EXPORTING SERVICES: A DEVELOPING COUNTRY PERSPECTIVE

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Since the mid-1990s, service exports of 20 developing countries—including not just Brazil, India, the Russian Federation, and China, but also Cambodia, Ghana, Morocco, and Nigeria—have grown by over 15 percent annually. From 1990 to 2007, before the financial crisis, the average growth of service exports for high-income countries was about 8.7 percent while that in low-income and lower-middle-income countries was about 10 and 13 percent, respectively. The share of developing countries in exports of world services increased from 11 percent in 1990 to 21 percent in 2008. Developing countries are exporting not just traditional services, such as transportation and travel (or tourism) services, but also modern services, notably high-value, skill-intensive services, such as computer and information services and other business services.

The success of some countries in exporting services seems to be unrelated to their performance in trade in goods or to their industrial development. In fact, service sector exports of a number of developing countries are growing faster than their goods exports and contributing to their export diversification. Some authors have suggested a "service revolution" is occurring that offers an alternative channel for accelerated economic growth and poverty alleviation (Ghani 2010).

To begin, clarifying certain aspects of trade in services is helpful (Copeland and Mattoo 2008; Francois and Hoekman 2010). Because many service transactions

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require face-to-face contact between the consumer and the provider (despite the increased scope for electronic delivery), defining "trade" in services more broadly than trade in goods to encompass the following four modes of supply is now standard:

- Cross-border trade in services, which is analogous to goods trade that involves shipping services such as software from one country to another (mode 1)
- Consumption abroad, when consumers (for example, tourists or students) travel across borders (mode 2)
- Commercial presence, establishment of the producer (for example, a subsidiary or branch of a bank) in the country of the consumer (mode 3)
- Movement of natural persons, when the producer (for example, a mining engineer) travels across borders (mode 4)

One important implication of this broad definition of trade in services is that it incorporates the international movement of factors—through foreign direct investment (FDI) and temporary labor mobility.

The modes of supply can either substitute or complement one another in specific services. For example, in simple bookkeeping services, modes 1 and 4 may be substitutes, but in the design of software suited to a foreign firm's needs, the two modes may be complements. The relationship between modes has implications for the analysis of the impact of regulations on the costs and quality of the services. If modes are perfect substitutes, the liberalization of one of them is enough to fully reap the gains from liberalization. But when modes are imperfect substitutes or complements, effective access to service markets requires the freedom to use a combination of modes.

Barriers to trade in services are more complex than barriers to trade in goods. The ability of foreign service providers to contest markets depends not only on explicit restrictions to entry, but also on policy and regulation of domestic services (see annex table 1A.1). These regulations exist, in principle, because service markets are characterized by market failures such as imperfect and asymmetric information, especially in knowledge-intensive sectors like professional and financial services, as well as lack of competition and natural barriers to entry, particularly in sectors with significant network externalities, such as communications and transport.

From a trade perspective, the first problem is that the *presence* of regulations to remedy information failures can become an impediment, either purely because countries differ in the choice and stringency of instruments (such as qualification or licensing requirements) or because sometimes these regulations are deliberately designed to protect domestic providers. The second problem is that the





absence of regulations to remedy market power can enable incumbent providers to frustrate entry by denying access to essential facilities (such as telecommunications networks, ports, and airports).

Are the factors that explain trade in services different from those that explain trade in goods? Broadly speaking, the two major explanations for trade between countries also apply to service trade and can be extended to include trade through different modes (Copeland and Mattoo 2008). First, the theory of comparative advantage sees trade as interindustry and the result of fundamental differences between countries. In the case of services, as for goods, differences in technology and relative endowments (including factors of production as well as institutions and infrastructure) determine comparative advantage. Thus, Kenya exports certain skill-intensive professional services to other African countries because it is relatively well endowed with skilled labor, and the United States exports satellite launch services to other countries because it is relatively well endowed with capital and the relevant technology. Differences in determinants are not static and may evolve over time depending on the policy and other choices a country makes. The second explanation for intraindustry trade between countries emphasizes the twin features of (a) consumers' love of variety and (b) producers' gains from specialization in specific varieties caused by increasing returns to scale or agglomeration. Many firms exist because they have specialized knowledge, distribution and supply networks, and differing reputations for quality and reliability. Thus, both the United States and Europe produce and sell banking services to each other, because their respective banks—ranging from the Bank of America to UBS—have specialized in slightly differentiated services that appeal to different U.S. and European consumers.

Recent theoretical developments highlight the role of technology in the growth of trade in services. Technological changes are clearly reducing the need for proximity between the producer and the consumer. These changes are also allowing the fragmentation of production into tasks that may be performed in different locations (Feenstra 2010). Fragmentation, which affected production of both goods and services, means a vertically connected production process that takes place in one location can now be undertaken in different regions or countries (Jones 2000). Communication, logistics, and financial services, among others, allow connection of tasks from different locations. Developing countries are taking advantage of these new opportunities to export services. For example, the absence of internationally recognized professionals may be an impediment to a country's ability to export complete architectural or accounting services to the final consumer in another country, but the country can still produce and export parts of these services (basic design and accounts) to foreign professionals who can "assemble" these parts and serve the final consumer.



