



# Indian Economy: Structural Change and Long-term Outlook – Implications and Opportunities for New Zealand

Dhritidyuti Bose

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**AUTHOR**

Dhritidyuti Bose  
Senior Analyst, Macroeconomic and Fiscal Policy team, the  
Treasury

Email Dhritidyuti.Bose@treasury.govt.nz

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**NZ TREASURY**

New Zealand Treasury  
PO Box 3724  
Wellington 6008  
NEW ZEALAND

Email information@treasury.govt.nz

Telephone 64-4-472 2733

Website www.treasury.govt.nz

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## Abstract

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India could potentially be among the three largest economies by 2050. This paper tracks India's macroeconomic progress historically over five phases and identifies constraints across sectors/States to realising its growth potential. India's propensity for external solutions for its constraints could increase in future. The paper argues that if New Zealand helps India address some of its requirements in protein/processed food, retail products, infrastructure and higher literacy for youth, the potential opportunities for mutual engagement in trade, investment and education sectors between the two economies could scale up in future. A list of India's macroeconomic indicators is identified for monitoring these opportunities.

**JEL CLASSIFICATION** E61 POLICY OBJECTIVES  
O11 MACROECONOMIC ANALYSES OF ECONOMIC  
DEVELOPMENT

**KEYWORDS** Economic growth; structural change; long-term outlook

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# Indian Economy: Structural Change and Long-term Outlook – Implications and Opportunities for New Zealand

## 1. Introduction

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Asia is expected to become both the largest producer and consumer of goods and services in the global economy in this century. The Asian century has been recognised as an Australian opportunity. The Australian Government's white paper has recently set out pathways for increasing connections with the Asian economies (Australian Government, 2012). Among the Asian economies, while China would continue to dominate, India is expected to catch up to become among the three largest economies by 2050 (ADB, 2011). More importantly, India is expected to open up further to the global economy which could potentially increase opportunities for New Zealand in trade, investment and education sectors as India grows. A joint study group of the New Zealand and the Indian Governments had demonstrated that significant complementarities exist between the two economies (JSG, 2009). It found a considerable potential to increase bilateral trade and economic relations, particularly if tariffs and other barriers were adequately addressed through a Comprehensive Economic Cooperation Agreement or Free Trade Agreement.

The New Zealand Government envisions India to become one of its core trading, economic and political partners by 2015 (NZTE, 2011). This, however, calls for a nuanced assessment of prospects of the Indian economy, given its diversity, so as to identify opportunities for New Zealand. This paper seeks to address this objective. It examines India's historical growth drivers and structural constraints to its long-term growth potential so as to identify opportunities for New Zealand for deeper engagement across various sectors and States of the Indian economy. The paper argues that if New Zealand can help India in addressing some of its structural constraints then there lies some scope for a sustained mutually beneficial engagement between the two economies.

The paper is organised as follows. Section 2 tracks India's macroeconomic progress across five phases over the period 1951-2012. It sets out the key drivers behind India's structural transformation towards a high growth trajectory by the first decade of 2000s. Section 3 presents India's current global position and long-term growth outlook as set out by the Asian Development Bank (ADB) and Goldman Sachs. It assesses the robustness of these potential outlooks given structural constraints, particularly in infrastructure, and in the context of international risks. This section also traverses expected structural changes in demand/consumption patterns in India as per capita incomes rise and as the country becomes a more urbanised society. Section 4 explores opportunities for building linkages between New Zealand and India in trade, services and investment for goals set by the New Zealand Government under its *NZ-India Inc* Strategy. Section 5 concludes.

## 2. India's macroeconomic record

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### **Key Assessment**

*India's early efforts of liberalisation of controls in the 1980s and economy-wide structural reforms in the 1990s eventually lifted its overall and per capita real GDP growth from low and stagnant levels to above 8 percent and 7 percent, respectively, by the decade of 2000s prior to the recent global financial crisis.*

*Underlying this pattern of growth has been a switch from inward oriented development planning to a more open and market-friendly policy with a shift in strategy from building up the capital base of the economy towards improving the efficiency of capital use.*

### **2.1 Growth experience and reforms**

The Indian economy's growth history since 1950 can be analysed across five distinct phases. Recent turning-points include efforts at liberalisation in 1980s, economy-wide structural reforms in the early 1990s and the adoption of a rules-based fiscal policy-making framework during the 2000s. The underlying policy framework evolved from an inward-oriented development planning model to a more internally and externally liberalised market-friendly one with potential, at present, for further efficiency-enhancing reforms. Facilitated by this evolving economic policy stance, and a deceleration in population growth, the average growth of real GDP per capita rose from 1.3 percent per annum to cross 7.0 percent per annum across the phases (Figure 1).

**Phase I (1951-80)** began with India adopting a growth model strategy, essentially a Harrod-Domar type<sup>1</sup>. Under this planned approach to development, there was a linear link between published five-year economic growth plans and specified targets for investment and saving rates. The underlying objective was to enhance the growth rate through raising saving and investment rates. Sectorally, the model for the second five-year plan (1956-1961) favoured allocation of investment towards the capital goods sector for the purpose of enhancing long-term growth prospects, rather than the consumption goods sector. Inter-industry allocation of investment was based on existing and new projects as screened by ministerial committees and the Planning Commission. From the 1960s, the calculation for sectoral allocation became more intensive using a commodity balances approach (Eckaus, 1967).

Backing a heavy industry-led development process within a mixed economy framework, the Central Government took the lead in establishing industries in core and heavy industries supported by big private companies selected *via* a licensing system. There was a residual unlicensed part of the economy kept for consumer industries, which by the 1970s began to be reserved for the small -scale and medium-scale firms. Monetary policy was aligned with fiscal policy objectives directed at financing industrial development. While economic growth was essentially to be driven by boosting the saving rate, available foreign resources were to be rationed across select industries. Foreign aid was used to cushion society from the effects of food shortages, particularly during a period of droughts in the mid-1960s, and also to finance research in agriculture that triggered agriculture

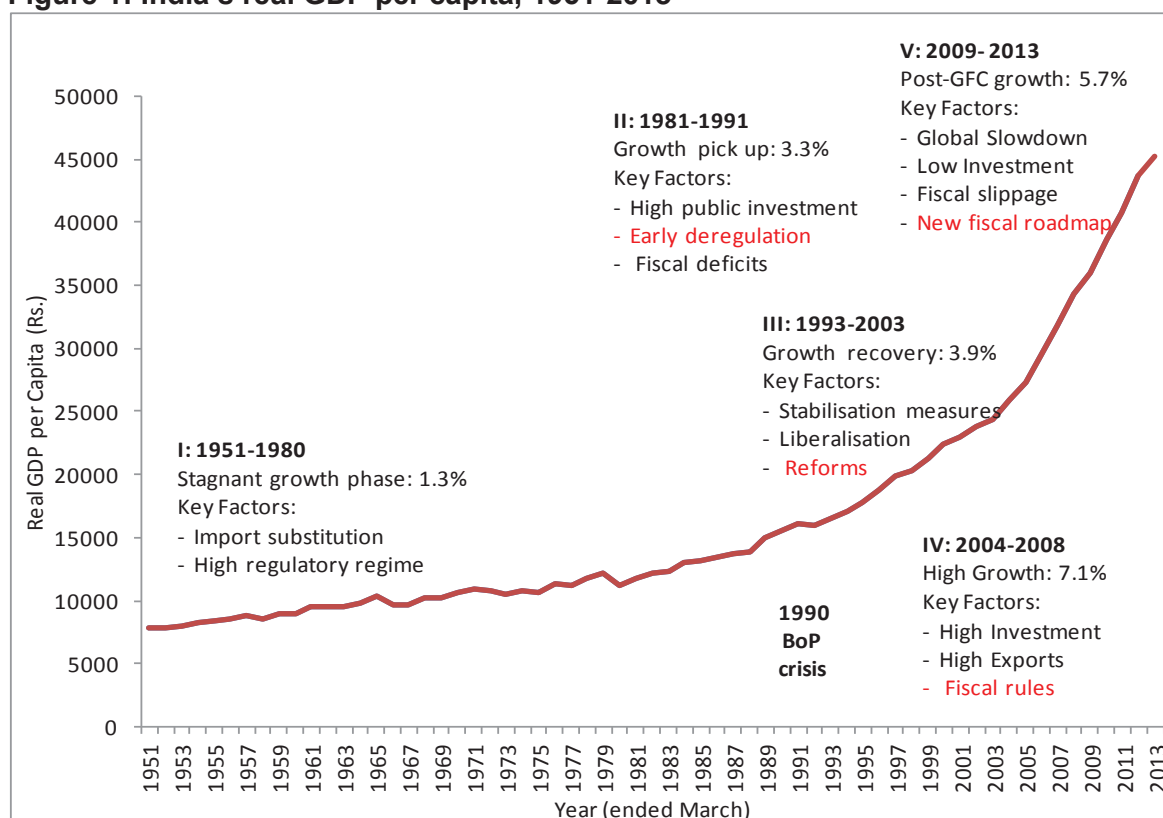
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<sup>1</sup> See Ghosh, A (1968).

productivity growth through the Green Revolution (in the form of foreign investment directed at technology-induced hybrid seeds by the late 1960s). Resource support for agriculture and other priority sectors from banks in consonance with government policy was facilitated by a programme to nationalise banks. While the Indian economy remained quite resilient to the twin oil shocks of the 1970s reflecting its inward strategy and support from foreign remittances from Indians abroad, drought and its impact on agriculture slowed the pace of growth towards end of the 1970s decade.

Placing together the first three decades of Indian planning under Phase I (Figure 1) captures the poor macroeconomic outcomes of the period (average annual real GDP growth of 3.5 percent and an average per capita GDP growth of 1.3 percent) – poorer than envisaged by the original planners, although the Indian economy did establish a heavy industrial base and raise its investment and saving rates during this period. The key problem was low returns on investment. Production inefficiencies (total factor productivity (TFP) growth hovered around 1 percent during this phase as compared with above 2 percent subsequently) reflected adoption of an inward looking policy stance at a time when world trade was expanding rapidly and also the prevalence of regulatory controls on industry and trade (Acharya, 2007). Investment licensing impeded domestic competition, while import licensing eliminated foreign competition.

