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**The ASEAN Services Sector and  
the Growth Rebalancing Model**

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**Abstract**

The growth rebalancing model, which places the nontradable services sector on center stage, is important to spur on faster growth in this sector and tap its potential to become another engine of growth for ASEAN economies. While ASEAN countries have allocated the bulk of their fiscal stimulus packages to infrastructure spending, the present levels are nevertheless considered insufficient to create a large impact on growth. By focusing on the provision of infrastructure and social services like power, ports, roads, and mass transit, along with health and education, governments can address the large investment backlogs in these sectors. Except for Singapore, ASEAN countries remain protective of their services sectors. To encourage and renew private sector interest in infrastructure investment in the region, governments have an important role to play in creating an enabling environment, particularly in maintaining an efficient and competitive services sector.

The growth rebalancing model's emphasis on environmental protection, low carbon growth, and green strategies places the spotlight on new areas of services investment where ASEAN countries could develop market niches. Thus, ASEAN governments should pursue policies that support these new growth areas by encouraging research and development, strengthening mechanisms for the transfer of green technology, and promoting greater private sector participation.

**JEL Classification: L91, L80, F40**

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## 1. INTRODUCTION

Initially, many economists expected that Asia would be spared the ill effects of the global financial crisis due to its limited exposure to the subprime market. However, as the crisis began to affect global demand, growth in the East Asian region fell dramatically to 6.3% in 2008 from an impressive 9.6% in 2007 (Asian Development Bank [ADB] 2009a). With regard to the Association of Southeast Asian Nations 5 (ASEAN 5) economies of Indonesia, Malaysia, the Philippines, Thailand, and Viet Nam, their combined average growth rate fell to 4.8% in 2008 from 6.3% in 2007, while the newly industrialized economies (NIEs) of Hong Kong, China; the Republic of Korea (hereafter Korea); Singapore; and Taipei, China saw combined average growth rates drop sharply to 1.8% in 2008 from 5.6% in 2007. In the People's Republic of China (PRC), the gross domestic product (GDP) growth rate was 9% in 2008, the lowest rate registered since mid-2003.

Due to the region's high degree of openness, the recessions in the US, Europe, and Japan brought a precipitous drop in exports. This hit at the heart of Asia's economies, thereby seriously affecting the region's growth prospects. Emerging Asia's<sup>1</sup> exports fell by almost 23% while industrial production plunged by 17%. In 2009, growth rates dropped further to 1.7% for the ASEAN 5, 8.7% in the PRC, and -0.8% in the NIEs (ADB 2010).

Clearly, the present crisis is broader, deeper, and far more complex than the Asian financial crisis of 1997–1998. As such, calls for rebalancing Asia's economies have intensified. Rebalancing growth requires the adoption of policies to build strong domestic demand and reallocate resources more efficiently (ADB 2009b). These would include measures to strengthen domestic consumption, improve the investment climate and social infrastructure, develop the financial system, and deepen regional integration and cooperation.

To boost domestic demand, the growth rebalancing model emphasizes the development of the services sector by removing policy distortions that favor manufacturing over services or the production of tradables over nontradables. Growth rebalancing also highlights the importance of government investment in physical and social infrastructure such as roads, ports, health, and education for creating a climate conducive to investment (Park 2009).

Developing a more efficient services sector would have both direct and indirect effects on economic growth and, as such, a shift towards services could lead to an increase in aggregate productivity. An efficient services sector has indirect consequences for economic growth through its effects on efficiency in other sectors in the economy. For instance, high quality services in sectors like transport or telecommunications can positively affect the production costs and competitiveness of firms in all sectors of the economy.

The services sector consists of a wide variety of industries ranging from traditional personal services like wholesale and retail trade, hotels and restaurants, education and health, transport, and government and public administration services, to modern impersonal services that make extensive use of information and communications technology (ICT) like banking, insurance, communications, and business-related services.

In light of its focus on the growth rebalancing model, this paper will focus primarily on the nontradables sector and particularly on the provision of infrastructure and social services in the region. With the exception of Singapore, ASEAN countries have in general remained protective of their services sectors and maintained discriminatory and market access barriers. Restrictions include foreign equity limitations along with domestic regulations affecting business operations which often favor state-owned companies.

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<sup>1</sup> ASEAN 10 (Indonesia, Malaysia, the Philippines, Singapore, Thailand, Brunei, Myanmar, Cambodia, the Lao People's Democratic Republic [Lao PDR], and Viet Nam); the PRC; Hong Kong, China; Korea; Taipei, China; and India.

Within ASEAN, the services sector has become an important provider of both output and employment. At present, services contribute more than 40% of total value added in Singapore, Malaysia, the Philippines, Thailand, Indonesia, Viet Nam, and Cambodia. In terms of employment, services represent more than 40% of total employment in Singapore, Indonesia, Malaysia, and the Philippines.

The objectives of this paper are twofold: (i) to examine the implications of the growth rebalancing model on the structure and performance of the services sector and (ii) to identify priority areas of action that ASEAN governments may pursue to improve the sector's productivity growth. This paper is divided into five parts. Following this introduction, section two will examine the structure and performance of the services sector from the beginning of the 1990s. Section three will assess the impact of the current global financial crisis on the services sector, along with the potential implications of the growth rebalancing model on the sector. Section four will identify existing institutional rigidities or barriers that impede the growth of the sector, particularly government regulations that affect market access and national treatment. Section five will recommend policy reforms, measures, and priority areas of action that governments may pursue to redirect the services sector's productivity growth toward a more balanced path.

## **2. OVERALL STRUCTURE AND PERFORMANCE OF THE SERVICES SECTOR**

The services sector as defined here covers a wide range of activities that can be broken down into the following subsectors:

- Electricity, gas, and water supply
- Wholesale and retail trade
- Hotels and restaurants
- Transport, storage, and communication
- Financial intermediation
- Real estate, renting, and business activities
- Public administration, defense, and compulsory social security
- Education
- Health and social work
- Other community, social, and personal service activities

Appendix 1 provides a listing of the detailed components of each subsector based on the International Standard Industrial Classification (ISIC) Code Revisions 2 and 3. Services are differentiated products characterized by limited tradability, multiple modes of supply, asymmetric information, network externality, fixed costs, and regulation (Hoekman 2006). When network externality is present, the value of a product or service increases when more people use it. For instance, as a cellular network subscriber base increases, it becomes profitable to offer a wider range of services. Subsectors such as electricity, transportation, and telecommunications, which are crucial for competitiveness, have important network externalities. These services subsectors require regulatory policies that ensure markets remain contestable. Given technological developments, many countries have opened up their electricity and telecommunications sectors to private ownership and investment.

In general, traditional services subsectors such as wholesale and retail trade, public administration, education, and health have benefitted less from technological change, although there is still scope to improve their productivity through the use of technology.

Modern services subsectors such as banking, insurance, and other business activities and communications—all highly globalized service industries—have experienced rapid growth and higher productivity due to their intensive use of ICT.

The services data used in this paper is drawn from the Key Indicators of the Asian Development Bank, the World Development Indicators of the World Bank, and the International Financial Statistics of the International Monetary Fund. This is combined with services information from national statistics sources and the central banks of the ASEAN member countries. The employment data is from the International Labor Organization Labor Statistics Database.

## **2.1 Services Value Added and Employment Structure**

ASEAN consists of a heterogeneous group of countries with varying levels of development. Singapore is a member of the newly industrialized economies while the ASEAN 4, consisting of Indonesia, Malaysia, the Philippines, and Thailand, are middle-income countries. Brunei Darussalam is an oil-rich country while Cambodia, the Lao People's Democratic Republic (Lao PDR), Myanmar, and Viet Nam are the least developed member countries of ASEAN.

The services sector represents an important source of output and employment among the ASEAN member countries. While the sector comprises a major portion of the ASEAN economies, there are notable differences in the structure of services in each country, given the differences in the countries' levels of economic development, resource endowments, and trade intensities. Table 1 shows the economic structure in terms of the distribution of total value added for each ASEAN member country, averaged over the 1990s (1990–1999) and the 2000s (2000–2007). Table 2 presents the structure of services value added in each country. Table 3 shows the employment contributions of the major economic sectors, while Table 4 presents the structure of services employment.

**Table 1: Economic Structure in Terms of Value Added and Average Growth Rates (%)**

| Country                     | Singapore |       | Indonesia         |       | Malaysia |       | Philippines |       | Thailand |       |
|-----------------------------|-----------|-------|-------------------|-------|----------|-------|-------------|-------|----------|-------|
| <b>Share in value added</b> | 1990s     | 2000s | 1990s             | 2000s | 1990s    | 2000s | 1990s       | 2000s | 1990s    | 2000s |
| Agriculture                 | 0.2       | 0.1   |                   | 14.9  |          | 7.9   | 21.6        | 19.5  | 10.8     | 9.7   |
| Industry                    | 30.9      | 29.8  |                   | 44.0  |          | 42.1  | 32.0        | 30.2  | 39.0     | 42.6  |
| Services                    | 68.9      | 70.1  |                   | 41.1  |          | 50.0  | 46.4        | 50.3  | 50.2     | 47.7  |
| <b>Growth rate</b>          |           |       |                   |       |          |       |             |       |          |       |
| Agriculture                 | (2.2)     | (0.2) |                   | 3.3   |          | 3.2   | 1.6         | 3.9   | 1.2      | 3.4   |
| Industry                    | 7.4       | 5.7   |                   | 4.0   |          | 3.9   | (1.4)       | 13.1  | 6.5      | 6.0   |
| Services                    | 7.6       | 6.0   |                   | 6.8   |          | 6.4   | 2.3         | 4.4   | 4.1      | 4.5   |
| Country                     | Viet Nam  |       | Brunei Darussalam |       | Cambodia |       | Lao PDR     |       | Myanmar  |       |
| <b>Share in value added</b> | 1990s     | 2000s | 1990s             | 2000s | 1990s    | 2000s | 1990s       | 2000s | 1990s    | 2000s |
| Agriculture                 | 27.2      | 20.6  | 0.8               | 1.1   | 45.2     | 32.7  | 56.1        | 48.1  |          | 52.8  |
| Industry                    | 27.8      | 36.1  | 63.7              | 60.9  | 16.2     | 26.6  | 17.4        | 23.7  |          | 12.7  |
| Services                    | 45.0      | 43.3  | 35.5              | 38.0  | 38.6     | 40.7  | 26.5        | 28.1  |          | 34.4  |
| <b>Growth rate</b>          |           |       |                   |       |          |       |             |       |          |       |
| Agriculture                 | 4.2       | 3.9   | 4.1               | 3.5   | 4.8      | 4.5   | 4.6         | 3.4   |          | 9.6   |
| Industry                    | 11.5      | 10.1  | 2.3               | 0.8   | 13.6     | 16.0  | 11.5        | 12.7  |          | 25.9  |
| Services                    | 7.5       | 7.4   | 2.1               | 4.6   | 6.8      | 10.1  | 7.3         | 6.6   |          | 14.6  |

Source of basic data: ADB Key Indicators.

Note: 1990s refers to the average for the years 1990–1999 and 2000s the average for the years 2000–2007.

Note: Countries in the top row include newly industrialized (Singapore) and middle income countries (the ASEAN 4). Countries in the bottom row are classified as small economies.

**Table 2: Structure of Services Value Added and Average Growth Rates (%)**

| Country                                | Singapore |       | Indonesia |       | Malaysia |       | Philippines |       | Thailand |       |
|--|-----------|-------|-----------|-------|----------|-------|-------------|-------|----------|-------|
|  | 1990s     | 2000s | 1990s     | 2000s | 1990s    | 2000s | 1990s       | 2000s | 1990s    | 2000s |
| <b>Share in value added</b>            |           |       |           |       |          |       |             |       |          |       |
| Electricity, gas, and water            | 2.3       | 2.5   |           | 1.6   |          | 6.0   | 6.6         | 6.4   | 5.4      | 7.0   |
| Wholesale and retail trade             | 19.6      | 21.3  |           | 40.2  |          | 26.5  | 33.0        | 33.0  | 33.7     | 30.3  |
| Transport, storage, and communications | 16.2      | 18.9  |           | 14.0  |          | 14.3  | 13.0        | 16.1  | 16.5     | 21    |
| Finance, insurance, and business       | 36.7      | 33.8  |           | 21.7  |          | 28.6  | 9.5         | 10.2  | 17.5     | 15    |
| Public administration                  |           |       |           | 11.0  |          | 13.1  | 11.1        | 9.2   | 5.8      | 6.4   |
| Others                                 | 25.2      | 23.5  |           | 11.6  |          | 11.5  | 26.8        | 25.2  | 21.1     | 20.4  |
| <b>Growth rate</b>                     |           |       |           |       |          |       |             |       |          |       |
| Electricity, gas, and water            | 6.9       | 6.4   |           | 7.1   |          | 5.2   | 6.0         | 4.0   | 7.5      | 6.0   |
| Wholesale and retail trade             | 7.1       | 10.0  |           | 6.1   |          | 6.3   | 3.4         | 6.1   | 3.7      | 3.0   |
| Transport, storage, and communications | 8.3       | 7.0   |           | 11.9  |          | 6.3   | 4.6         | 8.8   | 7.2      | 6.1   |
| Finance, insurance, and business       | 8.5       | 4.6   |           | 6.9   |          | 7.6   | 5.1         | 7.4   | 10.7     | 5.2   |
| Public administration                  | .         | .     |           | 2.2   |          | 6.5   | 3.1         | 2.1   | 4.9      | 3.1   |
| Others                                 | 6.3       | 3.9   |           | 7.7   |          | 4.3   | 2.9         | 5.6   | 0.4      | 4.7   |

| Country                                | Brunei Darussalam |       | Cambodia |       | Lao PDR |       | Myanmar |       | Viet Nam |       |
|--|-------------------|-------|----------|-------|---------|-------|---------|-------|----------|-------|
|  | 1990s             | 2000s | 1990s    | 2000s | 1990s   | 2000s | 1990s   | 2000s | 1990s    | 2000s |
| <b>Share in value added</b>            |                   |       |          |       |         |       |         |       |          |       |
| Electricity, gas, and water            | 1.7               | 1.9   | 1.1      | 1.2   | 5.9     | 10.0  |         | 0.3   | 3.9      | 6.2   |
| Wholesale and retail trade             | 12.1              | 10.7  | 41.7     | 35.1  | 31.4    | 35.9  |         | 68.4  | 38.1     | 37.7  |
| Transport, storage, and communications | 10.3              | 10.1  | 17.4     | 17.1  | 20.0    | 22.0  |         | 21.7  | 9.0      | 9.0   |
| Finance, insurance, and business       | 7.7               | 9.1   | 18.7     | 21.4  | 4.6     | 1.8   |         | 0.4   | 4.1      | 4.8   |
| Public administration                  | 44.7              | 42.3  | 8.4      | 4.9   | 14.9    | 10.2  |         | 4.6   | 21.4     | 20.0  |
| Others                                 | 23.5              | 25.9  | 12.8     | 20.2  | 23.2    | 20.0  |         | 4.5   | 23.5     | 22.2  |
| <b>Growth rate</b>                     |                   |       |          |       |         |       |         |       |          |       |
| Electricity, gas, and water            | 7.5               | 2.8   | 13.6     | 13.9  | 14.1    | 8.6   |         | 14.8  | 11.6     | 12.4  |
| Wholesale and retail trade             | (1.3)             | 5.2   | 4.7      | 7.9   | 10.2    | 8.1   |         | 12.2  | 6.7      | 7.6   |
| Transport, storage, and communications | 3.0               | 3.0   | 9.0      | 8.2   | 7.4     | 8.1   |         | 22.5  | 6.9      | 7.9   |
| Finance, insurance, and business       | 4.6               | 5.3   | 4.4      | 13.0  | 8.4     | (4.6) |         | 26.8  | 12.6     | 7.7   |
| Public administration                  | 2.0               | 4.9   | 17.1     | (1.5) | (1.3)   | 4.3   |         | 13.0  | 6.7      | 7.0   |
| Others                                 | 3.8               | 4.5   | 12.3     | 16.2  | 8.6     | 5.3   |         | 16.2  | 8.5      | 6.1   |

Source of basic data: ADB Key Indicators.

