

Services as a New Engine of Growth for ASEAN, the People's Republic of
China, and India

Gloria Pasadilla, Asian Development Bank Institute.

Ben Shepherd, Principal.

March, 2012.

Abstract

Development of a vibrant and competitive services sector is a key characteristic of modern economies. In the developed world, services frequently account for two-thirds or three-quarters of all economic activity. The transition from agriculture through manufacturing to a services economy has been the hallmark of economic development for many countries. In line with this trend, we see many emerging markets currently working hard to support and develop services industries, and to put in place the regulatory structures required for more integrated international services markets. Doing so is likely to form an important part of efforts to avoid the so-called “middle income trap”, as improving services sector productivity is key to invigorating the economy and supporting the sustained innovation needed to move to high income status.

The Association of Southeast Asian Nations (ASEAN) countries, along with the People’s Republic of China (PRC), and India (“the ACI countries”), are no strangers to this underlying trend. Although experience differs greatly from one country to another, the data reviewed in this report strongly suggest that an increasing services orientation is likely to be a key feature of the ACI economies over the medium-term. Services trade among the ACI countries has been growing at a very rapid rate over recent years, despite starting from a relatively low baseline. Although data are scarce and must be interpreted with caution, an analysis of applied services sector policies in the region suggests that there is much policymakers can do to intensify this process, and increase the pace at which the transformation to a services economy is taking place. Indeed, services policies in the ACI countries are generally quite restrictive by world standards, even though experiences differ greatly across countries.

Broadly speaking, measures aimed at reducing barriers to entry—which make markets less competitive—and lowering the costs of doing business for domestic and foreign service providers alike can have major impacts throughout the economy. A more productive services sector is not only good news for those directly connected with it through investment or employment, but also for other parts of the economy that use services inputs intensively. As just one example, growth in the services sector is one of the foundations on which international goods production networks are built, since it is impossible to move intermediate inputs across borders and undertake complex coordination of production processes without efficient markets for services such as transport, telecommunications, and business processes.

In addition to traditional services sectors such as finance and telecommunications—where the gains from reform remain potentially large—there are also a number of “sunrise” sectors of interest to the ACI countries. Healthcare is one example, with considerable potential for trade growth through outsourcing of allied health functions, as well as movement of patients, movement of medical personnel, and foreign investment in hospitals and other health care providers. Business process outsourcing has already become an important export earner in regional economies such as India and the Philippines. There is clear scope for policymakers to support expansion of this kind of trade in the future.

Regional integration can provide a useful impetus for continued reform of services sector policies, thereby promoting competitiveness more broadly. Priorities for the ASEAN countries include ensuring on the ground implementation of the ASEAN Economic Community Blueprint as it relates to services markets. The same is true of the ASEAN-PRC Trade in Services Agreement, even though only a few countries have made substantially stronger commitments than under the General Agreement on Trade in Services (GATS). Conclusion of a services agreement with India could provide an additional spur to the already rapidly growing services trade between ASEAN and India.

JEL Classification: O44, Q58, Q56, O10, O53, Q28, Q53

Contents

1.	Introduction.....	3
2.	Services, Development, and Employment in the ACI Countries	3
3.	Trends in Services Sector Development in the ACI Countries	7
	3.1 Services Sector Value Added	7
	3.2 Services and Employment	9
	3.3 International Trade in Services	12
	3.4 Services and Production Networks	16
4.	Services Policies in the ACI Countries	18
	4.1 Trade Costs in Services Markets	19
	4.2 Services Policy Indicators	20
	4.3 Services, Policy, and Regional Integration among the ACI Countries	22
5.	Dynamism in Key Services Sectors: Trends and Policy Implications.....	24
	5.1 Telecommunications	27
	5.2 Transport, Distribution, and Logistics	30
	5.3 Finance.....	34
	5.4 Health Services.....	36
	5.5 Education Services	39
	5.6 Business Process Outsourcing and other Offshored Services	43
	5.7 Business and Professional Services	48
6.	Conclusion: Policy Implications for the Medium Term	50
	References	52

1. INTRODUCTION

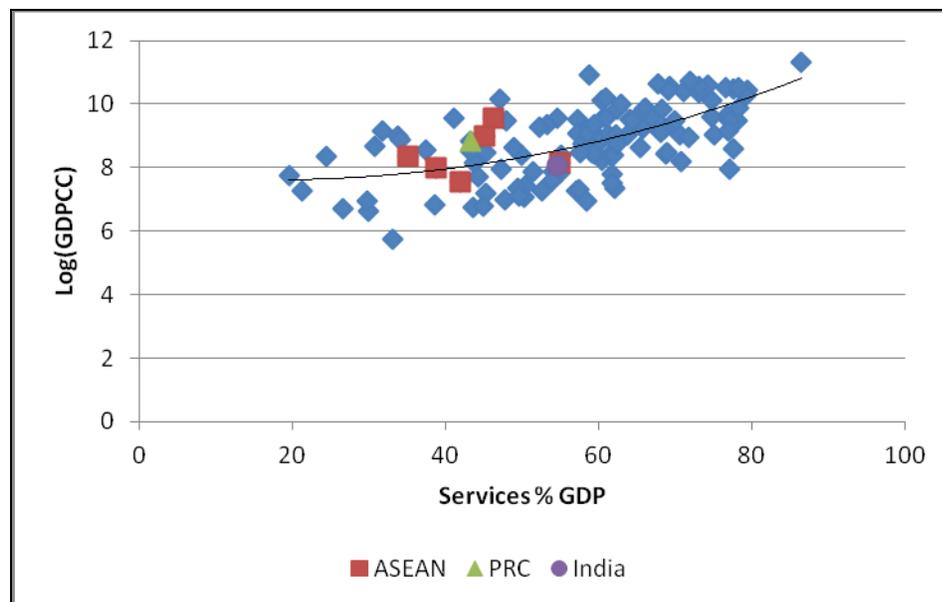
Development of a vibrant and competitive services sector is a key characteristic of modern economies. In the developed world, services frequently account for two-thirds or three-quarters of all economic activity. The transition from agriculture through manufacturing to a services economy has been the hallmark of economic development for many countries. In line with this trend, we see many emerging markets currently working hard to support and develop services industries, and to put in place the regulatory structures required for more integrated international services markets. The Association of Southeast Asian Nations (ASEAN) countries, along with the PRC and India (“the ACI countries”), are no strangers to this trend. Although experience differs greatly from one country to another, the data reviewed in this report strongly suggest that an increasing services orientation is likely to be a key feature of the ACI economies over the medium-term.

Against that background, the purpose of this report is twofold. First, we aim to present a compendium of relevant data on the state of the services sector in the ACI countries, focusing on its contribution to overall economic activity, employment, and growth. To do this, we rely heavily on standard international sources, as well as national statistics in some cases. Second, we examine to the extent possible—given data restrictions—the services policy environment in the ACI countries, focusing on its implications for regional and international integration of services markets. By and large, we find that although the services sector has been growing rapidly in many of the ACI countries—and contributing substantially to overall economic growth and development—policy settings in the region are, on average, quite restrictive by world standards. There is thus much that policymakers can do to intensify the trends we outline in this report, including through existing and planned regional integration initiatives.

The report proceeds as follows. In the next section, we provide an initial overview of the ways in which services sector development is linked to broader goals such as economic growth and employment creation. We discuss the economic mechanisms behind these links. In Section 3, we present more detailed data on the services sector in the ACI countries, focusing on emerging trends in that area. Section 4 provides a general discussion of services sector policies in the ACI countries, focusing on the international (trade-related) dimension. Then in Section 5, we focus the discussion in more detail on particular services sub-sectors that are likely to play an important role in the regional services environment going forward. Section 6 concludes.

2. SERVICES, DEVELOPMENT, AND EMPLOYMENT IN THE ACI COUNTRIES

There is a strong positive association at the aggregate level between the size of a country’s services sector and its per capita income level (Figure 1). The quadratic trend line in the figure shows that the link between the two variables becomes stronger at relatively high levels of services sector development and, correspondingly, per capita income. This relationship indicates that developing a vibrant and competitive services sector might be one part of making the transition to high income status, and avoiding the so-called “middle income trap”. Figure 1 suggests that, going forward, services sector growth will be an important part of overall development strategy in the ACI countries.

Figure 1: Per Capita Income in PPP terms vs. Services as a Percentage of GDP, 2009

Source: World Development Indicators. One outlier (Equatorial Guinea) has been dropped from the sample.

Of course, the issue of productivity differentials between services and manufacturing remains important (see further below). In some countries, such as India, the services sector has been experiencing faster productivity growth than manufacturing, but the reverse is true in other countries, such as the PRC. It is therefore likely that the overall growth impact of shifting to a service economy depends significantly on the sectoral composition of services value added and employment. Shifting into activities that support innovation—such as engineering services, research services, and education services—can clearly help support the self-sustaining process that is at the core of the middle to high-income transition of countries like the Republic of Korea. However, a shift into less productive services sectors could be associated with less vigorous overall growth. The mix is therefore important, and we discuss in further detail below the individual sectors that might be of interest to the ACI countries.

In addition, the services sector should be seen as an important part of the overall national competitiveness agenda because it has strong linkages with the rest of the economy. Indeed, the growth agenda more broadly has a lot to do with services, which play a crucial role in developing human capital through education, for example. There is convincing macroeconomic evidence that stronger services sector performance means faster economic growth (e.g., Hoekman and Eschenbach 2005; and Mattoo et al. 2006). Moreover, backbone sectors such as finance, telecommunications, and transport make it possible for a wide range of firms to do business, and to be competitive in international markets (e.g., Arnold et al. 2008). For example, better logistics services have been shown to be strongly correlated with trade outcomes in goods sectors, and in particular parts and components trade that takes place within international networks (Arvis et al. 2010; Saslavsky and Shepherd, Forthcoming). More broadly, Arnold et al. (2010) find that improvements to services policies in India—covering banking, telecommunications, insurance, and transport—have been an important source of productivity gains in manufacturing. Through these kinds of relationships, a well-developed services sector can fuel growth not only directly, but also indirectly through spillovers to other sectors.

Contrary to received wisdom in some circles, the services sector can be a significant source of productivity gains in its own right. Far from being limited to low productivity, low potential activities, the services sector now includes a range of occupations that make a substantial contribution to overall value added per worker. Although the level of value added per worker is still generally lower in services than in manufacturing (Table 1), there is solid evidence from

around the region that growth in services sector value added is taking place at a rapid pace, and in some cases is faster than in the industrial sector, although this outcome varies substantially across countries. In India, for example, growth of output per worker and total factor productivity in services have been substantially faster than in manufacturing in recent decades (Table 2). The same is true for the growth of value added per worker in Indonesia and the Philippines (Figure 2). Although the situation is different for other economies, such as the PRC and Singapore, the point nonetheless remains that the development of some types of services can, under the right circumstances, be as important a source of productivity growth in a developing economy as manufacturing.

Table 1: Value Added per Worker by Sector, Selected Countries, US\$ (2007)

	Agriculture	Industry	Services
Indonesia	\$775.57	\$5,291.34	\$2,502.25
Malaysia	\$617.80	\$18,737.58	\$11,875.61
Philippines	\$1,253.94	\$6,033.67	\$3,614.41
Singapore	\$4,031.96	\$78,670.28	\$46,247.38
Thailand	\$841.81	\$10,031.70	\$5,824.86

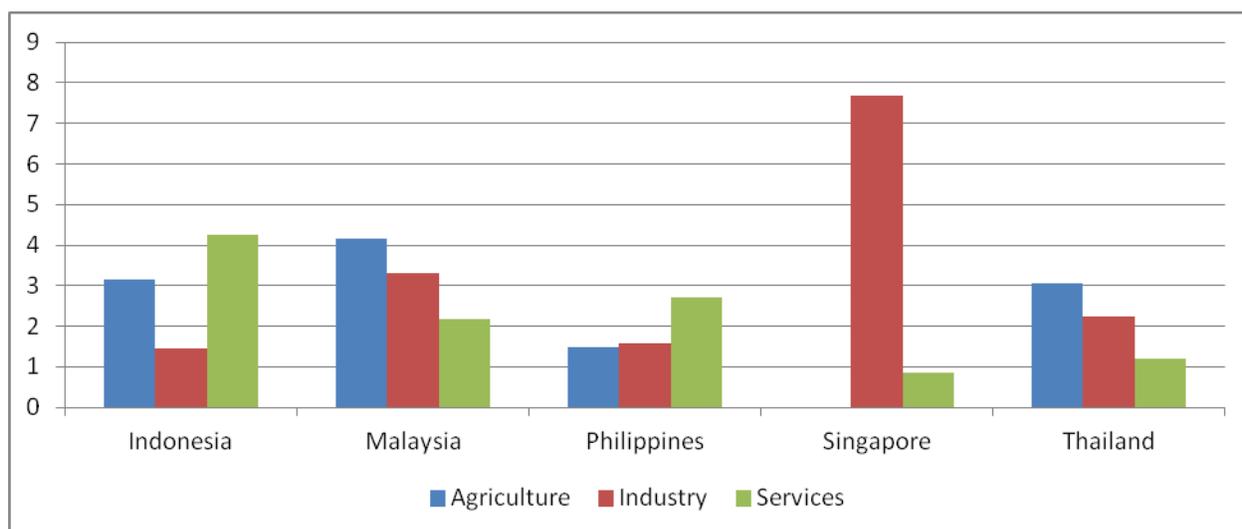
Source: World Development Indicators.

Table 2: Productivity Growth by Sector, 1990–2006, average annual percentage change

	Agriculture		Industry		Services	
	1990–2000	2000–2006	1990–2000	2000–2006	1990–2000	2000–2006
India						
<i>Output per worker</i>	1.3	1.4	3.3	2.7	4.9	4.6
<i>TFP</i>	0.7	0.9	0.6	1.6	3.1	1.9
PRC						
<i>Output per worker</i>	4.6	4.2	10.2	10.4	4.7	6.0
<i>TFP</i>	1.8	2.2	6.9	6.4	1.1	1.8

Source: Mishra et al. (2011), based on Bosworth and Collins (2008) and Bosworth and Maertens (2010).

Figure 2: Average Annualized Growth Rate in Value Added per Worker by Sector, Selected ACI Countries, 2000–2007 (%)



Source: World Development Indicators.

Trade-related policies are an important element of an overall agenda of boosting services sector productivity and competitiveness. Recent research shows, for example, that services sectors that are more open to international competition tend to be more productive, and experience faster productivity growth (Miroudot et al. 2010). However, for these effects to become reality, it is necessary to have in place well-functioning labor and capital markets so as to facilitate the movement of resources towards more productive firms. The same study also produces some initial evidence suggesting that regional liberalization of services markets is actually associated with lower trade costs vis-à-vis the world as a whole; that is, regional integration of services markets appears to be less discriminatory than in goods, and thus has greater potential to act as a building block towards multilateral liberalization rather than a stumbling block.

There is also extensive evidence suggesting that liberalization of trade in services can have spillover effects to other parts of the economy, particularly manufacturing. For example, Blyde and Sinyavskaya (2007) find that, on average, a 10% increase in services trade is associated with a 6% increase in goods trade. They find that the strongest gains for manufacturing exports come from improved efficiency in transport and communication services. Moreover, the GATS model of trade liberalization in services includes services foreign direct investment (FDI) within its ambit, which means that the strong positive spillovers from foreign investment should also be taken into account (e.g., Arnold and Javorcik 2005). In addition to this variety of positive economic impacts, Borchert and Mattoo (2009) show that trade in services tends to be more resilient to economic crises than trade in goods.

The available quantitative evidence suggests that policy reforms in the services sector can have major economic impacts. World Bank (2002), for example, uses a computable general equilibrium (CGE) model to show that the gains from reforming services sectors by reducing costs, markups, and trade penalties by 10% each are at least four times as high as the gains from liberalization of goods trade. Hertel and Keeney (2006) find that the gains from global trade liberalization can be boosted by about 80% if services are included in the reform package. Using different data, Francois et al. (2005) find that a 50% reduction in services rates of protection produces income gains at least equivalent to those from elimination of tariffs affecting manufactured goods.

Business process offshoring (BPO) is one type of services trade that is an increasingly important feature of the world economy—and the ACI region in particular—and one which has a number of positive economic effects. For instance, Amiti and Wei (2006) show that services offshoring accounted for 11% of US productivity growth in manufacturing between 1992 and 2000—approximately double the impact of offshoring material inputs. Even on the employment side, Hijzen et al. (2007) show that importers of intermediate services—i.e., those that offshore—do not tend to experience greater job losses or worker turnover. Indeed, they tend to experience faster employment growth than firms that do not offshore. Similarly, Amiti and Wei (2005) find that sector-level employment in the United Kingdom (UK) has not been affected by offshoring. Crino (2007), on the other hand, finds that the employment effects of offshoring differ by occupation: offshoring raises employment in high-skill occupations, but lowers it among low- and medium-skilled ones. Within skill groups, offshoring tends to benefit relatively non-tradable occupations, but penalize easily tradable ones. On balance, however, the evidence tends to suggest that the overall economic effects of services offshoring are positive for both the sending and receiving economies.

In addition to the wealth of quantitative evidence supporting a link between development of the services sector and positive economic outcomes, there is also some emerging evidence of important links between the services sector and a broader conception of growth, including human development. Human services such as health and education are an important part of the overall services economy, and their development can directly affect important human development outcomes and improve the lives of poor people, including in the ACI countries.

Shepherd and Pasadilla (2011) present some preliminary quantitative evidence on the links between services and human development. On the one hand, they find that more restrictive policies in areas such as education are directly associated with worse human development outcomes, such as lower schooling rates. The implication is that the efficiency gains that come from less restrictive policies can translate directly into improved human development. Moreover, the authors argue that certain services are important inputs into the provision of other goods and services that are important for human development. For example, transport and logistics services make it possible to move medicines, vaccines, and other health-related products to poor people in rural areas, and to do so at a reasonable cost. In line with this intuition, the data indeed show that countries with less restrictive policies in the distribution sector tend to have higher rates of immunization, even after controlling for per capita income. Although more research using new data is needed to confirm these initial results, the general implication is clear: improving the services policy environment is not only good for growth in a narrow economic sense, but can also bring important benefits to the broader development agenda.

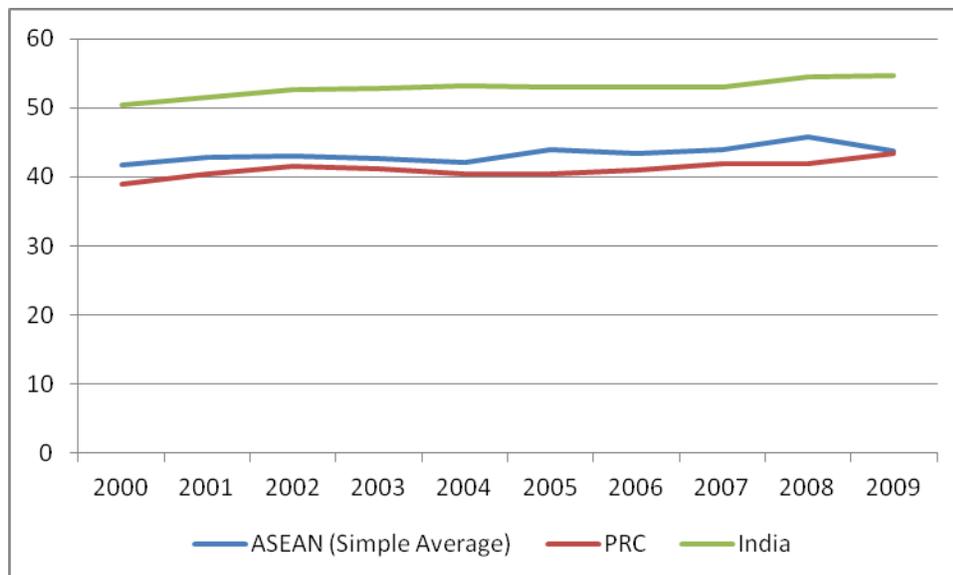
3. TRENDS IN SERVICES SECTOR DEVELOPMENT IN THE ACI COUNTRIES

This section reviews recent developments in the services sector in the ACI countries. We first consider value added and the proportion of GDP that is accounted for by services. We then move to a consideration of employment in the services sector. The last two parts of this section deal with international trade in services in the ACI region, and with the special case of services and international production networks.

3.1 Services Sector Value Added

Over the last few decades, there has been a clear trend towards growth of the services sector in the ACI countries, and we expect this dynamic to continue in the medium term. On average, the proportion of gross domestic product (GDP) accounted for by services rose from 37% in 1980 to 45% in 2007. Of course, there is some heterogeneity across country groups (Figure 3). For example, the services sector is noticeably larger in India than in the PRC or, on average, in ASEAN. It now accounts for more than half of all economic activity. The shares of services in GDP for the PRC and ASEAN (simple average) are approximately comparable, and amount to more than 40% based on the latest available data.