**Figure 1: India's real GDP per capita, 1951-2013**



Source: Central Statistical Organisation, Government of India 2012-13

In order to break away from this low-growth phase, **Phase II (1981-91)** was marked by an early and quiet attempt at liberalisation of controls. With many parts of industry lobbying for the liberalisation of import controls on their industrial inputs and machinery, policy worked towards expanding the list of freely importable capital goods and intermediate inputs with virtually no conditions ('open general list' to 30 percent of total imports by 1990). Together with export incentives and rupee depreciation, this programme helped to ease the cost-burdens imposed by the country's high import tariff regime. Industrial de-licensing in 31 sectors during this period also freed machinery imports under OGL further



from the ambit of licensing. Improved agricultural performance also created space for non-food imports (Panagariya, 2004). The general policy stance shifted away from capital accumulation *per se* to one in favour of the most efficient use of capital, a process which facilitated raising TFP growth to 2 percent. Along with an expansionary fiscal stance, this raised overall growth to 5.6 percent and more than doubled per capita income growth to 3.3 percent during Phase II. Although some early reforms to the tax system (such as reducing the marginal income tax rate from a high of 94 percent and the introduction of modified value added tax system<sup>2</sup> in excise duties) were intended to expand the government's revenue base, the combination of an unimpeded expansionary fiscal stance together with the monetisation of fiscal deficits conspired to produce a balance of payment crisis for India. The crisis was triggered by a deteriorating external sector in the wake of the Gulf War in 1990. Consequently, growth dipped to below 2 percent in 1991-92.

Macroeconomic instability, however, provided an opportunity for not only the invoking of emergency stabilisation measures (rupee devaluation, reduction of fiscal deficits and special balance of payments financing support from the IMF and World Bank) but also for the government to undertake wide ranging reforms during **Phase III (1993-2003)** in the external, government, industry, agriculture and financial sectors. Key external sector reforms included removal of quantitative import restrictions (except those relating to security, health, safety and moral conduct), gradual capital account liberalisation including promotion of foreign direct investment, raising the upper limit of foreign ownership in most sectors (such as telecommunication, manufacturing and banking) to 100 percent, relaxation of foreign exchange restrictions and market determination of the exchange rate. The government sector reforms included tax reforms (with a reduction in the number and level of tax rates and a broadening of tax base with the removal of exemptions including bringing many services under the tax ambit), disinvestment (and autonomy of many public sector enterprises). In industry, the reforms included abolition of the licensing system, a sharp reduction in industries reserved for the public sector and freer access to foreign technology. In agriculture, a more remunerative procurement system for cereals was introduced. Key financial sector reforms included doing away with automatic monetisation of fiscal deficits, reductions of the central bank's statutory pre-emption ratios of banking system's resources, freeing of interest rates, abolition of government controls on capital issues and phasing in of Basel prudential reforms. These reforms led to a recovery of real GDP growth to 5.9 percent and per capita income growth increased to 3.9 percent.

**Phase IV: (2004-2008)** was marked by a strengthening of the institutional framework of the public sector (with the introduction of fiscal rules stipulating medium-term fiscal indicator targets, doing away with direct monetisation of fiscal deficits and principles relating to fiscal sustainability and transparency) and further deregulation across various segments of financial markets. Facilitated by global economic recovery which underpinned strong export performance, real GDP growth attained 9 percent successively for a three-year period ending 2007-08, thereby enabling the Indian economy to record an average real GDP growth of 8.7 percent during this phase, and a per capita real GDP growth of 7.1 percent.

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<sup>2</sup> Under the modified value added tax (MODVAT) scheme (introduced from March 1986), a manufacturer could take credit of excise duty paid on raw materials and components being used in the manufacturing activity.



The global financial crisis of 2008 and the industrial slowdown dragged real GDP growth down below 8 percent. The fiscal stimulus package used to address the slowdown led to a breach of fiscal targets. Meanwhile, incipient signs of economic recovery got arrested, as monetary policy switched from a soft to a tighter mode from March 2010 to contain emerging price pressures. This has resulted in a reduction of real GDP growth from above 9 percent to 5 percent by 2012-13. Accordingly, the average real GDP growth during the **Phase V (2009-2013)** works out to around 7.2 percent and per capita real GDP at 5.7 percent.

## 2.2 Structural transformation of the Indian economy

### **Key Assessment**

*Alongside growth acceleration, India has recorded a steady increase in the share of services and a decline in the share of agriculture in GDP. Stagnation in the share of manufacturing has been a source of policy concern.*

*Households have been the dominant contributor to domestic savings over the years, while the contribution of private corporate and public sectors rose during the first half of the last decade, reflecting technology gains and rule-based fiscal consolidation, respectively.*

*Private consumption has been the mainstay of India's demand over the years, while investment and export demand grew in prominence after 2002.*

*India's foreign trade picked up after 2000 reflecting not only its progressive openness, but also greater significance of petroleum products.*

The transformation of the Indian economy has the following features. The Indian economy migrated to a high-growth trajectory from 2000 onwards, notwithstanding some moderation after the global financial crisis in 2008. There has been a steady increase in the share of the services sector in GDP, while the share of agriculture has declined. A potentially worrisome feature, however, is that there has not been any increase in the share of manufacturing since the 1990s despite the introduction of economy-wide reforms. The domestic saving rate picked up from the 1990s with the household sector being the prime contributor. The deterioration of public sector savings was arrested during 2003-07, reflecting the operationalisation of fiscal rules. This, however, could not be sustained in Phase V on account of post-GFC stimulus. Finally, the corporate sector saving rate picked up since the 1990s, reflecting not only the impact of economic reforms, but also productivity gains made on account of technology improvements leading to high profitability (Table 1).

**Table 1: Structural Changes – Supply Side Dynamics**

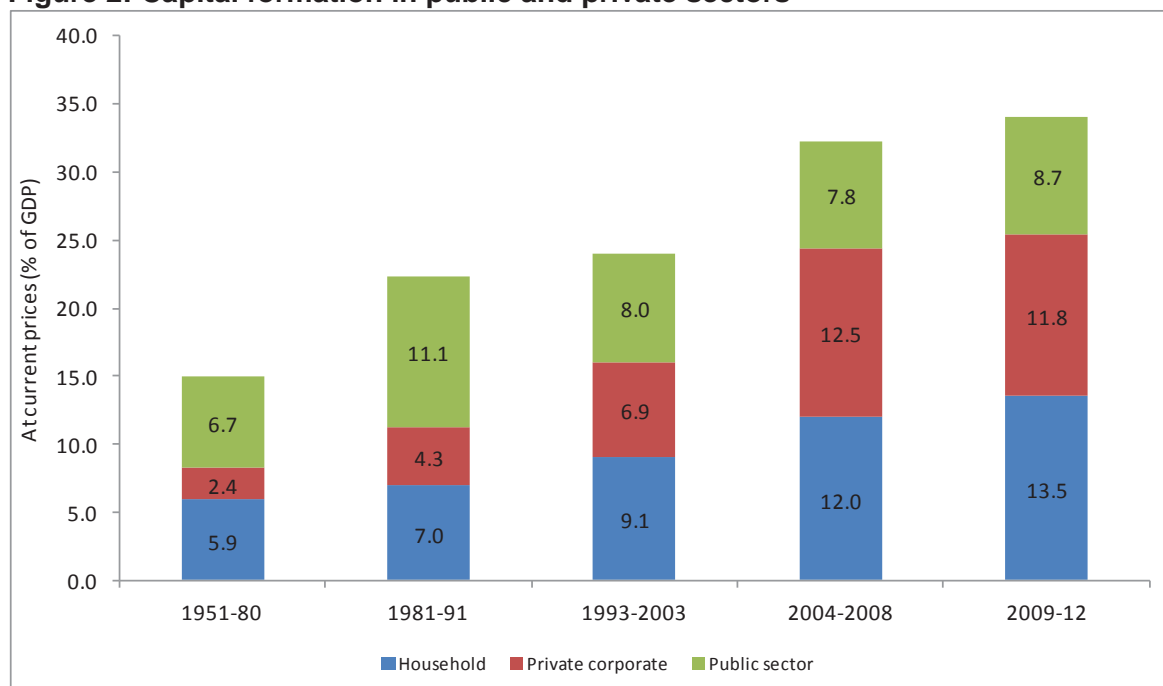
Item	Phase I 1950/51 to 1979/80	Phase II 1980/81 to 1990/91	Phase III 1992/93 to 2002/03	Phase IV 2003/04 to 2007/08	Phase V 2008/09 to 2012/13
1. Real GDP growth (%)	3.5	5.6	5.9	8.7	7.2
2. Shares in GDP (%)					
2.1. Agriculture	43.9	32.7	24.9	18.4	14.5
2.2. Industry	23.6	27.0	27.5	28.1	27.9
<i>Of which: Manufacturing</i>	12.0	14.7	15.4	15.6	15.8
2.3. Services	32.5	40.3	47.6	53.5	57.6
3. Gross Domestic Saving Rate (% of GDP)	13.4	19.0	23.7	33.3	32.6
3.1 Household Sector	8.9	13.7	19.1	23.2	23.6
3.11 Financial Saving	2.9	6.7	9.9	11.2	13.6
3.12 Physical Saving	5.9	7.0	9.1	12.0	10.0
3.2 Public Sector	3.3	3.5	0.8	2.9	1.3
3.3 Private Corporate	1.3	1.8	3.8	7.2	7.7
4. Gross Capital Formation (% of GDP)	15.0	22.3	24.2	33.4	36.1

Note: The year, 1991-92, is excluded from the periods as it reflected the impact of its balance of payments crisis the year before.

Source: Economic Survey, Government of India 2012-13

On the demand side, the investment rate (or rate of capital formation) also picked up from the 1990s and reached 35 percent of GDP by the late 2000s. A notable feature has been that investment has been predominantly financed through domestic saving, although the saving-investment gap widened to its highest value of 3.1 percent during Phase V. Structural dynamics historically shows that the public sector took a lead role in contributing to the capital formation prior to the 1990s. Subsequently, contributions of the private and household sectors have picked up (Figure 2).

