

**TRADE DIRECTORATE  
TRADE COMMITTEE****Working Party of the Trade Committee****INDIA'S TRADE INTEGRATION: REALISING THE POTENTIAL****Paris, 13 November 2008**

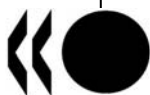
*Purpose and action required: This is the second revision of the report on the implications of India's trade and trade policy reform. The report is submitted for discussion and eventual declassification. This work has been foreseen in the modifications to the 2005-2006 Programme of Work and Budget under item 3.1.1 Advocacy for Freer Trade. The work has been prepared from within existing TAD Part I Resources.*

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## INDIA'S TRADE INTEGRATION, REALISING THE POTENTIAL

### Executive Summary

This report addresses the implications of India's trade and trade policy reform. It first describes India's recent economic growth in the context of its trade performance, and the composition and performance of India's exports at the product and broad sector level. The study also provides an analysis of the current trade policy stance and gives some recommendations for trade policy reforms that would be conducive to India taking its rightful place in the world economic system. The impact of openness and other factors on India's total factor productivity is also addressed.

After nearly five decades of inward-orientation and state-led development, India embarked in 1991 on a process of economic reform and progressive integration with the global economy in an effort to put its economy on a path of rapid and sustained growth. Consequently, India's growth has accelerated and has been particularly strong since 2003, averaging over 7.4% and up from an average of 3.8% per annum during the period 1991-2003. In line with good growth, per capita incomes more than doubled during the period 1990-2007 and poverty has declined.

India's recent economic dynamism has led many to compare it with China and to expect a similar dramatic insertion in world markets. However, India's development path thus far has been considerably different from China's, and it is also very different from the paths followed in earlier decades by Japan, Korea and the other Asian tigers.

Remarkably, the recent growth in India's trade has been led by services rather than manufacturing. Despite India's specialisation in skill- and capital intensive activities, its manufacturing trade is highly concentrated in low-technology goods and the share of high-technology manufactured goods in its total exports has barely changed since the mid-1990s, remaining under 5%, as compared to 30% for China. Services trade appears to have done much better and India has emerged as a global player in some services sectors such as information technology and business process outsourcing, as well as pharmaceuticals. Mode 4-related trade is also important, equalling over 90% of the value of cross-border services exports.

While in the period 2000-2007 India managed to increase its shares in most partner countries' markets, these shares remain relatively small and are concentrated in a few low-technology products. In the services sector, too, India's cross-border services exports have achieved marginal gains in market shares in some OECD markets. In terms of Mode 4, half of total remittances received by India are sent by Indian expatriates in the US, representing almost 2% of India's GDP. FDI inflows have rapidly grown and shifted away from manufacturing towards services sectors, but remain negligible relative to what some other emerging economies received. In 2007, India attracted FDI at a rate amounting to 27% of the inflows into China, up from less than 10% in 2004.

Such a performance is due in no small part to the fact that, despite on-going reforms India remains a relatively closed economy both in absolute terms and relative to other developing countries, including China. Current protection levels on imports of both goods and services are still much higher when compared to other BRIICS. Intermediate inputs and capital goods remain expensive: the analysis shows that the overwhelming majority of India's imports (between 72 and 100%) are not imported for domestic consumption but, rather, are used as intermediate inputs by the domestic manufacturing and services

sectors. The remaining trade barriers combine with domestic red tape, infrastructure bottlenecks and factor markets rigidities that restrict new entry and competition to keep India's competitiveness, particularly in agriculture and manufacturing, at relatively low levels. As a result, pro-competitive effects in the tradable sector—the main driver of growth in most emerging economies—are absent.

Indeed, the 2007 trade-weighted average tariffs of 62% in agriculture and close to 9% in manufacturing still imply a significant wedge between domestic and world prices, and act as an indirect tax on exports through imports. This puts many Indian producers that rely on imported inputs at a competitive disadvantage while shielding uncompetitive domestic producers from competition. In services, despite significant liberalisation steps, which in the sectors examined here far exceed India's GATS commitments, barriers remain high. Moreover, most of the services have for a long time been in the public domain and they suffer not only from high barriers to trade, but also from domestic constraints in terms of burdensome regulatory measures and state monopolies. At the same time, in an effort to offset the moderate to high taxation of intermediate products and barriers to services trade, India has opted to maintain and cultivate an extremely complex system of duty exemption schemes, special investment and establishment rules and special economic zones (SEZs) that provide incentives particularly to exporting firms.

It is unclear whether export-related duty exemptions and preferential treatment of economic agents operating in the SEZs are the best way to promote economic efficiency and growth. While strong exports reflect the degree of an economy's competitiveness and the source of foreign exchange earnings, exporting firms do not operate in a vacuum, and discriminatory export-oriented policies may in some circumstances bring more harm than good. Maintaining moderately high import tariffs along with a system of export-oriented duty exemptions can be characterised as a system of "negative incentives" where a common denominator means costs of production that are higher than in other less protected emerging markets with the exception of those that are currently competitive or find the ways of using the SEZ system to their benefit. This is likely to have a negative impact on the Indian economy in general and perhaps even on exports since this activity is also carried out within an inefficient national economy. Indeed, as much as 75% of capital formation in the SEZs originates from domestic sources. This raises concerns about the policies in effect promoting exports through a dual system of taxing the national economy with inefficiencies and simultaneously promoting selective investments in exporting activities within SEZs.

Intuitively, an across-the-board import duty reduction can have more beneficial economy-wide and export effects than selective duty exemptions in export sectors. Indeed, an assessment of history, export performance, structure and fiscal implications as well as some recent compliance problems of Indian SEZs suggest that the net benefits generated annually by the SEZs may be rather small or even negative. It follows that India's government should remain vigilant and continue to reassess the economic benefits and implementation of this policy. As a recent OECD study emphasised, SEZs are always a suboptimal policy from an economic point of view. They can merely provide an interim solution to countries with poor business environments where bridging deficiencies at a national level is temporarily impossible. This may seem to be the case in India—a large, low income country with enormous population, poor infrastructure and fiscal problems—but it would be suboptimal to treat this as a sustainable, long-term solution that can substitute for reforms aimed at making business easier for everyone.

The analysis presented in this chapter clearly shows that India's pattern of specialisation is still affected by the pre-'90 policies; instead of reverting to a traditional pattern of specialisation in low skilled labour-intensive sectors, India continues to specialise in relatively skill-intensive activities reflecting the business difficulties faced by the manufacturing sector. While certain services perform well, their high reliance on skilled labour and capital can not address the Indian jobless growth problem.

It is thus evident that in order to realise its growth and trade potential, India needs to encourage the development of its manufacturing sector, with a particular emphasis—at this stage—on labour-intensive

activities. Various dimensions of our analysis suggest that policy reforms would yield particular benefits by addressing the following inefficiencies:

1. small scale industry policies that prevent the realisation of economies of scale and productivity increases in the sector;
2. taxation of imported intermediate inputs and complexity of the import regime;
3. labour market rigidities that hinder inter-industry and interstate labour mobility and underpin misallocation of resources across industries and states;
4. infrastructure bottlenecks;
5. restrictive FDI policies; and
6. regulatory differences across states.

## 1. Introduction

1. India gained independence in 1947. From that year until the early 1990s, successive governments adopted inward-oriented development strategies with the state assuming a dominant role in the economy via state planning. Market forces were not permitted to play a major role in resource allocation. In the wake of a 1991 balance-of-payments crisis, India set in train a series of stabilisation-cum-structural adjustment measures with far-reaching effects. Their central objective was to reintegrate the Indian economy with the world economy by reducing barriers to trade and investment, and deregulation of a highly bureaucratised economy. The promotion of FDI was also seen as a way of reducing the country's dependence on debt-creating capital inflows, while at the same time renovating Indian industry's archaic technologies and easing its entry into international markets.

2. Licensing requirements have been eliminated on capital and intermediate goods imports and the average MFN applied tariff has come down from 82% in 1990 to 15% in 2007, while the maximum rate fell from 355% to 289%. This is the most remarkable reduction of tariff protection across the BRIICS countries. Real export growth rates of goods and services in 2006 and 2007 registered very healthy levels: 8.6% and 9.7%, albeit down from an average annual rate of 14% during the period 1995-2005. Dynamic growth of exports led to a doubling of India's share in world exports of goods and services, from 0.5% in 1991 to close to 1.7% in 2007. On the import side, India imported 11.4% more goods in 2006 than in the previous year, and another 13% in 2007, slightly more than the average growth rate in the period 1995-2005 (11.3%). Consequently, India's trade openness (ratio of imports plus exports to GDP) has more than doubled since 1991, from 16.5% to 45% in 2007.

3. Despite the spectacular reduction of trade barriers India's trade regime and regulatory environment remain comparatively restrictive. In 2008, according to World Bank indicators, India ranked 122 out of 181 countries in terms of the ease of doing business.<sup>1</sup> While India ranked appreciably above the median for protecting investors and access to credit, it had particularly low rankings with respect to enforcing contracts, paying taxes, and dealing with construction permits. Some tariff and non-tariff restrictions remain to shelter domestic industries from competition, notably restrictions on consumer goods imports and reservations for small-scale enterprises in certain sectors. On paper, India's national investment regime now compares favourably with those of many Southeast Asian countries, though investors still complain about bureaucratic obstruction and cumbersome regulations, notably at the state level. Progress has been slow on state enterprise reform, bankruptcy laws and the reform of India's labour laws, which impose social welfare obligations even on private firms comparable to those shouldered by China's state enterprises, and which also make workforce reductions next to impossible for firms with more than 100 workers. India's fiscal deficit and government debt remain high, as do investment demands — notably to expand and upgrade the infrastructure. While the government has made progress in attracting private financing for infrastructure development, some widely publicised setbacks have affected this strategy in the last few years.

4. Despite the unfinished reform agenda, India's GDP growth has accelerated to more than 9% over the past three years, up from an average of 5.8% *per annum* during the period 1991-2004. In line with good growth, per capita incomes more than doubled during the period 1990-2007 and poverty declined from 46% in 1986 to 36% in 2000. Nonetheless, poverty remains a serious problem.

5. India's recent economic dynamism has led many to compare it with China and to expect a similar dramatic insertion in world markets. While India and China share many characteristics, including a

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<sup>1</sup> The ranking is from 1 (high, *i.e.* most favourable business environment) to 181 (low, *i.e.* least favourable). See, World Bank (2007), *Doing Business* database, available at: <http://www.doingbusiness.org/economyrankings/>.

seemingly infinite supply of labour, and an agriculture-dominated economy, India's development path thus far has been considerably different from China's; indeed, it is also very different from the paths followed in earlier decades by Japan, Korea and the other Asian tigers.

6. Firstly, the recent growth in India has been led by services rather than manufacturing activities. India has emerged as a global player in some services sectors such as information technology and business process outsourcing as well as pharmaceuticals, while its manufacturing sector continues to suffer from low productivity. The share of high-technology manufactured goods in India's total exports has barely changed since 1996 and remains under 5%, as compared to 30% for China. In 2007, India's share of world merchandise exports was a mere 1.5%, as compared to 2.7% for services.

7. Secondly, in contrast to most other Asian economies, almost two-thirds of India's people continue to depend on agriculture for a living. Current agricultural practices are neither economically nor environmentally sustainable; price support and large input subsidies, reinforced by high import tariffs have limited trade opportunities (OECD, 2005) and hampered productivity growth which remains amongst the lowest in the world.<sup>2</sup>

8. Thirdly, and despite impressive past and on-going reforms, India remains relatively closed to trade as compared to other emerging countries, including China. It still has the highest tariff and most dispersed tariffs of all the BRIICS and this relative insulation from world markets is reflected in India's trade and investment performance.

9. FDI inflows have grown rapidly though they remain small compared with other BRIICS. While FDI inflows have almost tripled since 2005 and India attracted USD 23 billion in 2007, this was only around a quarter of the inflows into China (USD 84 billion). Similarly, India is still not as present in the OECD markets as China is. Its share in the EU import market (its largest destination market) in 2006 was 0.7%<sup>3</sup>, practically unchanged from its levels in the 1990s. In contrast, China's share in these markets EU import market has more than quadrupled (from 1.3% in 1992 to 5.7% in 2006). Similar trends characterise the contrasting experiences of India and China in the US market.

10. What will it take for India to move from good growth to rapid sustained growth and realise its potential? Part of the answer lies in spurring productivity which is adversely affected by the low levels of education and health, but also by the low level of openness of the Indian economy. India's regulatory framework is both complicated and inefficient, impeding business processes and discouraging FDI with restrictive tariff structures and complex regulatory procedures. Greater integration in world markets would provide greater incentives for productivity-raising investment and innovation across the economy.

11. Trade reforms do not operate in a vacuum. They will need to be supplemented with other measures including reforming the restrictive labour and bankruptcy laws, and public health and education services. Moreover, India's weak infrastructure has stunted the competitive potential of Indian production. From unreliable energy, insufficient water supply to poor train and road conditions, infrastructure deficiencies have produced high transaction costs across the sectors (OECD, 2007c).

12. The remainder of this report is organised as follows: Section 2 presents a broad overview of economic fundamentals and general trends in India's trade performance. Section 3 explores in more detail the structure and performance of India's trade and in particular its exports. The experiences of three specific sectors, the automotive, pharmaceutical and service sectors, are further investigated in this section with the aim of drawing lessons for current Indian trade policy. Trade policy and its impact on the economy are

<sup>2</sup> See OECD (2005) for a comprehensive analysis of India's agricultural policies, constraints and achievements.

<sup>3</sup> EU here refers to EU25.

discussed in Section 4. Section 5 provides a discussion of determinants of productivity changes across India's economy. Finally, conclusions and possible further research avenues are developed in Section 6.

## 2. India's economic growth and trade

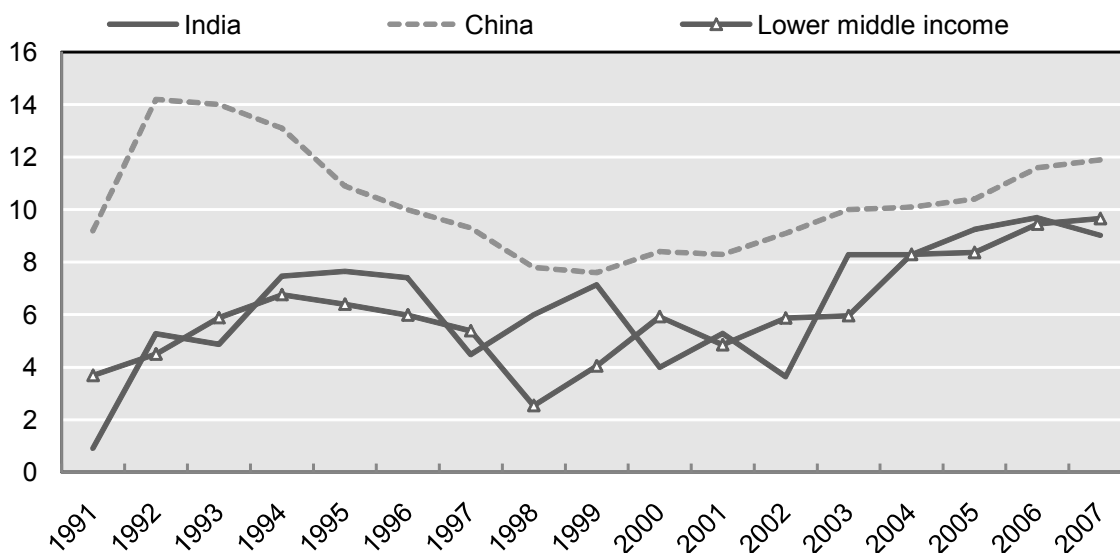
### 2.1 Growth performance

13. With 1.1 billion people, India's population is second only to China's. India's economy contributes close to 2% to world GDP and around 1% to world exports of goods and services. India's GDP growth rates have outperformed those of other lower and middle income countries for the most part of the last 15 years (Figure 1). India's performance was less spectacular than China's with an approximate rate of growth of 6% annually (China's average growth rate was close to 10%) for the most part of the last 15 years.<sup>4</sup> At the same time India's population has grown faster, thus denying India any significant catch up with other emerging economies on the GDP per capita front. Although India's per capita GDP has more than doubled between 1990 and 2007 (average annual growth rate of 4.6%), this pales in comparison to China's 8.6% *per annum* during the last two decades. However, more recent data show that growth has been particularly strong since 2003, averaging over 7.4%; despite the recent increase in international petroleum prices, real GDP growth in 2006 was 9.7% and 8.7% in 2007 (OECD, 2008).

14. Available data show that India's growth and reforms have contributed to the reduction in poverty with the poverty headcount ratio falling from 46% of the population in 1987 to 36% in 2000. Still, poverty in India is a much deeper problem than in other BRIICS. Corresponding available poverty headcount indicators are: 17% for China in 2001, 2% for the Russian Federation in 2002, and 8% in Brazil in 2003.

Figure 1. India's GDP Growth

Percentages



Source: World Development Indicators.

<sup>4</sup> In reality the difference in growth rates between the two countries may be smaller. Heston (2007), for example, points out that, according to recent purchasing power studies, officially reported national growth rates may overstate China's actual growth, which is not so much the case in India.



15. In both China and India the share of agriculture in GDP has been declining<sup>5</sup> but its place has been taken primarily by manufacturing in China and by services in India. As a result in 2007 services accounted for 53% of India's GDP (the largest contributor to GDP) compared to 41% in China.<sup>6</sup> This makes India's economy structure unusual given its level of economic development. The relatively small industry generating less than 30% of GDP is in line with many OECD countries. Similarly, India's services sector is rather large for its level of development standing at around 53% in 2007. Indeed, the strength of its services sector has been a striking feature of India's growth especially in the context of a lack of an integrated services policy. Throughout the 1970s the services growth path was basically flat. The trend shifted upwards in the 1980s, registering around 6% growth *per annum*, and accelerated in the 1990s, when it averaged almost 13% *per annum*. India's agricultural sector is also relatively large (around 18% of GDP compared with 12% for China).<sup>7</sup> The weight of the agricultural sector can give the impression that India has gone through a slow restructuring of its economy. In fact, as Figure 2 suggests, structural change has been rapid or at least faster than has been the case in China and the average lower-middle income countries. However, contrary to China and other emerging markets, India's manufacturing sector has failed to develop.

16. This is also reflected in the recent trade developments. India quite clearly has not been able to match China's conquest of the world's goods markets, even though recently more dynamism has been observed in certain segments of the Indian manufacturing sector (Lehman Brothers, 2007). Yet, for some time now, the developments in India's services sector have generated trade flows that are more comparable to those of China in absolute terms and are much higher than in China if we account for the economy size. Evidence is also mounting that the product composition of these two economies' trade is quite different and that, for the moment, the two enormous economies are not competing directly in the world markets (Dimaranan *et al.*, 2007).

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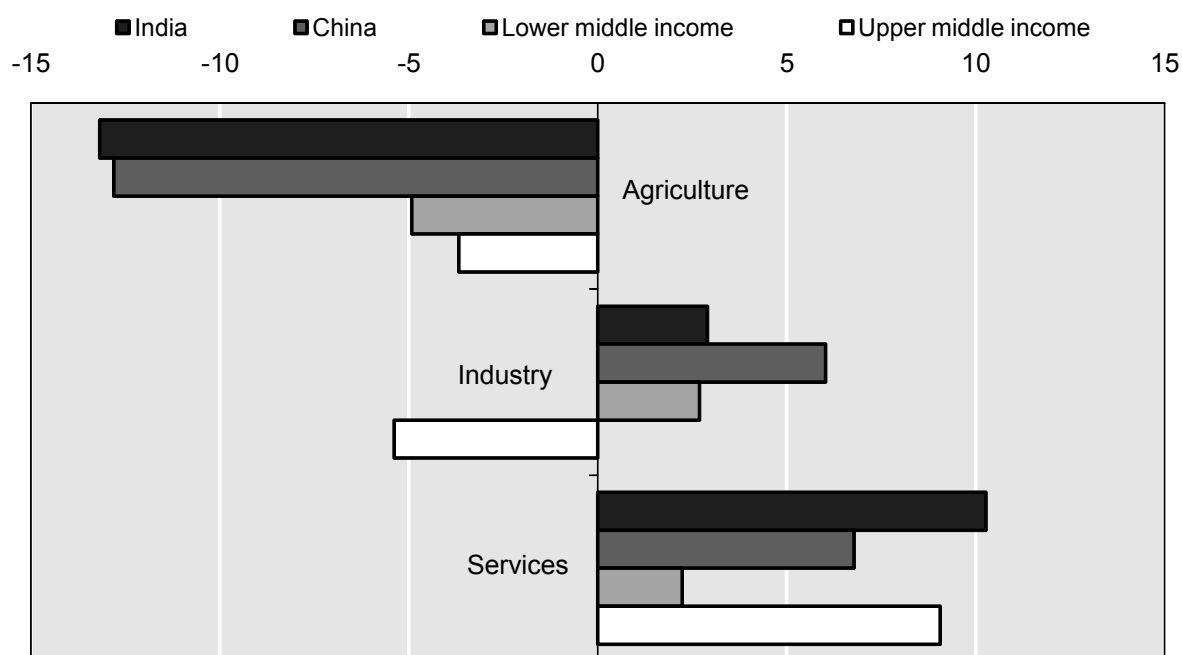
<sup>5</sup> This is notwithstanding the fact that close to 40% and 60% of respectively China and India's population live in the rural areas (check this).

