards. While this growth model of export-oriented industrialization delivered sustained, rapid growth for decades, the country currently finds itself at a pivotal crossroads between a manufacturing-led past and an increasingly service-oriented future. The manufacturing sector is maturing with high productivity levels and limited room for further growth. This means that the service sector, especially productivity growth in that sector, will have to play a bigger role in future growth. The exceptionally rapidly aging population combined with growing income equality implies greater scope for certain services, e.g., healthcare, long-term care, and basic public services.

The country's experience with industrialization and deindustrialization is in line with the earlier experiences of the advanced economies. The shares of industry and services in output and employment typically rise at the expense of agriculture during industrialization. As industry matures and deindustrialization sets in, the share of services rises at the expense of industry while agriculture continues to fall. In the Republic of Korea, the core problem is that although the share of services in output and employment has risen, productivity growth has underperformed. Our analysis resoundingly confirms the widely held belief that the service sector still lags behind the manufacturing sector even though deindustrialization began in the early 1990s. Therefore, the center of gravity of the Korean economy is shifting from a dynamic, world-class manufacturing sector to a stagnant, third-class service sector that is dragging down productivity

growth for the economy as a whole. The central challenge in the postindustrial phase is thus to overhaul and upgrade the service sector so that a productive, high value-added, modern sector can become an engine of growth.

The inadequate performance of the country's service sector up to now gives rises to serious doubts about its future contribution to aggregate growth. Furthermore, we saw that the sector faces a daunting array of impediments it must overcome if it is to fulfill its potential. For example, while deregulation can unleash competition and thus encourage firms to innovate and improve, the underlying motivation of regulations to protect SMEs and the jobs they offer makes it politically difficult to pursue. Nevertheless, on closer inspection, there are grounds for optimism. Above all, the high value-added services that are the weakest part of the sector require high levels of human capital. The highly educated workforce that enabled the Republic of Korea to quickly move up the technological ladder can in principle also do the same in the service sector. In addition, the entertainment industry's well-known success in exporting its products (the Korean wave) suggests that it is possible for the country to become a major exporter. Notwithstanding such strengths, the Republic of Korea faces a formidable challenge in upgrading its service sector.

Notes

1 Recently CNN (2012) reported that there are only two economies—the Republic of Korea and Taipei,China—that have grown at an average annual pace of more than 5% in the last 5 decades.

2 See Jones (2009).

3 See, for example, Gordon and Gupta (2004).

4 Eichengreen and Gupta (2009) did not include real estate activities; private households with employed persons; and extra-territorial organizations and bodies in groups I, II, and III. Moreover, due to an update in 2011, data on renting machinery and equipment and on legal, technical, and advertising services are no longer reported separately and are included in other business activities.

5 A detailed explanation on the calculation of TFP in the EU KLEMS database can be found in Timmer et al. (2007).

6 Jones (2009) also examines factors behind the low productivity of the service sector. In particular, he emphasizes (i) the legacy of an export-led growth strategy that attracted the most productive resources into manufacturing, (ii) insufficient competition in services due to heavy regulations, (iii) low R&D and ICT investment, and (iv) the weakness of SMEs.

7 This is also emphasized by Kim (2006) as a structural problem for the economy.

8 In Asia, product market regulation indicators are available for only five countries.

9 Authors' calculations using EU KLEMS data.

10 Several studies find that ICT investment enhances productivity. See, for example, Fernald and Ramnath (2004).

11 See Lee (2011).

12 For example, Kim and Kim (2003) found a productivity improvement in distribution services where there was a large inflow of FDI due to liberalization in the 1990s.

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CHAPTER 11

Leveraging Service Sector Growth in the Philippines

Raja Mikael Mitra

Abstract

The Philippines is often referred to as a country from which export of services rather than manufactured goods is the principal engine for economic growth as the share of the service sector in gross domestic product has exceeded that of the industry sector since the mid-1980s. Three major opportunities for leveraging service sector growth stand out. One is expanding the scale and scope of the export and domestic markets for information technology–business process outsourcing and other modern services in urban areas. Second is expanding tourism to foster economic development across social groups and regions including poor and remote rural areas. Third is enhancing the domestic prospects for Filipino technical, managerial, and entrepreneurial talent so they will work in the Philippines rather than overseas. To take advantage of those opportunities, there is a need for concerted efforts to improve infrastructure; logistics; broadband connections; the power supply; and education, healthcare, financial, legal, and public administration services and more generally the overall business environment for foreign investors and local entrepreneurs.

A. Introduction

In recent years, it has become popular to argue that service industries such as information technology–business process outsourcing (IT-BPO) and tourism can serve as principal drivers to achieving sustainable and inclusive economic growth for the Philippines and for other developing countries (Ghani 2010,

Pasadilla 2006). Some economic analysts, however, are skeptical of this notion and assert that the industry and agriculture sectors are equally or more important (Usui 2012) while others claim that developing IT-BPO and other modern service industries has so far been limited in many parts of the world. How will IT-BPO and tourism evolve in the Philippines in the 2010s and beyond? In addition, what are the prospects for migration and its impact on exporting services? This chapter examines the dynamics of the development of the service sector in the Philippines in a historical and comparative review based on a synthesis of secondary information and interviews.

A substantive analysis of service sector development is, however, constrained by the weakness of the data. In recent years, Bangko Sentral ng Pilipinas (BSP, the Philippine central bank) and industry associations have made efforts to improve the reporting of basic revenue and employment data (BSP 2013a). Nevertheless, the data lack details on revenue, employment, and investments per business line and on export or domestic markets and do not include information on individual firms. Moreover, data on the impact of information and communication technology (ICT) and BPO production and consumption are incomplete. One particular knowledge gap is the lack of information on the impact of developing export services on different social groups and on productivity. Several reports have been issued on growth trends in the industry, but its impact on economic growth and on social groups is typically not a principal focus. Much of the information on these topics consists of general observations, some of which are based on anecdotal information.

Data on tourism are also weak although they are covered in a special national satellite account. Similarly, there is little regularly published information on the impact of migration beyond general data on the number of migrants and the BSP's reporting on remittances from Filipinos working overseas.

B. The Philippine Economy and Service Sector Development

1. Economic Development

The performance of the Philippine economy has improved in recent years. The gross domestic product (GDP) grew by 7% in 2012 and is currently projected to grow at 6% or more in 2013 and 2014 (ADB 2013). Among its strengths are its rich natural and human resources, yet the historical records show that the country's performance has lagged behind many of its East and Southeast Asian neighbors as reflected in its inadequate infrastructure, its low domestic investment rates,

the comparatively modest growth in foreign investment and trade, the slow pace of upgrading technology and alleviating poverty, and weaknesses in governance. In recent years, however, there has been marked improvement in governance, macroeconomic balance, and overall competitiveness rankings (WEF 2013b). The economy has profited from growth and has benefited from increases in overseas workers' remittances and from exports of services, but overall advancements in manufacturing have continued to be minimal compared with the People's Republic of China (PRC); the Republic of Korea; and Taipei,China for example. Also, most of the decline in agriculture as a share of GDP and of employment has been absorbed by the expansion of the service sector in major urban areas rather than by manufacturing. Furthermore, the country is characterized by major disparities in economic development. Some are very wealthy, and there is a growing urban middle class, but many parts of the country are still economically disadvantaged. Much of the economy is dominated by a few oligopolies while the development of small and medium-sized enterprises (SMEs) has been constrained by a lack of financing and by red tape (World Bank and IFC 2013).

For several decades, the Philippines has lagged behind East Asian and most Southeast Asian economies in overall GDP performance as well as in life expectancy, poverty alleviation, improvements in education, infrastructure investment, the diffusion of ICT, and other development indicators. In the 2000s, GDP growth accelerated reaching an average of 4.9% from 2000 to 2010 which is close to the Association of Southeast Asian Nations (ASEAN) average. This growth was partly fueled by remittances from Filipinos working overseas and by export earnings from the semiconductor and electronics industry and more recently by IT services and BPO exports and by tourism. The semiconductor and electronics industry has largely focused on assembling imported components, and export earnings vary substantially due to sharp fluctuations in external demand. Moreover, manufacturing as well as agriculture and mining have been characterized by low wages and value added per employee compared with IT-BPO and other modern services.

While GDP growth has improved, the economy has not generated enough new jobs, especially for unskilled workers and those living in rural areas. This is reflected in the national unemployment rate of 7.0%–7.5% from 2007 to 2012 and the underemployment rate of 19.8%–22.6% in the same time period (BLES 2011–2013). The proportion of the population living in poverty was 34.9% in 1985, 22.4% in 2000, and 22.6% in 2006 (Chen and Ravallion 2008).

Urban-centered economic growth and the lack of employment opportunities in rural areas and smaller towns have resulted in substantial internal migration. For several decades, economic development has been concentrated in the industry and service sectors in a few metropolitan areas,

the prime example being the Greater Metro Manila area which now accounts for almost a fourth of the country's total population and an even greater proportion of it exports and GDP.

The Philippine Development Plan 2011–2016 identified the key constraints to overall economic growth as low investment and slow technological progress due to inadequate infrastructure and weaknesses in institutions. The inefficient transport network and unreliable power supply are cited as among the most significant constraints. The percentage of paved roads to total roads remains one of the lowest in the region, and the quality of port, air, and railroad infrastructure needs to be improved. The government acknowledges the urgent need to tackle weaknesses in ICT and infrastructure, institutional frameworks, governance, and the overall business climate (ADB 2013, NEDA 2011). Economic development is still marked by slow progress in reducing poverty and income inequality, by overreliance on volatile electronics export earnings and on remittances, and by stagnation in the industry and agriculture sectors. There is, however, no doubt that the Philippines is rich in talent and that the impetus to tackle these weaknesses and to build on strengths has begun to grow in recent years. These facts are exemplified by improvements in credit ratings and international competitiveness ranking (WEF 2013b), work on national economic development plans, the launch of various schemes for an ICT-empowered "Smart Philippines", and specific plans to boost the development of the IT-BPO and tourism industries (NEDA 2011, Melchor 2013).

2. Service Sector Development

The share of the service sector in GDP has exceeded that of the industry sector since the mid-1980s growing from 36% to 55% in 2010, and the sector's share in total employment increased from 40% in 1990 to 52% in 2010. The service sector share of GDP has continued to increase in recent years; it rose from 54.1% in 2006 to 57.1% in 2012 (Table 11.1). By 2010, services employed 18.7 million people which was more than agriculture and industry combined (Table 11.2). Export-oriented services were especially significant as the ratio of service sector exports to total sector revenue was 12% in 2009. This is comparable to that of India and significantly higher than that of Indonesia, but low if compared with Hong Kong, China; Malaysia; Singapore; and Thailand (World Bank 2013a).

The large service sector in part indicates that the growth in the agriculture and industry sectors has been slow; in fact, the overall growth performance of the service sector in the Philippines has been moderate due to limited growth in the domestic market and in external demand, low investment in infrastructure, education, and other public goods, and the inadequate overall business climate. Yet the performances of the different parts of the service sector vary significantly.

Table 11.1
Gross Domestic Product by Sector in the Philippines, 2004–2012

Sector/Industry	2004	2005	2006	2007	2008	2009	2010	2011	2012
	% of GDP (current prices)								
I. Agriculture	13.3	12.7	12.4	12.5	13.2	13.1	12.3	12.8	11.9
II. Industry	33.8	33.8	33.5	33.1	32.9	31.7	32.7	31.4	31.1
Manufacturing	24.0	24.1	23.6	22.7	22.8	21.3	21.4	21.0	20.5
III. Services	52.9	53.5	54.1	54.5	53.9	55.2	55.1	55.8	57.1
A. Transportation, storage, and communications	7.7	7.8	7.6	7.5	7.1	7.0	6.5	6.4	6.5
B. Trade and repair of motor vehicles, motorcycles, and personal and household goods	16.0	16.4	16.8	17.1	17.1	16.9	17.4	17.4	17.7
C. Financial intermediation	5.5	5.9	6.3	6.5	6.5	6.8	6.9	7.0	7.2
D. Real estate, renting, and business activities	9.6	9.9	10.1	10.2	10.6	11.0	10.9	11.5	11.9
E. Public administration and defense; compulsory social security	4.4	4.1	4.2	3.9	3.7	4.0	4.1	4.0	4.1
F. Other services	9.8	9.4	9.2	9.3	9.0	9.5	9.3	9.4	9.7
Gross Domestic Product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Annual growth rates in % (constant prices)								
I. Agriculture	4.3	2.2	3.6	4.7	3.2	–0.7	–0.2	2.7	2.7
II. Industry	5.2	4.2	4.6	5.8	4.8	–1.9	11.6	2.3	6.5
Manufacturing	5.2	5.0	4.1	3.6	4.3	–4.8	11.2	4.7	5.4
III. Services	8.3	5.8	6.0	7.6	4.0	3.4	7.2	5.1	7.4
A. Transportation, storage, and communications	12.1	7.1	4.3	8.4	3.9	–0.1	1.0	4.3	9.1
B. Trade and repair of motor vehicles, motorcycles, and personal and household goods	7.4	5.9	6.0	8.6	1.4	1.4	8.4	3.3	7.5
C. Financial intermediation	7.0	10.6	11.9	10.2	1.8	5.5	10.1	5.2	7.8
D. Real estate, renting, and business activities	9.6	6.8	6.5	7.9	9.0	4.1	7.5	9.3	7.9
E. Public administration and defense; compulsory social security	7.5	0.6	3.5	1.4	2.0	6.1	5.8	0.3	3.3
F. Other services	6.5	3.5	4.8	6.1	6.0	6.5	8.4	6.6	7.2
Gross Domestic Product	6.7	4.8	5.2	6.6	4.2	1.2	7.6	3.9	6.6

Sources: NSCB (2012) and BSP (2013c).

Table 11.2
Employment and Employment Growth by Sector in the Philippines, 1998–2010

Indicator	1998	2004	2005	2006	2007	2008	2009	2010
Number employed (million)								
Total employed	26.6	31.3	32.0	33.0	33.6	34.1	35.1	36.0
Agriculture	10.1	11.3	11.5	11.8	11.8	12.0	12.0	11.9
Industry	4.5	5.0	5.0	5.0	5.1	5.0	5.1	5.4
Manufacturing	2.7	3.1	3.1	3.1	3.1	2.9	2.9	3.0
Services	12.0	15.1	15.5	16.1	16.7	17.0	17.9	18.7
Employment (% in total)								
Agriculture	37.9	36.0	35.9	35.8	35.1	35.3	34.4	33.0
Industry	17.1	15.9	15.6	15.2	15.3	14.8	14.5	15.1
Manufacturing	10.2	9.7	9.6	9.3	9.1	8.6	8.3	8.4
Services	45.0	48.1	48.4	49.0	49.6	49.9	51.1	51.9
Employment growth (%)								
Agriculture	–	0.4	2.2	2.6	–0.2	2.1	0.1	–1.6
Industry	–	3.0	0.6	–0.2	2.3	–1.4	0.9	6.1
Manufacturing	–	0.6	0.6	–0.4	0.4	–4.7	–1.1	4.5
Services	–	3.5	2.8	4.0	3.1	2.2	5.4	3.9

– = data not available.
Source: NSCB (2012).

The Philippines stands out because of the large number of Filipinos working overseas. Remittances from overseas workers corresponded to 9%–10% of GDP from 2003 to 2012 making the Philippines one of the most remittance-dependent economies and largest recipients in the world. Added together, IT-BPO service export revenue, tourism, and remittances accounted for over 22% of GDP or over 30% of the country's foreign exchange earnings in 2011 (BSP 2013b, 2013d). This has major direct and indirect implications for the labor market. As of 2011, export-oriented services combining tourism and BPO directly employed more than 4 million workers and indirectly employed about 10 million assuming an employment multiplier of 2.5%. Adding overseas workers, the number of Filipinos directly employed in exporting services can be estimated at more than 10 million in 2010 (Table 11.3).

Table 11.3
Employment by Sector and by Service Type in the Philippines, 2008–2010
(thousand)

Sector/Industry	2008	2009	2010
All sectors	34,089	35,061	36,035
Agriculture	12,030	12,043	11,936
Industry	5,048	5,093	5,399
Services	17,011	17,925	18,700
Wholesale and retail trade; repair of motor vehicles, motorcycles, and personal and household goods	6,446	6,736	7,040
Hotels and restaurants	953	1,010	1,063
Transport, storage, and communications	2,590	2,679	2,723
Financial intermediation	368	369	400
Real estate, renting, and business activities	953	1,064	1,146
Public administration and defense, compulsory social security	1,676	1,749	1,847
Education	1,071	1,138	1,176
Healthcare and social work	392	421	451
Other community, social, and personal service activities	833	877	914
Private households with employed persons	1,729	1,880	1,926
Extra-territorial organizations and bodies	1	2	2
Filipinos overseas, tourism, and information technology–business process outsourcing (IT-BPO) exports			
Filipinos overseas (majority employed in services)	8,188	8,559	9,453
Tourism	3,330	3,547	3,694
IT-BPO services	372	442	557

Notes: Details may not add up to totals due to rounding. Industry classification is based on the 1994 Philippine Standard Industrial Classification.

Sources: NSCB (2012), BLES (2011–2013), BPAP (2012), DOT (2013), and POEA (2013).

C. Information Technology Services and Business Process Outsourcing

1. Growth and Structural Change

The Philippines is a prime example of a country that successfully developed a sizeable BPO export industry in the 2000s (Table 11.4). It has outperformed most countries in industry growth emerging as the largest BPO center in the developing world after India and appears poised to become a major exporter of IT services as well. As of 2012, IT services and BPO combined generated $13 billion in export revenue and directly employed 777,000 people (BPAP 2009–2013).

Compared with India, the IT software and service industry and much of the BPO industry is younger in the Philippines, and the scope for establishing a large, high-end software and engineering service industry is limited by the fact that the country is smaller than India in terms of its domestic market and the pool of skilled human resources available. The IT-BPO industry in the Philippines was initially largely focused on basic call centers and lower-end, non-voice, back-office services. Subsequently, the industry has also expanded significantly in higher-end call center services, non-voice BPO, knowledge process outsourcing, IT software and services, and engineering service outsourcing. The industry has major growth potential at both the lower and higher ends of the value chain as the country is still in the early stages of developing a major IT-BPO industry in rapidly growing areas like human resource management, healthcare, tourism, and a wide range of higher-end banking, finance, insurance, and accounting services (BPAP 2012).