Determinants of Trade in Services

This book attempts to disentangle the determinants of developing-country participation in service exports and to identify strategies for export success. It examines the role of the following factors:

- The "fundamentals," which are given in the short run but can be influenced by policy in the longer term: These include a country's factor endowments, especially of human capital, including skills and entrepreneurial ability; natural resources and cultural endowments, such as those that attract tourism; infrastructure, 1 especially telecommunications networks that facilitate the delivery of services; and institutional quality, especially the regulatory environment for services. 2
- Policies affecting trade, investment, and labor mobility in services: These include
 the entire range of policies affecting cross-border trade, such as transport and
 financial services; consumption abroad in health and education services; foreign investment and the participation of multinationals in banking, telecommunications, and business process outsourcing (BPO); and the movement of
 individual service providers in construction and information technology (IT)
 services.
- Proactive "industrial" policies in services: These include policies designed to
 promote exports or investment or both, for example by creating special economic zones or providing privileged access to land, infrastructure, or imported
 inputs; fiscal incentives for exporters and investors, in the form of subsidies or
 tax exemptions; and other trade promotion activities, such as trade fairs and
 information dissemination.

The book builds upon previous research, including that by the World Bank, on trade in services, which includes analyses of the impact of liberalization of services in developing countries and sectoral studies on financial, transportation, telecommunications, and professional services, as well as on international negotiations. The conceptual framework for this book is based on the existing literature on the service sector (Francois and Hoekman 2010; Hoekman and Mattoo 2008). Recognizing the heterogeneity in both the economic structure of developing countries and their service exports, this book takes an eclectic approach to identifying successful strategies. Chapter 2 surveys the literature on determinants of service exports and presents an illustrative empirical model that synthesizes the available models on trade in services. Because trade data on services are scarce and have a number of weaknesses, rigorous econometric analysis has serious limits.



The subsequent chapters of the book examine the determinants of trade in services through case studies of the experiences of countries with varying degrees of success. The book analyzes service export performance for the following countries: Brazil, Chile, the Arab Republic of Egypt, India, Kenya, Malaysia, and the Philippines. The countries were selected on the basis of their performance in global trade, especially trade in services, their regional role, and the availability of data, as well as because they have consciously pursued policies to promote service export. The case studies analyze and compare various policies and strategies that these countries have used. Several policy lessons emerge, which are grouped in accordance with the factors listed above and discussed in the following three subsections.

The Role of Fundamentals

The empirical literature confirms that service sector performance critically depends on human capital, the quality of the telecommunications network, and the quality of institutions.³ The gravity framework has been widely used to explore the determinants of trade in services. Results of gravity models suggest that human capital skills and electronic infrastructure are important determinants of trade in services (Lennon 2006; Lennon, Mirza and Nicoletti 2009; Shingal 2010). The literature also suggests that the quality of institutions, as measured by the degree of corruption, complexity of export procedures, and rigidity in employment law (Lennon 2006), or the economic freedom index (Kimura and Lee 2006) also positively influence trade in services. Additionally, bilateral trade in goods promotes trade in services. On the effect of geographic and cultural variables, most studies agree that distance dampens trade in services.

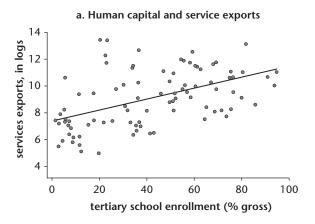
Identifying the reasons for the success or underperformance of developing countries in exporting services remains challenging because of the lack of reliable data. Mattoo (2005) and Maurer and others (2008) describe some of the inadequacies in the data relating to trade in services. Annex table 1A.2 summarizes the main inadequacies in current statistical coverage of trade in services.

The illustrative empirical exercise conducted in chapter 2 of this book corroborates the findings of several studies regarding the importance of the telecommunications network, human capital, and institutions. Figure 1.1 shows a positive association between human capital and service exports (panel a) and electronic infrastructure and service exports (panel b).

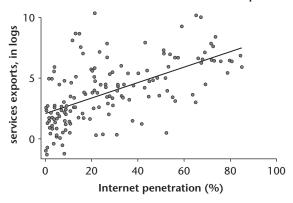
To succeed in higher-end service exports, a country must be well endowed with human capital. This finding is evident from both the illustrative empirical exercise and the case studies. The estimation in chapter 2 finds that human capital, as measured by tertiary school enrollment in the source country, is significant in

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Figure 1.1 Partial Correlation between Service Exports and Human Capital and Electronic Infrastructure, 2007



b. Electronic infrastructure and service exports



Source: World Development Indicators (database), World Bank, Washington, DC. http://data.worldbank.org/data-catalog/world-development-indicators.

affecting bilateral services exports. Moreover, the coefficient for this variable is larger for the developing-country sample, implying that the return to investment in human capital in terms of exports is larger in countries that are not rich.

The fact that endowment of human capital matters for service exports is evident in many developing countries. The high quality of doctors and standard of treatment in Thailand explains its medical tourism exports. Even though the quality of Thai medical services compares well with that of developed countries, the prices are mostly lower than in other countries because of the low cost of doctors and infrastructure. For example, dental care in Thailand costs about 85 percent less than in

the United States even when the cost of travel is included (see Arunanondchai and Fink 2007 for more details). Similarly, in the case of Tunisia, the quality and abundance of the engineering work force explains its success in exporting engineering services. Tunisia's performance is the result of a policy that made human resources a driving factor for development (Cattaneo, Schmid, and Engman 2010).

The success in service exports of the Philippines or India is attributed to the high quality and large pools of human capital. Particularly revealing are the cases of Malaysia, where inadequate skills are seen as the reason that other commercial service exports have not developed, and Egypt, where the poor quality of education is found to be an impediment to exporting these services. These cases mirror those of Chile, where inadequacies in the scale as well as the skill of labor deter services exports, and Brazil, where the insufficient quality of skills is the main concern for future development.