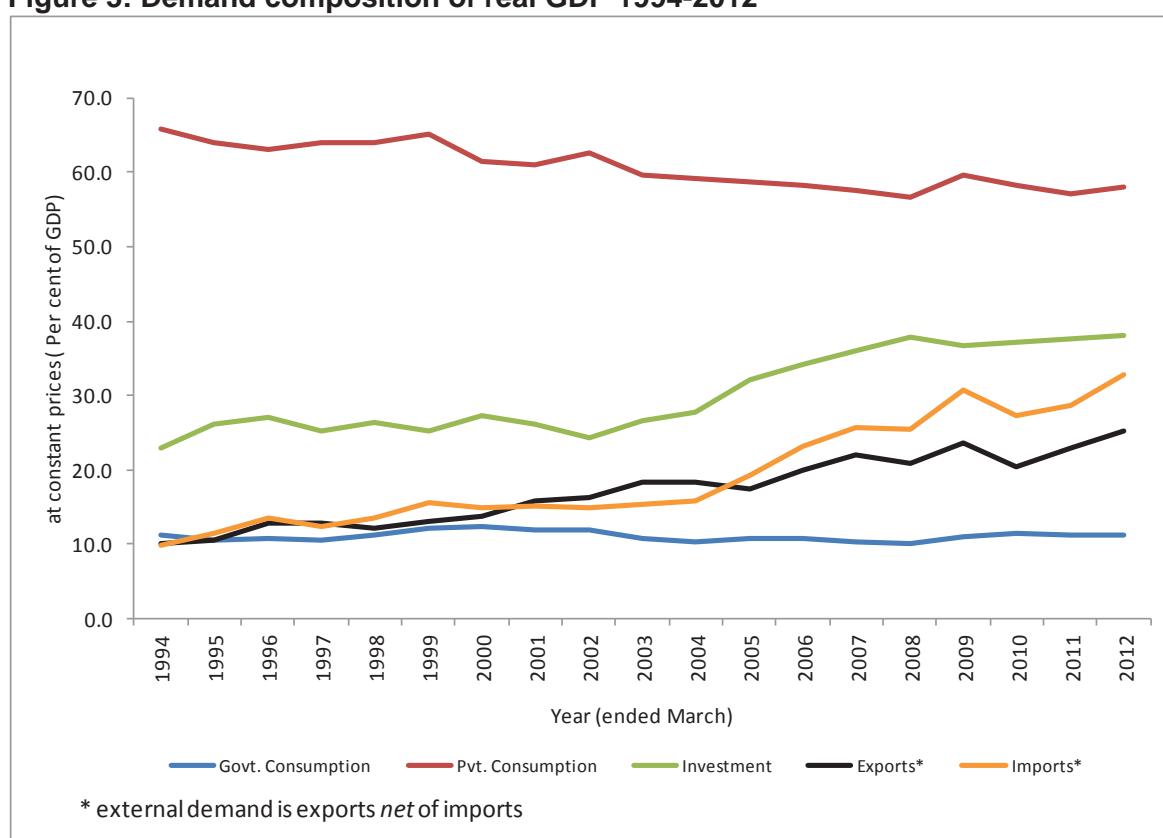
**Figure 2: Capital formation in public and private sectors**



Source: Economic Survey 2012/13, Government of India 2013

An analysis of the composition of demand based on expenditure-side GDP measures shows that while historically private consumption has constituted more than half of GDP<sup>3</sup>, there has been a general decline in private consumption as a share of expenditure GDP since the early 1990s. On the other hand, investment demand gained prominence, crossing about one-third of GDP after 2006/07 reflecting more than a doubling of corporate investment rates during 1999-2006. The government consumption component of expenditure GDP came down during 2000s, reflecting fiscal rules aiming at eliminating revenue (essentially operational) deficits<sup>4</sup> of the government. Another feature has been a steady increase in the share of exports of goods and services in GDP from around 6 percent in the early 1990s to around a quarter by 2012/13. There has been a sharper increase in imports since 2005, although the steep increase in recent years has primarily been on account of gold and oil imports (Figure 3).

**Figure 3: Demand composition of real GDP 1994-2012**



Source: Economic Survey 2012/13, Government of India 2013

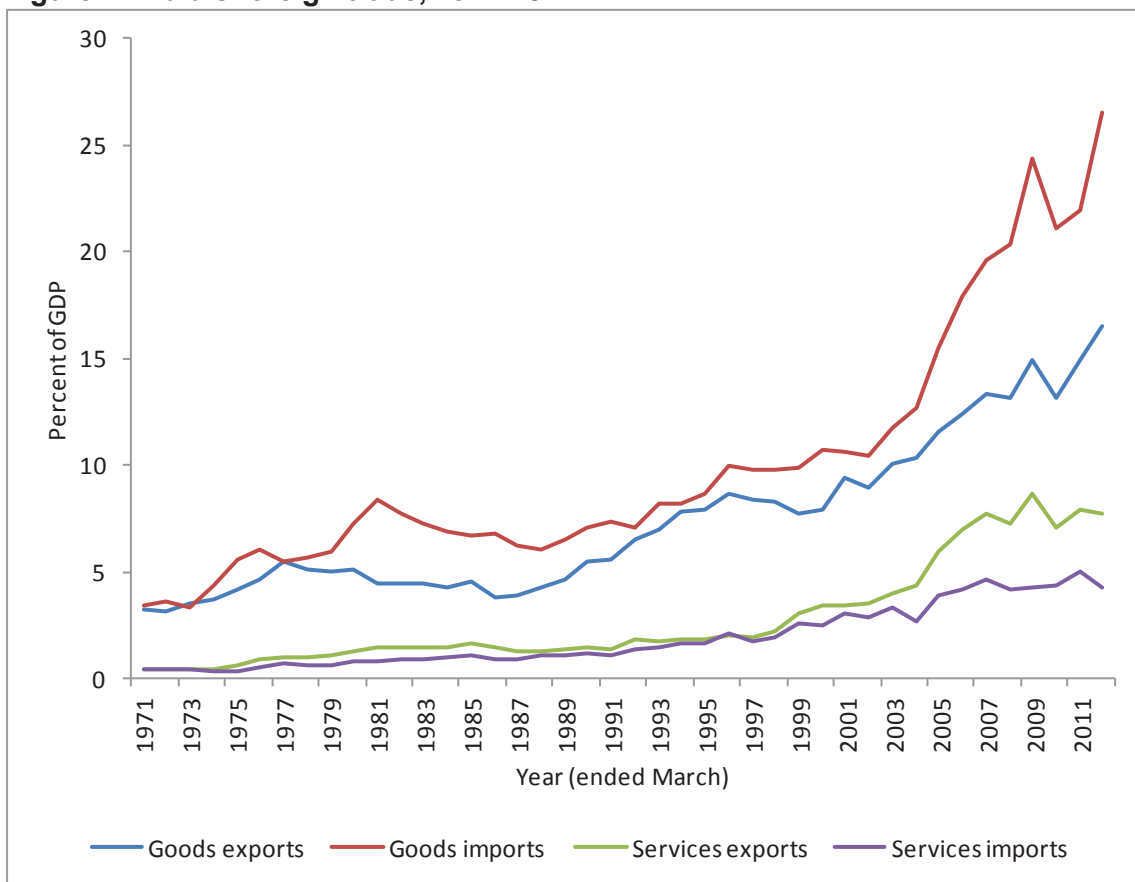
India's merchandise goods foreign trade picked up after 2000 reflecting not only its progressive openness but also the greater significance of petroleum products (Figure 4). In exports, the share of oil products rose from below 1 percent to around 18 percent; in imports, their share more than doubled from around 15 percent to around 32 percent over 1999-2012. Manufacturing products have constituted the largest share of exports (around 71 percent since 1998-99) with the pick-up since late 1990s reflecting buoyancy in engineering goods (particularly transport equipment and machinery), chemical goods and gems and jewellery, while the amount of leather, textile and handicraft products has

<sup>3</sup> Here GDP is the sum of consumption, investment, exports net of imports and ignores statistical discrepancies.

<sup>4</sup> The revenue deficit is the excess of current expenses over current revenues or the balancing item in the 'revenue account' of government budgets in India.

reduced. On the other hand, agriculture exports (with a share of around 12 percent of total exports since 1998-99) have remained stagnant with rice being the mainstay, raw cotton, sugar and meat products gaining in importance, and tea, coffee, cashew and marine products becoming less important. Besides oil, gold and silver, India's imports mostly consist of capital goods (machinery, electronic goods and transport equipment) and export-related goods (pearls, precious/semi-precious stones and chemicals). India's services exports grew sharply since 2000, which led to a surplus in the invisibles<sup>5</sup> account of balance of payments to substantially offset deficit in the merchandise trade account. Growth of exports of services has been rapid in the miscellaneous services category comprising business, software, financial and communication segments. India's services imports also rose since 2000 and the growth has been spread across various segments. The growth of services trade became erratic during the global crisis period.

**Figure 4: India's foreign trade, 1971-2012**



Source: Handbook of Statistics of the Indian Economy, Reserve Bank of India, 2012

<sup>5</sup> The invisibles in India's balance of payments statistics refer to the current account transactions relating to

### 3. India's current position and future economic outlook

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#### 3.1 India's relative position in Asia and the world

##### **Key Assessment**

*India's per capita income has been increasing quite rapidly in recent decades and its economy could potentially overtake Japan by 2027 and become the third largest behind China and the US by 2050 as per the Goldman Sachs's 'dream scenario' long-term outlook.*

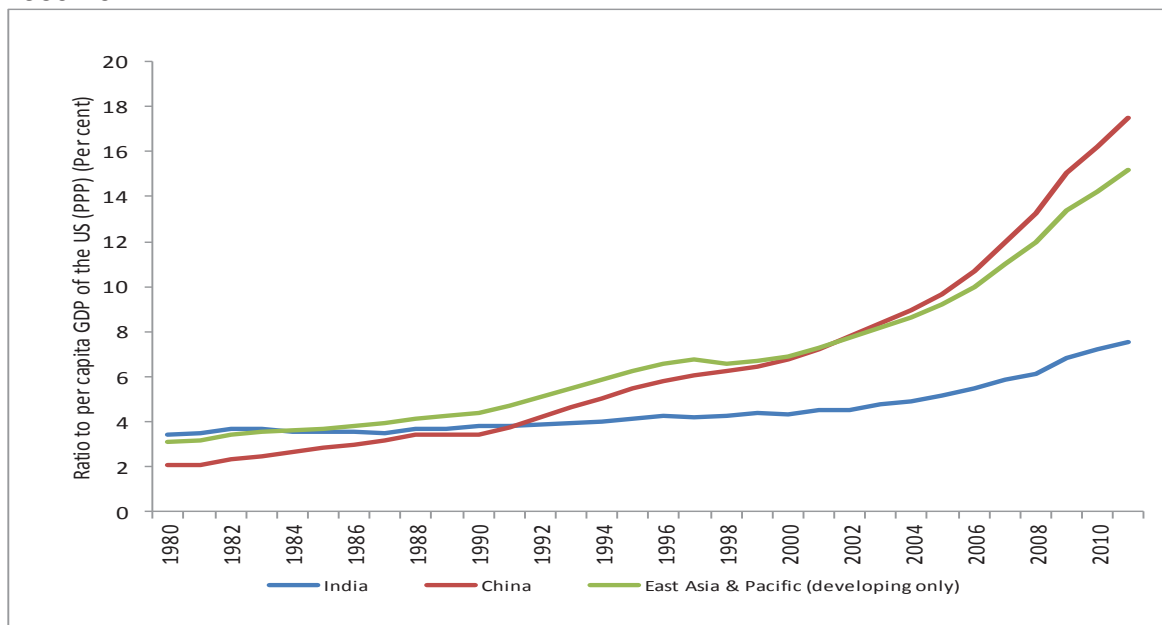
*While India is projected to account for 14 percent of global GDP (at market exchange rates), the same as the US, by 2050 according to the Asian Development Bank (ADB's) "Asian Century Scenario," this is premised upon a faster convergence towards global best practices with the speed assumed proportional to the technology gap between India and the US.*