<sup>6</sup> Heston (2007) points out that international price comparisons suggest that in both China and India capital goods for example are relatively expensive as compared to prices of consumption and that capital stocks estimated in local currencies probably overestimate the contribution of fixed capital formation and capital-intensive activities to growth. These discrepancies may also be reflected in sector shares and structural composition of recent growth in both countries, likely overestimating the contribution to output of manufacturing. In fact, differences in relative prices across countries have serious implications for all sorts of international comparisons, including comparisons of trade performance.

<sup>7</sup> The agriculture's share for China refers to 2006.

**Figure 2. Structural changes of the Indian Economy**

A. Percentage points change in sectoral share of value-added, 1991-2006



Source: WDI

B. Indian labour market

	Millions		Rates	
	1999/2000	2004/2005	1999/2000	2004/2005
Population (15-64 years)	613	679	100	100
Labour Force	406	467	66.2	68.8
Total employment	397	457	64.8	67.3
Regular wage employment	55	66	9.0	9.7
Organised sector employment	28	29	4.6	4.3
<i>Public sector</i>	19	19	3.1	2.8
<i>Private sector</i>	9	12	1.5	1.8

Source: Economic Planning Commission based of NSS five-years survey rounds and population estimates. Data for 2004/05 are estimates from the 2007 OECD Employment Outlook.

17. The structural change in employment is much harder to assess. The Indian labour market is characterised by extremely high rates of informality—people with regular contracts account for only about 15% of total employment (OECD, 2007c), and suffers from poor data quality. Statistics on the formal sector account for around 66 million jobs in 2004/2005 of which over 19 million are in the public sector; this is compared with a population of 1.1 billion and a labour force estimated at 467 million.<sup>8</sup> Employment surveys available from the Reserve Bank of India indicate that the male rural population engaged in the primary sector fell from 75% in 1991 to 65% in 2004. Changes in rural female employment were much smaller. Interestingly, the survey also reveals that employment growth in the tertiary sector in urban areas has been accounted for by women with the male urban workforce in services decreasing by 0.8%.

<sup>8</sup> Data for 2004/2005 are estimates from OECD (2008).

18. Virmani (2006) estimated the employment share of the manufacturing sector at around 11% of the labour force for the last decade and argues that the service sector has absorbed the bulk of the agricultural labourers that have lost their jobs (estimated at 5% of the labour force from 1993-1994 to 1999-2000). At the same time, the agricultural sector seems to shed labour slowly. For example, Hari (2002) highlights that the shift in the sectoral composition of GDP in the late 1980s and 1990s was not accompanied by an equivalent shift in the workforce from the traditional sectors to the secondary and tertiary sectors of the economy and estimates that around 60% of the workers continue to depend on agriculture.

19. Over the past decade, labour market outcomes have improved in India, with net employment rising for the economy as a whole. According to OECD (2007c), the biggest employment gains occurred in manufacturing and services; however, the increases have taken place in the least productive, unorganised sectors, while employment in the organised sector is shrinking (possibly due to strict labour market regulations).

## 2.2 *General trends in trade performance*

20. Since 1991, India has transformed itself from one of the most closed large economies of the world to a relatively more open one, with trade<sup>9</sup> as a percentage of GDP reaching 47% in 2006 and 46% in 2007 (Table 1). In recent history only China has experienced a faster transition.<sup>10</sup> The average annual real growth rate of India's exports of goods and services for the 1995-2007 period was 12% - well above the world average growth of 7%.

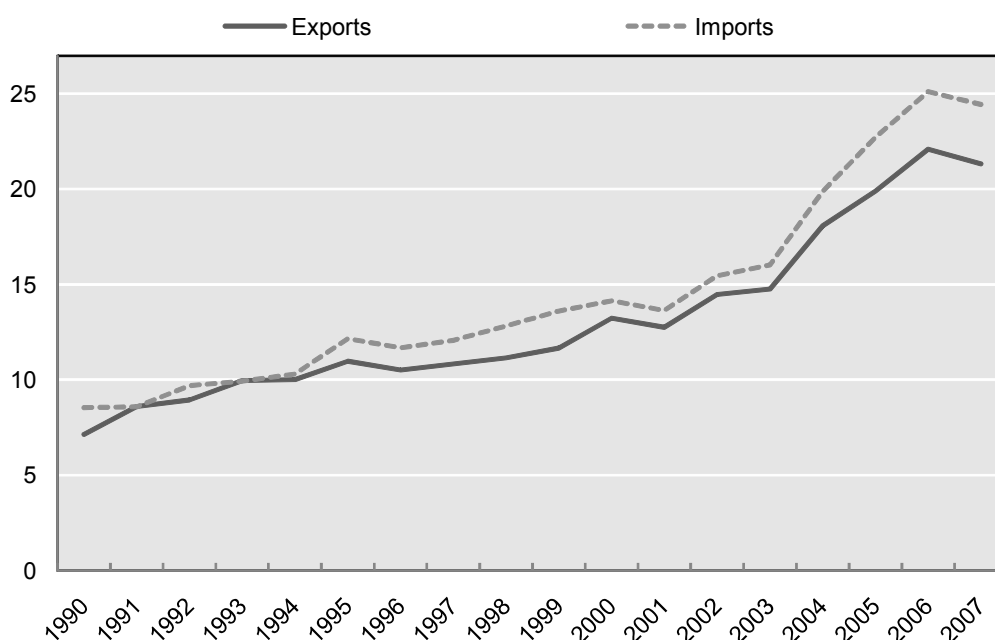
**Table 1. Total trade as a percentage of GDP**

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
%	16	17	19	20	20	23	22	23	24	25	27	26	30	31	40	43	47	46

Source: World Development Indicators.

<sup>9</sup> Measured as a sum of exports and imports.

<sup>10</sup> Kowalski (2008) estimates that both for China and India a simple export to GDP ratio statistic overestimates the actual contribution of exports to GDP. For China the simple ratio of exports to GDP is four times larger than the estimated export value added to GDP ratio (36% in 2005 compared to 8% in 1996). For India the simple ratio is 3.25 times larger (13% in 2005 compared to 4% in 1996).

**Figure 3. India, Share of exports and imports of goods and services in GDP**

Source: World Development Indicators.

21. As foreshadowed earlier, the strength of the services provided an impetus to, and now plays an important role in, India's overall trade. The country has close to doubled its share in world services trade between 2003 and 2007, from 1.25% of world exports to 2.7%. By contrast, the share of the goods trade has increased from the low 0.8% in 2003 and only to 1.05% in 2007 (Table 2). Notwithstanding this positive evolution, the figures remain low when compared to China which accounts today for 8.7% of world's goods trade and 3.4% of world's services exports. Nevertheless, this can be explained to a large extent by the fact that economic reforms started in China 13 years prior to reforms in India. Bussiere and Mehl (2008), for example, demonstrate that the current ratios of exports of goods and services relative to GDP in India mimic those observed in China in the second half of 1990s.

**Table 2. Share of India's goods and services in world total**

	1995	2000	2005	2006	2007
Merchandise exports	0.6	0.7	1.0	1.0	1.1
Merchandise imports	0.8	0.8	1.3	1.4	1.4
Services exports	0.5	1.1	2.2	2.7	2.7
Services imports	0.8	1.2	2.0	2.4	2.4

Source: WTI (2008).

22. As discussed above, the shares of manufacturing in both the value added and total exports are lower in India as compared with China, for example, but this is not necessarily because the manufacturing sector is internationally uncompetitive but because it has an unusually small share in the domestic economy. In fact, according to Gaullier et al (2005), up to 54.4% of manufacturing value-added was exported in 2004. Nevertheless, despite its relative abundance in skilled labour and capital, India's manufacturing exports are highly concentrated in low-technology goods and the share of high-technology manufactured goods in its total exports has barely changed since the mid-1990s and remains under 5%, as compared to 30% for China (see Figure 6 and Table 8). The structure of merchandise imports

has for some years now remained concentrated in fuels, gems and mining products, also indicating certain deficiencies in the sector.

23. Indeed, India's current merchandise export structure remains heavily skewed towards petrol products, jewellery, furniture, chemical products and textiles and wearing apparel, a structure that resembles to a certain extent the structure of China's exports at the beginning of the 1990s (Kowalski 2008). Superficially, the structure of India's exports seems a little more concentrated in 2005 than in 1996 but this is largely driven by the emergence of exports of petroleum oils. In general, it is not easy to classify the direction of changes in the structure of top India's exports. On the one hand a few more sophisticated products such as motor vehicle parts made it to the top 25 products in 2005. On the other hand several traditional manufacturing products such as gems and jewellery, wearing apparel and certain food products that already dominated India's exports in 1996 have yet gained in importance in 2006. This suggests that India has not integrated into the global production networks of high technology products to the extent China did (for comparison with China see Kowalski, 2008).

**Table 3. Changing structure of India's trade: 25 top exports and their share in total exports**

Product Name	1996 Value	1996 Share	Product Name	2005 Value	2005 Share
Diamonds non-industrial nex excluding	4 028 039	9	Petroleum oils, etc. (excl. crude)	11 439 920	9
Semi-milled or wholly milled rice	891 755	2	Diamonds non-industrial nex excluding	11 214 411	8
Oil-cake and other solid residues	769 332	2	Non-agglomerated iron ores and...	3 519 748	2
Men's or boy's shirts of cotton	748 712	2	Art. of jewellery and pts thereof	3 357 736	2
Frozen shrimps and prawns	725 340	2	Other organic compounds, nes	1 690 186	1
Combed single cotton yarn , with>=8	557 561	1	Other medicaments of mixed or unmixed	1 424 499	1
Women's or girls' blouses, shirts,	526 754	1	Semi-milled or wholly milled rice	1 364 245	1
Art. of jewellery and pts thereof	517 244	1	T-shirts, singlets and other vests,	1 107 091	1
Petroleum oils, etc. (excl. crude)	482 013	1	Flat rolled prod, i/nas, plated or	1 059 096	1
Non-agglomerated iron ores and..	428 364	1	Women's or girls' blouses, shirts,	1 018 038	1
Articles of apparel of leather	424 351	1	Oil-cake and other solid residues	968 327	1
Cotton, not carded or combed	413 215	1	Frozen shrimps and prawns	853 041	1
Cashew nuts, fresh or dried	362 095	1	Furnishing articles, nes, of cotton	800 439	1
Furnishing articles, nes, of cotton	353 989	1	Motor vehicle parts nex	780 573	1
Coffee, not roasted or decaffeinate	307 810	1	Men's or boys' shirts of cotton	688 108	0
Uncombed single cotton yarn, with	304 175	1	Copper cathodes and sections	677 377	0
Other medicaments of mixed or unmixed	303 013	1	Cotton, not carded or combed	639 447	0
T-shirts, singlets and other vests,	284 767	1	Skirts and divided skirts of cotton	619 769	0
Uppers and parts thereof(excl. sti	218 913	0	Cashew nuts, fresh or dried	586 046	0
Men's or boys' shirts of cotton, kn	216 426	0	Frozen boneless bovine meat	559 829	0
Pile floor coverings	216 382	0	Made up articles (incl. dress patte	517 458	0
Frozen Fish, nes	205 101	0	Insecticies, put up for retail sale	496 891	0
Dresses of cotton	194 191	0	Automobiles with reciprocating pist	485 405	0
Insecticies, put up for retail sale	185 512	0	Flat rild prod, i/nas, in coil, hr.	455 084	0
New pneumatic tyres, of rubber of	185 445	0	p-Xylene	440 296	0
<b>Total</b>	<b>13 850 499</b>	<b>30</b>	<b>Total</b>	<b>46 763 060</b>	<b>31</b>

Source: COMTRADE, authors' calculations

24. While for most countries trade in services accounts for around 20% of their total, in India trade in services has increased proportionally faster than trade in merchandise and represents now close to 37% of total trade both for exports and imports (Table 4). For a sector once considered to be nontradable, this is an important increase, particularly given that there were no important changes to the broad structure of world trade (see Table 3). Moreover, the country is not only a big and growing exporter of services; its services imports are also more dynamic than the world average.

**Table 4. Services share of total exports, World and India (%)**

Percentages					
	1995	2000	2005	2006	2007
India	17.8	27.8	35.3	37.9	36.7
World	27.1	27.3	28.2	26.7	23.7

Source: WTI (2008)

25. Table 5 compares trade growth in India other BRICS and selected regions and country groupings over the last fourteen years. India's services exports grew by over 19% which is significantly higher than the averages for the world, OECD and most developing regions. India's merchandise trade grew by almost 11%, a rate that is higher than that for the world but less than other developing countries and particularly China with 21% growth rate. The picture for imports is similar with India distinguished by a much higher growth rate in services than in merchandise imports.

**Table 5. Real trade growth rates in trade (average 1995-2007) - selected countries and regions**

	% change			
	Exports		Imports	
	Merchandise	Services	Merchandise	Services
Brazil	8.1	12.3	9.4	9.7
China	21.4	11.4	16.7	12.5
India	10.5	18.6	10.0	15.1
Indonesia	5.2	12.2	5.9	7.3
Russian Federation	9.4	11.2	17.6	9.8
South Africa	4.3	8.0	7.4	6.9
EAP	11.3	8.0	9.1	9.2
ECA	19.2	19.0	18.6	16.2
LAC	8.2	10.0	8.3	6.0
MNA	5.8	28.3	6.0	6.6
SAS	9.8	6.0	8.5	6.2
SSA	13.3	9.5	10.8	8.1
HI OECD	6.0	7.6	6.8	6.3
HI non-OECD	6.7	8.7	6.7	6.4
World	11.0	11.8	8.8	8.5
Low income	13.6	12.3	11.6	9.4
Lower mid income	9.9	10.1	8.7	8.4
Upper mid income	13.5	17.8	13.6	9.5
High income	6.1	7.8	6.8	6.3
Mid income	11.4	13.3	10.7	8.8

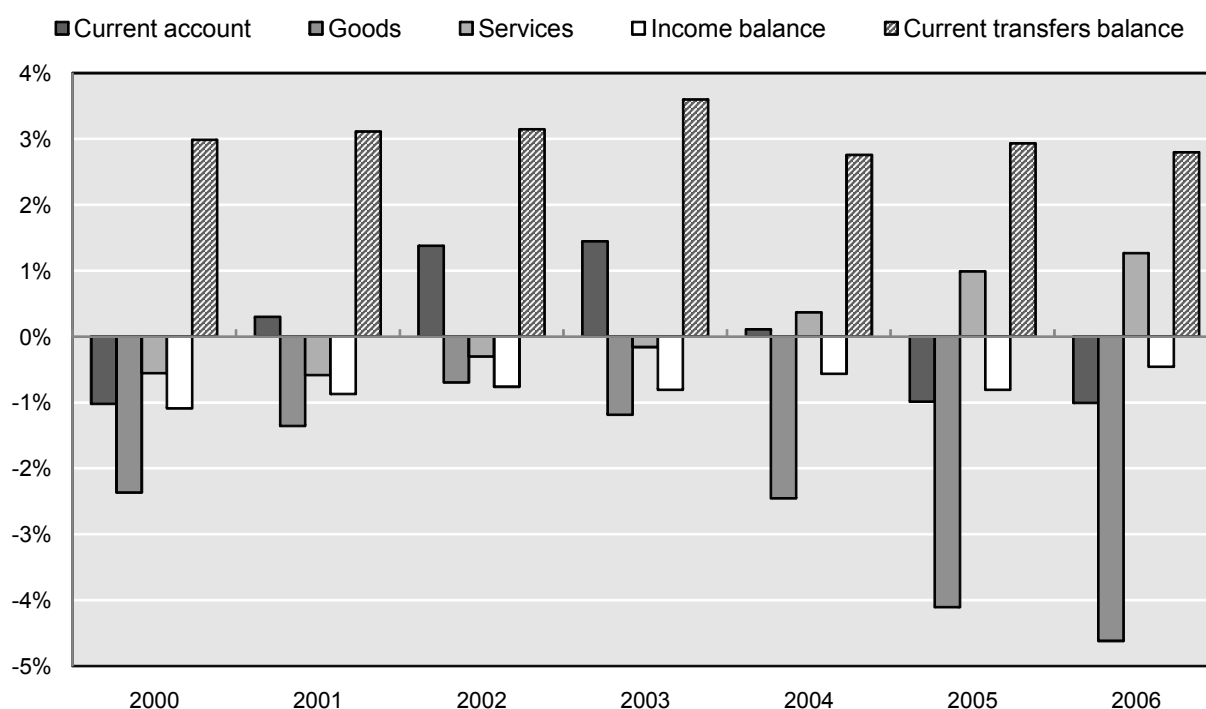
Source: WTI (2008).

26. While exports have outperformed imports in terms of growth rates, this has been insufficient to significantly dent India's trade deficit, particularly in merchandise trade. This is illustrated by the evolution of the structure of India's current account (Figure 4) which shows a deepening negative balance on trade in goods (from -2.4% of GDP in 2000 to -4.6% of GDP in 2006) and a gradually improving balance on services trade (from -0.6% of GDP in 2000 to 1.3% in 2006) - broadly speaking a reverse of the situation in China (see Kowalski, 2008). A distinctive feature of India's current account is the large and consistently positive current transfers balance, driven mainly by remittances.

27. The deteriorating balance on goods trade reflects deepening deficits in trade of capital and intermediate goods (and raw materials to some extent) which apparently cannot be adequately satisfied by the Indian manufacturing sector. Balance on consumer goods was actually positive and growing over the period 2003-2006. The deficit in services trade has also been a constant feature since the 1990s, but it shows a clear decreasing trend since 1995 driven by increased exports in several services sectors, for example, computer services.<sup>11</sup> In fact, this seems to reflect a long-standing process of deepening India's competitiveness in the services sector as reflected by the evolution of revealed comparative advantage indices presented in Table 10.

**Figure 4. India's current account structure**

As a percentage of GDP



Source: IMF IFS.

**Table 6. Revealed comparative advantage indices in services in selected countries**

	1994	1997	2001 <sup>a</sup>	2004 <sup>b</sup>
India	0.941	1.032	1.394	1.427
China	0.687	0.602	0.557	0.48
Brazil	0.493	0.514	0.691	0.582
Russia	0.547	0.708	0.506	0.503

a) 2000 for India.

b) 2003 for India.

Source: IMF BOP (2006).

<sup>11</sup> According to IMF BOP data the services trade deficit has decreased from USD 4 billion in 1995 to around USD 2.3 billion in 2003.

### 3. India's exports, structure and performance

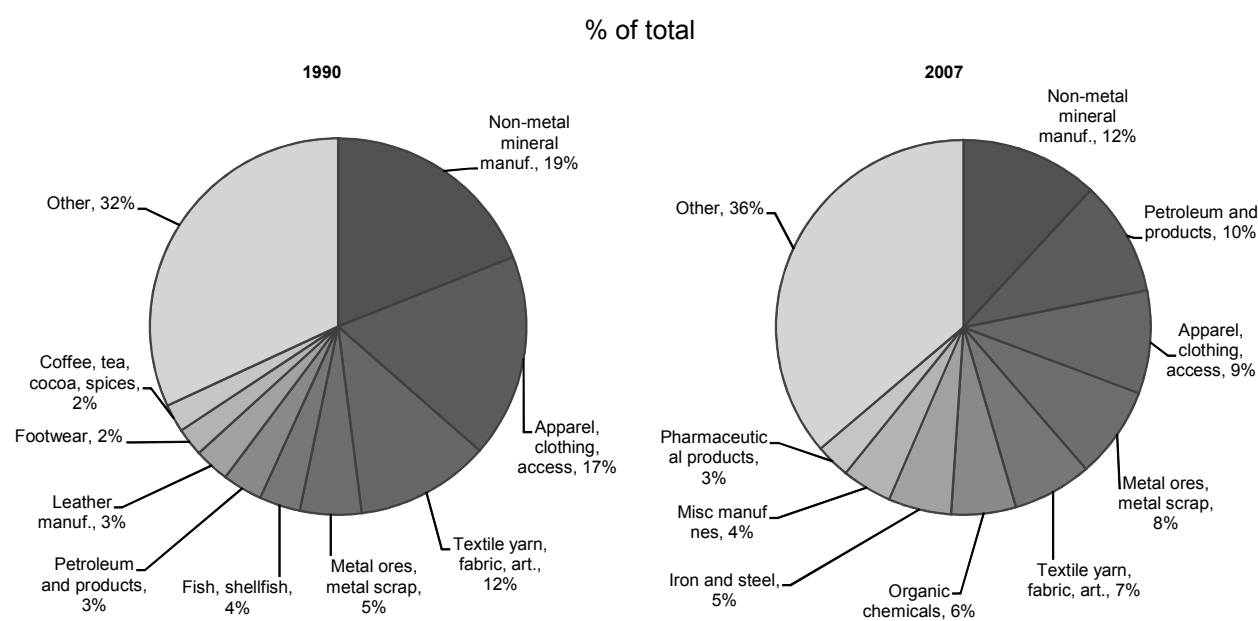
#### 3.1 Composition of trade

##### Merchandise trade

28. Figure 5 depicts India's key 3-digit SITC goods exports categories in 1990 and 2007. A number of structural changes are noticeable. First, India's 2007 exports are more diversified across 3 digit SITC categories than they were in 1990. Non-metal mineral manufactures category, while still representing 12% of total merchandise exports in 2007, are down from 19% in 1990. India has also considerably reduced its export share and composition of textiles and clothing products, as a result, among other factors, of the phase of the ATC in 2005, which would bring India's export structure closer to its true comparative advantage. The share of apparel and clothing accessories is down from 17% in 1990 to 9% in 2007 and textile products are down from 12% to 7%. Footwear dropped off the top 10 export product list as did fish/shellfish and coffee/tea/cocoa/spices products.