This book's case studies do not provide guidance on the types of skills in which a country should invest. In many countries, investment in human capital is primarily state driven, whereas service exports are usually private sector driven. Several countries are experiencing a mismatch between skills required by the market and those being produced by the education system. For instance, Kenya is relatively well endowed with graduates who could work in various business service firms, including the BPO sector; however, new graduates need substantial postgraduate training to catch up with international standards. In the Philippines, experience suggests that not all college graduates are ready for the labor market. Only 10 percent of contact-center applicants are immediately hired. The Technical Education and Skills Development Agency provides educational grants for BPO "near-hires." Malaysian graduates lack the required skills needed in the market. As a result, in 2008, about 25 percent of local graduates from public universities remained unemployed six months after graduation. Thus, a shortage of skilled human capital exists in the country, and improving the situation is critical for Malaysia to enhance the export of knowledge-based services. In India, the derived demand for skills has prompted a powerful private sector response in terms of investment in education and training. Recognizing that the unavailability of skills disadvantages Egypt compared to its competitors (A.T. Kearney 2009), the Ministry of Communications and Information Technology has developed specific training programs for the different segments of the industry to prepare graduates for work in the information and communication technology (ICT) industry. The Information Technology Industry Development Authority (ITIDA) is also running an education program called EduEgypt, collaborating with universities to train students to enter the BPO industry.

The illustrative gravity-model framework in chapter 2 also suggests that Internet penetration in the trading partner matters more than that in the exporter. These



results imply that firms exporting services need access to high-quality electronic infrastructure that does not necessarily need to cover the general population of the exporter country. Therefore, Internet penetration among the general population in the exporter country may not significantly affect service exports. Exporting firms in developing countries own the equipment for better-quality telecommunications, or the government may be able to create special economic regimes such as IT parks or software technology parks (STPs), as in the case of Egypt, India, or the Philippines, to overcome the handicap of technology penetration.

Neither does the state of electronic infrastructure by itself explain the success of developing countries in exporting services. For instance, India has been able to successfully export software services even with a low Internet penetration of 7 persons per 100, whereas Malaysia has been less successful in such service exports despite a high Internet penetration of 63 persons per 100. The Malaysian case reveals that its exports of ICT services are inhibited by low Internet penetration in potential export destination countries.

Service exports conform in certain respects to the predictions of the theory of comparative advantage with some degree of factor specificity. Broadly, a country's exports of services depend on its endowments at any time of infrastructure, factors of production, and institutions relevant to services, in comparison to its endowments of these factors relevant to manufacturing. Thus, countries such as India and the Philippines are doing well in cross-border exports of skill-intensive services but are lagging in labor-intensive manufacturing exports not because of their absolute advantage in services—because they remain relatively abundant in unskilled labor—but because of their comparative disadvantage in manufacturing. In India, for example, the markets for skilled labor in services are relatively flexible, whereas those for unskilled labor in the formal manufacturing sector are rendered rigid by regulation and unions; the infrastructure for service delivery (telecommunications networks) has improved dramatically, whereas that for goods delivery (roads and ports) is improving much more slowly; and the institutions governing services (public institutions such as the Telecommunications Regulatory Authority and private institutions such as NASSCOM⁵) are widely seen as competent and honest, whereas the institutions governing goods trade (such as the customs authorities) are widely seen as less competent and more corrupt. Conversely, the comparatively more limited success of countries such as Chile and Malaysia in exporting skill-intensive commercial services may have less to do with their absolute disadvantage in services than with their comparative advantage in exporting agricultural and manufacturing goods, respectively.

Transport and travel services are intensive in the use of physical infrastructure and are also sensitive to institutions, such as customs and border management, which make them appear similar in characteristics to the goods sector rather than





to exports of other commercial services (box 1.1). In contrast, other commercial services, like other business services (usually traded cross border), rely on telecommunications infrastructure and are sensitive to institutions that influence contract enforcement.

The case of Malaysia (chapter 5 in this book) is diametrically opposite to that of India. Exports of travel services contributed more than 50 percent of aggregate service exports from Malaysia in 2008. Between 2001 and 2008, exports of other commercial services as a share of total service exports from Malaysia declined from 34 percent to 27 percent even though Malaysia has very high Internet penetration rates and high tertiary school enrollment. Malaysia also has excellent-quality physical infrastructure and goods-related institutions that have boosted its exports of goods. Certain service exports have also benefitted from the quality of basic infrastructure, particularly mode 2 service exports, such as travel, health tourism, and education services.

Chile (chapter 9 in this book) is another example of a country that seems to validate this hypothesis of the importance of the relative endowments, infrastructure, and institutions that matter for the service sector. Although many other developing countries are taking advantage of globalization in service provision and moving toward providing other commercial services, the composition of Chile's exported services is moving toward transport services. Several supply-side factors, such as the limited pool of human resources specifically suited for other commercial services and the scarcity of English-language skills, affect the efficiency of labor in service provision and, hence, partly explain the comparatively moderate growth rate in exports of other commercial services from Chile. The remaining part of this slow growth in other commercial services may be explained by the comparatively high cost of broadband Internet access. Thus, Chile's excellent infrastructure, endowment, and institutions that favor exporting goods rather than exporting services mean that it excels in exporting transport services that complement the trade in goods.