The trajectories for IT-BPO development in the Philippines differ from those in most other Asian countries. Industry growth has largely been driven by exports as the domestic market has been small compared to larger, higher-income Asian economies. Unlike in India and in many other places where IT services have been comparatively more important, the initial growth of the industry in the Philippines was in exports of low-end BPO services such as basic call centers. Compared to the PRC, India, and higher-income economies, the Philippines has limited capacity for high-end science and technology and industrial development although it does have a sizeable number of highly qualified people in engineering, medicine, accounting, creative industries, and other services (Mitra 2013b).

Table 11.4
Information Technology–Business Process Outsourcing Export Revenues and Employment in the Philippines, 2004–2011 ($ million)

Type	2004	2005	2006	2007	2008	2009	2010	2011p
A. Voice business process outsourcing (BPO)								
Contact centers	1,024	1,792	2,360	3,600	4,100	5,000	6,100	7,400
B. Non-voice BPO								
Back office	120	180	288	398	827	1,118	1,660	2,058
Transcription	72	70	109	137	182	187	202	277
Animation	52	74	97	105	120	120	142	128
Information technology outsourcing	170	204	272	423	601	568	725	993
Engineering service outsourcing	34	48	68	152	228	228	163	172
Digital content/game development	3	7	13	1	3	5	7	8
Subtotal non-voice revenue	451	583	847	1,216	1,961	2,225	2,899	3,636
Total revenue	1,475	2,375	3,207	4,816	6,061	7,225	8,999	11,036
Employment (full-time)								
A. Voice	64,000	112,000	160,000	198,000	227,000	280,000	344,000	416,000
B. Non-voice	36,500	51,250	75,575	100,953	144,965	162,164	181,182	221,929
Total direct employment	100,500	163,250	235,575	298,953	371,965	442,164	557,127	638,000

p = provisional estimates.

Note: Digital content was added to back-office in 2007 and was replaced by game development starting in 2007.

Source: BPAP (2009–2013 and 2012) based on data from Animation Council of the Philippines Inc., Contact Center Association of the Philippines, Gaming Development Association of the Philippines, Medical Transcription Industry Association of the Philippines, and Philippine Software Industry Association.

2. Drivers and Constraints

External demand and the large pool of low-cost human resources with English-language skills and higher education, attractive fiscal incentives for foreign investors, and the rapid expansion of industrial parks and their akin have been the key factors enabling the extraordinarily rapid BPO industry growth in the Philippines since the early 2000s. These factors do not, however, explain it sufficiently or why the industry did not take off until recently. Other countries have also had these strengths but have failed to develop the industry as rapidly as the Philippines has done. It is, therefore, essential to examine a wide range of factors in greater detail, namely human resources, finances, infrastructure, technology, and legal and regulatory developments as well as cultural affinities and social mores. The specific roles of government; foreign companies and indigenous entrepreneurs; industry associations; civil society; individual champions; the Philippine diaspora; local and international commercial, consulting, and financial networks as well as timing and competition are also important. In short, to understand how the IT-BPO industry developed, the dynamics of a wide range of factors driving and constraining growth locally, regionally, nationally, and internationally must be analyzed (Mitra forthcoming).

The country's principal strength is its large, educated workforce with strong English-language capabilities and a reputation for being flexible, adaptable to both Asian and Western cultures, productive, loyal, and dedicated with key strengths in attention to detail and the ability to communicate and work with a positive and enthusiastic attitude and to take initiative. Filipinos speak idiomatic American English better than Indians and many other Asians, and their accents are more neutral. The workforce is familiar with multiple cultures (American, Chinese, Japanese, Malay, and Spanish) and has a proven ability to respond to changing customer demands and to deliver quality at low cost. The industry has also benefited from traditionally close business and other relationships with the United States (US), from developments in India and dynamic East Asian economies, and from its diaspora and other international networks. In addition, there is limited competition for the skilled workforce within the country due to a shortage of other employment opportunities for educated youth.

Access to foreign know-how and capital has enabled the rapid development of the IT-BPO service industry. Foreign equity investments in the industry rose from $329 million in 2005, to $1.8 billion in 2008, to $4.4 billion in 2010, and to $5.4 billion in 2011. In contrast, indigenous private equity investment amounted to $163 million in 2005, $132 million in 2008, $107 million in 2010, and $391 million in 2011 (BSP 2013a). For multinational corporations wishing to expand operations in the Philippines, financing has typically not been a principal impediment, but the availability of venture capital funding for SMEs or for

venture and/or angel investments has, however, been comparatively more limited than in India. Indigenous firms are yet to become major investors in the service export industry; the business is currently dominated by foreign companies. The telecommunication industry is older and is owned by foreign as well as local business interests. Telecommunications and the electric power supply are mostly controlled by large oligopolies, and costs for services have so far been higher than in most other Asian economies (JFC 2010).

Access to quality telecommunication and other infrastructure plus real estate and conducive working and living environments are typically central issues facilitating IT-BPO industry growth. While most of the country lags behind in broadband connectivity and in the diffusion of computers and software, much of the industry requirements in terms of infrastructure are met in major cities and industrial parks (and their akin). This proves that the IT-BPO export industry (unlike many types of manufacturing) can develop rapidly even when most of a country lacks effective modern infrastructure.

Government vision, policies, and institutions have facilitated industry development, but as in India, they have not been the prime owners or drivers of industry growth. Nevertheless, the government has indeed had an impact on its development through a wide range of policies, investments, and other interventions especially establishing cyber parks (techno parks, IT parks, and economic zones), offering fiscal incentives (corporate income tax holiday for 4–8 years), upgrading infrastructure, investing in training and education programs, and enacting legal and regulatory reforms (Box 11.1).

3. Impact

The IT-BPO industry has grown rapidly compared with other parts of the economy. As a share of GDP, its export revenue rose from less than 1% in the early 2000s to 1.6% in 2004 and to 5.3% in 2011, and its share of total exports (goods and services combined) increased from less than 1% in 2000 to 3% in 2004 and to 16% in 2011. Its share of employment is, however, significantly less than its share of GDP or of foreign trade. Direct employment was less than 0.1% in the early 2000s but was 0.4% in 2004 and 2.0% in 2011 (Table 11.5). Moreover, the relative importance of the industry varies substantially across the country and is significantly greater in Metro Manila where it directly employed approximately 10% of the labor force in 2012 (Mitra forthcoming).

While the IT-BPO industry had only a fairly limited impact on the economy in the 1990s, it is now a significant direct and indirect factor in the country's economic development. The industry's share of GDP and exports has risen sharply. Also, it has become a major generator of new job opportunities as direct,

Box 11.1
Government Support for Information Technology–Business Process Outsourcing Industry Development in the Philippines

Principal National Visions, Strategic Plans, and Programs

- Medium-Term Philippine Development Plan, 2004–2010 and 2011–2016
- Roadmap 2010 and Roadmap 2016 for information technology–business process outsourcing (IT-BPO) industry development formulated by the Business Processing Association of the Philippines in consultation with a wide range corporate and government agencies
- The Philippine Digital Strategy 2011–2016 launched by the Commission on Information and Communication Technology in 2011
- National Broadband Plan 2016
- Philippine IT-BPO Brand Management Plan
- Government Information and Communication Technology Office flagship public–private partnership projects presented in 2012
- The Smarter Philippines flagship program launched by the Department of Science and Technology in 2013; key elements include Smarter Government, Smarter Economy, Smarter Mobility, Smarter Environment, Smarter Living, and Smarter Cities

Cyber Parks and Development of "Next Wave" Cities

- Rapid expansion of cyber parks (techno parks, IT parks, and economic zones): typically developed in partnership with the private IT-BPO or real estate firms, offering office space, reliable connectivity, and energy supply; with flexible tax exemption rules in Metro Manila and its peri-urban areas, in Cebu, and in other parts of the country.
- The Philippine Cyber Corridor Initiative and the Next Wave Cities Initiative: special efforts to promote the development of the IT-BPO industry in areas other than Metro Manila and Cebu.
- Philippine Economic Zone Authority industrial parks and economic zones with fiscal and non-fiscal incentives for private investors: 217 economic zones in operation and 103 under development with more than 60% recognized as IT parks/centers.

Fiscal Incentives

- Income tax holiday initially for 4 years extendable to 8 years if further investment and other requirements are fulfilled
- Special 5% tax rate on gross income in lieu of all national and local taxes after the lapse of the tax holiday (for IT park/economic zone locators)
- Tax and duty exemption on imported capital equipment (for IT park/economic zone locators); duty-free importation of capital equipment (for Board of Investment registered firms under Executive Order 528)
- Exemption from wharf fees and export taxes, duties, imposts, and fees
- Exemption from 12% value-added tax on allowable local purchases of goods and services such as telecommunications, power, and water (for IT park/special economic zone locators)
- Additional deduction of 50% of total worker training costs under the special 5% gross income regime

Non-Fiscal Incentives

- Unrestricted use of consigned equipment
- Liberal rules for employing foreign nationals and granting special investor resident visas

Sources: Author's compilation based on various government and industry association reports and the *Official Gazette of Executive Orders* issued by the Government of the Philippines; BPAP (2007).

Table 11.5
Revenue and Employment of Information Technology–Business Process Outsourcing Industry in the Philippines, 2004–2020

Year	2004	2009	2010	2011p	2012p	2016a	2020b
Revenue from IT-BPO export industry							
Revenue ($ billion)	1.5	7.2	9.0	11.0	13.0	25.0	45.0
Revenue-to-GDP (%)	1.6	4.2	4.5	4.9	5.5	7.8	9.8
Revenue-to-total export of goods and services (%)	3.4	14.6	13.7	17.2	18.8	–	–
Employment impact of IT-BPO export industry							
Direct employment (million)	0.1	0.4	0.5	0.6	0.8	1.3	1.8
Indirect employment (million)	0.3	1.1	1.3	1.6	1.9	3.2	4.5
Total employment (million)	0.4	1.5	1.8	2.2	2.6	4.5	6.3
Direct employment, share of country's total employment (%)	0.3	1.3	1.6	1.7	2.1	–	–
Total employment, share of country's total employment (%)	1.0	4.1	4.9	5.6	6.7	–	–

– = data not available, a = BPAP high-end road map projection for 2016 BPAP (2012), b = Mitra forthcoming mid-point scenario for 2020, IT-BPO = information technology–business process outsourcing, p = provisional estimates.

Note: Indirect employment calculated based on an assumed employment multiplier of 2.5 as per BPAP (2012).

Source: Author's estimates based on BPAP (2009–2013, 2012); NSCB (2012); and Mitra (2013a).

full-time employment in the industry rose from 100,000 in 2004 to 777,000 in 2012. Furthermore, in addition to direct employment, it is estimated that the industry generated 1.9 million indirect employment opportunities in 2012, that is, assuming an employment multiplier of 2.5 which is rather conservative; multiplier estimates for India typically range between 3 and 4 (Table 11.5) (Mitra forthcoming). More significant, however, are the long-term implications for building competency and institutions and for fostering greater use of IT-BPO services. The expansion of the industry coupled with more use of ICT has resulted in a significant multiplier effect in terms of additional consumption and investment and, therefore, new jobs. It has also had positive effects on the local economy in terms of retail sales, real estate, education, travel, and tourism. Moreover, it will have a central role in terms of supply chains and fostering the development of production, trade, finance, and knowledge networks and in addition has helped to improve the perception of the country internationally (Mitra forthcoming).

Due to the complexity of issues involved and to the lack of data and survey material, it is difficult to explicitly verify the various impacts of the IT-BPO service industry; nevertheless, the following have been observed (Mitra forthcoming).

- Expansion has enabled new livelihood opportunities within and across social groups, but significant regional, ethnic, and income disparities remain. Although much of the impact has been on the middle class, direct and indirect impact on lower-income groups has also been significant especially in terms of new jobs in the formal and informal sectors.
- The higher pay offered has generated new income opportunities for high-, middle-, and low-income groups but has also increased prices and the cost of living and appears to have contributed to the widening of income disparities.
- The industry has directly and indirectly generated significant amounts of additional tax revenue despite the fact that much of it has been granted tax holidays.
- The accumulation of new private wealth has expanded corporate social responsibility programs and other philanthropic activities targeted at underprivileged groups.

While the rapid growth of the industry may have caused stress and disrupted family lifestyles, social and economic structures, and labor markets, positive socioeconomic impacts of industry expansion include the empowerment of entrepreneurs and of middle- and low-income groups and intergenerational effects in terms of job and educational aspirations. Furthermore it has given rise to a new set of issues relating to disaster management, privacy, and cyber security.

4. Opportunities and Challenges

The Cabinet-level Department of Science and Technology stated in 2012 that the government's goal was that the ICT industry as a whole would generate $50 billion in revenue by 2016 of which IT-BPO services would account for $25 billion–$27 billion and all other ICT (including telecommunications and electronic hardware) would be $23 billion–$28 billion. This implies that ICT would account for 18% of GDP in 2016 if the $50 billion target is reached (Ibrahim 2013).

The Philippine IT-BPO Road Map 2011–2016 launched by the Business Processing Association of the Philippines (BPAP) in 2011 suggested that annual export revenues from IT-BPO and global in-house center services could more than double from $9 billion in 2010 to $25 billion in 2016. However, the association also stressed that this will require the industry to accelerate the development of talent and to obtain stronger government support. If it succeeds,

the IT-BPO industry could employ up to 1.3 million and account for 9% of GDP by 2016. In addition to direct employment, it is estimated that the industry will produce 3.2 million indirect employment opportunities by 2016 (BPAP 2012). Furthermore, research in line with these growth assumptions shows that IT-BPO industry revenue could reach $50 billion by 2020, $45 billion in exports, and $5 billion in domestic markets. The number of persons directly employed in the IT-BPO export industry would thus increase from 0.8 million in 2012 to 1.8 million in 2020 (Mitra 2013a).

According to the BPAP, the Philippine Software Industry Association and other industry association partners of BPAP, the IT-BPO industry is poised to continue to grow rapidly in voice and non-voice BPO as well as in IT software and services. (This is reflected in the fact that the BPAP was renamed the Information and Technology and Business Process Outsourcing Association of the Philippines in 2013.) Nevertheless, multiple factors will constrain growth prospects, the most important one being the quantity and quality of technical, managerial, and entrepreneurial talent. The industry, government, and academia must make concerted efforts to expand the scale and scope of educational and training programs. The BPAP road map identified five priorities for the association: (i) setting standards and accreditation to ensure a better match between the skills of graduates and industry requirements; (ii) more aggressive internal marketing of job prospects for the local talent pool; (iii) strengthening awareness of the value proposition in IT, voice, and non-voice BPO services in existing and new markets; (iv) advocating for high-impact public policies; and (v) strengthening public–private partnerships to fund key initiatives such as the development of industrial hubs and work–study training programs (BPAP 2012).

The country appears to be ready to increase its global market share of low- and higher-end voice and non-voice BPO services in the short and medium terms as manifested in the surge of investment in BPO in the 2010s. Both IT services and the BPO industry can continue growing in line with global developments in outsourcing and offshoring. In the long term, though, it may no longer be viable to increase market share due to changes in demand, commoditization, lower profit margins, and intense international competition. These developments along with the emergence of new technologies, business models, and opportunities will demand a major transformation and adaptation of the industry in the country.

The challenges for the Philippines in this decade are interrelated. First, it is essential to ensure that the country's overall economic, social, and political environment and investment climate are favorable for sustaining inclusive ICT and for developing ICT-enabled services, for fostering a knowledge economy, and for leveraging global technology developments. Second and more specific to the IT-BPO industry, it is essential to (i) effectively respond to changes in demand and competition in developing services; (ii) give utmost priority to developing

technical, managerial, and entrepreneurial talent; (iii) develop multiple avenues for financing; (iv) improve infrastructure and living conditions; and (v) improve the legal and regulatory environment. Moreover, strong efforts are needed to foster foreign and local investment, entrepreneurship, and networks in different international and local geographic areas (Box 11.2) (Mitra 2013a).

Box 11.2
Factors Hampering Local Entrepreneurship in the Philippines

Markets and Competition

- There is a lack of financial resources, influential contracts, and competition from a wide range of foreign companies in India, the Philippines, and elsewhere.
- Historically, the scale and scope of the domestic market has been limited in terms of households, the private sector, and government procurement.

Human Resources, Entrepreneurial Traditions, and Talent Drain

- There are large numbers of potentially capable entrepreneurs, but their willingness to adopt the mind-set needed for success in establishing start-ups and scaling up small and medium-sized enterprises (SMEs) in the information technology–business process outsourcing (IT-BPO) industry is limited, though the Chinese community has more robust entrepreneurial traditions than most other groups in the country. It will take considerable time to change the overall mind-set so that more people consider the IT-BPO industry as an entrepreneurial career.
- There is entrepreneurial dynamism but also a reluctance to take risk and insufficient efforts to improve quality and reliability.
- Technical, managerial, and entrepreneurial talent often choose to work overseas rather than in the Philippines with only a few returning. There is also an internal talent drain as foreign subsidiaries in the Philippines attract the best talents because they pay better salaries and generally are considered to be more attractive employers which makes it harder for local firms to attract and retain high caliber talent. On the other hand, the fact that multinational corporations attract local talent can be viewed as positive as they train and mentor people, some of whom eventually decide to work for local firms.

Finance and Infrastructure

- Start-ups and SMEs often find it harder to raise capital than established and larger firms do. Few are willing to risk limited private savings to cover even basic start-up costs such as hiring staff, computer equipment, connectivity, and electricity.
- The high cost and poor quality of energy, broadband, and other infrastructure affects start-ups and SMEs more than established and larger firms.

continued on next page

Box 11.2 continued

Technological Capabilities

- The understanding and practical knowledge of the use of information and communication technology (ICT) is often weak despite the fact that effective use of ICT is currently a must in many forms of entrepreneurship.

Risk Mitigation

- The Philippines is one of the world's most natural disaster-prone countries and is also perceived by some as having significant political risks. This calls not only for rigorous contingency planning but also entails significant costs for IT-BPO and other industries. Large firms—multinational corporations in particular—have the resources needed to mitigate risks, but it is harder for start-ups and local SMEs to do so. Also, multinational corporations have major advantages as they have global service delivery capabilities so they can shift work to other locations quickly if required.