*ADB has identified major or "mega" challenges for Asian economies towards attaining Asian Century potential. Should India falter in addressing major challenges both domestic and external, India could stagnate into ADB's "Middle Income Trap Scenario" with its share placed at 6 percent of global GDP by 2050.*

*India's current state of readiness towards the mega challenges shows that decline in poverty ratio, reduction in income inequalities and strengthening of its banking system are positives. However, India is not yet ready for addressing challenges relating to governance and excess pressures of a booming population on natural/food resources.*

India became a lower-middle income economy in 2008, when its per capita gross national income edged above the threshold level US\$1,025 (current US\$). India's per capita income is converging to that of developed economies proxied by the US but this process in recent decades has been at a far slower pace than China and the East Asian (developing) economies (Figure 5). In the immediate aftermath of the global financial crisis, however, sharper slowdowns elsewhere has strengthened India's relative position globally (Table 2). India doubled its per capita income of 1950/51 by 1990/91 but thereafter doubled it in only 15 years by 2006/07. If India maintained its trend, it was anticipated that it could double its real per capita income since 2006/07 in about 10 years by 2017/18 (Mohanty 2012).

**Figure 5: Per capita incomes of India and other Asian economies relative to the US, 1980-2011**



Source: World Development Indicators, World Bank

**Table 2: India in the World Economy**

Item	2002	2003-2007 (average)	2008-2011 (average)	2011
1. GDP in US \$ terms (percent share in world)	1.5	1.8	2.3	2.4
2. GDP PPP Based (% Share in world)	3.8	4.3	5.3	5.7
3. Contribution to world growth (%)	8.7	9.9	15.7#	13.7
4. GNI per capita (US\$)	470	728	1,213	1,410
5. GDP per capita PPP based (US\$)	1,673	2,225	3,282	3,694
6. World: GDP growth (%)	2.9	4.7	2.8	3.9
7. India: GDP growth (%)*	4.6	8.6	7.7	7.1

# 2009 is excluded as World GDP growth was negative.

\*Calendar year growth as per the IMF.

Source: Mohanty (2012)

Over the long term, India could potentially become the world's third largest economy behind China and the US by 2050, as per Goldman Sachs's post-GFC 2008 "Dream Scenario" update (Goldman Sachs, 2009). India could overtake Japan and China could surpass the size of the US economy by 2027. The average rate of growth, however, is expected to slow down through the decades as these economies expand and converge towards the productivity growth of the developed economies. India's growth could become the fastest amongst the BRICs by 2040s (Table 3).

**Table 3: Average Growth Projections of Goldman Sachs**

BRICs	2011-20	2021-30	2031-40	2041-50
Brazil	4.6	4.4	4.4	3.9
Russia	4.4	3.1	2.4	1.5
India	6.5	6.4	6.6	5.8
China	7.9	5.7	4.4	3.6

Source: GS Global ECS Research, 2009

The Asian Development Bank (ADB) projected Asia's long-term potential economic outlook in terms of an optimistic (Asian Century) and pessimistic (Middle Income trap)



scenarios (ADB, 2011). According to the Asian Century Scenario, Asia is projected to account for around 51 percent of global GDP (at market exchange rates), with China accounting for 22 percent and India for 14 percent (same as the US) by 2050. Technology in China and India, among other Asian economies, would continue to converge to global best practices as it has been in the past two decades. A faster convergence for India is premised upon the speed being directly proportional to its greater scope of a technology catch-up than China. This would be based on technology transfers from developed economies, leapfrogging in some areas and their suitable assimilation in management and operational research. Notably, in the new economy segments (electronics, information technology, communications, drugs and biotech), where some Asian economies are already nearing the global cutting edge, the others in the region would benefit from geographical spillovers. India is expected to benefit from a larger labour force by 2050 (nearly 1 billion, with an increase to 25 percent more workers than China). In contrast, India had 24 percent fewer workers than China in 2012. According to the UN's population projections, China's labour force could decline from 2020. Further, the gap between male and female participation rates is expected to narrow down in India. In absolute terms, additions to global capital is expected to increase from USD5 trillion in 2012 to USD10 trillion by 2050, with the share of China, India and other converging Asian economies to increase from 45 percent to almost 75 percent of net additions.

At the other extreme, the ADB's pessimistic scenario projected that China and India along with other converging Asian economies could stagnate in the category of middle income economies as was experienced by Latin American economies for a period in the late 20<sup>th</sup> century. They could gradually stop converging between 2015 and 2020. With the relative distance from the US TFP levels being the scaling factor, India's outlook switches from more to less favourably biased *vis-a-vis* China as the convergence coefficient is reduced from 1 to 0 across the Asian Century and Middle-income Trap Scenarios (Table 4).

The precise long-term path between these two extremes would depend upon how the converging Asian economies address policy and institutional challenges. India's current state of readiness to take up the ADB's 'mega' challenges is shown in Table 4. India has performed well in terms of reducing its poverty ratio and income inequalities. Its banking system is strong. However, India still lacks strong governance framework and institutions for addressing excess pressures of a booming population on natural/food resources to enable attainment of the Asian Century Scenario.

**Table 4: ADB's Economic 2050 Outcomes and mega challenges versus India's current state of readiness**

Country/Group	Asian Century Scenario		Middle Income Trap Scenario	
	GDP (trillion MER)	GDP per capita (\$PPP)	GDP (trillion MER)	GDP per capita (\$PPP)
Asia	148 (51%)	38,600	61(32%)	20,300
China	63 (22%)	47,800	21 (11%)	23,700
India	40 (14%)	41,700	12 (6%)	17,800
US	40 (14%)	98,600	40 (21%)	98,600
World	292	36,600	191	25,900
<b>Mega Challenges identified by ADB</b>		<b>India's readiness: Present Strengths versus weaknesses</b>		
Intra-/Inter-country inequities; Middle income trap; Limited natural resources; Climate change; Governance/institutional capacity		<ul style="list-style-type: none"> <li>Poverty ratio down (by 8.1 %age points, except MP &amp; Uttarakhand), unemployment rates down, has become more intermittent/rural (2004-09); lower income inequality (<i>gini</i>: 36.8 against China: 41.5); growth more services oriented, needs to develop skill-intensive manufacturing in tune with domestic/external demand to avoid middle income trap;</li> <li>Ranked 122 out of 132 countries in environmental performance, with pressures on natural/food resources from high current inflation, particularly food due to monsoon failures/item specific excess demand, population overdependence on agriculture, scarce Himalayan/ground water supply, oil imports meeting 80% of needs, controlled petroleum pricing and rising urbanisation but CO<sub>2</sub> emissions among lowest (1.5 metric tonnes/capita);</li> <li>Institutional dilemmas for addressing infrastructural dilemmas, issues of corruption, reform delays and fiscal rule slippages point to credibility issues for institutional framework, while banking system remains sound unlike China</li> </ul>		

MP: Madhya Pradesh; MER: Market Exchange Rates; PPP: Purchasing Power Parity  
 Source: ADB (2012) and Economic Survey 2011/12, Government of India

To assess India's chances of realising its potential, there is a need first to analyse past dynamics of growth drivers across agriculture, industry and services in India relative to those of China and other developing Asian economies and then examine the short-term and long-term issues to be addressed within the three sectors.

### 3.2. Growth drivers of India relative to other Asian economies

#### Key Assessment

*Growth-accounting analysis shows that the sharp acceleration in India's growth since the early 1990s has been contributed by all factors of production, particularly technology. Nonetheless, the scale of contributions of technology and capital deepening remained far lower than the levels in China, thereby explaining inability of India's growth levels to match up to Chinese levels.*

*On the positive side, technological gains enabled India to achieve higher services sector growth per worker than that of China even with a more moderate contribution from capital formation. India's manufacturing sector benefitted from technological gains. The sector's growth, however, trailed behind Chinese growth reflecting lower technology contributions and capital deepening levels.*

*On the negative side, India's agricultural growth trended down, reflecting a loss in contributions from technical progress and investment unlike China which could sustain agriculture productivity growth through fundamental reforms.*

Growth-accounting studies show that India accelerated its average economic growth of 1993-2004 over that of 1978-93 more sharply than the increase of China – reflecting a doubling of contributions of technology/physical capital and only a moderate deceleration in labour force growth, as compared with that of China. Technology grew to become an important contributor to labour productivity both in China and India, unlike in remaining developing East Asia where it has diminished in relative importance (Bosworth and

Collins, 2008). Physical capital also grew to become an important contributor for India, matching East Asian levels though lagging behind the capital deepening levels of China as it pursued investment-led growth process. India's rates of growth of output and output/capita growth rates became higher than those of other East Asian economies during 1993-2004 but remained lower than the Chinese growth rates (Table 5).