The case of the Philippines (chapter 4 in this book) also underscores the importance of the relative endowments, infrastructure, and institutions that matter for the service sector. The contribution of BPO service exports to gross domestic product surged from 0.5 percent in 2001 to 3.7 percent in 2008. The Philippines accounted for 15 percent of the global BPO market in 2008, after India (37 percent) and Canada (27 percent). The industry thrived at an annual growth rate of 40 to 50 percent from 2004 to 2007, before declining to 23 percent in 2008 and 19 percent in 2009. Philippine business service exports were encouraged by low labor costs, low telecommunications and Internet costs, a large pool of competent and English-speaking labor, and Filipinos' affinity to the U.S. legal and educational system and to U.S. culture.



Box 1.1 Defining Commercial Services

Commercial services in this book are defined as transportation services, travel, and other commercial services, excluding government services (such as supplied or acquired by embassies, military bases, and international organizations, and so on).

Transportation services covers sea, air, and other (including land, internal waterway, space, and pipeline transport) services that are performed by residents of one economy for those of another and that involve the carriage of passengers, the movement of goods (freight), rentals (charters) of carriers with crew, and related supporting and auxiliary services.

Travel includes goods and services acquired by personal travelers for health, education, or other purposes and by business travelers. Unlike other services, travel is not a specific type of service but an assortment of goods and services consumed by travelers. The most common goods and services covered are lodging, food and beverages, entertainment, transportation (within the economy visited), and gifts and souvenirs.

Other commercial services corresponds to the following:

- Communications services includes telecommunications, postal, and courier services.
 Telecommunications services encompasses the transmission of sound, images, or other information by telephone, telex, telegram, radio and television cable, broadcasting, satellite, electronic mail, facsimile services, and the like, including business network services, teleconferencing, and support services. It does not include the value of the information transported. Also included are cellular telephone services, Internet backbone services, and online access services, including provision of access to the Internet.
- Construction covers work performed on construction projects and installation by
 employees of an enterprise in locations outside the territory of the enterprise (the
 one-year rule to determine residency is applied flexibly). In addition, goods used
 by construction companies for their projects are included, which implies that the
 actual service component tends to be overestimated.
- *Insurance services* covers the provision of various types of insurance to nonresidents by resident insurance enterprises, and vice versa, for example, freight insurance, direct insurance (such as life insurance), and reinsurance.
- Financial services covers financial intermediation and auxiliary services provided by banks, stock exchanges, factoring enterprises, credit card enterprises, and other enterprises.
- Computer and information services is subdivided into computer services (hardwareand software-related services and data processing services), news agency services (provision of news, photographs, and feature articles to the media), and other information provision services (database services and web search portals).
- Royalties and license fees includes payments and receipts for the use of intangible nonfinancial assets and proprietary rights, such as patents, copyrights, trademarks, industrial processes, and franchises.
- Other business services comprises trade-related services, operational leasing (rentals), and miscellaneous business, professional, and technical services such as legal, accounting, and management consulting; public relations, advertising, and market research and public opinion polling; research and development;

(continued next page)







Box 1.1 continued

- architectural, engineering, and other technical services; and agricultural, mining, and on-site processing.
- Personal, cultural, and recreational services is subdivided into two categories: (a) audiovisual services and (b) other cultural and recreational services. The first component includes services and fees related to the production of motion pictures, radio and television programs, and musical recordings. Other personal, cultural, and recreational services include those associated with museums; libraries; archives; and other cultural, sporting, and recreational activities. Also included are services relating to education, such as correspondence courses and education via television or the Internet, as well as by teachers. Health services comprise services provided by doctors, nurses, and paramedical and similar personnel, as well as laboratory and similar services, whether rendered remotely or on site. Excluded is all expenditure by travelers on education and health (included in travel).

Sources: Adapted from IMF 2009; UN and others 2002; WTO 2010.

a. In the sixth edition of the IMF's (2009) *Balance of Payments and International Investment Position Manual*, postal and courier services are included under transportation services.

Investment, Labor Mobility, and Trade Policies

Inward FDI may help initiate and even sustain service exports, as in the case of India, the Philippines, and to a lesser extent, Chile. In India, multinational firms were among the first to recognize the scope for BPO (Athreye 2002). At the same time, foreign firms established by expatriate Indians—who were familiar with foreign markets and with new ideas for fragmenting the value chain—added to the competitive pressure. These developments generated a virtuous cycle drawing in domestic firms: for example, the tightening of labor markets, which was caused by foreign competition, induced domestic firms to acquire unique organizational capabilities and multinational firms to devise improved value-adding strategies. In the case of the Philippines, of total equity investment in the BPO industry (US\$2billion), about 93 percent (US\$1.8 billion) represented foreign equity participation. In 2008, the United States took up half the total foreign investment in the industry, while Japan made up 20 percent, the European Union 18.6 percent, and India 7.3 percent. A similar dynamic was unleashed in Chile—with one difference: whereas domestic firms dominate in exporting maritime and air transportation services, the bulk of ICT service exports is from multinational firms, even though they are relatively small in number. In contrast, countries such as Malaysia, which built their manufacturing export success on the back of foreign investment, remained





much more tentative about openness to foreign investment in services. Moreover, inward FDI is known to have promoted service exports from Costa Rica after Intel's initial investment.⁶

Liberalization in the Philippine telecommunication sector in 1993 increased competition in the industry and hence improved the quality and efficiency of telecommunication infrastructure (World Bank 2010). Allowing competition in local long-distance services in 1995 and permitting international simple resale led to a greater reduction in accounting rates and retail prices in the Philippines compared with other countries that liberalized their telecommunication sector (Fink, Mattoo, and Rathindran 2001). Lower communication costs shifted the Philippines' comparative advantage toward the more communication-intensive BPO industry. According to the 2011 A.T. Kearney Global Services Location Index, the Philippines ranks among top destinations in terms of financial attractiveness and infrastructure costs.