29. Petroleum and petroleum products have considerably gained in importance and now account for close to 10% of merchandise exports. In 2006, they have overtaken the jewellery and gemstones to become the top export product. This was due to the rapid development of domestic refining capacity. In 1996, for example, India imported both crude and refined petrol (around 2/3 crude and 1/3 refined) and exported only negligible quantities. In 2005 its imports of crude petrol have more than tripled (in quantity), its imports of refined petrol have considerably declined, and refined petrol has become a key export. It is yet unclear whether this export boom is sustainable or whether it was due to an incipient excess domestic refining capacity. India's government foresaw adding 86 million tonnes in refining capacity starting in 2007 with state-owned companies adding around 70% to the total. The surge in export value is also due to the currently high oil prices which accentuate the trend, and to the country's main oil sector company's (*Reliance Petrochemicals*) difficulties in selling to the domestic market and competing with the subsidised sales by the state-owned companies.

**Figure 5. India key exports 1990 and 2007**



Source: UN COMTRADE.



30. Gems and jewellery are together with petroleum products on the top of the exported products list (Table 3) and, as with petroleum products, the jewellery sector is also characterised by its dependence on imported raw materials. India, and in particular Mumbai, is specialised in diamond cutting and polishing. Its net trade balance in pearls and precious stones remains positive, but has slowly declined in the last 10 years, from around a third of exports in 1996 to less than a quarter in 2005. This is an erosion in the domestic value added of the Indian diamond processing industry.

31. Since 1990 India has also expanded exports of industrial products such as organic chemicals, iron and steel as well as pharmaceuticals. Manufacturing of these products and selling them in world markets does require an application of existing technologies at the least and in some cases reflects actual innovation. This is a sign and that, albeit, not as quickly as China, India is moving towards higher technology products.

32. Yet, a more detailed analysis of India's revealed comparative advantage (RCA) indices and growth rates confirms the still very traditional profile of the country's merchandise trade. Table 7 reports RCA indices for the main 2 digit HS chapters with a value of one or greater indicating a revealed comparative advantage. Most of the products reported in the table are in the primary and labour intensive sectors. During the last 10 years, India has developed a comparative advantage in only chemical and metal manufacturing. In fact, in high-technology sectors such as *Office, accounting and computing machinery* (30) and *Radio, television and communication equipment* (32), RCA indices have deteriorated significantly.

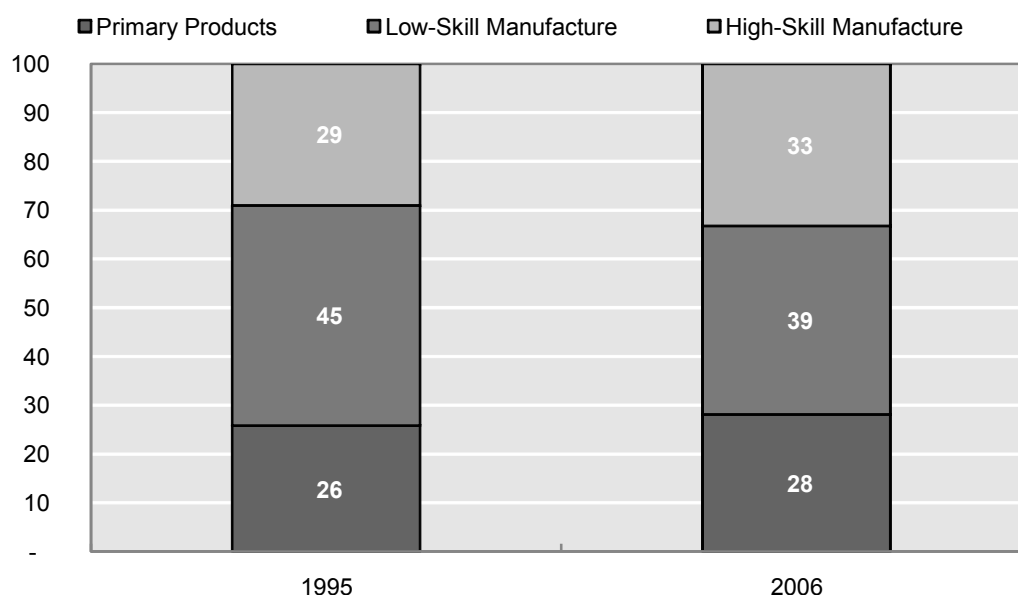
**Table 7. Revealed comparative advantage indices and growth rates**

	1996	2006	Annual average growth rate
01 - Agriculture, hunting and related service activities	2.16	1.94	-1.08
02 - Forestry, logging and related service activities	2.97	3.26	0.93
05 - Fishing, operation of fish hatcheries and fish farms; service activities incidental to fishing	1.19	1.16	-0.29
10 - Mining of coal and lignite; extraction of peat	0.17	0.14	-1.87
11 - Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction excluding surveying	0.00	0.01	109.36
13 - Mining of metal ores	3.96	7.18	6.14
14 - Other mining and quarrying	1.50	1.86	2.14
15 - Manufacture of food products and beverages	2.04	1.24	-4.81
16 - Manufacture of tobacco products	0.20	0.38	6.97
17 - Manufacture of textiles	4.47	3.55	-2.29
18 - Manufacture of wearing apparel; dressing and dyeing of fur	4.29	3.74	-1.37
19 - Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear	2.25	2.02	-1.09
20 - Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	0.10	0.11	0.59
21 - Manufacture of paper and paper products	0.13	0.22	5.57
22 - Publishing, printing and reproduction of recorded media	0.69	0.78	1.11
23 - Manufacture of coke, refined petroleum products and nuclear fuel	1.93	2.92	4.22
24 - Manufacture of chemicals and chemical products	0.89	1.00	1.19
25 - Manufacture of rubber and plastics products	0.77	0.71	-0.78
26 - Manufacture of other non-metallic mineral products	0.80	1.03	2.49
27 - Manufacture of basic metals	0.72	1.28	5.91
28 - Manufacture of fabricated metal products, except machinery and equipment	0.95	1.20	2.39
29 - Manufacture of machinery and equipment n.e.c.	0.21	0.37	5.57
30 - Manufacture of office, accounting and computing machinery	0.17	0.09	-5.57
31 - Manufacture of electrical machinery and apparatus n.e.c.	0.26	0.39	4.05
32 - Manufacture of radio, television and communication equipment and apparatus	0.11	0.07	-5.07
33 - Manufacture of medical, precision and optical instruments, watches and clocks	0.13	0.19	4.42
34 - Manufacture of motor vehicles, trailers and semi-trailers	0.21	0.29	3.14
35 - Manufacture of other transport equipment	0.28	0.42	4.33
36 - Manufacture of furniture; manufacturing n.e.c.	4.81	5.42	1.21
40 - Electricity, gas, steam and hot water supply	0.03	0.06	8.91

Source: UN COMTRADE.

33. This deterioration is also visible in the statistics summarising the skill content of India's export mix. The first is based on the skill intensity classification developed by UNCTAD.<sup>12</sup> The categories included in this classification represent over 97% of India's total exports for the years concerned. Figure 6 shows the different categories in 1996 and 2005. Despite the rapid growth in trade flows, India has not managed to develop a high-technology export sector and its export mix in terms of skills requirements remains surprisingly stable.

<sup>12</sup> Source: UNCTAD, The Least developed Countries Report 2002, New York and Geneva 2002. The original categories are supplemented with the category of primary.

**Figure 6. Evolution of India's export mix according to skill intensity (1996 and 2006)**

Source: UN COMTRADE.

34. Another classification developed by the Hamburg Institute of International Economics (HWWA) based on the ISIC-classification permits to break down individual manufacturing sectors according to the intensity with which they use technology. This approach reveals even more stark results: the share of high-technology manufactured goods (such as Pharmaceuticals, Radio and telecommunication equipment, Office and computer equipment) in India's total exports has barely changed since 1996 and remains under 5%. Even the share of medium-technology products which include the whole of the chemical sector and motor vehicles has increased by less than five percentage points and stood at 19% in 2005. Table 8 below includes the World Development Indicators classification which provides higher estimates (since the figures are in percentage of manufactured exports and not total exports) but a similar trend and comparable data with Brazil and China.

**Table 8. High Technology exports**

	2000	2002	2006
Brazil	19	17	12
China	19	23	30
India <sup>a</sup>	5	5	5

a) 2005 data for India

Source: WDI.

### Services trade

35. The services sector presents a different picture. A process of export reorientation is clearly underway and a significant shift has taken place towards more advanced, in some cases high-skill intensive, services. Moreover, new services, such as computer and selected professional services, have emerged in India's exports to a greater extent than in other (developing and BRIICS) countries. Services trade data are released with greater delays than data for merchandise trade and analysis in this paper is based on data that stops in 2004. A closer look at the sectoral composition of services trade in Table 9 reveals *Other services* being the top export category during the period 1994-2004. *Computer and information services* have experienced the largest increases, while transport and travel services registered a considerable drop

between 1994 and 2003. In 1994 three types of services (*Travel, Transportation, and Other business services*) accounted for almost 100% of all services exports; in 2000 they represented 57% and in 2003 only 42%. The most spectacular evolution was recorded by *Computer and information services* whose share in India's services exports almost doubled between 2000 and 2003 to reach almost half of India's services exports.

36. However, the structure of services imports has remained considerably more stable, which means that development of India's services sector is rather oriented towards exports, not domestic markets. Other services (*Other business services, Communication and Construction*) as well as travel services seem to be the most dynamic categories. *Transport* imports experienced a steady decline in India's total imports: from more than 50% of total services imports in 1994 to 36% in 2003. While imports of insurance, financial and construction services are relatively important, the three main import categories—transportation, travel and other business services - accounted for 82% of Indian services imports in 2003 (compared to 92% in 1994).

37. A more detailed analysis of India's services export performance based on selected trade indicators such as sectoral RCA and intra-industry trade (IIT<sup>13</sup>) indicators is presented in Tables 10 and 11. The analysis confirms that India has a strong comparative advantage in *Computer and communication services*. *Travel, Financial and Communication services* feature high levels of intra-industry trade, indicating India's integration into the global service supply chain. Interestingly, trade in *Computer services* in India seem to be entirely an inter-industry phenomenon.

38. Further exploration of these two indices coupled with information on the RCA indices of trade partners could provide information on India's sectoral level complementarities with the rest of the world. For example, a high level of intra-industry trade in communications and financial services could foretell a high trade potential with developed countries specialised in those sectors. On the other hand, the high intra-industry trade of travel services could indicate higher south-south trade potential, given that many developing countries exhibit high RCA indices in travel services.

39. The services trade data reported so far refer mainly to services traded internationally by the first and second mode of supply. Only a limited extent of trade via the movement of natural persons (part of computer and information services, of other business services, and of personal, cultural and recreational services) and via commercial presence (part of construction services) was included. However, trade in services often takes place in different ways to trade in goods and such data ignore most Mode 4 – temporary movement of natural persons and Mode 3 – commercial presence.<sup>14</sup>

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<sup>13</sup> For that purpose, the most widely used measure of intra-industry trade, the Grubel-Lloyd (GL) index, was employed. The GL index is defined as:  $GL_{ij} = 1 - \left| \frac{X_{ij} - M_{ij}}{X_{ij} + M_{ij}} \right|$ ; where  $X_{ij}$  are exports of a service  $i$  by country  $j$  and  $M_{ij}$  are imports of a service  $i$  by country  $j$ . A GL index that approaches zero implies low levels of intra-industry trade while a GL index that approaches 1 suggests high levels of intra-industry trade.

<sup>14</sup> The four-part typology of international services transactions adopted in the GATS encompasses: (1) *Cross border supply* (Mode 1) of a service from one jurisdiction to another; (2) *Consumption abroad* (Mode 2) requires the presence of consumers in the supplier's country of residence; (3) *Commercial presence* (Mode 3), in which case a service supplier establishes a foreign based corporation, joint venture, partnership, or other establishment in the consumer's country of residence, to supply services to persons in the host country; (4) *Presence of natural persons* (Mode 4), which involves an individual, functioning alone or in the employ of a service provider, temporarily travelling abroad to deliver a service in the consumer's country of residence. Individuals who are seeking access to the employment market of another country on a permanent basis or for citizenship or residency purposes are not included in this category.

40. Labour-related statistics such as compensation of employees<sup>15</sup> and workers' remittances<sup>16</sup> presented in Table 12 show that on net, India is a recipient of labour income (compensation of employees and worker remittances) from (mainly) developed countries, and that total value of mode 4 exports is almost equal to the value of mode 1 and mode 2 exports. Finally, it is worth noting that labour related flows have grown at a fast rate of over 18% between 1999 and 2003 (as compared with services exports whose rate of growth stood at 12% during the same period).<sup>17</sup>

**Table 9. India: Composition of Services Trade**

USD millions and percentages

	1990	1994	2000	2001	2002	2003
<b>B. SERVICES</b>	<b>-1 465</b>	<b>-2 162</b>	<b>-2 503</b>	<b>-2 763</b>	<b>-1 563</b>	<b>-2 313</b>
<b>Total credit</b>	<b>4 625</b>	<b>6 038</b>	<b>16 684</b>	<b>17 337</b>	<b>19 478</b>	<b>23 397</b>
Transportation services, credit	20.7	28.4	11.9	11.8	12.7	13.1
Travel, credit	33.7	37.6	20.7	18.4	15.9	16.6
Other services, credit	45.6	34.0	67.4	69.7	71.4	70.3
<i>Communications</i>			3.6	6.4	4.0	4.6
<i>Construction</i>			3.0	0.4	1.2	1.2
<i>Insurance</i>	2.7	2.4	1.5	1.6	1.7	1.7
<i>Financial</i>			1.7	1.8	3.1	1.7
<i>Computer and information</i>			28.3	42.7	45.6	48.6
<i>Royalties and licence fees</i>	0.0	0.0	0.5	0.2	0.1	0.1
<i>Other business services</i>	42.5	31.5	24.9	13.5	13.9	11.1
<i>Government, n.i.e.</i>	0.3	0.1	3.9	3.1	1.8	1.3
<b>Total debit</b>	<b>6 090</b>	<b>8 200</b>	<b>19 187</b>	<b>20 099</b>	<b>21 041</b>	<b>25 710</b>
Transportation services, debit	56.1	55.7	45.4	42.3	40.5	36.4
Travel, debit	6.5	9.4	14.0	15.0	14.2	13.7
Other services, debit	37.4	35.0	40.6	42.8	45.3	50.0
<i>Communications</i>			0.5	1.3	4.8	2.4
<i>Construction</i>			0.7	2.3	2.9	4.7
<i>Insurance</i>	5.6	6.0	4.2	4.0	4.2	4.5
<i>Financial</i>			6.7	8.9	6.8	1.9
<i>Computer and information</i>			3.0	4.5	4.3	2.6
<i>Royalties and licence fees</i>	1.2	1.1	1.5	1.6	1.6	1.6
<i>Other business services</i>	28.2	25.8	22.5	18.6	19.4	31.5
<i>Government, n.i.e.</i>	2.4	2.1	1.5	1.5	1.2	0.8

Source: IMF BOP (2006).

<sup>15</sup> *Compensation of employees* includes wages, salaries and other compensation received by individuals working abroad for less than one year. Their expenditure is recorded under the *travel* component. The categorisation assumes that these workers retain residence in their home country. It does not distinguish between compensation of persons working in service-producing activities and those working in other industries. This measure tends to underestimate trade through the movement of persons as it covers only persons employed by employers resident in the host economy.

<sup>16</sup> *Workers remittances* are transfers from workers who stay abroad for one year or longer, and who, from a balance of payment perspective, are assumed to have changed their residence. It refers to the residual of income earned in the host economy by migrants after allowance for expenditure and savings. As no definition of temporary exists, including all workers may lead to an overestimation of Mode 4-related exports.

<sup>17</sup> It is acknowledged that BOP statistics are very imperfect proxies of services trade via mode 4. Therefore, additional information collected from FATS statistics (number of foreign employees in foreign affiliates) and migration statistics need to be consulted for more complete analyses of trade in services via the temporary presence of natural persons.

**Table 10. Revealed comparative advantages indices- Selected services sectors**

	1994	2000	2001	2002	2003
Communication services		2.74	4.52	2.96	3.49
Computer and info services		15.22	20.07	20.09	19.91
Construction services		2.55	0.30	0.95	0.97
Financial services		0.42	0.46	0.89	0.51
Insurance services	1.08	1.35	1.27	0.92	0.91
Other business services	1.22	1.79	0.91	0.91	0.74
Royalties and license fees	0.00	0.15	0.07	0.03	0.03
Transportation	1.09	0.86	0.85	0.91	0.98
Travel	1.07	1.10	0.98	0.84	0.94

Source: IMF BOP (2006)

**Table 11. Intra-industry trade indices- Selected services sectors**

	1995	2000	2001	2002	2003
Communication services		0.30	0.39	0.87	0.73
Computer and info services		0.22	0.22	0.18	0.11
Construction services		0.40	0.24	0.56	0.38
Financial services		0.36	0.29	0.59	0.89
Insurance services	0.47	0.48	0.52	0.54	0.52
Other business services	0.88	0.98	0.77	0.80	0.49
Royalties and license fees	0.03	0.45	0.21	0.11	0.11
Transportation	0.50	0.37	0.39	0.45	0.49
Travel	0.56	0.87	0.97	0.98	0.95

Source: IMF BOP (2006).

**Table 12. Labour-related flows, India, 1999-2003**

	1999	2000	2001	2002	2003
Net	11088	12404	13534	14567	20719
Exports	11124	12890	14285	15754	21727
% of services exports	76.67	77.26	82.4	80.88	92.86
Imports	36	486	751	1187	1008
% of services imports	0.21	2.53	3.74	5.64	3.92

Source: IMF BOP (2006).

41. Commercial presence (Mode 3) often represents the most important mode of supply in services trade. Given the absence of Foreign Affiliates Trade in Services (FATS) statistics for India, FDI statistics (flows and stocks) can be used as imperfect proxies for trade via commercial presence. Data from UNCTAD and the Indian Secretariat for Industrial Assistance indicate that India's inward FDI have dramatically increased since 1991. More recent data also show that annual FDI inflows grew from USD 7.6 billion in 2005, to USD 19.6 billion and 22.9 billion in, respectively, 2006 and 2007 (UNCTAD, 2008).

42. FDI inflows into India have been shifting increasingly away from manufacturing towards the services sectors. The share of services sector in total FDI inflows rose from 5% in 1990 to more than 50 % during the post reform period (1991-2005). However, the inflow of services FDI has been biased towards a few sectors such as transport and financial services. Between 1991 and 2005, the top six recipients of FDI have been electrical equipment (14.5), transportation industry (11%), telecom (11%), power and oil

refinery (10%) and services sector (8.45%).<sup>18</sup> A similar concentration can be observed as far as FDI outflows are concerned. The share of services in total FDI outflows increased to around 45% in the period 1999-2003. Non-financial services constitute around 36% and retail trade approximately 5% of total FDI outflows.

### 3.2 *A dynamic analysis of export performance*

43. The preceding analysis of India's trade performance has revealed that despite high growth rates of total goods exports, there has been no major shifts in manufacturing towards high-skills or high-technology goods. In contrast to goods, the analysis of the composition of services trade does reveal considerable change in the export structure but some of the RCA indices of key sectors such as *Insurance*, *Construction* or *Other business services* are declining, raising concerns about the prospects for their future development.

44. We employ a "quadrant" or "matrix" analysis to further examine India's export performance and identify the sectors with a potential for expanding trade flows. Figures 7 (goods) and 8 (services) show India's exports by main product group according to a methodology developed by the ITC to assess export performance.<sup>19</sup> The matrix is divided into four quadrants. The horizontal axis indicates the evolution of India's share in world trade for each product category measured as the compound annual growth rate of India's share in the world market of that particular sector. The vertical axis indicates average world trade growth for each product category and it is measured as the compound annual growth rate of world imports. The size of the balloon represents the weight of the sector in India's export basket.