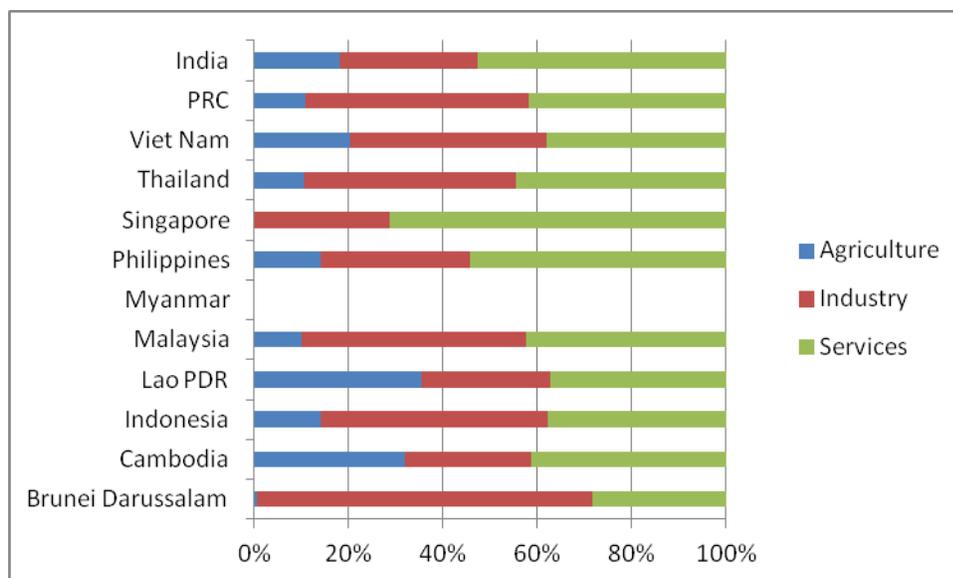
Figure 3: Services Value Added as a Percentage of GDP, ACI Countries, 2000–2009



Source: World Development Indicators.

It is important to be clear, however, that while services sector growth is a fairly general phenomenon among the ACI countries, individual experiences differ greatly. Figure 4 shows the breakdown of GDP by activity type for all ACI countries for which data are available in 2007 (the recent year that gives the best data coverage). Consistent with the cross-country evidence discussed above, the most developed economy in the region, Singapore, has a substantially larger services sector than the other countries: it accounted for over two-thirds of GDP in 2007, a figure which is in line with experience in the OECD. In Brunei Darussalam, by contrast, the proportion of services in GDP is only around half as large. Interestingly, the services sector in countries such as the PRC and Indonesia was still relatively small as of 2007, and approximately on a par with much poorer economies such as Lao PDR and Viet Nam.

Figure 4: Breakdown of GDP by Activity Type, 2007

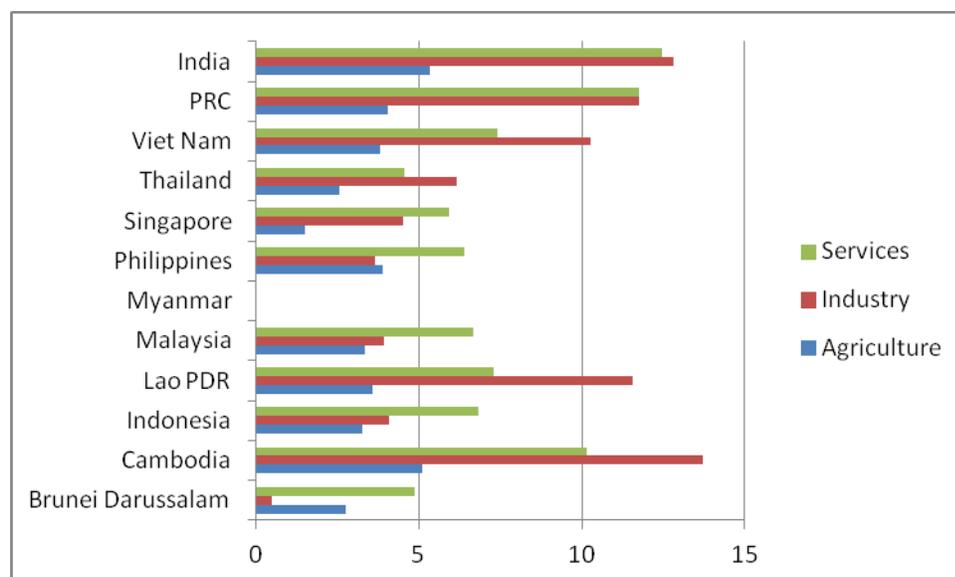


Source: World Development Indicators.

Despite this range of experiences in terms of the overall size of the sector, its growth rate relative to other sectors has generally been impressive in all ACI countries (Figure 5). In five economies—Singapore, the Philippines, Malaysia, Indonesia, and Brunei Darussalam—the

services sector was the fastest growing part of the economy in terms of value added over the 2000–2007 period. In the PRC and India, the growth rate of services value added was approximately the same as in manufacturing. Only in Viet Nam, Thailand, Lao PDR, and Cambodia did the services sector grow noticeably slower than manufacturing. Although this latter result is not surprising for countries at the income levels of Cambodia, Lao PDR, and Viet Nam, it is much more surprising for Thailand, which has a level of per capita income almost three times higher than Viet Nam's. One possible conclusion that could be drawn from the cross-country evidence discussed above is that constraints on growth of the services sector are likely to impact negatively on Thailand's overall growth potential in the medium-term.

Figure 5: Average Annual Growth Rate of Value Added by Activity Type, 2000–2007

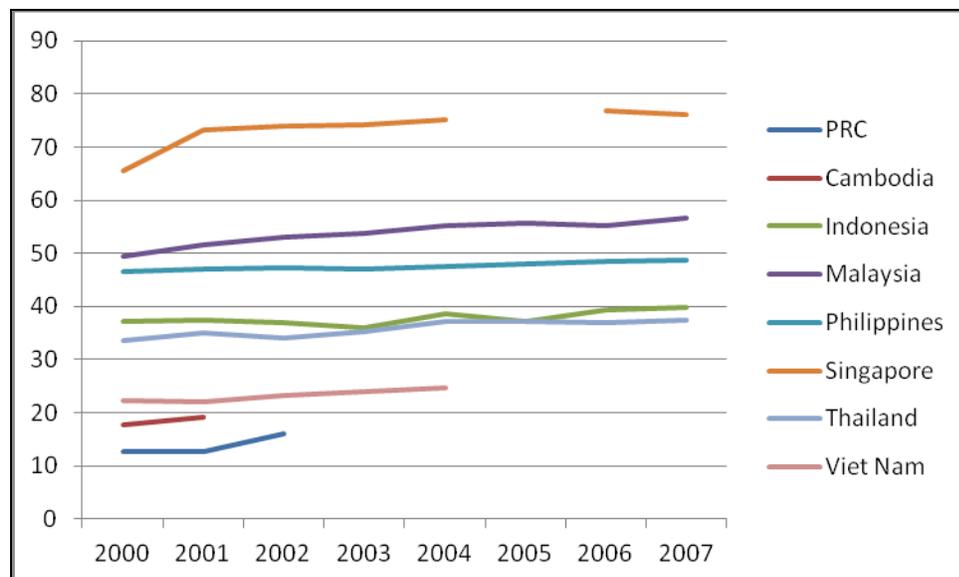


Source: World Development Indicators.

One argument that is sometimes made is that the increasing share of services in GDP, particularly in developing countries like India, is in fact “disguised” manufacturing activity rather than genuine growth in an independent services sector. The idea is that as manufacturers outsource more of their activities, the corresponding value added might be recorded as services activity rather than manufacturing. However, Eichengreen and Gupta (2010) analyze the Indian data, and find that intermediate demand accounts for only about one-third of services value added. The remaining two-thirds is made up of final demand (including exports), which is consistent with an underlying trend towards genuine growth of the sector.

3.2 Services and Employment

The services sector's economic importance for the ACI countries is reflected in employment data, too (Figure 6). Taking the ASEAN average, services jobs account for about half of total employment. As was the case for value added, there is again considerable heterogeneity across countries within ASEAN: services employment made up around 37% of the total in Thailand in 2007, but over 75% in Singapore. Again, the trend is clearly towards an increasing importance of the services sector as a generator of employment. The relevant figures are undoubtedly lower in Viet Nam and Cambodia, but recent data are not available from the World Development Indicators.

Figure 6: Services as a Percentage of Total Employment, 2000–2007

Source: World Development Indicators.

Singapore—the most developed country in the group represented in Figure 6—stands out as having by far the highest proportion of employment in the services sector. Compared to a value added contribution of around 70%, employment in services accounts for over 75% of the total in Singapore. Thus, even in a developed economy, the services sector is relatively labor intensive. Services sector growth provides strong prospects for employment creation in the medium- to long-term throughout the ACI countries.

A second group of economies—the Philippines, Indonesia, Thailand, and especially Malaysia—exhibit evidence of structural transformation in the labor market over recent years. Services account for a noticeably larger proportion of total employment at the end of the sample period than at the beginning, which is again consistent with the sector's increasing economic importance. Interestingly, Indonesia is the only one of these countries in which the proportion of services in total employment is greater than the proportion of services value added in GDP. In other words, the services sector is most labor intensive in Indonesia, but is a source of relatively high value added per worker relative to other sectors in the remaining economies.

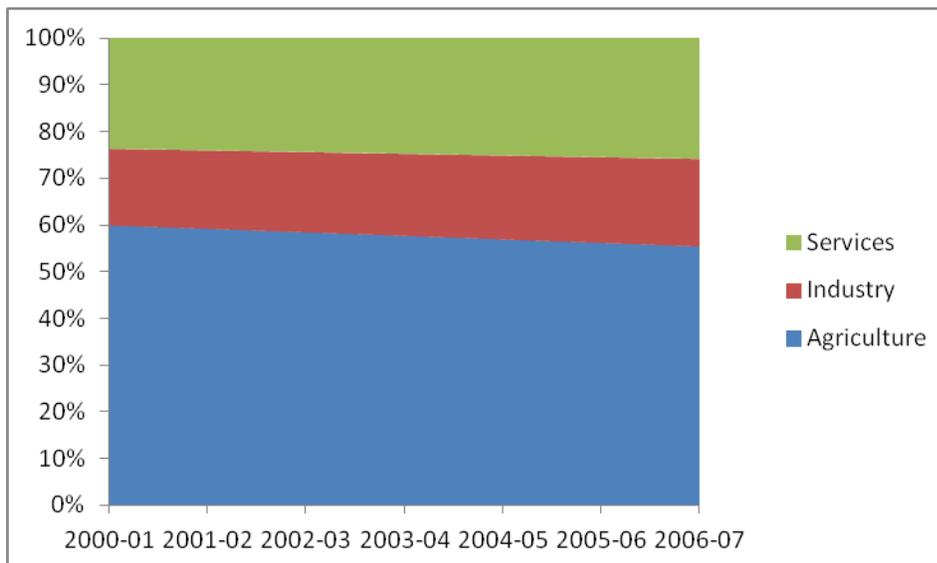
Measuring the level of services employment in the PRC runs into severe problems of data availability and consistency. The World Development Indicators (WDI) database only includes information for the PRC through 2002. The break in the series appears to coincide with a break in PRC data collection methodology. More recent data available from the International Labor Organization and the China Statistics Yearbook are based on urban areas only, whereas the WDI data cover the economy as a whole. It is therefore not appropriate to compare statistics before and after 2002. For example, the figure for total employment in 2002 (whole economy) is 737.4 million, but the same data for 2003 (urban areas) is only 109.7 million. Given that the distribution of employment among agriculture, manufacturing, and services is likely to be very different in urban and rural areas, even proportions are unlikely to be comparable before and after 2002.

With these caveats in mind, these alternative data sources suggest that services employment has in fact dropped slightly in the PRC over the sample period, although the change is not large (50.5% in 2003 versus 48.6% in 2007). These numbers are quite different from the image suggested by the previous figure, in which services represent only a modest percentage of total employment in the PRC (16% in 2002). The difference between the two sets of numbers in part highlights the rural-urban divide in the PRC, since services are obviously a much larger part of the economy in the city than in the country. Nonetheless, the overall result that emerges is that,

as for the other ACI countries, services in the PRC represent not only an important source of value added, but also a major source of employment, particularly in urban areas.

India also presents serious data difficulties when it comes to measuring the proportion of total employment accounted for by services. One survey-based data source suggests that around one-third of the workforce is currently employed in the services sector (Government of India, 2010, statement 4.3). The numbers reported by Bosworth and Maertens (2010) based on statistics from the 1960s onwards suggest a slightly lower proportion, namely just over one-quarter in 2006–2007. Regardless of which set of figures are used, however, a well-known feature of the Indian economy is that services play a relatively larger role in employment generation than does industry (26% versus 19% in 2006–2007). India's process of "leapfrogging" towards a services economy—whereas the typical process is that an economy first develops a substantial manufacturing sector and only then moves heavily towards services—provides an interesting example of the way in which an economy can leverage services sector growth to generate employment and development. India's success in trade-related areas such as business process outsourcing is now being replicated on a smaller scale in other countries, such as the Philippines.

Figure 7: Breakdown of Total Employment by Economic Activity in India
2000–01 / 2006–07



Source: Bosworth and Maertens (2010).

Recent work on services employment in India also has interesting implications in terms of labor intensity and the skill composition of the services sector workforce. Eichengreen and Gupta (2010) suggest that the mix of skilled and unskilled labor is actually relatively close between the manufacturing and services sectors, which tends to suggest that convergence in output per worker is also likely to be taking place. Indeed, the same authors also report research findings suggesting that services sector growth tends to be relatively labor intensive, in some sectors even more so than manufacturing. This effect is especially notable in the rapidly growing business services sector, which has an employment elasticity nearly three times as high as for manufacturing. Although more detailed data are required before the implications of this finding for different types of labor—skilled versus unskilled—can be fully understood, the clear implication is that the services sector is not just an engine of economic growth, but also an important source of employment in labor-abundant developing countries such as those in the ACI group.

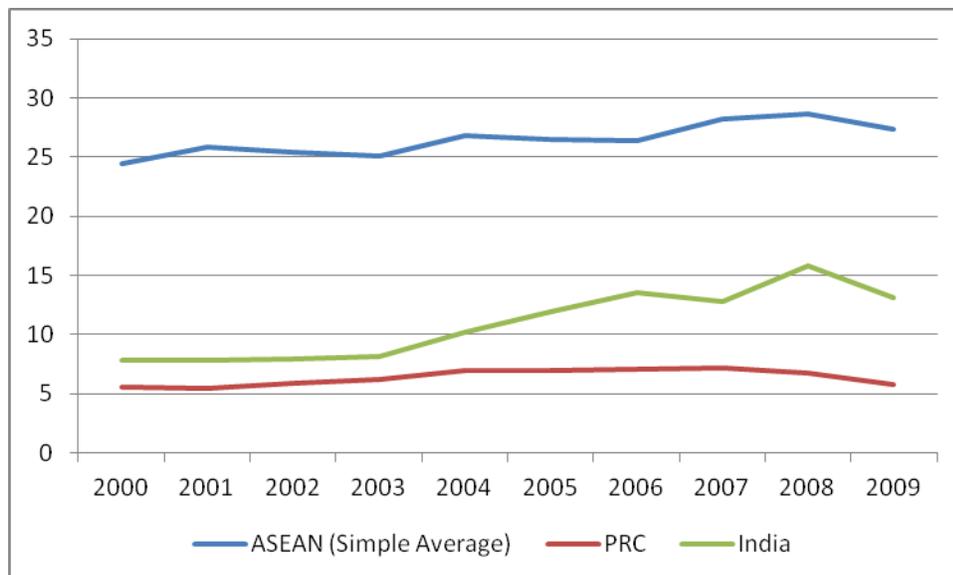
3.3 International Trade in Services

Despite the importance of the services sector as an engine of value added and employment, the available data on international integration of services markets in the region suggest that its full trade potential has yet to be realized. Nonetheless, we expect international trade in services to become progressively more important to the region over the medium term. This section examines some of the main features of international services trade in the ACI countries. A number of caveats need to be kept in mind from the outset, however. First, the most commonly used data on trade in services are sourced from national balance of payments statistics, and capture mostly pure cross-border trade (GATS Mode 1). Using the GATS definition of trade in services as covering all four modes of supply, the data presented here therefore represent a lower bound of the true level of trade. They also exclude informal trade, for instance associated with undocumented movements of service providers across borders, which may be significant for some ACI countries. Second, international trade in services data are measured on a “gross sales” basis, whereas GDP represents value added. A summary figure such as the ratio of exports and imports to GDP thus tends to overstate the true level of international integration: if the denominator represented the sum of gross production in the economy, without netting out intermediate input use, it would be much larger, and thus the ratio would be much smaller. The data we present on the degree of international integration therefore over-estimate the true level of integration, subject to the first caveat in relation to the trade data.

With these caveats in mind, three stylized facts emerge from the aggregate data. First, services trade—the sum of exports and imports—represents a relatively small share of GDP, compared with the size of the services sector in terms of value added and employment generation. The ASEAN average services trade integration ratio is less than 30%. In India it is around 15%, and in the PRC it is just over 5% (Figure 8). In the ASEAN case, these figures compare with a total proportion of 40%–50% of GDP or employment that are accounted for by services. In other words, international integration of services markets in the region—and particularly in the PRC—is relatively limited. However, the figure shows that the trend is clearly towards greater integration of services markets over time, and with the right policies—see further below—we expect that trend to intensify in the medium term.

Second, the ASEAN countries are on average much more engaged with international services markets than either the PRC or India. Of course, this point needs to be nuanced somewhat in light of the important role played by Singapore in the ASEAN data: services trade there totaled 95% of GDP in 2009. Nonetheless, the contrast remains striking between the two large economies with a relatively limited degree of international services market integration, and the much smaller, but relatively more open, ASEAN economies. This stylized fact is in line with the general tendency of larger countries to be less integrated with international markets, which is well known from the trade in goods literature.

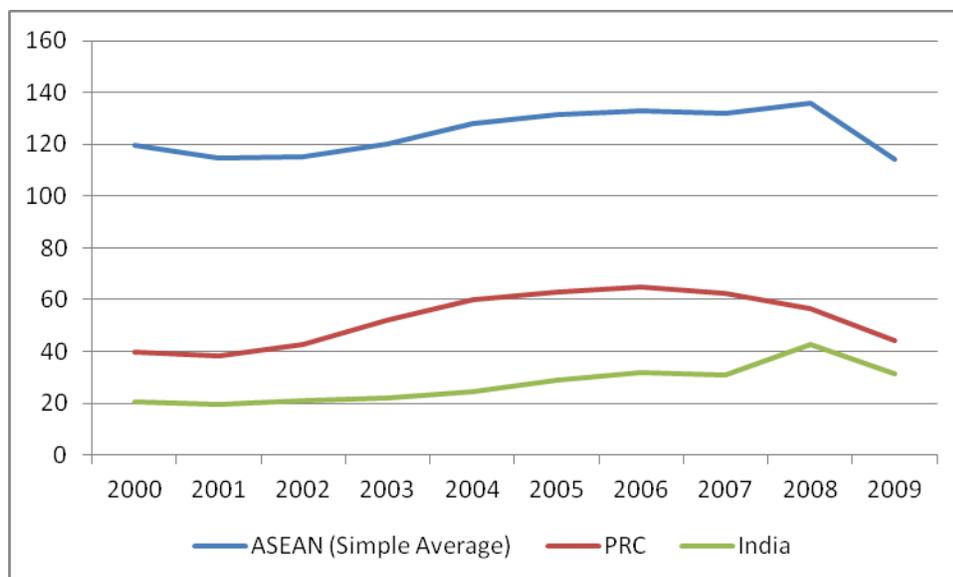
Figure 8: Services Trade as a Percentage of GDP, ACI Countries, 2000–2009



Source: World Development Indicators.

The third stylized fact to emerge from the data is the contrast between services and goods markets when it comes to international integration. Total merchandise trade—exports and imports—as a percentage of GDP is much higher than the same ratio for services (Figure 9). In terms of the ASEAN average, merchandise trade accounts for well in excess of 100% of GDP. Again, this figure needs to be nuanced somewhat in light of the role played by countries like Singapore (282%) and Malaysia (145%) in the ASEAN average: some of the smaller, poorer ASEAN countries have considerably lower levels of trade integration. But even taking this into account, the aggregate data still strongly suggest that goods markets in the region are considerably more integrated than services markets. In the future, there is thus major scope for policymakers to stimulate the kinds of economic gains referred to in Section 2 by adopting measures to further develop and integrate services markets.

Figure 9: Merchandise Trade as a Percentage of GDP, ACI Countries, 2000–2009



Source: World Development Indicators.

Due to the relative scarcity of bilaterally disaggregated services trade data, it is difficult to provide detailed information on the extent of services trade among the ACI countries, as opposed to between each country and the rest of the world as a whole. Nonetheless, the available data do allow a few inferences to be drawn. The first is that for a large economy like the PRC, ASEAN currently represents only a tiny percentage of its services imports and exports: the figure in 2009, which is the only year for which disaggregated data are available, is less than 0.1% in both cases (Table 3).

Table 3: The PRC's Exports and Imports of Services, 2009, million US\$

	Exports	Imports
ASEAN	\$94 (0.07%)	\$127 (0.08%)
India	na	na
Rest of the World	\$129,455	\$158,820

Source: UN Service Trade Database, <http://unstats.un.org/unsd/ServiceTrade/default.aspx>.

Data for India allow us to distinguish trade with Singapore as a proxy for ASEAN from trade with the rest of the world (Table 4). No bilateral data involving the PRC are available. Trade with ASEAN is more important than in the case of the PRC, amounting to a proportion of nearly 1.5% of total exports in 2007. This number is still very small in absolute terms, of course, and emphasizes the diverse nature of India's trading relationships in the services sector.