Note: 1990s refers to the average for the years 1990–1999 and 2000s the average for the years 2000–2007.

Note: Countries in the top row include newly industrialized (Singapore) and middle income countries (the ASEAN 4). Countries in the bottom row are classified as small economies.

**Table 3: Economic Structure in Terms of Employment and Average Growth Rates (%)**

| Country                    | Singapore |       | Indonesia |       | Malaysia |       | Philippines |       |
|----------------------------|-----------|-------|-----------|-------|----------|-------|-------------|-------|
| <b>Share in employment</b> | 1990s     | 2000s | 1990s     | 2000s | 1990s    | 2000s | 1990s       | 2000s |
| Agriculture                | 0.2       | .     | 47.9      | 43.8  | 20.9     | 15.2  | 42.9        | 37.0  |
| Industry                   | 31.5      | 25.0  | 16.4      | 18.2  | 30.4     | 30.4  | 15.5        | 15.0  |
| Services                   | 68.3      | 75.0  | 35.7      | 38    | 48.7     | 54.4  | 41.6        | 48.0  |
| <b>Growth rate</b>         |           |       |           |       |          |       |             |       |
| Agriculture                | (2.9)     |       | 0.6       | 1.0   | (0.4)    | (0.3) | 0.4         | 1.9   |
| Industry                   | (2.2)     | 2.8   | 5.3       | 2.3   | 6.4      | 0.9   | 3.3         | 1.6   |
| Services                   | 1.2       | 4.1   | 4.7       | 1.9   | 4.5      | 3.9   | 4.1         | 3.2   |
| Country                    | Thailand  |       | Viet Nam  |       | Cambodia |       |             |       |
| <b>Share in Employment</b> | 1990s     | 2000s | 1990s     | 2000s | 1990ss   | 2000s |             |       |
| Agriculture                | 54.0      | 44.3  | 66.2      | 59.4  | 77.2     | 65.7  |             |       |
| Industry                   | 17.6      | 19.6  | 11.5      | 16.2  | 5.0      | 11.3  |             |       |
| Services                   | 28.4      | 36.1  | 22.2      | 24.4  | 17.7     | 22.9  |             |       |
| <b>Growth rate</b>         |           |       |           |       |          |       |             |       |
| Agriculture                | (2.5)     | 0.0   | 0.1       | (0.5) | 2.4      | 1.7   |             |       |
| Industry                   | 3.8       | 3.6   | 7.1       | 8.6   | 13.4     | 19.0  |             |       |
| Services                   | 5.2       | 3.4   | 8.8       | 3.6   | 5.1      | 13.2  |             |       |

Source: International Labor Organization. Labor Statistics Database LABORSTA. (<http://laborsta.ilo.org/>)

Note: In general, 1990s refers to the average for the years 1990–1999 and 2000s the average for the years 2000–2007.

**Table 4: Employment Structure of the Services Sector and Average Growth Rates(%)**

| Share in employment in services        | Singapore |       | Indonesia |       | Malaysia |       | Philippines |       | Thailand |       | Viet Nam |       | CAM   |       |
|--|-----------|-------|-----------|-------|----------|-------|-------------|-------|----------|-------|----------|-------|-------|-------|
|  | 1990s     | 2000s | 1990s     | 2000s | 1990s    | 2000s | 1990s       | 2000s | 1990s    | 2000s | 1990s    | 2000s | 1990s | 2000s |
| Services                               | 68        | 74    | 36        | 38    | 49       | 54    | 42          | 48    | 28       | 36    | 22       | 24    | 18    | 23    |
| Electricity, gas, and water            | 0         |       | 0         | 0     | 1        | 1     | 0           | 0     | 0        | 0     | 0        | 0     | 0     | 0     |
| Wholesale and retail trade             | 17        | 16    | 17        | 20    | 18       | 22    | 15          | 20    | 12       | 15    | 11       | 11    | 9     | 12    |
| Transport, storage, and communications | 11        | 12    | 4         | 6     | 5        | 5     | 6           | 7     | 3        | 3     | 3        | 3     | 2     | 3     |
| Finance, insurance, and business       | 14        | 18    | 1         | 1     | 5        | 7     | 2           | 3     | 12       | 18    | 0        | 0     | 0     | 0     |
| Public administration                  | 27        | 28    | 14        | 11    | 21       | 20    | 19          | 17    |          |       | 6        | 6     | 3     | 2     |
| Others                                 |           |       | .         | .     | .        | .     |             |       |          |       | 2        | 3     | 3     | 5     |
| Growth rate                            | Singapore |       | Indonesia |       | Malaysia |       | Philippines |       | Thailand |       | Viet Nam |       | CAM   |       |
|  | 1990s     | 2000s | 1990s     | 2000s | 1990s    | 2000s | 1990s       | 2000s | 1990s    | 2000s | 1990s    | 2000s | 90s   | 20s   |
| Services                               | 1         | 4     | 5         | 2     | 4        | 4     | 4           | 3     | 5        | 3     | 9        | 4     | 5     | 13    |
| Electricity, gas, and water            | 2         |       | 7         | 10    | 5        | 4     | 5           | 1     | 5        | (3)   | 13       | 12    | 8     | 28    |
| Wholesale and retail trade             | 1         | 3     | 5         | 2     | 5        | 5     | 4           | 6     | 6        | 3     | 9        | 3     | 3     | 13    |
| Transport, storage, and communications | 2         | 7     | 7         | 5     | 5        | 3     | 6           | 4     | 4        | 1     | 14       | 1     | 5     | 11    |
| Finance, insurance, and business       | 6         | 4     | 3         | 12    | 8        | 8     | 3           | 1     | 5        | 6     | 1        | 9     | 7     | 13    |
| Public administration                  | 2         | 4     | 3         | 0     | 5        | 2     | .           | .     | .        | .     | 7        | 1     | 11    | 0     |
| Others                                 |           |       |           |       |          |       |             |       |          |       | 8        | 17    | 8     | 23    |

Source: International Labor Organization. Labor Statistics Database LABORSTA (<http://laborsta.ilo.org/>).

Note: In general, 1990s refers to the average for the years 1990–1999 and 2000s to the average for the years 2000–2007.

### 2.1.1 Singapore

Singapore's economy is service-oriented with the share of the services sector constituting, on average, 70.1% of total value added for the period 2000–2007 (see Table 1). Industry accounted for a further 29.8%, as Singapore moved towards higher value-added manufacturing activities. On average, services grew by 7.6% per annum throughout the 1990s, but this rate has slowed to 6.0% in recent years. Table 2 shows that Singapore's services sector is dominated by finance, insurance, and business, with an average share of 33.8% in the 2000s. This is followed by wholesale and retail trade with an average share of 21.3%. Next is the transport, storage, and communications subsector with an average share of 18.9%.

In terms of employment contribution, services accounted for an average share of 75% of total employment in the 2000s (Table 3). The largest source of employment was the finance subsector with an average contribution of 18%, followed by wholesale and retail trade with an average share of 16% (Table 4).

### 2.1.2 Indonesia

As seen in Table 1, Indonesia's economy is led by industry with an average share in value added of 44.0% over the period 2000–2007. Services followed closely with a share of 41.1%, while agriculture accounted for the remaining 14.9%. Services grew by an average of 6.8% per year in the more recent period. Within services, on average, the wholesale and retail trade subsector accounted for the largest share of value added at 40.2%, followed by finance with an average share of 21.7%, and transport, storage, and communications with an average of 14.0% (see Table 2).

In terms of employment contribution, services represented an average share of 38.0% in the 2000s, an increase from 35.7% in the 1990s (Table 3). Wholesale and retail trade has been the largest source of employment with its average share rising from 17% to 20% across the two periods (Table 4).

### 2.1.3 Malaysia

Malaysia's economy is largely concentrated in services, indeed this sector posted an average share in value added of 50.0% during the 2000s (Table 1). Industry was second with a 42.1% share while agriculture's share was, on average, 7.9%. On average, services grew by 6.4% per annum in the 2000s. The services sector was led by finance, insurance, and business with an average share of 28.6%, followed by wholesale and retail trade with a share of 26.5% (Table 2). The third largest subsector was transport, storage, and communications with an average share of 14.3%.

In terms of employment contribution, services accounted for an average of 54.4% of total employment in the 2000s (Table 3). Within the services sector, wholesale and retail trade accounted for the largest source of employment with its average share rising to 22% in the 2000s from 18% in the 1990s (Table 4).

### 2.1.4 The Philippines

Among the ASEAN 4 countries, the Philippines has the smallest industry sector and its average share in value added even dropped from 32.0% percent in the 1990s to 30.2% in the 2000s (Table 1). In contrast, Thailand's industry share in value added went up from 39.0% to 42.6% during the two periods under study. In the 2000s in Indonesia and Malaysia, industry posted average shares of 44.0% and 42.1% respectively. While the share of agriculture in value added is already less than 10% in Malaysia and Thailand, in the Philippines it is still around 20%, while in Indonesia it is around 15%.

With this structure, the Philippine economy has largely depended on the services sector, with its average share in value added rising to 50.3% in the 2000s from 46.4% in the 1990s. On

average, the growth rate of this sector increased from 2.3% in the 1990s to 4.4% in the 2000s. Wholesale and retail trade dominated the services sector in both the 1990s and 2000s with an average share of 33.0%, followed by transport, storage, and communications with a share of 16.1%, and finance, insurance, and business with a share of 10.2% (Table 2).

Services' contribution to total employment increased substantially during the two periods, from an average of 41.6% in the 1990s to an average of 48.0% in the 2000s (Table 3). On average, wholesale and retail trade was the largest source of employment within the sector, accounting for a share of 20% in the 2000s, a substantial increase from its share of 15% in the 1990s (Table 4).

### **2.1.5 Thailand**

In Thailand, the services sector continues to dominate the economy, although its average share in value added fell from 50.2% in the 1990s to 47.7% in the more recent period (Table 1). The share of industry increased from 39.0% to 42.6%, while agriculture dropped from 10.8% to 9.7%. The services growth rate increased from an annual average of 4.1% in the 1990s to 4.5% in the 2000s. Services are largely concentrated in wholesale and retail trade, which accounted for an average share of 30.3%, followed by transport, storage, and communications with a share of 21.0%, and finance with a share of 15.0% (Table 2).

In terms of employment contribution, services accounted for the largest average share which rose from 28.4% to 36.1% across the two periods under study (Table 3). Finance was the leading subsector within services with an average contribution of 18% in the 2000s, followed by wholesale and retail trade with an average share of 15% (Table 4).

### **2.1.6 Brunei Darussalam<sup>2</sup>**

Brunei Darussalam's economy is dominated by industry, which had an average share in value added in the 2000s of 60.9%, followed by services with a share of 38.0%. The average annual growth rate of the services sector posted an increase from 2.1% in the 1990s to 4.6% in the 2000s (Table 1). Public administration is the largest subsector within services, with an average share of 42.3% in the 2000s. In the same period, wholesale and retail trade comprised on average 10.7% of the total value added derived from services, while transport, storage, and communications accounted for an average share of 10.1%. Finance, insurance, and business followed closely with a share of 9% (Table 2).

### **2.1.7 Cambodia**

Cambodia's economy has been largely dependent on services, with the share of services in value added rising from an average 38.6% in the 1990s to an average 40.7% in the more recent period. Agriculture follows with an average share of 32.7%, a substantial fall from its 45.2% average share in the 1990s. Industry rose from an average share of 16.2% to 26.6% across the two periods. The average services growth rate per annum increased from 6.8% in the 1990s to 10.1% in the 2000s. Within the services sector, wholesale and retail trade was the largest subsector although its average share dropped to 35.1% in the 2000s from the 41.7% registered in the 1990s (Table 2). Finance, insurance, and business is the second most important services subsector with an average share of 21.4% in the 2000s, followed by transport, storage, and communications with an average share of 17.1%.

Although services made the largest contribution in terms of value added, in terms of total employment it contributed only 22.9% on average in the 2000s, with the wholesale and retail trade subsector contributing the largest share within services (Tables 3 and 4). Agriculture has remained the largest source of employment in Cambodia, accounting for an average of 65.7% of total employment in the more recent period.

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<sup>2</sup> No employment data is available.

### 2.1.8 Lao PDR<sup>3</sup>

The Lao PDR depends on its agriculture sector, which accounted for an average of 48.1% of total value added for the period 2000–2007 (Table 1). Services constituted an average of 28.1% of value added in the same period, while industry's share posted an average of 23.7%. The services growth rate registered a slowdown from 7.3% per annum in the 1990s to 6.6% in the 2000s. Within the services sector, wholesale and retail trade is the largest subsector, accounting for an average share of 35.9% in the latter period, followed by transport, storage, and communications with an average share of 22.0% (Table 2). These are followed by public administration and electricity, gas, and water, each with an average share of around 10.0%.

### 2.1.9 Myanmar<sup>4</sup>

Like the Lao PDR, Myanmar also depends largely on its agriculture sector, which contributed an average of 52.8% of total value added in the 2000s. Services accounted for an average share of 34.4% of total value added, concentrated mainly in wholesale and retail trade with a share of 68.4% of the services total (Tables 1 and 2). The transport, storage, and communications subsector followed with an average share of 22% in the same period. On average, the services sector grew by 14.6% per annum during the 2000s.

### 2.1.10 Viet Nam

Viet Nam has relied mainly on its services sector, although this sector's share in value added declined to an average of 43.3% in the more recent period from 45.0% in the 1990s (Table 1). Agriculture dropped to an average 20.6% share in value added in the 2000s, from 27.2% during the 1990s. Industry witnessed a substantial increase in its share, from an average 27.8% to an average 36.1% across the two periods under review. The average services growth rate remained almost the same throughout the two periods at approximately 7.5% per annum. The services sector is largely concentrated in wholesale and retail trade, which had an average share of 37.7% in services value added in the 2000s (Table 2). Public administration is the second most important service subsector with an average share of 20.0% in the 2000s, followed by transport, storage, and communications with an average share of 9.0% in the same period.

Like Cambodia, Viet Nam's service sector's contribution to total employment was only around 24% on average in the 2000s, with agriculture remaining the largest source of employment (Table 3). Nevertheless, the average share of agriculture in total employment dropped from an average of 66.2% to an average 59.4% from the 1990s to the 2000s. Within the services sector, wholesale and retail trade constituted the largest share in terms of employment contribution (Table 4).

## 2.2 Labor Productivity

While it is more useful to calculate both labor and total factor productivity (TFP), data availability limits our analysis to the former. Labor productivity is relatively easy to calculate and makes comparisons among industries very straight forward. However, in the presence of other inputs, focusing on labor productivity alone can be misleading. Faster productivity growth can be due to heavy capital spending without an overall improvement in economic efficiency. More machines and equipment will automatically boost output per worker. One therefore needs to measure TFP to take into account other inputs in the production process.

Labor productivity is defined as the ratio of output to labor input. However, due to the difficulty of defining real output in the services sector, labor productivity is measured as the

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<sup>3</sup> No employment data is available.