45. This type of analysis can indicate which export sectors have registered a dynamic, stagnant or declining performance in the last four years although additional analysis would be needed to draw any firm policy implications. They are best interpreted as indicators allowing identification of sectors that in the past seized the opportunities offered by the world markets and those that failed to do so. This may be a starting point for identifying sectoral or country-wide policies or policy reforms to help these underperforming sectors.

46. Sectors in the top right-hand corner are considered 'champions', where India recently gained market share and world trade growth was strongest. These are sectors of significant trade gains since both Indian exports and world imports exhibit strong growth. Sectors in the bottom left-hand corner are 'sluggish' sectors, subject to a declining or stationary world demand and where India is losing market share. Having such sectors can in fact be a natural phenomenon, especially in an economy undergoing a major structural change. If the trends in world trade are to be sustained, these sectors are likely to provide only limited trade growth and diversification away from them is not necessarily a worrying trend.<sup>20</sup> Sectors positioned in the bottom right-hand are referred to as 'achievers in adversity' or 'winners in declining markets'. Existence of such sectors can also be a healthy phenomenon (e.g. when India realises its comparative advantage or is aiming to capture economies of scale or gains from clustering in certain sectors that happen to lose their shares in world trade) as long as it is not an implication of policy distortions (e.g. a result of discriminatory policies in India that favour a certain sector or a result of policies in third countries that limit the world growth of trade in this sector). For example, in scale-intensive or cluster-type sectors, where India already

<sup>18</sup> Monthly Reports by the Indian Secretariat for Industrial Assistance.

<sup>19</sup> This "matrix" or "quadrant" approach is employed by the International Trade Center (UNCTAD/WTO) in its quantitative analysis of international trade and is inspired by firms' portfolio models, such as the Boston Consulting Group matrix. See ITC, "Explanatory Notes for Product Champions". Results for services should be interpreted with care given the statistical deficiencies in this area.

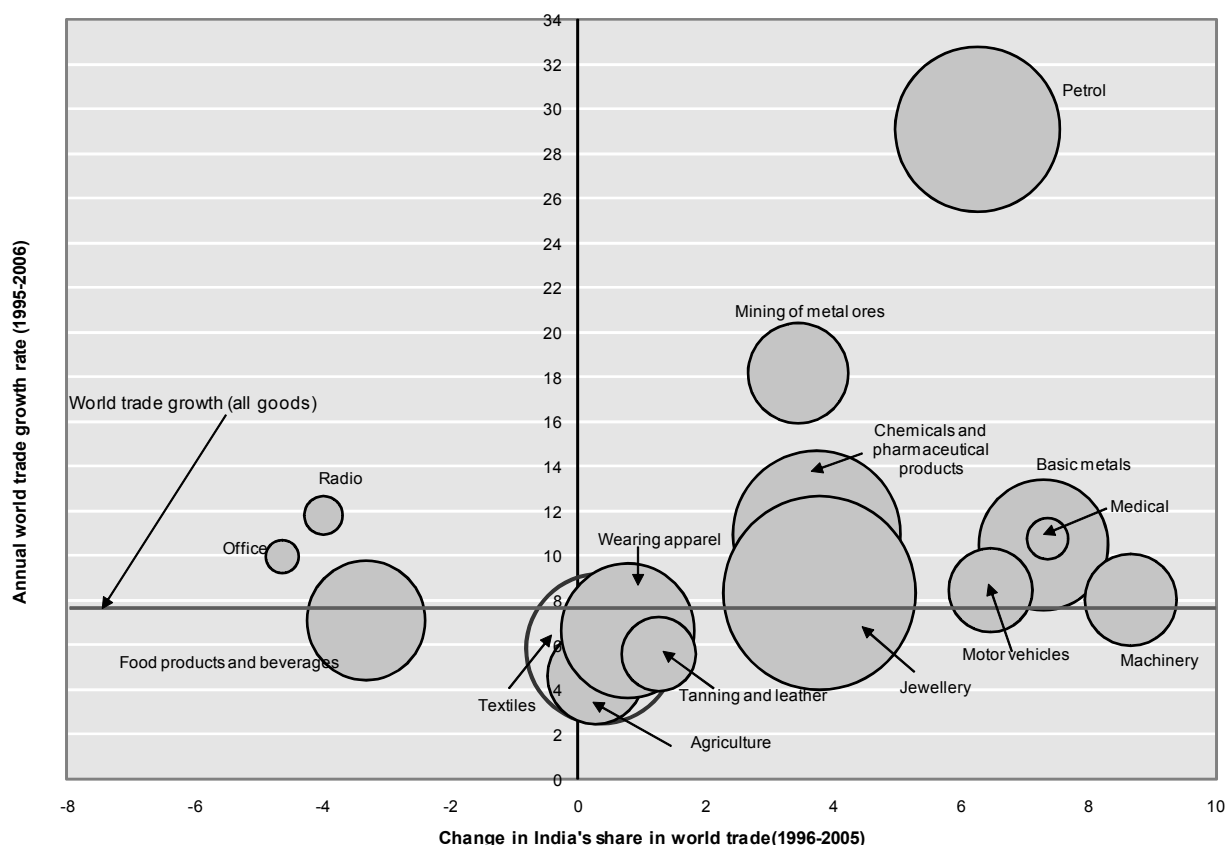
<sup>20</sup> This is for example the case when entrepreneurs are diversifying away from activities for which the world markets are shrinking to activities that have better prospects. However, existence of such sectors for longer periods of time can also be a sign of low competitiveness of the economy as well as structural rigidities.

holds a strong market share in world trade such as in jewellery, there might be opportunities to further specialise in the sector and gain additional market shares. Sectors in the top left hand quadrant referred to as ‘underachievers’ or ‘losers in growth markets’ are perhaps most interesting from the policy point of view to the extent that specific policy reforms might exist that could alleviate the hurdles to their growth.<sup>21</sup>

47. The dynamic export performance matrix for merchandise trade (Figure 7) shows that with the exception of *Radio and telecommunications*, *office and computer equipment*, and *Food products*, India’s exports have performed very well, increasing their market share in the most dynamic categories and maintaining it in less dynamic sectors such as *Textiles*, *Leather and Apparel*. The performance of the two best performing sectors *Petrol products* and *Mining* is promising though it should be borne in mind that the two sectors tend to be capital-intensive and are unlikely to provide much employment. On the other hand, the increase in the market shares of the *Machinery and equipment*, which is likely a reflection of India relative capital abundance and availability of highly skilled engineers, might provide more outlets for job seekers leaving rural areas.

48. It is beyond the scope of this chapter but it would be interesting to further explore the sectors losing market shares and particularly whether scale-intensity might explain India’s failure to develop the *Radio and Telecommunications*, *Office and computer equipment* sectors. Regulatory issues, lack of competition and inefficient logistics and distribution services are good candidates to explain the poor performance of these sectors as well as the *Food and beverages* sector.

Figure 7. India's export performance: merchandise trade, 1996-2005



<sup>21</sup> It is also possible that, as a result of a transition to a more market-based economy, India is losing revealed comparative advantage in these sectors and gaining it in other sectors, which would not be of concern.

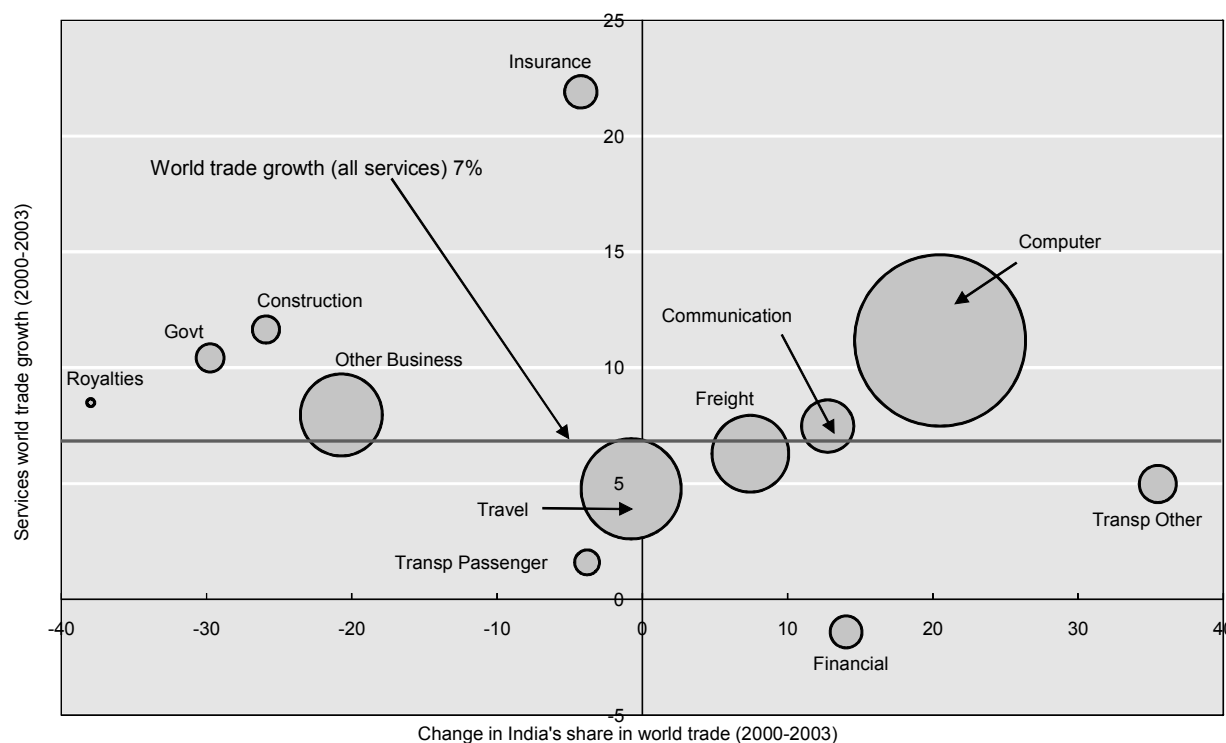


Source: UN COMTRADE.

49. As already discussed, for some time now, India has followed a route to economic development that is distinct from those of China or South Korea. While these Asian countries focused on exports and manufacturing, India concentrated on its domestic services economy and grew more slowly with an emphasis on services. However, the growth pattern in the service sector in terms of its share in trade and FDI is not uniform across sectors. The dynamic export performance matrix for services confirms the stunning trade performance of *Computer services* where both world demand and India's performance are growing strong (see Figure 8). It is worth mentioning that India is the only BRIICS country to have developed such a strong performance in IT services. For example, while *Computer services* have registered positive growth rates in China, their share in the country's total services exports are low and are eclipsed by other business services and travel. Interestingly, both China and Russia seem to have better prospects in developing their service exports than India whose notable service trade success appears to rely heavily on IT services.

50. Indeed, while as in merchandise trade, there are no important sectors in the bottom left corner, the position of *Other business services* (e.g. professional services such as accountancy, legal etc.) *Royalties* and *Insurance* where India is losing market share despite the dynamism of world markets indicates that the success of *Computer services* might not be so readily duplicable in other services. A possible reason for this evolution could be the absence of a coherent services strategy. While India's success is acknowledged in a narrow field of sectors, such as IT services, the development of other services sectors (as well as that of the economy as a whole) is held back by adverse factors such as external constraints in terms of high barriers to trade, as well as domestic constraints in terms of regulatory barriers. Consequently, the pace of reforms and their impact lacks uniformity across sectors. However, care needs to be taken in interpreting this analysis given that services trade data are less robust than merchandise trade statistics.

Figure 8. India's export performance: service trade, 2000-2003



Source: IMF BOP.

### 3.3 *Bilateral trade relations*

51. OECD markets are a very important destination for India's exports although this dependency has been decreasing gradually in the 2000s. In 2003 and 2007 OECD accounted for, respectively, for 49 and 43% of India's merchandise exports. The EU and the US remain the top destinations with 21% and 14% of the export bill but both of them have seen their shares of Indian exports reduced quite significantly in recent years (Table 13). A similar trend can be identified in terms of India's services trade with OECD countries; the OECD countries' group share in India's services exports decreased from approximately 33% in 1999 to about 26% in 2003. This reflects increases in the shares of exports to low and middle income countries. In particular, a clear tendency is visible of increasing export integration with other dynamic Asian economies such as China (from 4.6% of export share in 2003 to 6.5% in 2007) or Singapore (from 3.3% to 4.4%). These trends can be expected to continue since bilateral trade with these countries is still smaller than would be expected on the basis of India's and their importance in the world trade. Integration with China, for example, was very weak until recently with a trade intensity index<sup>22</sup> less than 1 (see Table 14). In this context, however, it is surprising to see persistently low trade intensity indices and falling trade shares of India's exports to the EU, the US and other OECD countries. This may be reflecting the already highlighted relatively low technology (and presumably quality) content of India's exports and thus the forced reliance on the South markets as well as barriers to imports of certain products, such as leather, textiles and garments, for example, in which India may have comparative advantage and on which the OECD countries maintain relatively high tariffs.

52. However, apart from the aforementioned phenomenal rise of exports to Singapore, which were heavily influenced by exports of refined petroleum, there are few signs that India is fully integrating into the South- and/or South-East Asia trading hub. Its October 2003 trade agreement with Thailand has failed to significantly lift bilateral trade and the South-Asia Free Trade Agreement (SAFTA)<sup>23</sup> has yet to deliver any significant market opening. In October 2006, the EU-India Summit agreed to start negotiations on a broad-based trade and investment agreement with a view to enhance economic co-operation and promote bilateral trade. However, at the time of writing of this revision of the report these negotiations still have not been concluded.

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<sup>22</sup> The trade intensity index (T) is used to determine whether the value of trade between two countries is greater or smaller than would be expected on the basis of their importance in world trade. It is defined as the share of one country's exports going to a partner divided by the share of world exports going to the partner. It is calculated as:  $T_{ij} = (x_{ij}/X_{it}) / (x_{wj}/X_{wt})$ ; where  $x_{ij}$  and  $x_{wj}$  are the values of country i's exports and of world exports to country j and where  $X_{it}$  and  $X_{wt}$  are country i's total exports and total world exports respectively. An index of more (less) than one indicates a bilateral trade flow that is larger (smaller) than expected given the partner country's importance in world trade.

<sup>23</sup> South-Asia Free Trade Agreement formed in 2004 by India, Bhutan, Bangladesh, Maldives, Nepal, Pakistan and Sri Lanka as a successor to SAPTA (South-Asia Preferential Trade Agreement).

**Table 13. Top 15 export and import partners of India in 2003 and 2007, merchandise trade****Panel A. Bilateral trade flows**

2003		2007	
Gross Exports	Gross Imports	Gross Exports	Gross Imports
World trade value (USD mln)	63 035	World trade value (USD mln)	77 201
World	100.0	World	100.0
EU25	22.7	Unspecified	26.6
United States	18.0	EU25	19.2
United Arab Emirates	8.0	United States	6.4
Hong Kong, China	5.1	China	5.2
United Kingdom	4.7	Belgium	5.1
China	4.6	Switzerland	4.2
Germany	4.0	United Kingdom	4.1
Singapore	3.3	Germany	3.7
Belgium	2.8	Korea, Rep.	3.6
Bangladesh	2.7	Japan	3.4
Italy	2.7	Australia	3.4
Japan	2.7	Indonesia	2.7
Sri Lanka	2.1	Singapore	2.7
France	2.0	United Arab Emirates	2.6
Netherlands	2.0	Malaysia	2.6
All high-income	65.4	All high-income	50.1
OECD	48.6	OECD	41.8
Low and middle income	33.4	Low and middle income	22.4
Least Developed Countries	6.6	Least Developed Countries	1.9
World trade value (USD mln)	145 898	World trade value (USD mln)	218 645
World	100.0	World	100.0
EU25	21.5	EU25	21.5
United States	13.8	China	6.5
United Arab Emirates	9.9	Saudi Arabia	2.2
China	6.5	United States	13.8
Singapore	4.4	United Arab Emirates	9.9
United Kingdom	4.3	Switzerland	0.4
Hong Kong, China	4.0	Iran, Islamic Rep.	1.3
Germany	3.2	Germany	3.2
Netherlands	3.0	Australia	0.7
Belgium	2.8	Nigeria	0.7
Italy	2.6	Singapore	4.4
Japan	2.2	Kuwait	0.4
Saudi Arabia	2.2	Japan	2.2
Sri Lanka	1.8	Malaysia	1.3
Korea, Rep.	1.7	Iraq	0.1
All high-income	61.0	All high-income	61.0
OECD	42.7	OECD	37.8
Low and middle income	37.8	Low and middle income	42.7
Least Developed Countries	5.9	Least Developed Countries	5.9

**Panel B. Bilateral trade balances**

2003		2007	
Largest positive balance (USD mln)	Largest negative balance (USD mln)	Largest positive balance (USD mln)	Largest negative balance (USD mln)
World	-14 166	World	-14 166
United States	6 401	Switzerland	-2 825
United Arab Emirates	3 004	Belgium	-2 145
Hong Kong, China	1 747	Australia	-2 040
Bangladesh	1 643	Korea, Rep.	-2 040
Sri Lanka	1 111	South Africa	-1 344
Netherlands	744	Malaysia	-1 140
Spain	735	China	-1 086
Italy	650	Indonesia	-983
Iran, Islamic Rep.	643	Japan	-947
Turkey	484	EU25	-531
Nigeria	484	Sweden	-473
Saudi Arabia	381	Argentina	-431
Nepal	379	Germany	-370
Vietnam	368	Myanmar	-316
Egypt, Arab Rep.	266	Russian Federation	-236
All high-income	2 580	All high-income	2 580
OECD	-1 628	OECD	-1 628
Low and middle income	3 751	Low and middle income	3 751
Least Developed Countries	2 727	Least Developed Countries	2 727
World	-72 747	World	-72 747
United States	5 927	China	-15 084
Hong Kong, China	3 024	Saudi Arabia	-13 349
United Arab Emirates	2 744	Switzerland	-10 067
Netherlands	2 600	Iran, Islamic Rep.	-7 320
Sri Lanka	2 153	Australia	-6 598
Bangladesh	1 830	Nigeria	-6 025
United Kingdom	1 492	Kuwait	-5 880
Pakistan	1 298	Iraq	-5 246
Kenya	1 227	Germany	-4 058
Spain	1 212	Malaysia	-3 875
Vietnam	1 088	Korea, Rep.	-2 975
Mauritius	1 033	Indonesia	-2 962
Brazil	1 022	Japan	-2 569
Nepal	767	Russian Federation	-1 760
Syrian Arab Republic	650	Chile	-1 657
All high-income	-21 588	All high-income	-21 588
OECD	-18 927	OECD	-18 927
Low and middle income	-49 992	Low and middle income	-49 992
Least Developed Countries	2 445	Least Developed Countries	2 445

Source: UN COMTRADE.

**Table 14. Merchandise trade intensities- selected partners**

	2000	2001	2002	2003	2004	2005
TII India/Singapore	0.91	1.13	1.44	1.78	2.73	2.93
TII India/Thailande	1.20	..	1.31	1.26	1.16	0.98
TII India/China	0.51	0.53	0.78	0.81	1.17	1.10
TII India/US	1.03	0.98	1.07	1.00	1.08	1.08
TII India/EU25	0.63	0.58	0.57	0.55	0.60	0.63

Source: UN COMTRADE.

53. An alternative way to assess India's trade performance is to focus the analysis on its bilateral trade relations and examine whether the market share of Indian exports in key partner countries import profiles and their evolution across time reflect its trading potential. Indeed, India has very small market shares in

most partner countries, and only the rates of growth of these shares signal a dynamic expansion of India's trade.

54. In the period 2000-2006<sup>24</sup> India has managed to increase shares in most of its destination markets, though they remain rather small in most countries, with exception of the LDC grouping (Table 15). This means that India's merchandise exports have been able to compete effectively in industrialised markets. In particular, the fact that India's market share is increasing in a variety of markets, including OECD markets such as the US where the key India exports remains textile, allays, at least partially, concerns about the potential push from China's expansion into further primary product specialisation. The stagnant market share in Japan is, however, most likely due to competition with China, which has experienced phenomenal export success in these countries; i.e. China's share of Japan imports evolved from 5.2% in 1990 to 20.5% in 2006. The fact that shares in OECD markets are below India's world market share and that India's world market share is below India's share in the world GDP suggests that there is further potential for gaining markets and that the observed trends are likely to continue in the near future.

**Table 15. Evolution of India's market share in key markets**

	India		China	
	2000	2006	2000	2006
World	0.7	1.0	6.4	10.6
High-income	0.7	1.0	7.4	11.4
Low and middle income	0.8	1.1	3.1	8.4
Least Developed Countries	6.2	4.8	6.7	9.2
OECD	0.6	0.8	5.5	9.8
Canada	0.3	0.5	3.2	8.7
Germany	0.4	0.6	3.4	6.8
EU25	0.5	0.7	3.0	5.7
France	0.4	0.6	3.2	5.7
United Kingdom	0.8	0.9	3.9	6.1
Italy	0.6	0.8	2.7	5.1
Japan	0.7	0.7	14.5	20.5
United States	0.9	1.2	8.6	15.9
Brazil	0.5	1.6	2.2	8.7
India	0.0	0.0	3.0	9.4
Indonesia	1.6	2.3	6.0	10.9
China	0.6	1.3	3.2	9.3
South Africa	0.9	2.4	3.7	10.0

Source: UN COMTRADE.