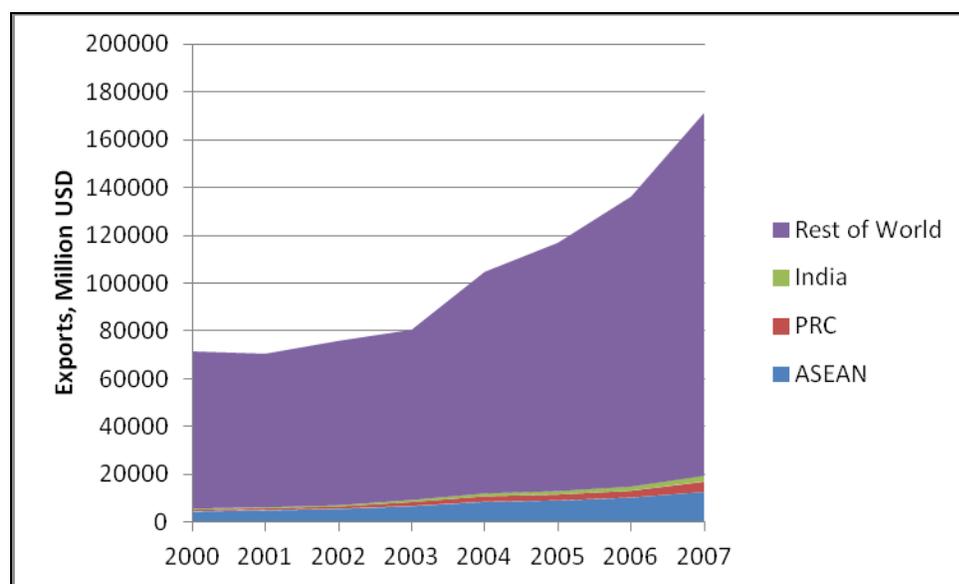
Table 4: India's Services Exports, 2000–2007, million US\$

	ASEAN	Rest of World
2000	230.352 (1.4%)	16454.75
2001	332.773 (2.0%)	17004.23
2002	364.842 (1.9%)	19113.36
2003	458.776 (2.0%)	23445.66
2004	619.38 (1.6%)	37661.52
2005	762.758 (1.5%)	51825.83
2006	980.109 (1.4%)	70123.92
2007	1249.851 (1.4%)	90591.25

Source: Trade in Services Database (Francois et al. 2009). ASEAN is proxied by data for Singapore.

Data for the ASEAN countries provide a greater level of disaggregation, although they are still not perfect in terms of covering all bilateral trading relationships. Figure 10 shows total exports broken down into the amounts accounted for by intra-ASEAN trade, the PRC, India, and the rest of the world respectively. It needs to be interpreted with caution due to the lack of bilaterally disaggregated data for a number of countries, and probably under-estimates to some extent the importance of regional trading relationships relative to the rest of the world. Nonetheless, the general picture is quite clear: for ASEAN, the ACI markets account for a relatively small but growing proportion of total exports: 11% in 2007, compared with 8% in 2000. The bulk of that total is accounted for by intra-ASEAN trade, with exports to the PRC and India playing a relatively smaller role.

Figure 10: ASEAN's Exports of Services, 2000–2007, million US\$

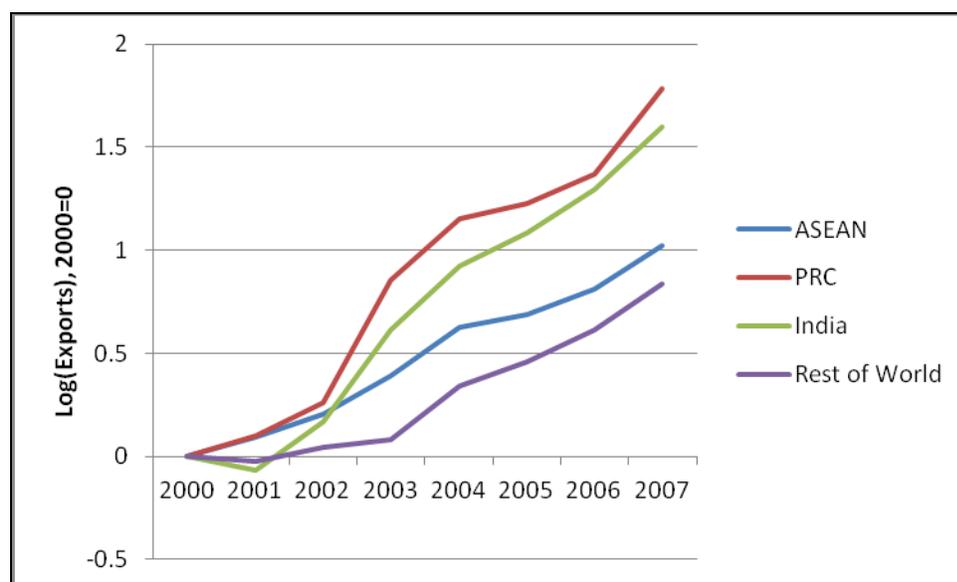


Source: Trade in Services Database (Francois et al., 2009).

A more nuanced picture emerges, however, if we convert the data to logarithms and rescale them to be equal to zero in 2000, thus providing an index number and growth rates (Figure 11). It is immediately clear that exports to the PRC and India have been growing very strongly over recent years, at an average annualized rate of 29% for the former and 26% for the latter. Intra-ASEAN trade in services has also been growing rapidly, though at a noticeably slower pace of 16% per year. Of course, the baselines involved in each case are very different, but the relative rates of growth suggest that the potential of regional services markets is just starting to be tapped, and that there is considerable future expansion to be expected. There is a clear trend

towards increasing integration of services markets among the ACI countries, although there is still an important role for policymakers in creating a supportive environment for additional integration in the future—see further below.

Figure 11: Growth in ASEAN's Exports of Services, 2000–2007



Source: Trade in Services Database (Francois et al., 2009).

Bringing these data together—and being cautious in claiming too much due to their serious limitations—it is fair to conclude that there is tremendous scope for boosting international integration of services markets in the ACI countries. For the moment, services exports are turned much more towards the rest of the world than the ACI economies themselves. Recent rapid growth in trade between the ASEAN countries and India and the PRC suggests, however, that this situation may undergo considerable changes in the medium-term.

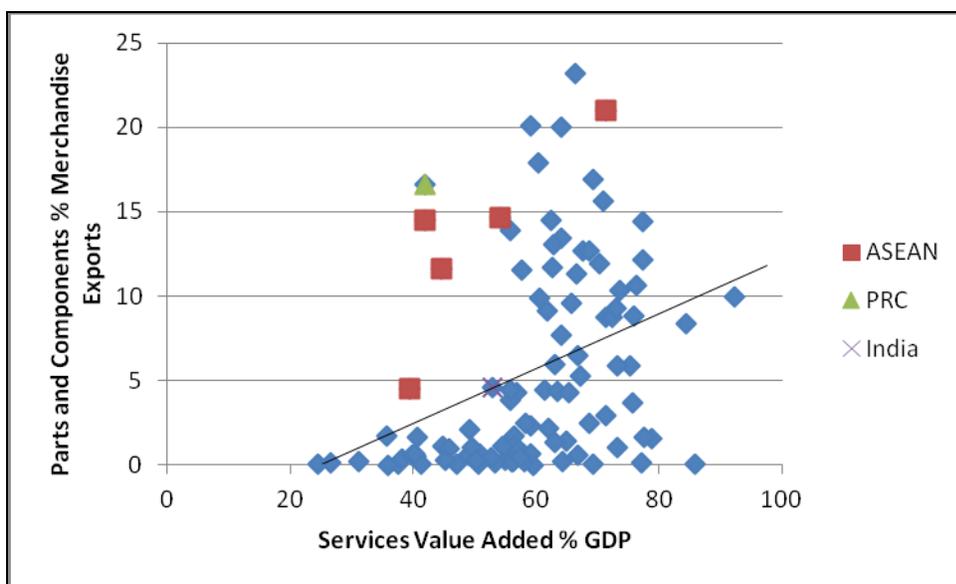
3.4 Services and Production Networks

One key feature of the East Asian economy over recent years has been the emergence of international production networks (Ando and Kimura 2005b). These networks are made up of vertical production chains linking various countries in the region, combined with regional and global distribution channels. The most high profile industries involved in this mode of production include electronics and machinery. Apple's iPod, for example, contains over four hundred intermediate components sourced from domestic and overseas operators mostly in the Asia-Pacific region, for final assembly in Taipei, China (Lo 2008). To a lesser extent, industries such as textiles and clothing are also involved. Although the spread of international production networks has now been noted outside East Asia (e.g., Ando and Kimura 2005a; Kimura et al. 2007), the region's experience remains distinctive because of the important part played by networked production in driving overall trade flows, as well as the integration of countries at different income levels.

Although there is now a good amount of descriptive material available on the nature and extent of international production networks, much less is known about the determinants—and in particular, the policy determinants—of a country's ability to become part of that mode of production. Clearly, trade and investment policies are one part of the equation. Liberalization of intermediate goods sectors, as well as duty drawback schemes, make multinational production more profitable. Establishing an institutional and economic environment that is conducive to foreign direct investment is also important, since entry of foreign companies bringing technology and market knowledge is a central part of the networked production phenomenon.

The services sector is another area that deserves special attention as a potential determinant of participation in international production networks. Moving intermediate goods across borders multiple times prior to final assembly requires well-developed transport and logistics services. A well-functioning financial sector can also provide much needed trade financing, as well as access to capital for investment in overseas production hubs. There is as yet no detailed research on this point, but Figure 12 confirms the basic intuition. Using machinery parts and components as a percentage of total exports as a proxy for the degree of participation in internationalized production, there is a clear positive association with the size of the services sector.¹ Interestingly, however, the PRC and the ASEAN countries are all “over-achievers” with respect to the average relationship between services sector development and participation in production networks: they lie noticeably above the regression line, which suggests that there is obviously much more going on in their policy environments than just the development of services. India, by contrast, lies exactly on the regression line, which is in line with its lesser degree of integration in international production networks.

Figure 12: Participation in Production Networks vs. Services Sector Size, 2007



Source: UN Comtrade (trade data), and World Development Indicators (services data).

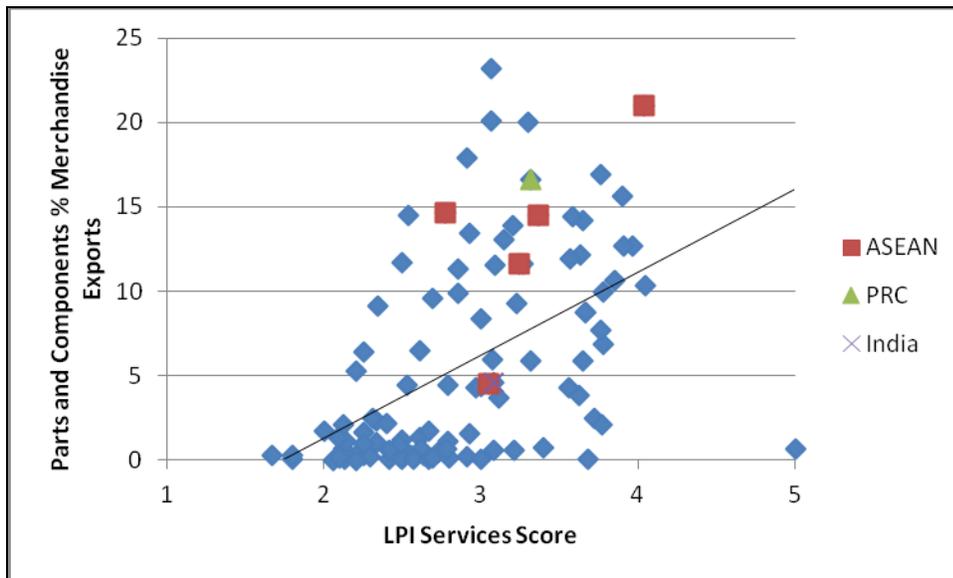
As noted above, one aspect of the services environment that is particularly likely to exhibit strong links with international production networks is logistics. Recent econometric work by Saslavsky and Shepherd (Forthcoming) confirms this intuition. The authors find that trade in machinery parts and components is significantly more sensitive to improvements in logistics performance than is trade in finished goods. As an order of magnitude, it is not unreasonable to suggest that trade flows in parts and components are nearly 50% more sensitive to logistics performance than trade in final goods. Moreover, the effect is particularly strong in the Asia-Pacific region, which is consistent with the importance of internationalized production in the region.

Figure 13 presents the intuition behind the Saslavsky and Shepherd (Forthcoming) results by plotting the share of machinery parts and components in total trade against the logistics services component of the World Bank’s Logistics Performance Index. There is clearly a strong, positive relationship between the two variables, which suggests that a stronger logistics services environments is associated with a greater degree of specialization in internationalized production. Again, the PRC and all but one ASEAN country (Indonesia) are stronger than

¹ The classification of trade flows into machinery parts and components versus final goods is based on Ando and Kimura (2005b). R2 for the regression is 0.25, and the relationship is statistically significant at the 1% level.

average performers when it comes to this relationship. India, in this case, lies slightly below the regression line, which is again consistent with the less important role currently played by international production networks in its economy.

Figure 13: Participation in Production Networks vs. Logistics Competence Score, 2007



Source: UN Comtrade (trade data), and Logistics Performance Index.

Bringing these results together, there is clear scope for synergies between the services policy agenda and the expansion and strengthening of international production networks in the ACI countries. Although many factors are involved in the spread of internationalized production—and much research still needs to be done on the role played by policy—it is likely that government action to support development of a vibrant and competitive services sector is part of the most effective mix. One area that deserves particular attention—and indeed has received it in the context of ASEAN integration—is logistics services. Logistics “greases the wheels” of internationalized production, and supporting the development of private sector capacity in this area should be a priority going forward.

4. SERVICES POLICIES IN THE ACI COUNTRIES

The policy environment is a critical variable in assessing the prospects for the ACI services sector over the medium term. However, quantifying and conducting cross-country comparisons of policies affecting trade in services is an extremely difficult task (see Dee 2005 for a review). On the one hand, most services-related policies are regulatory measures that cannot easily be transformed into ad valorem equivalents similar to tariffs in goods markets. Broadly speaking, services trade policies have two sets of economic effects. One kind of policy tends to increase the costs facing incumbent operators in a market, thereby leading to lost efficiency and higher prices for users of the service. An example is a regulation that taxes the profits of local and foreign operators differently. We refer to this set of policies generally as being cost increasing measures. The second kind of policy that we are concerned with restricts market contestability by creating barriers to the entry of new firms. An example is a requirement that limits the number of licenses available for telecommunications operators. We refer to this second set of policies as creating entry barriers.

Clearly, many government measures can have one or both of the restrictive effects mentioned above. From an economic efficiency point of view, regulatory cost-benefit analysis can help policymakers design market interventions that achieve legitimate public policy objectives at

minimum economic cost, including through the avoidance of entry barriers and limitation of cost increasing effects. From a trade policy point of view, however, the key variable is discrimination: regulations that create different market conditions, either de jure or de facto, for domestic versus foreign operators are generally considered to be trade-related, and thus to form part of the broader international integration agenda. Deciding where exactly to draw the line between regulatory measures with exclusively domestic effects and those with international effects is of course a difficult question. In what follows, we rely on de facto conventions adopted by international agencies to identify trade-related policies in various services markets.

Two major data collection efforts are currently underway—one at the OECD and the other at the World Bank—in an effort to produce services trade restrictiveness indices that would help analysts and policymakers move forward in assessing applied services trade policy settings around the world. However, neither organization has yet made their data publicly available, and so it is generally not possible to include them in the current report. We therefore focus on currently available proxies for the state of policies affecting international integration of services markets in the ACI countries.

4.1 Trade Costs in Services Markets

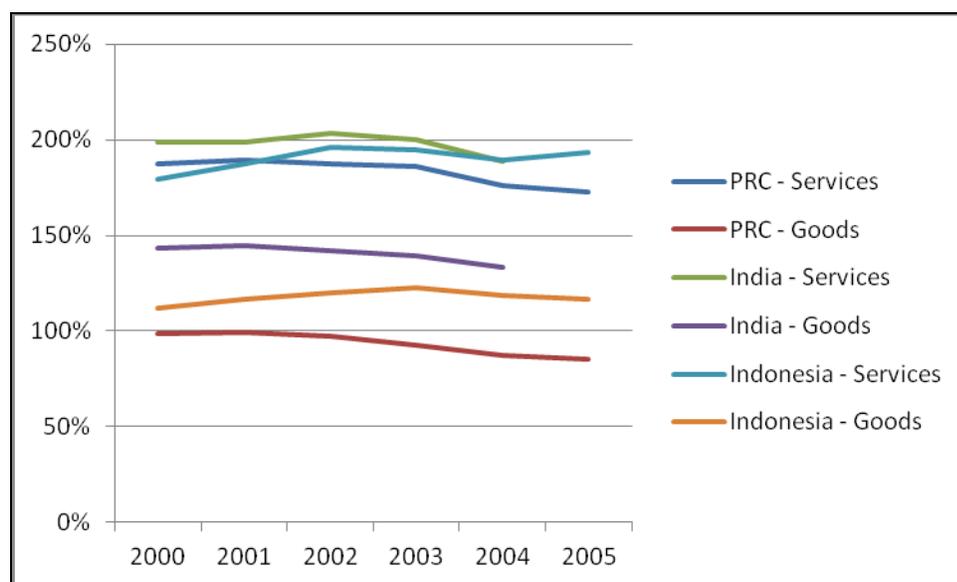
First, we use new data on trade costs in services compiled by Miroudot et al. (2010). The authors use a theory-consistent methodology to compute all-inclusive ad valorem equivalent measures of the cost of trading services internationally relative to the cost of trading them domestically. Although the numbers produced in this way are sensitive to model parameters, the pattern of trade costs across countries and through time is not. It is important to be aware, however, that trade costs in the Miroudot et al. (2010) methodology are not akin to measures of protection. They include a far wider range of cost factors, some of which are amenable to policy interventions, and some of which are not. In services sectors, trade costs are partly related to regulatory measures, some of which can act as de facto protection, but also geographical, cultural, and institutional differences. The Miroudot et al. (2010) measures take account of all of these factors together. Due to data limitations, the authors only cover pure cross-border services trade (GATS Mode I). Intuitively, their approach relies on the observed pattern of intra-national versus international trade to infer the level of international relative to domestic trade costs. The more a country trades with itself relative to its partners, the higher the level of international relative to domestic trade costs. Trade costs calculated in this way are a “top down” measure, in the sense that they capture all sources of trade costs, even unobservables.

The Miroudot et al. (2010) analysis covers up to 61 countries, but only three from the ACI group: Indonesia, the PRC, and India. Results for those countries, comparing trade costs in services markets with those in goods markets, are in Figure 14. In all cases, trade costs are computed relative to the rest of the world as a whole. The first result to emerge from the Miroudot et al. (2010) analysis is that trade costs in services are much higher than in goods sectors in all three markets. The difference ranges from about 30% in India to nearly double in Indonesia and the PRC. This result is in line with the broader findings of the Miroudot et al. (2010) study, and highlights the major scope policymakers have to boost international trade in services by lowering trade costs through targeted reforms.

In addition, Figure 14 shows that trade costs in services are high in all three countries. Taking the most recent year for which data are available, the ad valorem equivalents are 173% in the PRC, 188% in India, and 193% in Indonesia. In all three cases, therefore, the cost of trading services internationally is from three-quarters higher to twice as high as the cost of selling services within national borders. These numbers are considerably higher than the world average (155% in 2007). This finding suggests that policymakers need to pay increased attention to regulatory measures that are de facto discriminatory against foreign service providers, even if there is no de jure discrimination. It also indicates an important role for private sector capacity building among service providers, so that they can better navigate the complex

regulatory, social, and cultural differences inherent in trading services across borders. Building up the services sector, as previously noted, is an important part of broader efforts at private sector development.

Figure 14: Trade Costs in the PRC, India, and Indonesia, 2000–2005



Source: Miroudot et al. (2010).

It is also important to note the dynamics in Figure 14. In the PRC and India, there is clear evidence that trade costs in services have been declining over recent years, which would be consistent with the introduction of some effective policy reforms. In the case of the PRC, trade costs in services were around 7.6% lower in 2005 than in 2000, with a particular reduction noticeable after the country's WTO accession in 2001. In India, the comparable number is 5.1%. In Indonesia, by contrast, trade costs actually rose by 7.8% over the 2000–2005 period. There is clearly scope for policymakers throughout the ACI countries to reduce trade costs in services further, but the issue is a particular priority for Indonesia. Although Indonesia's experience is not necessarily representative of the broader ASEAN experience, it nonetheless gives cause for concern over the effectiveness of recent efforts at integrating international services markets in the region. Policymakers will need to give renewed attention to this issue as they pursue efforts at integrating services markets in the context of the AEC Blueprint.

4.2 Services Policy Indicators

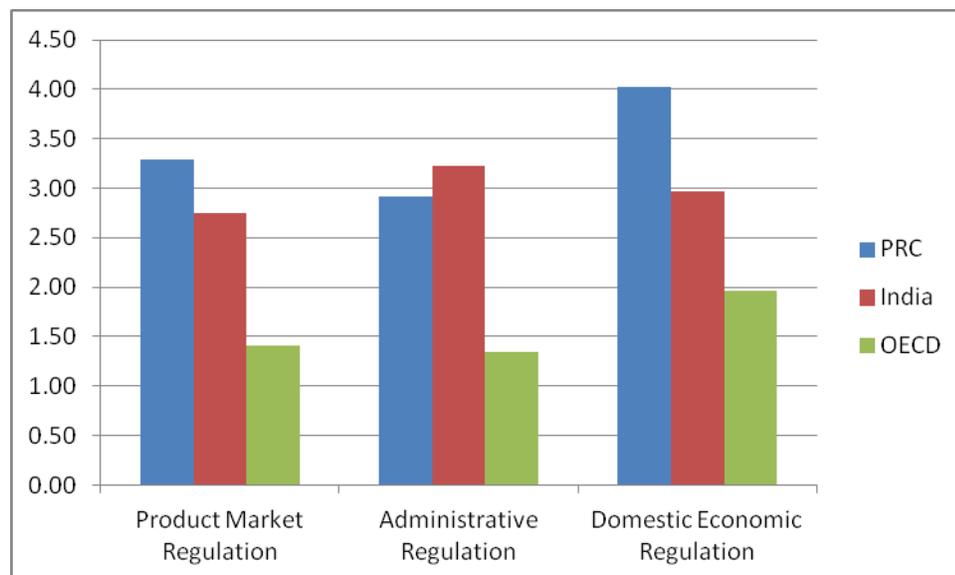
The Miroudot et al. (2010) measure is a useful “omnibus” indicator of trade costs in services sectors, in the sense that it captures all factors that affect the cost of supplying services internationally rather than locally. However, it does not isolate policy-related factors from other factors that tend to increase trade costs, such as geographical, cultural, and social differences. As previously noted, obtaining data on applied services policies is currently difficult because the two organizations engaged in data collection—the OECD and the World Bank—have not yet released their services trade restrictiveness indices on a country basis. Nonetheless, some proxies for the state of services sector policies are currently available, and we review them in the remainder of this section.