**Table 5 : Sources of Growth: India, China and East Asia, 1978-2004**

(annual percentage rate of change)

Period	Country/Group/ Sector	Output	Employment	Output per worker	Contribution to output/worker of		
					Physical Capital	Education	Total Factor Productivity
1978-1993	India	4.5	2.1	2.4	0.9	0.3	1.1
	Agriculture	2.7	1.4	1.3	0.1	0.2	1.0
	Industry	5.4	3.3	2.1	1.4	0.4	0.3
	Services	5.9	3.8	2.1	0.3	0.4	1.4
	China	8.9	2.5	6.4	2.4	0.4	3.5
	Agriculture	5.2	0.9	4.3	2.2	0.3	1.7
1980-1993	Industry	9.3	4.4	4.9	1.5	0.4	3.0
	Services	11.3	6.5	4.7	1.8	0.4	2.5
	East Asia*	7.3	2.7	4.6	2.6	0.6	1.4
1993-2004	India	6.5	1.9	4.6	1.8	0.4	2.3
	Agriculture	2.2	0.7	1.5	0.6	0.3	0.5
	Industry	6.7	3.6	3.1	1.7	0.3	1.1
	Services	9.1	3.7	5.4	1.1	0.4	3.9
	China	9.7	1.2	8.5	4.2	0.3	3.9
	Agriculture	3.7	-0.6	4.3	2.3	0.2	1.7
1993-2003	Industry	11.0	1.2	9.8	3.2	0.3	6.1
	Services	9.8	4.7	5.1	3.9	0.3	0.9
	East Asia*	4.5	2.0	2.5	1.8	0.5	0.3

\* Excludes China

Source: Bosworth and Collins (2008)

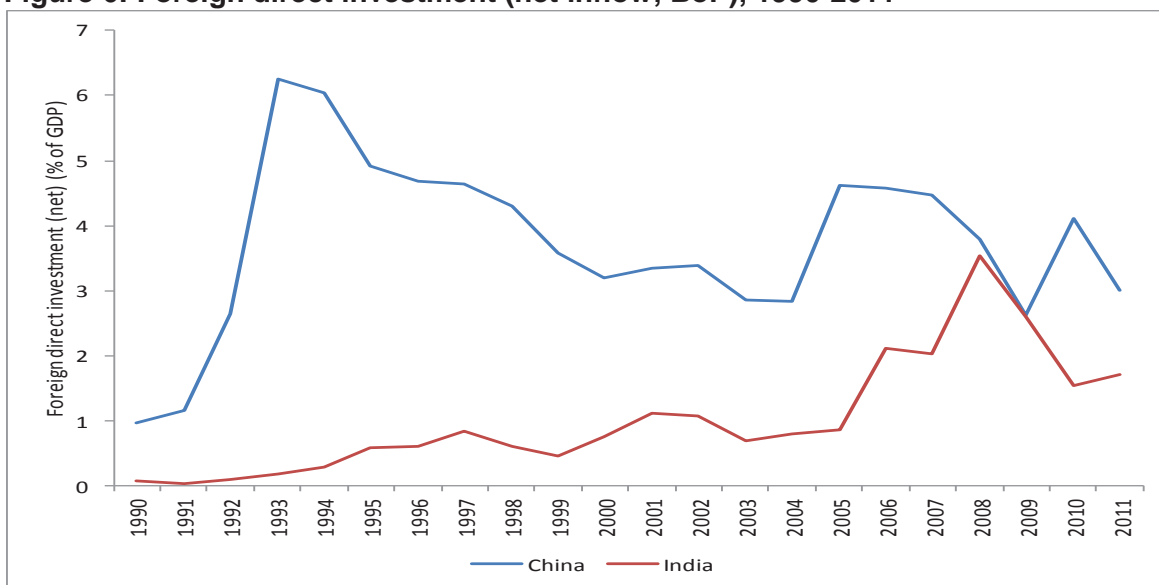
On the positive side, technological gains enabled India to achieve higher services sector growth per worker than that of China even with a more moderate contribution from capital formation. This reflected not only the growth of new economy segments including finance, telecommunication, IT enabled services and aviation but also substantial expansion in trade and transportation. India could accelerate its industrial growth, but the rate still remained below that of China, reflecting lower gains from technological progress and capital accumulation. On the negative side, India's agricultural growth trended down, reflecting the loss in contributions from technical progress and investment. India could not make up for absence of technological breakthroughs after the Green Revolution of the late 1960s. In contrast, China could sustain its labour productivity in agriculture through undertaking fundamental reforms beginning with the restoration of family farms in the late 1970s. In contrast, in India, lack of land reforms and a cap on a family landholding size have triggered reductions in the average size of farm holdings (and an increase in the share of the population holding less than one hectare of land from 30.5 percent to 80.5 percent over 1960-2002), thereby impeding agriculture productivity (Brummit, 2011).

In terms of India's potential outlook, labour productivity in agriculture needs to converge towards standardised international averages across the crops. India's labour productivity in agriculture worsened from one-third to one-fourth of industry over 1978-2004 (the world average is at around one-third according to Bosworth and Collins, *op.cit*). Upgrading productivity in agriculture would facilitate migration of labour, particularly into manufacturing, which has witnessed a decline in employment during the second half of the first decade of the 21<sup>st</sup> Century. With growth contributions from the education factor remaining limited compared to East Asian levels, there is also scope for greater emphasis particularly for higher education, which has been associated with higher returns. Developing skill levels would benefit productivity levels in both manufacturing and services over the long-term. In the overall sense, India could emulate China, which introduced market incentives to encourage private and foreign investment to facilitate

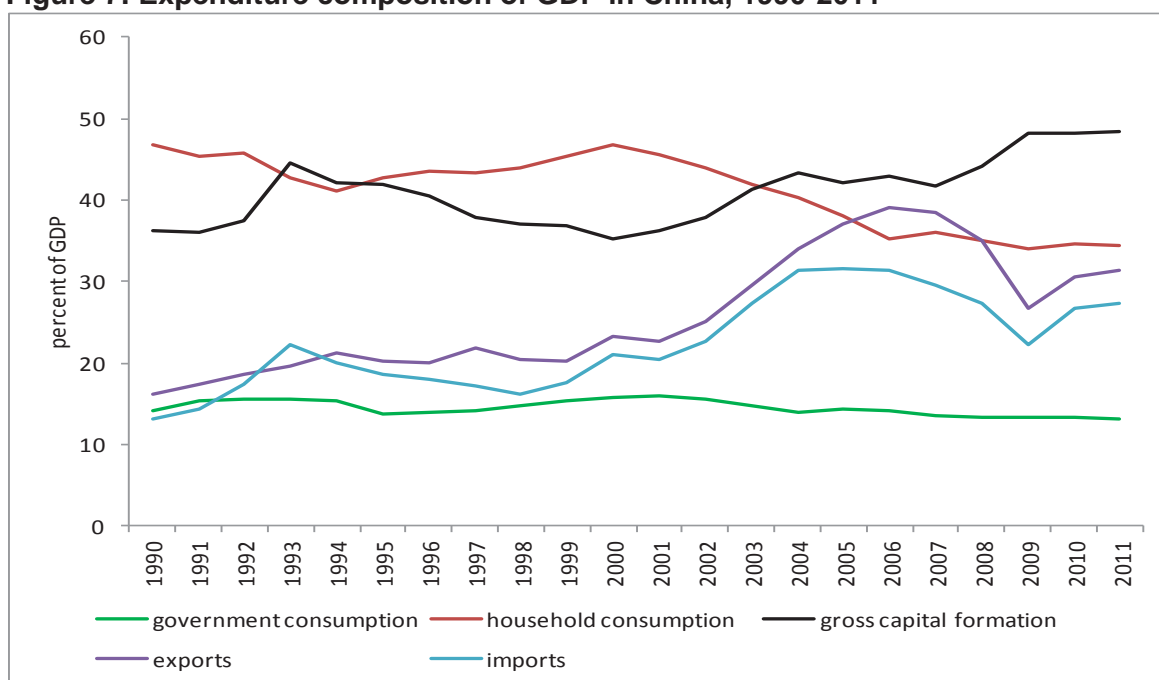
more productive rural-urban workforce migration patterns and sustained gains in productivity levels to much high levels.

Working out India's probable long-term growth outlook calls for a realistic assessment of its drivers relative to China based on experience. So far, India's reliance on foreign direct investment (FDI) has been low compared with that of China, which has perhaps contributed to the strong development of India's domestic entrepreneurship skills that augurs well for its future growth (Smith 2007). China, on the other hand, has relied quite significantly on FDI to finance its capital formation as compared with that of India (Figure 6). Together with an active role of state owned enterprises (SOEs), this has led investment to take over from household consumption as a dominant component of aggregate demand in China by 2004 (Figure 7). India is yet to reach that stage as household consumption still remains predominant despite an increase in the share of investment in GDP (see Figure 3). FDI went into a broad range of manufacturing industries in China unlike India where it was directed towards services, electronic and computer industries. Over the long-term, India's growth would depend upon rebalancing its demand more towards investment and greater exports, while China would be counting on switching more towards domestic drivers, particularly consumption and breaking of monopolies of SOEs.

**Figure 6: Foreign direct investment (net inflow, BoP), 1990-2011**



**Figure 7: Expenditure composition of GDP in China, 1990-2011**



Source: World Development Indicators, World Bank

India's likely prospect to experience a rising working age population (projected to peak at 67 percent of the total by 2040) would be demographically advantageous for its growth prospects compared with China, other Asian and many developed economies (where age dependency is projected to increase). By 2050, India may become the most populous country (1.7 billion people) followed by China (1.4 billion people). The degree of reaping demographic dividend benefits in terms of output depends upon how the structure of India's economy shapes up. India requires to increase agriculture productivity for enabling migration of labour from agriculture (currently employing 60 percent of the workforce) towards more productive segments of industry and services. Apart from matching supply with demand of labour skills, India's expansion of its non-agrarian economy would depend upon labour market reforms. So far, a lack of consensus among India's many political parties on the need for labour law reform has prevented efficient restructuring of medium and larger companies, in stark contrast to China where the government has imposed labour market flexibility.

### 3.3. Constraints, opportunities and outlook for sectors in India

#### **Agriculture sector**

##### **Key Assessment**

*Without major technological breakthroughs since the late 1960s, yields have stagnated across crops, while per capita availability of foodgrains has declined in India.*

*With population growth and food demand expected to become more entitlement-driven after the enactment of the bill on food security, pressures on bridging demand-supply gaps through increased productivity and imports would increase over the long-term for India.*

*Similarly, production shortfalls in protein-based items when their dietary intake is increasing with rising incomes and middle class in India, opens up exports opportunities in these items for other countries to India.*



India's long-term goals in agriculture are to meet the core food requirements of a projected 1.7 billion population (an extra 467 million people over 2010) by 2050 (UN, 2010). Further, India would have to cater to an evolving dietary switch for protein and processed foods for a progressively younger population (average age being 29 years by 2020 compared with 37 in China and US, 45 in Western Europe and 48 in Japan) as incomes rise (Gol, 2012). Indian agriculture drew benefit from importing high-yield variety seed-driven green revolution technology during 1970-90. Without any more technological breakthroughs, demand-supply mismatches in foodgrains have developed. The average foodgrain production growth (1.6 percent) trailed average population growth (1.9 percent) during 1990-2010. This drove down per capita per day availability of foodgrains (from 510 grams to 440 grams) and pulses (41.6 grams to 37 grams) (Chakraborty, 2011). Quite clearly, then, meeting foodgrain security over the long-term would entail restoring per capita availability taking into account the dietary pattern of the population in the coming decades.