55. Unfortunately, information on services trade is sparser than for merchandise trade. In terms of partner country data, there is a dearth of disaggregated and internationally comparable statistics on the direction of international services trade in general. However, the IMF BOP statistics and the OECD database on trade in services by partner country (BOP statistics) for cross-border services can help with identifying the essential features of India's services trade with the OECD countries as far as cross-border trade (mode 1 in the GATS nomenclature) and consumption abroad (mode 2) are concerned (Table 16). The trade intensity index measures the extent of trade that takes place between two countries or groups of countries and compares this with the expected flows based on the partner countries' importance in world trade. For most OECD economies, their trade intensity with India is less than what might be expected

<sup>24</sup> 2006 is the most recent year for which there are reliable data on India's bilateral trade in the Comtrade database.

given the importance of the OECD markets in total world trade. Except for the US and the UK, where the index is more than or approaching one, India's services trade with OECD countries could be much greater. The trade intensity indices computed for the sample period feature low and sometimes decreasing values. These findings are further supported by the low shares that India holds in OECD country services exports and imports, suggesting that there is substantial scope for strengthening India's trade in services with these countries.

**Table 16. Trade intensity indices between India and selected trading partners**

	2000	2001	2002	2003
UK	0.79	0.99	0.87	0.80
US	0.77	0.72	0.67	0.70
Australia	0.66	0.57	0.57	0.56
Denmark	0.23	0.45	0.41	0.40
Finland	0.00	0.00	0.00	0.30
France	0.34	0.28	0.16	0.26
Japan	0.32	0.28	0.25	0.22
Germany	0.20	0.22	0.24	0.21
Italy	0.41	0.35	0.19	0.19
Belgium			0.16	0.15
Canada	0.14	0.18	0.14	0.14
Greece	0.06	0.06	0.11	0.14
Austria	0.10	0.08	0.07	0.10
Portugal	0.16	0.15	0.09	0.09
Sweden	0.15	0.18	0.22	0.07

Source: TISP (2006) and IMF BOP (2006).

56. To complement the above analysis, we measure the degree of services trade similarity<sup>25</sup> between India's exports to and imports from selected (OECD and non-OECD) countries (see Table 17). The similarity index gives information about the potential for direct trade between countries by assessing the degree of complementarity between the structure of exports and imports of the analysed countries. However, it does not measure the extent to which the countries take advantage of that potential. This index is based on India's total services exports to all destinations.<sup>26</sup> There are two noticeable results in Table 17.

$$TS_{ij} = \frac{\sum_{s=1}^n (X_{is} \times M_{js})}{\sqrt{\sum_{s=1}^n X_{is}^2 \times \sum_{s=1}^n M_{js}^2}}$$

<sup>25</sup> The measure is defined as  $TS_{ij} = \frac{\sum_{s=1}^n (X_{is} \times M_{js})}{\sqrt{\sum_{s=1}^n X_{is}^2 \times \sum_{s=1}^n M_{js}^2}}$ ; where  $X_{is}$  represent exports of service  $s$  by country  $i$  and  $M_{js}$  represent imports of service  $s$  by country  $j$ . The index varies between zero (no similarity or correspondence and consequently, no trade potential) and one (perfect similarity and significant trade potential). There is potential for trade when ( $0 < TS_{ij} < 1$ ), with trade possibilities increasing as the value of  $TS_{ij}$  gets closer to 1.  $TS$  is an ordinal measure ranking items within a given collection from highest to lowest without measuring their magnitudes. To facilitate the analysis, we will use the following standard rule of thumb:  $TS$  values of 0.8 to 1.00 indicate very high similarity and significant trade potential, values of 0.6 to 0.8 indicate high similarity and high but lower trade potential than in the previous case, values between 0.4 and 0.6 indicate moderate similarity and moderate trade potential, values between 0.2 and 0.4 indicate low similarity and low trade potential, and values between 0.0 and 0.2 indicate little if any similarity and no trade potential at all. It was developed by Allen (1959) and was first used for calculating similarity of trade flows by Linemann (1966). A more recent application (in the area of manufacturing) is Beers (1991)

<sup>26</sup> Results should be interpreted with care because as opposed to goods trade where data is available at a high level of disaggregation, services data is available for a limited number of sectors/ subsectors

First, India tends to have a moderate trade potential with most OECD countries. However, India's trade potential with most partner countries shows a decreasing trend. That means that the structure of India's service exports is not adapting to the structure of its OECD partners' imports. This could partly explain the low trade intensities presented above in Table 16.

**Table 17. Trade similarity indices between India and selected partners, 2001-2003**

	2001	2002	2003
Netherlands	0.52	0.49	..
Finland	..	..	0.50
Belgium	..	0.53	0.49
Germany	0.57	0.52	0.49
Canada	0.53	0.50	0.47
Spain	0.54	0.52	0.46
Sweden	0.54	0.49	0.46
Japan	0.52	0.48	0.45
United Kingdom	0.51	0.46	0.44
Italy	0.51	0.47	0.43
United States	0.49	0.43	0.40
Norway	0.43	0.42	0.39
Austria	0.46	0.42	0.38
Korea	0.43	0.42	0.38
Iceland	..	0.34	0.34
Ireland	0.33	0.32	0.25
Greece	0.35	0.26	0.24
Brazil	0.60	0.59	0.51
China	0.49	0.47	0.44
Russia	0.52	0.45	0.41
Philippines	0.49	0.43	0.40
Mauritius	0.50	0.45	0.39
Malaysia	0.45	0.39	0.37

.. : not available.

Source: IMF BOP (2006).

57. Indeed, India's service exports have achieved marginal gains in market shares in most OECD markets (Table 18). Only in the United States and United Kingdom do more than 1% of these countries' service imports originate in India. Moreover, the annual growth rate of India's service exports share has been modest and in some cases, as for some countries in the EU15, negative. At the same time, no data is available for separate non-OECD countries with the exception of Hong Kong, China that reports to the OECD database but it is realistic to envisage that India has been gaining market share in developing countries services imports. In 1999, 67% of India's services exports went to non-OECD countries, with this share increasing to an estimated 74% in 2003.

**Table 18. Evolution of India's services exports in key destination markets**

As a share of individual countries' services imports

	2000	2006	Annual growth rate
United States	0.85	1.94	14.7
United Kingdom	1.01	1.56	7.5
Hong Kong, China	0.43	1.16	18.2
Denmark	0.58	0.89	7.4
Australia	0.65	0.88	5.1
France	0.39	0.65	8.7
Austria	0.12	0.48	25.8
Netherlands	0.21	0.46	13.8
Sweden	0.16	0.38	15.7
Italy	0.45	0.37	-3.3
Japan	0.36	0.30	-3.0
Portugal	0.17	0.14	-3.5
Czech Republic	0.06	0.12	13.6

Source: OECD TISP (2006)

58. As foreshadowed earlier the IMF BOP statistics do not cover trade in services via temporary movement of natural persons, the mode that is rather important judging by the importance of remittances in India's balance of payments. This gap can be filled by the GMig2 database assembled by the Centre for Global Trade Analysis (GTAP), in collaboration with the Development Research Centre on Migration, Globalisation and Poverty, Sussex University, the UK Department for International Development and the World Bank.<sup>27</sup> There is a small discrepancy in terms of the amount of total remittances (USD 17.41 million in the GMig2 database as opposed to USD 14.2 million reported in the IMF BOP database). According to the GMig2 database approximately 95% of India's total remittances come from the top ten remittance sources listed in Table 19. Half of total remittances received by India are sent by Indian expatriates in the US, representing almost 2% of India's GDP. Interestingly, the pattern of remittance flows remains almost unchanged in terms of total remittances and remittances received from skilled labour only. The US, a group of countries in the Middle East, the UK, Canada, Germany and Australia are the major sources of remittances for expatriate Indians.

59. The top ten source economies investing in India since the 1991 reforms are listed in Table 20. Mauritius has been the largest investor in India accounting for 27.5% of India's total FDI received during the analysed period. This is apparently due to a particularly advantageous bilateral investment treaty which had to be renegotiated to avoid round-tripping investment flows. Other major sources are the United States, the United Kingdom, and the Netherlands.

<sup>27</sup> The database is a bilateral matrix of the home and host regions of the World's 176.6 million international migrants and the development of the GMig2 model and database. The GMig2 Data Base contains data on bilateral migrant labour and wages by skill and bilateral remittance flows. See Walmsley *et al.* (2005) for more information on the GMig2 database

**Table 19. Top ten regions sending remittances and remittances from skilled labour only to India, estimates for 2001**

	Total remittances going to India from each region-%of total remittances sent to India	Remittances from skilled workers going to india from each region-%of total remittances sent to India
USA	45.56	22.86
Rest of Middle East	18.88	8.43
UK	13.36	4.56
Canada	6.82	4.00
Germany	3.20	1.58
Australia	2.25	1.71
Hong Kong, China	1.52	0.96
Singapore	1.23	0.51
Bangladesh	1.04	0.84
Rest of South Asia	0.97	0.72
Top 10 total	94.83	46.17

Source: Amer and Walmsley (2006) Notes: \* Rest of Middle East includes: Bahrain, Iran, Islamic Republic of, Iraq, Israel, Jordan, Kuwait, Lebanon, Palestinian Territory, Occupied, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, United Arab Emirates, Yemen and Rest of South Asia includes: Brunei Darussalam, Cambodia, Lao People's Democratic Republic, Myanmar, Timor Leste

**Table 20. Top 10 sources of FDI inflows in India**

From August 1991 to December 2004

	Total (US\$ Million)
Mauritius	9000.80
U.S.A.	4440.68
Netherlands	1867.83
Japan	1891.32
U.K.	1692.45
Germany	1255.57
France	743.69
Korea (South)	682.98
Singapore	641.02
Switzerland	530.60

Source: UNCTAD WIR

#### 4. Trade policy and developments

60. The year 2005 marked India's tenth anniversary as a member of the WTO and more than fifteen years of sustained reductions in trade protection. Indeed, customs duties on imports have been declining since the end of 1980s both as a percentage of the value of imports and as a percentage of GDP and total government revenue. Quantitative restrictions on imports of agricultural products have been phased out in 2001. Services trade barriers have also come down and contributed to the expansion of a new dynamic services sector.

61. However, the remaining protection in both goods and services sectors is still high compared to other BRIICS. First, this means that intermediate inputs and capital goods remain more expensive for Indian producers compared to producers in other emerging markets. Second, the remaining trade barriers combine

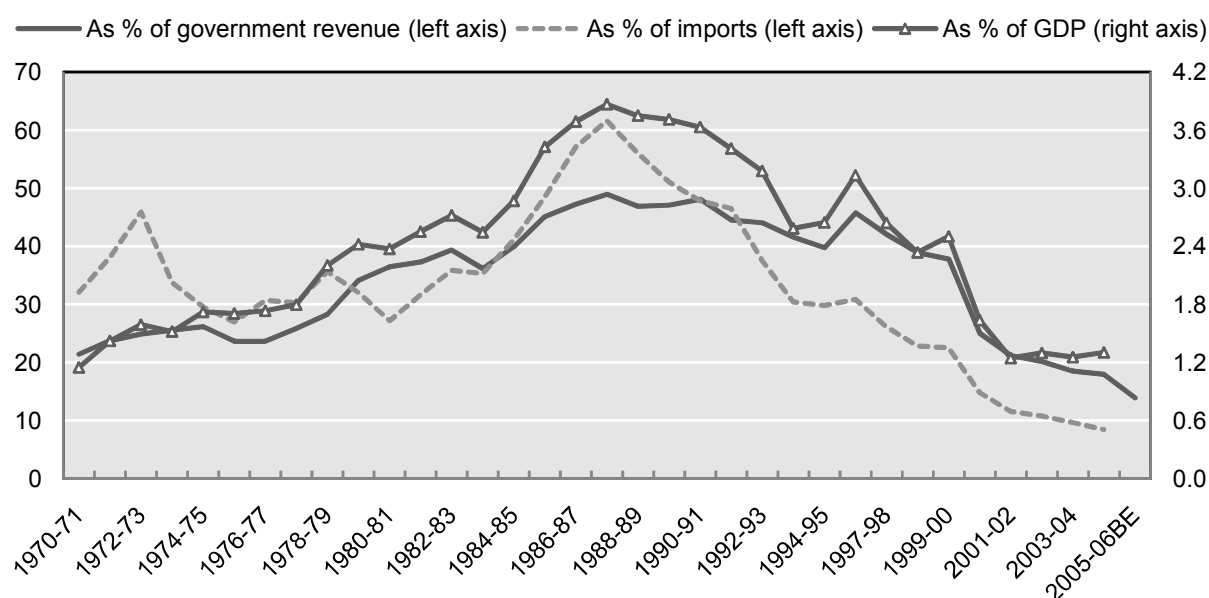


with the domestic red tape restricting new entry and competition to keep India's competitiveness at low levels, particularly in agriculture and manufacturing sectors. As a result, pro-competitive effects in the tradable sector—the main driver of growth in most transition countries—are absent. Third, consumers face higher prices.

#### 4.1 Barriers affecting merchandise trade

62. The extent of India's tariff liberalisation is well illustrated by the fall in customs duties collected expressed as a percentage of the value of imports (from more than 60% in 1990 to around 10% currently). Furthermore, the share of customs duties in government revenue has fallen from close to 50% in 1990 to around 15% currently, Figure 9. The decreasing reliance on trade taxes reflects continuing commitment to trade liberalisation but also the shifting of revenue collection from tariffs to more efficient ways of collecting taxes by broadening the tax base and movements to a value added tax (reference).

Figure 9. India's customs revenue



Source: Original data from the Reserve Bank of India – author's calculations. Data for 2005-2006 RBI estimate.

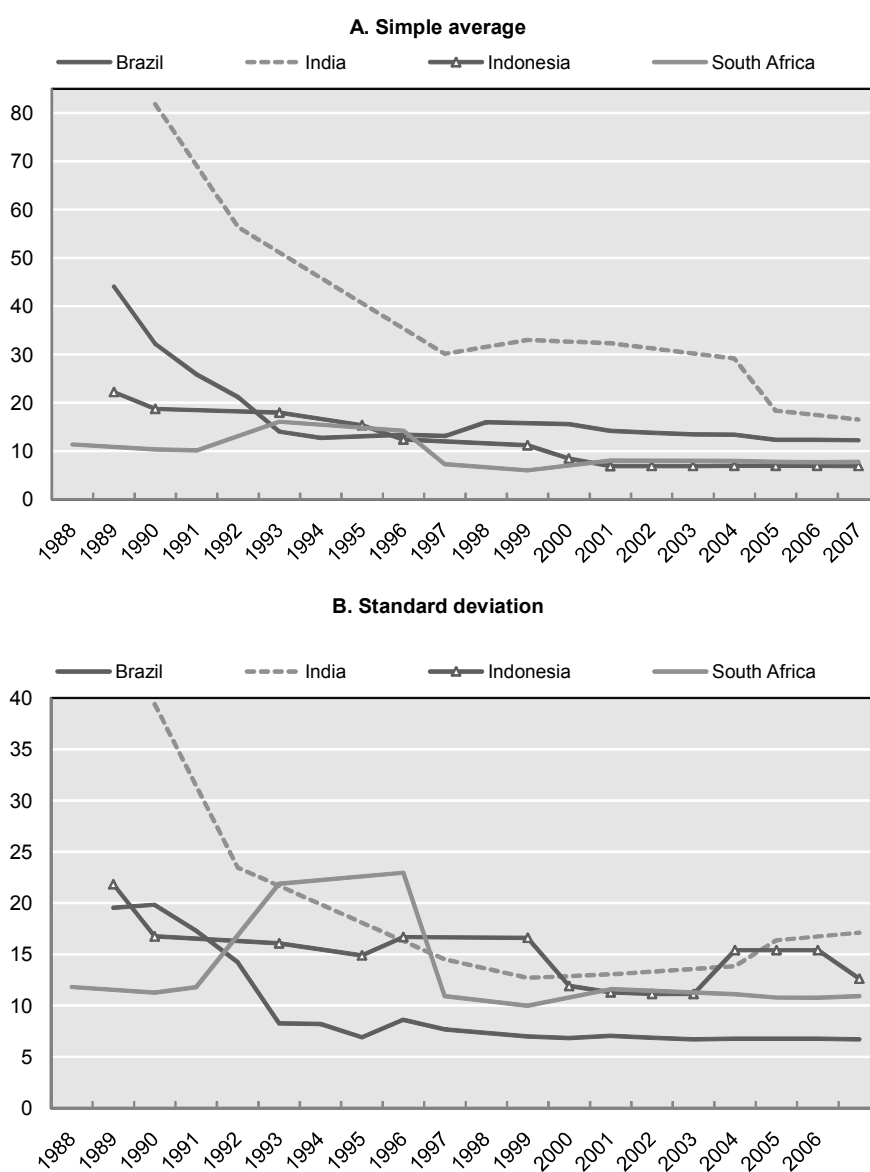
63. Tariff reductions seem have been implemented across the board generating market access improvements but also entailing the added benefit of reducing tariff dispersion, and thus economic distortions and complexity, Table 21. Over the period 1990-2007, for which we have consistent data, the proportional tariff reductions on imports of manufacturing merchandise have gone much deeper than corresponding cuts in the agricultural sector. In fact, for agriculture products the reduction calculated on the basis of trade-weighted average tariffs is negative, with tariffs actually increasing by 24% over the period while that for manufacturing is a reduction of 83%; indicating a very impressive liberalisation effort.

**Table 21. India's tariff structure**

	Agricultural products			Non Agricultural products			Maximum Tariff
	Simple mean tariff	Weighted mean tariff	Std dev	Simple mean tariff	Weighted mean tariff	Std dev	
1990	73.1	50.3	71.6	79.2	49.6	42.2	355.0
2001	38.9	48.2	33.2	30.4	24.7	8.6	210.0
2004	39.1	60.7	35.6	27.7	21.0	7.5	182.0
2005	37.9	50.2	38.7	14.6	11.9	6.4	182.0
2007	39.1	62.2	38.9	12.5	8.6	5.9	182.0

Source: UN TRAINS.

**Figure 10. Simple average tariffs in the BRICS**



Source: UN TRAINS

64. Tariff peaks for non-agricultural products have continued falling from 30% in 2003 to 12.5% in 2006, tariffs peaks on agricultural products have remained unchanged. By focusing tariff reduction on tariff peaks, India has been narrowing protection differentials between raw materials, capital goods and consumer goods (Table 22).

**Table 22. Simple average tariffs by production stage**

	1997	2001	2005	2007
Raw materials	20.05	30.57	24.80	24.49
Capital goods	24.68	26.67	14.15	12.11
Intermediate goods	30.24	32.70	17.36	15.16
Consumer goods	36.91	35.93	19.60	17.88

Source: UN TRAINS

65. These statistics point to an unparalleled across the BRIICS liberalisation effort, especially in manufacturing. Yet, it has to be remembered that at the beginning of reforms India's tariffs were amongst the highest in the world and that the current trade-weighted average tariffs of close to 62% in agriculture and 9% in manufacturing imply considerable wedges between domestic and world prices, and act as an indirect taxes on exports through imports. This puts Indian producers that rely on imported inputs at a competitive disadvantage, and keeps less efficient technology and producers in the domestic market. The lowered but still high tariff barriers are consistent with the low dynamics of the industrial sector observed in Figure 2 and persistent concentration of employment in the agricultural sector despite its decreasing contribution to India's GDP.

66. Statistics presented in Tables 23 and 24 are even more revealing and show that the overwhelming majority (from 72-100%) of India's imports are not imported for domestic consumption but, rather, are used as intermediate inputs by the domestic manufacturing and services sectors. Table 23 presents the 10 top India's imports and shows that over 60% of India's imports on average face applied tariffs higher than 10% and bound tariffs of around 30%. Within a number of these product categories the maximum tariffs are as high as 100% and there are a number of national and international tariff peaks.

67. Taking the example of imports of machinery and equipment, the simple average tariff of almost 15% in its entirety is a production cost increasing measure - 99% of imports machinery and equipment imports are used as intermediate inputs in production. Another example is 10% tariff on imports of crude oil - the biggest India's import (26% of the total). 100% of these imports are an intermediate input into the production of the petroleum products a part of which are successfully exported (9% in 2003). Other similar examples include inputs into the production of the chemical, rubber and plastic products and services sectors such as construction, transport and electricity generation. All in all, moderate to high tariffs hurt mostly domestic firms that rely on imported inputs in an alarming majority of cases.