<sup>4</sup> No employment data is available.

ratio of real value added to total employment in each subsector. Given the output heterogeneity in the services sector, in practice value measures of output are often applied. Though the use of real value added as a measure of output may be appropriate in sectors such as retail trade, there are weaknesses when using this measure in other subsectors, such as legal, technical, and advertising services, where output may not be fully captured by real value added (Fernandes 2007).

With the above caveats, labor productivity is applied as a productivity measure in this paper. Real value added is used since it is the only measure with complete country scope and time coverage for the ASEAN member countries. To allow cross-country comparisons of labor productivity in the region, a subsector's nominal value added expressed in local currency units is converted into real value added at common prices in a common currency using purchasing power parity (PPP) conversion rates (Fernandes 2007).<sup>5</sup> Appendix 2 outlines the methodology applied.

### **2.2.1 Singapore**

Within the region, Singapore exhibited the highest average labor productivity in both industry and services throughout the two periods under review (see Figure 1A). Within Singapore's services sector, the electricity, gas, and water subsector registered the highest average labor productivity, followed by finance (Figure 3A). The transportation and communications subsector was next, followed closely by the wholesale and retail trade subsector. In terms of average growth, Table 5 shows that the services sector slowed down from around 11% growth per annum to around 6% across the two periods. Among the subsectors, the wholesale and retail trade subsector posted the highest average growth rate at 9.1% in the period 2000–2007.

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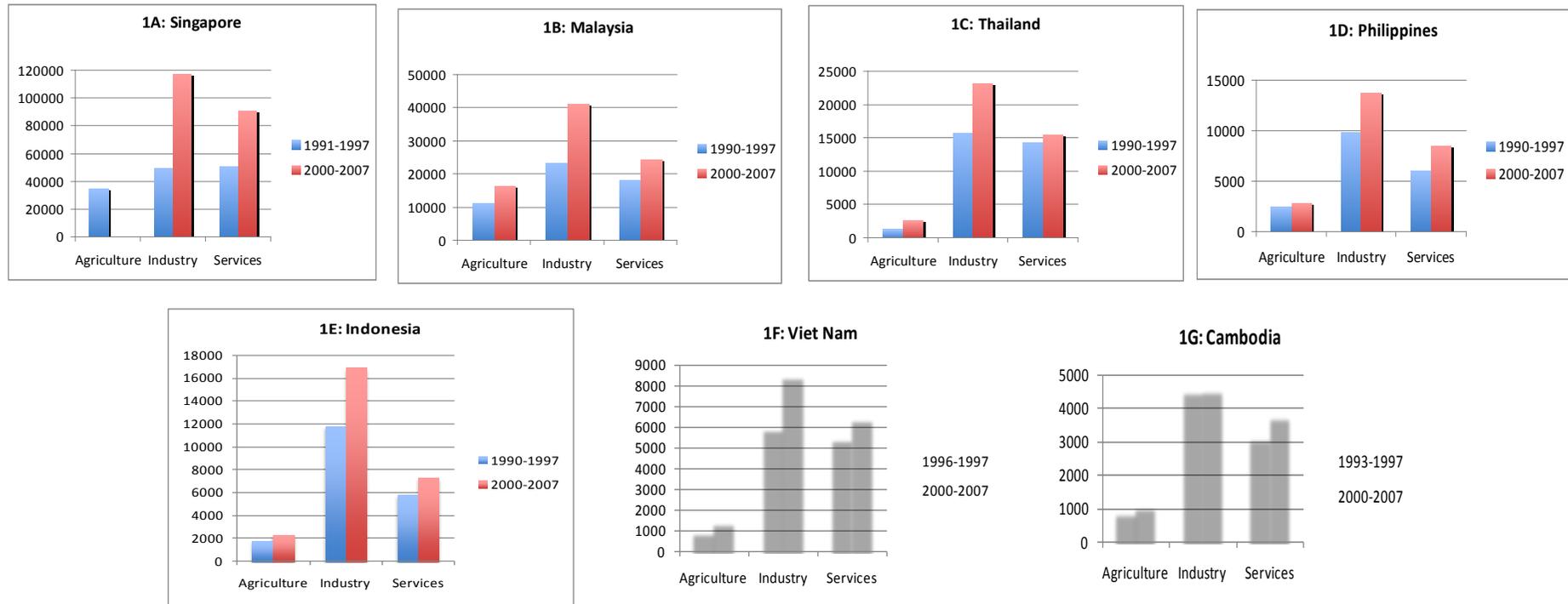
<sup>5</sup> Fernandes (2007) also noted that average exchange rates are inappropriate since they reflect capital movements, monetary policies, and speculation and do not adjust for differences in relative prices across countries.

**Table 5: Average Annual Growth Rates in Labor Productivity (%)**

| Country                    | Singapore |           | Malaysia  |           | Thailand  |           | Philippines |           | Indonesia |           | Viet Nam  | Cambodia  |           |
|----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Period                     | 1992–1997 | 2000–2007 | 1991–1997 | 2000–2007 | 1991–1997 | 2000–2007 | 1991–1997   | 2000–2007 | 1991–1997 | 2000–2007 | 2000–2007 | 1994–1997 | 2000–2007 |
| <b>Services</b>            | 10.6      | 5.5       | 8.4       | 3.1       | 3.6       | 3.0       | 3.0         | 5.1       | 2.7       | 6.7       | 6.2       | 1.9       | 1.0       |
| Electricity, gas, & water  | 8.0       | (2.0)     | 8.9       | 3.5       | 4.9       | 16.7      | 3.7         | 11.4      | 12.1      | 8.9       | 2.2       | 12.6      | (7.0)     |
| Wholesale and retail trade | 4.2       | 9.1       | 12.7      | 1.6       | 2.4       | 4.3       | (0.2)       | 2.9       | 1.8       | 4.9       | 6.4       | 3.0       | (1.6)     |
| Transport & communications | 5.1       | 4.4       | 8.1       | 4.9       | 6.4       | 5.8       | (0.6)       | 8.1       | 0.4       | 7.2       | 11.5      | 4.5       | 5.6       |
| Finance                    | 8.5       | 3.9       | 13.0      | 1.0       | 4.1       | 2.6       | 5.5         | 6.8       | 6.2       | 0.9       | 1.3       | (5.7)     | 2.1       |
| Public administration      | 21.5      | 6.3       | 3.6       | 4.7       |           |           |             |           | 0.6       | 8.7       | 10.0      | 16.8      | 4.1       |

Source: Authors' own calculations.

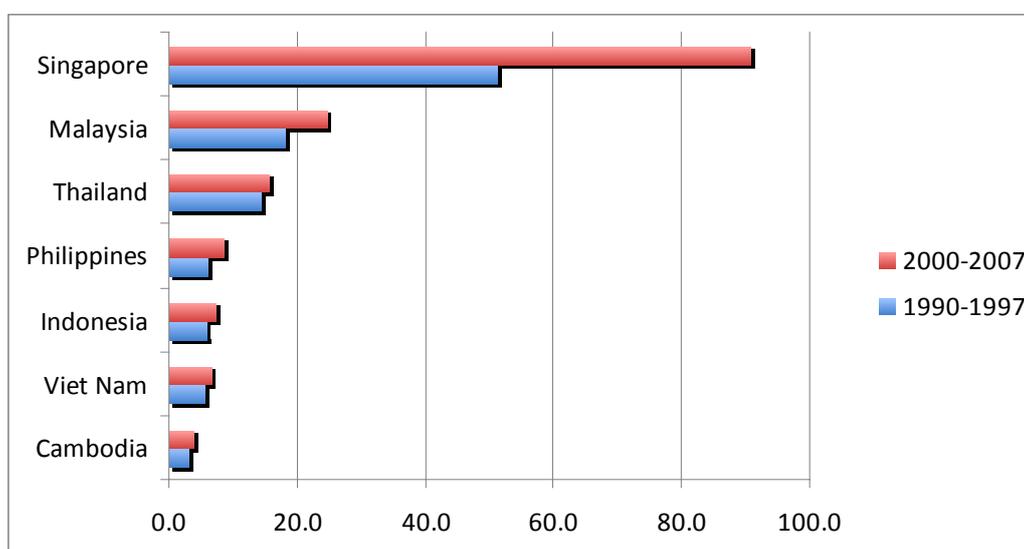
**Figure 1A–1G: Average Labor Productivity Level by Sector (purchasing power parity [PPP] US\$ per worker)**



Source: Authors' own calculations.

Figure 2 demonstrates that there is a large and rising productivity gap that separates Singapore from the rest of the ASEAN countries. In 2000–2007 Malaysia’s average labor productivity was only 27% of Singapore’s level while Thailand’s was about 17%. In the 1990s, however, Malaysia’s level was 34% that of Singapore’s, while Thailand’s was 25%. The average labor productivity of Indonesia and the Philippines stood at around 9% and 8% respectively in the 2000s. In the 1990s, these figures were about 11% and 10% respectively. The most recent figure for labor productivity in Viet Nam is 7% (from 9% in the 1990s), while Cambodia’s is 4% (from 6% during the 1990s).

**Figure 2: Average Labor Productivity Level in Service Sectors (PPP US\$’000)**



Source: Authors' own calculations.

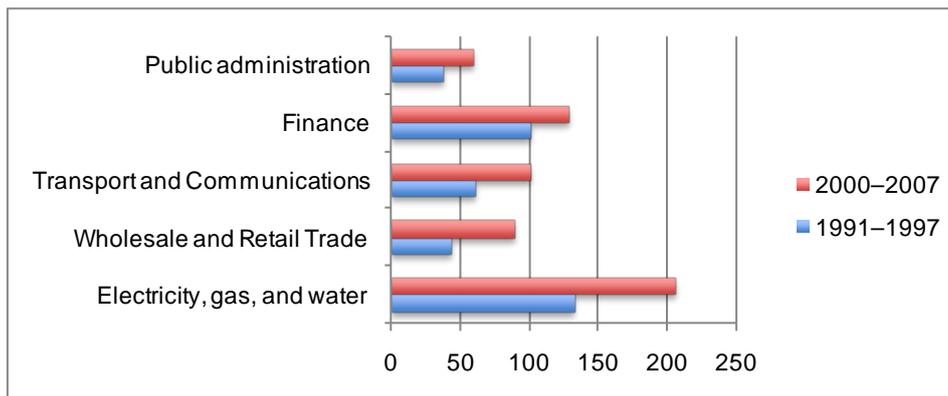
### 2.2.2 ASEAN 4: Indonesia, Malaysia, the Philippines, and Thailand

Figures 1B–1E show that, within each country, labor productivity gaps exist in that industry is more efficient than services while both are more efficient than agriculture. Figure 2, which focuses on average labor productivity in the service sectors, indicates that average labor productivity levels for all ASEAN 4 countries increased from the 1990s to the 2000s. Among these four countries, Malaysia has the highest average labor productivity, followed by Thailand. Behind are the Philippines and Indonesia, which share very similar productivity levels. In the more recent period, Thailand’s average labor productivity was about 64% of Malaysia’s, for the Philippines the same ratio was about 35%, and around 30% for Indonesia.

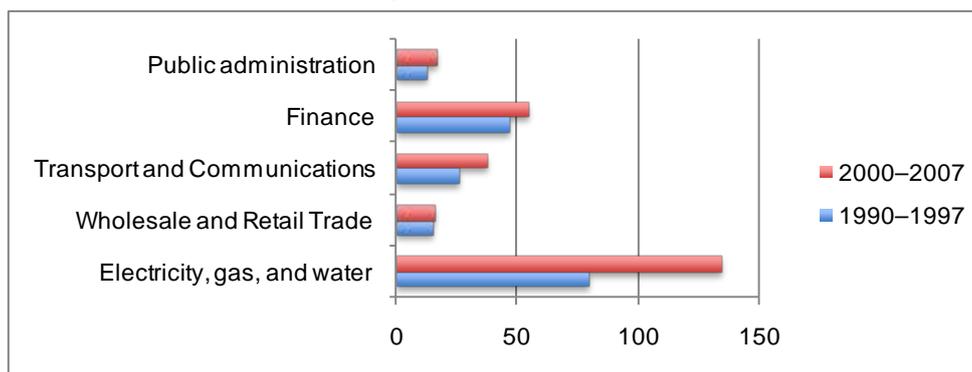
Figures 3B–3E show that, within the countries’ services sectors, the electricity, gas, and water subsector is the most efficient subsector in Malaysia, Thailand, and the Philippines. In Indonesia, finance is the most productive subsector. The wholesale and retail trade subsector displays, on average, the lowest labor productivity across ASEAN 4. It should be noted that disparities in the average labor productivity of the services subsectors may be attributable to differences in technological characteristics across subsectors, such as the level of capital intensity, as earlier discussed.