A factor that explains Malaysia's success in exporting services is liberalization, especially in the higher-education and Islamic finance sectors. For higher education, medical, and airline services, Malaysia first liberalized domestically because the public sector could not meet growing demand. For instance, when public universities could not enroll all students interested in getting a university degree, the government allowed the private sector, including foreign providers, to bridge this gap. This step then became a catalyst for the development of private higher education. The medical and airline services underwent the same process in which the private sector initially enhanced domestic capacity, which subsequently paved the way for export.⁷

In Brazil, the case analysis suggests that its comparative advantage in service exports was significantly developed or deepened after the second half of the 1990s, which in turn indicates a strong correlation with the main economic policy reforms of that period—that is, liberalization and market opening.

Cross-border service exports may also be linked to outward FDI. In the cases of Brazil and Chile, companies that in the beginning supported foreign investments of domestic firms eventually became service exporters in their own right, confirming the importance of "jointness" and complementarities in the provision of services (Francois and Hoekman 2010). Brazil's experiences exemplify how mode 3 service exports (commercial presence abroad) can pave the way for mode 1 service exports (cross-border). From 1990 to 2007, Brazil's service exports grew at an average rate of 14 percent, compared to the world average of 9 percent. The recent phase of internationalization of services, led by new and small ICT firms, was encouraged by the demand created by a first wave of internationalization of Brazilian companies. Newly internationalized firms needed software capable of setting up and integrating systems, processing and storing data, devising programs, creating network





services, and the like. Naturally, Brazilian companies looked to Brazilian ICT companies as a first choice for those services. Thus, from a policy perspective, outward FDI may be a channel for encouraging service exports.

Chile has also been a successful exporter of services through investment abroad in retail and other services such as financial services, particularly in the Latin American region. The only evidence of service exports that grew because of their link to Chilean outward investment in the Latin American region are companies that initially provided services to retail companies. Among the service providers that supported domestic retails are a wide range of professional services, logistics, human resources, marketing, and ICT-related services.

Tapping service demand from migrants may be one way to launch service exports. In the cases of Brazil and Egypt (chapters 8 and 6, respectively, in this book), service providers have established commercial presence abroad to better serve migrants. For example, exports of Brazilian and Egyptian soap operas and Indian movies were initially pitched at their respective diasporas before commanding wider international popularity. Financial service providers in the two countries also first catered to the needs of expatriate populations and firms operating abroad, such as construction. But two related developments have helped. First, the opening up of financial service markets in Latin America, and to a lesser extent, in the Middle East facilitated the establishment of financial institutions, and second, domestic regulations allowed overseas investment by financial institutions. In the Philippines, remittances encouraged commercial banks to develop innovative banking products. With stagnant loan growth, remittances are an important line of business in the Philippines and, thus, contribute to stronger competition among the banks by reaching out to Filipinos abroad. In the United States, 8 of the 10 largest Philippine banks cater to U.S.-based overseas Filipino workers through their own remittance centers or branches or through partnerships with other institutions. A related lesson in this context is found in the case of Malaysia, where service exports in the health and education sectors have been facilitated by easy visa and immigration policies.

Preferential (and multilateral) trade agreements in services have induced limited incremental liberalization and, therefore, could only have helped boost service exports insofar as they created greater security of market access. For example, services have lagged goods in the Mercosur (Southern Cone Common Market, or Mercado Común del Sur) integration process, although they may play a significant role in the future. The main destination markets for Brazil's service exports are the United States and Europe, where General Agreement on Trade in Services rules are applicable. In the case of Chile, both investments abroad and service exports are intensively linked to the Latin American region—where service liberalization took place mainly on a unilateral basis—and only recently have rules on





services been incorporated in subregional and bilateral trade agreements. In the Middle East and North Africa, where service exports from Egypt have developed, rules on trade in services are limited.

Targeted Policies

Several countries have put in place targeted policies to support exports, especially for IT-related services, but establishing a causal link between support and performance is difficult. Usually, these policies aim to create an enabling business environment in which the private sector, national or foreign, has access to better infrastructure, benefits from incentives, and enjoys a more streamlined regulatory environment (Engman 2010). This situation is exemplified by this book's case studies on Egypt, India, and the Philippines, and to a lesser extent Brazil and Chile. ¹⁰ The advantage of this approach is that governments focus on promoting a sector that enjoys an open environment where resistance to reform is less intense and where the government can easily win support from a business community eager to develop ICT-related service activities. From a political economy point of view, government can avoid tackling far-reaching and politically difficult reforms that could take several years. Also, this approach may have the advantage of developing a sector that could become an example for motivating more significant reforms. These examples prove the benefits of a more open and transparent investment regime: investors respond positively to a transparent and more predictable regulatory environment. A major problem with this approach, however, is that it limits the benefits of improved quality and quantity of services to a specific section of the business community, rather than aiding the entire economy. This approach may also delay important reforms that could benefit a country's population.