A historical diagnosis shows that yield growth rates of rice and wheat, which are part of the staple diet of the population in India, have significantly moderated during the 1990s and the 2000s as compared with the 1980s (Gol, 2013).<sup>6</sup> The estimates of yields of rice (at 3.2 tonnes per hectare against 7.5 in the US, 6.7 in China and 4.3 for the world), wheat (at 2.9 tonnes per hectare against 3.1 in the US and 4.7 in China) and coarse grains (at 1.2 tonnes per hectare against 9 each for US and China, and 3.5 for the world) as on April 2011 were low by global standards (Chakraborty, *op cit*). Indian agriculture's focus is expected to shift from rice and wheat towards oilseeds, pulses, and horticulture. Pressures may, however, emanate in meeting foodgrains (wheat, rice and coarse grains) requirements as consumption would become more entitlement driven once the National Food Security Bill gets enacted. The Bill proposes supply of subsidised foodgrains to 75 percent of the rural population and 50 percent of the urban population. It stipulates for provision of 7kg of foodgrains per person per month to priority households. Given the history, India could be facing a challenge in meeting the entitlement-driven staple foodgrain requirements of its expanding population over the long-term.

As a solution, India's long-term focus is towards enhanced food security accompanied with protection of natural and genetic resources by developing strategies to make agriculture resilient to climate change. India has launched a national food security mission for productivity enhancement of rice, wheat and pulses through the adoption of technological components covering improved variety of seeds, soil ameliorants, plant nutrients, farm machinery/implements, and plant protection measures. Food security calls for improved practices in land use and rehabilitation, water efficiency and quality including focus on micro irrigation and flood management, crop and herd management, mechanisation of agriculture, and upgrading of the logistic supply chain. India recognises that for a productive agriculture, it would have to abridge the yield gaps relative to international standards through technology improvements. Indian agriculture underwent a technological leap in the late 1960s supported by international research in disease-resistant high yield seed varieties. It could look for international technological support in future as well. India also seeks to address concerns relating to the over-exploitation of

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<sup>6</sup> The introduction of high-yield varieties of seeds and increased use of fertilisers and irrigation (collectively known as Green Revolution) in the late 1960s had boosted significantly production, particularly wheat in India in the 1970s and the 1980s, which could not be sustained. Some benefits are being accrued in terms of higher yields of rice by extending the 'green revolution' to the eastern states in India. The yield growth for rice picked up during 2000-2012 from the growth during 1990-2000 but was still lower than the growth witnessed during 1980-1990. The yield growth in wheat decelerated successively through the past three decades (Gol, 2013).



natural resources, particularly water, used for producing staple crops concentrated in a few of its States (like the Green Revolution belt in northern India). This could be prospective opportunity for countries like New Zealand (which enacted its Resource Management Act in 1991) to provide support towards sustainability of Indian agriculture over the long-term.

In the short-term, as more than half of the cultivated area of India is dependent on rainfall, accurate predictability of the intensity and spread of rainfall before the onset of the monsoon season each year is an issue. India, however, still lacks an accurate weather predictability framework which is used in many centres of the world. To address this, India's Earth System Science Organisation (ESSO) has initiated the *National Monsoon Mission* for developing a dynamic framework for prediction of monsoon over different time scales in collaboration with the international research community over the next five years (Gol, 2013). New Zealand's National Institute of Water and Atmospheric Research Ltd (NIWA) had developed reliable and accurate Numerical Weather Prediction (NWP) systems (Turner, *et. al*, 2003). It could be a good opportunity for the NIWA for devising ways it could support India's development of accurate weather forecasting systems.

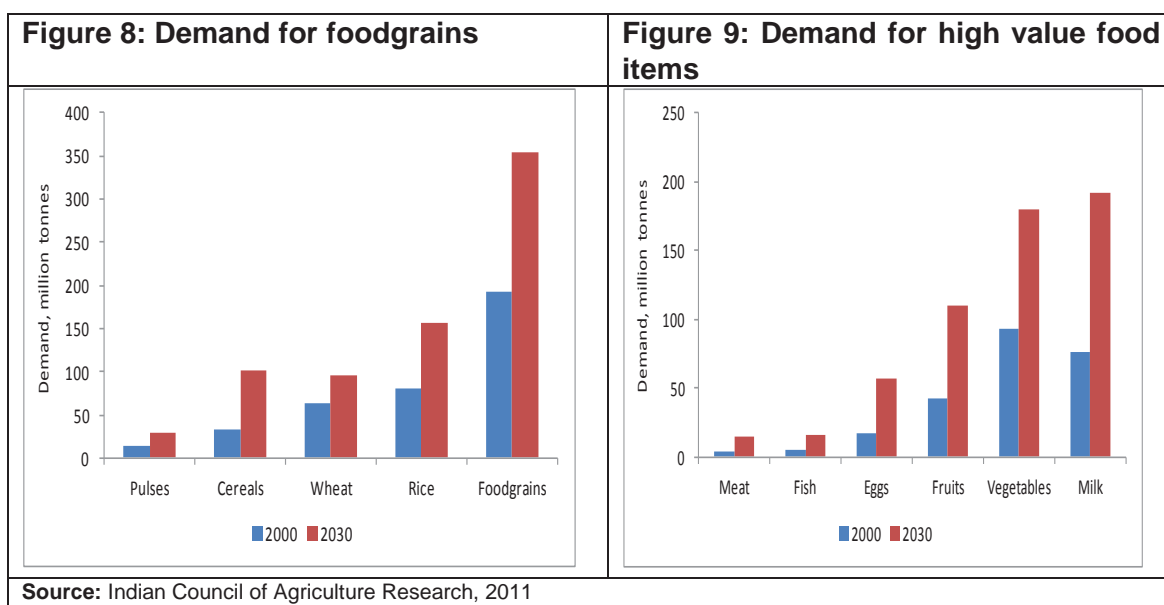
Food consumption pattern is changing with population growth, rising income levels and changing preferences, with now more than a quarter of the food consumption basket consisting of animal and protein-based products (Table 7). Demand-supply mismatch strains are becoming visible with increases in prices of items like fruits and vegetables, milk, meat, poultry and fish accounting for around 70 percent of the overall wholesale price index changes during 2011/12. Shortfalls in meeting demand for protein food items are also being reflected in their higher inflation rates (15 percent) as compared with the overall food inflation rates (9 percent) during the last two years (Gol, 2013).

**Table 7: Evolving Food Consumption Patterns in India**

Item	(Percent)			
	Rural		Urban	
	1987-88	2009-10	1987-88	2009-10
Cereals	41.1	29.1	26.6	22.4
Pulses and products	6.3	6.9	6.0	6.6
Milk and products	13.4	16.0	16.8	19.2
Eggs, fish and meat	5.2	6.5	6.4	6.6
Vegetables	8.1	11.6	9.4	10.6
Sugar	4.5	4.5	4.3	3.7
Food total	100.0	100.0	100.0	100.0

Source: Economic Survey 20011-12, Government of India

Over the long-term, new consumption patterns are expected to strengthen, while domestic capacities remain constrained. India is also expected to face shortfalls in respect of protein-based food as per evolving dietary requirements. According to the Indian Council of Agriculture Research (ICAR), the demand for high-value food commodities (such as horticulture, dairy, livestock and fish) is increasing faster than the production of foodgrains (ICAR, 2011). The demand for most of the high value food commodities is expected to increase by more than 100 percent between 2000 and 2030 (Figure 9). Being perishable commodities, these high-value commodities require different infrastructure arrangements. Working up to meet core and diversified food requirements would entail a combination of productivity increase domestically as well as imports from food surplus countries, which would depend on trade barrier removals. These opportunities hold prospects for agribusiness, environmental and logistic firms of other countries, including New Zealand, both in the short and long term.



India's long-term average annual agriculture growth in the past 40 years has been around 3 percent, while it now aims at 4 percent through national 'mission' strategies in food security, oilseeds and oil palm, environmentally sustainable agriculture, protein supplements, and agriculture extension and technology during its 12<sup>th</sup> Five Year Plan (Gol, 2012). Several options that are under consideration to address supply-side constraints in agriculture include:

- (a) extension programmes and guidance to farmers regarding input usage and alternate cropping pattern;
- (b) regular imports of agricultural commodities in smaller quantities with an upper ceiling on the total quantity to be decided annually based on domestic production and consumption requirements;
- (c) setting up special crop and State-specific markets for the supply of superior commodities to consumers;
- (d) improving governance of farm produce markets, establishing proper farmer produce to retail enterprise supply chains, reforming State marketing acts to minimise price differentials between producer and market segments and cleaning, grading and packaging of agricultural produce;
- (e) bridging significant post-harvest infrastructure investment gaps with scope for foreign participation as foreign direct investment in multi-brand retail has been recently allowed; and
- (f) setting up of modern storage facilities.

To sum up, Indian agriculture and allied GDP grew by 3.6 percent during the 11<sup>th</sup> Five year plan period (2007-2012), which is a reasonable in relation to the target rate of 4 percent. More importantly, however, Indian policy makers are recognising the need for further reforms for improving efficiency and productivity to meet a 'stiff challenge of feeding its growing population' (Gol, 2013: p.190). These reforms include a predictable trade policy for agriculture, private investment in infrastructure, efficient food supply chain, skill development and sustainable climate resistant practices. Further, India is looking to address the near-term issues of accurate weather forecasting dynamic frameworks and the demand-supply mismatches in proteins, fruits and vegetables. Each of these areas

could be prospective opportunities for New Zealand for an active engagement with the Indian agriculture policy and research authorities.

The possible indicators/policies which could be on a list that can be monitored (watch list) for assessing whether India's agriculture is likely to under-perform/perform well are as follows:

- **agriculture GDP growth** falling below 2 percent/above 3 percent annual growth, averaging through good and bad monsoon years;
- **crop specific alerts:** tracking for any significant production shortfalls/bumper in staple foodgrains (rice and wheat) along with buffer stocks as lead indicators on food price movements, watching out for any technological spurts in yields of these crops over the medium term;
- **accuracy of rainfall forecasts ahead of India's south-west monsoon:** tracking monsoon progress with the India Meteorological Department's forecast;
- **protein-based items:** watching for demand-supply mismatches in milk, eggs and meat;
- **Trade-specific policies:** import relaxations on specific food items to meet shortfalls particularly following price spurts.