**Table 23. Top 10 India's imports**

	Value of imports	% of total imports	Simple Average		Weighted Average		Standard Deviation	Maximum Rate	Domestic Peaks	International Peaks
			Applied	Bound	Applied	Bound				
OIL - Oil	39 101 473	26.36	10.00		10.00		0.00	10	0	0
OME - Machinery and equipment n.e.c.	16 895 653	11.39	14.57	31.19	13.77	27.07	2.46	15	0	0
CRP - Chemical, rubber, plastic products	15 427 099	10.40	15.38	42.72	14.43	37.59	4.62	100	4	127
NFM - Metals n.e.c.	14 129 823	9.53	14.68	39.39	15.00	39.65	1.47	15	0	0
ELE - Electronic equipment	11 071 414	7.46	7.55	9.86	2.00	0.91	7.47	15	0	0
OMN - Minerals n.e.c.	8 650 334	5.83	12.04	36.28	12.91	38.86	4.39	15	0	0
OTN - Transport equipment n.e.c.	8 130 431	5.48	20.21	29.96	7.71	8.45	30.05	100	20	20
P_C - Petroleum, coal products	7 101 582	4.79	13.61	25.00	13.90	25.00	1.64	15	0	0
I_S - Ferrous metals	6 150 379	4.15	18.90	39.59	19.45	39.94	2.08	20	0	511
COA - Coal	3 380 848	2.28	21.67	31.25	15.00	25.00	12.57	55	0	1

Source: UN TRAINS.

**Table 24. Disposition of top 10 India's imports**

Product Name	Disposition of imported goods (%)		Main importing sector	% of imports	Disposition of output of main importing sector	
	production	consumption			domestic	exports
OIL - Oil	100	0	P_C - Petroleum, coal products	100	94	6
OME - Machinery and equipment	99	1	CDGS-Investment in capital goods	42	100	0
CRP - Chemical, rubber, plastic	90	10	CRP - Chemical, rubber, plastic products	56	87	13
NFM - Metals n.e.c.	100	0	OME - Machinery and equipment	30	89	11
ELE - Electronic equipment	86	14	CDGS-Investment in capital goods	80	100	0
OMN - Minerals n.e.c.	100	0	CNS-construction	66	100	0
OTN - Transport equipment n.e.c.	96	4	CDGS-Investment in capital goods	73	100	0
P_C - Petroleum, coal products	72	28	OTP-transport nec	41	96	3
I_S - Ferrous metals	100	0	I_S - Ferrous metals	48	93	7
COA - Coal	88	12	ELY- electricity	68	100	0

Source: UN TRAINS and GTAP database.

#### 4.2 Duty Exemption Schemes

68. In an effort to offset the high taxation of intermediate products and barriers to services trade, India has opted to maintain and cultivate an extremely complex system of duty exemption schemes, special investment and establishment rules and special economic zones (SEZs) that provide incentives particularly to exporting firms. There are 134 duty exemption Acts in place covering all type of activities from restaurants to agriculture, handlooms, leather and footwear or gems and jewellery. The majority of special focus initiatives involve some type of duty-free exemption in general between 2.5% and 5% of the FOB value of exports. For sectors dominated by very small players, specific instruments are in place to channel duty-free imports through trade associations. Other schemes such as the export promotion capital goods scheme (EPCG), offer a 5% duty for imports of capital goods subject to an export obligation equivalent to eight times the duty saved over a period of eight years. Agri-export zones grant duty-free imports of capital goods. In the last few years, each financial bill has added to the number of special focus initiatives and other promotional measures undermining parallel efforts to simplify export procedures such as efforts to launch an automated electronic environment for all exports.

69. The extensive and complex duty exemption schemes means that it is difficult to know which tariffs really apply in India. They create an impression that the protection levels may not be very high. As reported earlier, there is a significant gap between average tariffs and customs revenue as a percentage of imports but no publicly available information was found detailing customs revenue per import category; data which would permit the identification of areas and products for which most duty exemptions apply. Nevertheless, Table 24 clearly indicates that most of the output of the main importers of intermediate products is directed towards domestic market, not exports. It is therefore quite likely that duty exemptions may not solve the problem of taxation of intermediate inputs.

70. There are no signs that the system will be simplified in the near future but it appears that the Indian government is planning to alleviate the burden on domestic industry (see next section). Indeed, in 2006 the Trade Minister Kamal Nath announced two new schemes *Focus Products* and *Focus markets* aimed at providing a thrust to employment generation, particularly in semi-urban and rural areas. The objective of the *Focus Products* scheme is to promote exports of labour intensive industrial products by allowing a duty credit facility at 2.5% of the FOB value of exports on 50% of the export turnover of notified products such as value added fish and leather products, stationery items, fireworks, sports goods, handlooms, saddles, handbags, footwear, toys, dolls, fishing rods and handicraft items. In September 2008 the scheme has been extended to cover three and four wheeler product of the automotive industry, which was recognised as important in generating new jobs. The *Focus Markets* scheme aims at promoting exports to specified 'difficult' markets and allows duty credit facility at 2.5% of the FOB value of exports of all products to the notified countries.

#### 4.4 *Barriers to services trade*

71. Various reports dealing with India's services sectors highlight particular problems related to market access in financial, telecommunication and distribution services. In its early work on restrictiveness of services trade policies, the OECD Secretariat assessed barriers in banking, insurance, telecom (fixed and mobile), and distribution service and liberalisation effects in many countries, including India.<sup>28</sup> Using alternative weighting methods and econometric specifications that improved on existing literature (that take account of barriers affecting each mode of services supply and additional sector-specific regulatory variables) the analysis concludes that as compared with both developing countries and the OECD India is quite restrictive in banking, insurance, mobile telecom, and distribution.<sup>29</sup>

72. The results show that barriers remain high despite significant liberalisation steps which far exceed India's GATS commitments. The trade restrictiveness indices (TRIs) are well above the OECD average and most of the selected emerging economies. Moreover, most of these services sectors have been in the public domain for a long time and they suffer not only from high barriers to trade, but also from domestic constraints in terms of burdensome regulatory measures and state monopolies. These services consequently suffer from inefficiencies and low growth.

73. Finally, it is worth emphasising the intimate links across services and other sectors of the economy. Services are important intermediate inputs in the production of most industries and an inefficient services sector can be costly for the Indian economy as a whole. Similarly, barriers to growth of industrial sector may impede the growth of the services sector. For example, in a recent communiqué India's Minister of Commerce and Industry Kamal Nath revealed that for every job generated by the automotive industry, three jobs get created in the service sectors.<sup>30</sup> The high protection of services inputs reinforces the taxing effect of non-services inputs hurting domestic production of goods and services producing firms.

#### *Banking sector*

74. Despite the reforms of the financial sector that were initiated in 1992<sup>31</sup>, India is still confronted with a number of challenges in this sector. The sector remains heavily regulated and state ownership is still pervasive; banks display a risk-averse behaviour and their assets are highly concentrated in the public sector institutions. India ranks among the countries that have a banking sector restrictiveness index

<sup>28</sup> See OECD (2007a) "Modal Estimates of Services Barriers", OECD Trade Working Paper No. 51.

<sup>29</sup> The OECD (2007a) attempted to include a large number of measures that can impede trade in services via various modes of supply. It is important to note that, at this stage, the study considers a combination of formal and actual barriers. A country can have regulatory measures in place which restrict trade, but these may not be applied in practice. Moreover, even if restrictions are applied, their effect depends on how they are applied in practice. Given these caveats, the proposed lists of restrictions and the results should be treated with caution. Where possible, this analysis indicates how results may change if the practical application on regulatory measures is taken into account.

<sup>30</sup> This information was obtained from a press communiqué accessed at [http://www.thaindian.com/newsportal/uncategorized/kamal-nath-announces-new-incentives-for-auto-exports\\_10092633.html#respond](http://www.thaindian.com/newsportal/uncategorized/kamal-nath-announces-new-incentives-for-auto-exports_10092633.html#respond)

<sup>31</sup> The first phase was initiated in 1992. It focused on the implementation of prudential norms pertaining to capital adequacy and income recognition, the liberalisation of the interest rate regime and the introduction of competition by allowing more liberal entry of foreign banks and permitting the establishment of new private banks. The second phase, during the period 1997-2005, has focused on reducing fiscal pressures on the financial system, improving the state of the banking system and improving the overall regulatory framework for credit and risk management and investor protection. The third phase was laid down in the new road map of the RBI (March 2005) and essentially focused on foreign entry. Source: Prasad, A. and S. Gosh (2005), "Competition in Indian Banking", IMF Working Paper WP/05/141, Washington DC, IMF

standing above the average mostly because of restrictiveness on Modes 1 and 3 of services trade. In Mode 1, there are restrictions on both cross border borrowing and cross-border deposits. With respect to Mode 3, the foreign equity-related restriction has to be underlined since it is the principal factor that contributes to the high level of the TRI (Figure 11).<sup>32</sup> The calculation of the index took into account the 2004 restriction of 74% (an increase from the former limit of 49%) to foreign participation that were to be identified by the Reserve Bank of India (RBI) for restructuring even though the RBI did not specify subsequently any criteria for identifying banks in need of restructuring, nor did it identify such banks in the Roadmap for Presence of Foreign Banks in India and the Guidelines on Ownership and Governance in Private Banks, issued in February 2005.<sup>33</sup> Moreover, the RBI indicated that direct investment by individual foreign institutions in Indian banks would have to be reduced to 10%, and the aggregate limit for all foreign institutional investment would be capped at 24%; this limit can be raised with the approval of the board and the shareholders.<sup>34</sup> The report of the “Mission Economique”<sup>35</sup> in India also highlighted that in practice a foreign participation for more than 5% is problematic. Thus, the banking TRI for India could be even higher if account was taken of the practical application of regulatory measures.

75. Other restrictions include: complicated and costly licensing procedures (the granting of licenses to foreign banks is subject to a cap of 12 licenses per year for both new entrants and existing banks and there are several additional administrative requirements to be fulfilled<sup>36</sup>); restrictions on the form of commercial presence (only branches<sup>37</sup> are allowed); restrictions on the business of banks (in India, banks are allowed to provide securities services, real estate lending, foreign currency lending but are not permitted to supply insurance services<sup>38</sup>); and restrictions on raising funds by banks. The process of screening and approval also represents a significant obstacle. In terms of Mode 4 barriers, there are restrictions on the participation in the board of directors (2/3 of the bank's management board must be of Indian nationality) and restrictions on short and longer term stays of specialists.

#### *Insurance sector*

76. India's high restrictiveness index (Figure 11) in insurance services can be explained mainly by foreign equity limits (26%<sup>39</sup>), restrictions on the form of commercial presence (subsidiaries are not

<sup>32</sup> More information on the construction of the trade restrictiveness index is provided in OECD (2007).

<sup>33</sup> WTO (2007) states that the Indian authorities have indicated that ownership and governance of banks specified in the Banking Regulation Act 1949 are supplemented by regulatory prescription issued by the RBI from time to time.

<sup>34</sup> WTO (2007).

<sup>35</sup> [http://www.missioneco.org/Inde/documents\\_new.asp?V=7\\_PDF\\_122413](http://www.missioneco.org/Inde/documents_new.asp?V=7_PDF_122413)

<sup>36</sup> There is a proposition from the Commerce Ministry to allow foreign banks to open a maximum of 100 branches in a year. (Source: Sectoral snippets: India industry information issue 1 August 2006, KPMG India.)

<sup>37</sup> The RBI treats branches of foreign banks as if they were local subsidiaries, insisting that they must carry enough capital to cover their business in the country.

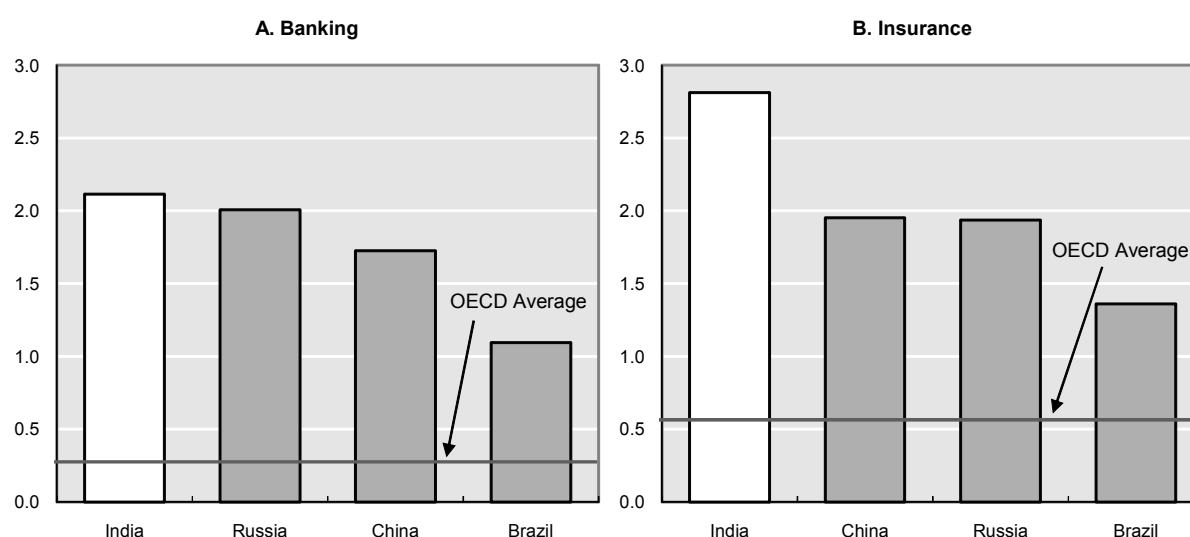
<sup>38</sup> As a more recent development the Insurance Regulatory and Development Authority (IRDA) Amendment Bill that makes it possible for banks to sign up with state owned and private insurance companies to sell their products needs to be mentioned

<sup>39</sup> The Government's move to increase the foreign equity cap to 49% from the existing limit of 26% has run into opposition from the Left parties and attempts are on-going to convince them to support an amendment Bill in Parliament to raise the cap. Simultaneously, the Government is considering a proposal to allow 100% foreign equity in special category of insurance companies, like those in the business of health or weather insurance and for all agriculture-related activities, including agro-processing. (Source: “Government studying fresh reforms package: in the Hindu Business Line 24 May 2006). An amendment to increase the restriction to 49% is currently under consideration by the Government. (WTO, 2007).

allowed; foreign insurers and brokers cannot establish unless via a joint venture with an approved partner with a minimum 74% local shareholding<sup>40</sup>), complicated and costly licensing procedures (there is a legal form of discrimination for insurance and reinsurance; licensing of “an association of underwriters” is not permitted) as well as restrictions on the business scope of insurance companies. A recent proposal has been put forward to increase foreign direct investment to 49%. In addition, global companies are pushing for the right to establish branch offices in India. These changes are likely to substantially increase the presence of international insurers, reinsurers, and brokers in India. Furthermore, the cross-border restrictions<sup>41</sup> as well as the Mode 4 related barriers (restrictions on the board of directors as well as on short and longer term stays of specialists) need to be signalled.<sup>42</sup>

77. The insurance sector is no longer a state monopoly, but continues to be dominated by state owned enterprises and is still heavily regulated. However, it seems that foreign equity limitations are less restrictive than those for banks, giving insurance companies an edge in growing their businesses. Private domestic and foreign financial-services firms are slowly gaining market share by providing consumer financing, consumer leasing, investment banking, underwriting, portfolio management, venture capital and foreign exchange advice all through a mixture of both state-owned and private entities. The size of the market presents immense opportunities to new players with only 20% of the country’s insurable population currently insured.<sup>43</sup>

**Figure 11. Banking and Insurance TRIs- India and selected emerging economies**



Source: Calculations based on the methodology described in OECD (2007).

<sup>40</sup> Ss.2, 7A(b), Insurance Act 1938, as amended by the Insurance (amendment) Act of 2002.

<sup>41</sup> Cross border trade and consumption abroad for MAT, except for freight insurance is prohibited, where goods in transit to and from India may be insured with foreign insurers; reinsurance can be taken out with foreign reinsurers to the extent of the residential uncovered risk after obligatory or statutory placements has been made domestically with Indian insurance companies. Article 3 (1) IRDA (General Insurance-Reinsurance) Regulations, 2000).

<sup>42</sup> In addition, WTO (2007) mentions the high minimum capital requirement as significant entry barriers (the minimum capital required to set up an insurance company is RS 1 billion, while the requirement for a reinsurance company is RS 2 billion).

<sup>43</sup> WTO (2007) notes that in 2005, the penetration ratio as a percentage of GDP was low (2.53% for life insurance and 0.62% for general insurance).

*Telecommunication (fixed and mobile)*

78. The Indian trade restrictiveness index in both fixed and mobile telecommunication is well above the OECD average and most of the selected emerging economies. India's telecom sector is characterised by significant entry controls (limits on foreign ownership<sup>44</sup>) and relatively complicated licensing and screening and approval procedures. Since its establishment, the Telecom Regulatory Authority of India (TRAI) has undertaken, besides a number of initiatives pertaining to tariffs, interconnection charge and revenue sharing, several waves of licensing, implementing license conditions and fees (even for application).<sup>45</sup> The license conditions were defined on the rule of operations and have important implications for competition. The main license conditions relate to roll-out obligations, revenue share and universal service obligations. Furthermore, there are significant restrictions related to leased line or network provision and connections of leased lines and private networks to the Public Switched Telecom Network (PSTN). Internet telephony became legal in 2002 but several obstacles restrict progress in this area. Only Internet Service Providers (ISPs) are allowed to offer Internet telephony within their service areas and restrictions apply on who can offer IP telephony for PC to PC VoIP, PC to Phone VoIP and Phone to Phone.

79. India has taken positive steps towards liberalising the telecommunications market and introducing private investment and competition in these services. The sector has evolved from a government monopoly to a reasonably competitive structure with significant private participation. The ITU country profile of 2005 confirms the full competition in domestic, international and long line distance services. As a result, the telecom industry has grown rapidly since 2002. WTO (2007) notes that the number of subscribers (for both fixed and mobile telephones) has increased from approximately 45 million in 2002 to more than 183 million in 2006, with an average annual growth rate of 35%. The main driver of this growth is mobile telephony where the number of subscribers increased from 13 million in 2002 to 143 million in 2006. A crucial step in the liberalisation of telecoms in India was the separation of the incumbent service provider from the policy maker. India continues to modernise its regulatory framework, with a draft "convergence bill which is pending parliamentary consideration. The bill will consolidate authority over telecommunications, the Internet, and broadcasting in a single, super regulator. Also, as a result of increased competition, there was a significant reduction in tariffs (from USD 0.67 per minute in 2002 to USD 0.02 per minute in 2006 for domestic calls).

80. However concerns remain as regards (i) the interconnection charges that new entrants must pay, (ii) the government's weak multilateral commitments in basic telecommunications (India's commitments at the WTO in 1998 were significantly lower than its actual policy regime), and (iii) the apparent bias of telecommunications policy towards government-owned service providers. Indeed some private carriers are concerned about the neutrality and fairness of government policy. The Indian government retains a significant ownership stake and interest in the financial health of the dominant telecommunications firms, all of which formerly enjoyed monopoly status in their areas of operation. The government holds a 26% position in the international carrier, Videsh Sanchar Nigam Limited (VSNL), a 56% position in Mahangar

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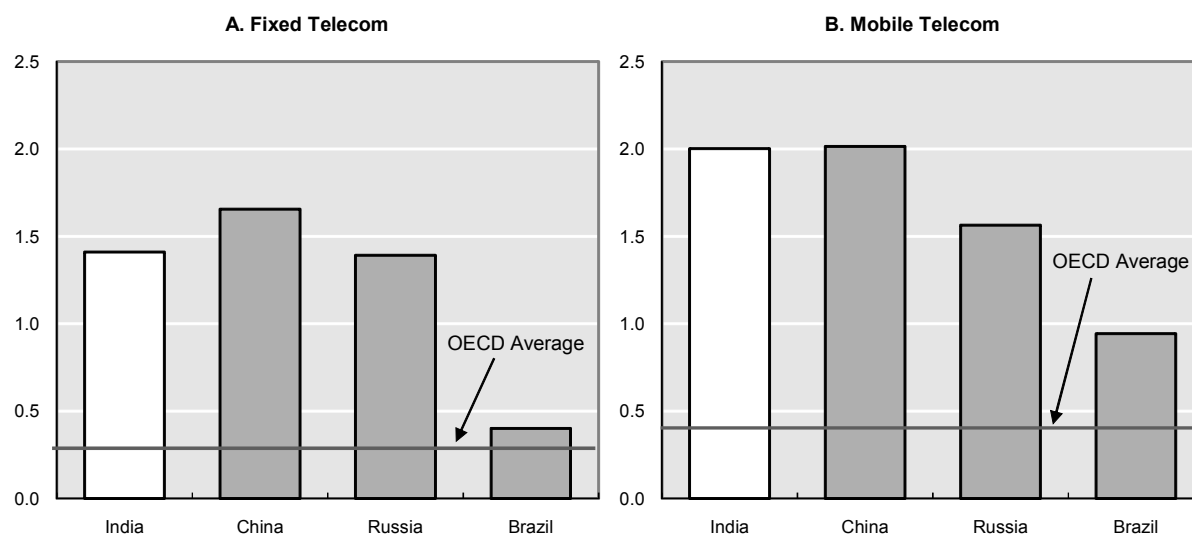
<sup>44</sup> The national telecommunications policy allows foreign participation in the provision of basic, including cellular and value-added telecommunications services. The limit is 49% for basic and cellular services, ISP with or without gateways. This can be extended to 74% with prior approval from FIPB (Foreign Investment Promotion Board), except for ISP with gateways where foreign investments can up to 100% (Investing in India Report). That does exceed India's commitment under the GATS which is 25%." (Source: World Bank (2004), "Sustaining India's services revolution"). The extension of this limit can be explained by the difficulty to raise the amounts of money needed to finance the new networks.