Government, Vested Interest Groups, Personal Patronage, and the Political Economy

- Much of the industry sector (and the government, the business community, and civil society) has been characterized by personal patronage as wealth is concentrated in a few families, and large companies or oligopolies dominate the economy. Private conglomerates control the banking, international commerce, retail sales, real estate, transportation, petroleum and electric power, and telecommunication industries. The Philippines is basically a market economy in which the government, the private sector, the church, and nongovernment organizations are all major participants. Many argue that the concentration of power coupled with a cumbersome legal and regulatory system and bureaucratic red tape have made it hard for start-ups and SMEs to break in and to compete with large established firms.
- Public sector weaknesses in terms of effectiveness, transparency, and accountability for corruption and in terms of red tape have hampered start-ups and SMEs. Compared with larger firms, smaller firms often find it difficult to comply with taxation and with other government requirements, so some choose to operate in the grey sector as they find it hard to cope with red tape.
- The enforcement, accountability, and transparency of government policies, projects, laws, and regulations are weak both centrally and locally. Enacting new legislation and regulatory frameworks is a lengthy process.

Economic Nationalism

- The "Philippines first" ideology that is part of the constitution constrains possibilities for foreign firms and professionals to work in the Philippines. It limits the role of foreign direct investment; the Philippines has lagged behind its neighbors in attracting it.

Sources: World Bank and IFC (2013); Blanke and Chiesa (2013a); JFC (2010); author's compilation based on interviews with foreign chambers of commerce and industry associations.

D. Tourism

1. Growth, Trends, and Impact

Compared to the young IT-BPO industry, the tourism industry has a long history in the Philippines. Tourism has traditionally been the largest source of service revenues in many developing countries, but in the Philippines, the growth of the industry has been moderate, and in recent years the IT-BPO industry has overtaken it in earnings though not in number of employees. Tourism did rather well in the 1970s and early 1980s, but then growth began to slump; in fact tourism's share of GDP at 5%–6% and of total employment at 10% was relatively stable from 2004 to 2011 (Table 11.6). Growth has, however, been more substantial from the mid-2000s and onwards as international tourism arrivals grew from 1.9 million in 2003 to 4.2 million in 2012 and are targeted to reach 5.5 million in 2013 (DOT 2013).

Employment in tourism has been growing at a moderate rate compared with most other ASEAN countries, but the industry employed 3.8 million workers in 2011 which was twice the number in public administration and defense, more than three times the number in education, and nine times more than in the banking–finance–insurance industry. Although tourism is more widely distributed in the country than IT-BPO, skill and remuneration levels are typically lower.

Table 11.6
Selected Indicators for Tourism Development in the Philippines, 2004–2011

				International Tourism Arrivals			Tourism Receipts[a]
Year	Tourism, % of GDP	Tourism Employment, % of National Employment	Number of Domestic Tourists (million)	Number of Tourists (million)	Growth Rate (%)	Share of Global Arrivals (%)	Growth Rate (%)
2004	5.87	9.7	13.1	2.3	20.1	0.30	30.7
2005	5.87	9.7	15.4	2.6	14.5	0.33	12.3
2006	5.83	9.8	16.5	2.8	8.4	0.34	23.1
2007	5.87	10.0	19.7	3.1	8.7	0.34	7.4
2008	5.74	10.0	17.3	3.1	1.5	0.34	–17.9
2009	5.52	10.1	17.6	3.0	–3.9	0.34	–7.9
2010	5.72	10.2	21.8	3.5	16.7	0.37	11.4
2011	5.76	10.3	26.2	3.9	11.3	0.40	20.2

GDP = gross domestic product.

[a] domestic and international tourism combined.

Sources: NSCB (2012), DOT (2013), and WEF (2013a).

Table 11.7
Selected Tourism and Economic Indicators for Association of Southeast Asian Nations Members, 2011

Economy	TTCI Rank/139 Countries	International Tourist Arrivals		International Tourism Receipts			Population (Million)	GDP per Capita ($)
		Thousands	Per 100 Population	$ Million	% of GDP	$ per Capita		
Brunei Darussalam	67	214[a]	51.7	254[b]	1.8[b]	613.5[b]	0.4	29,852
Cambodia	109	2,882	19.3	1,683	15.0	112.6	15.0	753
Indonesia	74	7,650	3.2	7,952	1.1	33.5	237.6	2,981
Lao PDR	–	1,670[a]	25.9	382[a]	6.8[a]	59.3[a]	6.4	1,004
Malaysia	35	24,714	87.5	18,259	7.7	646.3	28.3	8,418
Myanmar	–	391	0.6	73[a]	0.2[a]	1.2[a]	61.2	742
Philippines	94	3,917	4.2	2,783	1.7[a]	29.6	94.0	2,123
Singapore	10	10,390	200.4	17,990	7.9	3,470.3	5.2	43,865
Thailand	41	19,098	29.9	26,256	8.2	411.0	63.9	4,992
Viet Nam	80	6,014	6.8	5,620	5.4	63.7	88.3	1,174
ASEAN	–	76,940[a]	12.8	68,639[a]	4.6[a]	114.4[a]	600.2	3,117

– = data not available, ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic, TTCI = Travel and Tourism Competitiveness Index of the World Economic Forum.

[a] 2010 data.

[b] 2009 data.

Source: Adopted from WEF (2012).

In 2012, the Philippines attracted 4.3 million international tourists compared with 3.1 million in 2007 and 2 million in 2000. Between 1995 and 2010, the annual average growth of international arrivals was 4.7% while between 2005 and 2010 the average annual rate of growth in the domestic market was 3.3% (DOT 2012). These growth rates are quite low compared with competing countries such as Indonesia, Malaysia, Thailand, and Viet Nam (WEF 2012). While growing more rapidly in recent years, the Philippines continues to lag behind Indonesia, Singapore, and Thailand in the number of international tourist arrivals and international tourism receipts per capita (Table 11.7).

2. Drivers and Constraints

The Philippines has major potential as a destination for tourists not only in its principal cities but also in a large number of locations across its vast archipelago.

The people are generally friendly, cosmopolitan, and proficient in English. Despite these attributes, growth has been uneven and constrained by deficient infrastructure and other weaknesses. While tourism is less demanding in terms of educated human resources and high remuneration levels, developing the industry is demanding as it requires not only hotels but also adequate physical and institutional infrastructure and access to major sources of funding and to marketing and sales networks. Also, tourism has limited growth potential and also has risks of undesirable developments such as disrupting traditional value systems and life styles and burdening the environment.

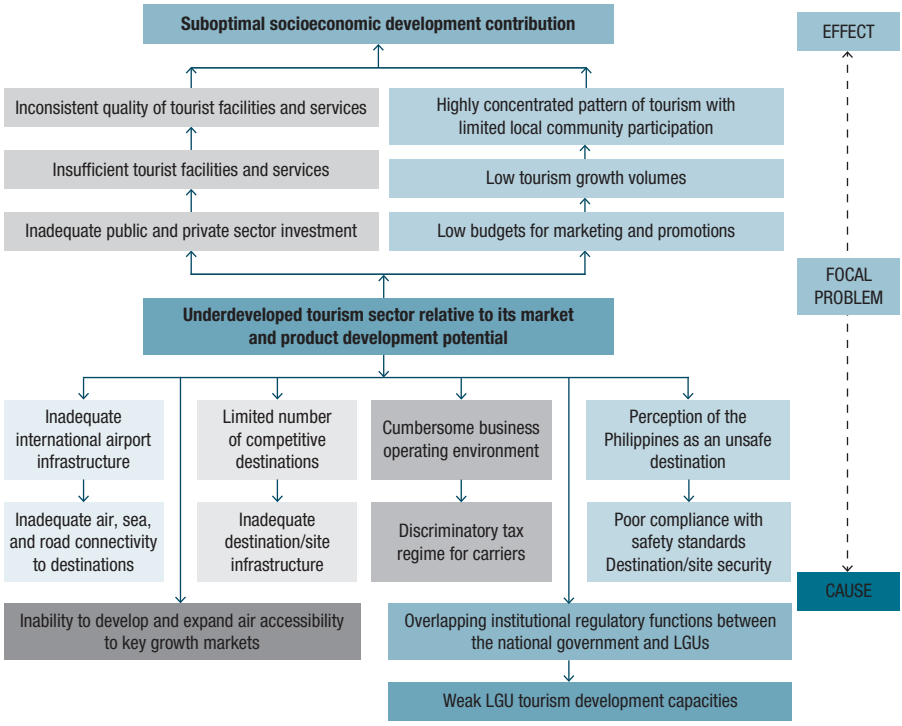
The Philippines has traditionally ranked poorly in the World Economic Forum annual survey on travel and tourism which calculates a country's competitiveness index based on three criteria: regulatory framework; business environment and infrastructure; and human, cultural, and natural resources. The 2009 report ranked the Philippines lowest among its ASEAN neighbors in terms of number of airlines with flights from the country and the availability of good air connections to overseas markets. It also lagged behind in the quality of roads and the ground transportation network, and restrictions on foreign ownership of companies and property rights remain a handicap in attracting tourism investment, especially by international chains. The time and cost needed to start a tourism enterprise also deserve attention. The 2011 survey covered 139 countries; the Philippines ranked 98th in regulatory framework constraints; 94th in business environment constraints; and 75th in human, cultural, and natural resource constraints. From an overall position of 86th from 2007 to 2009, the country fell to 94th out of 139 countries and 18th out of 26 in Asia and the Pacific in 2011. According to the survey released in 2013, however, the conditions in the Philippines have improved significantly as it ranked the country 16th in the region, and 82nd overall (WEF 2009, 2011, 2012, 2013a). The following figure shows the Department of Tourism's diagnosis of why the industry is underdeveloped.

3. Opportunities, Policies, and Other Challenges

Tourism has long been a high priority for the government and is considered central for social and economic development and employment in all provinces. Plans to develop tourism are included in the *Philippine Development Plan for 2011–2016* of the National Economic Development Authority and in the Department of Tourism's draft National Tourism Development Plan 2012.

The draft plan aims to increase international arrivals from 3.5 million in 2010 to 10 million in 2016 while domestic travel is projected to increase from 28 million to 35 million in the same period. In all, the share of tourism in GDP is projected to grow from 5.8% in 2010 to 8.1% in 2016, and employment is expected to rise from 3.7 million to 6.5 million, of which up to 740,000 will be from the poorer sections of the population (DOT 2012).

Figure 11.1
Why Tourism Is Underdeveloped in the Philippines



LGU = local government unit.
Source: DOT (2012).

The plan further seeks to leverage the country's comparative advantage in natural resources, its position and proximity to major growth markets, and its well-known cosmopolitan and friendly culture. It highlights prospects for invigorated growth in the new tourism law and the open skies policy and by addressing (i) limited international and domestic market access and connectivity; (ii) noncompetitive tourist destinations and products; and (iii) weak public sector tourism governance and human resource development policies and practices.

Achieving the Philippine government's ambitious tourism growth targets for 2011–2016 will require forceful action. To tackle the main bottlenecks and barriers, the national plan outlines the development and marketing of competitive tourist products and destinations; improving market access, connectivity, and destination infrastructure; and improving the institutional, governance, and human resource capabilities for tourism (DOT 2012). Substantive progress has been made in recent years, but much remains to be done to tap the development potential of tourism.

E. Overseas Workers and the Philippine Diaspora

1. Growth and Structural Change

Recently, the major avenue for Filipinos to "export" services has been by working overseas rather than by delivering services from the Philippines. In fact, more than 10% of all Filipinos work overseas as permanent, temporary, or irregular migrants, (Table 11.8) and their remittances have long been larger than the country's commercial service exports. The number of overseas Filipinos (workers, students, emigrants, and others) has continued to increase since the 1960s and reached more than 10 million in 2011. More than 2 million Filipinos have migrated to the US, 0.5 million to Canada, and several hundred thousand live in Australia and Japan. For overseas workers, the Middle East has been a prime destination followed by the PRC and other Asian countries.

Table 11.8
Estimated Number of Filipinos Overseas, 2000–2011

Year	Permanent	Temporary	Irregular	Total Stock
As of 2000	2,551,549	2,991,125	1,840,448	7,383,122
2001	2,736,528	3,049,622	1,625,936	7,412,086
2002	2,807,356	3,167,978	1,607,170	7,582,504
2003	2,865,412	3,385,001	1,512,765	7,763,178
2004	3,204,326	2,899,620	1,039,191	7,143,137
2005	3,407,967	2,943,151	626,389	6,977,507
2006	3,568,388	3,093,921	621,713	7,284,022
2007	3,693,015	3,413,079	648,169	7,754,263
2008	3,907,842	3,626,259	653,609	8,187,710
2009	4,056,940	3,864,068	658,370	8,579,378
2010	4,423,680	4,324,388	704,916	9,452,984
2011	4,867,645	4,513,171	1,074,972	10,455,788

Notes: Permanent: an immigrant, dual citizen, or legal permanent resident abroad whose stay does not depend on a work contract. Temporary: a person whose stay overseas is employment related and who is expected to return at the end of the work contract. Irregular: a person not properly documented or without a valid residence or work permit or who overstays in a foreign country.

Source: POEA (2013).

Most overseas Filipinos work in services. They have a wide variety of occupations including medical doctors; nurses; physical therapists; accountants; engineers; architects; seafarers; caregivers; physiotherapists; IT professionals and other technicians; teachers; journalists; artists; travel, restaurant, and hotel employees; and domestic helpers. The number of Filipinos working overseas has not only grown but has also changed structurally. While significant numbers work in low-end service jobs such as domestic helpers and general laborers, there has been a rapid expansion in the number with higher education and professional skills. In fact, official data on Filipinos who emigrated in 2011 show that 40% had college or post-graduate educations (Table 11.9). In the US, the Philippines ranks first in supplying nurses and second in medical doctors after India. Also, many Filipinos work in engineering, teaching, research, business management, and liberal arts in North America, Europe, and Asia.

2. Drivers and Constraints

Multiple factors explain why so many Filipinos have opted to work overseas. Broadly speaking they are related to demand from other countries that can offer employment and comparatively high pay combined with high population growth and with a lack of attractive opportunities in the Philippines due to the modest growth of both the industry and service sectors. This, in addition to their strengths in cultural adaptability and professional talent, has resulted in a large number of Filipinos opting to work overseas, mostly in the service sector.

In addition, the Philippine government has been proactive in enabling Filipinos to work overseas. Since the enactment of the Labor Code in 1974, the government has set up public agencies to facilitate finding overseas jobs, and it has negotiated bilateral labor agreements to ease the movement of workers and to protect their rights in host countries. Efforts to counter the brain drain, or more broadly the talent drain, have, however, been unpretentious.

3. Impact

Filipino remittances to their native country have been significant in absolute terms and as a ratio of GDP and of other economic indicators. They have been a major source of foreign exchange earnings and hence in the balance of payments. Remittances recorded and routed through banks rose from about $2 billion in 1990 to $6 billion in 2000 and to $21 billion in 2001. As of 2012 they stood at $23 billion compared to $2 billion in foreign direct investment. Recorded remittances were 5.2% of GDP in 1996 compared with 9%–10% from 2003 to 2012. Remittances have increased rather steadily despite the global financial crisis in 2008 although at a slower rate than in the pre-crisis years (BSP 2013d).

Table 11.9
Number of Registered Filipino Emigrants by Educational Attainment prior to Emigrating

Educational Attainment	1988	2000	2008	2009	2010	2011	1998–2011	Share in 2011 (%)	Average Annual Growth in 1998–2011 (%)
Not of school age	5,514	3,175	4,842	5,813	7,061	6,658	112,384	8.0	8.0
No formal education	459	331	105	92	83	64	10,324	0.1	–9.5
Elementary	8,847	6,308	8,907	9,986	10,969	10,359	195,467	12.4	6.2
Elementary graduate	3,012	1,864	2,314	2,395	2,194	2,152	61,121	2.6	1.2
High school	7,291	6,475	8,216	9,218	9,428	9,260	185,297	11.1	4.5
High school graduate	5,724	6,398	8,251	8,702	8,299	8,401	174,322	10.1	3.2
Vocational	839	854	970	1,273	1,421	1,363	24,432	1.6	5.7
Vocational graduate	1,415	2,300	3,368	4,092	4,534	4,531	62,310	5.4	8.6
College	8,451	8,069	11,852	13,668	14,365	13,809	239,635	16.6	5.8
College graduate	15,614	13,619	19,264	21,794	24,834	24,193	408,011	29.0	7.7
Post-graduate level	527	1,088	1,100	1,071	1,188	1,010	21,444	1.2	5.8
Post-graduate	327	518	1,564	1,476	1,586	1,484	21,483	1.8	10.4
Nonformal education	–	23	31	46	17	13	1,573	0.0	–
Not reported/ No response	–	9	16	92	96	113	843	0.1	29.3
Total	58,020	51,031	70,800	79,718	86,075	83,410	1,518,646	100.0	6.0

– = data not available.

Source: CFO (2012).

The absolute magnitude of remittances to the Philippines is larger than in any other ASEAN country. The Philippines was the world's third largest recorded remittance recipient in absolute terms after India and the PRC in 2012. Moreover, the remittance-to-GDP ratio for the Philippines has been as high as 9%–10% compared with 1% and 3% in the PRC and India, respectively which is also far greater than other ASEAN countries (World Bank 2013b). Also, partly because the Philippine diaspora is large and spread worldwide, remittance inflows have been rather more stable than other international financial flows (BSP 2013d).

The fact that remittances have a major impact on the economy is widely acknowledged although most have been channeled to consumption rather than to direct investment with the prime exception of real estate. Remittances have been a major source of foreign exchange earnings and contribute markedly to the current account surplus in addition to being a significant factor in consumption expenditures in the country.

While individuals and their families benefit financially from Filipinos working overseas, there are also undesirable implications such as weakening family ties. Thus on the one hand, the Philippines is a major exporter of human capital that benefits from workers' remittances, but on the other hand, it can be perceived as a country that is losing potentially valuable talent.