Figure 15 shows data from the OECD's Product Market Regulation Indicators (PMRs). The PMRs are widely used as a proxy for applied services policies, and have been found to have a significant impact on international trade in services (e.g., Shepherd and Van Der Marel 2010). Unfortunately, PMR data are only available for the PRC and India, and do not cover any ASEAN countries. We present the OECD average as a point of comparison.

Figure 15 clearly shows that regulation tends to be more restrictive in the PRC and India than on average in the OECD. In the case of the PRC, it is product market regulation that is most restrictive relative to the OECD average, with an index score that is 2.3 times higher. India's score on the administrative regulation index is 2.4 times higher than the OECD average.

Interestingly, the pattern of regulatory restrictiveness between the PRC and India is not constant across all three PMR indicators. The PRC is scored as having the more restrictive policy settings in terms of product market regulation and domestic economic regulation. However, India has a slightly higher score on the administrative regulation index.

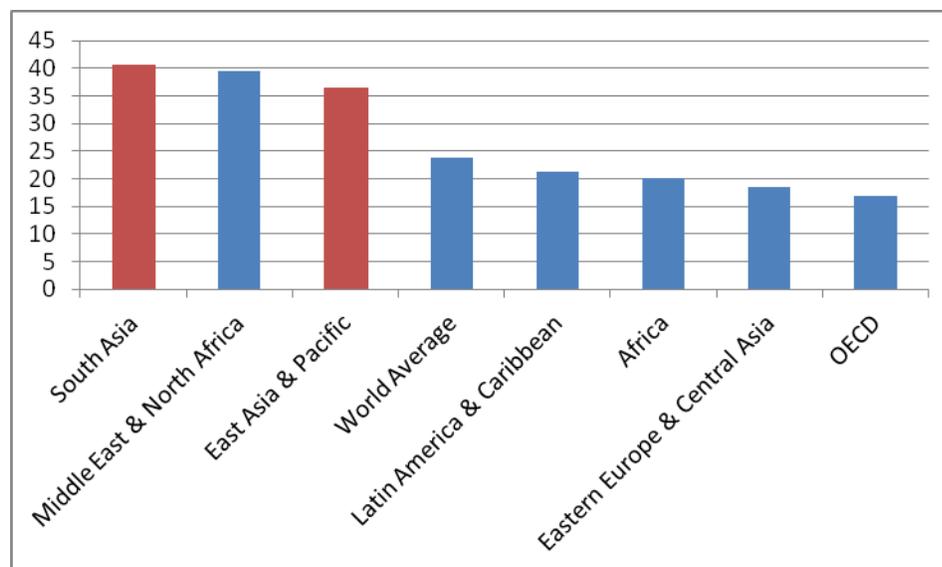
Figure 15: OECD Product Market Regulation Indicators, 2008



Source: OECD Indicators of Product Market Regulation

Database, http://www.oecd.org/document/1/0,3746,en_2649_34323_2367297_1_1_1_1,00.html.

As previously mentioned, World Bank data on applied services trade policies are not yet available on a country-by-country basis. However, Gootiiz and Mattoo (2009) present some preliminary results with data aggregated by region (Figure 16). Their aggregation scheme makes it impossible to separately identify the ACI countries, but we can make some reasonable assumptions regarding their policies based on the two regions they are most closely associated with: South Asia (India), and East Asia, and the Pacific (ASEAN and the PRC). The World Bank data indicate that both regions are highly restricted compared with the world average. South Asia is indeed the most restricted region globally, while East Asia and the Pacific follows closely behind South Asia and the Middle East and North Africa. Clearly, these figures mask considerably heterogeneity across countries in the East Asia and Pacific Region. Some, such as Singapore, are likely to perform much more strongly than the regional average. We will investigate this issue further as the World Bank releases these new data.

Figure 16: World Bank Trade Policy Restrictiveness Index in Services

Source: Gootiiz and Mattoo (2009).

Although the available data on services policies in the ACI countries are far from complete, the three data sources reviewed in this section all suggest the same conclusion: services trade costs in the ACI region are relatively high by world standards, and at least part of that result is due to restrictive policy settings. In general terms, there appears to be much work for policymakers to do to reduce barriers to entry and limit the cost burdens facing incumbent firms, including through reducing discrimination against foreign service providers. Progress in these areas can be made unilaterally, regionally, and multilaterally through the WTO Doha Round. Although the data do not allow us to make specific recommendations on particular policy measures, we can examine the situation in a little more detail by focusing on sector specific data. Section 5 below turns to that analysis.

4.3 Services, Policy, and Regional Integration among the ACI Countries

Before leaving the general services policy setting, it is useful to briefly review the role that services play in broader regional integration efforts in the ACI countries. On the one hand, the objective of achieving an ASEAN Economic Community by 2015 includes promotion of the free flow of services among member countries (ASEAN, 2008). Indeed, the objective of ASEAN integration is a lofty one: “there will be substantially no restriction to ASEAN services suppliers in providing services and in establishing companies across national borders within the region, subject to domestic regulations” (ASEAN 2008). Consistent with previous approaches to liberalization of services in ASEAN, the AEC Blueprint identifies four priority sectors for integration by 2010: air transport, e-ASEAN, healthcare, and tourism. Logistics is the fifth priority sector, with liberalization due by 2013. For other sectors, liberalization is to be achieved progressively through 2015. In all cases, there is flexibility for sub-groups of countries to proceed at different speeds through an “ASEAN Minus X” formula. The Blueprint also deals separately with financial services, and uses language that suggests that the pace and scope of liberalization are likely to be lesser in that sector than in some others, primarily due to ongoing concerns about the relationship between liberalization and financial sector stability in some countries.

Liberalization measures in all sectors focus on GATS Modes 1–3, with specific guidelines covering the removal of restrictions on cross-border trade as well as foreign ownership and equity limitations. For example, in the four original priority sectors, foreign equity limits are to be

raised to 70% by 2010; the same is to happen for logistics by 2013. For non-priority sectors, equity limits are to rise to 51% by 2010 and 70% by 2015 for non-financial sectors. Treatment of Mode 4 is less detailed, although the conclusion of Mutual Recognition Agreements in a number of areas—architecture, accountancy, surveying, medicine, and dentistry—can be expected to facilitate the temporary movement of service providers.

Although the AEC Blueprint on services is an ambitious document, the question of implementation on the ground remains a serious one. Successive liberalization “packages”—the eighth of which was concluded in 2010—have identified a range of measures for members to implement. The ASEAN Secretariat’s AEC Scorecard indicates impressive progress, with over 70% of targets achieved by 2010, including over 80% of Single Market targets (ASEAN 2010). The Scorecard also indicates, however, that considerable work remains to be done in the services area, as additional reform “packages” come on line.

Other sources are more skeptical in relation to progress on the AEC Blueprint in services. Summing up the experience under successive “packages”, Fink and Molinuevo (2007) conclude that ASEAN members’ commitments are limited in breadth and depth. Moreover, USITC (2010) highlights perceived implementation gaps in some countries in the area of logistics services: at the time of writing, a number of ASEAN members had not yet brought themselves into compliance with the requirement of at least a 51% equity ceiling on foreign participation in logistics firms. Industry sources cited by USITC (2010) indicate continued foreign ownership restrictions in Thailand, the Philippines, and Indonesia, which suggests that there is indeed a gap between obligations and implementation at least in relation to some elements of the AEC services agenda. Similarly, Dee (2010) concludes that in banking, the majority of ASEAN countries have yet to reach the Blueprint target, and in air services, only one country has reached the target of allowing at least 70% foreign ownership of domestic airlines. According to the same author, no ASEAN country has reached the Blueprint target of allowing at least 51% foreign ownership in maritime services firms by 2010. Even in telecommunications, only two ASEAN countries currently meet all of the Blueprint’s foreign ownership targets. Clearly, ASEAN member countries will need to pay further attention to these aspects going forward.

The other important aspect of regional integration initiatives in this area relates to ASEAN’s agreements with, respectively, the PRC and India. Although agreements for trade in goods have been concluded with both countries, a services agreement is still under negotiation with India and has not yet been finalized. Progress on Mode 4 trade in particular has proved difficult. With the PRC, by contrast a Trade in Services (TIS) Agreement was signed and entered into force in 2007. The agreement is based on a positive list approach—i.e., liberalization commitments are only taken on in listed sectors—and a hybrid (positive and negative) approach to listing the level of openness (Fink and Molineuvo 2008). Comparing the PRC’s obligations under the TIS with its GATS commitments suggests that it has only agreed to a limited amount of additional liberalization—primarily in Mode 3—through the addition of new bindings or the extension of bindings to new sectors. The same is generally true for ASEAN countries, although Singapore’s schedule of commitments goes substantially beyond its GATS bindings in all four modes of supply, and Malaysia has taken on some substantial new obligations in Mode 3 (Fink and Molinuevo, 2007).

Going forward, it will be important for the ACI countries to continue to leverage regional integration initiatives to promote regulatory reform of key services sectors. Of course, there is a complex interplay between regional and unilateral initiatives, particularly in services: the latter are often a means of “locking in” the former, rather than a genuine source of liberalization in their own right. Whereas regional agreements to liberalize goods trade often have a strongly discriminatory outcome, that is much less true for services (Miroudot et al. 2010). The reason is that even when they are prompted by regional integration rather than multilateral agreements, reforms to lower entry barriers or reduce the cost burdens facing incumbents tend to apply equally to all trading partners rather than only in favor of preference partners. Of course, there is

greater scope for discrimination if reform efforts focus on a single narrow area, such as foreign equity restrictions, which can be liberalized more easily in a preferential way. The political impetus behind ACI integration can therefore be used to help promote broad-based gains in the regional services economy, provided that implementation on the ground is sufficiently assured.

Of course, regional integration is only one part of the political economy problem facing reform-minded policymakers. Entrenched producer interests in import-competing sectors can organize to oppose reforms that would lead to lower prices and other gains for consumers. Consumers tend to be a diverse and poorly organized group, which means that the political economy balance can easily tip in favor of protectionist policies. To overcome this effect, it is important for policymakers to work with other beneficiaries or reform, in addition to consumers. The evidence presented above showed that a more efficient services sector translates into gains for other well-organized industries in the economy, and these industries can form an important countervailing weight in favor of reform. Policymakers need to have evidence available of the extent to which services policy reforms can produce economic benefits both in terms of national aggregates, and sectoral outcomes in those industries that use services intensively. Harnessing these forces, along with services exporters and potential exporters, makes it more feasible for policymakers to institute relatively liberal policy reforms, which still safeguarding important domestic policy objectives in areas such as consumer protection.

5. DYNAMISM IN KEY SERVICES SECTORS: TRENDS AND POLICY IMPLICATIONS

The discussion thus far has focused on the services sector as a whole. In this section, we use disaggregated data to examine individual services sectors in more detail. We focus first on “backbone” sectors, such as telecommunications, transport and distribution, and finance, which have strong linkages to the rest of the economy. We then address social services, such as health and education. In the final sub-section, we examine emerging patterns of transnational production and trade in services such as business process outsourcing.²

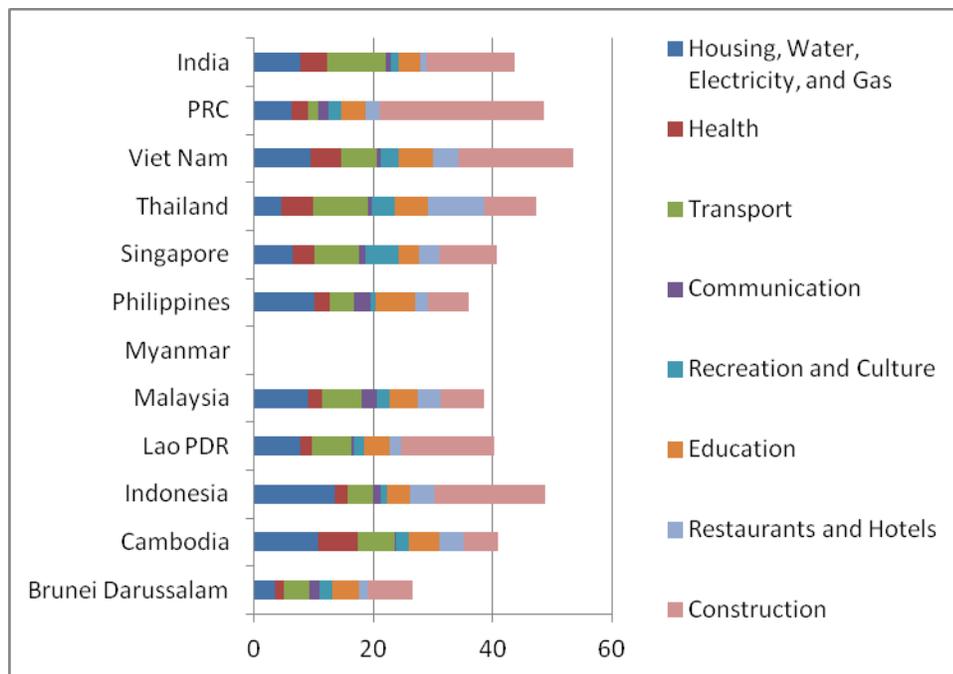
To give a preliminary idea of the relative importance of various services sectors in economic activity as a whole in the ACI region, Figure 17 presents expenditure share data from the International Comparison Program. Although there is considerable cross-country heterogeneity, a number of notable trends emerge from the data. The first is the importance of the construction sector: it accounts for the largest proportion of services sector expenditure in seven of the 11 ACI countries for which data are available. From a trade policy point of view, it is significant that construction also tends to be a highly protected sector in most economies, often due to sensitivities regarding the temporary movement of service providers (Mode 4). However, the sector’s economic importance in the region makes it likely that political economy pressures in favor of a more liberal policy stance will tend to develop over time, as users of construction services become aware of the price and efficiency gains that international trade can potentially bring.

Public services also clearly play a major role in the ACI economies. Housing, water, electricity, and gas account for the largest proportion of expenditures in three of the 11 countries for which data are available. Although this figure needs to be interpreted with caution—ICP data include housing although it is not strictly considered a service in most other contexts—the point nonetheless emerges strongly when other social services such as health and education are considered. Grouping the three public services sectors together accounts for, on average, nearly 17% of GDP in the ASEAN economies, 16% in India, and 13% in the PRC. Again, the

² Although potentially important as an export earner for some countries, the tourism sector is outside the scope of the present study.

political economy implications of the combined size of these sectors are important because of the tension that is likely to intensify between the desire of large operators to expand internationally, and the need to put in place appropriate domestic regulatory structures to ensure that key social objectives continue to be met.

Figure 17: Expenditure on Various Types of Services as a Percentage of GDP, 2005

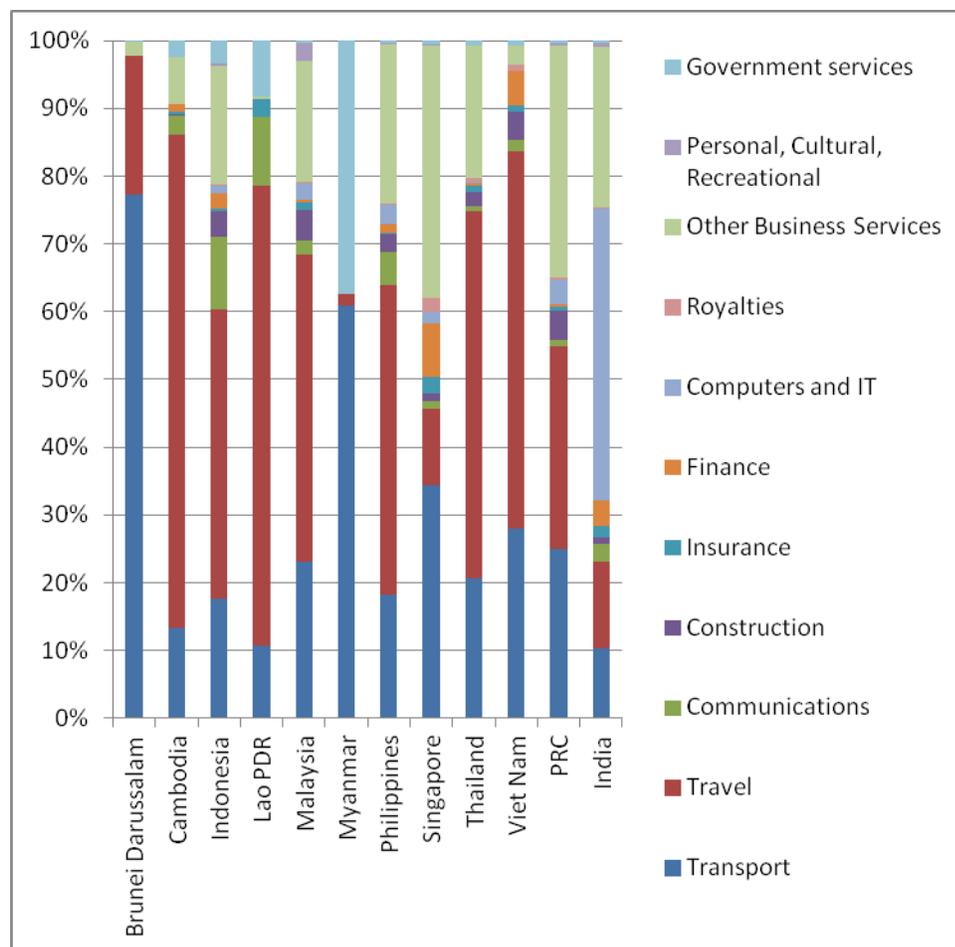


Source: International Comparison Program.

As already noted, data availability constitutes a major constraint in analyzing trade in services among the ACI countries. It is impossible to provide a sectoral breakdown of bilateral trade flows, or intra- versus extra-regional trade, but existing sources do allow us to provide some sectoral detail on services exports to the rest of the world (Figure 18). Since these data are based on each country's balance of payments statistics, including mirror data when applicable, they mostly capture GATS Mode 1 trade.

It is immediately apparent from Figure 18 that two sectors—travel and transport—account for a major share of total services exports in a range of ACI countries. In both cases, the share of these sectors in exports appears to be considerably larger than in expenditure as a whole (GDP; Figure 17). More generally, it is apparent that the patterns of expenditure and trade differ significantly across countries. In some cases, an important part of the explanation is the fact that not all services can easily be traded via Mode 1: construction, which accounts for a major share of expenditure but, according to these figures, a tiny share of trade, is an example. In other cases, however, policy is likely to play a larger role. Market distortions associated with discriminatory entry barriers and cost burdens lead consumers to choose domestic over foreign service providers. A clear implication of the differences between Figures 17 and 18 is that there is more that policymakers can do to reduce services sector distortions, and in particular to bring about a more neutral set of incentives across sectors.

Figure 18: Sectoral Breakdown of ACI Services Exports, 2008



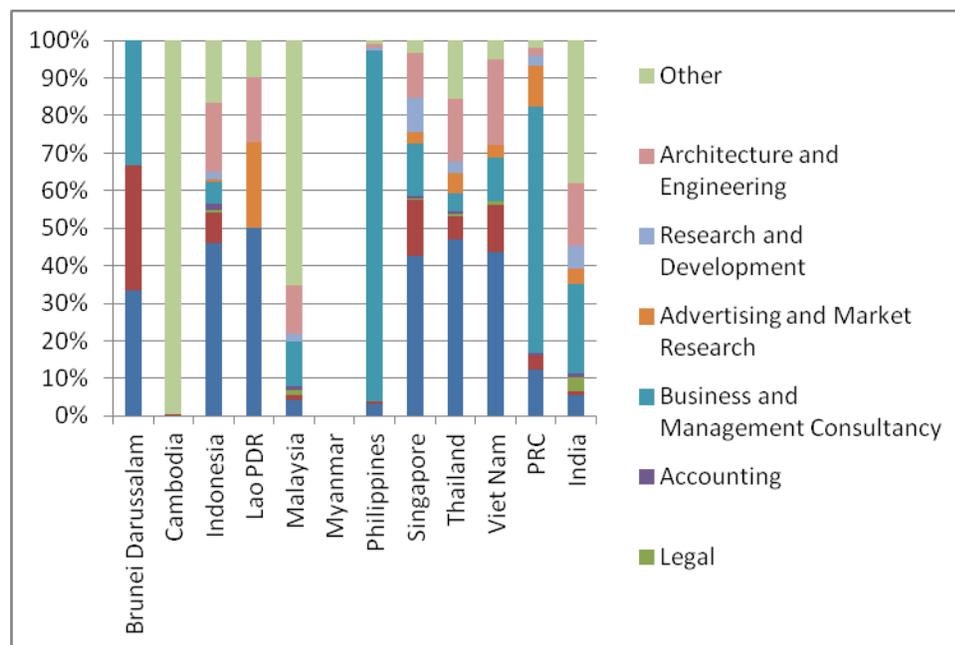
Source: Trade in Services Database Version 7 (Francois et al., 2009).