<sup>45</sup> For example, in terms of licensing conditions, the Unified Access Services (UAS) licence regime was introduced in 2003 allowing an operator to provide any type of service permitted in the licence and no longer obliging him to apply for separate licence for each type of service provided. WTO (2007).



Telephone Nigam Limited (MTNL), which primarily serves the Delhi and Bombay metro areas, and a 100% position in Bharat Sanchar Nigam Limited (BSNL), which provides domestic services throughout the rest of India. The government has indicated it will privatise MTNL and BSNL in the future but has not established a timetable. At this stage, it still dominates fixed line telephony.<sup>46</sup>

**Figure 12. Telecom TRIs- India and selected emerging economies**



Source: Calculations based on the methodology described in OECD (2007).

### Distribution

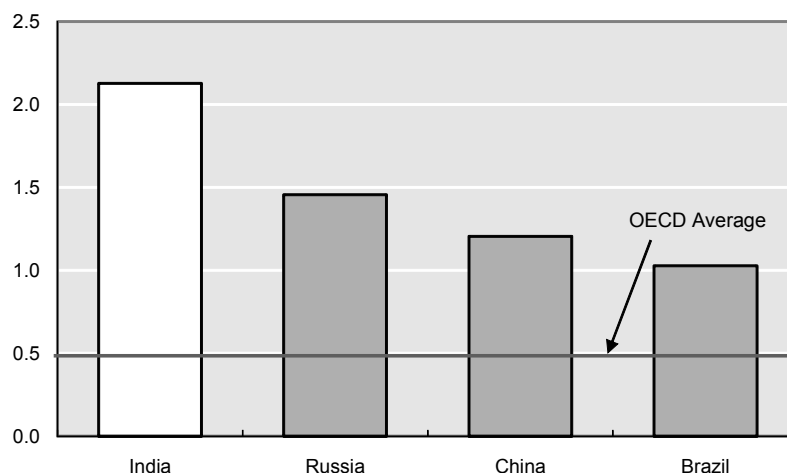
81. The high restrictiveness index in the distribution sector is determined mainly by the foreign equity limitations (51% in single brand retailing). In January 2006 the government approved new FDI norms for the retail sector and allowed up to 51% FDI in single-brand retailing. However, the decision to allow FDI in the multi-product retail chain stores has been delayed and remains a politically sensitive issue. Proposals for establishing commercial presence in wholesale trade, retail trade and franchising services are examined by the Foreign Investment Promotion Board (FIPB) on a case-by-case basis. FDI inflows related to commission agents' services are examined and approved by the Reserve Bank of India (RBI).

82. Although FDI in retailing is not allowed, *per se*, foreign retailers can operate in India through: (i) joint ventures, where the Indian partner is an export house (such as Total Health Care); (ii) franchising/local manufacturing/sourcing from small-scale sector (for example, Concorde, McDonald's); and cash and carry operations (for example, Giant in Hyderabad).<sup>47</sup>

83. In addition, India has restrictions on import licenses for numerous goods that act as a virtual ban on imports. Some commodity imports such as petroleum products (although canalisation of crude oil was eliminated in April 2002), some pharmaceuticals, a number of chemical products and bulk grains (wheat, rice, and maize) must be channelled through public sector companies. Finally, India also has a highly distorted real estate market with pro-tenant laws and zoning laws. Zoning laws also vary from state to state.

<sup>46</sup> It accounted for more than 92% of the market in 2006.

<sup>47</sup> Source: Government studying fresh reforms package in the Hindu Business Line 24/05/2006.

**Figure 13. Distribution TRIs- India and selected emerging countries**

Source: Calculations based on the methodology described in OECD (2005).

84. India's success is acknowledged in a narrow field of sectors, such as IT services, but the development of other sectors is held back by persisting trade and regulatory barriers. Our analysis reveals that in a number of other services sectors moderate liberalisation steps have been taken but restrictive policies still remain. In almost all analysed sectors, India has the most restrictive regime among the BRIC economies.

#### 4.5 Other impediments to commercial activity

85. In addition, a number of studies point out adverse factors that impede merchandise and services trade and slow down the development the economy as a whole:

- **Poor infrastructure:** One of the key hurdles to Indian productivity growth has been a lack of infrastructure support from the government. In 2006/2007 fiscal year, physical infrastructure spending was USD 500 billion in India (5% of GDP) of which the Central and State governments financed about two thirds. In China this ratio is estimated at around 15%. It is estimated that poor and poorly used infrastructure cuts India's growth rate by about 1 to 1.5 percentage points a year<sup>48</sup> and without change the desired double-digit growth seems highly unlikely.
- **Low educational standards:** as with China, India is confronted with skill problems due to low educational standards but, as opposed to China, India will have increasing working population for another generation.
- **Corruption:** the best example is the "Licence Permit Raj" which refers to the elaborate licences, regulations and the accompanying red tape that were required to set up business in India between 1947 and 1990. The Licence Raj was accorded on a selective basis to selected companies. The Licence Raj is considered to have been dismantled in 1990 and there are signs that the costs of doing business in India are going down. For example, in 2008 India obtained better scores than China on starting a business and dealing with construction permits indicators of World Bank's Doing Business ranking. Nevertheless, even within these areas it still faces some significant challenges. For example, the cost for a start-up at more than 70% of per capita GNI is much greater than in China (8% of per capita GNI).<sup>49</sup> Furthermore, the costs of trading across borders

<sup>48</sup> Analysis – India's politics block much-needed economic reform, Reuters 2006

<sup>49</sup> This information can be accessed [www.doingbusiness.org](http://www.doingbusiness.org)

remain much higher than in China. The enforcement of contracts does not even compare to China's. Finally, labour regulations are inflexible, as reflected by the rigidity of the employment index that is much higher than in China or other South Asian economies (Table 25).

India should look into improving its regulatory framework in order to be able to (i) realise its potential in services, especially in know-how intensive services, (ii) achieve a more uniform development of services sectors which generate higher employment and (iii) reduce the taxing effect on the economy as a whole. Poor infrastructure is particularly constraining. Furthermore, to India has to address its education shortages in order to avoid further skill mismatches and take advantage of its favourable demographic conditions.

**Table 25. Doing Business – selected indicators, 2008**

		India	China	South Asia	OECD
Overall indicator		120	90	..	..
Starting a Business	Procedures (number)	13	13	7.4	5.8
	Time (days)	33	35	32.5	13.4
	Cost (% of income per capita)	74.6	8.4	31.9	4.9
	Min. capital (% of income per capita)	0	190.2	0.6	19.7
Dealing with Construction Permits	Procedures (number)	20	37	16.1	15.4
	Time (days)	224	336	244.6	161.5
	Cost (% of income per capita)	466.9	840.2	2340.9	56.7
Employing Workers	Difficulty of Hiring Index	0	11	22.2	25.7
	Rigidity of Hours Index	20	20	15	42.2
	Difficulty of Firing Index	70	40	41.3	26.3
	Rigidity of Employment Index	30	24	26.2	31.4
	Firing costs (weeks of wages)	56	91	66	25.8
Registering Property	Procedures (number)	6	4	6.4	4.7
	Time (days)	62	29	106	30.3
	Cost (% of property value)	7.7	3.6	5.9	4.5
Getting Credit	Legal Rights Index	8	4	4.8	6.8
	Credit Information Index	4	4	2.1	4.8
	Public registry coverage (% adults)	0	49.2	0.7	8.4
	Private bureau coverage (% adults)	10.8	0	2.6	58.4
Protecting Investors	Disclosure Index	7	10	4.3	5.9
	Director Liability Index	4	1	4.3	5
	Shareholder Suits Index	7	4	6.4	6.6
	Investor Protection Index	6	5	5	5.8
Paying Taxes	Payments (number)	60	35	31.5	13.4
	Time (hours)	271	872	293.3	210.5
	Profit tax (%)	..	..	18.1	17.5
	Labor tax and contributions (%)	..	..	7.5	24.4
	Other taxes (%)	..	..	14.7	3.4
	Total tax rate (% profit)	74	81.2	40.4	45.3
Trading Across Borders	Documents for export (number)	8	7	8.5	4.5
	Time for export (days)	18	21	33	10.7
	Cost to export (US\$ per container)	820	390	1339.1	1069.1
	Documents for import (number)	9	6	9	5.1
	Time for import (days)	21	24	32.5	11.4
	Cost to import (US\$ per container)	910	430	1487.3	1132.7
Enforcing Contracts	Procedures (number)	46	35	43.5	30.8
	Time (days)	1,420	406	1052.9	462.7
	Cost (% of debt)	39.6	11.1	27.2	18.9
Closing a Business	Time (years)	10	1.7	5	1.7
	Cost (% of estate)	9	22	6.5	8.4
	Recovery rate (cents on the dollar)	11.6	35.9	19.9	68.6

Source: The World Bank (2008) Doing Business Comparing Regulations –<http://www.doingbusiness.org/>

#### 4.6 India's special economic zones (SEZ)

86. A somewhat controversial aspect of India's trade policy are the Special Economic Zones (SEZ) first introduced by the Government in 2000 with the view of attracting inward FDI, fostering private-public

partnerships for infrastructure development and accelerating export growth. India is proud of being one of the very first countries in Asia to recognize the potential benefits and introduce Export processing Zones, with Asia's first EPZ set in Kandla in 1965. Since then the concept of special economic zones (SEZ)<sup>50</sup> has gained noticeable worldwide significance as a policy means of achieving openness and economic growth.

87. SEZs are geographical regions with distinct rules of operation that are more liberal than rules typically applied throughout the country. Through allowing customs free trade, income tax reductions or waivers, streamlined administration and cheaper and better utilities SEZs are created to increase export-oriented manufacturing or services activities, promote transfer of technology as well as to boost foreign direct investment. According to a recent count, there are currently well over 3 000 zones in 135 countries, accounting for over 68 million direct jobs and over USD 500 billion of direct trade-related value added within zones, compared with just a handful in the 1960s (FIAS-IFC, 2007). In 2004 a limited global survey indicated that EPZs account for an estimated 8.3% of exports of manufactured goods and 0.2% of total manufacturing employment in countries with active SEZ programmes (OECD, 2007). Most of the recently established zones are in least-developed countries and transition economies.

88. The zones have been usually established as the first step in the direction of breaking away from inward-looking policies, facilitating international trade, capital and technology, and to hasten the pace of economic development and structural transformation (ILO, 1998). OECD (2007) highlighted that, the major reason for the proliferation of SEZs in some countries is the confluence of four trends: a) the increasing emphasis on export-oriented growth; b) the increasing emphasis on FDI-oriented growth; c) the transfer of production of labour intensive industries from developed countries to developing countries; and d) the growing international division of labour and incidence of global production networks.

89. SEZs are considered an attractive policy option in the process of trade liberalization for political economy reasons. Yet, the incurring costs associated with selective liberalization and associated distortions are possibly large. Adverse effects of these industrial enclaves, not offset by national benefits, might not only exist but also vary in magnitude. Apart from creating incentive distortions within the domestic economy the zones have been reported to: have had relatively high investment and maintenance costs; primarily employ low-wage, unskilled female labour; offer an unstable employment base; generate little domestic added value; develop few labour or managerial skills; transfer little modern technology or know-how; and have weak links to domestic manufacturers. These are just some of the reasons why SEZs are sometimes considered as 'laboratories'. It is likely that the degree of their success depends upon the stage of country's economic development, broader policy framework, quality of infrastructure as well as on the degree to which they are integrated with their host economies and the overall trade and investment reform agenda (FIAS, 2007).

90. India's SEZs were introduced formally with the 2000 Special Economic Zones Policy which aimed to attract investors through an internationally competitive and hassle-free environment for exports, and a number of very significant fiscal incentives and concessions (see Box 1). India's SEZs are also often located in places with easier access to motorways and ports. As with the previous duty-free enclaves dedicated to 100% export oriented units (EOU), SEZs are exempted from all direct and indirect taxes, licences for importing capital goods and raw materials as well as licenses for manufacture of items reserved for the Small Scale Industry (SSI) sector (see Box 2). Moreover, 100% FDI and repatriation of profits are allowed in the zone.

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<sup>50</sup> The term SEZ is used interchangeably with Export Processing Zones (EPZ), Free Trade Zones (FTZ), and Export Processing Factories (EPF) that refer to similar concepts with variation for policy directions and objectives.

**Box 1. List of incentives offered to India's SEZs developers and units in SEZs**Incentives and facilities available to SEZ developers:

- Exemption from customs/excise duties for development of SEZs for authorized operations approved by the Board of Approval
- Income Tax exemption on income derived from the business of development of the SEZ in a block of 10 years in 15 years
- Exemption from minimum alternate tax
- Exemption from dividend distribution tax
- Exemption from Central Sales Tax (CST)
- Exemption from Service Tax

Incentives and facilities available to the units in SEZs:

- Duty free import/domestic procurement of goods for development, operation and maintenance of SEZ units
- 100% Income Tax exemption on export income for SEZ units for first 5 years, 50% for next 5 years thereafter and 50% of the ploughed back export profit for next 5 years
- Exemption from minimum alternate tax
- External commercial borrowing by SEZ units up to US \$ 500 million in a year without any maturity restriction through recognized banking channels
- Exemption from Central Sales Tax
- Exemption from Service Tax
- Single window clearance for Central and State level approvals
- Exemption from State sales tax and other levies as extended by the respective State Governments

Source: Ministry of Commerce and Industry, [www.sezindia.nic.in](http://www.sezindia.nic.in)

91. In 2005 the Indian Government reaffirmed its commitment to SEZ policy with the *2005 SEZ Act* which extended the benefits to units that are not any longer 100% export oriented but just a net foreign exchange earner. Sales in the *Domestic Tariff Area* by SEZ units are, however, officially subject to payment of full custom duties. As part of the *2005 SEZ Act* some of the existing *Export Processing Zones* were converted into SEZs<sup>51</sup> and a number of new SEZs were established or approved for establishment across the country.

92. A key distinguishing feature of Indian SEZ policy is that the zones are proposed by the private sector or by State or Central Government in association with the private sector. Moreover, the private sector is also expected to develop infrastructure facilities in the existing SEZs. Indeed, perhaps the most notable trend over the past five years in India has been the growing number of privately owned, developed and operated zones. The key factor behind the rise of private zones seems to be a concession package which is more attractive to profit-oriented private players rather than unmotivated government players. The limited funding for new government zones development is also a likely factor. It is reported that the entry of the private sector into zone development has improved the range of facilities, services and amenities available within zones.

<sup>51</sup> Kandla and Surat (Gujarat), Cochin (Kerala), Santa Cruz (Mumbai-Maharashtra), Falta (West Bengal), Madras (Tamil Nadu), Visakhapatnam (Andhra Pradesh) and Noida (Uttar Pradesh) into a Special Economic Zones

93. As of end of September 2008 India granted formal approval to 531 SEZs out of which 260 SEZs have been notified and are operational.<sup>52</sup> There are also additional 143 valid in principle approvals which are likely to become operational in the near future. Most of the currently functioning Indian SEZs are specialised in information technology and software (171 out of 260), engineering (13), pharmaceuticals (13) and, to a lesser extent, in apparel (10), multiple products (10), multiple services (5) or gems and jewellery (3). A high concentration of formal approvals and functional SEZs is observed in the south and west of India and in particular in states of Maharashtra (19% of operational SEZs), Andhra Pradesh (18%), Tamil Nadu (12%) or Karnataka, Gujarat and Haryana (each approximately 9%).

94. Investment in place in the SEZs operational in 2008 amounted to approximately 733 billion rupees, exceeding earlier Government's targets, and the employment exceeded 100 000 workers. Around a quarter of SEZs' investment in 2005 was reported to be FDI. According to data provided by the Ministry of Commerce and Industry exports from SEZs have been growing at much higher rates than total economy exports, especially in fiscal years 2006-2007 and 2007-2008 (Table 26).<sup>53</sup> Consequently the share of SEZs export in total exports have more than doubled from less than 5% in 2003-2004 to more than 10% in 2007-2008. Yet, the cited 100 000 employment figure must be seen as rather small as compared to India's labour force of close to 440 million.<sup>54</sup>

**Table 26. Special Economic Zones Exports (2004-2008)**

	SEZs Exports Value (Rs. Crore)	Growth Rate (over previous year)	Total economy Exports (Rs. Crore)	Growth Rate (over previous year)	SEZs exports share in total exports (%)
2003-2004	13 854	39%	293 367	15%	4.7
2004-2005	18 314	32%	375 340	28%	4.9
2005-2006	22 840	25%	456 418	22%	5.0
2006-2007	34 615	52%	571 779	25%	6.1
2007-2008 P	66 638	92%	640 172	12%	10.4

Note: P for provisional

Source: Ministry of Commerce and Industry and the Reserve Bank of India.

95. The export performance of the SEZs can be seen as quite impressive if these exports are additional to what would be exported without the SEZ policy in place. The latter, however, cannot be easily assumed. The positive assessment of the SEZ policy by the current government and the impressive current statistics ought to be interpreted in the broader context of potential unintended economic and social costs that such a policy may generate. The available literature indicates that, indeed, for countries in the early stages of development, special zones can be an efficient and productive means of absorbing surplus labour. Even then, they are unlikely to be more than a modest part of the solution to the employment problems of these countries, as the Indian example well shows. The literature on SEZs indicates also that many countries with such enclaved zones have achieved very limited overall benefits.

<sup>52</sup> Each proposed zone must be first approved by the Board of Approval which is a central body and has 19 official members including the Secretary, Department of Commerce, representatives from other ministries and a floating state government representative. The Central Government notifies the area of an SEZ and in such notified SEZs operational units can be set up. All further approvals (e.g. of additional units) are then approved at the zone level by the Approval Committee consisting of the Development Commissioner (head of the zone), Customs Authorities and representatives of respective State Government. (see [www.sezindia.nic.in](http://www.sezindia.nic.in) or Mitra, 2008).

<sup>53</sup> It is not sure whether this data is reliable. See Para 101.

<sup>54</sup> The labour force figure refers to 2006.

96. The Chinese experiment with SEZs has been widely projected as a success in terms of economic liberalization and export performance but there is no unanimity in the case of India. China began experimenting with export zones in the early eighties and developed its own model of special economic zones. It now has five special economic zones which include the entire Hainan province, three cities (Shenzhen, Zhuhai, and Shantou) in Guangdong province and a city (Xiamen) in Fujian Province (Wang and Wei, 2007). It also has a number of other smaller special zones classified as Economic and Technological Development Areas (ETDAs), Hi-Technology Industry Development Areas (HTIDA), and Export Processing Zones (EPZs). Initially in late 1970s and early 1980s these policy zone were considered as a “windows to the west” and foci of a new phase of industrialization in China (Wang and John, 1986). In an otherwise closed economy, they offered relatively developed infrastructure facilities provided exclusively by the government, a hassle free environment and a generally conducive policy framework. These zones are reported to have made a significant contribution to China’s economic growth especially in the early stages of China’s opening up. Indeed, as reported, by Wang and Wei (2007) the share of SEZs in total China’s exports has fallen from around 10% in mid 1990s to below 5% in mid 2000s. Nevertheless, more recently the high tech zones (ETDAs and HTIDAs) have significantly increased they shares in China’s exports ( from 5.3% in 1995 to 15.4% in 2005) and were found to have significantly contributed to the raising sophistication of exports structures and their unit values (Wang and Wei, 2007).

97. India’s experience with EPZs, predecessors of SEZs, actually predated that of China but the special zone policy has not been part of a coherent national strategy until April 2000. In this sense India is more than 20 years behind China in devising a fully fledged special economic zone policy. Also, given that most India’s SEZs have just begun operations, it is rather early to compare them with those of China and to fully assess their performance and viability. Yet, even at this stage a number of differences can be highlighted. For example, unlike in China and other East Asian emerging markets attracting foreign direct investment was not the primary goal for Indian EPZs. Their goal was rather to provide “relief to the domestic exporters from the regulatory regime” (Kundra, 2000). Chinese SEZs received a large amount of FDI which represented a high percentage of total zone investment and investments were made almost exclusively in manufacturing production most of which was exported. In the case of Indian SEZs, the FDI is small in both absolute and relative terms in comparison to China and much of the investment is reported to be in property development, hotels, and other accompanying service sectors.

