

The Growth of China's Services Sector and Associated Trade: Complementarities between Structural Change and Sustainability

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This paper is produced as part of the Sustainable China Trade Project. The project is a joint effort of IISD and the Development Research Centre of the State Council of China, with research jointly conducted by Chinese and international experts. It seeks to help define the characteristics of a sustainable trade strategy for China—a strategy that helps contribute to environmental, social and economic improvements, primarily in China but also globally. Such an outcome is in line with the scientific concept of development first put forward at the 16th National Congress of the Communist Party of China in 2003, and with many of the goals of the 11th Five-Year Plan. The project will produce a series of eight working papers focusing on specific aspects of a sustainable trade strategy for China and a synthesized volume covering the body of work. The Sustainable China Trade Project is generously supported by the Swiss Agency for Development Cooperation.

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List of acronyms

| | |
|------|--|
| FIE | foreign-invested enterprise |
| GATS | General Agreement on Trade in Services |
| GDP | gross domestic product |
| RCA | revealed comparative advantage |
| R&D | research and development |
| TSI | trade specialization index |
| WTO | World Trade Organization |

1.0 Introduction

Although China's prowess in manufacturing and exporting goods is well-established, it is perhaps not so well-known that China's service sector has been growing even faster for the past 30 years. Moreover, while it may be the case that, for the moment, China's service sector accounts for a smaller share of national income than in many other developing countries, since the reform period began, that share has risen from one-quarter to two-fifths. This represents profound structural change in the Chinese economy and raises the question of what this sector can contribute to a sustainable trade strategy for China.

Given that this paper is part of a larger project that seeks to flesh out a so-called sustainable trade strategy for China, it is worth recalling what the five objectives of that strategy are:

1. Promote the rebalancing of the Chinese economy away from its currently unsustainable path.
2. Promote added value, not just sales, in economic activities.
3. Promote services, not just manufacturing.
4. Promote Chinese firms (including multinationals), brands and intellectual property rights. (Nationality matters.)
5. Support a harmonious, sustainable architecture for international trade.

In addition to these broader objectives, some have inquired as to what reforms would create jobs more quickly in the service sector and could narrow China's trade deficit in services.

Drawing on national and international experience, the goal of this paper is to shed light on what reform of the Chinese service sector might entail and whether the objectives of the sustainable trade strategy can be met. It would be difficult to overestimate the challenge for policy-making here. Not only is the service sector very large, placing much at stake, but to the best of our knowledge, no major economy has ever put its service sector at the core of its development strategy, though certainly some service sectors, such as tourism and financial services, have been promoted. In contrast, the service sector has often been treated as a "residual." Worse, if the experience of many industrialized economies is anything to go by, government policies have done much to sacrifice productivity growth in favour of other national objectives, such as creating employment opportunities for the lower skilled. The lessons from international experience are by no means all positive, and China should not repeat the mistakes of others.

The rest of this paper is organized as follows: to set the discussion in its appropriate developmental context, Section 2 describes the various linkages between the service sector (or, to be precise, the different service sectors), the traditional structural and spatial transformation of economies, and international commerce. This discussion emphasizes the need for an economy-wide perspective on reform toward the service sector, rather than a sectoral perspective. Section 3 describes the current state of China's service sector, making specific reference to service sector performance and the various relevant laws and regulations that are in force. Three imperatives for and challenges facing the Chinese service sector are then described in the fourth section. Section 5 gives lessons from comparative analyses and international experience with reform and growth of the service sector and discusses the relevance of those lessons to China. Policy options for the Chinese government are discussed in Section 6.

2.0 The service sector, economic transformation and a sustainable trade strategy

Perhaps it is best to start with the very notion of the service sector, or tertiary sector, as literature on China often calls it. Services are distinguished from other economic activities, specifically, agricultural production and resource extraction (together typically called the primary sector) and from the manufacture of goods and production of energy (typically referred to as the industrial or secondary sector). Services are often thought of as intangible or, as one observer put it, not something that will hurt you if drop it on your feet.

The attention given to the service sector arises because of its size, as measured by either employment or value added, compared to the primary and secondary sectors. As Francois and Hoekman (2009, p. 2) note in their recent survey article, “modern economies are increasingly dominated by services.” Indeed, economic development has typically been associated with structural transformations, and one of the most important manifestations of this has been the growing share of services in national economies. Initially, analysts debated whether this growth was due to demand-side phenomena, since the cost of food and essentials was thought to grow less slowly than income, allowing for greater funds to be spent on services, or supply-side factors, such as slower growth in labour productivity in the service sector relative to manufacturing and agriculture—so-called Baumol’s disease.

In recent years, however, our understanding of the contribution of the service sector to economic development has been refined. No longer are services implicitly or explicitly treated as being purchased by final consumers. Instead, consideration is given to the role of producer and business services as important determinants of the level of productivity in the secondary or manufacturing sector. Moreover, the factors determining the productivity and variety of services (so-called supply-side considerations) have received greater attention that also emphasizes, as we will argue below, degrees of specialization as well as spatial considerations. Indeed, while the service sector is viewed as part of the structural transformation of economies, that transformation is also taken to include spatial components (in particular the organization of economic activity in cities) as well as the organization of manufacturing processes. The purpose of this section is to sketch out a view of the importance of services to economic development, then describe the implications for international trade flows and the objectives of a sustainable trade strategy.

The service sector covers a wide range of economic activities. As Francois and Hoekman (2009, p. 3) argue:

Services are very heterogeneous, and span a wide range of economic activities. Conceptually, this diversity masks a fundamental function that many services perform in relation to overall economic growth and economic development: they are inputs into production. One dimension of this “input function” is that services facilitate transactions through space (transport, telecommunications) or time (financial services). Another dimension is that services are frequently direct inputs into economic activities, and thus determinants of the “fundamental” factors of production—labor and capital—that generate knowledge, goods, and other services. Education, R&D and health services are examples in the production of human capital.

This perspective leaves out those services that are bought by individuals and are not transformed before being “consumed.” Haircuts, watching a film at a cinema, housecleaning and cooking are examples of these types of services. Still, many services are inputs for other economic and non-economic processes, and this implies that the demand for services is not confined to demand from private consumers. Moreover, the determinants of the service sector are not independent of developments in other sectors, especially the manufacturing sector. Knock-on effects are important. The sheer heterogeneity of services also makes generalizing about the service sector especially hazardous.

Perhaps it is the economic geography literature that has most emphasized the knock-on effects of developments in the services and manufacturing sectors (see Burgess and Venables (2004) for an accessible survey that examines the development dimension in some detail). Structural transformation, the generalized process through which economies reallocate labour to more and more productive uses, has tended to have both a spatial and organizational dimension.

The spatial dimension has involved the concentration of economic resources (labour, capital, and so on) and the creation of added value in cities. The organizational dimension reflects the tendency of firms to specialize only in those functions at which they are particularly effective and buy the remaining goods and services from other firms. Over time, then, firms specialize in different elements of the value chain. Moreover, as the quality and variety of available goods and services increases, so does the productivity of the purchaser, thereby linking the downstream firm’s productivity to the performance of firms upstream.

Both the spatial and organizational dimensions of structural transformation interact in a way that is important for understanding the evolution of producer services. The vast literature on economic geography emphasizes the cumulative linkages between the manufacturing sector, producer services and the location of production. Expansion of the manufacturing sector in a given location will

increase demand for business services, which in turn increases the incentive for entrepreneurs to set up specialized service sector firms in that location. To differentiate their services from others, new service sector firms try to find business services that give even more value to their buyers. This often requires hiring more specialized labour, which in turn increases the incentive for trained personnel to move to cities. The resulting pools of labour also attract firms, since managers know that there is enough talent to hire. Expansion in city size is therefore associated with more specialized manufacturing and service sector output and higher levels of productivity.

The proximity of specialized service sector suppliers, labour and purchasers also creates faster growth. Ideas and innovations dissipate faster when there are large pools of talent close to each other. Concentrations of economic activity stimulate competition among firms (both manufacturing and service) and talent, all of which spurs innovation. The growth dynamics associated with cities, however, are not all one-sided. Larger city sizes without commensurate investments in infrastructure lead to overcrowding, longer travel times, pollution and the like. No individual or firm takes into account the negative impact on others that their movement to a city generates, just like they don't take account of the positive impact. As a result, government has a role in encouraging service sector development through liberalizing unnecessary entry restrictions for such firms and their customers, as well as improving amenities—including environmental amenities—to optimize the benefits of proximity (or co-location). In short, many discussions of economic development and the environment point to the need to identify win-win solutions. Arguably the research on economic geography that emphasizes spatial and organizational transformation identifies an important win-win policy prescription: improving amenities and intra-city and suburban infrastructure so as to encourage greater concentrations of labour and higher levels of productivity and innovation. Later in this paper we return to the relevance of these observations for China.

From the perspective of social sustainability it is also worth recalling that some services used by individuals directly affect standards of living as well as having, in some cases, economic payoffs. Education, social services and health services are important examples. Here the challenge for policy-makers in both developing and industrialized economies is to develop mechanisms that deliver high-quality services at the lowest possible cost, bearing in mind that the delivery of a service need not be undertaken by the party that finances the service. (In other words, state funding with private delivery of services is an alternative to either purely private or purely state financing and provision.) To the extent that the variety and quality of health, education and other social services influences the location decisions of firms and employees, improving amenities and standards of living through better personal services may have economic payoffs by triggering the cumulative processes outlined earlier.