4. Opportunities and Challenges

The improved performance of the Philippine economy as illustrated by rapid BPO industry growth and changes in the external job market (economic slowdown and migration and work permit restrictions) have moderated the trend to seek employment overseas, and it has also become more difficult for certain categories of workers to emigrate. Thus, for example, a significant number of business management, IT, engineering, and healthcare graduates now seek employment in the IT-BPO industry in the Philippines.

The continued rapid growth in IT-BPO, tourism, and other service industries both in terms of exports and of services directed at local needs will result in more job opportunities in the country and will reduce the incentive to go overseas. Moreover, it could trigger an increase in the number of Filipinos opting to return to work or to invest in their native county. Such a development could prove to be very beneficial for the modern service sector.

Redirecting past trends in migrating talent will, however, require major improvements in the Philippine economy so that it can offer more employment and higher pay. Furthermore, the education system has to be reoriented so that it produces what is needed in the country rather than what is in demand overseas. Also, the government and the private sector need to make greater efforts to retain useful talent and to entice those working overseas to invest and work at home as

that could improve prospects for developing the IT-BPO industry, tourism, and other services.

F. Conclusions

Typically, sustainable, inclusive social and economic development is based on developing both the goods-producing (agriculture, mining, construction, and manufacturing) and service industries and the interface between them because services like education, healthcare, banking, legal systems, ICT, and logistics are fundamentally important for goods-producing industries and vice versa. The principal issue is not whether to focus on services or on production but rather on when and what types of services and goods to produce in the context of shifting patterns of comparative advantage that in turn depend on changes in factor endowments, technology, government policies, and other developments. This implies a need for vision and pragmatic approaches.

While potentially useful, an analysis of broad categories of services such as modern versus traditional has major limitations. One reason for this are the changes that modern and traditional services undergo over time, e.g., in education, healthcare, financial services, and public administration. ICT has been a major factor in the revolutionary changes in these and other services whereby certain modes become obsolete while new ones come to the fore in line with the notion of creative destruction (Schumpeter 1950).There is a need to give priority to new, modern services (IT, BPO, the internet, and others) and to use them to revitalize the delivery of both modern and traditional services. Furthermore, it is useful to distinguish between services for export and those for the domestic market and to note that advancements in transportation and logistics and the escalating ICT revolution make both goods and services more tradable within and across countries. Becoming more tradable implies that services can grow substantially even when domestic demand is weak.

Traditional services interact with modern ones; for example, the IT-BPO industry is highly dependent on the education system for human capital while an effective education system is becoming increasingly dependent on ICT. Similarly, there is substantial interdependence between ICT and healthcare, transportation, tourism, real estate, banking, creative industries, business services, and public administration among others. Although the successful development of the IT-BPO industry depends on the status of other industries, it also has major implications for their development. In short, a well-developed IT-BPO industry can both empower and be a catalyst for transforming other parts of the economy.

Simultaneously developing both the IT-BPO and tourism industries can help to create a better overall business environment that could further spur their development. Expanding the scale and scope of IT-BPO exports and of tourism

can also improve country branding and can help to increase air traffic and to develop hotels, real estate, retail businesses, and creative industries.

The experience of the Philippines points to the need to embark on multipronged development with a pragmatic focus on several service and goods-producing industries. Effective education and training in ICT will develop new business models and entrepreneurship and will transform supply chains and production, trade, finance, and knowledge networks. ICT-related development can have a special strategic role as they can leverage development in the economy as a whole in terms of innovation, productivity, and competitiveness (Mitra 2013a).

Analyzing the growth and the impact of developments in ICT, tourism, and other services needs to be extended beyond revenue and employment and beyond a traditional analysis of forward and backward links or multipliers. It is critical to consider the importance of growth and structural changes in the IT-BPO industry that have major, economy-wide implications for building competency and using new ICT applications, both of which generally have not been sufficiently understood (Mitra forthcoming).

The traditional agriculture and industry sectors continue to be important in the Philippines (and in most other countries), but the service sector accounts for a major part of employment, GDP, and exports. Reconstituted traditional services as well as modern services (and goods production) are central to poverty alleviation and also for the economy to develop beyond the middle-income level. The advancement of most countries from low- to middle-income status required the government, the private sector, and other stakeholders to diversify and move up the value chain in both the industry and service sectors. In this context, it is essential to focus on education, research, innovation, entrepreneurship, ICT, and other technological and skill developments.

In sum, the government and the business and academic communities acknowledge that the Philippines has considerable scope for advancement in several areas and for fostering both intra- and inter-sector links and for transforming the supply chain within the country and internationally. Realizing those opportunities will require coherent strategies as well as the forceful implementation of appropriate actions in the agriculture, industry, and service sectors on one hand and in technology, governance, and other institutional aspects on the other.

Three major opportunities for leveraging service sector growth stand out. One is expanding the scale and scope of export and domestic markets for IT-BPO, telecommunications, and other modern services. This implies a unique window of historical opportunities for developing the Philippine economy. Leveraging ICT and ICT-enabled services is necessary to generate new income and jobs, to foster inter-sector links, and to be more productive and competitive. Second is to successfully develop the tourism industry to foster economic development

across social groups and regions, including poor and remote rural areas. Third is the need to enhance the prospects for Filipino technical, managerial, and entrepreneurial talent to work in the Philippines rather than overseas.

There is a need for forceful action and for flexible, timely responses by all stakeholders—government, academia, industry associations, foreign investors, and local entrepreneurs—to opportunities and challenges in the IT-BPO export industry, international tourism, and the development of the domestic market. Those efforts along with efforts to further develop education, healthcare, banking and finance, telecommunications, energy, physical infrastructure, and the agriculture and industry sectors can substantially enhance prospects to achieve sustainable and inclusive growth within the country and to develop international interfaces, all of which would help the Philippines to catch up in economic development and to become a knowledge economy.

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CHAPTER 12

A Turning Point for the Service Sector in Thailand

Pracha Koonnathamdee

Abstract

Although Thailand's service sector accounts for almost half of the national income and has a major stake in national employment, its contribution to the growth of the gross domestic product (GDP) fluctuates. Moreover, the share of the service sector in GDP is decreasing while many developed countries maintain a positive association between the shares of the sector in output and per capita income. This chapter investigates this relationship by examining the gross provincial product of 76 provinces to test the hypothesis that the service sector is a growth engine in the Thai economy. Using the fixed-effect model, the estimates confirm two waves of growth. Total factor productivity and revealed comparative advantages are discussed to determine significant service activities. Wholesale and retail trade, tourism and travel-related activities, transportation, and construction all play major roles in contributing to Thailand's economic growth. The government should continue to promote these services with unambiguous policies suitable for each region and province. Educational services also require more attention from pertinent agencies.

A. Introduction

As is true in every newly industrializing economy, the economy of Thailand is mixed. Decisions regarding the production of goods and services are made in both the private and public sectors. From the early 1970s to the mid-1990s,

Thailand experienced significant economic growth. Between 1980 and 1990, the average growth of real gross domestic product (GDP) was about 7.6%, and the growth of exports was around 14%. Between 1990 and 1995, average growth in real GDP reached 8.4%, and average export growth was 14.2% (Salvatore 2011). Since 2000, however, Thailand has had an average real GDP growth of only about 4%. While Thailand is widely perceived as an economically developing country led by agricultural exports, the majority of the country's income is driven by the manufacturing and the service sectors. Since 1993, the agriculture sector has contributed only 300 billion–400 billion baht (B) per year to Thailand's real GDP while in 2009, the service sector generated about B2 trillion or almost 50% of GDP mostly from private sector services (Table 12.1).

Based on this pattern, the Thai economy is in the first phase of economic development. After resources shift from agriculture to manufacturing, there will be a final shift to tertiary production or services (Fisher 1939, Clark 1940). This chapter analyzes the status of Thailand's service sector and investigates whether it is a growth engine for the economy.

B. Basic Facts

Because the service sector is highly diverse, ranging from low-end services such as street vendors to high-end services in the financial and professional sectors, a clear definition is required.

1. What Is Thailand's Service Sector?

Like every country, Thailand has several definitions of services depending on derivation and terms of use. The National Economic and Social Development Board (NESDB) defines the service sector as all economic activities except for those in the agriculture, manufacturing, and mining and quarrying sectors.[1] Using this broad concept, Thailand defines its service sector as comprising no fewer than a dozen economic activities. Since 1991, the General Agreement on Trade in Services (GATS) has offered a different definition of the service sector and has published a service sector classification list (WTO 1995) that has become the standard for academics and scholars. A third classification method is the balance of payments, an International Monetary Fund definition used mainly for international trade and finance statistics.

Because the NESDB and GATS propose different definitions of the service sector, researchers and policy makers have a more difficult time studying service activities. For example, the national definition classifies hotels and restaurants

Table 12.1
Gross Domestic Product in 1988 Prices by Economic Activity in Thailand, 1993–2009 (Baht million)

Sector/Activity	1993–1997	1998–2002	2003	2004	2005	2006r	2007r	2008r	2009p
Agriculture	**274,652**	**304,785**	**363,033**	**354,431**	**347,892**	**365,428**	**369,772**	**385,225**	**390,362**
Agriculture, hunting, and forestry	225,894	255,337	307,619	296,996	288,835	301,608	306,747	320,058	322,342
Fishing	48,758	49,449	55,414	57,435	59,057	63,820	63,025	65,167	68,020
Non-agriculture	**2,584,062**	**2,683,356**	**3,105,133**	**3,333,758**	**3,510,127**	**3,689,076**	**3,889,254**	**3,979,608**	**3,872,777**
Mining and quarrying	48,445	63,541	76,616	80,837	88,081	91,585	95,088	95,280	96,105
Manufacturing	930,871	1,071,093	1,318,279	1,426,338	1,499,882	1,588,105	1,686,372	1,751,411	1,645,015
Electricity, gas, and water supply	75,894	97,317	115,195	122,525	129,004	135,114	141,975	147,603	148,880
Construction	169,805	81,541	82,837	88,790	93,809	98,086	100,511	95,190	95,551
Wholesale and retail trade; repair of motor vehicles, motorcycles, and personal and household goods	491,047	465,085	493,719	517,310	541,934	560,218	591,030	596,735	594,785
Hotels and restaurants	104,068	112,647	118,852	133,324	136,165	151,267	157,858	160,430	160,017
Transport, storage, and communications	238,223	291,245	340,644	366,290	383,925	407,682	432,037	429,933	413,666
Financial intermediation	198,424	98,949	111,807	125,723	136,342	140,719	148,575	160,938	167,346
Real estate, renting, and business activities	108,986	120,278	134,641	143,581	151,225	159,500	164,607	168,739	170,597

continued on next page

Table 12.1 continued

Sector/Activity	1993–1997	1998–2002	2003	2004	2005	2006r	2007r	2008r	2009p
Public administration and defense; compulsory social security	76,562	97,042	108,375	111,795	116,267	115,298	120,583	122,161	122,260
Education	65,223	83,246	86,760	89,821	96,138	99,343	109,095	109,423	115,190
Health and social work	30,715	41,481	42,689	43,678	48,515	50,938	54,680	54,263	55,346
Other community, social, and personal service activities	42,408	56,483	71,168	80,066	85,155	87,619	83,148	83,740	84,186
Private households with employed persons	3,391	3,408	3,551	3,680	3,685	3,602	3,695	3,762	3,833
Gross domestic product (GDP)	**2,858,714**	**2,988,142**	**3,468,166**	**3,688,189**	**3,858,019**	**4,054,504**	**4,259,026**	**4,364,833**	**4,263,139**
Per capita GDP (baht)	**48,121**	**47,938**	**54,205**	**57,154**	**59,264**	**61,831**	**64,491**	**65,654**	**63,721**
Service sector	**1,604,745**	**1,548,722**	**1,710,238**	**1,826,583**	**1,922,164**	**2,009,386**	**2,107,794**	**2,132,917**	**2,131,657**
Private service sector	**1,528,183**	**1,451,679**	**1,601,863**	**1,714,788**	**1,805,897**	**1,894,088**	**1,987,211**	**2,010,756**	**2,009,397**
Non-services	**1,253,969**	**1,439,420**	**1,757,928**	**1,861,606**	**1,935,855**	**2,045,118**	**2,151,232**	**2,231,916**	**2,131,482**

p = prediction, r = re-estimate.

Source: National Economic and Social Development Board.

as major service activities whereas the GATS recognizes each as services within tourism and travel (Table 12.2). Multiple definitions make data collection and systematic analysis difficult which in turn generates high transaction costs when researchers and policy makers need more information about particular services such as tourism or recreational services.

Table 12.2
Definitions of the Service Sector

Service sector: NESDB concept	Scope of services: GATS concept
1. Electricity, gas, and water supply 2. Construction 3. Wholesale and retail trade; repair of motor vehicles, motorcycles, and personal and household goods 4. Hotels and restaurants 5. Transport, storage, and communications 6. Financial intermediation 7. Real estate, renting, and business activities 8. Public administration and defense; compulsory social security 9. Education 10. Health and social work 11. Other community, social, and personal service activities 12. Private households with employed persons	1. Business services 2. Communication services 3. Construction and related engineering services 4. Distribution services 5. Educational services 6. Environmental services 7. Financial services 8. Health-related and social services 9. Tourism and travel-related services 10. Recreational, cultural, and sporting services 11. Transport services 12. Other services not included elsewhere

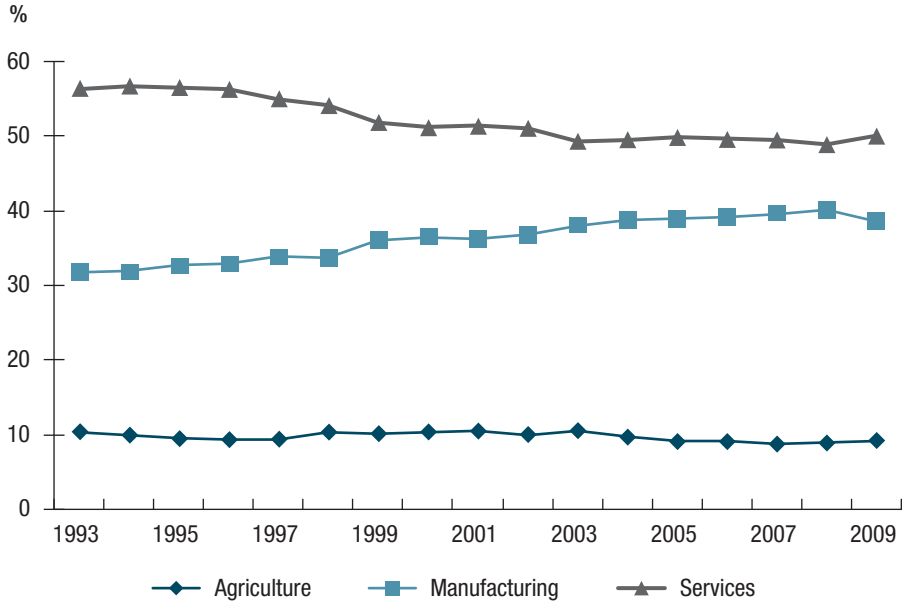
GATS = General Agreement on Trade in Services, NESDB = National Economic and Social Development Board.
Source: Author's compilation from NESDB and GATS data.

2. Size, Growth, and Composition

The *World Factbook* records that in 2011 the Thai economy (measured by current GDP under the official exchange rate) was estimated at about $345.6 billion. Using the purchasing power parity method, Thailand's economy was estimated at about $601.4 billion which ranked it 25th among 226 countries. Thailand is an upper-middle income country, and its economy is comprised mainly of the agriculture, manufacturing, and service sectors which contributed approximately 13.3%, 34%, and 52.7%, respectively to the GDP (CIA 2012). Thailand's service sector has long been viewed as an indicator of economic development. Over the

past few decades, the significance of the service and manufacturing sectors in terms of real GDP has increased steadily while the share of real GDP derived from the agriculture sector has become less important. Among the three major sectors, the service sector has contributed the largest percentage to the country's GDP since 1993 (Figure 12.1).

Figure 12.1
Sector Share in Gross Domestic Product in Thailand



Source: Author's estimates using National Economic and Social Development Board data.

Thailand's service sector contributed from 0.6 percentage points to 3.4 percentage points to GDP growth from 1993 to 2009 except in 1998 to 2002 after the Asian financial crisis and again in 2009 while manufacturing contributed about 1.1 percentage points to 3.9 percentage points from 1993 to 2008 (Table 12.3). The agriculture sector has played a smaller role in growth and income as its share in GDP stabilized at around 10% during the study period contributing less than 0.5 percentage points to GDP growth. Although the service sector contributed the most to GDP from 1993 to 2008, over time its share in GDP seemed to shrink while the opposite was true for the share of the manufacturing sector. Figure 12.1 illustrates these trends. This reflects the changing nature of the Thai economy.