**Figures 3A–3G: Average Labor Productivity Levels in Services Subsectors by Country (PPP US\$'000 per worker)**

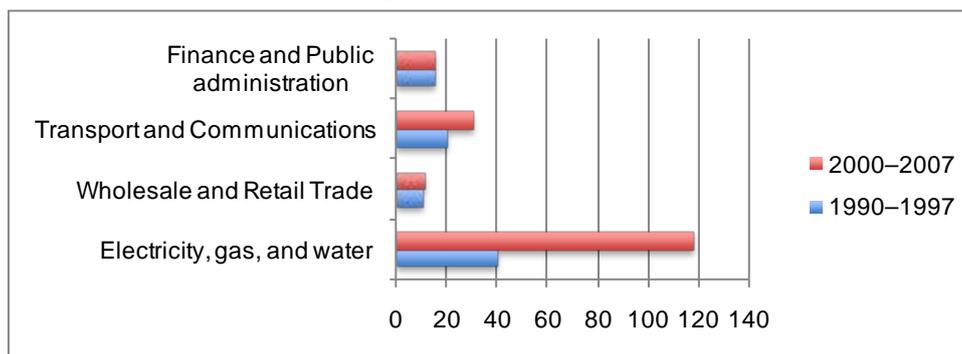
**Figure 3A: Singapore**



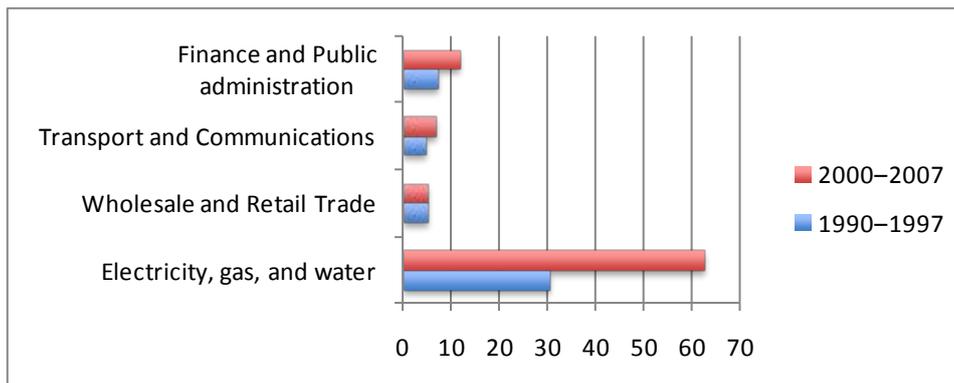
**Figure 3B: Malaysia**



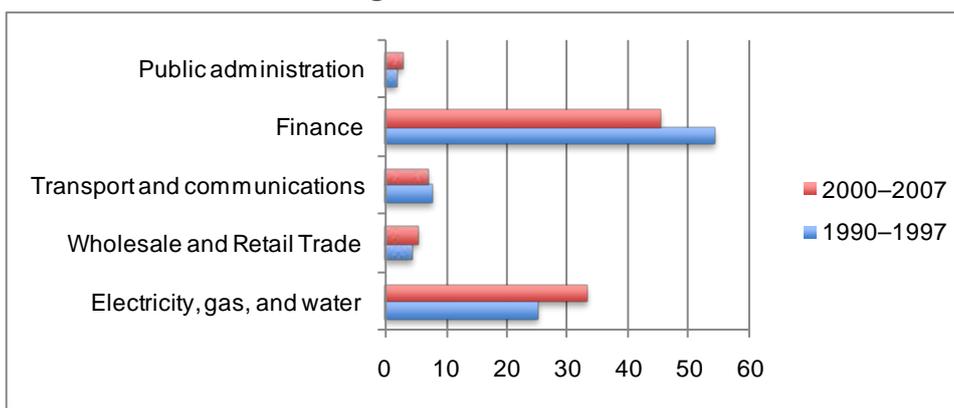
**Figure 3C: Thailand**



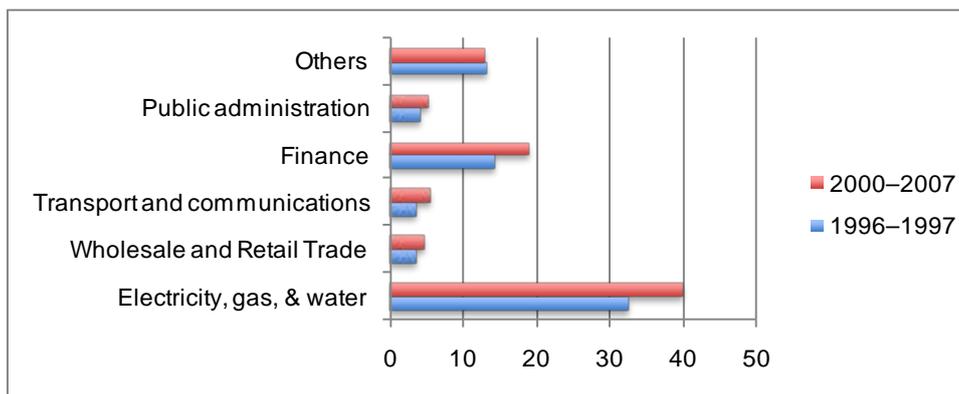
**Figure 3D: Philippines**



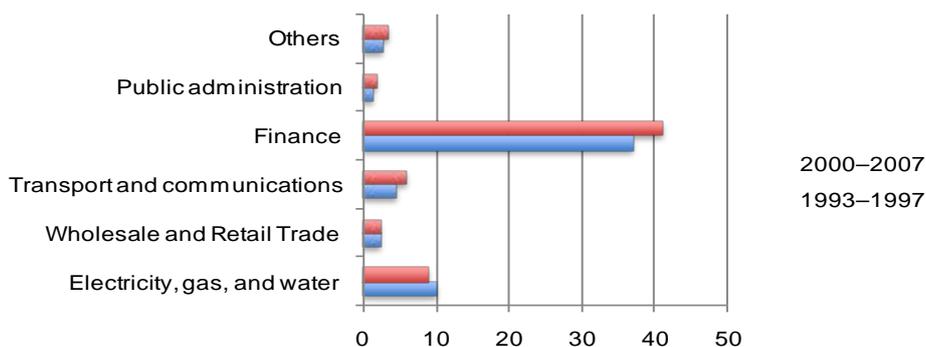
**Figure 3E: Indonesia**



**Figure 3F: Viet Nam**



**Figure 3G: Cambodia**

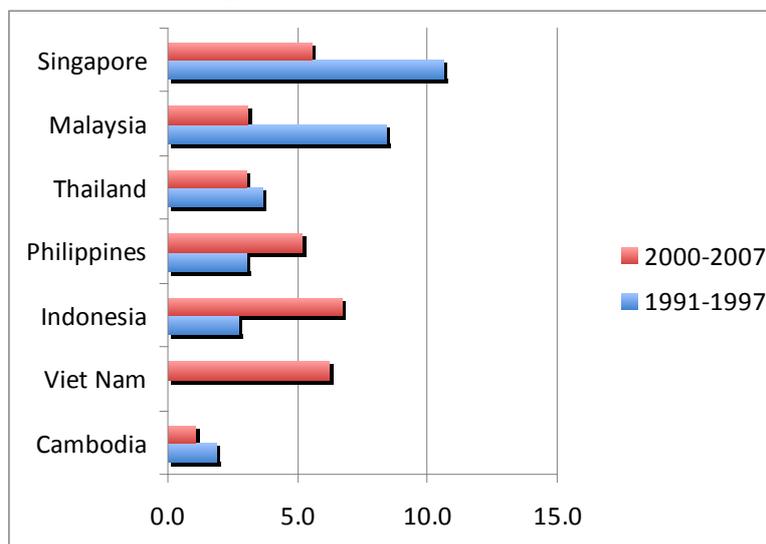


Sources of basic data: Asian Development Bank Key Indicators; International Labor Organization, Labor Statistics Database LABORSTA (<http://laborsta.ilo.org/>).

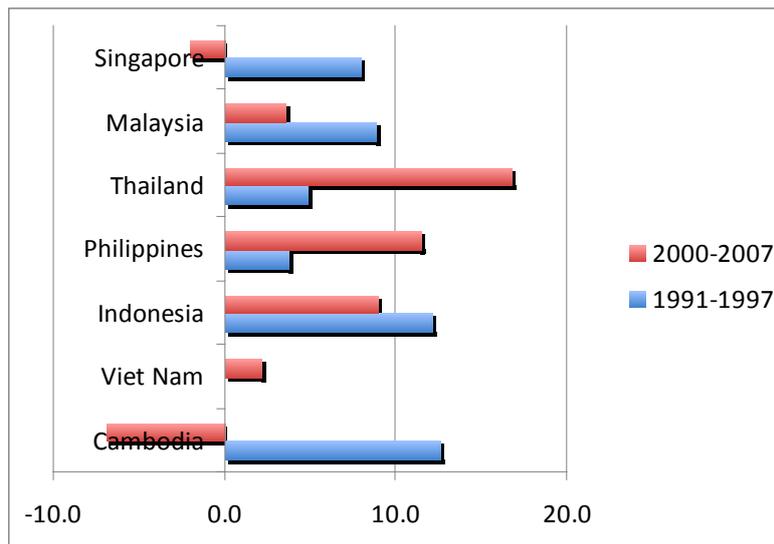
Table 5 and Figures 4A–4D show the average annual growth rates in labor productivity for each services subsector and the services sector as a whole. Average annual growth rates between the 1990s and 2000s slowed down from 8.4% to 3.1% in Malaysia and from 3.6% to 3.0% in Thailand. Across the two periods, increases in average annual labor productivity growth rates in services were posted in Indonesia and the Philippines. In Indonesia, the average annual growth rate of labor productivity increased from 3% to 7% across the two periods under study. In the Philippines, it increased to 5%, from 3% in the 1990s.

**Figures 4A–4E: Labor Productivity Average Annual Growth Rates (%)**

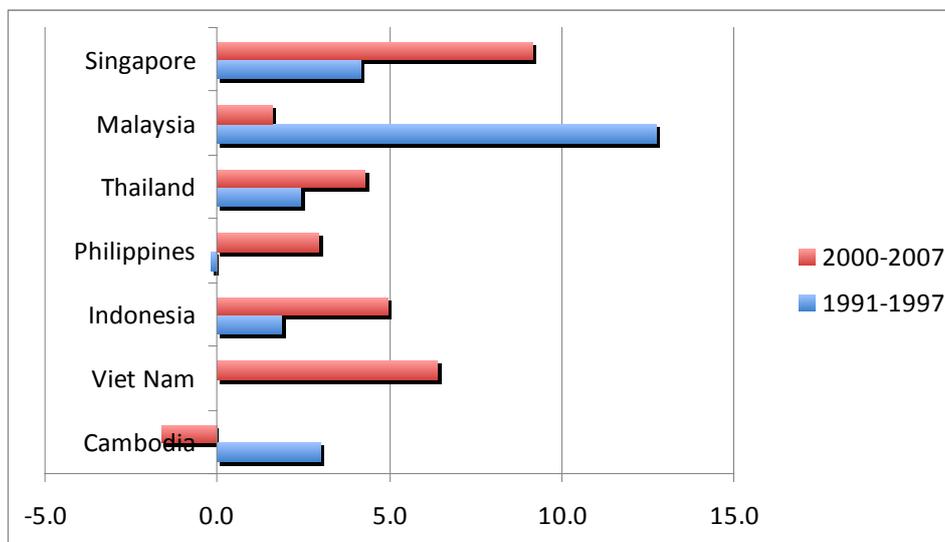
**Figure 4A: Services–General**



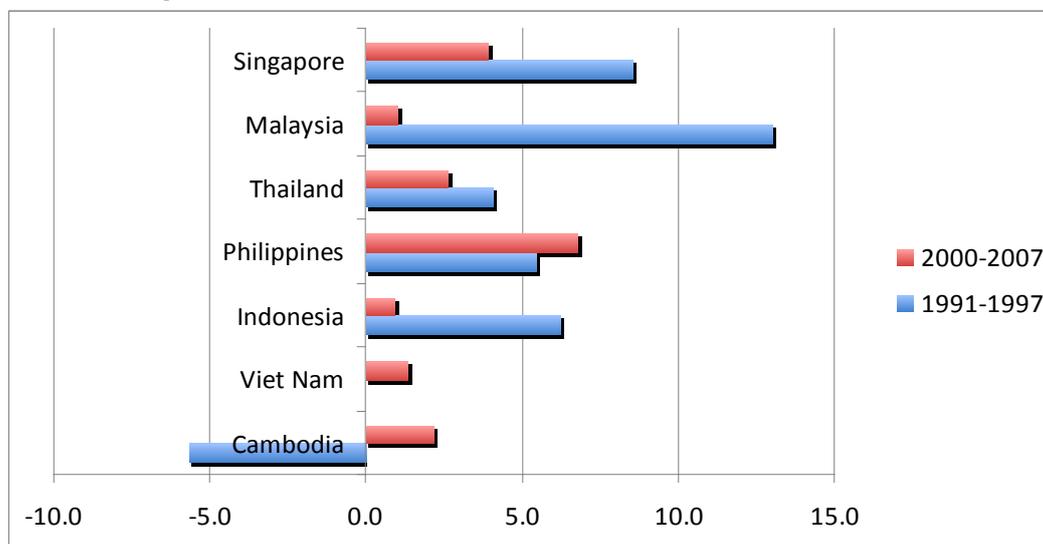
**Figure 4B: Electricity, Gas, and Water**

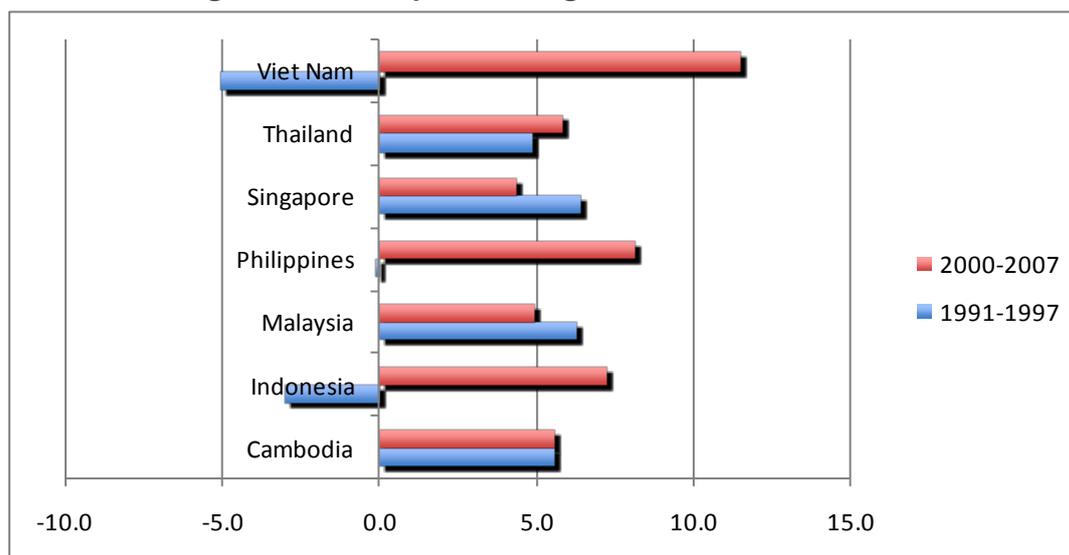


**Figure 4C: Wholesale and Retail Trade and Hotels and Restaurants**



**Figure 4D: Finance, Insurance, Real Estate, and Business**



**Figure 4E: Transport, Storage, and Communications**

Note: Malaysia has no employment data for 1994. Computed averages for Singapore are for the period 1992–1997 and 1994–1997 for Cambodia.

Source: Authors' own calculations. ADB (2008), International Labor Organization Labor Statistics Database LABORSTA (<http://laborsta.ilo.org/>).

Within Malaysia's services sector, the transport, storage, and communications subsector shows the highest average labor productivity annual growth rate (4.9%) in the latter period. In Thailand, the Philippines, and Indonesia, electricity, gas, and water has been the fastest growing subsector having registered average annual growth rates of 16.7%, 11.4%, and 8.9% respectively in the period 2000–2007 (Figure 4B). Indonesia (4.9%) and Thailand (4.3%) posted the highest average annual growth rates in wholesale and retail trade including hotels and restaurants. In transport, storage, and communications, the Philippines registered the highest average annual growth rate at 8.1%, followed by Indonesia at 7.2% (Figure 4E). In finance, insurance, real estate, and business, the Philippines also posted the highest growth rate at 6.8%, followed by Thailand at 2.6% (Figure 4D). Note that in the Philippines, average labor productivity growth increased in all the major services subsectors throughout the two periods.

### 2.2.3 Cambodia and Viet Nam

Within Cambodia and Viet Nam, industry has the highest labor productivity, followed by services, with agriculture having the lowest productivity (Figures 1F and 1G). Viet Nam is ahead of Cambodia in terms of the services sector's average level of labor productivity (Figure 2). In the more recent period, Cambodia's average labor productivity was about 60% that of Viet Nam's. For both countries, average labor productivity levels increased across the two periods. Figures 3F and 3G indicate that, within services, Viet Nam's electricity, gas, and water subsector is the most efficient, while in Cambodia finance is the most productive subsector.

Table 5 and Figure 4 show that Viet Nam also registered a relatively high average labor productivity growth rate of 6.2% in the 2000s. Average annual growth rates between the 1990s and 2000s slowed down from 1.9% to 1.0% in Cambodia. In terms of growth, in the 2000s the transportation and communications subsector had the highest average annual growth rate in Viet Nam (11.5%) followed by public administration (10.0%) and wholesale and retail trade (6.4%). In Cambodia, the fastest growing subsector was transport and communications (5.6% average annual growth) followed by public administration (4.1%).

To summarize, the key messages emerging from the preceding analysis are: (i) there is an apparent labor productivity gap between Singapore and the rest of the ASEAN countries and

disparities in labor productivity also separate the ASEAN 4 countries from Viet Nam and Cambodia; (ii) Indonesia and the Philippines were characterized by strong labor productivity growth from the 1990s to the 2000s, with Viet Nam catching up as it showed signs of improved growth; and (iii) highly skill-intensive and ICT user and producer subsectors, such as electricity, gas, and water; finance, insurance, and business; and transport, storage, and communications, exhibited on average the highest labor productivity levels and growth rates during the two periods. All of these suggest the strong potential for services to become one of the major drivers of growth in the ASEAN region.