The second important point to emerge from Figure 18 is that computers and other business services play a major role in the services trade landscape in the region. Nowhere is this truer, of course, than in India: as a global IT outsourcing hub, it exhibits a particularly high proportion of computer services in total services exports, around 40%. No other country exhibits such a high degree of integration with global markets in IT services. However, business process outsourcing—which is captured by the other business services sector definition—is a major export earner in most of the ACI countries. It accounts for more than 15% of total exports in seven cases. Interestingly, other business services represent a significant share of total exports in developed economies (Singapore) as well as developing ones (the PRC and the Philippines, for example).

Sector-specific data also allow us to focus in more detail on individual components of the “other business services” sector (Figure 19). Reporting conventions vary significantly across countries, and data need to be interpreted with caution for Brunei Darussalam and Lao PDR, and to a lesser extent Cambodia and Viet Nam, due to the relative lack of detail in official statistics. Nonetheless, the breakdown shows the extent to which business and management services account for a significant proportion of total trade in the sector. Combined with the data discussed in the previous paragraph, there is suggestive evidence of the emergence of production networks in services around the region, by analogy with developments in goods markets over recent decades. Business process outsourcing is taking place to a significant extent, involving both developed and developing economies. Research and development functions are increasingly being traded as well. Singapore is the standout example, but India and even Thailand are also involved in this process to a notable degree.

By contrast, only some professional services are currently the subject of significant amounts of trade. The contrast is striking between architecture and engineering on the one hand and legal services on the other. The former sector is a significant export earner in a number of regional economies, whereas exports of legal services scarcely register as significant in most economies. Different policy environments—and in particular licensing regimes—may explain part of the divergence. We return to this issue more fully below.

Figure 19: Breakdown of ACI Countries' Exports of Other Business Services, 2007



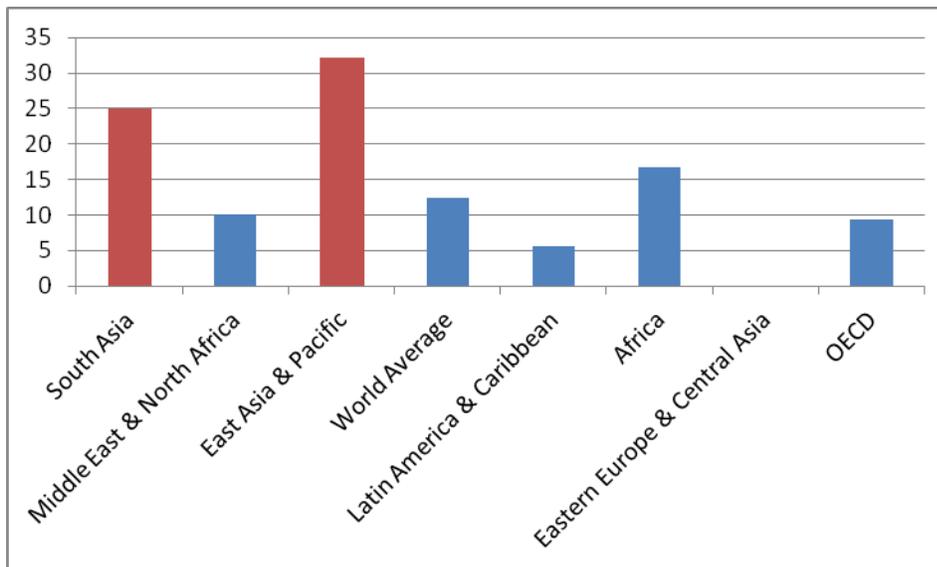
Source: Trade in Services Database Version 7 (Francois et al., 2009).

In the remainder of this section, we discuss individual sectors in more detail. Whereas the discussion thus far has focused on identifying economically important services sectors in terms of expenditures and trade, we now examine policies more closely. Our objective is to assess the level of policy restrictiveness in the region, and to identify the types of measures policymakers could implement to improve international and regional market integration in the context of broader ACI initiatives.

5.1 Telecommunications

As the starting point for our discussion of policies affecting trade in telecommunications, we take the World Bank’s Trade Restrictiveness Indices. Again, these data have not yet been made public on a country-by-country basis, so we can only report the relevant regional aggregates from Gootiiz and Mattoo (2009) (Figure 20). In line with the general results presented above, the East Asia and South Asia regions are both highly restricted by world standards in the telecommunications sector. Indeed, they are respectively the most and second-most restricted regions in the world, according to these World Bank data. Although we can expect there to be considerable heterogeneity across countries that is not revealed by these aggregate figures, the overall picture that emerges when compared with, for example, the world average or the OECD average is striking.

Figure 20: World Bank Services Trade Restrictiveness Index in Telecommunication Services

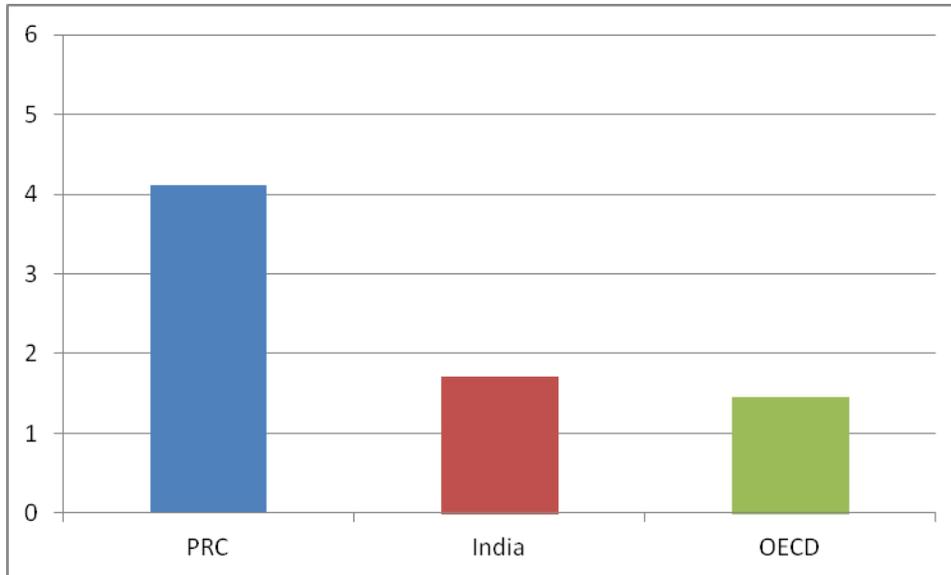


Source: Gootiiz and Mattoo (2009).

The OECD also produces sector-level policy indicators covering the PRC and India in addition to OECD members. Results for the telecommunications appear in Figure 21. There is a marked difference in policy settings between India and the PRC: the former is close to the OECD average in terms of restrictiveness, whereas the latter is much more restrictive. A closer inspection of the sub-indicators that make up the OECD's overall measure reveals that the difference between the two countries is largely in terms of market entry restrictions: according to the OECD data, India allows free entry whereas the number of entrants appears to be limited in the PRC. Such restrictions not only act as significant trade barriers by restraining entry by foreign competitors, but as noted above they also tend to have major cost and efficiency implications for the sector as a whole.

At first glance, the finding that India's telecommunications policy is much less restrictive than the PRC's is difficult to reconcile with the World Bank data discussed in the previous paragraph: policies in South Asia—which includes a number of countries in addition to India—are much more restrictive than in the OECD. It may be that the regional aggregate is obscuring country-level performance, but differences in the definition of what constitutes a “restriction” may also be playing a role. Such issues will need to be investigated in further detail once the World Bank makes its full database publicly available.

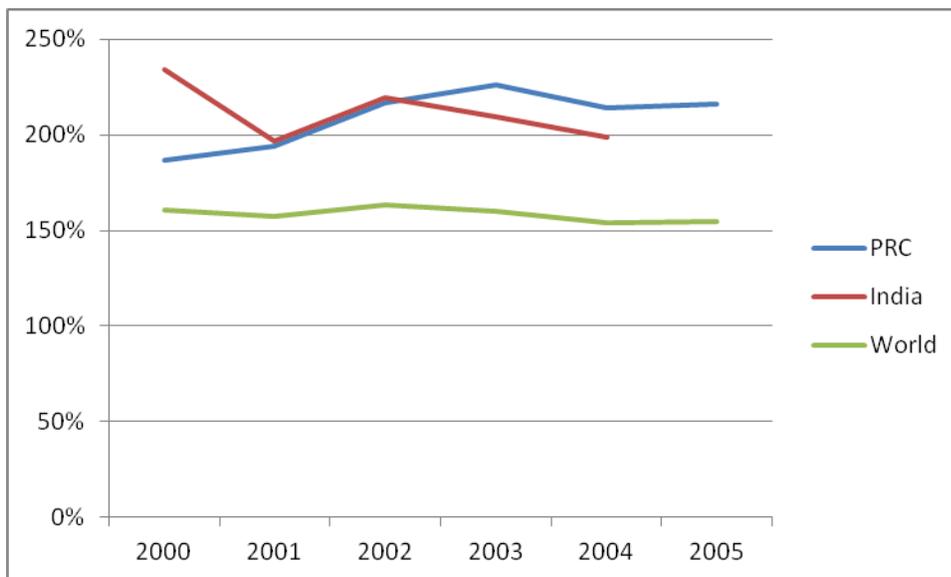
Figure 21: OECD Indicators of Regulation in Telecommunications



Source: OECD Indicators of Product Market Regulation Database, http://www.oecd.org/document/1/0,3746,en_2649_34323_2367297_1_1_1_1,00.html.

The final source of relevance is the trade costs database of Miroudot et al. (2010). The pattern that emerges from Figure 22 is much more in line with the World Bank data than with the OECD data. The authors' results suggest that trade costs in the telecommunications sector are broadly similar in the PRC and India—although somewhat lower in the latter—but both are considerably higher than the world average. Since the Miroudot et al. (2010) trade costs measure is based on Mode 1 trade, it undoubtedly gives a lesser role to entry barriers of the type emphasized in the OECD data, which primarily affect Mode 3 trade.

Figure 22: Trade Costs in the Telecommunications Sector, Selected Countries, 2000–2005



Source: Miroudot et al. (2010).

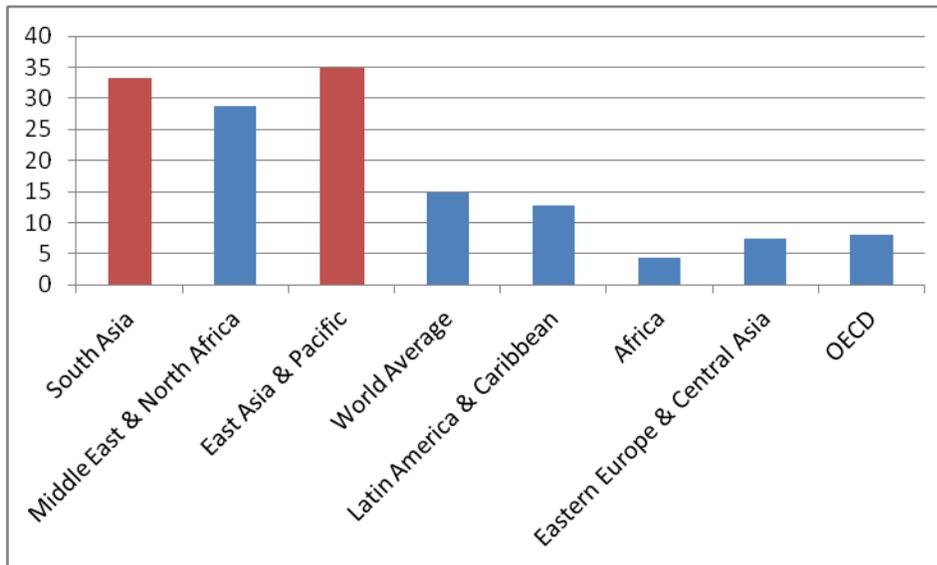
What types of measures do policymakers need to focus on in order to reduce trade costs and policy-related distortions in telecommunications services markets? Dihel and Shepherd (2007) identify a range of possibilities in the context of developing their trade restrictiveness indices for fixed and mobile telecommunications. In terms of Mode 1 trade, priorities include regulations

that enable operators to connect to existing networks without discrimination, as well as allowing the development of internet-based telephony services. However, the crucial area for moving forward in this area relates to commercial presence (Mode 3). Reinforcing competitive norms in the sector, including through the establishment of an independent regulator, is a crucial step. Lowering de jure and de facto barriers to entry can encourage foreign companies to enter the market, thereby boosting competition, lowering prices, and improving service. Licensing arrangements are a crucial part of the equation, and should be designed in such a way as to facilitate entry without undue discrimination against foreign service providers.

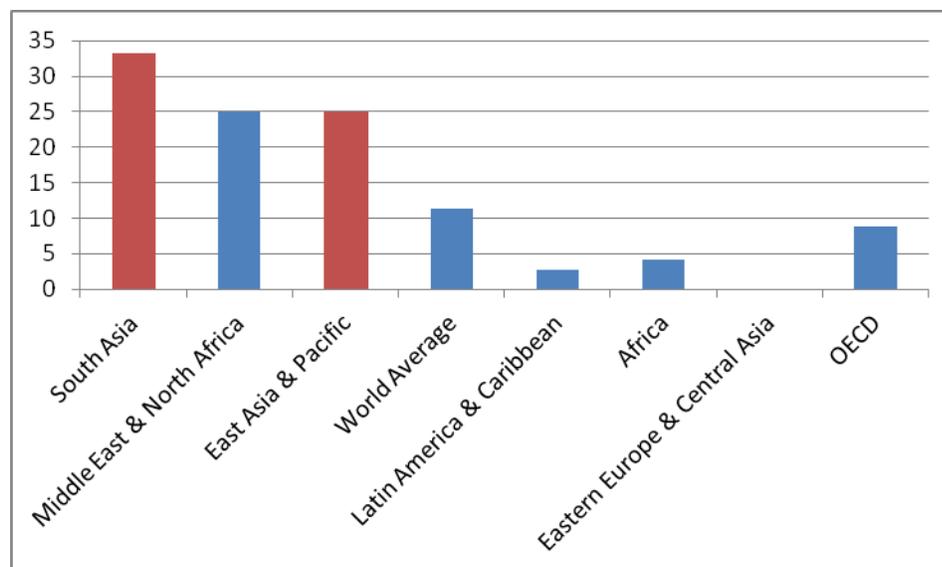
5.2 Transport, Distribution, and Logistics

The World Bank provides restrictiveness data on maritime transport (Figure 23) and retail trade (Figure 24). As was the case for telecommunications services, policy settings in the ACI countries appear to be substantially more restrictive than the world average: East and South Asia are again the two most restricted regions in the world, according to these data. Although it is necessary to be wary of generalizing in light of the likely high degree of cross-country heterogeneity, the available evidence suggests that there is again much work for policymakers to do in terms of encouraging the free movement of services across borders in these sectors.

Figure 23: World Bank Services Trade Restrictiveness Index in Maritime Transport



Source: Gootiiz and Mattoo (2009).

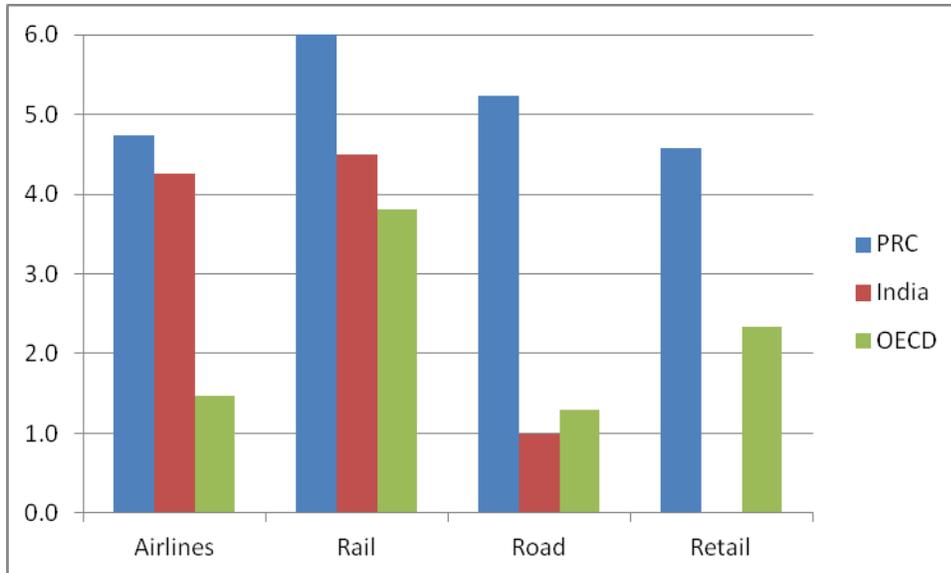
Figure 24: World Bank Services Trade Restrictiveness Index in Retail Trade

Source: Gootiiz and Mattoo (2009).

The OECD regulatory indicators database provides more sectoral detail, but only covers the PRC and India in addition to OECD member countries (Figure 25). The PRC's performance is relatively uniform in all three transport sectors—road, rail, and air—as well as in retail trade. It is consistently more restrictive than the OECD average. The maximum score on the OECD's index is six, so the PRC's markets can be considered highly restricted based on these data.

The situation in India is more complex. No data are available for retail trade, but in the three transport sectors, India is consistently scored as having a less restrictive policy environment than the PRC. In rail, India's market is only slightly more closed than the OECD average, although the difference is substantial in the case of air transport, where India's performance mirrors that of the PRC. In road transport, however, India's market appears to be relatively open: its score is much lower than the PRC's, and is even lower than the OECD average.

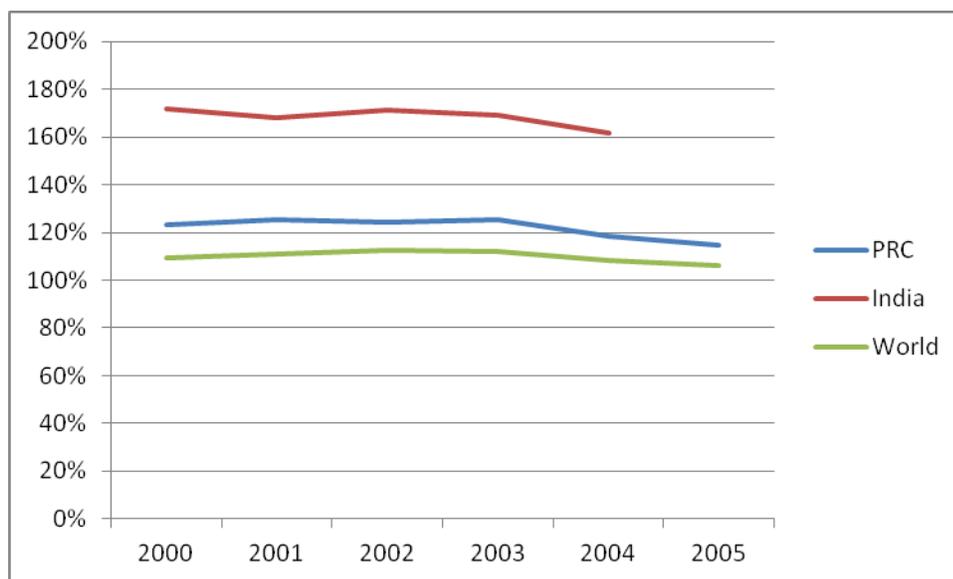
As in the case of telecommunications services, the main reason for the differences in scoring between India and the PRC is the presence of higher barriers to entry in the latter. In air transport, for example, both countries receive the maximum score of six in relation to public ownership of sectoral operators, but India scores 2.5 for entry barriers compared with the PRC's 3.5. In rail transport, the same pattern is present, along with a more competitive market structure in India. Road transport again sees lower barriers to entry in India, but the most significant divergence between the two countries is in terms of pricing restrictions: India is coded as having a free pricing regime, whereas the PRC is considered to have highly administered prices.

Figure 25: OECD Indicators of Regulation in Transport, and Retail Trade

Source: OECD Indicators of Product Market Regulation
 Database, http://www.oecd.org/document/1/0,3746,en_2649_34323_2367297_1_1_1_1,00.html.

Miroudot et al. (2010) provide trade costs data covering the transport sector (Figure 26). They find that the PRC's performance is roughly comparable to the world average, whereas trade costs in the Indian transport sector are much higher. In both cases, however, there is a clear downwards trend over time. These results sit more easily with the World Bank's work on policy restrictiveness than with the OECD market regulation indicators, because the former tend to indicate stronger performance in East Asia (the PRC) than in South Asia (India). As in the case of telecommunications, the reason is probably that the Miroudot et al. (2010) measure is based on pure cross-border trade (Mode 1), whereas the OECD data put a high premium on restrictions affecting commercial presence (Mode 3).