By allowing duty-free imports of computer hardware, the Indian STPs aimed to promote software development. Firms in STPs were allowed tax exemptions; guaranteed access to high-speed satellite links; and provided with reliable electric power, including core computer facilities, ready-to-use office space, and communication facilities. They were allowed to import equipment duty free and without licenses. Full foreign ownership was permitted in exchange for an export obligation. Firms were allowed to freely repatriate capital investment, royalties, and dividends once they paid the taxes due. The STPs played a major role in development of the IT sector in the 1990s. The share in India's software exports of units located in STPs rose dramatically, from 8 percent in 1992–93 to 81 percent 10 years later. By 1995, about 400 companies were situated in STPs. By 2008–09, 8,455 units were registered as operating units in STPs, of which 7,214 were registered as exporting units, and India's software service exports were US\$47.1 billion.



The case of Egypt (chapter 6 in this book) evidences that targeted policies in a noncontroversial sector such as IT are playing a crucial role in service exports. Even though Egypt is not a top-ranked developing country in terms of the quality of labor force education, it has still been able to succeed in IT and IT-enabled services (ITeS) service exports, especially in the Arab region. In Egypt's ICT sector, the government established ITIDA in 2004 with a mission to develop the ICT sector and boost its exports. ITIDA is a public-private partnership between the Ministry of Communications and Information Technology and the private sector, dedicated to developing IT in Egypt. The government also created STPs for promoting ICT service exports. The idea behind establishing the "smart village," which was inaugurated in 2004, was to create a space where IT companies could operate within a community conducive to their business needs.

As a response to Chile's more moderate performance in ICT service exports, since the mid-2000s it has adopted a targeted set of policies administered by CORFO (Corporación de Fomento de la Producción de Chile), Chile's development agency, for attracting foreign investment to promote offshoring service exports.

In 2004, software and related services were selected by the Brazilian government as a priority sector for its Industrial, Technological, and Trade Policy. A special tax regime for the IT service export platform was implemented as well as other tax incentives that aimed at expanding Brazil's exports of IT services. In addition, the Law of Technological Innovation, approved in 2005, encourages interaction between companies, research centers, and universities to stimulate development of new ideas and innovative products.

Except in IT and tourism, export promotion policies in the service sector similar to those in the goods sector are more recent. Countries such as Brazil and Chile pursued more traditional export promotion policies in sectors other than ICT through their respective export promotion agencies. Specifically in Brazil, the government has combined policies that provide financial support through the Brazilian Development Bank (Banco Nacional de Desenvolvimento Econômico e Social; BNDES) with promotion programs through the Brazilian Trade and Investment Promotion Agency (Agência Brasileira de Promoção de Exportações e Investimentos; Apex-Brasil). The BNDES financial support has targeted mainly construction and construction-related exports. More recently, the bank has had a special focus on supporting exports of services that have high intellectual content—software and computer services and engineering services in infrastructure projects. In the case of Apex-Brasil, the promotion programs have a stronger emphasis on the so-called creative industries, including music, audiovisual, entertainment, and fashion. The ICT and health service sectors are also included in current programs by the agency.



Similarly, in Chile, although efforts to promote several service activities were initiated several years ago, ProChile (Dirección de Promoción de Exportaciones, the export promotion agency) started a promotion fund for service exports only in 2006, covering a wide range of sectors based on similar promotion strategies to those in the goods sector. The range of instruments available in ProChile covers two traditional areas: international trade fairs and strategic export sectoral plans. The latter include actions such as providing market intelligence, cofinancing business trips, and organizing business agendas with the assistance of ProChile.

Some of the sectors where targeted policies were implemented have been able to enhance their service exports, but how much credit goes to the targeted policies is not clear. Little doubt exists that India's and the Philippine's service exports were driven primarily by the pool of skilled IT professionals and the availability of management and entrepreneurial skills. However, the establishment of STPs that helped in creating a favorable business environment to overcome the inadequacies in infrastructure and institutions may have further facilitated service exports.

A number of examples exist of targeted policies that did not work. In the Philippines, targeted policies in the tourism industry failed to attract tourists. Because tourism is not confined to one region but depends on the overall health of the economy, such targeted policies failed to make up for the poor quality of transport, travel, and infrastructure facilities and the country's generally poor security environment. This experience suggests that although incentives can play a role in business decisions, the factors that influence private sector consumption and investment decisions are much wider and deeper and cannot be ignored by governments. For instance, most Kenyan service exporters feel that direct incentives, such as tax incentives for exporters, are unnecessary. Rather, they consider it crucial for the government to facilitate their access to foreign markets. In Chile, after several years of promotion efforts aimed at encouraging small and mediumsize service exporters in several industries, the sectors chosen by ProChile are not really associated with significant service exports. In this case, the insufficient resources allocated to the program (US\$1 million in total) probably explain a significant part of this result.

At the same time, targeted policies pose risks and must be carefully designed (OECD 2011). One obvious risk is the waste of public resources by directing them to a sector or firm that would have developed without government support or to sectors or firms that do not have any development prospects. Another risk is capture by incumbent sectors. For example, some Indian service exporters have lobbied fiercely for the continuation of fiscal and other incentives even though whether they are still needed to support the sector is unclear. Finally and crucially, targeted assistance (for example, in the form of dedicated communication channels or streamlined approval procedures) can dilute political support





for economywide reform (for example, in the nationwide telecommunications and business environment or by the buying off of important pro-reform constituencies). Therefore, governments must use care in designing any such policies. In particular, they need to (a) identify clearly the market failure they want to address and establish that other instruments are not available to more directly address the failure; (b) subject such policies to rigorous cost-benefit analysis beforehand and rigorous impact evaluation after their implementation; (c) include credible sunset clauses to provide a clear horizon for, and a deterrent to capture by, investors; and (d) limit the use of such policies to areas where economywide reforms are clearly infeasible.