## 2.3 Trade in Services

Table 6 presents trade in services<sup>6</sup> along with trade in goods covering the two periods 1990–1999 and 2000–2007. Singapore and Malaysia, the two countries with the highest trade in goods ratios, also had the highest trade in services ratios. Singapore's trade in services ratio increased substantially from 53.79% to 80.46% of gross domestic product (GDP) in the two periods under review, while in the case of Malaysia this ratio rose from 28.10% to 30.51% of GDP. Thailand's ratio increased from 19.34% to 25.73%, while Cambodia's ratio registered a dramatic increase from 11.45% to 24.42% of GDP. Indonesia's ratio saw a slight increase from 10.03% to 11.29%.

**Table 6: Trade in Goods, Services, and Workers' Remittances (% of GDP)**

| Country     | Trade in Goods<br>(% of GDP) |        | Trade in Services<br>(% of GDP) |       | Workers' remittances<br>(% of GDP) |       |
|-------------|------------------------------|--------|---------------------------------|-------|------------------------------------|-------|
|             | 1990s                        | 2000s  | 1990s                           | 2000s | 1990s                              | 2000s |
| Brunei      |                              |        |                                 |       |                                    |       |
| Darussalam  | 108.16                       | 102.06 |                                 | 21.31 |                                    |       |
| Cambodia    | 72.69                        | 127.81 | 11.45                           | 24.42 | 1.49                               | 3.43  |
| Indonesia   | 57.56                        | 61.13  | 10.03                           | 11.29 | 0.37                               | 1.03  |
| Lao PDR     | 58.94                        | 74.21  | 12.18                           | 9.68  | 1.47                               | 0.04  |
| Malaysia    | 178.13                       | 206.39 | 28.10                           | 30.51 | 0.87                               | 0.94  |
| Myanmar     | 4.00                         |        |                                 |       |                                    |       |
| Philippines | 82.36                        | 100.17 | 19.14                           | 11.17 | 6.06                               | 11.70 |
| Singapore   |                              | 414.74 | 53.79                           | 80.46 |                                    |       |
| Thailand    | 87.07                        | 132.94 | 19.34                           | 25.73 | 0.99                               | 0.96  |
| Viet Nam    | 82.71                        | 133.86 | 20.02                           | 18.39 |                                    | 7.35  |

Source: World Bank World Development Indicators.

The remaining countries witnessed declines in their ratios of trade in services. Viet Nam's share fell from 20.02% to 18.39% of GDP. The Lao PDR's ratio also dropped slightly from 12.18% to 9.68%. The Philippines experienced the largest decline as its ratio tumbled from 19.14% to 11.17% of GDP. In terms of workers' remittances, as a percentage of GDP, the Philippines topped the list with its ratio almost doubling from 6.06% to 11.70% across the two periods. Viet Nam followed with a ratio of 7.35%, followed by Cambodia with 3.43%.

<sup>6</sup> Trade in services here refers only to cross-border trade in services. In General Agreement on Tariffs and Services (GATS) language, this refers only to modes 1 and 2 trade in services.

### 3. THE GLOBAL CRISIS AND GROWTH REBALANCING MODEL: IMPACT AND POTENTIAL IMPLICATIONS FOR SERVICES

#### 3.1 Impact on Growth

Tables 7A–7E: ASEAN 5 Services Growth Rates 2008–2009 (%)

Table 7A: Singapore

| Sector                       | 2008Q1     | 2008Q2     | 2008Q3     | 2008Q4       | 2009Q1       |
|------------------------------|------------|------------|------------|--------------|--------------|
| Wholesale & retail trade     | 5.4        | 6.0        | 4.5        | (5.3)        | (15.1)       |
| Transport & storage          | 5.5        | 5.8        | 3.8        | (2.4)        | (10.0)       |
| Hotels & restaurants         | 3.1        | 2.0        | 0.0        | (0.1)        | (4.9)        |
| Information & communications | 7.1        | 8.4        | 7.7        | 5.4          | 1.8          |
| Financial services           | 14.8       | 11.2       | 5.6        | (8.1)        | (8.2)        |
| Business services            | 8.5        | 7.7        | 8.2        | 5.2          | 4.1          |
| Other services industries    | 3.8        | 7.0        | 5.7        | 4.7          | 6.0          |
| Utilities                    | 2.1        | 1.8        | 3.8        | 0.7          | (2.6)        |
| Ownership of dwellings       | 0.7        | 0.5        | 0.5        | 0.8          | 0.6          |
| <b>Services</b>              | <b>7.5</b> | <b>7.5</b> | <b>5.5</b> | <b>(1.3)</b> | <b>(4.9)</b> |

Source: Singapore Ministry of Trade and Industry (2009)

Table 7B: Malaysia

| Sector                          | 2008Q1     | 2008Q2     | 2008Q3     | 2008Q4     | 2009Q1       |
|---------------------------------|------------|------------|------------|------------|--------------|
| Wholesale & retail trade        | 11.8       | 12.7       | 9.4        | 5.9        | (1.7)        |
| Accommodation & restaurants     | 10.0       | 7.3        | 4.7        | 7.4        | 2.1          |
| Transport & storage             | 9.9        | 8.1        | 5.9        | 1.0        | (3.9)        |
| Communications                  | 7.5        | 7.9        | 7.4        | 6.3        | 4.9          |
| Finance & insurance             | 9.9        | 7.5        | 10.0       | 3.5        | 1.2          |
| Real estate & business services | 4.8        | 3.7        | (2.0)      | (0.6)      | (6.7)        |
| Government services             | 7.0        | 7.9        | 10.5       | 18.2       | 2.8          |
| Other services                  | 5.0        | 5.3        | 5.3        | 5.3        | 5.2          |
| Electricity, gas, & water       | 4.7        | 4.1        | 2.5        | (2.6)      | (8.2)        |
| <b>Services</b>                 | <b>8.4</b> | <b>8.0</b> | <b>7.1</b> | <b>5.7</b> | <b>(0.1)</b> |

Source: Department of Statistics Malaysia (2005–2009).

Table 7C: Thailand

| Sector   | 2008Q1     | 2008Q2     | 2008Q3     | 2008Q4       | 2009Q1       |
|--|------------|------------|------------|--------------|--------------|
| Wholesale & retail trade                                     | 4.1        | 3.4        | 3.1        | (3.2)        | (4.0)        |
| Hotels & restaurants   | 9.2        | 5.9        | 0.3        | (7.7)        | (5.0)        |
| Transport, storage, & communications                         | 5.4        | 3.6        | 1.5        | (10.6)       | (6.5)        |
| Financial intermediation                                     | 10.2       | 8.8        | 8.0        | 5.5          | 4.2          |
| Real estate & business                                       | 3.0        | (0.4)      | 0.7        | (2.3)        | (0.4)        |
| Public administration, defense, & compulsory social security | (5.6)      | 1.0        | (2.9)      | 3.8          | 3.8          |
| Education  | (1.4)      | (2.0)      | (3.3)      | 2.6          | 5.0          |
| Health & social work   | (3.8)      | (2.5)      | (2.6)      | 5.1          | 4.9          |
| Other community, social, & personal service activities       | 2.4        | 0.1        | 0.7        | 0.1          | (2.7)        |
| Private households with employed persons                     | 2.1        | 1.2        | 1.9        | 1.9          | 2.1          |
| Electricity, gas, & water                                    | 5.9        | 5.8        | 2.9        | 2.5          | (2.7)        |
| <b>Services</b>  | <b>4.0</b> | <b>3.2</b> | <b>1.7</b> | <b>(3.2)</b> | <b>(2.4)</b> |

Source: Thailand Office of the National Economic and Social Development Board (2009)

**Table 7D: The Philippines**

| Sector                               | 2008Q1     | 2008Q2     | 2008Q3     | 2008Q4     | 2009Q1     |
|--------------------------------------|------------|------------|------------|------------|------------|
| Transport, storage, & communications | 6.7        | 3.3        | 1.5        | 2.6        | 4.1        |
| Trade                                | 6.8        | 4.3        | 4.2        | 4.9        | (0.2)      |
| Finance                              | 12.9       | 2.4        | 1.3        | 4.6        | 0.2        |
| Owners dwellings & real estate       | 5.8        | 7.3        | 6.6        | 6.5        | 1.8        |
| Private services                     | 5.1        | 6.2        | 5.2        | 5.4        | 2.9        |
| Government services                  | 3.5        | 2.4        | 3.3        | 7.7        | 0.0        |
| Electricity, gas, & water            | 10.4       | 7.8        | 9.7        | 5.5        | 1.0        |
| <b>Services</b>                      | <b>7.1</b> | <b>4.5</b> | <b>4.2</b> | <b>4.9</b> | <b>1.4</b> |

Source: Philippine National Statistical Coordination Board (2009)

**Table 7E: Indonesia**

| Sector                          | 2008Q1     | 2008Q2     | 2008Q3     | 2008Q4     | 2009Q1     |
|---------------------------------|------------|------------|------------|------------|------------|
| Trade, hotels, & restaurants    | 6.87       | 8.11       | 8.42       | 5.55       | 0.60       |
| Transport & communications      | 18.33      | 17.31      | 15.53      | 15.82      | 16.70      |
| Finance, ownership, & business  | 8.34       | 8.66       | 8.60       | 7.42       | 6.30       |
| Services (government & private) | 5.85       | 6.74       | 7.19       | 6.01       | 6.80       |
| Electricity, gas, & water       | 12.35      | 11.77      | 10.41      | 9.34       | 11.42      |
| <b>Services</b>                 | <b>8.9</b> | <b>9.5</b> | <b>9.7</b> | <b>7.9</b> | <b>6.1</b> |

Source: BPS-Statistics Indonesia (2005-2008)

### 3.1.1 Singapore

The services industry in Singapore had been growing at a rate of 7.5% per annum throughout the first two quarters of 2008. Growth slowed to 5.5% in the third quarter and, as the global crisis deepened, fourth quarter growth in the services sector registered at -1.3%. This contraction continued to worsen, as evidenced by the sector's -4.9% growth rate during the first quarter of 2009.

Except for information and communications, business services, and other services industries, all the major services subsectors experienced large declines due to the collapse of global trade in early 2009. Tourist arrivals also slumped, affecting the tourism-related services subsectors. Wholesale and retail trade contracted by 15.1% in the first quarter of 2009, a result worse than the previous quarter's contraction of 5.3%. In the same period, transport and storage contracted by 10.0%, hotels and restaurants by 4.9%, financial services by 8.2%, and utilities by 2.6%.

### 3.1.2 Malaysia

Malaysia's services sector recorded growth of around 8.0% in the first and second quarters of 2008, which slowed to 7.1% in the third quarter and 5.7% in the fourth quarter. The sector experienced a marginal contraction (a growth rate of -0.1%) in the first quarter of 2009 as the contractions in wholesale and retail trade (-1.7%); transport and storage (-3.9%); real estate and business services (-6.7%); and electricity, gas, and water (-8.2%) outpaced the growth registered in accommodation and restaurants, finance and insurance, government services, and other services.

### 3.1.3 Thailand

Thailand's services sector grew by 4.0% in the first quarter of 2008. This rate slowed to 3.2% in the second quarter and to 1.7% in the third quarter. During the fourth quarter, the sector contracted by 3.2% and it contracted by a further 2.4% in the first quarter of 2009.

Contraction in the last two quarters of 2008 was registered in the following subsectors: wholesale and retail trade; hotels and restaurants; transport, storage, and communications; and real estate and business. In the first quarter of 2009, contractions were also witnessed in electricity, gas, and water and other community, social, and personal services industries. Modest positive growth rates were recorded in financial intermediation, public administration, and health and social work.

### **3.1.4 The Philippines**

The Philippines' services sector grew by 7.1% in the first quarter of 2008, a rate which slowed to 4.5% in the second quarter and then to 4.2% in the third quarter. Although it increased to 4.9% in the fourth quarter, it fell sharply to 1.4% in the first quarter of 2009. Wholesale and retail trade contracted marginally by 0.2%. Except for transportation, storage, and communications, which grew by 4.1% in the first quarter of 2009, growth in the remaining services subsectors slowed down. Private services and owners' dwellings and real estate registered a growth rate of 2.9%; electricity, gas, and water recorded 1% growth in the same quarter, finance posted 0.2% growth while government services reported zero growth.

### **3.1.5 Indonesia**

Indonesia's services sector posted the highest growth rates in the region and did not suffer as badly as other countries in the region. Performing relatively well, services grew by 8.9% in the first quarter of 2008. This rate increased to 9.5% in the second quarter of 2008 and to 9.7% in the third quarter. Growth slowed to 7.9% in the fourth quarter of 2008 and to 6.1% in the first quarter of 2009. Transportation, storage, and communications recorded the fastest growth rate of 16.7% in the first quarter of 2009, followed by the electricity, gas, and water subsector which grew by 11.4%. In the same quarter, finance, real estate, and business services, together with government and private services, registered growth rates of 6.3% and 6.8% respectively. Trade, hotels, and restaurants also managed to grow, albeit marginally, by 0.6%.

## **3.2 ASEAN's Stimulus Packages and Growth Rebalancing Model: Implications for Services**

In most countries, the immediate response to the global financial crisis was to safeguard banking and financial systems. Central banks acted to increase liquidity and ease credit and monetary policy. Interest rates and reserve requirement ratios declined in most developing countries in the region. Governments also injected liquidity and intervened to smooth volatility in foreign exchange markets. Several governments increased deposit insurance coverage and issued blanket guarantees for the liabilities of deposit-taking institutions.

Fiscal policy has been the main focus, with spending on infrastructure accounting for the bulk of stimulus packages in most countries (Table 8). Singapore allocated S\$4.4 billion for infrastructure, health, and education. Malaysia's second stimulus package included RM7 billion for public-private partnerships and other off-budget projects such as low cost carrier terminals and airport expansion. Thailand approved a B1.57 trillion package as part of its Phase II stimulus package for infrastructure projects. The Philippines announced a P160 billion fund to finance government employment, rehabilitation of public buildings, social services, and infrastructure development.

**Table 8: ASEAN Countries' Fiscal Stimulus Packages—Size and Major Components**

| Country     | Amount/Size   | Major Components  |
|-------------|---|---|
| Indonesia   | Rp73.3 trillion<br>(1.4% of GDP)  | <b>Labor-intensive infrastructure development projects</b> ; corporate tax incentives, guarantees, and discounts; personal tax incentives and subsidies; pay increases for government employees; and direct cash transfers  |
| Malaysia    | First package<br>of RM7 billion<br>(1.0% of GDP)<br><br>Second<br>package of<br>RM60 billion<br>(9.0% of GDP) | Construction of homes for low- and medium-income groups; subsidized loans to the private sector, <b>repairs, upgrades, and maintenance for public facilities</b> ; skills enhancement programs and job creation (163,000 jobs); RM25 billion in guaranteed funds to provide companies with easier access to capital; a RM15 billion increase in direct budget spending, of which RM10 billion was allocated for 2009; RM10 billion for equity investments in various sectors by the Government's investment holding company; <b>RM7 billion for public-private partnerships and other off-budget projects, such as the low-cost carrier terminal at Kuala Lumpur International Airport and expansion of Pulau Pinang airport; and RM3 billion in tax incentives</b> |
| Philippines | P330 billion<br>(4.1% of GDP)   | <b>P160 billion to fund government employment, rehabilitate public buildings, provide social services, finance infrastructure development</b> , and support various agriculture programs; <b>a P100 billion infrastructure fund</b> to be pooled from government corporations, financial institutions, and the private sector; P40 billion in corporate and individual income tax cuts; P30 billion in temporary additional benefits from social security institutions; and re-integration services and livelihood assistance programs amounting to P250 million for returning/displaced overseas Filipino workers  |
| Singapore   | S\$20.5 billion<br>(8.2% of GDP)  | S\$5.1 billion for employee training and job preservation; S\$5.8 billion in bank lending; S\$2.6 billion for tax measures and grants to improve cash flow and firms' competitiveness; S\$2.6 billion for cash, utility, and tax rebates (personal income, property, and goods and service credits); <b>S\$4.4 billion for infrastructure, health, and education</b> ; S\$2.3 billion package to improve access to credit for businesses; and an additional 50% increase in utility rebates and a second installment of growth dividends  |
| Thailand    | B158 billion<br>(1.6% of GDP)   | B2,000 cash handouts for low-income earners; <b>subsidies for education, utilities, and transport; rural development programs</b> ; tourism promotion; low interest loans; funding for small firms; B40 billion in tax cuts, mainly targeting small businesses, the tourism industry, and real estate market; additional B1.07 billion for cash transfers for low-income households; short-term credit facility allowing state enterprises to borrow up to B200 billion from domestic commercial banks; <b>B1.57 trillion fiscal stimulus package for 2010–2012 as a part of Phase II of the Government's economic stimulus package for infrastructure projects</b>   |
| Viet Nam    | D105 trillion<br>(5.8% of GDP)  | <b>Public spending</b> , tax breaks, and other measures; D17 trillion to be used to subsidize loans for companies that export, import, or produce products essential to the economy; corporate income tax rates reduced by 30% for small- and medium-sized enterprises for the fourth quarter of 2008 and all of 2009; the value-added tax on certain goods and services cut by 50% until the end of 2009; provision of a one-time 4% interest rate subsidy on short-term bank loans (up to 8 months) for poor households and firms; and deferred the implementation of a new tax law until May 2009 to boost domestic consumption  |

Source: ADB Asia Capital Market Monitor April 2009.