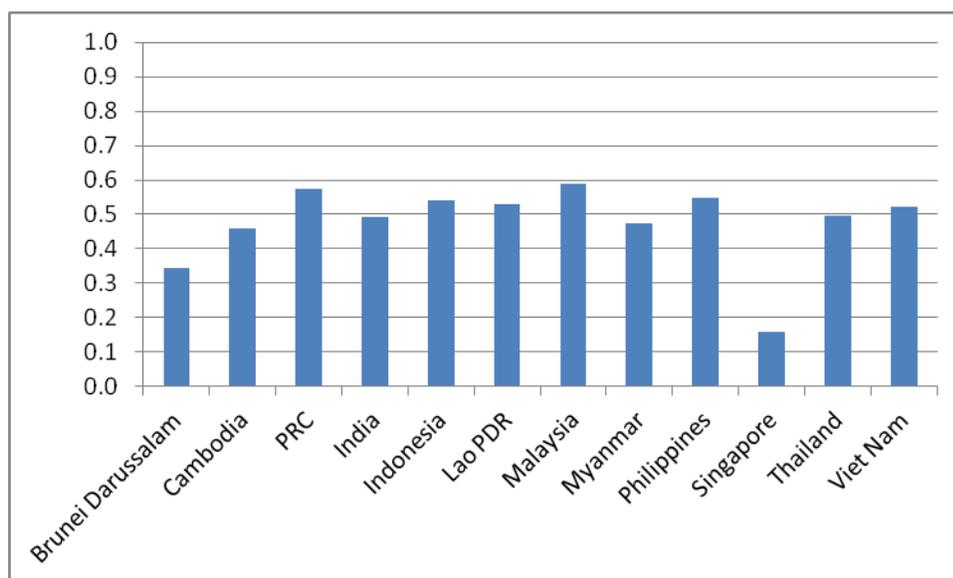
Figure 26: Trade Costs in the Transport Sector, Selected Countries, 2000–2005



Source: Miroudot et al. (2010).

An additional information source in this sector is the data collected by Hollweg and Wong (2009). The authors use a variety of sources to construct restrictiveness indices for logistics services, as well as air, maritime, and land transport. Results are presented in Figure 27, which focuses on measures that affect foreign service providers. Clearly, there is considerable heterogeneity across the region: Singapore is coded as having very few restrictions, whereas the PRC and Malaysian markets are considerably more restricted. Interestingly, India’s logistics market is less restrictively regulated than the PRC’s when it comes to foreign service providers. Taking Australia, New Zealand, Japan, and the Republic of Korea—countries for which Hollweg and Wong (2009) report data—as representative of broad trends in the OECD, the authors’ results suggest that the logistics policy environment in all ACI countries other than Singapore is noticeably more restrictive than elsewhere. This result is quite consistent with the findings of the OECD and World Bank in related areas (see above).

Figure 27: Restrictiveness of Policies Affecting Foreign Firms in the Logistics Sector



Source: Hollweg and Wong (2009).

In terms of concrete policy measures that can help reduce trade costs in these sectors, Dihel and Shepherd (2007) provide a typology by mode of supply for distribution services. The main potential area for realizing further economic gains in this area lies in moving forward on supply by commercial presence (Mode 3). Policies that restrict access to commercial land, limit the size and type of commercial outlets that can be opened, as well as broader limitations on foreign equity participation, can all constitute barriers to entry. Indeed, some such measures are not simply discriminatory against foreign operators but restrict the entry of potentially efficient providers more generally.

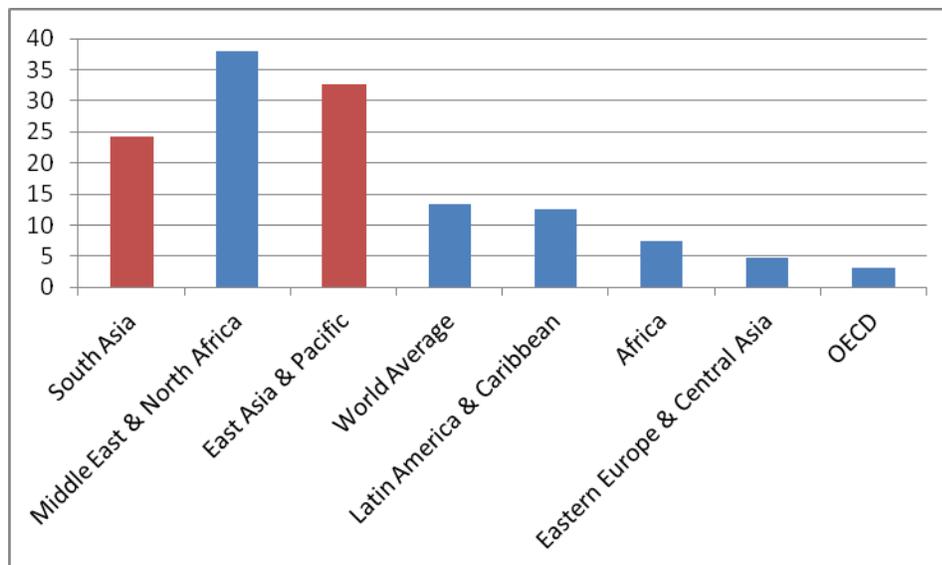
USITC (2010) identifies as of 2010 a number of specific examples of Mode 3 restrictions that will need to be dealt with in the context of completing the AEC. Thailand, for example, prohibits majority foreign ownership of domestic transportation activities, including those that are part of an international shipment. The legal framework for logistics-related foreign investment is unclear in the Philippines: the legislative limit appears to be 40%, but it has been found not to be applicable to air freight forwarders; the end result is that the issue may have to be litigated, which creates significant uncertainty for service providers. A 2009 law in Indonesia effectively reserves all logistics activities to locals, although limited access is granted to foreign service providers in collaboration with domestic partners. Although Malaysia has liberalized foreign entry in a number of sectors, there is still a requirement that a majority stake in customs brokerage be held by indigenous Malays. On the other hand, Viet Nam and Cambodia have both used their WTO accession process to lock in significant reforms. In Viet Nam, the cap on foreign ownership of express delivery firms is to be lifted entirely in 2012, and road transport operations have been open to majority foreign ownership since 2010, subject to an economic needs test. Cambodia has similarly undertaken not to impose foreign ownership restrictions in road freight transport and courier services.

Hollweg and Wong (2009) also identify a range of policies that can affect restrictiveness in the logistics sector. In addition to general restrictions on cross-border movements of capital (Mode 3) and people (Mode 4), they also identify the role of government monopolies in some logistics-related sectors. In particular, government monopolies in areas such as cargo handling, ground handling, state trading, or container trucking, can result in higher prices for end-users as well as dynamic inefficiencies due to the lack of competitive pressure. Given the importance of logistics services in promoting regional and international trade—including through network structures, as discussed above—reforms in these areas are likely to have particularly large economic payoffs.

5.3 Finance

The World Bank's services policy data again suggest that East and South Asia are among the most restricted regions in the world when it comes to trade in financial services (Figure 28). Both regions are much more closed than the world average. Only the Middle East and North Africa region has, on average, a higher level of policy restrictiveness. We again stress, however, that these data represent regional aggregates that undoubtedly mask considerable variation across countries.

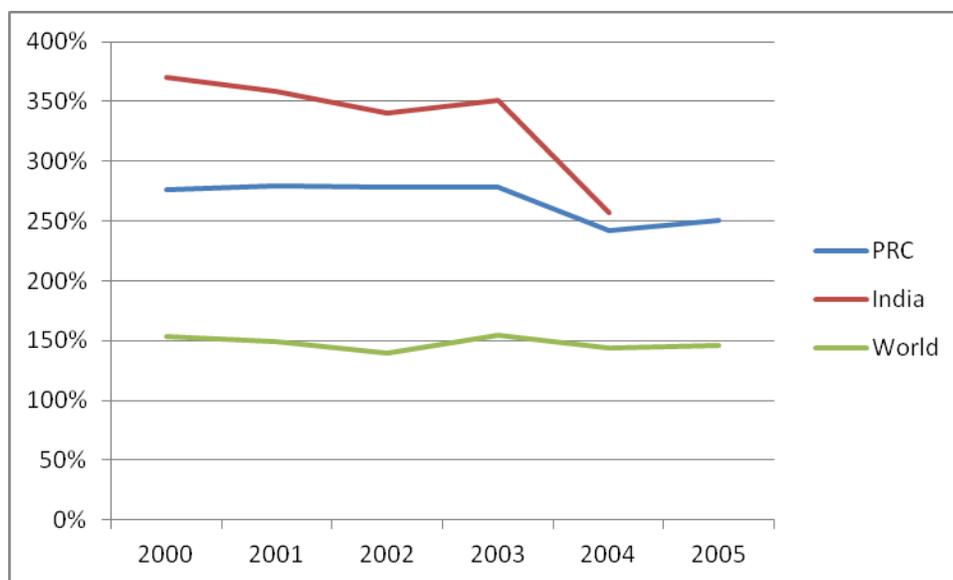
Figure 28: World Bank Services Trade Restrictiveness Index in Financial Services



Source: Gootiiz and Mattoo (2009).

No OECD data are available on trade restrictiveness in the financial sector. However, the data from Miroudot et al. (2010) support the view put forward in the previous paragraph, at least in so far as the PRC and India are concerned (Figure 29). Both countries exhibit a level of trade costs in financial services that is much higher than the world average. The trend is downwards in both cases, however, and is particularly strong in the case of India. Indeed, the most recent year for which data are available (2004) sees very similar levels of trade costs in the two countries.

Figure 29: Trade Costs in the Finance Sector, Selected Countries, 2000–2005



Source: Miroudot et al. (2010).

Dihel and Shepherd (2007) identify a range of policies that can potentially affect trade in the banking and insurance sectors. One set of policies affects Mode 1 trade, by creating barriers to pure cross-border movements of financial services. For instance, restrictions on borrowing from or depositing with foreign banks effectively limit the size of the market to those institutions physically present within a particular country. To the extent that such restrictions affect the operations of financial sector companies, they not only constitute an entry barrier, but they also tend to raise the operating costs of incumbents. Of course, commercial presence (Mode 3) is

also an important mode of supply in the financial sector. Measures that limit the establishment of foreign branches, as well as restrictions on foreign equity participation in the sector, make the domestic market less contestable. Regulations governing the issuance of banking licenses need to be administered in a transparent and non-discriminatory way in order to ensure that foreign competitors can enter the domestic market based on their perceived competitiveness.

Dee and Dinh (2009) provide further details on the types of policy restrictions that are most common in the ASEAN context. In the banking sub-sector, they find that Singapore is by far the most open market for foreign service providers. In other countries, policies affecting commercial presence (mode 3) and intra-corporate transferees (mode 4) are most prevalent. Myanmar's market is almost completely closed to foreign providers, primarily due to these types of restrictions. The next most restricted group is Viet Nam, Malaysia, Thailand, and Lao PDR. Brunei Darussalam and the Philippines are slightly less restrictive than the ASEAN average, whereas Cambodia and Indonesia are considerably more open. The main reason for the difference in restrictiveness scores between these two groups is the relatively lesser restrictions on commercial presence in Cambodia and Indonesia.

In addition to efficiency concerns, trade liberalization in the financial sector also needs to confront the need to ensure an appropriate level of domestic prudential regulation for all operators, domestic and foreign. The point is a particularly important one in East Asia, where the 1997 crisis remains a defining feature of the sectoral landscape. The key for regulators and trade negotiators moving forward is to strike an appropriate balance between liberalization and regulation. Generally, it should be possible to meet prudential objectives and ensure financial sector stability in a way that does not discriminate between foreign and domestic service providers, or between incumbents and new entrants.

5.4 Health Services

Trade in medical services is a "sunshine" sector in Asia. Thailand, Singapore, Malaysia, and India have been medical tourism destinations for more than a decade, on the back of their high-quality and relatively cheap medical services compared to those in developed western countries. In GATS parlance, this is Mode 2 consumption of medical services where foreign consumers travel to the supplying country to avail themselves of health services. The medical tourism market is expected to grow more as large cost differentials of health care services in western developed countries and Asian developing countries persist. Psychological and emotional barriers to accessing health services outside one's country that, heretofore, have provided a brake on more medical services trade could gradually erode after many favorable experiences of returning tourists, and could fuel more foreign demand for the same medical services. Within Asia, too, as the middle class population increases and becomes more affluent, trade in medical services within the region is expected to further accelerate.

Most of the business in medical tourism has catered to Western tourists rather than intra-regional consumers. Most foreign patients in Singapore and Malaysia are citizens of other ASEAN countries, while Thailand attracts more customers from outside ASEAN, the majority of whom are Japanese, either from Japan or living as expatriates (see Table 5). India draws many of its patients from the large Indian diaspora population who come back to India for tourism and for medical procedures, as well as from other developing neighboring South Asian countries where medical services are far less developed. Competitiveness in medical tourism in Thailand, Singapore, and Malaysia relies not only on lower priced services compared to those in developed countries, but also on the established reputation of high quality services and specialized services that are not available in other ASEAN countries.

Table 5: Exports of Health Tourism Services

	Export revenues	Number of patients	Origin of patients	Strengths
Malaysia	RM150 million (\$40 M) (2003)	More than 100,000 (2003) 400,000 (2005)	60% Indonesia, 10% other ASEAN	Cardiology, cardio-thoracic surgery, cosmetic surgery
Singapore	\$420 million (2002)	210,000 (2002) 370,000 (2005)	45% Indonesia, 20% Malaysia, 3% other ASEAN	Liver transplants, joint replacements, cardiac surgery
Thailand	Approx 20 billion baht (2003) (\$482 million)	470,000 (2001), 630,000 (2002) 1.25 million (2005)	42% from Far East (mostly Japan), 7% ASEAN	Cosmetic surgery, organ transplants, dental treatment, joint replacements
India	\$480 million (2005)	500,000 (2005)	Middle East, UK, Canada, developing countries	Cardiac surgery, joint replacements, eye surgery

Source: Table 1 in Arunanondchai and Fink (2007); UNESCAP (2007).

To service rising demand for medical tourism, cross-border FDI in healthcare facilities—and thus probably also GATS Mode 3 trade—has also risen. For example, Singapore's Parkway Group Healthcare has joint ventures with hospitals in Indonesia, India, Malaysia, Sri Lanka, and the UK. Thailand's Bumrungrad Hospital entered into management contracts with hospitals in Bangladesh and Myanmar, and formed a joint venture with Asian Hospital in the Philippines. Bangkok Hospital has 12 branches in Southeast and South Asia, primarily in tourist towns (Arunanondchai and Fink, 2007).

Besides medical tourism, medical transcription services (Mode 1 trade of health services) is another major export service. India and the Philippines (along with Cuba) are leaders in the export of medical transcription services, telepathology, and telediagnostic services. Among the ASEAN countries, the Philippines has a comparative advantage in this export business due to a large pool of educated English-speaking workers. Transcriptionists are usually medical school graduates who work part-time while awaiting the results of their medical board exams. The majority of the medical transcription companies are owned by US investors, but Indian companies have also, more recently, set up in the Philippine market, shifting some of the business in India to the Philippines.

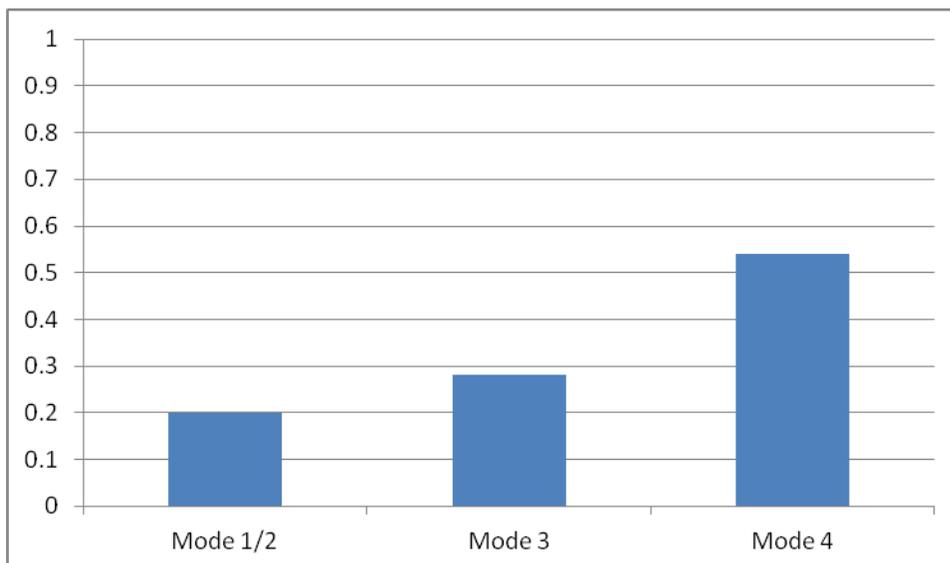
5.4.1 Policies in Health Services

Though not all ASEAN countries have GATS commitments on health services, governments in the region have proactive policies to boost competitiveness in the sector and to attract FDI. Thailand, Indonesia, and the Philippines have no bound commitments on health services, while Malaysia has equity limitations up to 30% in its Mode 3 commitments. Viet Nam and Cambodia have very generous commitments in hospital services in their GATS commitments, with no or few restrictions on market access and national treatment in all modes except Mode 4. Viet Nam requires only a minimum investment capital amount for hospital investments as well as specialty clinics, while Cambodia requires at least one Cambodian technical director.

Compared with GATS commitments, actual policies can be more liberal in some cases: Viet Nam, Lao PDR, and Cambodia allow full foreign ownership of hospital facilities, while the Philippines, Malaysia, and Thailand have foreign equity caps ranging from 30% to 49%. Indonesia's foreign ownership limit is up to 100% according to its investment policy, but 90% according to Ministry of Health (Table 9 in Arunanondchai and Fink 2007b). Moreover, some incentives are given by governments in the region to attract foreign investment. For example, the Philippines provide two-year tax holidays for newcomers in the medical transcription business, as well as training support for graduates to be employed in the field.

Seemingly, ASEAN governments prefer to deal with health services trade either unilaterally, or if regionally, outside the framework of trade agreements. ASEAN governments agreed to have healthcare as one of their priority sectors, and adopted a Roadmap for region-wide integration of the healthcare sector in 2004. A survey of health sector regulation in ASEAN countries, however, revealed significant work ahead, particularly on people-related regulations, for example licensing, training of local staff, and the number of nationals in foreign hospitals. There are, likewise, restrictions on the type of establishments (with domestic partners) and scope of services, but little to none on private versus public ownership and in consumption of medical services abroad (Figure 30).

Figure 30: Restrictions on Hospital Services in ASEAN



Source: Authors' computations, based on data from Dee and Dinh (2009). Scores represent the simple average across ASEAN countries of all restrictions in a given mode of supply.

The high growth potential of trade in medical services is, however, limited by the shortage of qualified medical personnel. The Philippines is a large exporter of medical professionals, especially nurses, along with Indonesia. Filipino nurses' destinations are mostly outside Asia, to other English-speaking regions like the USA, UK, Australia, Canada, and Ireland, as well as the Middle East. Indonesian nurses' export destinations are to other Islamic countries, as well as Malaysia and Singapore (Arunanondchai and Fink 2007). While Malaysia hosts foreign medical workers, some of its healthcare workers are lured by the higher wages in Singapore. The increased demand from medical tourism will necessarily provide pressure in the medical labor market to allow more foreign doctors and medical specialists to practice in domestic hospitals. Already, ASEAN has signed a mutual recognition agreement (MRA) for medical and dental practitioners as well as for nursing services to ease the difficulty of labor mobility in the medical field.

5.4.2 Future Trends

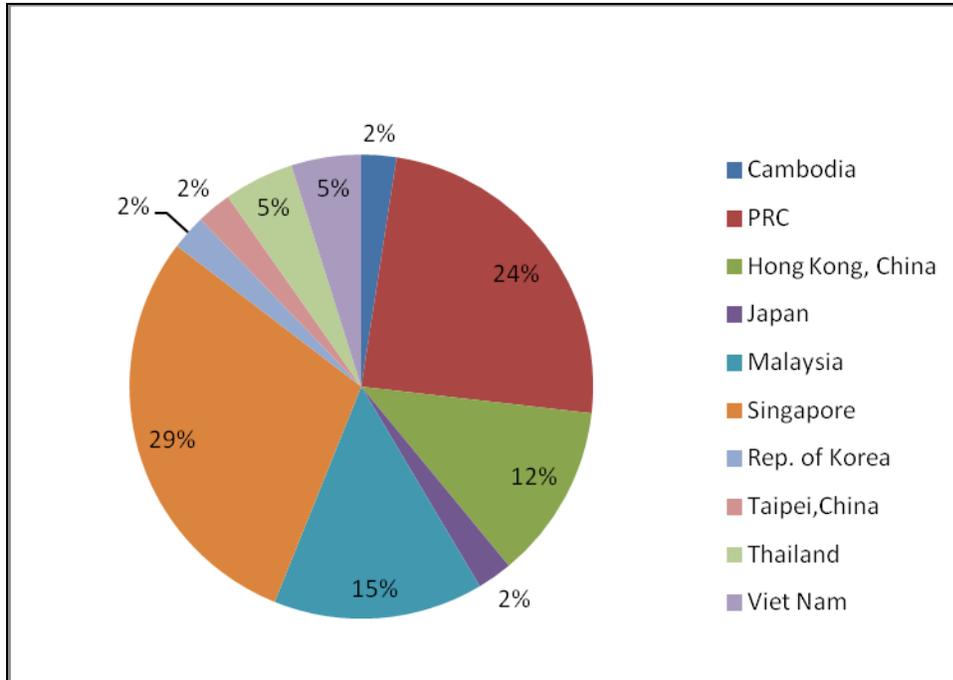
Globalization of health care increases the role of standards-setting organizations. For example, hospitals and medical facilities involved in medical tourism voluntarily seek the Joint Commission International (JCI) accreditation. A JCI “imprimatur” is not only useful as a quality signal for foreign patients to feel safe about seeking treatment abroad in particular hospital facilities; it is also useful for facilitating the portability of private health insurance coverage. Some international health insurers refuse to finance medical treatment abroad unless the facility is accredited with JCI. Having a JCI accreditation, therefore, increases demand for medical tourism services because patients who would have been hampered in seeking foreign medical treatment by lack of health insurance portability are enabled to do so if the hospital has the proper accreditation that international health insurers recognize.