Table 12.3
Contribution to Growth of Gross Domestic Product at 1988 Prices by Economic Activity in Thailand, 1993–2009 (%)

	1993–1997	1998–2002	2003	2004	2005	2006r	2007r	2008r	2009p
Agriculture	**0.30**	**0.25**	**1.26**	**–0.25**	**–0.18**	**0.45**	**0.11**	**0.36**	**0.12**
Agriculture, hunting, and forestry	0.27	0.23	1.09	–0.31	–0.22	0.33	0.13	0.31	0.05
Fishing	0.03	0.01	0.17	0.06	0.04	0.12	–0.02	0.05	0.07
Non-agriculture	**5.39**	**0.99**	**5.88**	**6.59**	**4.78**	**4.64**	**4.94**	**2.12**	**–2.45**
Mining and quarrying	0.17	0.08	0.15	0.12	0.20	0.09	0.09	0.00	0.02
Manufacturing	2.35	1.12	3.94	3.12	1.99	2.29	2.42	1.53	–2.44
Electricity, gas, and water supply	0.22	0.16	0.16	0.21	0.18	0.16	0.17	0.13	0.03
Construction	0.03	–0.43	0.07	0.17	0.14	0.11	0.06	–0.12	0.01
Wholesale and retail trade; repair of motor vehicles, motorcycles, and personal and household goods	0.79	–0.18	0.43	0.68	0.67	0.47	0.76	0.13	–0.04
Hotels and restaurants	0.07	0.13	–0.16	0.42	0.08	0.39	0.16	0.06	–0.01
Transport, storage, and communications	0.80	0.36	0.29	0.74	0.48	0.62	0.60	–0.05	–0.37
Financial intermediation	0.29	–0.69	0.50	0.40	0.29	0.11	0.19	0.29	0.15
Real estate, renting, and business activities	0.17	0.08	0.19	0.26	0.21	0.21	0.13	0.10	0.04
Public administration and defense; compulsory social security	0.15	0.13	0.10	0.10	0.12	–0.03	0.13	0.04	0.00
Education	0.13	0.08	0.03	0.09	0.17	0.08	0.24	0.01	0.13
Health and social work	0.07	0.06	–0.05	0.03	0.13	0.06	0.09	–0.01	0.02
Other community, social, and personal service activities	0.15	0.09	0.23	0.26	0.14	0.06	–0.11	0.01	0.01
Private households with employed persons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross domestic product (GDP)	**5.69**	**1.23**	**7.14**	**6.34**	**4.60**	**5.09**	**5.04**	**2.48**	**–2.33**
Service sector	**2.87**	**–0.21**	**1.79**	**3.35**	**2.59**	**2.26**	**2.43**	**0.59**	**–0.03**
Private service sector	**2.72**	**–0.35**	**1.69**	**3.26**	**2.47**	**2.29**	**2.30**	**0.55**	**–0.03**
Non-services	**2.82**	**1.45**	**5.35**	**2.99**	**2.01**	**2.83**	**2.62**	**1.89**	**–2.30**

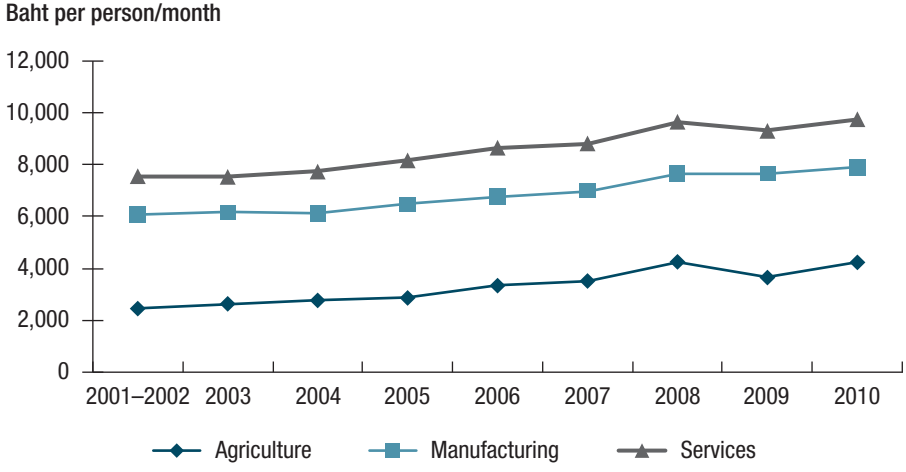
p = prediction, r = re-estimate.

Source: Author's calculations using National Economic and Social Development Board data.

Diminishing agricultural production implies that to some extent the country has developed according to the structural change model of shifting from agriculture to manufacturing to services. Whether Thailand is currently at the secondary or tertiary stage is still unclear.

Like the share of the service sector in GDP, the share in employment has been paramount since 2003 and in 2010 provided work for about 18 million people (Table 12.4). The trends in the shares in GDP and in employment are, however, moving in opposite directions as the former is decreasing while the latter is increasing. In contrast, the labor force in the agriculture sector has fluctuated from 1998 to 2010 but since 2008 has shown signs of decreasing in both size and in share of employment. While the manufacturing sector as noted previously has increased its share in GDP, its share in employment has remained stable at about 15%. The average wage paid in services has, however, been higher than the average wage paid in the other two sectors (Figure 12.2).

Figure 12.2
Wages by Sector in Thailand



Source: National Economic and Social Development Board and author's estimates.

To evaluate the relative importance of individual services, the share of each service activity in total sector output from 1993 to 2009 is plotted in Figure 12.3. The most outstanding service activity in terms of its contribution to GDP is wholesale and retail trade[2] which contributed as much as 14% of the total in 2009 or about 28% of the total service contribution. Transportation, storage, and

Table 12.4
Employment by Economic Activity in Thailand, 1998–2010 (1,000 persons)

	1998–2002	2003	2004	2005	2006r	2007	2008	2009	2010
Agriculture	**13,738.98**	**13,880.09**	**13,633.87**	**13,616.97**	**14,170.51**	**14,306.01**	**14,699.12**	**14,692.55**	**14,546.88**
Agriculture, hunting, and forestry	13,280.78	13,424.81	13,201.44	13,164.65	13,715.85	13,862.41	14,283.25	14,228.35	14,119.23
Fishing	458.20	455.28	432.43	452.33	454.66	443.60	415.87	464.20	427.65
Non-agriculture	**17,706.11**	**19,960.93**	**21,094.95**	**21,640.21**	**21,515.02**	**21,943.44**	**22,317.50**	**23,013.79**	**23,489.64**
Mining and quarrying	18.95	46.72	50.42	56.59	57.58	63.06	57.93	51.20	40.76
Manufacturing	4,633.45	5,298.72	5,476.14	5,587.89	5,504.13	5,619.23	5,453.27	5,373.91	5,348.79
Electricity, gas, and water supply	117.19	94.84	100.38	106.87	106.54	101.77	106.39	102.21	103.21
Construction	1,593.16	1,880.68	2,080.36	2,129.39	2,150.74	2,148.74	2,214.04	2,302.96	2,356.15
Wholesale and retail trade; repair of motor vehicles, motorcycles, and personal and household goods	4,482.47	5,199.18	5,540.31	5,553.27	5,513.60	5,574.40	5,754.28	6,047.63	6,236.29
Hotels and restaurants	1,835.18	2,147.24	2,255.89	2,348.53	2,274.67	2,342.96	2,384.25	2,592.91	2,654.16
Transport, storage, and communications	992.13	1,049.62	1,100.44	1,108.05	1,072.30	1,058.06	1,117.09	1,140.82	1,107.52
Financial intermediation	287.54	288.86	296.65	316.95	340.15	341.86	373.13	375.27	366.66
Real estate, renting, and business activities	472.98	557.42	623.84	647.35	672.39	717.33	731.51	744.10	765.12

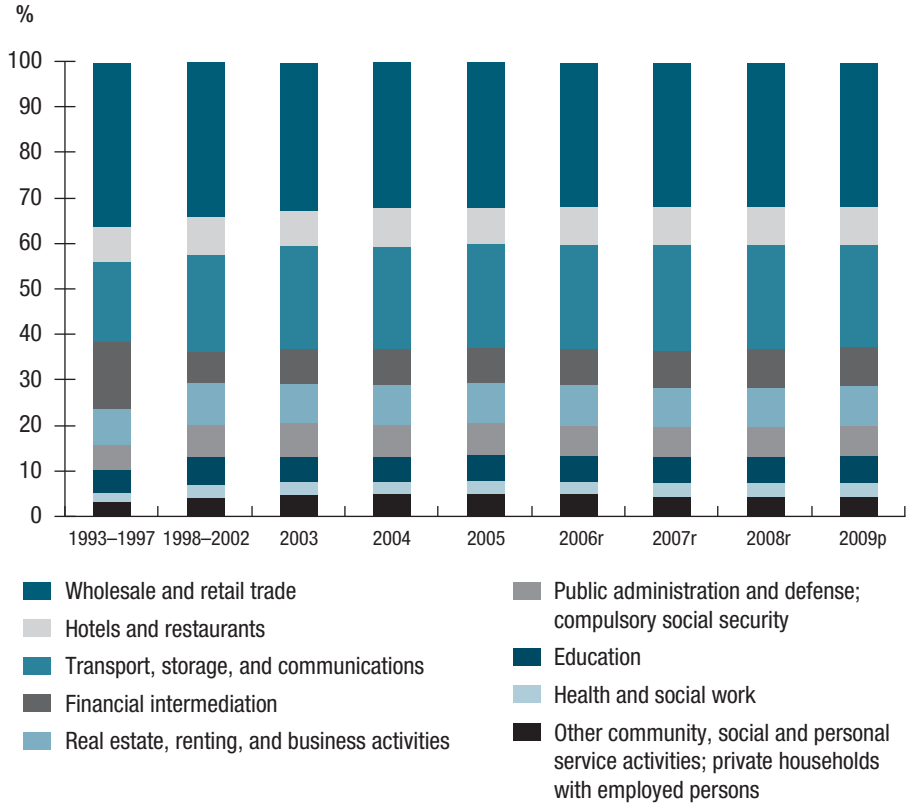
continued on next page

Table 12.4 continued

	1998–2002	2003	2004	2005	2006r	2007	2008	2009	2010
Public administration and defense; compulsory social security	1,036.29	953.99	993.98	1,109.78	1,156.01	1,250.96	1,299.30	1,348.69	1,488.39
Education	945.65	973.01	1,031.41	1,044.25	1,043.65	1,045.93	1,061.56	1,132.67	1,246.06
Health and social work	431.16	514.29	546.77	601.66	588.81	633.41	681.39	698.92	701.33
Other community, social, and personal service activities	579.94	682.04	724.96	736.87	744.05	750.33	825.65	837.60	810.15
Private households with employed persons	229.49	255.59	243.00	243.35	223.25	233.16	217.71	237.65	233.94
Extra-territorial organizations and bodies	0.86	1.01	1.92	1.48	1.67	2.00	1.25	2.29	2.57
Unknown	49.66	17.72	28.49	47.93	65.50	60.26	38.77	24.97	25.05
Service sector	13,053.71	14,615.49	15,568.39	15,995.73	15,953.31	16,261.15	16,806.30	17,588.68	18,100.09
Private service sector	12,017.42	13,661.50	14,574.41	14,885.95	14,797.30	15,010.19	15,507.00	16,239.99	16,611.70
Agriculture sector labor share (%)	43.69	41.02	39.26	38.62	39.71	39.47	39.71	38.97	38.24
Manufacturing sector labor share (%)	14.74	15.66	15.77	15.85	15.42	15.50	14.73	14.25	14.06
Service sector labor share (%)	41.51	43.19	44.83	45.37	44.71	44.86	45.40	46.65	47.59
Private service sector labor share (%)	38.22	40.37	41.97	42.22	41.47	41.41	41.89	43.07	43.67

Source: National Economic and Social Development Board.

Figure 12.3
Share of Service Industries in Total Sector Value-Added in Thailand



p = prediction, r = re-estimate.
Source: Author's calculations using National Economic and Social Development Board data.

communications ranked second contributing 9.7% of total GDP in 2009 or 19% of total service output. From an employment perspective, wholesale and retail trade was again the most significant generating jobs for about 6 million people in 2009. Hotels and restaurants (2.7 million jobs); construction (2.4 million); public administration, defense, and social security (1.5 million); and education (1.2 million) were also important sources of employment. Wholesale and retail trade thus appears to be the most significant service in the Thai economy as it provided the largest contribution to the GDP and generated the most employment.[3]

The service sector has become increasingly important to Thailand because of its economic contribution and the employment it provides, but the inverse

relation between its contribution to GDP and its contribution to employment merits a closer look from researchers and policy makers. Based on the information in Figure 12.1 and the *World Factbook*, starting in 2009 we can observe a turning point where the shares of the manufacturing sector decrease and those of the service sector increase.

3. Trade and Investment

From 2005 to 2010, Thailand had a trade deficit in services averaging about $8.9 billion that grew to almost $10 billion in 2011 (Table 12.5). In addition to transportation, royalties and licensing, communication services, and insurance services have caused the majority of the deficit while travel services have been the major positive component since 2005. It is noteworthy that in 2010, the hotel and restaurant industry ranked second in employment in part due to the tourism industry. According to the Thomas White International website, in 2007 tourism and travel in Thailand contributed a staggering 6% of total GDP, more than in any other Asian nation. This concurs with data from the World Trade Organization (WTO) Service Profiles that show that in 2010 Thailand received a positive net trade balance of payments in travel equal to $14.64 million which ranked it first among the Asian countries studied. Moreover, Bangkok, has received "The World's Best City Award" for 4 consecutive years (2010–2013) in *Travel & Leisure*.

Thailand's inward foreign direct investment (FDI) in the service sector from 2005 to 2011 averaged $3 billion with a peak in 2007 of about $3.8 billion. The majority was in financial intermediation and real estate at about 88% of gross annual FDI (Table 12.6). Thailand's sector has shown significant openness to trade in services by welcoming foreign investment.

C. Share of Output Model

Based on the framework in Eichengreen and Gupta (2009), the relationship between the share of output in the service sector and per capita income in Thailand was examined using provincial data for the first time. Data for this study came from NESDB's gross regional and provincial product (GPP). Provincial data are from 76 provinces and include 16 economic activities classified under the International Standard Industrial Classification Revision 3 and are available from 1995 to 2009. Table 12.7 presents these descriptive statistics.

Scatter plots[4] are used to compare the share of services in GPP and the log of per capita income. The plots are shown in Figure 12.4 in four categories.

Table 12.5
Net Service Trade in Thailand ($ million)

	2005	2006	2007	2008	2009	2010	2011
Net service trade	–6,862.95	–8,011.54	–7,937.09	–12,891.87	–6,377.33	–1,0551.10	–9,952.53
Transportation	–9,812.65	–10,771.38	–11,692.15	–15,690.66	–11,315.00	–16,500.13	–20,844.34
Freight	–11,133.98	–11,884.91	–13,054.72	–17,131.15	–12,930.75	–17,745.62	–21,667.07
Passenger	1,410.09	1,646.65	2,211.38	2,642.95	2,440.10	2,163.80	2,145.01
Others	–88.76	–533.13	–848.81	–1,202.47	–824.34	–918.31	–1,322.28
Travel	5,772.92	8,801.45	11,524.99	13,160.97	11,626.72	14,597.78	21,143.24
Government services n.i.e.	5.69	11.91	–19.63	97.26	48.84	–15.04	121.20
Other services	–4,246.50	–7,633.03	–9,380.39	–12,579.06	–8,413.40	–10,819.98	–1,2974.3
Communication services	–1,380.31	–1,519.23	–1,591.21	–1,955.20	–1,583.72	–2,078.81	–2,522.53
Construction services	–58.54	–245.04	–123.35	–173.35	–310.70	–239.19	136.20
Royalties and licenses	–1,659.40	–2,000.40	–2,234.51	–2,466.32	–2,102.38	–2,927.37	–2,943.93
Insurance services	–1,380.31	–1,519.23	–1,591.21	–1,955.20	–1,583.72	–2,078.81	–2,522.53
Others	232.06	–2,349.13	–3,840.11	–6,028.99	–2,832.88	–3,495.80	–5,121.51

Note: Government services n.i.e. (not included elsewhere) is a residual category covering government service transactions for goods and services (office supplies, furnishings, utilities, official vehicles and their operation and maintenance, and official entertainment) by embassies, consulates, military units and defense agencies, and personal expenditures incurred by diplomats, consular and military staff and their dependents in the economies in which they are located. Also included are transactions associated with general administrative expenditures and not included elsewhere.

Source: Bank of Thailand.

Table 12.6
Foreign Direct Investment by Economic Activity in Thailand, 2005–2011 ($ million)

		2005	2006	2007	2008	2009	2010p	2011p
Electricity, gas, and water supply	Inward	–87.71	353.83	33.20	200.43	221.92	–107.43	93.59
	Outward	66.06	–106.82	4.17	–289.33	–68.91	–138.39	–112.59
Construction	Inward	29.56	–93.79	29.96	–34.04	1.43	20.73	28.07
	Outward	4.39	–29.98	–72.84	–44.20	–36.23	101.79	–203.41
Wholesale and retail trade; repair of motor vehicles, motorcycles, and personal and household goods	Inward	260.27	845.21	–262.52	131.58	344.86	29.95	–512.93
	Outward	229.57	133.13	–162.29	–936.55	24.56	–446.71	–983.42
Hotels and restaurants	Inward	155.05	80.53	–43.31	450.25	118.42	–190.44	94.56
	Outward	–89.32	4.96	–127.98	–96.68	–169.47	–166.51	–10.42
Transport, storage, and communications	Inward	–29.94	124.97	166.77	–51.34	46.00	–31.99	12.83
	Outward	–9.96	–14.68	57.08	–60.42	51.10	18.59	–93.63
Financial intermediation	Inward	3,269.45	691.65	2,815.04	1,765.99	274.15	2,332.01	1,662.11
	Outward	–231.93	–154.06	–2,337.52	–1,790.53	–1,755.14	–466.34	–3,368.91
Real estate, renting, and business activities	Inward	73.28	1,419.06	1,103.16	1,202.53	767.96	802.40	905.14
	Outward	–7.50	–14.75	–272.90	335.77	–51.24	–96.49	–723.96
Gross foreign direct investment	Inward	3,669.96	3,421.46	3,842.30	3,665.40	1,774.74	2,855.23	2,283.37
	Outward	–38.69	–182.20	–2,912.28	–2,881.94	–2,005.33	–1,194.06	–5,496.34

p = prediction.

Source: Bank of Thailand.