Malaysia and Singapore have the highest ratios of stimulus spending to GDP at around 9% (second package) and 8% respectively. For Viet Nam, the ratio of stimulus spending to GDP is 5.8%, while for the Philippines, Thailand, and Indonesia the ratio is less than 5%. It is also important to note that most of the ASEAN countries' stimulus packages have not given much

attention to either social spending in health care and education or to incentives for environmentally-friendly technologies, both of which could pave the way for the development and growth of new service products. In terms of magnitude, ASEAN's stimulus packages are small, especially when compared with the People's Republic of China (PRC). The PRC's stimulus package is the largest in the region and amounts to a total of CNY4 trillion, representing 12.6% of GDP. Overall, the stimulus plans are considered too small and even the relatively strong package of the PRC is not considered enough to cover the output gap (Park 2009; ADB 2009b). At these levels, the stimulus packages are expected to have a weak impact on economic growth and may even be counterproductive for those countries with a lack of fiscal space and a weak institutional and absorptive capacity for managing the stimulus.

Aside from a careful expansion of fiscal and monetary stimuli in the short run, a more lasting solution to both minimize the impacts of the crisis and make economies more resistant to future global shocks would be for Asia to rebalance its growth model. This would entail the implementation of policies aimed at boosting domestic consumption-led demand and infrastructure investment and improving health and social security programs, as well as the promotion of policies aimed at shifting the production structure towards service industries (ADB 2009b). Park (2009) defined growth rebalancing as including policies that would induce investment away from export-oriented sectors and towards nontradables sectors and social and physical infrastructure, as well as measures that would establish efficient systems of social protection, public and private pensions, public health, education systems, and support environmental protection and green strategies to boost demand for new services. With its central focus on the services sector, a sector that is deemed to still contain a large nontradable component despite its increased tradability, the growth rebalancing model could spur faster growth within the services sector and tap its potential to become another engine of growth for the economies in the region.

In particular, the growth rebalancing model's focus on the provision of infrastructure and social services such as health and education is necessary to address the large investment backlog in these sectors. Investments in education and health are crucial, particularly since skilled workers are of paramount importance not only to the growth of the services sector but also to the growth of other economic sectors. The ADB and Asian Development Bank Institute (ADBI) (2009) estimated the total infrastructure needs for the Asian region to be US\$7.99 trillion for the period 2010–2020, covering energy, telecommunications, transportation, and water and sanitation.

As a result of the development of new technologies, some degree of competition has been introduced into sectors that were previously considered natural monopolies. Thus, whilst most infrastructure projects have been financed by governments, some countries have implemented regulatory reforms that have allowed private sector participation in some projects. Changes in the regulatory environment and contractual requirements have facilitated the emergence of a variety of public-private partnerships geared toward the provision of infrastructure services such as those for energy and water. However, there has been a decline in investments in public-private partnerships since the 1997 Asian financial crisis. To encourage and renew interest in infrastructure investment in the region, ADB (2009b) has emphasized the role of governments in creating an enabling environment, and particularly in maintaining a competitive bidding process, pursuing appropriate risk allocation, and creating a stable policy regime.

The growth rebalancing model's emphasis on environmental protection, low carbon growth, and green strategies focuses attention on new areas of services investment where ASEAN countries could develop market niches. The governments of ASEAN countries could take advantage of the opportunities arising from these new growth areas by providing support and pursuing policies that would encourage investment in green industry for low carbon growth. Potential policy initiatives include increasing research and development,

strengthening mechanisms for the transfer of green technology, and encouraging greater private sector participation.

## **4. THE REGULATORY AND POLICY ENVIRONMENT AFFECTING THE SERVICES SECTOR AND THE NEED FOR REFORMS**

### **4.1 Competition and Productivity**

Improving the productivity of the services sector is important for enhancing economic growth. To understand the factors that hinder the growth of productivity in this sector, it is important to examine the policy and regulatory environment that affects the sector's growth and development. In most cases, the services sector has been more heavily regulated than manufacturing and this is likely to have reduced competition. As mentioned earlier, subsectors such as electricity, transportation, and telecommunications, which are crucial for competitiveness, have important network externalities. Thus they require regulatory policies that can ensure markets remain contestable.

The growth rebalancing model's focus on the domestic services sector, and this sector's role as another major driver of growth, requires deep structural changes that would shift production towards the services sector and make services more dynamic, competitive, and efficient. To achieve this, increasing competition by removing barriers is crucial.

The empirical literature on the impacts of services liberalization shows that policy reforms that increase competition and improve regulatory oversight lead to improved performance in the industries concerned (Hoekman 2006). Assessing the impact of policy reforms in the telecommunications sectors across 86 developing countries in Africa, Asia, the Middle East, Latin America, and the Caribbean, Fink, Mattoo, and Rathindran (2003) found that privatization and competition led to significant improvements in performance. The authors pointed out that a reform program supported by an independent regulator produced the largest gains, an 8% higher level of mainlines, and a 21% higher level of labor productivity when compared to years of partial or no reform.

### **4.2 Barriers to Services**

Unlike goods, services, which are generally intangible, do not have tariffs. Instead, service industries are characterized by government-imposed restrictions such as the regulation of both market access and the nature and scope of operations of service providers. Considerations relating to consumer protection, high fixed (sunk) costs (increasing returns to scale), prudential supervision, and regulatory oversight, often induce governments to put in place measures that regulate the cross-border trade in services, require domestic establishment by foreign providers in certain service sectors, or reserve activities for government-owned or controlled entities (Hoekman 2006).

In general, barriers to trade in services are classified in terms of whether they restrict market access in general (e.g., a policy that limits the number of service providers) or specifically affect foreign services suppliers by refusing them national treatment (e.g., a policy that limits foreign equity ownership). Regulatory restrictions can reduce competition and efficiency in the services sector. Entry barriers reduce competition and allow incumbent firms to engage in rent-seeking behavior. The maritime industry, for instance, continues to be characterized by imperfect competition as manifest in exemptions from antitrust laws for liner conferences, cargo reservation schemes, restrictions on the foreign ownership of ports, and bans on foreign participation in cabotage. Assessing the implications of imperfect competition in international shipping for the gains from trade in goods, Francois and Wooton (2006)

concluded that, at the extreme, monopolization of trade routes can result in up to half the gains from trade liberalization being lost, as shippers take advantage of their increased market power to increase prices. Analyzing the impact of maritime liner arrangements and restrictive practices on transport prices for goods shipped to the US from developing countries, Fink, Mattoo, and Neagu (2005) concluded that private anticompetitive practices appear to have a larger impact on prices than government policies restricting foreign competition, although the latter are also statistically significant determinants of prices.

Other types of restrictions prevent firms from operating efficiently and push up business costs. Looking at the impact of government restrictions in the distribution sector across 18 Organisation for Economic Co-operation and Development (OECD) countries, Kalirajan (2000) concluded that policies regulating operating conditions (employment, operating sizes, etc.) generate inefficiencies that lead to increases in real resource costs for business. Kalirajan's results showed estimated cost increases of up to 8%.

#### **4.2.1 Services Restrictions in the Nontradable Subsectors: Wholesale and Retail, Transport, Communication, Health, and Education**

Currently, ASEAN aims to create a single market for services. Since 1997, ASEAN has emphasized the need to liberalize services trade through the adoption of the ASEAN Framework on Trade in Services (AFAS). Under AFAS, some progress has been achieved in the liberalization of financial services and air transport services (Kumar 2008), at least based on the countries' written commitments vis-à-vis their commitments under the General Agreement on Trade in Services (GATS). Many studies, however, have concluded that the AFAS is not particularly liberalizing when compared with GATS commitments, and is not providing much impetus for the liberalization of trade in services within ASEAN (Corbett 2008) because the written commitments for services liberalization are for areas that are already de facto open and liberalized. In other words, the actual situation is merely being 'codified' through the written commitments, but, in most cases, ASEAN countries have remained protective of their services sectors. Moreover, it is difficult to track what has actually been achieved in terms of liberalization within the countries as data is not readily available and it is difficult to compare implementation against commitments (Australia-Japan Research Centre 2008). Still, we posit that the AFAS and the ASEAN Free Trade Area (AFTA) have slowly shifted mindsets in the private sector toward the goal of providing services to the region rather than merely being focused on domestic markets.

The most recent ASEAN Economic Community Blueprint calls for the substantial removal of restrictions on trade in services for air travel, e-ASEAN, healthcare, and tourism by 2010, in logistics by 2013, and in all other services sectors by 2015. Although the ASEAN countries have pursued unilateral reforms such as privatization, deregulation, and liberalization in their services sectors, empirical studies show that entry barriers continue to remain significant.

##### **4.2.1.1 Wholesale and Retail Trade**

In the wholesale and retail trade sector, restrictions are normally imposed through government regulation and can apply either to both domestic and foreign distributors or only to the latter. These restrictions can include zoning restrictions, licensing requirements, limits on store sizes and opening hours, and investment hurdles. There are also "private sector practices," such as strong buyer-supplier networks in industry, which may act as barriers to competition. Based on government restrictions on trade in distribution services, Kalirajan (2000) calculated trade restrictiveness indices for distribution sectors and found Indonesia, Malaysia, the Philippines, and Thailand to be among the most restrictive economies. These restrictive economies were characterized by stringent establishment regulations, such as restrictions relating to the acquisition of commercial land, foreign direct investment, and large-scale stores. Competition issues also emerged, for instance in Indonesia the Commission for Supervision of Business Competition (KPPU) announced that it would investigate allegations of monopolistic practices by the local arm of French retail giant

Carrefour SA.<sup>7</sup> Following the methodology of Kalirajan, the Australia-Japan Research Centre (2008) found Malaysia to be the most restrictive economy, followed by Thailand and Indonesia. Table 9 summarizes the regulations and restrictions put in place by ASEAN governments that affect the establishment and operations of firms in the wholesale and retail trade subsector.

**Table 9: Restrictions and Regulations on Wholesale and Retail Trade**

| Country     | Government Restrictions/Regulations   |
|-------------|---|
| Malaysia    | <ul style="list-style-type: none"> <li>For all foreign direct investments (FDIs), at least 30% equity for indigenous Bumiputera people is required.</li> <li>FDI is not allowed in some retail operations such as supermarkets (400 to 2,000 square meters sales floor area); convenience stores (open 24 hours); and petrol kiosks with/without convenience store.</li> <li>Department stores, supermarkets, and hypermarkets must reserve at least 30% of their shelf space for goods produced by Bumiputera-owned small and medium size industries.</li> <li>New hypermarkets must meet minimum conditions such as 3.5 km away from urban centers and car parking provisions; a freeze on the issuance of licenses for hypermarkets in certain areas for five years until 2009.</li> </ul> |
| Thailand    | <ul style="list-style-type: none"> <li>Introduced new measures to regulate expansion of retail stores: under the draft Retail and Wholesale Business Law, local governments would assess and approve any proposed new retail stores in their provinces. The new law also set the criteria for establishing new stores such as zoning, distance between stores, size of sales area, and land use.</li> <li>FDI in wholesale and retail services is allowed upon approval by the Ministry of Commerce and equity participation is generally up to 49%.</li> <li>FDI is not allowed in smaller retail and wholesale operations below a minimum capital threshold.</li> </ul>   |
| Indonesia   | <ul style="list-style-type: none"> <li>Foreigners and foreign-owned companies are not allowed to own land; foreign direct investment companies (Penanaman Modal Asing or PMA-Company) have certain restricted land rights.</li> <li>Foreign investment is not allowed in certain retail and wholesale categories such as retail operations other than supermarkets, department stores, hypermarkets, and the like, and wholesale based on fee or contract.</li> <li>Foreign investment up to 100% foreign equity is allowed in distribution categories open to foreign investment, with the condition that the investor enters into a partnership agreement with a small-scale Indonesian enterprise.</li> <li>Zoning restrictions on large retail stores.</li> </ul>                         |
| Philippines | <ul style="list-style-type: none"> <li>Foreigners are not allowed to own land but can lease for a maximum of 75 years.</li> <li>Foreign investment is not allowed in certain categories such as retail trade enterprises with paid-up capital of less than US\$2.5 million or less than \$250,000 for retailers of luxury goods. Full foreign participation is allowed for</li> </ul>   |

<sup>7</sup> Carrefour SA is allegedly charging the supermarket's stallholders excessive rental fees. It is also alleged to have gained an unfair advantage through its acquisition of mini-market retailer PT Alfa Retailindo Tbk.

retail trade enterprises with paid-up capital above these levels.

- Foreign investors are also required to comply with performance requirements: the Retail Trade Liberalization Act 2000 requires foreign retailers, for ten years after the bill's enactment, to source at least 30% (for retail enterprises capitalized at no less than US\$2.5 million) or 10% (for those specializing in luxury goods) of their inventory, by value, in the Philippines.
- Viet Nam
- Restrictions are progressively being lowered. Prior to 2008, foreign commercial presence was allowed in commission agents' services, wholesale services, retail services, and franchising, subject to a foreign equity limit of 49%.
  - From 1 January 2008 to 1 January 2009, equity limitation on foreign ownership was removed, although foreign investment had to be in the form of a joint venture with a domestic partner.
  - After 1 January 2009, the joint venture requirement was eliminated and 100% foreign-owned entities allowed.
  - Establishment of outlets for retail services is subject to an economic needs test based on criteria that include the number of existing service suppliers in a particular geographic area, stability of markets, and geographic scale.
  - Investment projects are screened for location, land use requirements, investment scale, investment capital, project implementation schedule, and technical or environmental solutions.
- Brunei Darussalam
- Foreign ownership of land is not allowed.
  - Foreign equity holdings are generally limited to 49%, but investments made through negotiations with the Brunei Economic Development Board can allow for 100% foreign equity.
- Singapore
- Slight restrictions on commercial land acquisition: land is sold on a 99-year lease for commercial properties and 60 to 99 years for industrial property.
  - Special import licenses are required for certain goods, including films and videos, agricultural biotech products, prescription drugs, over the counter drugs, and cosmetics/skin care products.