Another expected trend is increased collaboration of hospitals with biotechnology research. For example, in India, Apollo Group of Hospitals, a major player in the medical tourism arena, is teaming up with Histotem Inc., a Korean US-based biotechnology firm, to provide stem cell therapy and develop new treatments. Histotem is establishing a large umbilical cord blood bank for stem cells in India, aided by the country’s high birth rate. With approximately 72,000 births daily, the storage of stem cell rich blood derived from these umbilical cords, which would have otherwise been discarded, can prove to be the best possible insurance against life threatening diseases (Nasim and Momaya 2010). With India being a popular medical tourism destination, particularly for surgical procedures, synergies with stem cells from cord blood banks appear headed in the right direction, with the latter providing a further boost to India’s medical tourism industry.

5.5 Education Services

Asia has also been home to a lot of the action in trade in education services, especially higher education, over the past decade. Not only have Asian universities, especially those in Singapore; Malaysia; Hong Kong, China; and Shanghai, been active in partnering with established universities in North America and Europe in delivering various education programs, either through “twinning” arrangements,³ joint program delivery, franchise arrangements, or distance learning; major cities in Asia have also invited foreign universities to build branch campuses or replicas of themselves. Asia is next to the Middle East in being a top location for branch campuses, hosting 26% of global branch campuses, compared to 31% in the Middle East. Within Asia, Malaysia; Singapore; the PRC; and Hong Kong, China are most active in luring foreign universities, capturing 79% of branch campuses in Asia (Figure 31).

³ A twinning arrangement is when a provider in source economy A collaborates with a provider in host economy B so that students take course credits in host economy B and/or source economy A. The qualification is awarded by the provider in source economy A. Arrangements usually comply with the regulations of source economy A. APEC (2009) provides a further description of various other arrangements prevailing in tertiary education.

Figure 31: International Branch Campuses by Asian Country as Host (%)

Source: Authors' computations based on data from Annex A in Becker (2009).

Asian countries attract foreign universities to establish in their territories by helping build the facilities, through reduced rental fees, or through student scholarship financing. In contrast, Middle Eastern countries, besides providing similar public subsidies, also usually provide operating revenues for the branch campuses. In many education hubs, however, quasi-governmental and nongovernmental entities act as sponsors or partners, with a minimum of government support. Most branch campuses have local joint venture partners, though a few are fully-owned by the parent universities. Some examples of branch campuses in Asia are as follows:

- “Educity” in Johor, Malaysia, has three UK campuses being built: Newcastle University, Southampton University, and Marlborough College. Before them, several Australian universities also set up shop in Malaysia. The first among them was Monash University, then Britain’s Nottingham University followed, as well as other Australian universities. The Massachusetts Institute of Technology is creating the Institute for Supply Chain Innovation in Malaysia, while Johns Hopkins University is expected to establish a medical school (The Economist, 7 May 2011). In attracting foreign establishments, the Malaysian government wants universities to set up faculties in areas where it has a strategic interest in developing the corresponding sectors, such as in engineering or medicine.
- Singapore has similar active engagements with foreign universities. In fact, it has the highest number of branch campuses (12 out of 41 Asian campuses). These universities include: University of Chicago (School of Business), New York University (Tisch School for the Arts), Baruch College, as well as Australian universities like University of Newcastle and Curtin University of Technology.
- In Hong Kong, China, Savannah College of Art and Design (SCAD) renovated a 1960s courthouse with jail cells in North Kowloon in exchange for close to zero rent and started offering 14 undergraduate and graduate degrees in subjects like photography, interactive design, and game development (IHT, 9 May 2011). It seeks to capitalize on the central location of Hong Kong, China to attract students from the PRC and other Asian countries. Similarly, Hong Kong, China aims to attract branch campuses for specialty courses like

what SCAD offers, instead of full-blown universities which would compete with existing Hong Kong, China universities.

- Seven out of 10 branch campuses in the PRC are US universities and colleges. These include Johns Hopkins University, University of Maryland (School of Business), Baruch College, and Florida International University.

Besides branch campuses, Asia has also been active in twinning and franchise arrangements, often offering joint degrees with foreign universities, especially in business fields. While there is no comprehensive data on how many and what sort of programs these are, newspaper advertisements over the last decade have been full of executive programs, both short-term and degree granting.

Will this trend in education services trade continue to grow? There are strong reasons to believe so. First, in the past, Asian students have constituted the majority of foreign students populating universities in the West, but as the PRC and Asia grow, there has been considerable interest among North American and European students in learning more about Asia. In a recent survey of student mobility around the world, the PRC is now ranked sixth in the top destinations of foreign students (OECD, 2010), together with the traditional top spots occupied by US, UK, and France. Quite surprisingly, Americans rank second to Koreans among foreign students flocking to PRC universities, notwithstanding the language difficulty of attending classes in Mandarin. The language difficulty partly explains why many foreign students go to other Asian universities, in Malaysia; Singapore; Hong Kong, China; and others, to take courses taught in English while at the same time getting a toehold in Asia. With more foreign students (either from the West or from within the region) coming to these countries, the need to modernize educational facilities and build university campuses is palpable and governments are providing public support for such endeavors.

Second, the huge cost differential between studying in North America or Europe and within Asia is another factor that favors branch campuses in Asia. Malaysia, for example, has, in the past, had troves of their own college-age youth population going abroad for studies; now, with more branch campuses of foreign universities in Malaysia, they could get the same degrees and qualifications for half the price (The Economist, 7 May 2011). Indeed, the race is just beginning to entice more foreign students, with many Asian countries targeting a range of 80,000 to half a million international students in their respective countries over the next ten years.

Third, even without the establishment of branch campuses, the attractiveness of a “global” education is inspiring the proliferation of joint programs between Asian universities and European, Australian, or North American universities and colleges. Twinning arrangements or joint degree programs are increasingly considered an advantage as they signal students’ capability to navigate today’s global interactions. Home to millions of young people, Asia is a rich source of students for many established universities in the West, by offering joint programs whereby part of the course may require taking up residence in the foreign (non-Asian) campus with the other part in the home university. Even for established universities in the West, international partnerships with Asian universities improve the marketability of their own traditional degree courses by providing their own students the opportunity to experience living in Asian cities for part of their college life.

5.5.1 Asian Outward FDI in Education

India may not be as popular as Singapore, Malaysia, or the PRC as a branch campus location of foreign universities, but it is active in establishing its own branch campuses outside Asia. In the Middle East, there are 11 branch campuses of Indian universities and institutes of technology, and one in Singapore (Annex A, Becker 2009).⁴ Malaysia is encouraging its own

⁴ SP Jain Centre of Management offering master’s degrees in business.

universities to establish branch campuses abroad to be able to attract more foreign students to Malaysia through joint degree programs. The PRC is likewise starting to establish universities, especially in less developed countries in Asia (e.g., Lao PDR), as well as PRC language institutes globally.

5.5.2 Regulatory Hurdles

There are strong sensitivities in international trade negotiations affecting education services, resulting in reluctance by many countries to make any GATS commitments in this sector. In practice, however, the fact that a dizzying pace of change has taken place in the educational services sector outside a trade policy framework suggests that barriers to trade in education services are not major obstacles. Sauv  (2002) notes that, apart from restrictions on commercial presence (Mode 3), governmental measures do not seriously impair trading conditions in services. The typically sensitive issue of movement of people (Mode 4) is not so problematic in the education field, given demand for expertise and uniqueness of the skills that researchers and academics bring to the host country. Mode 2 trade which consists of student travel to study abroad involves measures that are, nevertheless, outside trade policy as they consist of funding/scholarship issues, student-related work permits, and student visas.

The more serious barriers are restrictions on Mode 3 (commercial presence), such as restrictions to the establishment of branch or satellite campuses; denial of privileges to foreign-owned schools and their students (e.g., no government scholarships allowed in foreign-owned branch campuses); discriminatory measures in the provision of research grants; etc. Even nondiscriminatory regulations that put restrictions on many aspects of university administration, from tuition rates to salaries to research grants, that affect the viability of foreign presence in the local education market and raise the hurdle of recruiting world-class faculty, though arguably outside the trade policy framework, may be a sufficient disincentive for Mode 3 trade.

Notwithstanding caution in their trade commitments, for now, however, many host countries themselves are voluntarily making their regulations as friendly as possible to foreign universities to attract many to locate to their countries, especially if they have deemed that this is in their own strategic interest. To join the bandwagon of playing host to major university branch campuses and to improve its higher education, India's Cabinet has approved the removal of many current restrictions in higher education services, and the measure is now under consideration in parliament. Other countries may have a more difficult time addressing Mode 3 impediments. Indonesia and the Philippines, for example, have absolute restrictions on the establishment of foreign-owned universities, but twinning programs and other partnership agreements are viable alternatives.

Another regulatory concern is on assuring quality, both of the education providers and of the programs. There is genuine risk of a proliferation of "degree mills" with liberalization. The problem is particularly acute for Mode 1 services (virtual education or distance learning), where no regulatory system is in place to register, license, or recognize out-of-country providers. What is more, the education providers for these types of services include not only established educational institutions but also companies with even no home-based presence in the foreign country, some of which are virtual for-profit companies. Though recognizing the issue of quality assurance, Sauv  (2002) argues that the appropriate setting to resolve these problems is outside the GATS. There are various bilateral, regional and multilateral agreements that address quality assurance in education, for example, the UNESCO Convention on the Recognition of Qualification.

Summing up, Asia is a growth area for education services because it has a growing young population, it is cheaper to provide the services within the region than for Asian students to travel to the West, and domestic supply capacity is insufficient as far as quality higher education for their large population is concerned.

5.6 Business Process Outsourcing and other Offshored Services

If the PRC is considered the world's global factory, India, the pioneer in global outsourcing services, has earned the reputation of being the world's back-office. From a meager US\$4 billion in exports in 2000, India's information technology and business process outsourcing (IT-BPO) exports grew to almost US\$48 billion in 2009, or about 6% of the country's GDP. The stellar growth of India, combined with improved perception of offshoring by more and more firms from the US and Western Europe, have attracted more countries to join the global race for market share.

Aside from more countries participating in global outsourcing, the industry is also witnessing the expansion of types of services that are offshored. In the early stages of the industry, most outsourced services were call centers, IT, and software, and a few business processes like finance and accounting, and other generally relatively routine tasks. Current trends, however, point to more and higher value knowledge-process outsourcing (KPO) services such as research and development, product design and product development, engineering services, and others that were heretofore considered core competencies that were unthinkable to be offshored. Yet, current surveys of the industry show that these too have migrated outside their home markets. Table 6 shows examples of such high value-added and sophisticated tasks.

Table 6: Examples of Offshored Innovation Services

Function	Examples of Tasks
Engineering Services	Design automation Tool design Simulating Drafting and modeling Engineering analysis (e.g., finite element analysis) Embedded systems development Re-engineering Technical publications
Research and Development	Research on new materials and processes Code development Research and development of new technologies
Product Design	Prototype design Systems design Application development

Source: Price Waterhouse Coopers (2010).

What functions to offshore largely depends on the industry. For example, technology and telecommunications, health and pharmaceuticals, as well as auto/industrial manufacturing, are the industries that see the need for offshoring innovation services. For pharmaceuticals, the offshored research and development research and development (R&D) are currently clinical trials and not the higher-end drug discovery, but for the other industries, some higher-end innovation services are already offshored. In financial services, most offshored services are back-office services and call centers. Each industry's emerging drivers for offshoring differ from each other. In technology and telecommunications, and in consumer and media industries, access to qualified personnel figures importantly, while for others it is business redesign (manufacturing) or speed to market (financial services). Table 7 shows more detailed differences by industry.

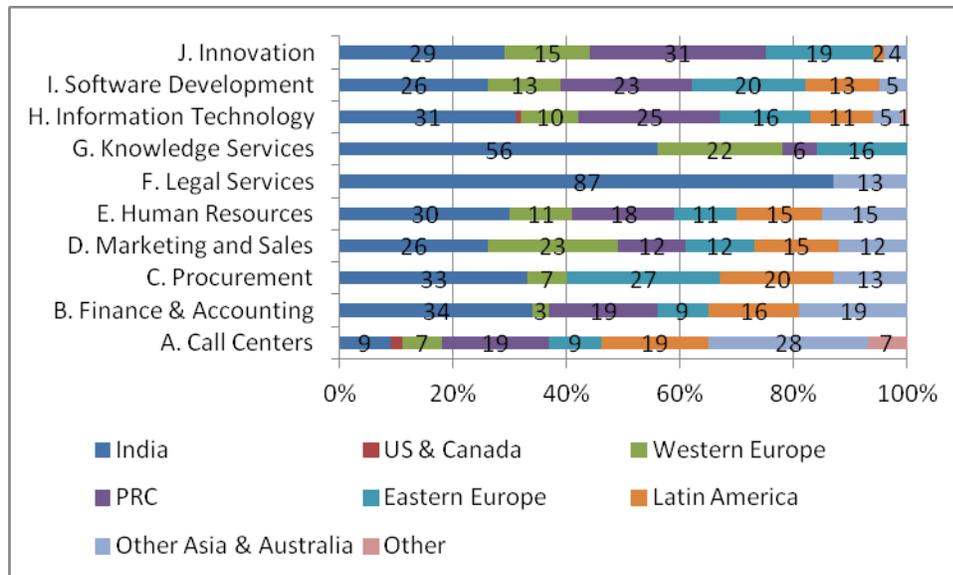
Table 7: Comparative Analyses by Industry

Category Evaluated Against	Auto/Industrial/ Manufacturing	Financial Services	Consumer & Media	Technology & Telecom	Health/Pharma/ Biotech
Major Business Functions Offshored (other than IT)	Engineering, Finance & Accounting, Marketing & Sales, Product Design.	Call Center, Other Back Office.	Finance & Accounting, Product Design.	R&D, Call Centers.	R&D, Call Centers.
Major Drivers of Offshoring (other than labor cost savings)	Part of a larger global strategy. Redesign business process.	Speed to market. Growth strategy.	Access to qualified personnel. Differential strategy.	Growth strategy. Access to qualified personnel.	Part of global strategy. Industry practice.
Percentage of Offshore Implementations Leading to Job Loss	34%	47%	53%	26%	21%
Achieved Savings from Offshoring	50%	39%	32%	37%	34%
Drivers of Offshoring Location Choice (other than low labor cost)	Location of existing business operations.	Location of best service provider. Quality of infrastructure.	Labor pool expertise. Quality of infrastructure.	Political stability. Government incentives.	Expertise. Quality of infrastructure.
Top Offshoring Locations	India and the PRC.	India and Latin America.	India, Philippines, Latin America, Western Europe.	India, the PRC, Latin America, Eastern Europe.	India, the PRC, Africa/Middle East.
Perceived Offshoring Risks	Service quality. Data security.	Internal corporate culture buy-in.	Lack of customer acceptance.	Lack of customer acceptance.	Service Quality Cultural differences.

Source: Duke University Offshoring Research Network 2006 Survey (in Lewin and Couto, 2007).

Across the broad spectrum of offshored services, India remains dominant but the PRC is very quickly gaining ground in specific services such as procurement services and product development, helped by the presence of many foreign manufacturing enterprises in the country (Figure 32). The Philippines has established a stronger presence in call centers and specific business processes, and is attracting more and more legal services from the US due to the similarity of its legal systems and capable English speaking workforce. Eastern Europe and the PRC are favored destinations for non-voice services such as knowledge services, IT, innovation, and procurement.

Figure 32: Favored Destinations of Selected Offshored Services (%)⁵⁶



Source: Duke University Offshoring Research Network 2009 Survey (in Price Waterhouse Coopers 2010).

5.6.1 Emerging Trends

What is highly significant as an emerging trend in the offshoring business is that labor arbitrage or cost reduction is no longer the only major reason why businesses in developed markets migrate some functions of their business offshore. For many foreign firms, offshoring is the way for them to tap qualified personnel, particularly engineers and scientists, who are available in other markets but have become in relatively short supply in the United States. Offshoring is evolving from a cost reduction strategy into a workforce management strategy (Lewin and Couto 2007).

Ernst (2006) observes that since the H1B visa quota in the US was cut in 2003, the shortage of technical talent has become starkly apparent and companies have decided to offshore to search for global talent. Added to this is the significant wage inflation in the US for information technology (IT) and software engineers. These factors have combined to make offshoring a crucial part of many companies' global strategy. In the knowledge economy, instead of workers moving to where jobs are, it is jobs that move to where talented workers are. Among the various offshored functions, innovation-centered functions such as R&D, product design, engineering, as well as IT, pay particular importance to access to personnel.

Besides searching for talent, more and more companies are adopting offshoring as part of their global strategy amidst a changed business environment where revenue sources have also become global. A large part of revenues of many multinationals now come from outside the US as a result of growth of markets in other parts of the world. Some US firms that have greatly increased employment abroad have corresponding revenue streams coming from outside the US.

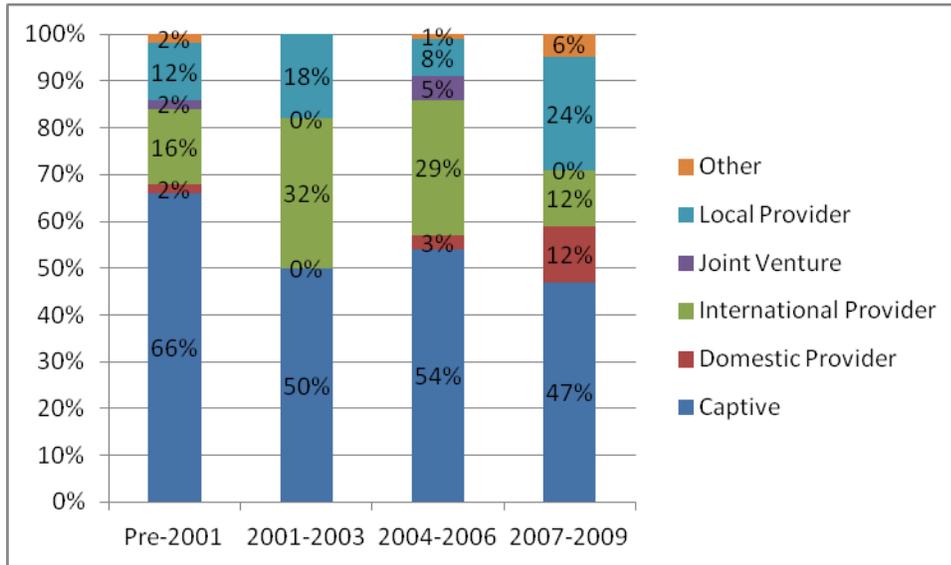
Significantly, while in the past, more than half of offshored activities were delivered via captive service providers, or through fully-owned subsidiaries, more recent trends point to an increased outsourcing to external service providers. In India, some captive providers were even sold to BPO providers during the recent global financial crisis to help augment the parent firms' financial liquidity. Figure 33 shows that, while captive service remains the dominant and

⁵ Percent of providers naming regions as growing destinations in particular services.

⁶ Percent of providers naming regions as growing destinations in particular services.

preferred mode of delivery, its share in total offshored services has declined while outsourcing to external service providers has increased.

Figure 33: Preferred Delivery Models⁷



Source: Duke University Offshoring Research Network Survey, various years.

Small offshoring firms—defined as those with less than 500 employees—rely more on external offshore service providers, compared to large firms that rely more on captive providers. Small companies are also more likely to engage in joint ventures in their offshoring activities, more likely to offshore innovation services than large firms, and undertake offshoring in order to grow locally and increase speed to market.

In summary, a recent survey of firms found that, although cost reduction remains a dominant driver for the decision to offshore, the importance of other drivers is increasing, particularly access to qualified personnel, the need to have business process redesign, and increased speed to market. Offshoring firms’ strategy to access global talent does not appear to threaten employment, particularly in “sophisticated activities” such as research and development and other innovation services, as these offshored activities tend to complement their existing activities onshore. But for the less sophisticated functions, such as those in those in finance and accounting, IT, and call centers, some onshore employment replacement appears to be taking place (Lewin and Couto 2007).

5.6.2 Policy Implications

One very important implication from these emerging trends is the need for governments that want to be major players in the large offshoring market to invest in educational quality and in developing a large pool of skilled human capital. Merely offering lower costs will not be sustainable because corporate strategies are shifting from merely cost reduction to a labor force management strategy (i.e., access to talent). The competition for global talent will increase and governments will need to provide significant numbers of workers at premium quality. This means putting in place education incentives for students to take advanced science and engineering degrees, as these are likely to be highly demanded professions in the coming years. The availability of a large pool of skilled human resources will determine success in capturing more offshored services.

Second, FDI restrictions, particularly on the type of establishments, need to be liberalized. Currently, countries that seek offshoring business have relatively liberal policies as regards

⁷ Percent of offshoring implementation using a particular delivery model in manufacturing industry

offshore business FDI. But firms' preferred delivery methods (see survey results, above) show a dominant preference for captive service providers, which points to the need to allow up to 100% foreign equity in many of the offshoring businesses. Increased government incentives, as well as political stability, will also help attract offshore business FDI.