Table 12.7
Descriptive Statistics

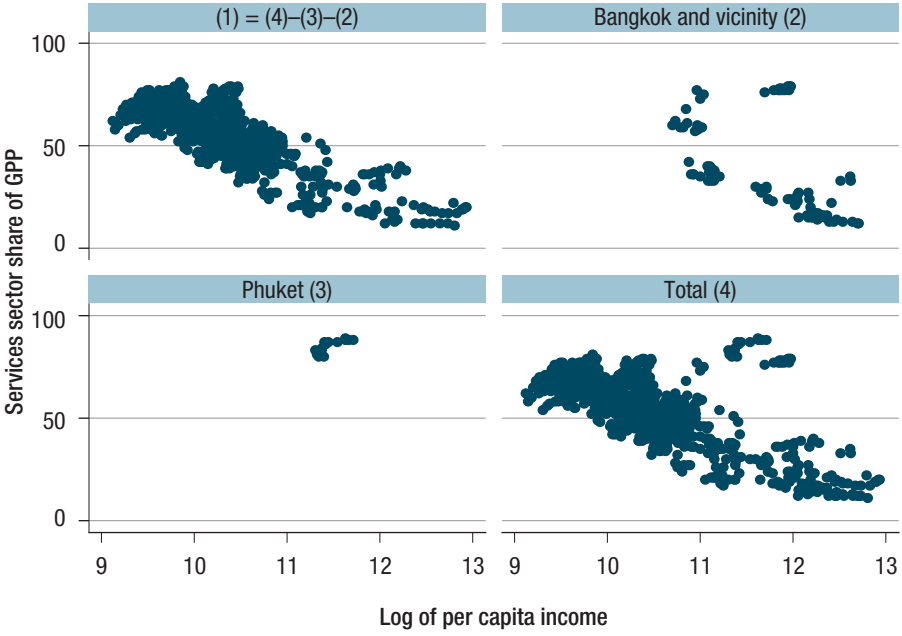
Variable	No. of Observations	Mean	Standard Deviation	Min	Max
Agriculture (baht million)	1,140	4,433.20	3,052.46	385	18,917
Non-agriculture (baht million)	1,140	41,292.96	117,045.70	2,653	1,074,500
Manufacturing (baht million)	1,140	16,918.32	42,069.44	92	260,337
Services (baht million)	1,140	23,410.76	85,680.50	2,439	84,9739
GPP total (baht million)	1,140	45,637.11	116,885.50	3,383	1,075,643
Population (1,000 persons)	1,140	833.29	810.73	145	6,866
Per capita income at 1988 prices (baht)	1,140	48,194.58	59,846.07	9,137	413,657
Service share (%)	1,140	55.49	16.34	11.00	89.00
Agriculture share (%)	1,140	22.19	13.01	0.10	58.97
Manufacturing share (%)	1,140	20.12	21.33	2.46	86.97
Non-agriculture share (%)	1,140	77.80	13.01	41.03	99.89
Log per capita income	1,140	10.38	0.79	9.12	12.93

GPP = gross provincial product.
Source: Author's calculations using data from National Economic and Social Development Board.

Plot (1) displays all provinces except Bangkok and vicinity and Phuket. The relationship appears wave-like with an increasing trend in the service share when income is low and a decreasing trend when income is high. This relationship differs from a major assumption in economic development: the service sector grows as income increases. Plot (2) shows Bangkok and vicinity and presents a parabolic function. Plot (3) is for Phuket, Thailand's largest island, and confirms the conventional assumption that service output and income are directly related. Although Phuket and Bangkok seem to be outliers in our model, by including these outliers plot (4) still maintains a wave-like shape. Therefore the panel data model uses 76 provinces from 1995 to 2009 with a total of 1,140 observations and hypothesizes the wave-like shape as shown in Figure 12.4 plot (4). Because of the limitations of a bounded share as discussed in Eichengreen and Gupta, the relationships were estimated in quartic form.

Before determining the equation for the estimation, the relationships between the shares of GPP and per capita income in each of the three sectors were

Figure 12.4
Scatter Plot of the Service Share of Gross Provincial Product and Log Per Capita Income in Thailand



GPP = gross provincial product.
Note: There are no controls for any time or spatial dimensions.
Source: Author's estimates using National Economic and Social Development Board data.

tested using the Lowess plots as stated in Eichengreen and Gupta. The agricultural share of output declines as income increases while the manufacturing share of output rises as income increases. The service share of output generally decreases as income increases except for the lowest and the highest income groups. This information is relevant to the fact stated in Figure 12.1. The Lowess plots for the manufacturing share of GPP are similar to the plots from Eichengreen and Gupta, but the declining trend has not yet appeared.

The fixed-effect model with robust standard errors was run with the service sector's percentage of GPP as the dependent variable. The independent variables were the four powers of the natural log of real per capita income and a dummy variable for structural change in the Thai economy. The dummy variable may be seen as post-financial crisis development factors. Fixed-effect models control for the effects of time-invariant variables with time-invariant effects, i.e., the variable

has the same effect across time such as gender, race, and some institutional factors. Therefore, the equation was determined as follows:

$$Service\ share_{it} = Constant + \sum_i \theta_i D_i + \alpha_1 Y_{it} + \alpha_2 Y_{it}^2 + \alpha_3 Y_{it}^3 + \alpha_4 Y_{it}^4 + \varepsilon_{it}$$

The estimates are displayed in Table 12.8. All models confirm the hypothesis of a quartic functional form and two waves of service sector growth.

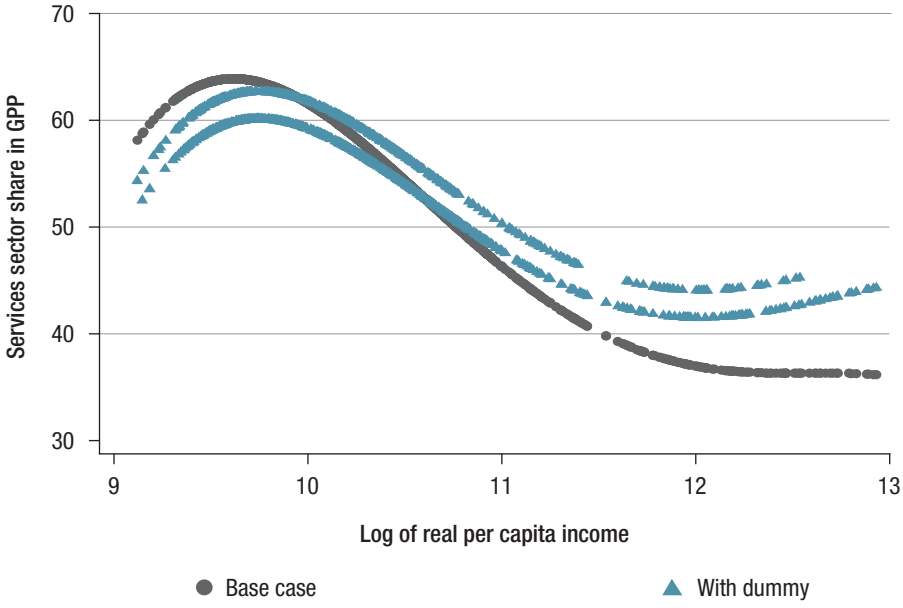
Table 12.8
Coefficient Estimates for the Relationship between Service Share of Gross Provincial Product and Per Capita Income in Thailand

	Model I	Model II
Log per capita income	6,520.9** (2,846.99)	6,255.68** (2,952.33)
Log per capita income, squared	–857.13** (388.75)	–817.42** (403.47)
Log per capita income, cube	49.63** (23.47)	47.07* (24.38)
Log per capita income, quartic	–1.07** (0.53)	–1.01* (0.55)
Dummy for 2001		–2.57*** (0.43)
Constant	–18,370.25** (7,777.60)	–17,734.84** (8,059.30)
Province fixed effects	yes	yes
Observations	1140	1140
Number of provinces	76	76
Prob > F	0.00	0.00
R-squared	0.49	0.46

Notes: Robust t statistics are in parentheses. *, **, *** indicate coefficient with significance at 10%, 5%, and 1%, respectively.
Source: Author's estimates.

The service sector share in GPP and per capita income (Y_i) in model I (base case) and the relationship between the service sector share in GPP and per capita income in model II (with a dummy variable, D_i) were then plotted together in Figure 12.5. This figure exhibits two types of relationships based on estimates

Figure 12.5
Service Share of Gross Provincial Product and Log Per Capita Income Based on Quartic Functional Form in Thailand



GPP = gross provincial product.
Source: Author's estimates using National Economic and Social Development Board data.

from both models. Each relationship pattern indicates that there is a possibility for two waves of service sector growth in Thailand and also implies that the service sector is a growth engine for the Thai economy. This finding is relevant to previous studies using GDP data[5] that described two waves of service sector growth: the study by Eichengreen and Gupta (2009) and the study by Park and Shin (Chapter 2).

The first wave takes place when a province moves from lower to middle-income status, and the second takes place when a province moves from middle to high-income status. Therefore there will be two turning points. Figure 12.5 displays information that is especially important for Thailand.

- After a first turning point, provinces will experience a reduced service share in GPP as incomes move toward higher levels. Moreover, per capita income in the bottom 10% is log per capita income less than 9.516 which is equal to per capita income of B13,577 a year (1988 prices). All of the lower per capita income provinces are located in the northeastern region.[6]

- The high-income provinces have two distinct relationship patterns that could explain why the service sector is a growth engine.
  - The first possible turning point for the estimates in model II occurs when per capita income in the highest 8% of the population is equal to the log per capita of income greater than 12 and equals per capita income of B163,169 a year (1988 prices). There are only seven provinces with these characteristics.[7] They contain industrial parks and are either near the capital or a marine port. In this model, the service sector would be a growth engine for the Thai economy.
  - For the base case, our estimates show the possible turning point would be a point after log per capita income greater than 13, or per capita income greater than B442,000 per year (1988 prices). In the base case, the Thai economy would depend mainly upon the manufacturing sector rather than services for growth.

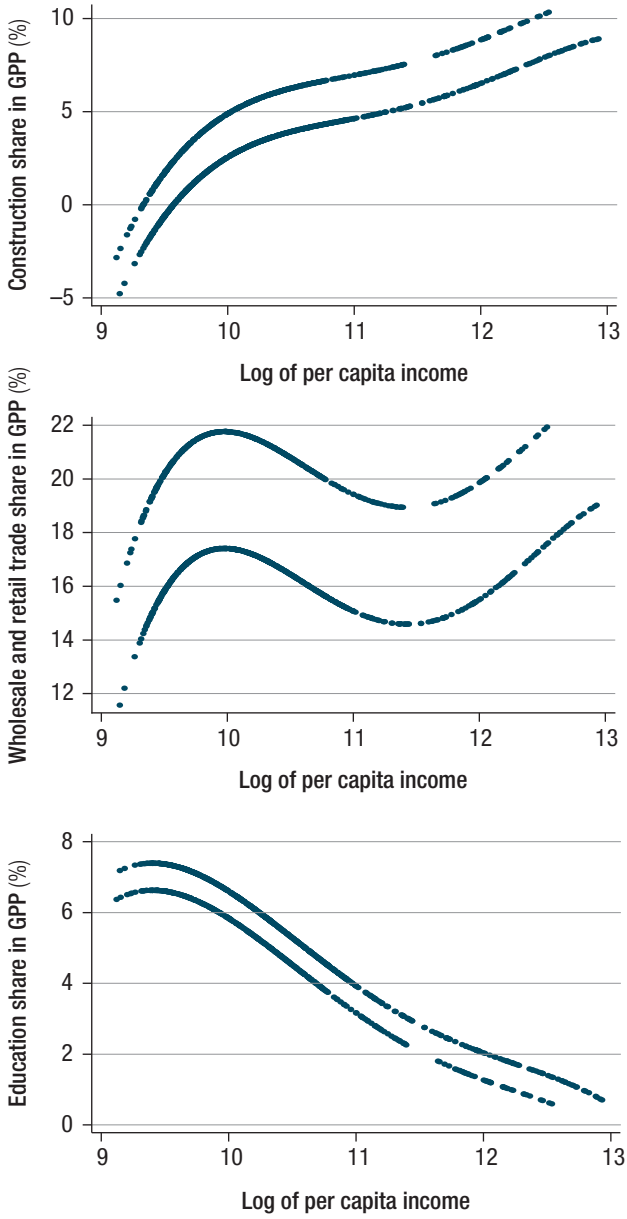
D. Toward a Possible Turning Point

1. Share of Output Model Revisited

Thailand's service sector could potentially experience a second wave of growth, particularly in high-income provinces near Bangkok. In this section, specific service activities are investigated in order to offer public policy advice. The service sector is then assessed comparing model II with the dependent variables of private service sector results and 12 other service activities. Before doing so, data on 12 service activities were tested in scatter plots to reveal the relationship between the share of the GPP and log per capita income. The plots indicated that each service activity may not be evidence for a quartic function and also has several outlying points. Therefore, estimating the share of each service in GPP using the model discussed above is not statistically significant except for wholesale and retail trade, construction, and education.

The relationship between the private service sector share and log per capita income is almost the same as the relationship seen in Figure 12.5 including a possible turning point for the service sector share in GPP at high per capita income levels. This confirms that government services such as public administration, defense, and compulsory social security play a lesser role in per capita income. Based on the scatter plots, the share of government services in GPP has a negative relationship with the log of per capita income. Construction and related engineering services and wholesale and retail trade have a positive relationship between the share of output and per capita income, while education services have a negative relationship (Figure 12.6).

Figure 12.6
Share of Gross Provincial Product and Per Capita Income in Construction, Trade, and Education in Thailand



GPP = gross provincial product.

Source: Author's estimates using National Economic and Social Development Board data.

Eichengreen and Gupta found that wholesale and retail trade has a negative relationship with income while our estimates found the opposite. Wholesale and retail trade in Thailand is around 10%–20% of GPP which indicates two waves of growth, but including street vendors and flea market merchants from the informal economy would make the data more complete. The relationship between construction and income is linked to the stability of Thailand's real estate and infrastructure. The plots indicate that returns from construction must increase in order for income to increase in each middle-income province. From the estimates, wholesale and retail trade and construction are clearly the two waves of service sector growth that imply a growth engine for the Thai economy.

The relationship between the share in GPP and per capita income for education services predicted by the model is downward sloping. This is completely different from the Group II plots in Eichengreen and Gupta. It should be noted that the average annual expenditure on education is about B1.2 billion (1988 prices) per province or B1,376 (1988 prices) per person. When the average GPP grows faster than the rate of growth in expenditures, the share in GPP will decrease, i.e., it will have a negative relationship with per capita income. Educational expenditures may be underestimated, especially for special education services or offsite tutoring. Agencies involved with education should investigate why this relationship is a converse one when in most developed countries the relationship is positive.

2. Total Factor Productivity

Although plots for the relationship between the service sector and per capita income indicate the possibility for service sector growth, the components of its growth can be determined by total factor productivity (TFP). The latest TFP study for Thailand was done in 2009 by the NESDB. It calculated the TFP for eight economic activities: agriculture, mining, manufacturing, electricity, construction, retail trade, transportation, and services and other activities. Among these services, transportation was the most significant with a positive TFP between 1982 and 2007 except during the 1997 financial crisis. This may be due to the country's improvement in logistics, mainly in road, air, and sea transportation. The TFP for retail trade is positive after 1999 while for services and other activities it is positive after 2002 (Table 12.9).

It is probable that income from retail trade is more than its recorded high as income from the informal economy is not recorded. Although TFP indices have been positive in services and in other activities since 2002, the reason is still unclear because the activities have been cumulated. It indicates only a reason for growth; if it continues, we may expect a real turning point in service sector

Table 12.9
Total Factor Productivity in Construction, Retail Trade, Transportation, and Services and Other Activities in Thailand

	Construction				Retail Trade			
Period	GDP	Labor	Capital	TFP	GDP	Labor	Capital	TFP
1982–1986	6.2	3.0	4.1	–0.9	3.2	0.6	3.1	–0.5
1987–1991	17.3	8.8	10.3	–1.8	12.0	0.8	9.1	2.1
1992–1996	8.3	4.6	12.6	–8.9	6.7	0.8	9.4	–3.4
1997–1998	–31.9	–8.2	–1.8	–21.9	–8.1	0.0	0.2	–8.4
1999–2001	–5.3	1.2	0.9	–7.4	2.0	0.3	–0.6	2.3
2002–2006	5.1	2.7	1.9	0.5	3.6	0.5	1.2	2.0
2007	2.0	0.0	2.7	–0.5	3.2	2.1	2.1	0.9
Average 1982–2007	4.1	3.2	5.6	–4.7	4.7	0.4	4.4	–0.3
	Transportation				Services and Other Activities			
Period	GDP	Labor	Capital	TFP	GDP	Labor	Capital	TFP
1982–1986	8.9	2.2	2.8	3.9	6.1	8.9	2.4	–5.2
1987–1991	11.4	1.8	6.8	2.8	8.2	3.8	3.3	1.1
1992–1996	11.1	0.8	10.1	0.3	4.4	1.1	4.9	–1.6
1997–1998	–2.2	–0.3	4.4	–6.3	–5.2	1.5	1.3	–8.0
1999–2001	6.8	0.5	1.7	4.6	–0.8	4.5	0.0	–5.4
2002–2006	5.6	0.2	2.2	3.3	5.9	1.1	0.6	4.2
2007	6.0	–0.3	2.6	3.8	4.0	2.2	0.9	0.9
Average 1982–2007	8.0	0.1	4.9	2.2	4.4	5.1	2.3	–3.0

GDP = gross domestic product, TFP = total factor productivity.
Source: Author's estimates.

growth. In terms of TFP, retail trade and transportation should be major service activities for Thai economic growth.

3. Revealed Comparative Advantage

Although trade in services and FDI implies high levels of openness in Thailand's service sector, it does not imply anything about competitiveness. If countries have information about their competitiveness in trade and investment, they can better implement trade policies and negotiate suitable agreements. Using the

revealed comparative advantage (RCA) index[8] established by Balassa (1965), important service activities in Thailand were examined. If the RCA for a service activity is greater than 1, it means that country has a level of competitiveness above the world average and a comparative advantage in that service activity. The opposite is true for an RCA less than 1. If any services in Thailand have a comparative advantage, Thailand will gain from trade in those services, and they could be a growth engine for the Thai economy.

RCAs were calculated for selected economies using the WTO International Trade Statistics on commercial services including transportation, tourism and travel, and other services such as business services. Table 12.10 presents the RCAs for these services from 1990 to 2009.

In transportation among selected Association of Southeast Asian Nations (ASEAN) members, only Singapore consistently maintained a comparative advantage throughout the decade. This is related to the fact that the country has been a hub for both sea and air transportation. Hong Kong, China; Japan; and the Republic of Korea also maintained comparative advantages in transportation.

In contrast, the ASEAN countries had comparative advantages in tourism and travel-related services except for Singapore. Australia, New Zealand, and the United States also had comparative advantages in travel while in the East Asian economies, only the People's Republic of China did. As expected, Canada, the European Union, and the United States had comparative advantages in other services since they generate significant income from intellectual property. Hong Kong, China; India; Singapore; and Taipei,China also had comparative advantages in these industries while other Asian countries including Thailand had comparative disadvantages. Hoekman and Mattoo (2008) noted that India has shifted from "low-end, back-office services" such as data management, to "high-end services" like customer relations, human resource management, and product development and hypothesized that large numbers of educated people support the country's development.