Source: Australia-Japan Research Centre (2008)

#### 4.2.1.2 4.2.1.2 Maritime Transport and Port Services

Restrictions in maritime services are typically imposed by governments through regulation or legislation. Restrictions are often found in shipping and/or ports and affect both domestic and foreign firms. In the ASEAN and East Asian region, the New Zealand Institute of Economic Research (NZIER) 2008 study identified restrictions in the form of: requirements demanding a commercial presence in domestic markets; foreign equity limits; prohibitions regarding cabotage (coastal shipping) services; the mandatory use of port services such as towing and pilotage; limitations on the right to fly and operate under national flags; and requirements that only national vessels be used to transport non-commercial cargo.

The Philippines and Thailand impose foreign equity limits on shipping and onshore services while Malaysia and Indonesia require foreign maritime service suppliers to have a domestic commercial presence in the form of a joint venture. Moreover, in Malaysia the transportation of non-commercial cargo must be carried out by government-approved vessels and in Indonesia non-commercial cargo must be transported by the government-owned shipping service.

Hollweg and Wong (2009) pointed out that Viet Nam maintains high restrictions on its maritime services sector. Port services are provided exclusively by domestic enterprises and this leads to a highly discriminatory environment. Viet Nam does not allow direct sailing of foreign flags (foreign flags can only sail to gateway ports). Viet Nam is also one of the few countries that practices cargo reservation, together with Indonesia, Malaysia, and the Philippines. The same study also showed the monopolistic structure of public ports in the Philippines, which are controlled by the Philippine Ports Authority (PPA). The PPA acts as both landlord and regulator. It leases selected berths and storage facilities to private operators and grants cargo-handling licenses to stevedoring companies that operate on common-user facilities. Cargo handling is also monopolized under a Philippine policy which limits the number of cargo handlers to a maximum of two in any port, except for Manila's.

To measure the level of restrictiveness placed on suppliers of maritime services, the NZIER study calculated domestic and foreign restrictiveness indices. The domestic index measures all restrictions placed on suppliers of maritime services, regardless of whether they are domestic or foreign suppliers. The foreign index measures all the restrictions placed on foreign firms. The results indicated that the Philippines, Indonesia, and Thailand are the most restrictive countries in ASEAN. Malaysia is highly restrictive on both foreign and domestic firms, while Singapore is the least restrictive. In terms of the specific types of restrictions that contribute most to the foreign indices, the study indicated the following restrictions: conditions on the right to fly the national flag, requirements for commercial presence, restrictions on cabotage, and the requirement to use national vessels for the transportation of non-commercial cargo.

An earlier study by McGuire, Schuele, and Smith (2000) calculated restrictiveness indices for 35 countries (including the ASEAN countries). This study found that among the ASEAN+6<sup>8</sup> countries, the Philippines and Thailand had the highest foreign restrictiveness indices (along with India and the Republic of Korea [hereafter Korea]), while Singapore had the lowest (along with Australia and New Zealand). It also indicated that for the ASEAN+6 countries, the restrictions on ongoing operations make up on average 60% of the foreign index, including restrictions on both cabotage and the transportation of non-commercial cargo. The right to fly the national flag makes up on average 20% of the foreign index for the ASEAN+6 countries.

#### 4.2.1.3 Postal and Courier Services

Restrictions in the postal services sector relate mainly to the monopoly position of the state. The rationale behind putting postal services under state control is to ensure universal provision at low cost to consumers, which may involve cross-subsidization between profitable and unprofitable market segments. Few countries have fully ended monopoly rights for the supply of public postal services (NZIER 2008). The NZIER study indicated that monopoly rights have been removed only in Singapore, Japan, and New Zealand. In the case of Singapore, Singapore Post holds a license to provide postal services, including local and international letter and postcard collection and delivery services, for 25 years from 1992 to 2017. This license was exclusive until March 2007. Currently there are two types of postal licenses: (i) postal services operators designated as Public Postal Licensees with universal service obligations and (ii) all other postal services operators irrespective of their services scope. Any domestic or foreign provider can enter the market but there have been no new entrants to the market thus far.

State-owned monopolies are still in place in Brunei Darussalam, Cambodia, Indonesia, the Lao PDR, Myanmar, the Philippines, Thailand, and Viet Nam. In Malaysia, an exclusive license has been given to the government monopoly, Pos Malaysia Berhad. With regard to courier (parcel delivery or expedited mail) services, domestic restrictions include zoning restrictions, interconnection restrictions, and establishment restrictions, while foreign

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<sup>8</sup> ASEAN + the PRC, India, Japan, Korea, Australia, and New Zealand.

restrictions include quotas and licensing fees. Indonesia, the Lao PDR, Singapore, and Thailand require licensing. Common restrictions to foreign entry include foreign investment and ownership regulations and capital requirements.

#### 4.2.1.4 Health Services

Health services include the provision of medical services inside a hospital or laboratory setting.<sup>9</sup> Arunanondchai and Fink (2007) surveyed policy barriers affecting private investment in health services in seven ASEAN countries. These barriers include mostly foreign equity limitations, economic needs tests, and various performance requirements (Table 10).

**Table 10: Policy Restrictions in Health Services**

| Country     | Policy Barriers  |
|-------------|--|
| Cambodia    | <ul style="list-style-type: none"> <li>• Full foreign ownership allowed; one director must be Cambodian</li> </ul>   |
| Indonesia   | <ul style="list-style-type: none"> <li>• Full foreign ownership is allowed according to investment policy, however, the Ministry of Health states that there is a 90% foreign equity limitation</li> </ul> |
| Lao PDR     | <ul style="list-style-type: none"> <li>• Full foreign ownership allowed</li> </ul>   |
| Malaysia    | <ul style="list-style-type: none"> <li>• 30% foreign equity limitation (although foreign equity in one hospital exceeds 30%)</li> <li>• Economic needs test</li> <li>• Minimum of 100 beds</li> </ul>      |
| Philippines | <ul style="list-style-type: none"> <li>• Foreign equity ownership limited to 40% for hospitals</li> <li>• Full foreign ownership allowed for health maintenance organizations</li> </ul>                   |
| Thailand    | <ul style="list-style-type: none"> <li>• Foreign equity ownership limited to 49%; can be circumvented by assigning 'nominees'</li> <li>• Compliance with local regulations required</li> </ul>             |
| Viet Nam    | <ul style="list-style-type: none"> <li>• Full foreign ownership allowed in principle</li> <li>• Economic needs test</li> <li>• Transfer of technology and training of staff required</li> </ul>            |

Source: Arunanondchai and Fink (2007).

#### 4.2.1.5 Telecommunications

Although the telecommunications sector has been substantially liberalized in most ASEAN countries, resulting in greater competition, discriminatory restrictions still remain (Table 11). In Malaysia, foreign equity restrictions tend to benefit the dominant provider, government-controlled Telekom Malaysia, and hamper the development of a more efficient information infrastructure. In the Philippines, foreign firms are reluctant to invest in more capital-intensive applications such as broadband without majority control. In Thailand, competition and regulation issues, such as the phasing out of the "concession" system, the privatization of the state-owned Telephone Organization of Thailand (TOT) and CAT Telecom, and the enforcement of interconnection obligations vis-à-vis these two operators, are still to be resolved. Although the National Telecommunications Commission has made progress in licensing new operators in some subsectors (e.g., internet access and private networks), it has yet to authorize full-fledged competition to the fixed domestic and international voice and data services offered by TOT and CAT Telecom.

**Table 11: Policy Barriers in Telecommunications Sectors**

| Country   | Policy Barriers  |
|-----------|--|
| Indonesia | <ul style="list-style-type: none"> <li>• New investment regime published in June 2007 introduced tighter foreign investment restrictions for certain telecommunications sectors: up to 65% for mobile telephone companies and 49% for fixed line networks</li> <li>• WTO commitments on various telecommunications services include a</li> </ul> |

<sup>9</sup> The provision of health services outside a hospital in a professional clinic or on the premises of an individual professional is covered under medical professional services.

|             |   |
|-------------|---|
|             | commitment to pro-competitive regulatory disciplines, however, these are subject to significant market access and national treatment limitations including foreign investment limitations to only 35%   |
| Malaysia    | <ul style="list-style-type: none"> <li>• Foreign companies are entitled to acquire only up to a 30% equity stake in existing fixed line operations as well as in value-added services</li> <li>• New licensing categories were introduced allowing up to 49% foreign equity in suppliers categorized as “application service providers” (but what this category encompasses is unclear)</li> </ul>  |
| Philippines | <ul style="list-style-type: none"> <li>• The Philippine Constitution limits foreign ownership to 40%</li> <li>• Foreigners are restricted from serving as executives or managers of telecommunications companies</li> <li>• The proportion of foreign directors in telecommunications companies may not exceed that of the foreign component of a company's capital stock</li> <li>• Foreign equity in private radio communications networks is constitutionally limited to 20%</li> <li>• Operation of cable television and other forms of broadcasting and media are also reserved for Philippine nationals.</li> </ul> |
| Viet Nam    | <ul style="list-style-type: none"> <li>• Foreign ownership limitations in joint ventures that range from 49% to 70%, depending on the subsector (investment in private networks up to 70% is permitted). In three years, foreign ownership limits for all other non-facilities based services will be relaxed up to 65%</li> </ul>  |

Source: Office of the US Trade Representative (2009)

#### 4.2.1.5 Education

Overall, countries aim to achieve efficient education services. With rapid changes in technology and communication, the process of internationalization of higher education has been accelerated. The Philippines, Malaysia, Singapore, and Indonesia are fast emerging as exporters of education services in the region (Raychaudhuri and De 2007). Prestigious foreign universities have set up branches in Malaysia. Twinning programs and franchising arrangements with foreign universities from the UK, US, and Australia are also taking place in Singapore, Malaysia, Thailand, and to some extent even in Indonesia and the Philippines.

While opening up the education services market is necessary to reduce costs, improve the quality of education, and provide gains in terms of innovation and greater student access, challenges continue to confront countries. Dessus (2001) pointed out that differences in quality can be attributed to differences in educational infrastructure, initial endowment of human capital, and the ability to distribute services. The author argued that keeping expenditures at existing levels and giving priority to primary education would be more beneficial than giving secondary education to a select few.

Mutual recognition of education services is still limited and there exist considerable differences in terms of standards and content of educational services within the region. Due to differences in educational systems, language, and culture, most countries have been wary of opening up their education services subsectors. Barriers to service provision persist at the primary, secondary, and tertiary levels. These barriers include the non-recognition of degrees and qualifications by governments and/or private sectors, restrictions on commercial presence and/or investment, restrictions on the import of electronically produced educational material and the electronic transmission of course material, non-recognition of courses completed through distance education, quality assurance and accreditation problems with some education institutions who claim to be partnering with foreign institutions, differing visa requirements and employment regulations across countries, competition between public and private providers, and perceived potential threats to cultural values and national traditions. Table 12 provides a list of some barriers to higher education service provision in Southeast Asia.

**Table 12: Barriers to Higher Education Services Provision in Southeast Asia**

|   |
|---|
| • Restrictions on import of electronically-produced educational material                              |
| • Restrictions on electronic transmission of course material  |
| • Non-recognition of degrees obtained through distance mode   |
| • Insistence on a local partner   |
| • Insistence that the provider be accredited in the home country                                      |
| • Insistence on partner/collaborator being from the formal academic stream                            |
| • Insistence on equal academic participation by foreign and local partners                            |
| • Disapproval of franchise operations   |
| • Restrictions on certain disciplines/areas/programs that are deemed to be against national interests |
| • Limitations on foreign direct investment by education providers                                     |
| • Difficulty in approval of joint ventures  |
| • Visa and entry restrictions   |
| • Restriction on basis of quota for countries and disciplines   |
| • Nationality or residence requirements   |
| • Restrictions on repatriation of earnings  |

Source: Knight (2006).

## 5. CONCLUSIONS AND SOME BROAD POLICY SUGGESTIONS

The services sector has become an important and continuously expanding provider of both output and employment among the ASEAN countries. During the period 2000–2007, this sector contributed more than 40% of total value added in Singapore, Malaysia, the Philippines, Thailand, Indonesia, Viet Nam, and Cambodia. In terms of employment, the sector represented more than 40% of total employment in Singapore, Indonesia, Malaysia, and the Philippines.

In terms of the contribution to value added by the major services subsectors in Singapore and Malaysia, their service sectors are dominated by finance, insurance, and business. For the rest of the countries except Brunei Darussalam, the services sector is largely concentrated in wholesale and retail trade. In terms of growth in value added, on average the fastest growing sector is finance in Brunei Darussalam, Malaysia, and Myanmar; wholesale and retail trade in Singapore; electricity, gas, and water in Cambodia, the Lao People's Democratic Republic (Lao PDR), and Viet Nam; and transport and communications in Indonesia, the Philippines, and Thailand. In terms of employment contribution, the most important services subsector is wholesale and retail trade in all countries except Singapore, where finance is the largest services subsector.

In terms of performance, labor productivity calculations highlight the following: *first*, for the overall services sector, a large and growing labor productivity gap exists between Singapore and the rest of the ASEAN countries; *second*, disparities in labor productivity also separate the ASEAN 4 countries from Viet Nam and Cambodia; *third*, Indonesia and the Philippines were characterized by strong labor productivity growth from the 1990s to the 2000s, with Viet Nam catching up as it showed marked signs of improvements in its growth; and *finally*, electricity, gas, and water; finance, insurance and business; and transport, storage, and communications exhibited the highest average labor productivity levels and growth during the two periods. These sectors are skill- and capital-intensive, and information and communications technology (ICT), producer and user subsectors.

Currently, except for Singapore, ASEAN countries remain protective of their services sectors. Discriminatory and market access barriers still characterize services in general. The remaining restrictions include foreign equity limitations along with domestic regulations affecting business operations which often favor state-owned companies. In the wholesale

and retail trade subsector, Malaysia, Thailand, and Indonesia have been found to be the most restrictive. In the maritime transport subsector, the most restrictive countries are the Philippines, Indonesia, and Thailand (with Singapore being the least restrictive). In the postal services sector, monopoly rights have been removed only in Singapore. The empirical literature on the linkages between services liberalization and economic growth has shown that policy reforms geared to increase competition and improve regulatory oversight result in the improved performance of the services subsectors concerned. Except for Singapore, the overall, level of protection of services in ASEAN has remained high. Hence, the productivity gap in services between Singapore and the rest of ASEAN seems to have widened as indicated by the labor productivity calculations.

Chenery and Taylor (1968) point out that growth in the services sector and a decline in the agriculture sector are structural features of economic development. In Organisation for Economic Co-operation and Development (OECD) countries, services represent more than two thirds of economic activity (Fernandes 2007). As the preceding discussions of the structure and performance of the services sector suggest, there exists strong potential for services to drive future growth in the ASEAN region. However, these prospects are negatively affected by the current global crisis. After growing rapidly prior to the crisis, the services sectors in the ASEAN 5<sup>10</sup> countries have since exhibited either contractions or slowdowns. Quarterly growth rates from first quarter 2008 to first quarter 2009 show that services growth has contracted in Singapore, Malaysia, and Thailand and slowed down in the Philippines and Indonesia. While the ASEAN countries have allocated the bulk of their fiscal stimulus packages to infrastructure spending, levels of expenditure are still generally considered to be insufficient to create a large impact on growth.

The growth rebalancing model, which places the services sector on center stage, is important for restoring the momentum of productivity growth in services, reducing the productivity gaps in the region, and boosting the prospects for the future growth of the region's services sectors. To realize these goals, much depends on a more efficient and competitive services sector. Increased productivity in services sectors is crucial for the long-term economic growth prospects of countries.