### **Industrial sector**

#### **Key Assessment**

*Despite its pick-up phases, the share of India's manufacturing has stagnated around 15 percent of GDP in the last two decades. Its manufacturing policy is targeting a rise in the share of manufacturing to 25 percent of GDP by 2022.*

*Apart from consolidating gains in traditional segments, with increased policy focus towards the high-value added engineering, automobile and food-processing industries, production, investment and employment opportunities would increase in these segments.*

*India's manufacturing growth would also depend upon bank lending rates, external demand and infrastructure constraints in future.*

Since the early 1990s, India's industrial growth picked up in phases, in tandem with the global economy. For the period, 1990-2012, the share of the industrial sector (comprising 'mining and quarrying', manufacturing, 'electricity, gas and water supply' and construction) stagnated (at around 27 percent of GDP), particularly manufacturing (15 percent of GDP). Post-global financial crisis, the growth of value added from the manufacturing sector fell to single digits driven by both a domestic and external economy slowdown. More recently, the deceleration of India's manufacturing GDP growth has been sharper as compared with those for China and the world average<sup>7</sup>. Indian policy authorities have attributed the industrial slowdown to infrastructure and energy constraints, a fall in investment and a decline in demand for exports. Inadequate availability of power and a slow pace of implementation of rail, road and port projects have been identified as the key infrastructure bottlenecks. The average growth of investment in industry fell from 13 percent during 2004-2007 to 3 percent during 2008-11

<sup>7</sup> The growth rate of gross value added for manufacturing sector in India declined sharply from 7.3 percent in Q1 of 2011/12 to 0.2 percent in Q2 of 2012/13. The decline was less sharp in China (14.3 percent to 7.3 percent) and for the world average (5.4 percent to 2.2 percent) during the same period.

(Gol, 2013). India's industrial slowdown was also found to be significantly correlated with sluggishness in global industry (RBI, 2013). More importantly, the diagnosis suggested that India's manufacturing sector was found to be lacking in machinery, capital goods and high technology segments. India's share in total manufacturing value added lagged in the high technology segments relative to many other countries. Even in labour intensive medium technology segments such as textiles and leather products, India's share was low as compared to China (Gol, 2013).

India is implementing its National Manufacturing Policy (announced in 2008) with an objective of increasing the share of the manufacturing sector to a quarter of GDP by 2022 through targeting a sustained 12-14 percent growth. This policy focuses on development of key industries (capital goods, small and medium enterprises and those with competitive advantage and are employment intensive). Industrial clusters would be developed across railway corridors through the creation of investment and manufacturing zones. The success of this strategy would be contingent upon consolidating traditional segments; setting up focuses on high-value added industries; addressing long-standing constraints in respect of infrastructure and backward/forward linkages; and accessing to internationally competitive technologies. Traditionally, food products, textiles (third largest global exporter), clothing (sixth largest global exporter), metals including steel (fourth largest world producer of crude steel), chemicals, petrochemicals, and heavy industries have been the dominant segments of the Indian manufacturing. Progressively, textiles and leather products have reduced in importance, while heavy and engineering industries, and chemical and petrochemicals have remained significant, as also reflected in India's export pattern. Within the heavy industries, the automotive segment is expected to grow in importance over the long term. Goldman Sachs projected an increase in car penetration by 30 times from its level in 2009 to over 490 cars per 1,000 people by 2050.

Among the new segments, the food processing industries are expected to grow in importance over the long term. These cover a wide span of products, and recently this segment has become one of the fastest growing segments in manufacturing, contributing to industrial growth, more than triple its weight in the industrial index. However, the segment is yet to benefit from vibrant backward linkages to the rural economy, as reflected in huge post-harvest losses of agricultural products due to waste. The Ministry of Food Processing Industries is expected to implement targeted schemes to reduce wastage, increase value-added in the food chain and encourage investment in this sector, which would provide employment opportunities and upgrade human capital formation in the rural sector. Recent moves towards liberalising foreign direct investment (FDI) in India's multi-brand retail sector could serve as an important driver for transforming India's food sector – potentially boosting investment in the cold storage and supply chain. Among the processed food products, the frozen meat segment has witnessed persistent contraction, reflecting continued preference for fresh meat (Table 8). India has remained restrictive on meat imports, and banned some categories of meat produce from certain countries in the wake of avian flu. Among the meat products, the only significant imports have been from New Zealand. On the other hand, Indian imports of marine and dairy products are quite significant, with significant imports of milk and cream products from New Zealand. In future, with greater policy emphasis and changes in tastes, the importance of processed foods is likely to increase in the consumption basket in India.

**Table 8: Rate of Growth of Output of Key Processed Foods of India**

	(Percent)					
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12 (Apr-Dec)
Sugar	30.8	15.2	-33.9	-6.0	30.2	38.3
Fruit pulp	-22.4	87.0	-2.0	5.0	35.1	30.4
Fruit juices	26.6	20.9	41.0	46.6	16.8	26.0
Cashew kernels	64.2	8.4	-4.2	-0.9	-7.9	22.2
Instant Food Mixes	24.3	30.8	19.4	20.8	10.6	17.9
Mineral Water	21.0	29.4	6.9	28.3	19.9	15.4
Chocolate	28.4	8.9	24.2	11.3	13.7	13.3
Malted Foods	6.1	8.5	-36.8	-8.8	8.4	6.4
Butter	-6.2	4.8	3.4	-22.7	-4.7	0.1
Biscuits	14.1	-0.9	29.2	10.4	-1.4	-1.6
Frozen meat	-39.6	-12.9	76.8	27.4	-21.8	-1.7

**Source: Economic Survey 2011-12, Government of India**

Several bottlenecks need to be overcome for the Indian manufacturing to reach up to its potential growth. In particular, efforts need to be directed towards standardising land acquisition approach, building stronger backward/forward linkage to agriculture/services, shifting towards high value chain products, enhancing investment, provision of internationally competitive infrastructure services and evolving environment friendly processes. Public and private infrastructure investments, which had picked up after 2000, are now weakening on the back of risk perceptions on gestation lags (or the build up time to the delivery of projects), land acquisition problems and input supply shortages, particularly coal and power (RBI, 2012a). Mega projects in power, road and ports are getting delayed, while investment in telecoms is drying up. Already, the scope for encouraging FDI in infrastructure through adopting a cross-agency decision international model for time-bound transparent clearance system for investment proposals is being emphasised. Similarly, FDI for growth in specific new policy high value added chain thrust areas like high-precision machinery, pharmaceuticals, biotechnology, ship building, defence production and aero space industry is also expected to be encouraged for boosting manufacturing growth.

Feasibility assessments indicate that India could be able to reverse its current industrial slowdown phase. The Reserve Bank of India's business expectation index indicated a turn towards moderate optimism though the Indian policy makers realise that it is a little early to take a call that the bottoming up of the industrial slowdown has occurred (RBI, 2013). It may be, however, reasonable to expect the industry to register a growth of around 8 – 9 percent per annum over the long term as India aims to increase the share of manufacturing to 25 percent of GDP. For a start, infrastructure requirements for the 12<sup>th</sup> Five Year Plan provide potential for absorption of unskilled labour into construction. Already, the share of employment in construction more than doubled from 4.4 percent in 1999-2000 to 9.6 percent in 2009-10. Unlike China's successful 'farm-to-factory' shift of excess labour, India created 41 percent of additional non-farm jobs during 2000-10 in construction rather than manufacturing and exports. With some skill development, labour could migrate towards manufacturing and traditional services, and then eventually to the high-skilled industry and service segments. Therefore, India's structural transformation could progress towards a more equitable and complementary expansion of industry and the services sector, if accompanied by appropriate management of skill and capital requirements. This could maintain India's productivity growth and sustain the overall growth trajectory in consonance with the ADB's Asian century scenario, thereby avoiding the middle-income trap.



The watch list in terms of industrial performance for India could be as follows:

- **Time taken by industrial GDP to recover to more normal trends can be assessed in terms of tracking the monthly index of industrial production – overall, manufacturing and capital goods;**
- **Bank lending rates to industry** – empirical studies show a strong sensitivity of industrial production growth to the bank lending rates (RBI, 2012a);
- **Growth of core/infrastructure industries:** a percentage point increase in electricity production raises manufacturing growth by 0.4 percentage point (RBI, 2012);
- **Global GDP growth** – empirically a percentage rise in global GDP growth has, on an average, raised industrial production growth by 0.7 percentage point (RBI, 2012)

### **Services sector**

#### **Key Assessment**

*India's services sector buoyancy has been driven progressively by new economy segments such as information technology (IT) including enabled services, telecommunication and financial segments rather than being just based on outsourcing spillovers of manufacturing.*

*With the Government's objectives of making India a global hub in IT services by 2020 and economy-wide enabling of IT services, India's strong services sector growth is expected to continue over the long-term. Additionally, retail trade is emerging as a sunrise segment. With liberalisation of FDI in retail trade and an expanding urban middle class, activity is expected to pick up in modern marketing of food and consumer products, previously being dominated in the informal sector.*

*Meanwhile among traditional segments, construction activity would pick up in the short-term with emphasis on bridging infrastructure gaps, and given the potential of this segment in absorbing unskilled labour.*

India's services sector has been buoyant since the mid-1990s registering the high gains in its share of GDP among comparator countries during the first decade of the 2000s. With its share close to 60 percent (world average at 68 percent), both pessimistic and optimistic views have emerged about the sustainability of the buoyancy of the services sector. The pessimists attribute India's services growth to expansions in traditional, informal, public administration and personal segment related activities. They hold that in future manufacturing could outsource some of its activities to the services sector. Since these segments have low spillovers, the pessimistic view holds that the rates of growth of services during the last decade may not be sustainable (Acharya, 2003). On the other hand, the optimists hold that the services growth in India has been based on modern services (financial intermediation, computer, business, communication and other specialised services). Since these services have become large enough to have potential applications on traditional segments (trade, transport, storage, public administration and defence), the optimistic view holds that India's strong services sector growth could continue uninterrupted into the future (Eichengreen and Gupta, 2011).

Quite clearly, India's policy strategy is working towards realising the latter of the above perspectives. The Government's assessment shows that major drivers of strong growth in the services sector have been expansion of information technology (IT) including enabled services (ITeS revenues increased from 1.2 percent to 7.5 percent of GDP during 1997-



2012), telecommunication (ranked second largest network in the world behind China), banking and insurance (14.5 percent in 2010-11) and tourism (outbound Indian tourist growth at 17.4 percent, higher than inbound foreign tourist growth at 7.2 percent and domestic tourist growth of 10.7 percent during 2010). In terms of the outlook for the future, as India's IT service offerings have already evolved from application development and maintenance to become full service players, further growth would depend upon broad-basing beyond traditional financial services to new emerging segments of retail, health care, media and utilities, and for business processing outsourcing (BPO)-sector to deepen to process-reengineering services across the value chain, and knowledge based services. With exports constituting more than three-fourths of IT sector revenues, the recent global slowdown raises prominent risks to the sector's outlook. Increased competition from other countries with incentivised low costs, rising protectionism in key markets, rising wage push inflation, increased cost of recruiting skilled personnel, infrastructure constraints (with over 90 percent of total revenue generated from only seven locations) and exchange rate fluctuation risks represent other challenges. The IT sector's outlook thus depends upon the success of India's policy strategy working towards economy-wide IT adoption through sector reforms e.g. the National e-Governance Plan (NeGP) and the Unique Identification Development Authority of India (UIDAI) create large IT infrastructure opportunities. The prospective vision of national policy on IT is to promote its adoption to overcome development challenges including those relating to skill development, financial development and governance, thereby enhancing technical efficiency of the economy as a whole. It aims to bring ICT within reach of the whole of India while simultaneously harnessing human resource potential so as to enable the country to become the global hub of ITeS by 2020.