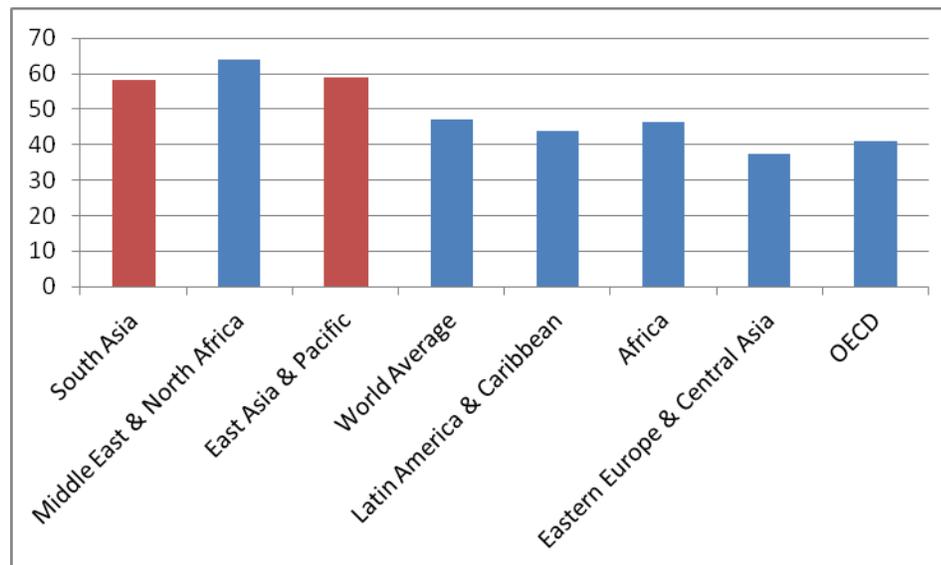
Third, rules on data security and intellectual property are also important in assuaging concerns of offshore businesses. Passage of relevant laws could help to diminish the risk of data theft and loss of intellectual property. The development of more domestic locations that can absorb investments from service offshoring is also another important country strategy to lessen employee attrition rates particularly in "hot spot" cities where there are already many offshored businesses. Continuous training is important to ease the pressure on employee attrition by providing more hireable applicants.

Besides human resources, other critical factors are the quality of IT infrastructure, and institutions. Goswami et al. (Forthcoming) argue that while success in services exports seems unrelated to performance in goods trade, the critical elements to succeed are skilled human resources, good telecommunications infrastructure, and strong institutions. Government policies that are targeted to support specific sectors can be useful, but country experiences are often mixed. Some targeted policies have proven to be ineffective and often get mired in corruption and poor implementation. In addition, the authors point to active private sector advocacy as an effective tool to obtain the right government policies and support.

5.7 Business and Professional Services

No data are currently available on the extent of policy restrictions in the business services sector as a whole. Information is only available for particular sub-sectors, focusing on professional services. In general, the World Bank data suggest that professional services are highly restricted throughout the world (Figure 34). East and South Asia are again two of the most restrictive regions, but the difference with the world average is much less marked than in other sectors.

Figure 34: World Bank Services Trade Restrictiveness Index in Professional Services

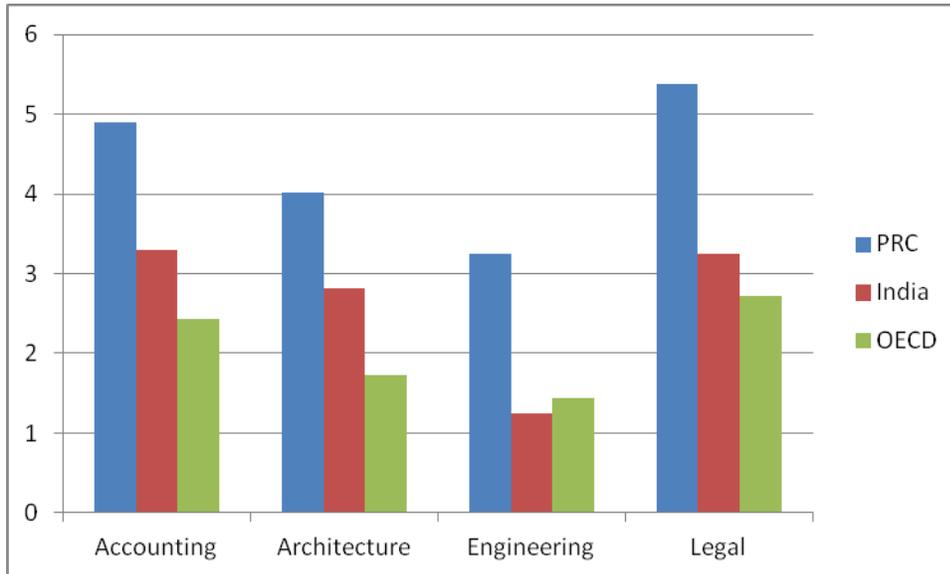


Source: Gootiiz and Mattoo (2009).

The OECD policy indicators paint a more nuanced picture than the World Bank data, although their coverage is limited to the PRC and India (Figure 35). In all four professional services sectors covered by the OECD data, the PRC is considerably more restrictive than the OECD average. The same is only true for India in accounting and architecture. In the two remaining sectors—engineering and legal services—policy restrictiveness in India is approximately the

same as the OECD average. In accounting, the difference between India and the PRC is largely due to measures that increase the cost of doing business for incumbents, although entry is also somewhat more restricted in the PRC. Architecture provides an interesting contrast between the two countries, as entry is relatively free in India but cost-increasing regulations are more prevalent. In engineering and legal services, both types of measure are much less restrictive in India than in the PRC.

Figure 35: OECD Indicators of Regulation in the Professional Services, 2008

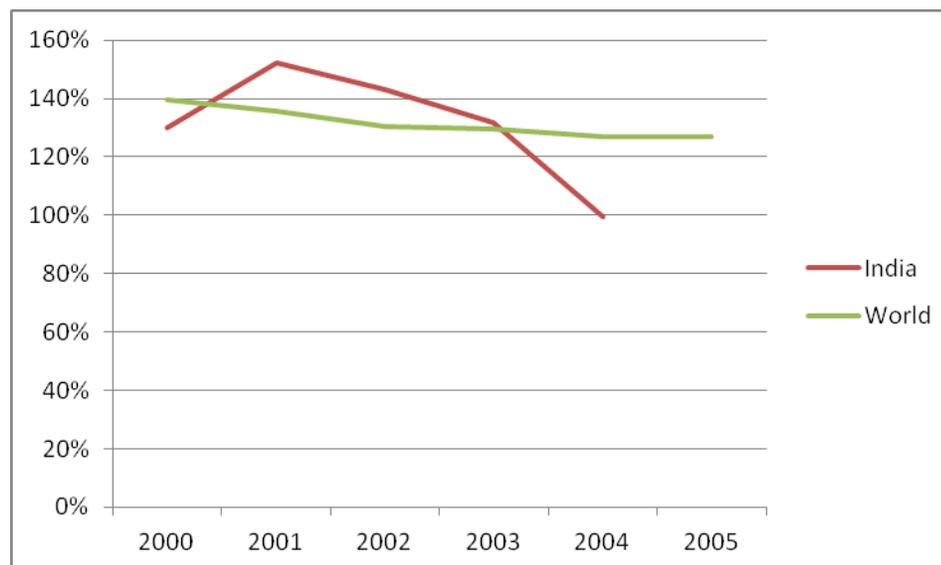


Source: OECD Indicators of Product Market Regulation

Database, http://www.oecd.org/document/1/0,3746,en_2649_34323_2367297_1_1_1_1,00.html.

The Miroudot et al. (2010) trade costs data do not cover business or professional services as individual sectors due to lack of data availability for the ACI countries. However, data are available for India for the closely related sector of computer services (Figure 36). Trade costs in India are quite comparable with the world average for the early part of the sample. For the last observation, however, there is a noticeable decline in Indian trade costs. Although more recent data are needed before any definitive conclusions can be drawn, such a pattern would be consistent with India's revealed competitiveness in this sector.

Figure 36: Trade Costs in the Information Technology Sector, Selected Countries, 2000–2005



Source: Miroudot et al. (2010).

It is difficult to assess policy priorities in an area as broad as other business services without additional data on restrictiveness across countries. Nonetheless, it seems reasonable to assume that sub-sectors such as information technology and trade in “pure” business services such as management consultancy are likely to be relatively free from discriminatory measures at least in Mode 1. Broader restrictions on foreign investment are likely to constitute entry barriers in Mode 3. In professional services sectors, domestic regulatory objectives, such as ensuring a minimum level of competence, are often met through education and licensing criteria. In their classification of regulations affecting the engineering sector, Dihel and Shepherd (2007) highlight the fact that it is primarily Modes 3 and 4 that are of relevance in this area. The key challenge for regulators going forward is to make use of policy options such as mutual recognition agreements to facilitate trade in professional services at the same time as ensuring that consumers are adequately protected.

6. CONCLUSION: POLICY IMPLICATIONS FOR THE MEDIUM TERM

This report has shown that the services sector already plays a major role in most ACI economies as a source of growth, development, and jobs. That role is only likely to become more important over the medium-term, as countries move through the common transition from agriculture to manufacturing to service-based economies. Particularly in India, there is strong evidence that the services sector can be an important driver of direct productivity gains, as well as a source of indirect productivity gains in other sectors due to its strong economy-wide linkages. Going forward, it is not only traditional services sectors, such as finance and telecommunications, that will be important. Emerging trade in areas such as health and education has considerable potential to not only boost incomes in the region, but to contribute directly to improved human development outcomes.

Policies with regard to regional and international integration of services markets have an important role to play in intensifying the services transition going forward. Although there is considerable heterogeneity across the ACI countries, currently available data strongly suggest

that, on average, services trade policies in the region are quite restrictive. Policymakers have considerable room to lower entry barriers and reduce the cost burdens facing incumbent firms, without sacrificing important domestic regulatory objectives. The key is in promoting effective and efficient regulation: effective in the sense that it achieves its goals, and efficient in the sense that it does so at minimum economic cost. As a general rule, discrimination among service providers—incumbents versus new or potential entrants, or foreign versus domestic firms—is an inefficient way of achieving regulatory objectives. To the extent that policymakers can reduce de jure and de facto discrimination, they can expect to see significant economy wide gains from increased services trade.

Since commercial presence (GATS Mode 3) is an important mode of supply in many key services sectors, policy reforms that aim at making markets more contestable by foreign entrants should be a priority going forward. Policies that tend to limit the legal form of entrants, or require local joint ventures, or impose foreign equity limits, make markets less competitive and thus tend to keep prices higher and service quality lower. Rationalizing such measures, including through regional and international cooperation, will be key to invigorating the services trade environment among ACI countries. Moreover, Mode 3 liberalization favors foreign direct investment, which is known to bring economic benefits such as technology transfer, information flows, and skill upgrading for the workforce. It is also key to supporting the emergence of international production networks in services, similar to the successful structures developed by East Asian economies in goods markets.

Given the political and economic impetus in favor of deepening integration of markets both within ASEAN and between ASEAN on the one hand and India and the PRC on the other, it will be important for all countries to continue to leverage the regional integration agenda to promote services sector growth. Although trade diversion through preferential agreements is an issue that needs to be kept in mind, its extent generally appears to be less severe in the services context compared with goods, due to the generally non-discriminatory nature of regulatory reforms induced by regional services liberalization. In this context, implementation of the AEC Blueprint should remain a key priority for regional economies, as should the effective translation of the ASEAN-PRC TIS Agreement into economic outcomes. Although progress has proved difficult in services negotiations between ASEAN and India, it is to be hoped that those negotiations will soon be brought to conclusion, thereby providing a further boost to the regional services economy. As part of a broad agenda of policy reform aimed at reducing entry barriers and lowering the costs of doing business, regional integration can help spur the development of the services sector, and thus promote an important underlying trend in the ACI economies.

REFERENCES

- Amiti, M., and S. Wei. 2005. Fear of Services Outsourcing: Is it Justified? *Economic Policy* 20: 308–347.
- Amiti, M., and S. Wei. 2006. Services Offshoring, Productivity and Employment: Evidence from the US. Discussion Paper No. 5475. CEPR.
- Ando, M., and F. Kimura. 2005a. The Economic Analysis of International Production/Distribution Networks in East Asia and Latin America: The Implications of Regional Trade Arrangements. *Business and Politics* 7(1): Article 2.
- Ando, M., and F. Kimura. 2005b. The Formation of International Production and Distribution Networks in East Asia. In T. Ito and A. Rose, eds. *International Trade in East Asia: NBER East Asia Seminar on Economics Vol. 14*. Chicago, IL: University of Chicago Press.
- APEC. 2009. Measures Affecting Cross Border Exchange and Investment in Higher Education in the APEC Region. Human Resources Development Working Group (HRDWG) Report. APEC Secretariat. Singapore.
- Arnold, J., and B. Javorcik. 2005. Gifted Kids or Pushy Parents? Foreign Acquisitions and Plant Performance in Indonesia. Policy Research Working Paper No. 3597. The World Bank.
- Arnold, J., B. Javorcik, M. Lipscomb, and A. Mattoo. 2010. Services Reform and Manufacturing Performance: Evidence from India. Discussion Paper No. 8011. CEPR.
- Arnold, J., A. Mattoo, and G. Narciso. 2008. Services Inputs and Firm Productivity in Sub-Saharan Africa: Evidence from Firm-Level Data. *Journal of African Economies*. 17(4): 578–599.
- Arunanondchai, J., and C. Fink. 2007. Trade in Health Services in the ASEAN Region. Policy Research Working Paper No. 4147. World Bank.
- Arvis, J.-F., M. Mustra, L. Ojala, B. Shepherd, and D. Saslavsky. 2010. *Connecting to Compete 2010: Trade Logistics in the Global Economy*. Washington, DC: The World Bank.
- ASEAN. 2008. *ASEAN Economic Community Blueprint*. Jakarta: ASEAN Secretariat.
- ASEAN. 2010. *ASEAN Economic Community Scorecard*. Jakarta: ASEAN Secretariat.
- Becker, R.F.J. 2009. *International Branch Campuses: Markets and Strategies*. London: The Observatory on Borderless Higher Education.
- Blyde, J., and N. Sinyavskaya. 2007. The Impact of Liberalization of Trade in Services on Trade in Goods: An Empirical Investigation. *Review of Development Economics*. 11(3): 566–583.
- Borchert, I., and A. Mattoo. 2009. The Crisis Resilience of Services Trade. Policy Research Working Paper No. 4917. The World Bank.
- Bosworth, B., and S. Collins. 2008. Accounting for Growth: Comparing India and China. *Journal of Economic Perspectives* 22(1): 45–66.
- Bosworth, B., and A. Maertens. 2010. The Role of the Service Sector in South Asia in Economic Growth and Employment Generation. In *The Service Revolution in South Asia*, edited by E. Ghani. New Delhi: Oxford University Press.
- Crino, R. 2007. Skill-Biased Effects of Service Offshoring in Western Europe. Working Paper 205. KITES.

- Dee, P. 2005. A Compendium of Barriers to Services Trade. Working Paper. ANU. http://www.crawford.anu.edu.au/pdf/staff/phillippa_dee/Combined_report.pdf.
- Dee, P. 2010. Deepening East Asian Economic Integration in Services. Policy Brief No. 2010–01. ERIA.
- Dee, P., and H. Dinh. 2009. Barriers to Trade in Health and Financial Services in ASEAN. Discussion Paper No. 2009–11. ERIA.
- Dihel, N., and B. Shepherd. 2007. Modal Estimates of Services Barriers. Trade Policy Working Paper No. 51. OECD.
- Eichengreen, B., and P. Gupta. 2010. The Service Sector as India's Road to Economic Growth? Working Paper No. 249. ICRIER.
- Ernst, D. 2006. Innovation Offshoring: Asia's Emerging Role in Global Innovation Network. A special report prepared for the East-West Center and the U.S.-Asia-Pacific Council. East-West Center. Honolulu. July.
- Fink, C., and M. Molinuevo. 2007. East Asian Free Trade Agreements in Services: Roaring Tigers or Timid Pandas? Working Paper. World Bank.
- Fink, C., and M. Molineuvo. 2008. East Asian Free Trade Agreements in Services: Key Architectural Elements. *Journal of International Economic Law* 11(2): 263–311.
- Francois, J., H. Van Meijl, and F. Van Tongeren. 2005. Trade Liberalization in the Doha Development Round. *Economic Policy*. 20(42): 349–391.
- Francois, J., O. Pindyuk, and J. Woerz. 2009. Trends in International Trade and FDI in Services. Discussion Paper No. 200908-02. IIDE.
- Gereffi, G., and K. Fernandez-Stark. 2010. The Offshore Services Value Chain: Developing Countries and the Crisis. Policy Research Working Paper 5262. The World Bank.
- Gootiiz, S., and A. Mattoo. 2009. Services in Doha: What's on the Table? Policy Research Working Paper No. 4903. The World Bank.
- Goswami, A. G., A. Mattoo, and S. Saez. Forthcoming. Exporting Services: A Developing Country Perspective. Washington, DC: World Bank.
- Government of India. 2010. *Report on Employment and Unemployment Survey 2009–2010*. Chandigarh: Labor Bureau. Ministry of Labor and Employment.
- Hertel, T., and R. Keeney. 2006. What is at Stake? The Relative Importance of Import Barriers, Export Subsidies, and Domestic Support. In: K. Anderson, K. and W. Martin, eds. 2006. *Agricultural Trade Reform and the Doha Development Agenda*. New York: Palgrave-Macmillan.
- Hijzen, A., T. Inui, and Y. Todo. 2007. The Effects of Multinational Production on Domestic Performance: Evidence from Japanese Firms. Discussion Paper 07006. RIETI.
- Hoekman, B., and F. Eschenbach. 2005. Services Policy Reform and Economic Growth in Transition Economies. 1990–2004. Policy Research Working Paper No. 3663. The World Bank.
- Hollweg, C., and M.-H. Wong. 2009. Measuring Regulatory Restrictions in Logistics Services. Discussion Paper No. 2009-14. ERIA.
- International Herald Tribune. 2011. More and more, an American degree might be earned outside America. 9 May.

- Kimura, F., Y. Takahashi, and K. Hayakawa. 2007. Fragmentation and Parts and Components Trade: Comparison between East Asia and Europe. *North American Journal of Economics and Finance* 18(1): 23–40.
- Lewin, A.Y., and V. Couto. 2007. Next Generation Offshoring: The Globalization of Innovation. Duke University Offshoring Research Network and Booz Allen Hamilton 2006 Survey. Chicago, IL.
- Lo, C.-P. 2008. Global Outsourcing or FDI: How did Apple Launch its iPod? Working Paper. <http://202.28.25.84/conference/Eng%20Paper/Global%20outsourcing%20or%20FDI--How%20Apple%20Launched%20its%20iPod-II%28Prof.%20Chu-Ping%20Lo%29.pdf>.
- Miroudot, S., J. Sauvage, and B. Shepherd. 2010. Measuring the Cost of International Trade in Services. Working Paper. GEM-Sciences Po. http://gem.sciences-po.fr/content/publications/pdf/Miroudot_Sauvage_Shepherd_costofservices04102010.pdf
- Mishra, S., S. Lundstrom, and R. Anand. 2011. Service Export Sophistication and Economic Growth. Policy Research Working Paper No. 5606. World Bank.
- Nasim, S. and K. Momaya. 2010. Cord Blood Banking—Opening New Vistas for Medical Tourism Industry in India. <http://www.iitk.ac.in/infocell/announce/convention/papers/Changing%20Playfield-01-Saboohi%20Nasim,%20%20%20Kiran.%20K.%20Momaya.pdf>.
- OECD. 2010. Education at a Glance 2010: OECD Indicators. Paris: Organization for Economic Co-operation and Development.
- Price Waterhouse Coopers. 2010. Offshoring in the manufacturing industry. http://www.pwc.com/en_US/us/outsourcing-shared-services-centers/assets/offshoring-in-the-manufacturing-industry.pdf.
- Saslavsky, D., and B. Shepherd. Forthcoming. Facilitating International Production Networks: The Role of Trade Logistics. Working Paper.
- Sauvé, P. 2002. Trade, Education and the GATS: What's In, What's Out, What's All the Fuss About? *Higher Education Management and Policy* 14(3): 70–76.
- Shepherd, B., and G. Pasadilla. 2011. Trade in Services and Human Development: A First Look at the Links. Working Paper 268. ADBI.
- Shepherd, B., and E. Van Der Marel. 2010. Trade in Services in the APEC Region: Patterns, Determinants, and Policy Implications. Report APEC#210-SE-01.3. APEC Policy Support Unit.
- Shepherd, B., and J.S. Wilson. 2010. Trade Facilitation in ASEAN Member Countries: Measuring Progress and Assessing Priorities. *Journal of Asian Economics* 20(4): 367–383.
- The Economist. 2011. Education in Malaysia: A Reverse Brain Drain: Ambitious Plans to Become an Asian Hub for Western Education. 5 May. <http://www.economist.com/node/18652195>.
- Trewin, R., M. Bosworth, D. Narjoko, A. Mukherjee, A. Stoler, J. Redden, V. Donaldson, G. Thomson. 2008. East Asian Free Trade Agreements in Services: Facilitating Free Flow of Services in ASEAN? Final Report REPSF II Project 07/004. http://www.pc.gov.au/data/assets/pdf_file/0011/95942/sub032-attachment2.pdf.

- UNESCAP. 2007. *Medical Travel in Asia and the Pacific: Challenges and Opportunities*. Bangkok: United Nations Economic and Social Commission for Asia and the Pacific. <http://www.unescap.org/ESID/hds/lastestadd/MedicalTourismReport09.pdf>.
- USITC. 2010. *ASEAN: Regional Trends in Economic Integration, Export Competitiveness, and Inbound Investment for Selected Industries*. Publication No. 4176. USITC.
- World Bank. 2002. *Global Economic Prospects and the Developing Economies*. Washington, DC: The World Bank.