It is also important to note that a more efficient services sector would also have indirect effects on economic growth by improving efficiency in other sectors of the economy. In this way, a shift toward developing services could, in turn, lead to an increase in aggregate productivity. For example, insofar as many service sectors provide inputs for the manufacturing sector, a competitive and efficient services market would contribute to the development of a more competitive and efficient manufacturing sector. Moreover, high-quality services could also result in increasing the attractiveness of a location for foreign direct investment.

One major challenge in transforming the services sector into an engine of growth in the ASEAN region is the need to introduce more competition to foster firm competitiveness and increase sector productivity. By focusing on the provision of infrastructure and social services such as health and education, governments can address the large investment backlog in these sectors. Investment in education and health are crucial, particularly since skilled workers are of paramount importance not only to the growth of the services sector but also to the growth of other economic sectors.

As a result of the development of new technologies, some degree of competition has been introduced into sectors that were considered natural monopolies in the past, such as telecommunications and airlines. Thus, while most infrastructure projects have been financed by governments, some countries have implemented regulatory reforms that allow private sector participation in infrastructure projects. Changes in the regulatory environment and contractual requirements have facilitated the emergence of a variety of public-private

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<sup>10</sup> The Philippines, Indonesia, Malaysia, Singapore, and Thailand.

partnerships geared toward the provision of infrastructure services such as energy and water services. To encourage and renew interest in infrastructure investment in the region, governments have an important role to play in creating an enabling environment, particularly in maintaining a competitive bidding process and a stable policy regime, and by pursuing appropriate risk allocation.

Some broad policy suggestions are outlined below:

**1) Increase government spending on infrastructure, health, and education services**

To increase the competitiveness of their services sectors, it is important for ASEAN governments to formulate government programs for infrastructure spending on constrained areas such as power, ports, roads, and mass transit, as well as for health and education services, to help boost private sector investment and strengthen the foundations of long-term productivity.

**2) Provide government support to promote green industry for low carbon growth**

ASEAN countries could take advantage of the opportunities arising from new growth areas by encouraging investments in green industry for low carbon growth. Government support could be provided by pursuing policies that encourage more research and development, strengthen mechanisms for the transfer of green technology, and promote greater private sector participation.

**3) Pursue deregulation and liberalization to strengthen competition, especially in transportation, and continue reforms in sectors like telecommunications and wholesale and retail**

Domestic regulations and discriminatory policies continue to create unnecessary costs for the supply of services. Given the extent of the restrictiveness of services policies and regulations, as discussed in the earlier section, there are substantial potential gains to be made from services deregulation and liberalization. To make markets more contestable it is important to liberalize policies and implement regulatory reforms by dismantling discriminatory and non-discriminatory restrictions against market access per se. When designing reforms, care must be exercised to determine their proper sequencing—should policymakers focus on domestic regulatory reforms first or the removal of discriminatory policies? What is the optimal mix of policies that could maximize gains from reforms? Hoekman (2006) pointed out that empirical evidence suggests that domestic regulatory reform needs to be put ahead of removing policies that discriminate against foreign firms, because the former is likely to generate larger welfare effects.

Apart from the removal of barriers to market entry in highly protected sectors like transport, continued liberalization should also be pursued in subsectors such as telecommunications. This would allow more information and communications technology penetration, which is crucial for improving the productivity of the services sector.

**4) Pursue market reforms in tandem with well-functioning competition and regulatory agencies**

To keep markets competitive, public intervention is required. For liberalization to be successful, effective implementation of competition law and policy is necessary. For recently deregulated or liberalized sectors such as energy or telecommunications, active competition policy is needed to prevent unfair practices such as the creation of cartels or the abuse of positions of dominance by ex-monopolies. Competitive pressure is also crucial to induce firms to adopt innovation, which is particularly important in the services sector, for example in wholesale and retail trade. Moreover, bringing in more competition is particularly crucial in sectors that are not internationally traded or are still sheltered through domestic regulation.

Reforms such as liberalization and deregulation also require substantial strengthening of domestic regulatory institutions. Regulation is needed in situations where competition is not workable, such as in services subsectors with natural monopoly segments like transport or electricity, gas, and water distribution. Services subsectors such as telecommunications, transport, and energy are important industries with network externalities. To ensure that markets remain contestable, an appropriate regulatory framework should be in place together with the capacity to implement it.

**5) Formulate country level domestic reform and structural assistance agenda for services**

A domestic reform agenda, incorporating a proper sequencing design, should be formulated, along with a competition and regulatory framework for the services sector. These initiatives should be accompanied by temporary incentive measures to assist firms with the adjustment from a protective to a more open regime. Without structural adjustment assistance, measures, and facilities, it will be difficult to restructure, particularly as there will be resistance from those set to lose from liberalization and deregulation. A well-designed structural adjustment program, which includes restructuring assistance and capacity building measures, could enable acceleration of the pace of reforms.

**6) Strengthen services data collection**

Given the paucity of data in relation to services, there is clearly a need to collect more services data at the subsector level and supplement the existing highly aggregated services subsector information. There is also a need for an inventory of regulatory policies in each subsector and an evaluation of the status of liberalization proceeding from either unilateral or preferential trade agreements.

**7) Carry out more empirical work on services**

The empirical literature on services is still thin. More research is needed, particularly to assess the impact of existing barriers to services on growth and to review the extent of liberalization carried out in the past and its effects. Studies are also needed to identify anti-competitive practices in the services sector and assess their impact. Studies such as these are also important inputs for creating a constituency for reforms.

## APPENDIX 1: INTERNATIONAL STANDARD INDUSTRIAL CLASSIFICATION OF ALL ECONOMIC ACTIVITIES REVISIONS 2 AND 3

### Revision 3

| ISIC Code | Subsector Description  |
|-----------|--|
| A         | Agriculture, hunting, and forestry   |
| B         | Fishing  |
| C         | Mining and quarrying   |
| D         | Manufacturing  |
| E         | Electricity, gas, and water supply   |
| F         | Construction   |
| G         | Wholesale and retail trade; repair of motor vehicles, motorcycles, and personal and household goods <ul style="list-style-type: none"> <li>• Sale, maintenance, and repair of motor vehicles and motorcycles; retail sale of automotive fuel</li> <li>• Wholesale trade and commission trade, excepting motor vehicles and motorcycles</li> <li>• Retail trade, excepting motor vehicles and motorcycles and repair of personal and household goods</li> </ul> |
| H         | Hotels and restaurants   |
| I         | Transport, storage, and communications <ul style="list-style-type: none"> <li>• Land transport; transport via pipelines</li> <li>• Water transport</li> <li>• Air transport</li> <li>• Supporting and auxiliary transport activities; activities of travel agencies</li> <li>• Post and telecommunications</li> </ul>  |
| J         | Financial intermediation <ul style="list-style-type: none"> <li>• Financial intermediation, excepting insurance and pension funding</li> <li>• Insurance and pension funding, excepting compulsory social security</li> <li>• Activities auxiliary to financial intermediation</li> </ul>  |
| K         | Real estate, renting, and business activities <ul style="list-style-type: none"> <li>• Real estate activities</li> <li>• Renting of machinery and equipment without operator and of personal and household goods <ul style="list-style-type: none"> <li>➤ Computer and related activities</li> <li>➤ Research and development</li> <li>➤ Other business activities</li> </ul> </li> </ul>  |
| L         | Public administration and defense; compulsory social security  |
| M         | Education  |
| N         | Health and social work   |
| O         | Other community, social, and personal service activities <ul style="list-style-type: none"> <li>• Sewage and refuse disposal, sanitation, and similar activities</li> <li>• Activities of membership organizations not elsewhere classified.</li> <li>• Recreational, cultural, and sporting activities</li> <li>• Other service activities</li> </ul>   |
| P         | Private households with employed persons   |
| Q         | Extra-territorial organizations and bodies   |

**Revision 2**

| ISIC Code | Subsector Description  |
|-----------|--|
| 1         | Agriculture, hunting, forestry, and fishing  |
| 2         | Mining and quarrying   |
| 3         | Manufacturing  |
| 4         | Electricity, gas, and water  |
| 5         | Construction   |
| 6         | Wholesale and retail trade and restaurants and hotels  |
| 7         | Transport, storage, and communications   |
| 8         | Financing, insurance, real estate, and business services<br>Community, social and personal services <ul style="list-style-type: none"> <li>• Public administration and defense</li> <li>• Sanitary and similar services</li> <li>• Social and related community services</li> <li>• Recreational and cultural services</li> <li>• Personal and household services</li> </ul> |
| 9         | <ul style="list-style-type: none"> <li>• International and other extra-territorial bodies</li> </ul>   |
| 0         | Activities not adequately defined  |

## APPENDIX 2: CALCULATING REAL VALUE ADDED USING EXPENDITURE-BASED PURCHASING POWER PARITY (PPP) CONVERSION RATES

Following Fernandes (2007), expenditure-based PPP conversion rates are used to convert nominal value added in country  $c$  subsector  $j$  at year  $t$  (expressed in local currency units) to real value added (expressed in 2005 PPP US\$):

$$RVA_{jt}^c = \frac{NVA_{jt}^c}{PPP_t^c} \quad (1)$$

PPP conversion rates  $PPP_t^c$  are obtained using expenditure-based PPPs in 2005 for ASEAN country  $c$   $PPP_{2005}^c$  (relative to the US\$) adjusted using gross domestic product (GDP) deflators for each ASEAN country  $c$   $P_t^c$  relative to the US  $P_t^{US}$  as follows:

$$PPP_t^c = \left[ \frac{P_t^c / P_{2005}^c}{P_t^{US} / P_{2005}^{US}} \right] * PPP_{2005}^c \quad (2)$$

where:

$c$  = ASEAN member country

$t$  = year

$j$  = subsector

RVA = real value added (in 2005 PPP US\$)

NVA = nominal value added (in local currency units)

PPP = purchasing power parity conversion rates

P = GDP deflator

## REFERENCES

- Arunanondchai, J. and C. Fink. 2007. Trade in Health Services in the ASEAN Region. World Bank Policy Research Working Paper 4147. Washington, DC: World Bank.
- Asian Development Bank (ADB). 2008. *Key Indicators for Asia and the Pacific*. Manila.
- . 2009a. *Asia Capital Market Monitor (ACMM)* April. Manila.
- . 2009b. *Challenges for Developing Asia and ADB's Response*. Manila.
- . 2010. *Asia Capital Market Monitor (ACMM)* April. Manila.
- Asian Development Bank (ADB) and Asian Development Bank Institute (ADBI). 2009. *Infrastructure for a Seamless Asia*. Tokyo: ADBI.
- Association of Southeast Asian Nations (ASEAN). 2008. *ASEAN Economic Community Blueprint*. Jakarta: ASEAN.
- Australia-Japan Research Centre. 2008. Service Liberalization in East Asia Financial, Logistics, and Distribution Services. Economic Research Institute for ASEAN and East Asia (ERIA) Related Joint Project Series 2007, 3. Australian National University: Canberra.
- BPS-Statistics Indonesia Quarterly Gross Domestic Product at Constant 2000 Market prices by Industrial Origin, 2005–2008. Jakarta: Central Bureau of Statistics. (<http://www.bps.go.id>)
- Chenery, H. and L. Taylor. 1968. Development Patterns: Among Countries and Over Time. *The Review of Economics and Statistics* 50 (November): 391–416.
- Corbett, J. 2008. Services Trade Liberalization in the ASEAN Economic Community and Beyond In *Deepening Economic Integration in East Asia*. Economic Research Institute for ASEAN and East Asia (ERIA) Research Project Report 2007 No. 1–2 edited by H. Soesastro. Jakarta: ERIA.
- Department of Statistics Malaysia. Gross Domestic Product by Kind of Economic Activity at Constant 2000 Prices. 2005–2009. Putrajaya: Department of Statistics Malaysia.
- Dessus, S. 2001. Human Capital and Growth – The Recovered Role of Education Systems, Policy Research Working Paper 2632. Washington, DC: World Bank.
- Fernandes, A.M. 2007. Structure and Performance of the Services Sector in Transition Economies. World Bank Policy Research Working Paper 4357. Washington, DC: World Bank.
- Fink, C., A. Mattoo, and R. Rathindran. 2003. An Assessment of Telecommunications Reform in Developing Countries. *Information Economics and Policy*. 15(4): 443–466.
- Fink, C., A. Mattoo, and C. Neagu. 2005. Assessing the Impact of Communication Costs on International Trade. *Journal of International Economics*. 67(2): 428–445.
- Francois, J. and I. Wooton. 2006. Market Structure and Market Access. *Mimeo*.
- Hoekman, B. 2006. Liberalizing Trade in Services: A Survey. World Bank Policy Research Working Paper 4030. Washington, DC: World Bank.
- Hollweg, C. and M-H Wong. 2009. Measuring Regulatory Restrictions in Logistics Services. Economic Research Institute for ASEAN and East Asia (ERIA) Discussion Paper Series 2009–14. Jakarta: ERIA
- International Labor Organization (ILO). Labor Statistics Database. <http://laborsta.ilo.org/>,

- Kalirajan, K. 2000. Restrictions on Trade in Distribution Services. Productivity Commission Staff Research Paper. Canberra: AusInfo.
- Knight, J. 2006. Higher Education Crossing Borders: A Guide to the Implications of the General Agreement on Trade in Services (GATS) for Cross-Border Education. A Report Prepared for the Commonwealth of Learning (COL) and UNESCO. Vancouver and Paris: UNESCO.
- Kumar, N. 2008. Investment Cooperation and Liberalization in ASEAN+6 In *Deepening Economic Integration in East Asia. Economic Research Institute for ASEAN and East Asia (ERIA) Research Project Report 2007 No. 1–2* edited by H. Soesastro. Jakarta: ERIA.
- McGuire, G., M. Shuele, and T. Smith. 2000. Restrictiveness of International Trade in Maritime Services In *Impediments to Trade in Services: Measurement and Policy Implications* edited by C. Findlay and T. Warren. London and New York: Routledge.
- New Zealand Institute of Economic Research (NZIER). 2008. Service Liberalization in East Asia Business, Postal/Courier, and Maritime Services. Economic Research Institute for ASEAN and East Asia (ERIA) Related Joint Project Series 2007 2. Wellington: NZIER
- Office of the United States Trade Representative. 2009. 2009 National Trade Estimate Report on Foreign Trade Barriers: Thailand, Indonesia, Philippines, Viet Nam. <http://www.ustr.gov/about-us/press-office/reports-and-publications/2009/2009-national-trade-estimate-report-foreign-trade> (Accessed September 2009).
- Park, Y.C. 2009. The Global Economic Crisis and Rebalancing Growth in East Asia. Draft paper presented at Global Financial and Economic Crisis: Impacts, Lessons, and Growth Rebalancing, Asian Development Bank Institute, Tokyo, April 22–23.
- Philippine National Statistical Coordination Board (NSCB). Gross Domestic Product by Industrial Origin. First Quarter 2009. Manila: NSCB.
- Raychaudhuri, A. and P. De. 2007. Assessing Barriers to Trade in Education Services in Developing Asia-Pacific Countries: An Empirical Exercise. Asia-Pacific Research and Training Network (ARTNeT) on Trade Working Paper Series 34. Bangkok: ARTNet.
- Thailand Office of the National Economic and Social Development Board (NESDB). Gross Domestic Product Q1 2009. Bangkok: NESDB.
- Singapore Ministry of Trade and Industry (MTI). 2009. 2009 GDP Growth Forecast Maintained at -9.0 to -6.0 %. Press Release 21 May. Singapore: Singapore MTI.
- World Bank. 2009. World Development Indicators. Washington, D,C: World Bank,