The relationship between service sector development and the trade balance is not straightforward. Some service sector firms sell to customers located abroad, and so directly contribute toward exports. Other service sector firms provide business services to domestic firms and foreign subsidiaries that are located within the same jurisdiction and that ultimately export. In this case, the service sector firms indirectly and positively contribute to the national trade balance. To the extent that foreign transportation and logistics firms are used to ship manufactured goods (including parts and components) out of a country, it is possible that an expansion in manufactured exports could be associated with a corresponding worsening in the trade deficit in services.

Furthermore, to the extent that a generalized expansion of the service sector occurs, it will increase the demand for labour generally within the economy (and probably in certain segments of the labour market), increasing wages and reducing the size of the other sectors of the economy. To the extent that exporting firms reduce their employment without an offsetting increase in productivity, total manufacturing exports are likely to fall and the trade balance in goods worsen. In turn this may reduce demand for producer services, which may induce the latter firms to seek foreign customers, with implications for the balance of trade in services.

Since the demand for many services arises from the manufacturing sector and since the service sector and manufacturing firms can find themselves competing for the same types of labour, it makes little sense to discuss the “service sector trade balance” and “services trade deficit” in isolation from developments in the manufacturing sector. Worse, attempts to correct one perceived problem in trade in services may actually do greater harm to the overall trade balance, once the impact on manufacturing is taken into account.¹

The relationship between the development of the service sector and the physical environment is also far from straightforward. As one recent survey put it:

The perception that the services economy has no significant impact on the environment is increasingly called into question as high income, service-based economies still account for most of the world’s natural resource consumption, polluting emissions and impacts on biodiversity. (Mayrand & Paquin, 2007, p. 1)

Every activity in an economy tends to involve both the purchases of goods and services produced somewhere else in the economy or abroad and the hiring of labour. Therefore, the expansion of any given activity will have direct and indirect implications on demand for a nation’s resources. The indirect demands may be very resource intensive—and a threat to sustainability—even if the direct demands appear small. To use data (or worse, to make assumptions) about the latter to infer anything about the overall impact of an expansion of activities on national resources is risky. Input-

¹ Large-scale expansion of China’s service sector will almost certainly require significant changes to the expenditure

output tables were designed precisely for this purpose, and it would be advisable to check whether any service sectors are particularly intensive in natural resource use. When one considers that there is likely to be variation across manufacturing and service sectors in the degree of natural resource use per unit of output, the proposition that expanding the latter sector at the expense of the former must reduce overall Chinese demands for resources is doubtful. Likewise, given that the expansion of an activity may generate waste and pollution directly and indirectly (indirectly through increasing the demand for other goods and services), it is possible that some service sector activities are not quite as “clean” as they initially appear.

Again, as this survey notes, the tendency has been to examine these matters on a sector-by-sector basis rather than take into account the many different ways in which services are used by private consumers, governments and firms. Moreover, the knock-on effects across sectors need to be considered. Improvements in the productivity of certain types of business services may result in increases in the productivity of a heavily pollution-intensive manufacturing sector and ultimately in greater environmental damage. This is not to imply that the productivity improvement is bad, rather that economy-wide evaluations are called for. Yet Mayrand & Paquin (2007, p. 2) also argued that our knowledge of “the service sector’s environmental impacts remains incomplete and fragmentary at best.” This conclusion is not an excuse to stop thinking about environmental impacts. Rather, it is a warning that as far as economy-wide assessments are concerned, there is less to guide policy-making than many might like.

Still, some sectors stand out in terms of their potential environmental impact, and it is not surprising that analysts and policy-makers have wanted to understand the dynamics involved and policy options available. Certain transportation sectors, which link national as well as international markets, have long been a source of concern. Meanwhile, those promoting win-win-win solutions such as higher sectoral employment, higher sectoral exports and an improved physical environment have long focused on developing environmental services. Without denying that such solutions are possible—indeed, from an economy-wide point of view the spatial and organizational reorganization of economic activity emphasized by the economic geography perspective is perhaps the largest win-win-win alternative around—it is still important to evaluate any such claims at the national and sector levels.

The sustainability of the structural transformation of an economy over time has an international dimension, too. Some might rightfully question, for example, a country’s commitment to environmental sustainability if its firms reorganize their corporate activities to move or outsource the “dirty” stages of production and processing to trading partners. In other words, it is difficult to reconcile the objective of promoting sustainable development with the cross-border displacement—rather than worldwide reduction—of environmental impacts such as pollution.

The purpose of this section has been to highlight the potential relationships between development of the service sector and the aspects of a Chinese sustainable trade strategy that are related to growth, employment and the environment. We argued that the development of China's service sector should be seen as part of the structural transformation of the Chinese economy, a transformation that goes well beyond the service sector and involves spatial and organizational reallocations of economic activity. This approach sheds light on the many different contributions of services to economic development—and highlights the need for a cross-sectoral evaluation of any policy that seeks to promote a service sector or services in general. On a positive note, we described the potential win-win-win outcome in the development of livable, productive cities with high-end services, which is implied in the economic geography literature.

We also showed the linkages between service sector development and China's trade balance. Of course, one can question why the trade balance is a legitimate indicator of national economic well-being. Here, however, we pointed out that improving the service sector trade balance might come at the expense of worsening the trade balance in goods. With respect to the impact of Chinese service sector development and environmental degradation, the fact that so many services are inputs to the production of other goods and services complicates assessments of the impact of changing policies toward any one sector. We also repeated a warning from the literature that relatively little is known about the economy-wide effects of service sector liberalization and growth.

3.0 China's service industry and trade: The facts

This section provides information on the pace of the structural transformation of the Chinese economy that has occurred as the tertiary sector has expanded over time. It also provides a review of the factual record concerning Chinese trade in services.

3.1 Service industry

Since the beginning of reform and opening up, China's tertiary industry has developed rapidly. As shown in Table 3.1, from 1978 to 2007 the annual average growth rate of the tertiary industry's value added reached 10.8 per cent, which is three to six percentage points higher than that of Chinese agriculture and manufacturing. The tertiary industry's proportion of GDP rose to around 40 per cent from over 20 per cent. The tertiary industry is therefore becoming an important determinant of national economic growth.

Table 3.1 GDP and value added of the tertiary industry. Data in this table are calculated at current prices.
Source of data: *China Statistical Yearbook 2008*, National Bureau of Statistics of China

| Year | GDP (billion yuan) | Tertiary industry | |
|------|--------------------|----------------------------|------------------|
| | | Value added (billion yuan) | Share of GDP (%) |
| 1978 | 364.52 | 87.25 | 23.9 |
| 2000 | 9,921.46 | 3,871.40 | 39.0 |
| 2001 | 10,965.52 | 4,436.16 | 40.5 |
| 2002 | 12,033.27 | 4,989.89 | 41.5 |
| 2003 | 13,582.28 | 5,600.47 | 41.2 |
| 2004 | 15,987.83 | 6,456.13 | 40.4 |
| 2005 | 18,321.75 | 7,343.29 | 40.1 |
| 2006 | 21,192.35 | 8,472.14 | 40.0 |
| 2007 | 24,952.99 | 10,005.35 | 40.1 |

The rapid development of China's tertiary industry employs a large number of workers. Since the mid-1990s, the number of people employed in the tertiary industry has exceeded that in the manufacturing industry. Table 3.2 shows that by the end of 2007, 250 million people were employed in the tertiary industry, a number that accounted for 32.4 per cent of the total employed people—a 20 percentage point increase over 1978.

Table 3.2 China's employment, total and tertiary industry (end of year data). For 1990 to 2000 the total number of employed persons (overall and in the tertiary sector) have been adjusted in accordance with the data obtained from the 5th National Population Census. For 2001 onward these data have been derived from the annual sample survey on population changes. Source of data: China Statistical Yearbook 2008, National Bureau of Statistics of China

| Year | Total number of employed persons (millions) | Tertiary Industry | |
|------|--|--|-----------------------|
| | | Number of employed persons (millions) | Share of total (%) |
| 1978 | 401.52 | 48.90 | 12.2 |
| 1994 | 674.55 | 155.15 | 23.0 |
| 2004 | 752.00 | 230.11 | 30.6 |
| 2005 | 758.25 | 237.71 | 31.3 |
| 2006 | 764.00 | 246.14 | 32.2 |
| 2007 | 769.90 | 249.17 | 32.4 |

Among the sectors in the tertiary industry, the wholesale and retail trades sector and the transport, storage and postal sectors ranked as the top two, accounting for 7.4 and 5.9 per cent of GDP, respectively (Table 3.3). These two sectors comprise producer services that are principally bought by manufacturing industries. The fast development of these two sectors mostly reflects China's export drive. In contrast, the sectors closely related to social and environmental development, including health, social security and social welfare; scientific research, technical services and geological prospecting; culture, sports and entertainment; and management of water conservancy, the environment and public facilities, lag behind, with their combined value added accounting for only 3.8 per cent of GDP.