The competitiveness of Thailand's service sector therefore depends mainly on tourism and travel as the RCA was greater than 1 throughout the decade. For transportation, although Thailand's Suvannabhumi International Airport opened in 2006, the RCA decreased slightly which is related to the fact that Thailand's marine transportation still needs attention. In addition, strategic action plans for logistics are also required.

4. Policy Recommendations

This research demonstrates that the service sector is a growth engine for the Thai economy. The possible turning point is shown in Figure 12.5. The following are policy recommendations for service activities with positive TFP indicators

Table 12.10
Revealed Comparative Advantages in Services in Selected Economies, 1990–2009

Economy	Transportation				Tourism and Travel Related				Other Services			
	1990	2000	2005	2009	1990	2000	2005	2009	1990	2000	2005	2009
ASEAN												
Brunei Darussalam	–	0.00	2.19	–	–	0.00	1.12	–	–	0.00	0.37	–
Cambodia	–	0.72	0.51	–	–	2.25	2.85	–	–	0.25	0.19	–
Indonesia	0.10	0.00	0.97	–	2.55	3.08	1.30	–	0.28	0.04	0.84	–
Lao PDR	2.61	0.56	0.67	–	0.72	2.38	2.65	–	0.02	0.25	0.22	–
Malaysia	1.11	0.86	0.90	–	1.32	1.14	1.64	–	0.63	0.97	0.69	–
Myanmar	0.36	0.71	2.17	–	0.62	1.11	2.03	–	1.84	1.08	0.43	–
Philippines	0.30	0.59	0.92	–	0.47	2.00	1.81	–	2.01	0.50	0.58	–
Singapore	0.61	1.77	1.54	1.59	1.08	0.57	0.42	0.48	1.23	0.90	1.07	1.02
Thailand	0.74	1.00	1.00	0.90	2.03	1.70	1.73	1.96	0.27	0.50	0.59	0.57
Other Asian Economies												
PRC	1.65	0.52	0.90	–	0.89	1.69	1.43	–	0.61	0.76	0.80	–
Hong Kong, China	1.35	1.35	1.37	1.37	0.87	0.46	0.58	0.74	0.86	1.20	1.06	0.98
Korea, Rep. of	1.21	1.96	2.35	2.37	1.02	0.72	0.48	0.61	0.82	0.70	0.65	0.64
India	0.73	0.53	0.47	–	1.00	0.68	0.52	–	1.21	1.48	1.52	–
Taipei,China	1.17	0.88	1.00	0.83	0.74	0.59	0.70	0.87	1.10	1.36	1.17	1.13
Non-Asian Economies												
Australia	1.24	0.95	0.87	0.62	1.27	1.50	2.00	2.41	–	–	–	–
Canada	0.80	0.82	0.77	0.76	1.02	0.86	0.91	0.94	1.10	1.20	1.10	1.10
EU-27	0.00	0.98	0.96	0.99	–	0.96	0.91	0.87	–	1.00	1.00	1.00
Japan	1.50	1.57	1.51	1.19	0.26	0.20	0.23	0.32	1.29	1.27	1.19	1.25
New Zealand	1.52	1.19	0.85	0.00	1.26	1.63	2.19	–	0.30	0.40	0.40	–
Russian Federation	–	1.58	1.59	–	–	1.12	0.86	–	–	0.61	0.80	–
United States	0.98	0.77	0.74	0.72	1.12	1.10	1.02	0.95	0.90	1.00	1.10	1.10

– = data not available; ASEAN = Association of Southeast Asian Nations; EU-27 = European Union, comprising Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom; Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Source: Author's estimates using data from the World Trade Organization's *International Trade Statistics*.

or an RCA greater than 1, namely construction, wholesale and retail trade, transportation, and tourism and travel.

An unambiguous, politically independent, national development plan. Figures 12.1 and 12.5 indicate that the service sector is undergoing a structural transition. After the 1997 financial crisis, the significance of manufacturing in GDP increased while the service sector has been in transition. Before 2009, there was no national strategic plan for Thailand's service sector, and the politics of the current (Yingluck) government have made implementing the plan that was developed after 2009 difficult. Increasing the minimum wage to B300 a day (about 40%) wiped out several labor-intensive small and medium-sized enterprises. In addition, the current government does not pay much attention to the concept of a creative economy that concentrates on service sector development because that concept was initiated by the former government. Thailand needs an unambiguous, politically independent national plan for the service sector that is sensibly crafted and amenable to economic and social changes like population aging and the country's role in the Asian Economic Community (AEC). In addition, the national policy should incorporate objectives for decreasing the deficit in service trade and for attracting FDI in infrastructure.

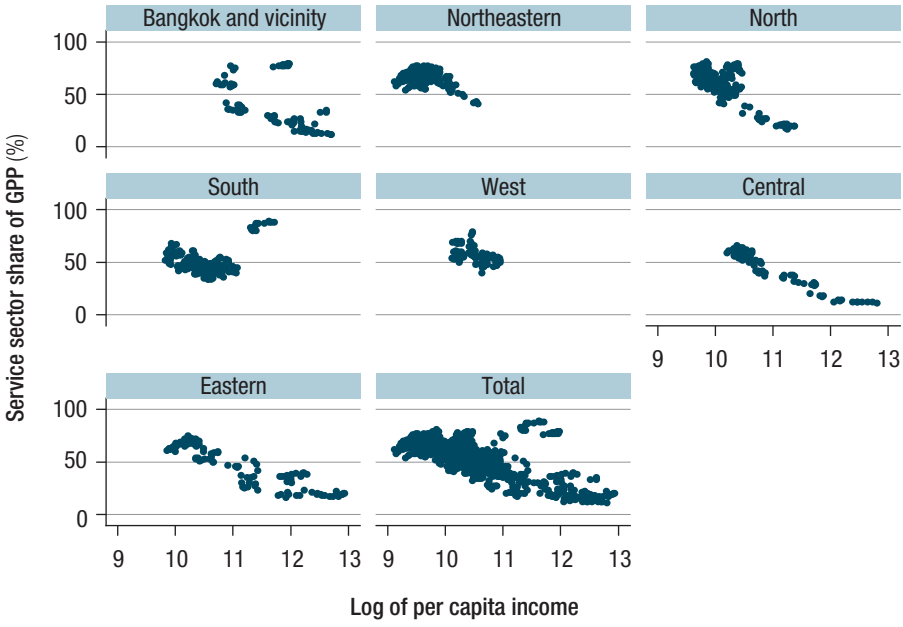
As shown in Table 12.5, tourism and travel-related activities are the only ones that generate a surplus in service trade. As stated in the report by the Thailand Development Research Institute Foundation (2009), many service activities have increased their deficits over the past 15 years, for example royalties and licensing fees, freight, and other transportation. This indicates the reliance of the Thai industrial structure on external technology. To reduce the deficits, knowledge and innovation must be upgraded. Also, as shown in Table 12.6, Thailand needs more FDI in infrastructure such as electricity, water, telecommunications, and transportation. These investments will generate complementary economic growth throughout the country.

Revised data collection methods. As discussed, Thailand has several definitions for the service sector, and agencies collect data for different purposes which creates complexities. Thailand should start revising its system of data collection in as much detail as possible to make service data and classification methods comparable to those of other countries. The revised system should gather data horizontally and vertically and include regional and provincial data. Informal service activities such as street vending, driving taxis, and offsite tutoring should be collected and included in estimates.

Areas and services with potential. The scatter plots of the relationship between the service sector share in GPP and log per capita income by region show decreasing trends in the north, northeast, and center which indicates that there is no single policy for developing the sector (Figure 12.7a). Regions in which service activity should potentially be stimulated are provinces around Bangkok, those in

the east, and those in the south. A closer look at selected provinces confirms that boosting service activities in Bangkok and Phuket should be a priority over supporting those in Chiang Mai (Figure 12.7b).

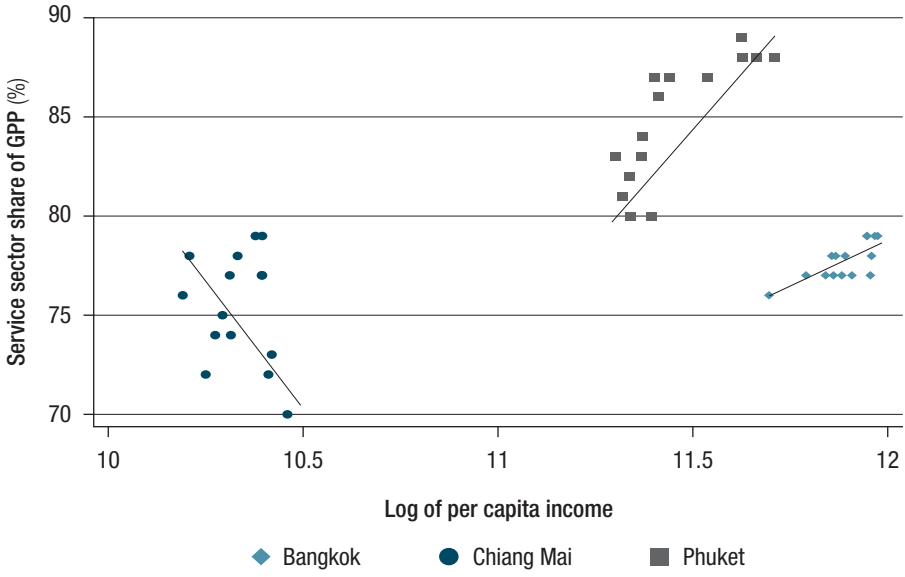
Figure 12.7a
Scatter Plot of the Service Share of Gross Provincial Product and Log Per Capita Income in Thailand



GPP = gross provincial product.
Source: Author's estimates using National Economic and Social Development Board data.

This research shows that construction, wholesale and retail trade, transportation, and tourism and travel-related activities should be gradually promoted in both public and private agencies to advance economic growth. For wholesale and retail trade, the data indicate that there are both formal and informal sectors. Despite studying only the formal sector, it was evident that wholesale and retail trade is a growth engine and that Thailand should continue to support it to reduce transaction costs from producers to consumers. Since wholesale and retail trade in Thailand is labor-intensive, the country should prepare for the AEC labor movement and its impacts. Transportation and

Figure 12.7b
Scatter Plot for Selected Provinces in Thailand



GPP = gross provincial product.
Source: Author's estimates using National Economic and Social Development Board data.

construction support other economic activities, so decreasing the cost of these services could benefit the country as a whole. The government should make it a policy to upgrade these services.

The RCA index confirmed the importance of tourism and travel in the Thai economy in terms of generating income and jobs. Agencies should continue to promote different aspects of tourism such as medical, long-stay, and cultural tourism, and should develop information support and systems for tourists. Thailand should consider revising its tourism industry especially with a view to sustainable development. The government should study how to optimize the types of tourists and the income they generate rather than simply maximizing their numbers.

E. Concluding Remarks

The service sector is important in the Thai economy as it accounts for about half of the national GDP and employs more than 40% of the labor force. Among services, wholesale and retail trade, transportation, and tourism and travel-

related activities are the largest contributors to GDP and maintain significant shares in employment. A major problem with Thailand's service sector is the classification method used as most data from agencies are still in the International Standard Industrial Classification (ISIC) revision 3 or in a format that can be used for only routine reports, not for research. Even though two major Thai agencies—the NESDB and the Bank of Thailand—released relevant data in April 2012 using ISIC revision 4, the data cover only 1 year or present the new set of GDP with chain value measures. There is a need to revise the data collection format taking into account Thailand's strategies for high economic growth and high volume in international trade.

The Thailand Development Research Institute Foundation (2009) reported that labor productivity in the sector is low possibly because the sector is very labor intensive. This study examined the relationship between the service sector share of GPP and per capita income in order to determine a possible turning point. Estimates from the study indicate that there are two waves: lower-income provinces use services as a growth engine, but middle-income provinces do not. Higher-income provinces (specifically the seven highest) have shown the potential for a possible turning point in which the service sector could function as a growth engine. As growth in services comes from growth in both the private and the public sectors, the government should support the private sector with unambiguous policies suitable for each region and province. Based on this study, Thailand should continue to promote wholesale and retail trade, tourism and travel-related activities, transportation, and construction. These activities demonstrate one or more of the following: two clear waves in their share in GPP (wholesale and retail trade and construction); positive TFP indices (retail trade and transportation); and an RCA greater than 1 (tourism and travel-related activities). Because of comparative disadvantages in other services, especially royalties and licensing, communication, and insurance, Thailand needs to upgrade its industrial and service structures. Education services need special attention because of their declining trend in the share of services compared with the situation in developed countries.

Notes

1 This is the International Standard Industrial Classification of All Economic Activities (ISIC) for objectively classifying economic data.

2 Wholesale and retail trade includes repairing motor vehicles and motorcycles as well as personal and household goods.

3 Street vendors and flea market merchants are becoming significant as the government promotes small and medium-sized enterprises and labor shifts from the agriculture sector to the service sector.

4 The plots presented in Figure 12.4 are uncontrolled for time and spatial dimensions; nevertheless, they help explain the nature of the data used in the model.

5 Using GDP data, Eichengreen and Gupta (2009) and Park and Shin (Chapter 2) assume no resources move between countries. This study assumes no resources move between provinces. In the real world, there is labor/human capital movement not only within a country but also among countries.

6 The lowest per capita incomes are in Amnatcharoen, Buriram, Chaiyaphum, Kalasin, Mahasarakham, Mukdahan, Nakhonphanom, Nongbualamphu, Roi-et, Sakonnakhon, Sisaket, Surin, and Yasothon.

7 Those are Chachoengsao, Chonburi, and Rayong in the eastern region; Pathumthani, Samutsakhon, Samutprakan in the Bangkok metropolitan area; and Phranakhonsriayuthaya in the central region.

8 RCAs were estimated using the following steps. (a) Divide the value of the service exports under consideration by the value of total exports for the country. (b) Calculate the portion of the total value of those service exports in the world divided by the value of total exports in the world. (c) Divide (a) by (b).

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PART IV

Key Findings and Recommendations

CHAPTER 13

Summary of Key Findings and Main Policy Recommendations

Donghyun Park

The following summary highlights the key facts and findings that emerged from the analyses in this book. On the basis of those facts and findings, we propose a number of policy options that will promote the development of service industries in developing Asia. A more productive and dynamic service sector will help sustain the region's economic growth in the future and will also contribute to more inclusive growth.

A. Key Facts and Findings

- **The service sector already plays a major role in developing Asia's economies.** International historical experience suggests that the share of services in output tends to rise as an economy grows richer. Asia is no exception in this regard, and services have grown in relative importance over time. Services accounted for 48.5% of the region's output in 2010. Their contribution to economic growth has also been large. They accounted for 66% of India's growth and 43% of the growth in the People's Republic of China (PRC) from 2000 to 2010.
- **Services are a large and growing source of jobs across the region.** The service sector is a big employer in the region; the share of the Asian labor force engaged in services has grown rapidly to about 34% of all workers. The share has risen by 10%–20% in most countries during the past 2 decades. The large and growing role of services as a creator of jobs suggests that the sector is making a major contribution to inclusive growth.

- **Services are set to expand even further in the coming years.** Historical trends point to services becoming an even bigger economic force in Asia's future. As the region's incomes continue to grow, the shares of services in output and employment will also grow, all the more so since currently they are below those of Latin America and developing European countries. Rising incomes, an expanding middle class, and rapid urbanization are boosting the demand for services.
- **Developing Asia's service sector suffers from markedly low labor productivity.** While services are large and growing, labor productivity—the amount of output each worker produces—lags far behind that of advanced economies. For most economies in the region, labor productivity is less than 20% of that in advanced countries. It languishes at around 10% in the PRC. In the worst cases, it may take up to 30 years to reach 20%.
- **Low labor productivity partly reflects the dominant role of traditional services.** Productivity and value added are generally higher in modern services such as finance and professional business services than in traditional services such as wholesale and retail trade and personal services. In Asia, traditional services still account for the bulk of service sector output. Modern services often make up less than 10% of Asian service economies, well below the 20%–25% in advanced economies.
- **Regulatory, infrastructure, and human capital bottlenecks constrain service sector productivity.** Infrastructure for services such as information and communication technology (ICT) still lags behind that in advanced economies. The highly skilled workers required for modern services such as scientists and bankers are in short supply in Asia. Above all, excessive regulations that protect incumbent firms and other vested interests make markets less competitive and thus undercut prospects for improved efficiency and innovation.
- **Modern services of particular importance to Asia are business-related services.** Services such as ICT, finance, professional services, business consulting, and management support are currently underdeveloped in Asia due largely to the lack of necessary skills. These business services do, however, complement the manufacturing sector, so developing them can lift the productivity of both the manufacturing and the service sectors.
- **Growing per capita gross domestic product will help to lift labor productivity in developing Asia's service sector.** According to our econometric analysis, the lower the initial per capita gross domestic product (GDP), the higher the subsequent growth rate of labor productivity in the service sector. This finding bodes well for labor productivity growth in developing Asian countries where income levels are still relatively low. It

also suggests that the potential returns on productivity-enhancing reforms in the region would be high.

- **Trade in services also boosts productivity.** Our econometric analysis finds that trade in services contributes to improved labor productivity in the service sector. Specifically, the share of service trade in GDP is positively associated with productivity growth. This is plausible since imports of services from foreign firms expose domestic service providers to greater competition. Likewise, exporting services forces domestic firms to become more efficient.
- **Developing Asia's service trade has been growing, and there is scope for further growth.** The share of service output that is traded is on the rise in Asia and elsewhere. Asia's share of global service trade has grown. For example, the PRC's share rose from 2% in 2000 to 5% in 2010, and India and the Philippines have emerged as global leaders in ICT service exports. Many major Asian economies, however, have high trade barriers that stand in the way of even more service trade.
- **The region's service industries face an inadequate regulatory environment.** Firms in developing Asia generally face a heavier regulatory burden than firms in advanced countries. For example, the regulatory burden in the PRC, India, and Indonesia is about twice as high as it is in the Organisation for Economic Co-operation and Development (OECD) members. Asian service firms often suffer from the lack of a sound, transparent, responsive regulatory framework conducive for competition and innovation in service markets.
- **Service sector development can contribute to poverty reduction and inclusive growth in developing Asia.** Service industries tend to be more labor intensive than manufacturing industries, and employment growth is beneficial for poverty reduction; therefore in theory, service sector development can contribute to inclusive growth. Our econometric analysis found a positive association between service sector development and poverty reduction. This suggests that a stronger sector can help reduce poverty in developing Asia.