Cooperation by firms through an industry association can in some cases favorably influence policy at home and its image abroad. This has been true in India and the Philippines but less so in Brazil, Chile, Egypt, and Kenya. The industry association for India's software services, NASSCOM, has given Indian IT and ITeS companies a unified voice and played an instrumental role in the industry's policy-making process. It worked in tandem with the Indian government to promote the sector's interests (Kapur 2002). At the same time, NASSCOM played an active and influential role in building and strengthening the brand image of India as a premier global sourcing destination through various programs such as NIESA (NASSCOM's India Europe Software Alliance) and NINJAS (NASSCOM's India Japan Software Alliance). NASSCOM has also signed several trade contracts with countries such as Ireland, Israel, Mexico, Morocco, and Singapore to expand the geographical reach of Indian software companies beyond Japan, Western Europe, and North America. To ensure a steady supply of quality IT-ITeS professionals in India, NASSCOM started an assessment and certification framework called the NASSCOM Assessment of Competence.

Similarly, in the case of the Philippines, the Business Processing Association of the Philippines (BPAP), the umbrella BPO organization, plays a leading role in supporting and promoting the BPO industry. The association, together with stakeholders, has developed and acted on a blueprint plan designed to help bolster the Philippines' competitiveness. The blueprint focuses on goals and specific action items to obtain success. In 2009, as part of the action items, BPAP produced the Next Wave Cities scorecard that provides tools to help both investors and local governments assess readiness and develop working capacities. Going forward, BPAP is creating another blueprint, *Roadmap 2016*, to guide the ever-evolving industry. In terms of talent management, BPAP launched programs on industry-specific training and career awareness. BPAP has advocated for the BPO sector, for example in obtaining passage of the House Bill on Data Protection Act and creating the Department of ICT, which would provide stability and funds to market the BPO sector.





In the case of Kenya (chapter 7 in this book), the slow development of business service exports is attributed to poor brand quality, which could have potentially been developed by a more active industry association. The Kenyan government, in contrast to its Indian or South African counterparts, for example, does not sponsor international conventions or events to showcase the BPO services available in Kenya.

Conclusion

Several developing countries have been successful in diversifying their exports through services. Given the rising importance of service export from developing countries, this book is an attempt to disentangle the determinants of this trend. Chapter 2 of this book starts with a survey of the available literature on determinants of trade in services and builds a nested model to illustrate the factors affecting service exports from developing countries. By analyzing the experiences of Brazil, Chile, Egypt, India, Kenya, Malaysia, and the Philippines, the book seeks to improve the understanding of what lies behind the growth of service exports from developing countries.

The book highlights several policy lessons. First, human capital is critical for certain service exports, which is confirmed in the empirical model of chapter 2 as well as the case studies. In the case studies, the book identifies human capital as the main driver of service exports from India and the Philippines, while the lack of human capital explains the more moderate performance of service exports in Chile, Egypt, and Malaysia. Second, the state of the economywide electronic infrastructure does not by itself explain the success of developing countries in exporting services. These results are confirmed in the case studies of India and Malaysia. Third, service exports in a developing country are driven by the quality of service-specific infrastructure, endowments, and institutions compared to those required for the manufacturing sector. Fourth, cross-border service exports may be encouraged by outward FDI, as has been true in the case of Brazil, where outward FDI led to ICT service exports. Fifth, inward FDI also seems to push service exports, as has been the case in India, the Philippines, and Chile in offshoring services. Sixth, migrants have played an important role in service exports, and thus targeting service exports to migrants can be a starting point. Seventh, preferential trade agreements in services have not yet played a key role in promoting service exports. Eighth, sectors where targeted policies created a conducive business environment saw their service exports expand, but establishing a causal link is hard. This situation is exemplified by the case studies on Egypt, India, and the Philippines. Most often, only politically noncontroversial sectors have been targeted for such policies. Finally, industry associations have been critical in reaching



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the international market for services, more so in the case of India and the Philippines than for Brazil, Chile, Egypt, and Kenya.

Caution and more research are needed to translate the lessons learned about service exports in this book into policy prescriptions. Although human capital matters, any investment in human capital should not be "supply driven" but rather should be guided by private sector requirements. Targeted policies in certain sectors, such as providing privileged access to infrastructure, may help in promoting exports of that sector but may delay reforms in the economy as a whole. Reform of public institutions and the business environment is desirable in general and usually safer than picking winners. It is too early, however, to pronounce definitive judgment on how far the experience of some developing countries in exporting services can be sustained and how far it can be replicated in other countries.