Table 3.3 Value added and composition of the tertiary industry by sector (2005). Data in this table are calculated at current prices. Source of data: China Statistical Yearbook 2007, National Bureau of Statistics of China

| Sectors | Value added (billion yuan) | Share of GDP (%) |
|--|-------------------------------|---------------------|
| Tertiary industry | 7,343 | 40.1 |
| Wholesale and retail trades | 1,353 | 7.4 |
| Transport, storage and postal | 1,084 | 5.9 |
| Real estate | 824 | 4.5 |
| Public management and social organizations | 683 | 3.7 |
| Financial intermediation | 630 | 3.4 |
| Education | 566 | 3.1 |
| Information transmission, computer services and software | 477 | 2.6 |
| Hotels and catering services | 419 | 2.3 |
| Services to households and other services | 313 | 1.7 |
| Leasing and business services | 291 | 1.6 |
| Health, social security and social welfare | 293 | 1.6 |
| Scientific research, technical services and geological prospecting | 205 | 1.1 |
| Culture, sports and entertainment | 119 | 0.6 |
| Management of water conservancy, the environment and public facilities | 85 | 0.5 |

Since 2001, when China joined the WTO, the country has entered a new stage of opening up. Seven years after accession, the Chinese government feels it has honoured its WTO commitments and adjusted its foreign trade policies. It is pursuing liberalization of its service industry. Up to now, China has made commitments in nine service sectors and 84 subsectors of the WTO, accounting for 54.2 per cent of the 155 possible subsectors. China has made commitments in every subsector of the construction and related engineering services, distribution services, educational services and environmental services sectors. Moreover, China's actions have often surpassed its commitments to market access in environmental services. For example, China has only committed to allowing foreign capital to operate environmental services in China's domestic market in the form of joint ventures, but in practice the country has allowed some sewage treatment plants and waste-power generation plants to operate in the form of wholly foreign-owned enterprises.

China has further liberalized its trade in services in the process of regional economic integration. On June 30, 2003, the People's Republic of China signed the Closer Economic Partnership Arrangement with the Hong Kong Special Administrative Region. One of the most important objectives of the agreement is to phase in the liberalization of trade in services, a commitment that has been reinforced in four supplementary agreements signed in October 2004, October 2005, June 2006 and June 2007. The mainland has opened more of its service sectors to Hong Kong. Compared with China's commitments under the WTO, the Closer Economic Partnership

Arrangement has relaxed practitioner qualifications and business limitations to varying degrees across the sectors, including legal, medical, computer and related services; real estate; market research; services related to management consulting; public utilities; temporary employment; building cleaning; photography, printing, translation and interpretation; conventions and exhibitions; telecommunications; audiovisual services; distribution; environmental services; insurance; banking; securities; social services; tourism; culture; sports; maritime transport; air transport; road transport and individually owned stores. For example, in the case of legal services, China committed at WTO accession to allowing foreign law firms to provide legal services only in the form of representative offices. But under the Closer Economic Partnership Arrangement, a Hong Kong law firm is allowed to set up a representative office on the mainland to operate in association with a mainland law firm.

In January 2007 China signed an agreement on trade in services with the Association of Southeast Asian Nations. According to the agreement, investors from member countries could set up wholly foreign-owned enterprises to operate in the sectors of software implementation, data processing, real estate, translation and interpretation, environmental, computer reservation systems and freight transport agency services. In addition, China has also expanded its commitments to sectors such as market research services; project management services other than for construction; personnel placement and supply services; building cleaning services; printing of packaging materials on a fee or contract basis; recreational, cultural and sporting services; maintenance and repair services of motor vehicles; and passenger transportation.

3.2 Trade in services

China's trade in services is developing very rapidly and is becoming more and more important worldwide. According to WTO statistics, China's service trade exceeded US\$190 billion in 2006, 2.7 times its size in 2001 (Table 3.4). The sector's exports reached US\$91.4 billion, accounting for 3.3 per cent of the total exports of international commercial services and ranking eighth among WTO members. Its imports reached US\$100.3 billion, accounting for 3.8 per cent of total worldwide imports and ranking seventh among WTO members.

Table 3.4 Rank of China as exporter and importer of commercial services among WTO members in 2001, 2003 and 2006. “Annual percentage change” refers to change from the previous year. Source of data: WTO

| Year | Exports | | | | Imports | | | |
|------|---------|-----------------------|--------------------|--------------------------|---------|-----------------------|--------------------|--------------------------|
| | Rank | Value (US\$1 billion) | Share of world (%) | Annual percentage change | Rank | Value (US\$1 billion) | Share of world (%) | Annual percentage change |
| 2001 | 12 | 32.9 | 2.2 | 3.1 | 10 | 39.0 | 2.6 | 8.9 |
| 2003 | 9 | 46.4 | 2.5 | 18.0 | 8 | 54.9 | 3.1 | 19.0 |
| 2006 | 8 | 91.5 | 3.3 | 23.7 | 7 | 100.3 | 3.8 | 20.6 |

China is a net importer of service products, and its deficit has been expanding. In 2006 the deficit in China’s service trade exceeded US\$8.8 billion, nearly US\$3 billion higher than in 2001. (Even so, some perspective is needed here, as the trade deficit in services represents approximately 4 per cent of China’s total services trade.) The deficit is mainly attributable to the sectors of transportation, insurance services, and royalties and license fees (Table 3.5), which is perhaps not terribly surprising given that these are non-labour-intensive activities taking place in a relatively labour-abundant country. In comparison, tourism and other business services generated large surpluses.

Table 3.5 China’s trade in services in 2001 and 2006, in billions of US dollars. Source: China’s State Administration of Foreign Exchange

| Sector | 2001 | | | | 2006 | | | |
|---------------------------------|-------|--------|--------|---------|--------|--------|--------|---------|
| | Total | Export | Import | Balance | Total | Export | Import | Balance |
| Total | 72.60 | 33.34 | 39.27 | -5.93 | 192.83 | 92.00 | 100.83 | -8.83 |
| Transportation | 15.96 | 4.64 | 11.32 | -6.68 | 55.40 | 21.02 | 34.37 | -13.35 |
| Tourism | 31.70 | 17.79 | 13.91 | 3.88 | 58.27 | 33.95 | 24.32 | 9.63 |
| Telecommunications | 0.60 | 0.27 | 0.33 | -0.06 | 1.50 | 0.74 | 0.76 | -0.03 |
| Construction | 1.68 | 0.83 | 0.85 | -0.02 | 4.80 | 2.75 | 2.05 | 0.70 |
| Insurance | 2.94 | 0.23 | 2.71 | -2.48 | 9.38 | 0.55 | 8.83 | -8.28 |
| Finance | 0.18 | 0.10 | 0.08 | 0.02 | 1.04 | 0.15 | 0.89 | -0.74 |
| Computer and information | 0.81 | 0.46 | 0.34 | 0.12 | 4.70 | 2.96 | 1.74 | 1.22 |
| Royalties and license fees | 2.05 | 0.11 | 1.94 | -1.83 | 6.83 | 0.20 | 6.63 | -6.43 |
| Consultancy services | 2.39 | 0.89 | 1.50 | -0.61 | 16.22 | 7.83 | 8.39 | -0.56 |
| Advertising and publicizing | 0.54 | 0.28 | 0.26 | 0.02 | 2.40 | 1.45 | 0.95 | 0.50 |
| Movies and audiovisual services | 0.08 | 0.03 | 0.05 | -0.02 | 0.26 | 0.14 | 0.12 | 0.02 |
| Other business services | 13.03 | 7.28 | 5.74 | 1.54 | 30.95 | 19.69 | 11.26 | 8.43 |
| Government services, n.i.e | 0.67 | 0.43 | 0.24 | 0.19 | 1.09 | 0.58 | 0.51 | 0.07 |

The structure of China's trade in services is shifting. The proportion composed of traditional industries such as transportation and tourism is decreasing, but these industries still account for quite high shares. In 2006 their total proportion reached 59 per cent, 16 percentage points lower than in 2001. The proportions of higher-end sectors of the service industry, such as computer and information services, communication and consultation services, and so on, have increased somewhat.

The growth of China's trade in services displays three notable characteristics. The first is that China's trade in services has entered a stage of rapid development. Its annual growth rate has increased year after year since the beginning of the new century. In 2001 Chinese imports and exports of services increased by 8.9 and 3.1 per cent, respectively, compared with the previous year, and by the middle of the decade both growth rates had accelerated to 20 per cent. The service sector trade deficit had expanded to between US\$8 billion and US\$9 billion by the middle of the decade and is a stated concern of some analysts.

The second is that the growth of China's trade in services is faster than that of its service industry. From 2001 to 2006 the annual average growth rate of China's trade in services was 21.6 per cent, and that of the service industry was 10.5 per cent. The tripling of China's total service sector exports from 2001 to 2006 indicates that Chinese service sector firms are increasingly meeting world standards.

The third is that China's trade in services is growing at a speed above the world average level. From 2001 to 2006 the annual average growth rates of China's service imports and exports were 20.8 and 22.7 per cent, respectively, which were both over eight percentage points higher than the world average levels (12.1 and 13.2 per cent). China's status in international trade in services is being enhanced. But quantitative growth of China's trade in services does not necessarily indicate qualitative improvement. Some of the tensions (such as over trade surpluses) that have arisen in the development of China's goods trade seem to have been avoided when China started to develop its trade in services.

3.3 Foreign direct investment flowing into China's service industry

Since China joined the WTO, the newly added foreign direct investment utilized in the service sector has increased every year. In 2006 the utilization of foreign direct investment in the tertiary industry reached US\$19.5 billion (Table 3.6), growing by 34 per cent over the previous year and accounting for 31 per cent of the total utilization of foreign capital that year. The business services sector absorbed the largest share of foreign direct investment—a share that exceeded 70 per cent of the

foreign capital utilized in the tertiary industry. Transport and distribution services utilized about US\$2 billion and US\$1.6 billion, respectively, ranking second and third.