B. Policy Recommendations to Strengthen Asia's Service Industries

The service sector has contributed greatly to output, employment, and growth in developing Asia. As the share of services in output and employment tends to rise with income, and as regional income is rising quickly, services will inevitably become even more important. Yet service sector labor productivity in most Asian

countries is only a fraction of what it is in the OECD. The challenge across the region is to remove barriers to improving labor productivity in services and to develop modern service industries with high labor productivity.

Diversity in the service sector and across Asia means that barriers and policy options will largely be specific to individual countries and industries. Some common themes regarding the enabling environment for service sector development nevertheless emerge, notably gaps in regulations, infrastructure, and human capital. Meanwhile, the scarcity of high-quality data constrains the research and analysis that policy makers depend on to formulate effective measures to fill these gaps.

1. Regulatory Gaps and Policy Responses

A well-functioning regulatory environment protects consumers and maintains competitive markets. In contrast, poorly designed and inconsistently executed regulations can stifle competition and innovation with requirements that are excessive and burdensome, inadequate, or otherwise inappropriate. Anecdotes abound about regulatory overload and various regulatory bodies requiring multiple clearances. India has, for example, some 13 bodies that regulate higher education, each functioning in isolation. In the PRC, private service providers bear the brunt of heavy regulation because the state's impartiality as industry regulator is undermined by its simultaneous participation as a major competitor.

Wölfl et al. (2010) developed what they call product market regulation indicators to identify and quantify burdensome and potentially anticompetitive regulations and to allow comparisons across countries. These indicators cover three domains that jointly influence regulation—state control, barriers to entrepreneurship, and barriers to trade and investment—each of which is further divided into categories. A higher score denotes a heavier regulatory burden. The indicators show that firms in developing Asia generally face heavier regulatory burdens than do their counterparts in the OECD. Firms in the PRC face higher regulatory barriers than their Indian or Indonesian counterparts, largely due to the continued prominence of state-owned enterprises (SOEs) and to administrative burdens in the PRC. More importantly, all three countries suffer a regulatory burden at least twice as heavy as that in OECD members.

The heavy presence of SOEs in many Asian service industries stifles service sector development as regulations often protect them from domestic competition from private firms and new entrants. In the PRC, SOEs still play a large role in rail transportation, education, healthcare, news and publishing, and television broadcasting. In India, railways and postal services remain government monopolies. Vested interests that stand to lose from competition—

regardless of whether competitors are public or private—exert political pressure on governments to protect their market positions. A notorious pattern is vested interests in professional services abusing industry standards and codes of practices to limit market entry and competition. One reason this abuse is hard to eliminate is that standards and codes of practice are needed to ensure service providers' satisfactory performance.

Regarding competition from abroad, developing Asia maintains some of the world's most restrictive policies on service trade. Borchert et al. (2011) indexed the restrictiveness of policies on service trade in 79 developing and transitional economies and in 24 developed countries. The authors found a fairly strong correlation between lower per capita income and restrictive barriers, identifying the PRC, India, Indonesia, Malaysia, the Philippines, and Thailand as having notably high barriers. Furthermore, many governments in developing Asia, most notably in East and Southeast Asia, have favored manufacturing over services. This policy bias against services has reinforced and magnified the adverse impact of government regulations.

Perhaps nowhere is policy discrimination against services more evident than in taxes. In the PRC, service providers clearly have heavier tax burdens than manufacturers do. In 2008, the industries that faced the heaviest tax burdens were wholesale and retail (with a tax-to-revenue ratio of 29.6%), finance (38.8%), real estate (26.6%), leasing and business services (25.1%), and individual services (28.5%). The corresponding figure for manufacturing was only 21.0% (Chapter 8).

The guiding principle for regulatory reform should be to tackle entrenched vested interests to create more competitive service markets however politically difficult disarming them can be. Where public monopolies exist, restrictions on the entry of private firms should be eased to promote greater competition. SOEs themselves must be reformed to run along more commercial lines. Where private-vested interests hold sway, the government should prevent the take-over of the regulatory authority by the firms it is supposed to regulate. Vested interests, whether public or private, limit competition and hence efficiency and productivity.

Sometimes vested interests perniciously impede service delivery and development. A classic example is fixed-line telephony in India. Even after liberalization, the private sector faced difficulty entering and operating in the market for lack of third party access, opaque procedures for sharing scarce resources, and other obstacles that protected incumbent SOEs in the industry. The result is fixed-line telephone density in India languishing at 2.9%, a seventh of the 21.9% recorded in the PRC and a twentieth of the 59.2% recorded in the Republic of Korea. In striking contrast, India's mobile penetration which did not have public monopoly service providers stands at a much higher 61.4%

(Chapter 9). In the case of the PRC, government domination of some service markets continues to hold back the entry of the private sector.

Political will is needed to tackle the entrenched vested interests that hinder competition in the service sectors of many Asian countries. The large benefits that public and private vested interests draw from regulatory advantages serve their narrow interests but can seriously harm the broader public interest. Meaningful service sector reform requires strong political commitment. One high priority should be to enact laws to ensure competition and to vigorously implement them. Promoting competition among public organizations through budgetary allocations, for example, is an option in service industries such as education that are naturally dominated by the public sector.

Often what is needed is better regulation rather than less regulation. India's airport liberalization in the early 1990s proceeded long before the regulator was established. Private airport developers took advantage of their local monopoly positions to randomly increase tariffs and facility charges to the detriment of airport users (Chapter 9). In the PRC and other countries, strengthening the regulatory framework requires replacing outmoded regulatory tools and measures with modern ones that are transparent and market friendly. A sound, transparent, responsive regulatory framework that creates certainty is key to creating a sound business environment that attracts investment.

Developing Asia should promote trade and foreign direct investment (FDI) in services. Despite the prospects of large gains from opening up—gains associated with both exports and imports—the region still maintains high trade barriers. The increasing tradability of services and the region's recent history of benefiting hugely from liberalized merchandise trade strengthen the argument for more trade. Countries in developing Asia need to prioritize services when negotiating regional agreements and to expand the coverage of services in those pacts. Liberalizing FDI regimes would boost already large FDI inflows into the region. Because trade and FDI barriers protect vested interests and restrict competition as much as domestic regulations do, dismantling them requires strong political will.

Policies and tax inequities that promote manufacturing at the expense of services should be phased out, and market forces should be allowed to play a greater role in allocating resources to sectors. The preference of policy makers for manufacturing was understandable when Asian economies were more backward, as the first stage of structural transformation is the shift from agriculture to manufacturing. However, the region has advanced beyond that stage, and East and Southeast Asia have collectively become the workshop of the world. It is high time for Asian policy makers to phase out their pro-manufacturing, anti-service policies and their tax distortions to allow market forces to have greater influence in allocating resources to sectors.

An important caveat is that regulatory reform may dislocate previously protected firms in the short run. In the Republic of Korea, regulations and restrictions on the service sector are designed to protect small and medium-sized enterprises as they provide over 90% of service employment. Yet these companies also suffer from declining labor productivity—from 49% of the productivity of large service firms in 2001 to 41% in 2009 (Chapter 10). Service sector regulations designed to protect a particular group of firms from competition inevitably relieve competitive pressure and thus abet poor productivity. To minimize short-term dislocations caused by deregulation, however, gradual, well-sequenced deregulation coupled with adequate safety nets is the best approach.

2. Infrastructure Gaps and Policy Responses

Basic infrastructure for electricity, transportation, and communication affects the productivity of the entire economy, including the service sector. While countries in East and Southeast Asia have invested heavily to build relatively good infrastructure, other countries in the region have poor infrastructure that hinders both manufacturing and services. Poor infrastructure constrains even successful service industries. An erratic power supply forces most Indian information technology–business process outsourcing companies to invest in captive power units which increases their costs. Poor transportation infrastructure limits tourism to the Philippines which attracts substantially fewer tourists than Malaysia or Thailand despite boasting comparable tourism potential. Even countries with good infrastructure overall suffer from inadequate investment in certain areas. For example, the Republic of Korea's service sector still invests less in information and communication technology (ICT) than advanced economies do.

It is especially important to address infrastructure gaps in industries such as ICT that have the potential to catalyze large gains across the economy. The contributions of ICT to economic and productivity growth in a number of countries have been widely documented as flowing through three channels (de Vries et al. 2010). First, ICT is an important capital input in production. Second, it reduces inefficiency, creates complementary effects, and stimulates technological change. Finally, productivity improvements in industries that manufacture ICT goods magnify the impact of growth. Furthermore, ICT can promote inclusive growth by expanding access to basic services for the poor through mobile phone banking and remote education, for example. By reducing the cost of information and enabling new economic activities, ICT offers the promise of advancement onto higher growth paths.

While many countries have reaped the gains from expanded ICT use in the past decade, others continue to be held back by gaps in infrastructure. The

rates of ICT diffusion are highly uneven across countries in the region. While some enjoy access to ICT comparable to that of advanced countries, lower-income economies still suffer limited access. Greater investment is needed to address ICT infrastructure gaps in areas such as mobile broadband technology. For developing countries, access to mobile technology and related innovations can foster growth by expanding opportunities for entrepreneurship, enhancing access to financing, facilitating agricultural transactions and the dissemination of market information, improving the delivery of healthcare, and making the public sector more transparent and accountable (World Bank 2012).

Across the region, there is a huge need to improve infrastructure in the years to come. Developing Asia needs to invest some $8 trillion in physical infrastructure from 2010 to 2020 just to maintain growth rates like those enjoyed in recent years (ADB and ADBI 2009). There is a need to build more schools to deliver more and better education as well as more facilities for healthcare and other basic services. The need for large infrastructure investments is not confined to countries with infrastructure deficits such as India but extends to the PRC and other countries perceived to have relatively good infrastructure.

Policy makers in the region will need to look beyond direct public investment in infrastructure to meet these huge investment demands while maintaining fiscal soundness. Fiscal constraints point to the need to prioritize public infrastructure investment into areas with large collateral benefits, in particular ICT including broadband. In addition to making business services, tourism, and other industries more productive, ICT can promote inclusive growth. Asian governments may offer tax breaks and other financial incentives for private investment in ICT infrastructure. To complement public infrastructure spending, policy makers must also attract private investment. Governments must actively explore public–private partnerships and create an investment climate conducive to private sector participation in infrastructure.

3. Human Capital Gaps and Policy Responses

Relatively low educational attainment and skill shortages are major barriers to building more vibrant services in Asia, especially modern services. The positive relationship worldwide between education and service development is also evident in Asia. Better-educated Asian countries tend to have larger service sectors, and a country's service sector tends to expand as it becomes more educated. Human capital is critical to developing business services. An abundance of skilled workers helps to explain the comparative advantage of the United States (US) and other advanced economies in business services. By the same token, developing Asia's lower educational attainment helps to explain the region's comparative disadvantage.

Although educational attainment in developing Asia still lags behind that of advanced economies by a substantial margin, it has been catching up rapidly. While this bodes well for the future, Asia currently suffers from sometimes acute shortages of a wide range of skills (ADB 2008). Especially evident are shortages of the highly skilled professionals—accountants, business managers, engineers, lawyers, medical doctors, scientists, and software specialists—who are indispensable to modern service industries. Notwithstanding the general improvement of education in Asia, the lack of higher skills slows the transition from traditional to modern services.

Skill shortages are not limited to a few critical areas but are prevalent enough to pose a genuine risk to regional growth over the long run (ADB 2008). The shortfall stems largely from Asia's rapid economic growth and fast-rising incomes which have fueled demand for skill-intensive goods and services. Asia's skill crisis may force multinational companies operating in the region to pay salaries to their scientists and engineers commensurate with Western salaries. The employers who bear the brunt of the skill crisis were surveyed about their perceptions of the gap and confirmed its severity and breadth. The surveys found that the shortage of qualified staff ranked first among employers' concerns in the PRC and Southeast Asia, and the same pattern was evident in other parts of Asia with higher-level skills most acutely in short supply (ADB 2008).

Education reforms should aim to match the skills of graduates with industry requirements to narrow the human capital gap. Investment in primary and secondary education, in which the state typically plays a larger role, remains important; however, Asia's skill crisis primarily reflects the failure of Asian universities to produce enough graduates with the strong skills and qualifications required by modern service industries. The fundamental solution to the crisis thus lies in building stronger education systems capable of delivering better-qualified graduates with more skills. The guiding principle of education reform must be to foster more competitive education markets.

Building world-class tertiary education systems by whatever path is key to filling human capital gaps in modern service industries. One way is to allow greater private sector participation. As skill training is profitable, there should be plenty of interest in the private sector. Microsoft's partnership with top universities in the PRC is a good example of the benefits of private sector participation. To mitigate its own skill shortage, Microsoft formed partnerships with four universities to set up software labs where interns learn practical software development.

Fostering competition among public educational institutions is also important. The Republic of Korea recently slashed public funding for under-performing universities. Public–private partnerships are yet another mechanism for encouraging entry into education and hence competition. As education reform is inevitably both costly and long term, the time to act is now given the urgent

need to transform the service sector. Policy options over the shorter term include adopting Singapore's exceptional openness to skilled workers from overseas which has contributed greatly to its success as a global financial service center.

While closing regulatory, infrastructure, and human capital gaps is necessary to upgrade developing Asia's service sector, a number of other policy options can speed growth. Governments can promote greater investment in service research and development by providing fiscal incentives such as tax credits and grants. Parsimonious research and development can be a significant barrier to innovation and movement up the value ladder to services with a higher value added. Lower-income countries that lack capacity for research and development can import advanced service technology through trade and FDI. Another approach is to speed the development of inclusive finance to provide more and cheaper loans to the entrepreneurs and small and medium-sized enterprises that drive service industries.

4. Data Gaps and Policy Responses

The lack of high-quality data on Asia's service sector limits understanding of it and thus constrains the ability of policy makers to formulate and implement appropriate policies. By far the most important constraint on timely, conceptually sound, and comprehensive analyses of services is the lack of high-quality, publicly available data. The sheer diversity of services, their intangible nature, and their multiple modes of delivery make them difficult and costly to measure consistently, comprehensively, and validly.

This is not unique to developing Asia or to emerging economies in general. Even the US, which collects a wide range of service sector data, suffers from data deficiencies (Feenstra et al. 2010). Predictably, the quantity and quality of data on the service sector are even more limited in developing Asia. Asian authorities face a wide range of challenges in collecting and compiling accurate service sector data.

To facilitate more accurate understanding of services and their constraints, governments in the region should strive to collect better data on the sector and to publish it more promptly. The size and growing importance of the sector justify investing more government resources in it; otherwise, governments will remain hard pressed to put in place policies that foster service sector development. Better data would directly inform policy makers and provide indispensable inputs to empirical research that would ultimately deepen knowledge of the sector.

The huge diversity of services argues for prioritizing the collection of industry data. If several different bodies produce data, effective coordination to ensure consistency is essential. Technical assistance from development

partners with expertise in collecting service data like international financial institutions, United Nations agencies, and national statistical agencies can move the process along.

Several priorities stand out. National statistical systems should advocate for the collection and dissemination of service statistics thereby raising awareness and securing the means to improve human resources and the statistical infrastructure for better data collection. They should reassure respondents of their commitment to preserving confidentiality. Systems should improve the coordination of administrative sources of data and of access to them which may require legal changes. Finally, they should develop road maps for sustainably improving statistics on services.

Meanwhile, the international community should provide training and technical assistance to build capacity in handling statistics and should support research into more cost-effective methods of handling data. It should actively facilitate collaboration, share experiences, and promote staff exchanges with national statistical systems encouraging South–South cooperation. Development partners should support the implementation of new frameworks, manuals, and guidelines, in particular more specific guidelines on compiling service statistics that especially target statistical systems in developing countries.

C. Final Thoughts

The service sector will lead structural change in Asia's economy in the coming years. Asia is largely following the international historical pattern and can expect services to provide a rising share of output and employment. Furthermore, the region's rapid growth is giving rise to a large and growing middle class that typically has a healthy appetite for services like healthcare, education, finance, leisure, and others.

The quantitative expansion of services is in and of itself neither good news nor bad news for Asia. On the negative side, the sector is often the last resort for workers unable to find jobs in manufacturing and provides only marginal, low-wage employment; in fact, labor productivity in Asia's service sector currently falls far short of standards in advanced economies. Therefore, the region faces the fundamental challenge to foster the expansion of vibrant, highly productive services.

The guiding principle for Asian policy makers must be to create more competitive environments for their service industries. Many are dominated by SOEs protected by regulatory barriers to competition from domestic start-ups. Trade and FDI barriers similarly protect them from foreign competitors.

Removing these and other anti-competitive impediments is key to promoting competition. More competition will raise service sector productivity which can in turn lift productivity in other sectors.

The future of the sector depends on whether the expansion of services in Asia is driven by dynamic, open competition or by the inflexible protection of vested interests. If competition prevails, Asia can establish a robust, highly productive sector generating collateral benefits for other industries and providing services that power inclusive growth. Competition, in particular foreign competition, worked miracles for manufacturing in Asia as the region transformed itself into the factory of the world. It can work new miracles for the region's service sectors and for the broader economy.

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Developing the Service Sector as an Engine of Growth for Asia

The service sector already plays a critical role in developing Asia's economy and is set to grow even further in the future. Services are now a vital source of output, growth, and jobs in the region, but suffer from very low productivity levels. The central challenge for Asia's service sector is to move from traditional, low value-added activities to modern, high value-added activities. This book analyzes the current state of the region's service sector, the salient barriers to service sector development, and the prospects for the sector to serve as an engine for inclusive growth. The guiding principle for Asian policy makers must be to create more competitive service markets by breaking down regulatory barriers which protect vested interests. Such barriers keep out domestic and foreign competitors, and thus stifle efficiency and innovation. While tackling the vested interests requires a great deal of political will, doing so is absolutely essential for more productive services. Complementary investments in human capital and physical infrastructure will also speed up service sector development.

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