Annex

Table 1A.1 Illustrative Barriers to Trade in Services

Mode 1: Cross-border trade	Mode 2: Consumption abroad	Mode 3: Commercial presence	Mode 4: Movement of natural persons
 Local registration required for marketing or supply of services Appointment of local agent and local professional address required Authorization, license, or permit required to market and supply services Use of monopoly or otherwise specified network access or connection provider required Access or connection to Internet or other forms of electronic network limited by specific government regulation Cross-border transfer of capital, payments, and use of credit cards for such transactions 	Local registration of offshore provider required for marketing of services, applied on a transparent, readily accessible, and nondiscriminatory basis Provision of services permitted only through a designated local partner, to maintain supply advantage for permitted local providers Use by consumer of monopoly or otherwise specified network access or connection provider required Consumer access or connection to Internet or other electronic networks available only through monopoly or exclusively authorized provider	Majority foreign ownership not permitted; only minority share in compulsory joint venture permitted Acquisition of full or part share of existing business not permitted; restrictions on establishment of new businesses Reservation of some sectors or activities for state-owned enterprises or for investment only by nationals or permanent residents Legal form of foreign company Only joint venture as limited liability company permitted Only one legal form permitted (for example, joint stock company, private limited liability corporation, joint venture)	Bound only for definition of personnel permitted, with generally applicable time limits or conditions not specified, such that these may be arbitrarily or discriminatorily applied Permission subject to approval and labor market tests for specific categories of personnel specific categories of personnel - Approval for intracorporate transferees and specialists subject to general economic needs test Requirement for local recognition of experience or qualifications for professionals and specialists, for which the criteria are vague, not transparently or arbitrarily applied, or discriminatory

required; commercial presence Full commercial presence

required but granted only to

or local partnership required to maintain supply advantage for specified brand-name entities; permitted local providers

permitted only through firms

Consumption of services

transactions subject to

authorization

with commercial presence

in country or specified

brand-name entities

- Cross-border transfer of capital, cards for such transactions not payments, and use of credit permitted
- Licensing/authorization and use of credit cards for such Transfer of capital, payments,
- Economic needs test determines degree of restrictiveness

Nationality/residency requirements

- agents for provision in another part of a country required to have a minimum number of Providers established in one resident providers or their part of a country
 - All directors to be residents of host country

and use of credit cards for such

 Transfer of capital, payments, transactions not permitted

obtain operating license, while Prior residency required to residency not permitted without license

self-employed persons not

permitted

- nationals in senior positions (for Numerical limitation on foreign executives, senior professionals, and specialists) or requirement example, company managers, of a specified number of hostforeign nationals in each such country nationals relative to category
- Only intracorporate transferees operation; mandatory training permitted, subject to a limit of two foreign transferees per Provision of services by of local staff required



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Table 1A.2 Inadequacies in Statistical Coverage of Trade in Services

Mode of supply	Relevant data source	Inadequacies
Cross border	Balance of Payment (BOP) service statistics (categories other than travel)	BOP statistics do not distinguish among cross-border supply, commercial presence (firms), and presence of natural persons (individuals) for less than one year.
Consumption abroad	BOP statistics (mainly the travel category)	 Travel also contains goods and is not subdivided into the different categories of services consumed by travelers. Some transactions related to this mode of supply also appear in other BOP categories.
Commercial presence	FDI and foreign affiliates trade (FAT) statistics	 FDI statistics do not provide data on output (or sales); FDI definition does not match the definition of commercial presence. Until recently, FAT statistics existed only for the United States. Now other countries of the Organisation for Economic Co-operation and Development have started collecting such statistics using basic concepts and definitions contained in UN and others (2002).
Presence of natural persons (independent)	BOP statistics (mostly categories other than transport and travel)	 BOP statistics do not distinguish among cross-border supply, presence of natural persons (individuals), and commercial presence for less than one year. Natural persons who are residents are not covered.
Presence of natural persons (employees)	Employment data from FAT statistics	Statistics are not yet available.

Source: Mattoo 2005.

Notes

- 1. In general, please note that *infrastructure* in the text refers to electronic infrastructure, unless otherwise specified.
- 2. The importance of infrastructure, broadly defined, in development is widely acknowledged. For instance, World Bank research concluded that in most African countries, particularly the lower-income countries, infrastructure emerges as a major constraint on doing business. Infrastructure contributed significantly to per capita economic growth from 1990 to 2005 in Africa, but that contribution is almost entirely attributable to advances in the penetration of telecommunication services. In contrast, the deterioration in the quantity and quality of power infrastructure over the same period retarded growth. Moreover, infrastructure requirements are lagging, compared to other developing regions, and services are expensive. Finally, regulatory and administrative bottlenecks prevent adequate delivery of services (Foster and Briceño-Garmendia 2010).



- 3. For instance, Amin and Mattoo (2008) highlight the importance of human capital. Amin and Mattoo (2006) emphasize the importance of the quality of institutions, whereas Freund and Weinhold (2002) make a case for the quality of telecommunications infrastructure.
- 4. Grünfeld and Moxnes (2003) also measure institutions through the corruption perception index and find that corruption negatively affects services trade.
- 5. NASSCOM is the premier trade body and the chamber of commerce of the IT-BPO industries in India.
- 6. In this case, however, Intel invested in Costa Rica in the goods sector (computers) rather than services.
- 7. Similarly, in Tunisia an open engineering service sector with better quality and more engineering graduates assisted in service exports. Along with the quality of human resources, engineering service exports have benefitted from liberalization in this sector; the restrictiveness index for Tunisia is even lower than it is for several developed countries, such as Italy and Germany.
- 8. In the case of Egypt, education services have been exported by temporary migration as well; nevertheless, its extent is declining over time (Engman 2009).
- 9. Mercosur is an economic and political agreement between Argentina, Brazil, Paraguay, and Uruguay. Although a services agreement has been in force since 2005, and commitments have been negotiated through periodic rounds of negotiations, the current commitments are more than 10 years old. New and improved commitments have yet to be implemented, but this situation could change in the future if the liberalization process among Mercosur members is strengthened.
- 10. Although Costa Rica and South Africa are not studied in this book, this situation is true for them as well.

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