Table 3.6 Foreign direct investment in China's service sectors in 2006, in millions of US dollars. The sectoral classification used here is that used by the WTO since 2007. Source of data: Ministry of Commerce of the People's Republic of China (MOFCOM, n.d.)

| Sector | Project counts | | Utilization of foreign capital | | Proportion of total (%) | |
|---|----------------|-------------------|--------------------------------|-------------------|-------------------------|-------------|
| | Number | Annual change (%) | Value (US\$1 million) | Annual change (%) | Count | Utilization |
| Total | 15,024 | 7.04 | 19,503.90 | 33.87 | 100 | 100.0 |
| Business services | 8,785 | -0.86 | 13,760.02 | 36.39 | 58.5 | 70.6 |
| Communication services | 23 | 9.52 | 19.29 | -70.67 | 0.2 | 0.1 |
| Construction and related engineering services | 352 | -22.98 | 688.01 | 40.35 | 2.3 | 3.5 |
| Distribution services | 3,804 | 59.63 | 1,641.94 | 84.81 | 25.3 | 8.4 |
| Finance services | 52 | 30.00 | 293.69 | 33.68 | 0.3 | 1.5 |
| Transport services | 665 | -9.28 | 1,984.79 | 9.25 | 4.4 | 10.2 |
| Tourism and travel-related services | 1,068 | -12.03 | 842.14 | 33.96 | 7.1 | 4.3 |
| Educational services | 27 | -47.06 | 29.40 | 65.63 | 0.2 | 0.2 |
| Health-related and social services | 20 | -9.09 | 15.17 | -61.36 | 0.1 | 0.1 |
| Recreational cultural and sporting services | 223 | -11.51 | 225.57 | -23.72 | 1.5 | 1.2 |
| Environmental services | 5 | 150.00 | 3.88 | -82.92 | 0.03 | 0.02 |

Among business services, geological prospecting and water conservancy was the fastest-growing sector in terms of utilization of foreign capital, which increased by 279.19 per cent over the previous year. The second- and the third-fastest were the other social services and the maintenance and repair of transport and communication facilities, up 207.72 and 151.41 per cent, respectively.

The statistics for environmental services only cover sanitation. Newly added projects utilizing foreign direct investment in this sector increased by 150 per cent over the previous year, but the actual utilization of foreign capital decreased by 80 per cent, which indicates that the scale of these projects is smaller than before.

Foreign capital is a very significant means by which the service sector relocates to China. Much of the foreign direct investment flowing into China's service industry has been associated with producer services, including business, distribution and transport services. These sectors are closely related to the manufacturing industry, which indicates that the producer services are relocating to

China alongside the labour-intensive manufacturing industries or sectors transferring from advanced economies.

According to statistics from the Chinese Ministry of Commerce, the foreign-invested enterprises (FIEs) in the transport, storage and postal industry and the manufacturing industry are the main bodies on the balance sheet of FIEs' trade in services. From 2001 to 2006 the services trade income of the FIEs in the two major industries rose from US\$2.4 billion to US\$15.2 billion, accounting for over half of the total income of FIEs' trade in services (MOFCOM, 2007).

At present, the service sectors that have relocated to China by means of foreign direct investment have not satisfied China's demands for developing its service sector and trade in services. With the growing international relocation of services, in which outsourcing is becoming more and more important, one of the main directions of China's foreign investment policies is to develop its international outsourcing business by taking advantage of foreign capital.

3.4 China's policies and measures for promoting the development of service industries and trade

A range of existing government policies bear upon the Chinese service sector and upon the amount of trade conducted. In this section the principal policies and their effects are discussed.

3.4.1 Industrial policies

In order to promote the optimization and upgrading of the industrial structure, the State Council of the People's Republic of China promulgated the Provisional Regulations on Promoting Industry Restructuring in 2005, which set out the following goals:

- Increasing the service industry's share of the national economy, optimizing its structure, and promoting its complete and rapid development.
- Vigorously developing the environmental protection industry and strengthening the protection of water resources, land, forests, grasslands, oceans and so on, with an emphasis on controlling the unreasonable exploitation of resources.
- Vigorously developing the trade in services, continuing to open the services market and accepting the international relocation of the modern services industry.
- Enhancing the quality and level of utilization of foreign funds, with an emphasis on introducing advanced technology, management experience and high-quality talent as well as assimilation and innovation of the introduced technology.
- Enhancing the production and manufacturing hierarchy, as well as actively exploring the

sectors of research and development and logistics, etc., in the regions and development zones that have a strong capacity to attract foreign funds.

Meanwhile, the State Council publicized the 2005 Guiding Catalogue of Industrial Structure Regulation, which provided an important basis for directing investments as well as government managing investment projects, thereby establishing and implementing policies covering areas such as finance and taxation, credit, land, and imports and exports. With the rapid economic development of recent years, the National Development and Reform Commission started amending the catalogue and widely solicited opinions for the draft in 2007. At present, the new catalogue is being revised to incorporate those opinions. It will further detail the service industries encouraged for investment and add six new categories of industry, including “modern services,” financial services, science and technology services, business services and commercial trade services as well as educational, cultural, health and sporting services. Environmental protection and the conservation and comprehensive utilization of resources will be catalogued separately.²

3.4.2 Finance and taxation policies

Table 3.7 lists taxes on service enterprises operating in China, which include business taxes, taxes on city maintenance and construction, surcharges for education, stamp taxes, land-use taxes, property taxes, taxes for the use of vehicles and ships, and business income taxes. Enterprises also deduct and pay personal income taxes when paying their employees’ salaries.

² Compared with the 2005 catalogue, the new one will list 72 more service sectors that are to be encouraged, including the technical development and application of heating balance and energy-saving control systems in urban buildings, vehicle refuelling stations using new-energy resources, ATMs, data processing and database services, third-party logistics services, public information platforms for logistical services, social and professional rehabilitation services, rural medical services, subcontracting of international service outsourcing, eco-tourism, environmental protection and recycling technology, and development of batteries such as lead-acid batteries, nickel-hydrogen batteries, nickel-cadmium batteries and lithium batteries, as well as the construction of recycling centres for waste electronics.

Table 3.7 Types and rates of business taxes in China. Table adapted from State Administration of Taxation (2007)

| Type | Items taxed | Rate (%) |
|--|--|----------|
| Transportation and communications | Shipment by land, water, air and/or pipeline; loading and unloading | 3 |
| Building | Building, installation, repair, interior decoration and other building works | 3 |
| Banking and insurance | | 5 |
| Postal and telecommunications services | | 3 |
| Cultural and sports services | | 3 |
| Entertainment | Bars with musical entertainment, ballrooms, karaoke lounges, discotheques, music teahouses, billiards clubs, golf clubs, bowling halls, and other amusement and entertainment facilities | 5–20 |
| Service trades | Agencies, hotels, restaurants, travel agencies, warehouses, rentals, advertising agencies, and other service trade businesses | 5 |
| Transfer of intangible assets | Transfer of land-use rights, patent rights, non-patent technology, trademarks, copyright and goodwill | 5 |
| Selling immovable properties | Buildings and other construction on land | 5 |

The Chinese government also provides some financial supports and tax deductions and exemptions to encourage some service industries. For example, the following items are exempt from business taxes: the services provided by nurseries, kindergartens, homes for the aged, institutions for the benefit of the disabled, matrimonial agencies and undertakers; services provided by the handicapped; medical services provided by hospitals, clinics and other medical institutions; educational services provided by institutions of learning and other educational institutions; services provided by students working part-time; booking office income from cultural activities conducted by memorial halls, museums, cultural centres, art galleries, exhibition halls, academies of fine arts and calligraphy, libraries, and institutions in charge of the preservation of cultural relics; and income from entrance fees for cultural and religious activities organized by religious institutions.

3.4.3 Foreign trade policy

The Chinese government has always actively supported the development of China's external trade in services. The Foreign Trade Law of the People's Republic of China (2004) obligates China to grant market access and national treatment to other signatories and participants in the international treaties and agreements to which China is a party. The law lists the reasons that restrictions or bans may be imposed on the international service trade, including:

- They are necessary because of national security, the public interest or public morals.
- They are necessary to protect the health or safety of the people or the life or health of animals, plants and the environment.
- They are necessary in order to establish or accelerate the establishment of certain domestic service industries.
- They are necessary to maintain the balance of foreign exchange payments.
- They are necessary due to other reasons in accordance with laws and administrative rules.
- They are provided for by the international treaties or agreements to which China is a party.

3.4.4 Foreign investment policy

In November 2007 China's National Development and Reform Commission and Ministry of Commerce jointly revised the *Catalogue of Industries for Guiding Foreign Investment*. The new catalogue expanded the restriction on foreign investment in the real estate industry and relaxed the restriction on finance services. Besides continuing to only allow foreign capital to develop tracts of land and to construct and operate villas, international exhibition centers, and high-end hotels and office buildings in the form of equity joint ventures and cooperative joint ventures, in real estate the new catalogue restricts foreign capital to secondary market transactions and intermediate or brokerage companies. In addition, ordinary housing development was deleted from the list of encouraged services.

In total, the catalogue of services where foreign investment is encouraged mainly includes eight sectors and 41 sub-sectors (Table 3.8). The new catalogue no longer encourages the use of foreign capital in development of rare or non-renewable mineral resources, and restricts or even forbids foreign capital from investing in projects with high material and energy consumption and high pollution. To deal with the huge trade surplus and foreign exchange reserves, the new catalogue no longer implements policies that purely encourage exports.