98. Indeed the generosity that India’s SEZs policy extends to investors and the structure of investment in the zones have been highly controversial with critics complaining about the forced expropriation of agricultural land and accusing state authorities and developers of speculating on land values. SEZ rules only require that 35% of a SEZ be devoted to productive activity. A developer can use the rest of the land to build apartments, hotels and commercial offices. Still, while the equity issues are important in the development of Indian SEZs and the government need to make sure that the price of land on which the SEZs are established reflect the market value, the concerns voiced by critics of the government policy about the impact on availability of agricultural land and food security do not seem to be well substantiated. The total area for the formally approved SEZs (67,772 hectares) as of September 2008 accounts for a mere 0.02% of total land and 0.4% of total India’s agricultural land, of which about a third was already in possession of the State Governments or State Industrial Development Corporations or with private companies at the time of approval. Thus the SEZs policy does not seem to be a major threat to agricultural land market.<sup>55</sup> In fact, a different concern may be more warranted. Namely, it is possible that Indian SEZs will not be as successful as China’s export zones precisely because of their small size. For example, the

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<sup>55</sup> In fact, an optional sale of land to industrial entrepreneurs at an attractive price can be a viable option for those who are willing to leave agriculture.

most famous Chinese export zone, Shenzhen, covers 32 600 hectares. The average size of approved SEZs in India is only approximately 128 hectares, compared to zones of 40 000 hectares or more in China.<sup>56</sup>

99. More importantly, many, including the Indian Finance Ministry, have expressed doubts about the ability of SEZ to provide additionality in terms of production, planned investment and FDI, especially in the context of significant amount of expected foregone tax revenue. According to WTO (2007) the government revenue forgone because of tax and import duty rebates in export processing zones and special economic zones amounted to Rs 559 billion in fiscal year 2006-2007. The Finance Ministry initially estimated the loss in direct taxes, customs and excise duties at 930 billion rupees and later revised it upwards to Rs 1,026 billion for the four year period 2006-07 to 2009-2010 of which customs concessions are to amount to Rs 297 billion, excise Rs 104 billion and service tax Rs 88 billion. Overall, this amounts to a loss of revenue of Rs 256 billion per annum, a half of the actual amount for 2006-2007.

100. Even if, as the government estimates, the revenues forgone were to be halved in the years to come, they remain quite substantial as compared to the estimated investment and export revenues they are supposed to generate. Indeed, these estimates of foregone revenue are rather high as compared with the 733 billion rupees, investment the SEZs have so far attracted or the 666 billion rupees of provisionally estimated exports revenue in fiscal year 2007-2008. While a sophisticated economic assessment of this issue would have to entail a detailed and long-term analysis of fiscal incentives and their impact on value added, exports and employment, a back-of-an-envelope type calculation suggests that the value added generated annually by the SEZs may be rather close, if not lower, than the amount of tax revenue forgone (given that the share of costs of intermediate inputs in the final value of Indian products often substantially exceeds 50%).

101. Apart from these systemic issues serious concerns about compliance with the SEZs policy have recently been raised by the Comptroller and Auditor General of India (CAG). In its performance audit-report on indirect taxes for Union Government presented to the parliament in March 2008 CAG reported that an audit of 370 SEZ units revealed the widespread malpractice of reporting domestic sales as exports earnings which resulted in an estimated loss of government revenue of Rs 20 billion. It is less clear what this means for the SEZs export statistics provided by the government and presented in Table 26. The loss was reported to result from incorrect self-reporting of import and export operations in order to qualify for the Net Foreign Exchange earner status required for membership of SEZs. This glitch in the system can most likely be easily fixed by amending the appropriate laws and specifying more precisely that foreign exchange should be earned by an SEZ through an actual physical export rather than a deemed export to domestic tariff area. Nevertheless, this example confirms the concerns about the effectiveness of the SEZ policy in delivering its objectives of boosting exports. It also exemplifies the potential for distortions and rent seeking behaviour in the economy.

102. To sum up, despite the potential of the SEZ policy to have a positive impact on India's commercial integration and infrastructural improvements India's government needs to remain vigilant and continue to reassess the economic benefits and implementation of this policy. From the evidence available so far these benefits remain open to question. As the recent OECD (2007c) study emphasised, EPZs are always a suboptimal policy from an economic point of view. They can provide an interim solution to countries with poor business environments where bridging deficiencies at a national level is temporarily impossible. This may seem to be the case in India—a large, low income country with enormous population, poor infrastructure and fiscal problems - but it would not be rational to treat this as a sustainable, long-term solution that can substitute for reforms aimed at making business easier for everyone. Even as a temporary solution, the benefits are not guaranteed especially if the rents associated with operating within SEZs

<sup>56</sup> The minimum area for a « multi product » SEZ is 1 000 hectares, for a « product specific zone » it is 100 hectares and for IT, biotechnology and jewellery, just 10 hectares.



create perverse economic incentives. As Raghuram Rajan succinctly notes “*if you create perverse economic incentives and then rely on bureaucrats to stand in the way of business exploiting those incentives, the outcome would be little more investment than would otherwise have happened and a lot less revenue, but much richer bureaucrats*”.

#### **4.7 The feasibility of “New Foreign Trade Policy” 2004-2009**

103. In 2004, the new government replaced the existing Export Import Policy (EXIM) with a five-year national *Foreign Trade Policy*. The goals of the *New Foreign Trade Policy* are to double India’s percentage share of global merchandise trade within the next five years. In 2004 when the government announced the new policy this was interpreted as achieving a 20% growth per annum in exports and increasing India’s share in world trade from 0.8% to 1.5% by 2009. As seen by the government, the ultimate objective of this policy is to use trade as an effective instrument of economic growth by giving a thrust to employment generation.

104. As far as means are concerned, the New Foreign Trade Policy<sup>57</sup> appears to be based on three main pillars:

1. Continuing liberalisation efforts by reducing tariffs, unshackling controls, simplifying procedures and bringing down transaction costs.
2. Extensive use of duty rebates and exemptions to neutralize the incidence of all levies and duties on inputs used in export products, and to stimulate exports from sectors with the highest potential to generate employment particularly in semi-urban and rural areas.
3. Establish export processing zones, so called special economic zones, to boost exports and harness FDI into infrastructure building

105. The objectives set for the *New Foreign Trade Policy* must be seen as quite ambitious given that the share of India in world merchandise exports reached only 1.1% in 2007. Whether the means by which the government envisages to achieve such an ambitious outcome will be sufficient is also unclear. In particular it is doubtful whether export-related duty exemptions and preferential treatment of economic agents operating in the SEZs are the best way to promote economic efficiency and growth. While strong exports are the sign of an economy’s competitiveness and the source of foreign currency earnings, exporting firms do not operate in a vacuum and discriminatory exports-oriented policies may in some circumstances bring more harm than good. At a very general macroeconomic level, Maintaining moderately high import tariffs along the system of exports-oriented duty exemptions can be called a system of “negative incentives” where common denominator means costs of production that are higher than in less protected transition countries with exceptions for those who are currently capable of exporting. This is bound to have a negative impact on Indian economy in general and perhaps even on exports since this activity is also carried out within inefficient national economy. Indeed, as much as 75% of capital in the SEZs originates from domestic sources. Is it plausible to expect an increased investment in exporting activity with policies that prevent the efficient domestic production?

106. In this context the two main elements on India’s *New Foreign Trade Policy* seem somewhat contradictory. On the one hand the across-the-board liberalisation efforts are to be continued. On the other hand duty exemptions and other privileges geared mainly towards export promotion are to be enhanced. In fact, if the first objective is realized, the second, at least when it comes to import duty exemptions, becomes redundant. It seems that across-the-board import duty reduction can have more beneficial

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<sup>57</sup> Foreign Trade Policy 2004-2009, Directorate General of Foreign Trade, Ministry of Commerce and Industry, Government of India, 2004.

economy-wide and export effects than selective duty exemptions in export sectors. We would therefore propose that a cost-benefit analysis of import duty reductions through duty exemptions and SEZs and across-the-board liberalisation be a subject of further work on India's trade within this project.

## 5. Productivity in India and its relation to trade liberalisation

107. A number of studies have attempted to identify and analyse the various determinants of productivity change in India. For example, Bosworth and Collins (2007) highlight that India achieved its economy-wide growth with relatively *little emphasis on capital accumulation* and more emphasis on *substantial gains in TFP*. This contrasts with China's and other East Asian countries' experience where growth performance had its source in both the very high rate of capital accumulation and TFP gains. Bosworth and Collins (2007) find that TFP growth in India more than doubled from an average annual rate of 1.1% during 1978-93 to 2.3% during the period 1993-04. The improved TFP contributed 1.2 out of 2 percentage points increase in output between the period preceding the reforms of 1991 and the period 1993-2004.

108. However, according to the same authors, the increase in TFP and its contribution to output growth was not uniform across sectors. The most rapid improvement of TFP is registered in services with almost 4% annual growth between 1993 and 2004. By contrast, TFP growth remained modest in both agriculture and manufacturing (0.5% annual increase in TFP in agriculture and 1.1% in TFP in manufacturing over the same period). Other estimates suggest that TFP growth in manufacturing accelerated from less than 0.5% in the 90s to around 2.5% between 2000 and 2005.<sup>58</sup> The relative contribution of TFP to productivity growth also diverges across sectors. In services and agriculture, TFP growth has been the main driver of output growth. In manufacturing, capital accumulation seems to have been a more important determinant.

109. In terms of *employment changes* and their impact on output growth (reallocation effects), agriculture continues to employ a very large share of labour suggesting that the expansion of employment to manufacturing and services is below potential. In manufacturing, about half of the growth is attributable to employment increases, but labour productivity is low compared to other countries in the region. By contrast, labour productivity is high in services (Bosworth and Collins, 2007) which means that relatively large output increases are possible with small labour increments.<sup>59</sup> These trends are consistent with the observed employment expansion for the economy as a whole where services-dominated dynamic growth was not accompanied by equally dynamic employment growth. Manufacturing also contributed to employment but most of this increase occurred in the informal sectors of the economy, where productivity and wages are generally much lower than in the formal organised sector (OECD, 2007c).

110. Overall, Bosworth and Collins (2007) show that approximately one quarter of output growth is due to reallocation effects. By contrast, Sivadasan (2006) focuses on plant-level evidence and highlights the lack of resource reallocation across plants. He estimates that productivity changes within plants are up to twice as important as resource reallocation across plants. This could be ascribed to market exit difficulties, rigidities imposed by inflexible labour market regulations (low migration across states) and the high concentration of production in some industries (OECD, 2007c). Finally, Bosworth and Collins (2007) highlight the limited contribution of education to productivity growth.

111. With respect to *the direct impact of trade policy measures* on productivity changes, a number of studies provide evidence on the positive impact of trade liberalisation on TFP growth. For example, using two-digit industry level data for Indian states for the period 1988-2000, Mitra and Ural (2007) find that a one percentage point reduction in the annual average nominal rate of protection (NRP) can raise labour productivity by between 0.2 to 0.5% points in states with rigid labour market policies and 0.3 to 0.7% in

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<sup>58</sup> OECD (2007c).

states with flexible labour markets. This means that the 88 percentage points reduction in average NRP across all two-digit sectors between 1980 and 1991 could have led to a 60% increase in average labour productivity in flexible states and 45% increase in average labour productivity in states with rigid labour markets. Corresponding impacts on TFP were estimated at 0.25% and 0.4% and on employment 0.9 and 1.1%.

112. Employing plant level and structural data through the mid 1990s Sivadasan (2006) found that sectors which experienced FDI liberalisation recorded the highest productivity and output increases of 18-23%. Industries where tariff liberalisation occurred registered around 33% productivity gains, thus suggesting that some sectors and firms have started benefiting from reforms in the '90s. Yet, another study of firm-level panel data for 1989 to 2001 (Topalova, 2003) finds that a 10% decrease in tariffs results in a 0.5% increase in total factor productivity and that the gains seem to be captured by existing firms with exit rates of unproductive firms remaining at low levels.

113. Finally, OECD (2007c) notes that most studies suggest that trade liberalisation and FDI reforms lead to divergences between firms and accordingly that overall productivity would have increased more if less productive firms has exited the market.

114. A number of other distortions are thought to be damaging to the manufacturing sector. Small firms have been favoured by industrial leading to extensive fragmentation of production and lower productivity (see Box 2). Consequently, manufacturing has not keep up with performance in similar countries.

#### **Box 2. Inconsistencies in Small Scale Industry Policy in India**

India's SME sector called Small Scale Industry (SSI) is reported to produce a wide variety of 7 500 products, contribute 40% of the gross industrial value added, 45% of the total exports and be second largest employer after the agricultural sector (Indian Office of Development Commissioner). SSI sector mainly satisfies the market for mass consumption goods such as: leather goods, plastic and rubber goods, ready-made garments, stationery items, domestic utensils, toothpaste, safety matches, preserved foods and vegetables, furniture, paints and varnishes. More sophisticated items produced by this sector include some simple electronic equipment and electrical household appliances, optical lenses, drugs and pharmaceuticals or electric motors. The product groups in which SSI dominate exports include: sports goods, ready-made garments, woolen garments and knitwear, plastic products, processed food and leather products.

The prominent role of SMEs in India's economy and the special problems that these type of producers face internationally explains the special efforts that Indian authorities are making to support it. This is done through institutional support, provision of construction sites, training facilities, supply of machinery on hire-purchase terms, marketing and export assistance, financial incentives to set up facilities in economically depressed areas and consultancy and financial assistance for technological upgrading. In this respect India is not different from OECD countries where SME promotion is an important part of industrial and entrepreneurship policy, even though it is, by definition, discriminatory.

Yet, notwithstanding the positive role that the SME promotion can play, the reservation of manufacturing of a number of items for small scale firms curbs development of all types of firms in India, including SMEs. As a part of its SSI policy India has an evolving list of products that can only be produced by firms of rather rigorously specified characteristics. The definition of small scale firms has been changing over the years and once included both the fixed assets and employment limits but currently eligible firms are defined as those with assets in plant and machinery of less than Rs. 10 million. A locational criterion also seems to play a role in the licensing decisions with SSI activity being preferred in areas where "there is techno-economic justification for such an approach". Only such licensed small scale firms can currently produce some 114 items including indigenous items such as *pickles and chutneys* but also some more technologically advanced products such as, for example, *amplifiers for entertainment and public address system*. While restriction of production of the former type of products could be argued on traditional or cultural grounds the restriction of electrical and electronic equipment or chemical products is likely to constitute a straight jacket for Indian industry. Larger firms will not be able to enter the markets should they find production of such items profitable or will have to fragment their assets across several smaller firms. This does not only mean forgone scale economies but simply cutting off firms that could produce under constant economies of scale but in larger amount. Additionally, this policy affects firms' production techniques making them more labour intensive than they actually are.

**Box 2. Inconsistencies in Small Scale Industry Policy in India (continued)**

For the SMEs this type of policy sets limits with respect to capital assets and, consequently, production size. For an SME that is at the limit of capital assets eligible for production of a SSI-restricted product is through employment expansion. Nevertheless, this is not efficient microeconomically since the marginal productivity of labour (an presumably the level of wages) declines and the marginal productivity of capital (the stock of which is restricted) raises calling for more investment which cannot happen. It is clear that microeconomically speaking restriction of capital can hardly be seen as employment-promoting policy.

In view of this discussion, the SSI product restriction policy in India stands in stark contrast with the objective of SME support which is, as stated by the Indian Office of Development Commissioner, to “encourage growth of small scale industries”. The SSI product restriction policy cannot convincingly contribute to such an objective.

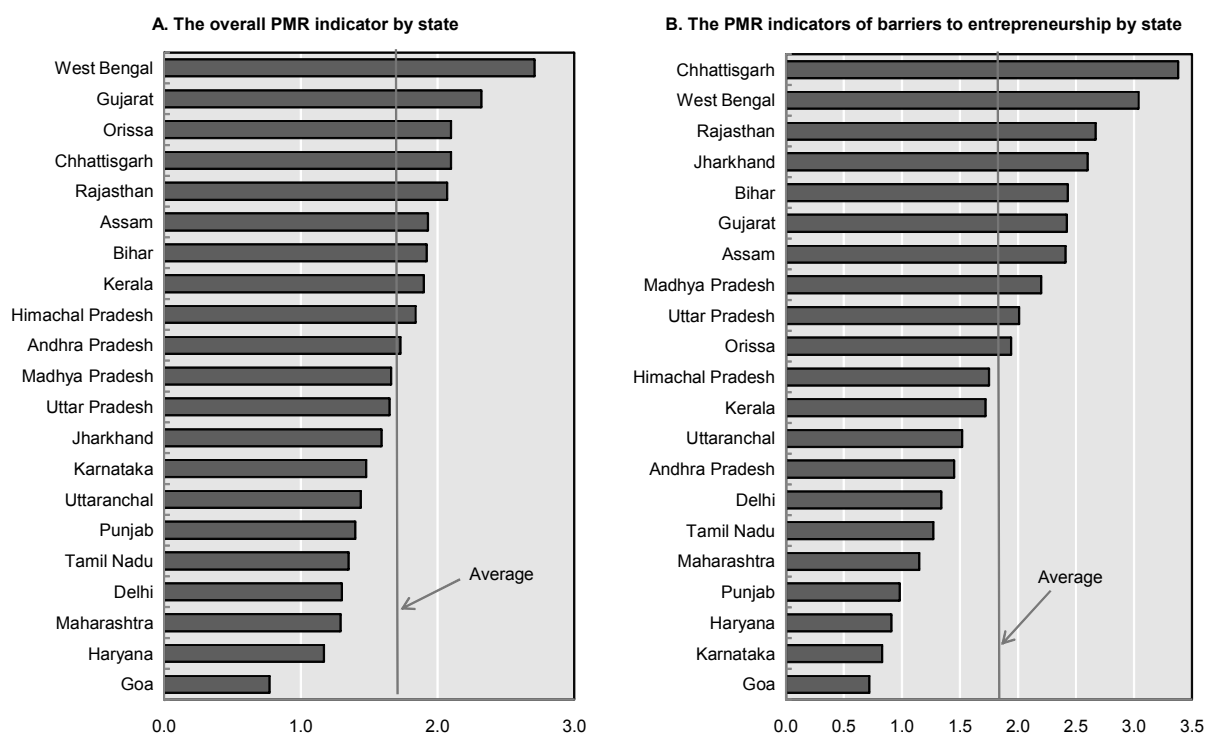
115. Furthermore, output trends across the manufacturing sectors are suggestive of labour market rigidities. In the post-reform era, output generated by labour-intensive manufacturing sectors actually declined and output produced by large-scale firms in capital-intensive industries rose sharply - a trend that is completely at odds with India’s relative abundance of low cost labour. Thus, instead of reverting to a traditional pattern of specialisation in labour-intensive sectors, the Indian economy specialised in skill-intensive sectors in manufacturing and in services, shifting resources directly from agriculture to services.

116. In addition to this sectoral divergence, an uneven performance at the Indian states’ level is also observable. Firms in states with best institutions are gaining while those in tightly regulated states are falling further behind (Kochhar *et al.*, 2006; OECD, 2007c). For example, Product Market Regulation (PMR)<sup>60</sup> indicators for 21 states, OECD (2007c) finds that more liberal states (such as Delhi, Tamil Nadu, Kerala, Maharaashtra, Punjab and Karnataka), where the overall level of PMR regulation is below India’s average (see Figure 14A), have higher labour productivity, attract more foreign investment, have a better infrastructure penetration and a larger share of employment in the private formal sector in comparison to the relatively more restrictive states (such as Bihar, Jharkhand, Orissa, Utar Pradesh, Chhattisgarh).

117. To a large extent, the differences in the PMR indicator across states are determined by differences in the degree of state control (that measures the degree of public ownership and the states involvement in business operation via command and control regulation and price controls) and barriers to entrepreneurship (that cover licensing procedures, administrative burdens on start ups, legal barriers to competition and antitrust exemptions). It is worth noting that the Indian leading states perform very well in some regulatory areas. The reforms in the past two decades seem to have successfully removed a number of formal legal barriers to market entry (such as licenses and permits to enter a particular sector) and the degree of regulatory and administrative opacity is quite low in the leading states. However, inefficiencies in terms of starting a new business and administrative burdens still remain in both leading and lagging states. Also, the degree of variation among states in terms of the overall entrepreneurship indicator (see Figure 14B) further explains India’s less favourable entry conditions and weaker performance than in other countries.

<sup>60</sup> The PMR indicator is a standardised procedure used to evaluate product market regulations in OECD countries in three key areas: state control, barriers to entrepreneurship, and barriers to trade and investment. See OECD (2005) Product Market Regulation in OECD Countries: 1998 To 2003, ECO/WKP(2005)6 for more information on this topic.

Figure 14. OECD PMR indicators by state



Source: OECD (2007c).

118. Nearly all states have seen a uniform shift towards services, but the share of public sector services is growing in the laggard states while the share of private sector services is growing in the fast-growing states.<sup>61</sup> Relating to our previous discussion, it is worth noting that even fast growing states have seen no change (or a negative change) in the share of manufacturing. Furthermore, where there was an increase it occurred in capital- and/or skill-intensive sectors. Picking up on this point, some analysts explain that the skill-based development in fast-growing states may impede development of labour-intensive sectors through increasing prices of skilled workers and further reductions in the profitability of unskilled-labour-intensive and tradable manufacturing.

<sup>61</sup> Kochhar *et al.* (2006).

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