Table 3.8 Catalogue of service industries in which foreign investment is encouraged. Data source: National Development and Reform Commission and Ministry of Commerce (2007)

| Sector | Subsectors |
|--|---|
| Transportation, warehouse management and postal services | <ul style="list-style-type: none"> • Construction and operation of main railway lines (the Chinese party shall have a controlling interest). • Construction and operation of branch line railways, local railways, and related bridges, tunnels, ferries and station facilities (limited to equity joint ventures and cooperative joint ventures). • Comprehensive maintenance of infrastructure for high-speed railways, railway lines specially for passenger traffic and intercity railways (the Chinese party shall have a controlling interest). • Construction and operation of highways, independent bridges and tunnels. • Highway freight companies. • Construction and operation of public dock facilities of ports. • Construction and management of civil airports (the Chinese party shall have a controlling interest). • Air freight companies (the Chinese party shall have a controlling interest). • General aviation companies for agriculture, forestry and fishery (limited to equity joint ventures and cooperative joint ventures). • International marine transport (the Chinese party shall have a controlling interest). • International container multi-modal transportation. • Construction and management of oil and gas delivery pipes as well as oil depots. • Construction and management of coal pipeline transportation facilities. • Construction and management of storage facilities related to transportation businesses. |
| Wholesale and retail | <ul style="list-style-type: none"> • Delivery of general commodities. • Modern logistics. |
| Leasing and commercial services | <ul style="list-style-type: none"> • Accounting and auditing (limited to equity joint ventures and cooperative joint ventures). • International economic, scientific and technical, and environmental protection information consultancy services. • Contract information technology and operation flow services, such as systems application management and maintenance, information technology support management, bank back-office services, financial settlement, human resource services, software development, call centres and data processing. |
| Scientific research, technical services and geological exploration | <ul style="list-style-type: none"> • Biological engineering and biomedical engineering technology. • Biomass energy development technology. • Isotope, radiation and laser technology. • Ocean and ocean energy development technology, comprehensive utilization technology for marine chemical resources, marine medicine and biochemical product development technology. • Ocean-monitoring technology (monitoring tides, waves, weather and the environment). |

| | |
|---|---|
| | <ul style="list-style-type: none"> • Submarine detection and oceanic resource exploration assessment technology. • Technology for comprehensively utilizing the thick sea water left over from desalination, to produce salt and extract and deep-process potassium, bromine, magnesium and lithium, and technology for using other high-added-value seawater chemical resources. • Energy-saving technology. • Technology for recycling and comprehensive utilization of resources and for recycling the effluents discharged from enterprise production. • Technology for treating and monitoring environmental pollution. • New technology for saving energy and reducing waste in producing chemical fibre and for the disposal of waste gas, water and solids. • Technology for desertification prevention and desert treatment. • Integrated management technology for achieving balance in livestock utilization of grassland. • Applied technology for civil satellites. • R&D centres. • High- and new-tech and new-product development centres, and enterprise incubation centres. |
| Water conservancy, environmental services and public utility management | <ul style="list-style-type: none"> • Construction and operation of comprehensive hydroelectric projects (the Chinese party shall have a controlling interest). • Construction and operation of urban roads. • Construction and operation of urban subways and light rails (the Chinese party shall have a controlling interest). • Construction and operation of sewage and refuse treatment plants, hazardous waste treatment and disposal plants (incineration plants and landfills), and pollution treatment facilities. |
| Education | <ul style="list-style-type: none"> • Higher education institutions (limited to equity joint ventures and cooperative joint ventures). |
| Health, social security and community welfare | <ul style="list-style-type: none"> • Agencies providing services for the elderly, the disabled and children. |
| Culture, sports and entertainment | <ul style="list-style-type: none"> • Operation of performance places (the Chinese party shall have a controlling interest). • Operation of sports grounds, bodybuilding, performance contests, sports training and intermediate services. |

3.4.5 Policies related to environmental services

In order to realize sustainable development as the country enters the 21st century, the Chinese government has adopted various policies covering such areas as industry, foreign investment, finance and taxation, and pricing, so as to vigorously support the development of the environmental protection industry (Table 3.9). Besides the above-mentioned Guiding Catalogue of Industrial Structure Regulation and Catalogue of Industries for Guiding Foreign Investment, the country has implemented a series of important regulations and policies, including the Law on Promotion of Cleaner Production, Law on Environmental Impact Assessment, Program of Action for Sustainable Development in China in the Early 21st Century, Ordinance of Pollutant Discharge Fee Collection, Opinions on Accelerating the Marketization of Urban Utilities, Opinions on Pushing Forward Industrial Development for Municipal Sewage and Garbage Treatment, and the State Council on Strengthening the Work to Prevent Water Pollution in Urban Water Supplies and Water Conservation Notice. All these regulations and policies form a preliminary policy system to protect the environment, and have provided the basis for the treatment of municipal wastes and the prevention of pollution.

Table 3.9 Supporting policies related to the development of environmental services

| Policies | Main contents |
|-----------------------------|---|
| Investment policy | <p>Opinions on Accelerating the Marketization of Urban Utilities (2002) encourages the social funding and foreign capital to participate in the construction of municipal public utilities, such as water supply, wastewater processing and garbage processing, by adopting multiple forms of wholly owned investment, joint ventures and cooperation.</p> <p>Opinions on Pushing Forward Industrial Development for Municipal Sewage and Garbage Treatment (2002) encourages enterprises with different ownership to actively invest in and operate wastewater processing and garbage disposal, as well as to construct utilities for urban wastewater and garbage processing in the form of buy-operate-transfer (BOT) or by cooperating with those enterprises authorized by government.</p> |
| Finance and taxation policy | <p>The State Council on Strengthening the Work to Prevent Water Pollution in Urban Water Supplies and Water Conservation Notice (2000) stipulates that sewage fees charged to localities are exempted from value-added taxes, and urban water suppliers and sewage treatment works can accelerate depreciation of equipment purchased.</p> <p>The Law on Enterprise Income Tax (2008) stipulates that enterprises' income from engaging in qualified environmental protection and energy and water conservation projects may have their business income tax reduced or waived, and their investment in special facilities for environmental protection, energy and water conservation and safe production may be subject to an offset tax.</p> |
| Price policy | <p>Opinions on Pushing Forward Industrial Development for Municipal Sewage and Garbage Treatment (2002) requires that the cities that have already constructed utilities for wastewater and garbage processing charge fees for these services. The fees must be able to cover operation costs and produce reasonable returns for the processing plants.</p> |

4.0 Imperatives and challenges for the sustainable development of Chinese trade in services

The future growth of the Chinese service sector will not happen in a vacuum; other domestic and international developments will condition the business environment and ought to shape the advice that analysts provide policy-makers. Looking a little forward as well as at current developments, this section seeks to do this.

4.1 Imperatives

This section describes the 11th Five-Year Guidelines and establishes their centrality in shaping policy initiatives towards the Chinese service sector.

4.1.1 *The 11th Five-Year Guidelines: Benign internal policy environment*

The 11th Five-Year Guidelines state that China should accelerate the development of its service sectors and trade in services, build a resource-saving and environmentally friendly society, and realize sustainable development, in so doing constructing a better-off society.

The major targets in developing the service sector and trade in services during the period of the 11th Five-Year Guidelines are that, by the year 2010, the service industry's share of GDP should have grown by 3 per cent compared with 2005, the percentage of workers engaging in the service sector should have grown by 4 per cent, and the total trade in services should have reached US\$400 billion. In addition, an industrial structure giving priority to the service economy should have been formed in qualified large- and medium-sized cities, and the growth rate of the service sector's added value should have exceeded those growth rates of GDP and the secondary industry.

By 2020 the transition to an economic structure that gives priority to the service economy should have been accomplished, meaning in practical terms that the service sector's added value as a proportion of GDP should exceed 50 per cent, the sector's employment capacity should be notably augmented, market competitiveness should be markedly strengthened and the overall level of development should basically satisfy the requirements for the full construction of a better-off society.

The major targets in developing a recycling economy and strengthening environmental protection are that by the year 2010, both sulphur dioxide and carbon dioxide emissions will decrease by 10 per cent; all cities in China will have sewage treatment facilities, with at least 70 per cent of urban sewage

being treated; total capacity for urban sewage treatment across China will reach 100 million tonnes per day; and the collection and incineration rate of urban refuse will be no lower than 60 per cent. The major environmental protection indicators are listed in Table 4.1.

Table 4.1 Major environmental protection indicators during the 11th Five-Year Plan period. Source: The National 11th Five-Year Plan for Environmental Protection (2006–2010)

| Indicator | 2005 | 2010 | Change in target (%) |
|---|-------|-------|----------------------|
| Carbon dioxide emissions (10,000 tonnes) | 1,414 | 1,270 | -10 |
| Sulphur dioxide emissions (10,000 tonnes) | 2,549 | 2,295 | -10 |
| Water bodies under the national monitoring program failing to meet the Grade V National Surface Water Quality Standard (%) | 26.1 | 22 | -16 |
| Percentage of China's seven largest water bodies under the national monitoring program meeting the Grade III National Surface Water Quality Standard (%) | 41 | 43 | +5 |
| Number of days in which urban air quality in key cities is superior to Grade II National Air Quality Standard exceeding 292 days (% of remaining 67 days) | 69.4 | 75 | +8 |

In 2008 China's State Council publicized its Opinions on Implementing Some Policies and Measures for Accelerating the Development of the Service Sector. According to the opinions, the government is taking many policies and measures to promote the development of the trade in services, including deepening the reform of the service sector, further opening the service sector to the outside world, increasing monetary input into the service sector, vigorously cultivating leading enterprises and famous brands in the service sector, and further expanding preferential tax policies.

Some current initiatives related to the development of environmental and health services are entrusting the operations of water, heat and gas supplies; public transportation; sewage disposal and waste disposal; and similar services to franchises. They are also increasing central government expenditures on things such as social security, health, education, energy savings, emission reductions and housing security. These expenditures focus on increasing the level of public services for rural areas, underdeveloped regions, and urban residents of moderate and low income, and on supporting health system reform as well as other major reforms.

4.1.2 Rapid development of the service industry and trade: Positive internal economic conditions

To realize the targets of the 11th Five-Year Guidelines, the service industry and trade must sustain

rapid development in the future. If the service industry's share of GDP is to reach 43 per cent in 2010, its annual average growth rate must be about 1.7 percentage points higher than that of GDP during the period of the 11th Five-Year Plan (see Table 4.2). And if the total volume of trade in services is to reach US\$400 billion, its annual average growth rate must reach 20 per cent. The rapid development of the service sector and trade would guarantee sustainable development in China's economic model. And in the process of this rapid development, the social and environmental issues with which the sustainable development of trade in services is confronted can be dealt with more easily.

Table 4.2 Estimated annual average growth rates of the service industry (%). Source: Calculated by the authors

| | | | | | |
|--|-------|-------|-------|-------|-------|
| Possible nominal annual average growth rate of GDP | 11.00 | 12.00 | 13.00 | 14.00 | 15.00 |
| Required annual average growth rate of the service industry to meet Five-Year Plan goals | 12.65 | 13.67 | 14.68 | 15.70 | 16.71 |

The market scale of environmental services is constantly enlarging, and the development of environmental services has a promising future. The statistics show that investment in anti-pollution projects increased continuously during the 10th Five-Year Plan period, rising from over 110 billion yuan in 2001 to over 238 billion in 2005, for an annual average growth rate of 21 per cent (see Table 4.3). Investment will keep increasing during the period of the 11th Five-Year Guidelines, allowing environmental services to grow faster. Some studies predict that environmental services will grow at a rate of 15 to 20 per cent a year in China during the period of the 11th Five-Year Guidelines. In 2010 the total income of environmental services will be about 100 billion yuan (see Table 4.4).

Table 4.3 Investment in the treatment of environmental pollution, 2001 to 2006 (billion yuan). Source of date: China Statistical Yearbook of the Tertiary Industry 2007, compiled by the National Bureau of Statistics of China

| | Total | Urban environmental infrastructure | Industrial pollution source treatment | Investment in environmental protection components of “three-simultaneity” construction projects ³ |
|------|--------|------------------------------------|---------------------------------------|--|
| 2001 | 110.66 | 59.57 | 17.45 | 33.64 |
| 2002 | 136.72 | 78.97 | 18.84 | 38.97 |
| 2003 | 162.77 | 107.24 | 22.18 | 33.35 |
| 2004 | 190.98 | 114.12 | 30.81 | 46.05 |
| 2005 | 238.80 | 128.97 | 45.82 | 64.01 |
| 2006 | 256.60 | 131.49 | 48.39 | 76.72 |

Table 4.4 Predicted demand for environmental services during the period of the 11th Five-Year Plan

| Sectors | Total income in 2004 (million yuan) | Predicted annual growth rate (%) | Predicted total income in 2010 (million yuan) |
|--|-------------------------------------|----------------------------------|---|
| Research and development of environmental technology | 130 | 5–10 | 174–230 |
| Design and construction of environmental projects | 1,437 | 15–25 | 3,324–5,482 |
| Operation of pollution treatment infrastructure | 727 | 25–35 | 2,774–4,401 |
| Environmental monitoring | 169 | 15–20 | 391–505 |
| Environmental consultation | 178 | 20–30 | 532–859 |
| Total | 2,641 | 15–20 | 7,195–11,477 |

4.1.3 Liberalization of global trade in services is deepening

The liberalization of trade in services is strengthening, principally in bilateral and regional agreements. Trade in services is one of the key parts of the Doha Round negotiations. Although these negotiations have met unexpected difficulties and the deadline to close the negotiations has been postponed again and again, some improvements have occurred. Since the end of March 2003, 69 countries and regions have submitted “offers” to liberalize their measures, and 30 countries and regions have submitted their revised offers since May 19, 2005. Whether the Doha Round will reach a successful conclusion in the near term is unclear.

³ According to the Environmental Protection Law of the People’s Republic of China, installations for the prevention and control of pollution at a construction project must be designed, built and commissioned together with the principal part of the project. This requirement is referred to as “three-simultaneity.”

In the area of regional integration, it's relatively clear there is considerable scope for improvement in the liberalization of trade in services. With the trade in services playing more and more important roles in the global economy, more and more regional economic groups regard agreement on trade in services as key and wish to mutually open the service industry so as to extend the intra-trade in services. As of April 15, 2008, there were 51 regional trade agreements related to Article V of the General Agreement on Trade in Services (GATS).

4.1.4 The international relocation of the service industry continues apace

The international relocation of the service industry—in the principal form of outsourcing—is developing very fast. Although at present, no comprehensive statistics for international outsourcing of services exist, all the available evaluations suggest that this area has enormous potential for development. McCarthy estimated that, in 2007, the value of global services that could be outsourced offshore might be US\$465 billion. Of these, the information technology applications, business processing, information technology infrastructure, and design and research and development could be US\$90 billion, US\$170 billion, US\$85 billion and US\$120 billion, respectively. And the Chinese Ministry of Commerce has estimated that the total potential market will hopefully increase up to US\$600 billion by 2010, while less than 10 per cent of services have been offshored at present (MOFCOM, 2007). UNCTAD has predicted that the outsourcing of international services will keep on growing at a rate of 30 to 40 per cent in the future.

The international relocation of the service industry is directly influencing the service trade in the modes of cross-border supply and commercial presence. Developing economies, as the main receivers of the offshoring of services, can expand their service exports by taking an active part in the relocation of the service industry. Even that part of the service industry that has relocated to target the domestic market also plays a role in promoting the service exports of the host country by improving the competitiveness of local service firms.

4.2 Challenges

While expectations are high as to the potential contribution of the service sector to China's future economic performance, that contribution is by no means assured. Specific hurdles need to be overcome, and this section describes them.

4.2.1 The development of China's service industry has lagged behind

Compared with countries with similar development levels, much room exists for the development of China's tertiary industry. According to country-wide statistics, the tertiary industry's average share of

GDP of medium-income developing countries in 2005 was 53 per cent, while that in China was just 40 per cent.

In addition, concerns exist about the low quality and high price of the service sector in China. According to one relevant study (Jian & Pei, 2004), it is common in China that the supply of services cannot satisfy consumer demand in terms of both quantity and quality, and the prices of service products on the domestic market are much higher than those on international markets. The underdevelopment of the service industry probably undermines the prospects of China's trade in services.

4.2.2 China's trade in services needs to further liberalize

China made commitments in nine service sectors and 84 subsectors when entering the WTO, accounting for 54.2 per cent of the total 155 subsectors, lower than the commitments of Japan (73.5 per cent) and Korea (67.7 per cent). As far as the specific sectors are concerned, China has made commitments in all the subsectors for construction and related engineering services, distribution services, educational services and environmental services.

Table 4.5 lists the sector coverage rate of China's commitments under the GATS (the percentage of sectors in each industry for which China has made commitments), and the liberalization index for each sector. The WTO's sectoral classification for services lists 12 sectors and 155 subsectors. According to the WTO, if a government commits itself to allow foreign investments to operate in its domestic market, this is a market-access commitment. These commitments can be distinguished from those that are not limited, those that are limited, and those that are unbound.

Table 4.5 Sector coverage rate of China's commitments under GATS, and the liberalization index for each sector. Source: Calculated by the authors based on the schedule of China's specific commitments in services

| Sector | Sector coverage rate of commitments | Liberalization index | | | |
|---|-------------------------------------|----------------------|--------|--------|--------|
| | | Mode 1 | Mode 2 | Mode 3 | Mode 4 |
| Average | 54.2 | 0.36 | 0.54 | 0.28 | 0.06 |
| Commercial business | 60.9 | 0.55 | 0.60 | 0.32 | 0.06 |
| Communication services | 62.5 | 0.38 | 0.63 | 0.31 | 0.06 |
| Construction and related engineering services | 100.0 | 0.10 | 1.00 | 0.50 | 0.10 |
| Distribution services | 100.0 | 0.54 | 1.00 | 0.50 | 0.10 |
| Educational services | 100.0 | 0.10 | 1.00 | 0.50 | 0.10 |
| Environmental services | 100.0 | 0.50 | 1.00 | 0.50 | 0.10 |
| Financial services | 76.5 | 0.44 | 0.65 | 0.44 | 0.08 |
| Health services | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tourism and travel-related services | 50.0 | 0.50 | 0.50 | 0.25 | 0.05 |
| Entertainment services | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| Transport services | 20.0 | 0.19 | 0.26 | 0.12 | 0.05 |
| Other services | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 |

The liberalization index is calculated by adding the sector coverage rate of non-limitation commitments to one-half of the sector coverage rate of limitation commitments and one-tenth of the sector coverage rate of unbound commitments. The index ranges between 0.1 and 1.0. The larger the index, the more liberalized the sector. Mode 1 represents cross-border supply, mode 2 represents consumption abroad, mode 3 represents commercial presence and mode 4 represents the cross-border movement and presence of persons.

A liberalization index is designed to reveal the extent of liberalization of China's trade in services. According to the index, China's trade in services for modes 1 and 2 is more liberalized than for the other two modes, indicating that China tends to take a more cautious attitude toward liberalization of modes 3 and 4. Except for the sectors for which China has not made any commitments (including health services, entertainment services and other services), the liberalization level of producer services, including transport, communications and business, is relatively low, which is not conducive to China's developing its service industry by taking advantage of the international relocation of the service industry.

4.2.3 The international competitiveness of China's trade in services is weak

Compared with its main trading partners, China has few sectors with comparative advantages in the services trade, as measured by a revealed comparative advantage (RCA) index.⁴ China only has comparative advantages in tourist services and construction services, which are resource- and labour-intensive. By comparison, developed countries have more sectors with comparative advantages, which are exhibited in technology-intensive and modern service sectors such as finance, computer and information services, and patents (see Table 4.6). Moreover, as is shown in Table 4.7, the comparative advantages enjoyed by China in the tourism and construction service sectors are on a downward curve. In the sectors of transportation services and computer and information services, although no comparative advantage is evident, the RCA indexes exhibit an upward tendency.

Table 4.6 RCA indexes of China and major advanced countries, 2004. Source: Calculated by the authors using IMF statistics

| | China | South Korea | USA | UK | Germany | France | Japan |
|--|-------|-------------|------|------|---------|--------|-------|
| Transportation services | 0.89 | 2.50 | 0.75 | 0.72 | 1.08 | 1.07 | 1.52 |
| Travel | 1.50 | 0.50 | 1.01 | 0.56 | 0.71 | 1.34 | 0.42 |
| Communications | 0.35 | 0.48 | 0.68 | 1.02 | 1.12 | 1.37 | 0.23 |
| Construction | 1.26 | 0.05 | 0.47 | 0.12 | 2.56 | 1.56 | 3.77 |
| Insurance | 0.23 | 0.06 | 0.69 | 2.44 | 0.96 | 0.52 | 0.42 |
| Finance | 0.03 | 0.48 | 1.17 | 2.87 | 0.71 | 0.24 | 0.82 |
| Computer and information services | 0.74 | 0.02 | 0.55 | 1.64 | 1.57 | 0.38 | 0.30 |
| Royalties and license fees | 0.07 | 0.83 | 2.96 | 1.27 | 0.69 | 0.88 | 3.08 |
| Other business services | 1.36 | 0.86 | 0.88 | 1.20 | 1.20 | 0.97 | 0.96 |
| Personal, cultural and recreational services | 0.05 | 0.25 | 1.78 | 1.50 | 0.54 | 1.66 | 0.06 |
| Government, n.i.e | 0.22 | 1.22 | 1.99 | 0.75 | 2.06 | 0.28 | 1.00 |

⁴ RCA index = X_{ij}/X_{iw} , where X_{ij} refers to the share of service i in country j 's total service exports, and X_{iw} refers to the share of service i in total worldwide service exports. If the RCA is larger than one, service i of country j has a comparative advantage. If the RCA is less than one, service i of country j does not have comparative advantage.

Table 4.7 RCA indexes of China's trade in services, various years. Source: Calculated by the authors using IMF statistics

| | 1999 | 2003 | 2004 |
|--|------|------|------|
| Transportation services | 0.42 | 0.79 | 0.89 |
| Travel | 1.73 | 1.31 | 1.50 |
| Communications | 1.06 | 0.65 | 0.35 |
| Construction | 1.54 | 1.37 | 1.26 |
| Insurance | 0.38 | 0.22 | 0.23 |
| Finance | 0.07 | 0.06 | 0.03 |
| Computer and information services | 0.42 | 0.60 | 0.74 |
| Royalties and license fees | 0.06 | 0.04 | 0.07 |
| Other business services | 1.25 | 1.53 | 1.36 |
| Personal, cultural and recreational services | 0.02 | 0.05 | 0.05 |
| Government, n.i.e | 0.11 | 0.27 | 0.22 |

Another index that can be used to measure comparative advantages is the trade specialization index (TSI).⁵ As demonstrated by this index, in addition the sectors mentioned above, China also enjoys comparative advantages in communications services and computer and information services. The comparative advantage of communications services is tending to decrease, while that of computer and information services seems to be on the rise (see Table 4.8).

Table 4.8 TSIs of the various trades in services sectors in China, various years. Source: Calculated by the authors using IMF statistics

| | 1999 | 2003 | 2004 |
|--|-------|-------|-------|
| Transportation services | -0.46 | -0.32 | -0.28 |
| Travel | 0.22 | 0.15 | 0.22 |
| Communications | 0.57 | 0.28 | 0.04 |
| Construction | -0.13 | 0.13 | 0.12 |
| Insurance | -0.77 | -0.85 | -0.87 |
| Finance | -0.11 | -0.13 | -0.12 |
| Computer and information services | 0.17 | 0.11 | 0.20 |
| Royalties and licence fees | -0.80 | -0.93 | -0.89 |
| Other business services | 0.10 | 0.33 | 0.25 |
| Personal, cultural and recreational services | -0.60 | -0.28 | -0.58 |
| Government, n.i.e | -0.72 | -0.03 | -0.10 |

⁵ $TSI = (X_{ij} - M_{ij}) / (X_{ij} + M_{ij})$, where X_{ij} refers to exports of service i by country j , and M_{ij} refers to imports of service i into country j . If the TSI is larger than zero, service i of country j has a comparative advantage. If the TSI is less than zero, service i of country j does not have comparative advantage.

Although the TSIs indicate that China enjoys comparative advantage in computer and information services, the advantage actually exists more in the processing part of the service outsourcing of the information technology industry, which is also labour-intensive. China does not enjoy many advantages in research and development, where added value is relatively higher. Overall, the RCA indexes and TSIs reveal that the competitiveness of China's trade in services, especially that of producer services, is weak.

4.2.4 The foreign direct investment flowing into China's service industry mainly aims at the domestic market

Most of the foreign direct investment that enters China's service industry aims at occupying the domestic market. Such investment can be helpful in improving the quality of the services in some service sectors through competition, and the consumer's welfare can be improved as well. However, it has limited effects on China's accepting the international relocation of the service industry or on promoting the development of the service industry and exports when compared with foreign investment aimed at developing offshored business.

4.2.5 Offshoring and outsourcing in China is underdeveloped

Business process outsourcing has afforded some developing countries substantial opportunities to expand service exports. India figures prominently in this field, having experienced export growth rates of 25 per cent per year from 1995 to 2005. Technological developments, most notably the improvements in information technology and the reductions in international communications costs, plus a shift in management thinking toward focusing on the activities that firms are supposed to be best at, has created a large and growing demand for cheap suppliers of business process outsourcing. Data entry and other back-office activities were first outsourced by industrialized country firms, typically to developing countries that shared similar languages. Since then some companies in developing countries have migrated up the value chain to providing direct customer care and management, human resource management, certain analyses of medical evidence (such as x-rays) and product development. Hoekman and Mattoo (2008) argue that India's migration up this value chain has allowed other developing countries (they specifically mention China) to establish themselves in the lower-value-added stages of business process outsourcing.

5.0 Lessons from comparative analyses and international experience

Earlier we argued that the growth of China's service sector should be seen as part of the structural transformation of the Chinese economy. In this section we present comparative and international evidence that sheds light on the relative performance of China's service sector and, more importantly, on the determinants of the service sector's size and its impact on national economic performance.

First it is useful to reflect further on Chinese and Indian service sector performance. Bosworth and Collins (2008) compare, sector by sector, the performance of both China and India. They start by noting that "India has attracted considerable attention for the rapid expansion of its service sector; however, the expansion of this sector has also been very strong in China" (p. 55). In fact, they report that the average annual growth rate of the Chinese service sector's output exceeded that of India from 1987 to 2004, though the differences in the growth rate narrowed between 1993 and 2004 (see their Table 3, p. 54). So if anything, the Indian service sector's performance has only narrowed the gap with China's, rather than overtaking it. When it comes to generation of employment in services, Bosworth and Collins report that China's growth rate is at least one percentage point faster than India's. These findings may go some way in countering the pessimism concerning the Chinese service sector.

In contrast, the contribution of total factor productivity growth to service sector growth is higher in India than it is in China, especially for the period from 1993 to 2004 (the most recent period in the Bosworth and Collins study). The comparable average annual growth rates are 3.0 and 0.9 per cent, respectively. Even though capital per worker in the Chinese service sector grew more than three times as fast as in India, output per worker in the Indian service sector still grew faster than in China. In interpreting their results, Bosworth and Collins stated that they were suspicious about their estimates of Indian total factor productivity growth. Even so, there may be a concern here for Chinese policy-makers, especially as total factor productivity in Chinese agriculture and manufacturing grew much faster than in the service sector.

Another comparative study of Indian and Chinese service sector performance was conducted by Wu (2007). Wu presents evidence on the composition of the service sector in China, India and some industrialized economies. The major difference between China and India and the industrialized economies (that Wu fails to mention) is that the richer economies have real estate sectors that are double the respective shares of total service sector output of China and India. In China, the share of total service sector output accounted for by education, health and research is larger than that of

India and the industrialized country counterparts (though the breakdown between education, health and research was not presented for the rich countries). As a share of total service sector output, finance and insurance is actually larger in China than in all of the other countries Wu examines—including the United States and United Kingdom! So-called traditional services (wholesale, retail and catering services) account for one-quarter of total Chinese service sector output, less than in India. These statistics call into question whether Chinese services are really that hidebound.

Another contribution from Wu was to estimate, province by province for China and state by state for India, the determinants of the share of services output in provincial (or state) total output. Wu hypothesized that income per capita was correlated with a larger service sector share because richer consumers spent more and more of their income on services. Moreover, he examined whether urbanization was correlated with larger service sector shares. Interestingly, Wu found that the impact of income-per-capita growth on the service sector's share was similar in India and China, suggesting that demand-related factors cannot account for differences in each country's service sector performance. Where a clear difference emerged was in the impact of urbanization on the service sector's share; in India a higher urbanization rate translates into a greater increase in the service sector's share than in China. Wu also presents evidence that greater service sector exports lead to a higher share of total output accounted for by services. Interestingly, while Wu does comment on the policy implications relating to service sector exports (greater openness), he does not discuss the policy implications of his findings concerning urbanization. Fortunately, Au and Henderson (2005) provide evidence that may help operationalize the link between urbanization and service sector size.

Au and Henderson were not interested in what factors determined the size of the Chinese service sector. Instead, they asked the question, "Are Chinese cities too small?" Drawing from the economic geography literature, they hypothesized that there is an inverted-U relationship between real income per worker in a city (a measure of productivity) and the number of employees in the city (a measure of city size). At first as city size grows, the argument goes, the benefits of agglomeration, thick labour markets, and increased specialization associated with the reorganization of firms and the development of higher-end business services dominate and raise per capita incomes. Then at some point the negative impacts of city size (congestion, environmental degradation and so on) reduce productivity and welfare. Using data on Chinese city size and other variables, they seek to estimate how large Chinese cities are compared with the size that would maximize per capita income.

Au and Henderson note that internal migration policies in China effectively constrain city size. In 2000 China only had nine cities (metropolitan areas) with populations over 3 million. In contrast, 125 cities had populations of 1 million to 3 million. These proportions are substantially out of line with international benchmarks, with fewer large Chinese cities than the international norm. Au and Henderson assembled data on 225 prefecture-level cities and reported that the manufacturing-to-

service ratio tended to decline over time, especially after market reforms were introduced in the early to mid-1990s. Their econometric estimates imply that between one-half and two-thirds of Chinese cities were undersized (p. 35), whereas no more than 6 per cent of cities were oversized (p. 36). For the undersized cities the unweighted average loss in output per worker was 30 per cent. Au and Henderson conclude their paper as follows:

Allowing migration to these cities, as is now starting to happen, will allow them to operate in much more efficiently. But that of course is only the tip of the iceberg. The gains to migrants relative to their current wages in the rural sector would be enormous. (p. 36)

The Au and Henderson study is relevant to this paper for several reasons. First, one of the principal mechanisms through which increased city populations translate into higher per capita income is through the development of specialized, higher-quality producer services. This was an explicit feature of their approach. Second, although they did not examine the impact of variations in the infrastructure of the cities they studied, the logic they develop implies that greater infrastructure investment will raise the threshold level of population above which increased city populations lead to congestion, etc., and lower per capita incomes. Third, while Au and Henderson recommend relaxing the migration restrictions, their results are consistent with a joint policy recommendation of relaxing migration restrictions into China's smaller cities and increasing investment in those cities to stave off the point when congestion, environmental degradation and the like lower per capita incomes. Evidence such as this points the way to expanding the service sector without compromising environmental sustainability.

Turning from comparative studies to country-wide evidence, in recent years robust connections between service sector development and economic growth have been established by researchers (see Hoekman and Mattoo, 2008, for an overview). Different service sectors contribute to the growth process in different ways, and not just through the direct exports of services. More elaborate financial services can reduce transaction costs and risk and better allocate resources across competing activities (Levine, 1997). Low cost and reliable telecommunications sectors can help diffuse knowledge and are often a prerequisite for firm membership in global supply chains. Transportation, retail and distribution services all affect the costs of shipping and supplying goods, including exported goods (Francois, 1990). The availability of specialized service sectors facilitates the further division of labour as well as generating better-paying jobs. Services, then, implicate economic performance through a number of channels.

Moreover, given that the upgrading of the Chinese manufacturing industry and the search for cost economies, including resource-based ones, are stated objectives of China's sustainable trade strategy,

it is noteworthy that a growing body of research advances evidence that supports the benefits of intensifying competition in national service sectors (see, for example, Arnold, Javorcik & Mattoo, 2006a; 2006b). Such competition could come from domestic or foreign sources, foreign taken here to include the subsidiaries of foreign firms operating in China. Taken at face value, these research findings call for the removal of all impediments to competition in service sectors when there is no compelling public policy rationale not to do so. Evidence from both developing and industrialized economies suggests that many service sectors remain sheltered from the full force of competition and that substantial rents are created for incumbents, highlighting the scale of both the potential economy-wide benefits and the likely opposition to reform.

The links between openness, service sector performance and growth are now better understood too. Mattoo, Rathindran and Subramanian (2001) present evidence that countries whose financial and telecommunications sectors are more open to foreign competition experience faster rates of national economic growth. These findings suggest that service sector development objectives need not come at the expense of openness, and that commercial policy-making might be able to play a role in service sector development. However, experience at the WTO and in accessions to the European Union demonstrate a marked reluctance of governments to undertake liberalization of their service sectors in trade agreements; at most they seem only willing to bind preexisting reforms (Eschenbach and Hoekman, 2006). Even so, 25 of the regional trade agreements signed by governments in the East Asian region contain non-trivial service sector provisions, a finding that may be of particular interest to Chinese policy-makers (Fink and Molinuevo, 2007).

Developing a competitive service sector, though, is not easy. Much of the literature on the service sector in the industrialized countries is concerned with its slow productivity growth, especially compared with agriculture and manufacturing (Baumol, 1967; Oulton, 2001; and Pugno, 2006). Worse still, government policy is thought to have often held back the development of more efficient service sectors in certain developing and industrialized economies; here, employment objectives have tended to take priority over competitiveness considerations. Indeed, in France, Germany and India, restrictions on shop size and the entry of new shops are supported by incumbent firms wanting to avoid further competition, especially from large-scale retailers, and by governments that fear job losses will result. Such interventions may appear to save jobs, but only in sectors, such as local retailing, that are shielded from international competition. The development of an internationally competitive services sector must proceed on a different basis (Inklaar, Timmer & van Ark, 2007; Baily, Remes & Farrell, 2006).

The comparative and international evidence has pointed to a number of findings. First, that service sector development, especially as it relates to business or producer services, is intricately linked to urbanization. Policies that restrict the size of national cities are likely to hold back the development

of critical mass and complementarities between firms. Second, that steps to limit competition or the exploitation of service sector capabilities (like restrictions on shop opening hours) or economies (such as shop size) will likely constrain productivity growth in the service sector.

6.0 Options for Chinese policy-makers

The service or tertiary sector is already the largest economic sector in the Chinese economy. The sheer scale of this sector ensures that its trajectory will have significant implications for economy-wide performance in the years to come. This fact alone should focus policy-makers' minds. However, in this paper the goal is not just better economic performance but also compatibility with a Chinese sustainable trade strategy that incorporates several policy goals.

The starting point for formulating policy recommendations is to recognize that the development of high-quality services that are internationally competitive has been associated with the spatial and organizational transformation of national economies. The demand for high-quality business services has to come from somewhere. Typically such demand is concentrated in urban areas, where firms can afford to specialize in specific tasks and functions because they know they can hire external expertise to perform the tasks that the firm does not have a competitive advantage in completing. Moreover, once certain cities and locations are known for specific types of services, they attract ambitious persons seeking to make a career supplying those services. This deepens the labour pool, creating more options for firms and allowing for even greater specialization. Competition intensifies not only in the labour market but also in the market for specialized talent; the result is greater innovation and higher standards. This cumulative dynamic has been studied in depth by economic geographers, and we presented some of the evidence relating to China in the last section.

While the forgoing argument links living standards to service sector development and employment growth, the link to environmental sustainability may be unclear. Once it is appreciated that the principal constraints on the size of urban and suburban areas are infrastructure- and amenities-related, then the outlines of a win-win-win policy recommendation emerges. One option for Chinese policy-makers would be to relax controls on migration to cities of skilled personnel likely to work in manufacturing or the service sector. This would set off the employment and productivity growth dynamics (one win) and ultimately lead to higher-quality business services that can be exported (another win). Simultaneous investments in infrastructure that reduces congestion and transit times and improvements to amenities will raise the threshold beyond which living standards in cities begin to diminish. As environmental amenities are an important part of a livable city, this would be the third win.

In addition to improving the productivity and quality of business services, policy-makers need to give attention to the more traditional forms of services, namely transportation and distribution. If anything, the lessons for Chinese policy-makers from foreign experience are negative, in the sense that policy-makers would not be advised to pursue some of the policies undertaken elsewhere. Some

countries have effectively used their retail sectors as the employers of last resort, thereby limiting shop size and competition from larger stores and foreign investors. This has proved to be a recipe for poor choices, slow service and, ultimately, relatively lower wages. In general, attempts to restrict competition and to avoid using information technology have not been successful. Instead the policy recommendation, even if it is accomplished slowly over time, is to increase competition from domestic and foreign sources in the service sector.

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