Similarly, the Indian telecoms market has witnessed substantial growth in the number of telephones, the proliferation of wireless connections and the promotion of broadband penetration since 2004. Over the long term, growth in this segment would be promoted by further reduction in costs, policy liberalisation and ushering in an information era through mobile value added services and broadband for all. Among other modern services, insurance and pension fund activities could pick up in future. The raising of the FDI caps in insurance and pensions from 26 percent to 49 percent in October 2012 could benefit growth in the financial sector of India.

India's traditional services segments include trade, transport and storage and public administration and defence. Among these segments, trade activities accounted for 15 percent of GDP during 2011/12. Over the long term, retail trade could be among the sunrise segments of services in India driven by the growth in population and Government's policy initiatives. To contain food inflation, the Government's measures aim at improving infrastructure and encouraging investment for stocking, distributing and retailing agricultural produce. India allowed FDI in single brand retail in 2006. The FDI limit in the single brand retail was raised from 51 percent to 100 percent of equity participation in January 2012. In September 2012, the Government allowed FDI in multi-brand retail trade up to a ceiling of 51 percent of total equity.

Both inbound and bound tourism remained robust notwithstanding recent recessionary conditions in Europe and the US. Over the long-term, India is likely to promote itself as a destination with comparative advantage in health tourism as being done by Singapore, Malaysia, Philippines and Thailand. India is likely to be favourably placed not only in terms of provision of cost-effective high skilled health-care solutions but also in terms of traditional health care.

Over the long-term, therefore, India is likely to leverage from the growth of its modern service segments, and their economy-wide impacts. The share of modern services in GDP could grow faster than the per capita income growth, as suggested by the experience from the OECD countries (Eichengreen and Gupta, *op cit*). India will undoubtedly have a demographic advantage, the extent to which it will be able to leverage gains will depend upon its success in catering to the skill requirements of its growing labour force. India could sustain its buoyancy of the services sector with modern segments expect to grow at rates higher than the per capita income growth rate.

The watch list of indicators for tracking India's services sector outlook would be:

- Tracking expansion of modern service segments (IT, telecoms and financial services) and checking whether their shares in GDP are rising at a faster pace than rates of increase in per capita income;
- Growth of trade, social services and personal segments and their association with IT growth and relaxation of FDI norms;
- Inter-linkages between growth rates of services with industry segments.

### 3.4. India's infrastructure constraints and growth outlook

#### **Key Assessment**

*India's growth target of 8.2 percent for 2012-2016 is premised upon a sizeable rise in its investment rate but without a similar increase projected in its saving rate.*

*The wider saving-investment gap implies India appears to be counting on external financing support for achieving its 12<sup>th</sup> Plan target.*

*More than doubling of infrastructure funding needs for the Plan provides an opportunity for long-term strategic financing, which is at present lacking in India.*

*Shortages in energy inputs like coal, land acquisition problems, and regulatory and environmental issues have been the critical hurdles to timely implementation of power projects.*

*Nonetheless, India's orientation towards greater competition and reliance on imports in coal, acquiring coal assets abroad, encouraging investment in renewal energies production and rural electrification provide opportunities for private and foreign entities in India's power sector.*

*Similarly, current hurdles in the road sector due to financing constraints of overleveraged developers along with huge scope for improving connectivity for rural and North-Eastern India could be opportunities for Indian and overseas entrepreneurs.*

*India's debt ridden airlines sector could look for FDI support for its long-term viability. India's policy focus towards decongesting its major ports also opens up opportunities for investment in non-major ports in the country.*

*India's urban renewal mission strategy and its policy emphasis on improving civic amenities in cities in a phased manner also present opportunities given the limited finances of municipalities and enhanced financing needs projected for urban infrastructure.*

India's 12<sup>th</sup> Five Year Plan (2012-13 to 2016-17) targeted real GDP growth of 8.2 percent per annum. The growth target is higher than the average GDP growth over 2010-20, consistent with the Goldman Sach's 'dream potential' scenario. The attainment of the growth target is subject to the realisation of all virtuous cycles working towards 'inclusive growth' with the projected saving and investment rates at 34.2 percent and 37 percent of GDP, respectively. This could, however, be challenging as India's potential growth is estimated to have dropped from a range of 8.0-8.5 percent before the global financial crisis to 7.0 percent after the crisis reflecting decline in pace of capital formation, infrastructure constraints and pressures on factor productivity (Subbarao, 2013). The investment rate is down (from 38 percent of GDP to 35 percent) and the saving rate has eased more sharply (37 percent of GDP to 31 percent) between 2007 and 2012. Already, households' switching preferences towards gold and consumption (to protect real intakes in face of high inflation) are impacting availability of financial savings (in the wake of lower real rates of returns and downbeat equity markets) for the public and private corporate sectors (RBI, 2012). On top of this, sharp post-crisis declines in the saving rates of the public and private corporate sectors, have further reduced the availability of resources for investment, particularly for infrastructure. If saving-investment gaps turn out to be wider than the envisaged in the 12<sup>th</sup> Plan, India could rely more on external sources of financing.

### ***Power sector bottlenecks***

The public and private sectors could meet the infrastructure financing requirements for the 11<sup>th</sup> Five Year Plan amounting to more than 8 percent of GDP. Nonetheless, resource availability may be an issue for meeting infrastructure financing of \$ US 1 trillion for the 12<sup>th</sup> Plan, which is double that of the 11<sup>th</sup> Plan. Project implementation delays and cost overruns (only a quarter of central sector projects are on time) could further stiffen achievement of infrastructure targets (power capacity addition target was revised downwards by 21 percent during mid-term appraisal of 11<sup>th</sup> Plan) and raise pricing and affordability issues. Quite often, project delays result from shortages of key energy inputs like coal. A demand-supply gap in coal production is projected to widen by 62 percent to 185 million tonnes by 2016-17. While regulatory and environmental issues have adversely impacted coal mining activity, the monopolistic position of Coal India Limited has also resulted in bottlenecks. Apart from introducing domestic competition, India is expected to address coal shortages through increased imports and acquiring coal assets abroad. Structural infirmities on account of the weak state of finances (large under-recoveries on sale of subsidised power and accumulation liabilities to banks) of State power utilities (SPUs) could come in the way for meeting the demand for grid power, which is projected to grow by 6 percent during the 12<sup>th</sup> Plan. Furthermore, over-dependence on thermal energy would have to be corrected through alternate models of power supply, particularly hydroelectricity. India's New Hydro Policy 2008 is working towards encouraging private investment in hydropower generation and seeks to address problems of inaccessibility of potential sites, land acquisition, rehabilitation, and environmental, forest-related and inter-State issues. India's reforms relating to power supply, optimum distribution of power with minimal losses and rural electrification would be critical for its long-term growth. To sustain the projected 12<sup>th</sup> Plan growth, energy supply has to grow by 6.5 percent every year, and import dependence is projected to increase to around 38 percent to fulfil domestic energy requirements.

## ***Roads, Ports and Civil Aviation***

In road connectivity, considerable progress has been made under a national highways development programme. However, a lot needs to be done towards full connectivity to rural areas, North-eastern regions and Jammu and Kashmir. While financing so far was not an issue, road projects are now confronting financing constraints for overleveraged road developers. Together with land acquisition problems, these factors have softened the pace of project tendering. Similarly, while infrastructure is being upgraded across metropolitan and non-metro airports, the civil aviation industry is under stress under a growing debt burden. The government is liberalising rules regarding the direct import of fuels by airlines, taxation on fuel and foreign investment in airlines and passenger fare structures. The long-term viability of the civil aviation sector is an issue. The Government is encouraging FDI from foreign airlines in this sector. Indian ports have shown improved efficiency in their operations in terms of a reduction in turnaround times between entry and departure for ships but the improved efficiency gain have so far lagged behind target. India's 'Maritime 2011-20 Agenda' targets the creation of enhanced port capacity (3130 million tonnes) by 2020 with more than half to occur in non-major ports, and notably seeking most of the investment coming from private sector including FDI, which is permitted up to 100 percent through automatic approval for maintenance and construction. While it would be a challenge to mobilise 80 percent of required investment from the private sector in ports for the 12<sup>th</sup> Plan, decongestion of major ports by developing internationally competitive ports across the border would be a long-term challenge.

## ***Urban Infrastructure***

Recognising increasing urbanisation needs (the share of urban population is projected to increase from 31 percent to 40 percent over 2011-30), India's seven-year old urban renewal mission has encouraged cities to improve their existing civic service levels in a phased manner, particularly for the urban poor through the provision of basic entitlements and housing. The focus has been on urban renewal, water sanitation, sewerage and solid waste management, urban transport, development of heritage bodies and preservation of water bodies. Various components of the mission cover the provision of urban infrastructure in 65 identified cities, all other towns and cities and some satellite towns around seven mega cities. India has also laid out national urban transport policy to improve city access of the rural/semi-urban population from peripheries and avoid slum proliferations within cities. While city transportation is being revamped through developing rapid transit systems of buses and metro rail networks, most of these projects have been subject to delays and cost escalations. Nonetheless, with limited numbers of the urban population getting basic amenities at present the annual urban infrastructure investment growth rates are projected by the Government at 15 percent during the 12<sup>th</sup> Five Year Plan, 12 percent in the 13<sup>th</sup> Plan and 8 percent thereafter. The urban local bodies, many of which are under financial stress, could face considerable challenge in mobilising finances.

To deliver a sustained increase in private investment in all sectors of infrastructure over the long term, India would have to address the regulatory and projected implementation hurdles. Furthermore, a mismatch between the long-term funding requirements of infrastructure and the availability of bulk savings and their intermediation only on shorter duration would have to be corrected by attracting long-term investors (strategic investors, private equity funds, pension funds and sovereign funds). India has already raised the

limit of foreign institutional investment in corporate bonds issued by those operating in its infrastructure sector, and allowed tax benefits in long-term infrastructure bonds. In the coming decades, investing in India's infrastructure will potentially provide huge opportunities for the private sector including foreign investors.

### 3.5. Fiscal challenges in India

#### **Key Assessment**

*India's outlook remains uncertain depending upon how quickly the central government is able to reduce its fiscal deficit-GDP ratio from the current level of over 6 percent.*

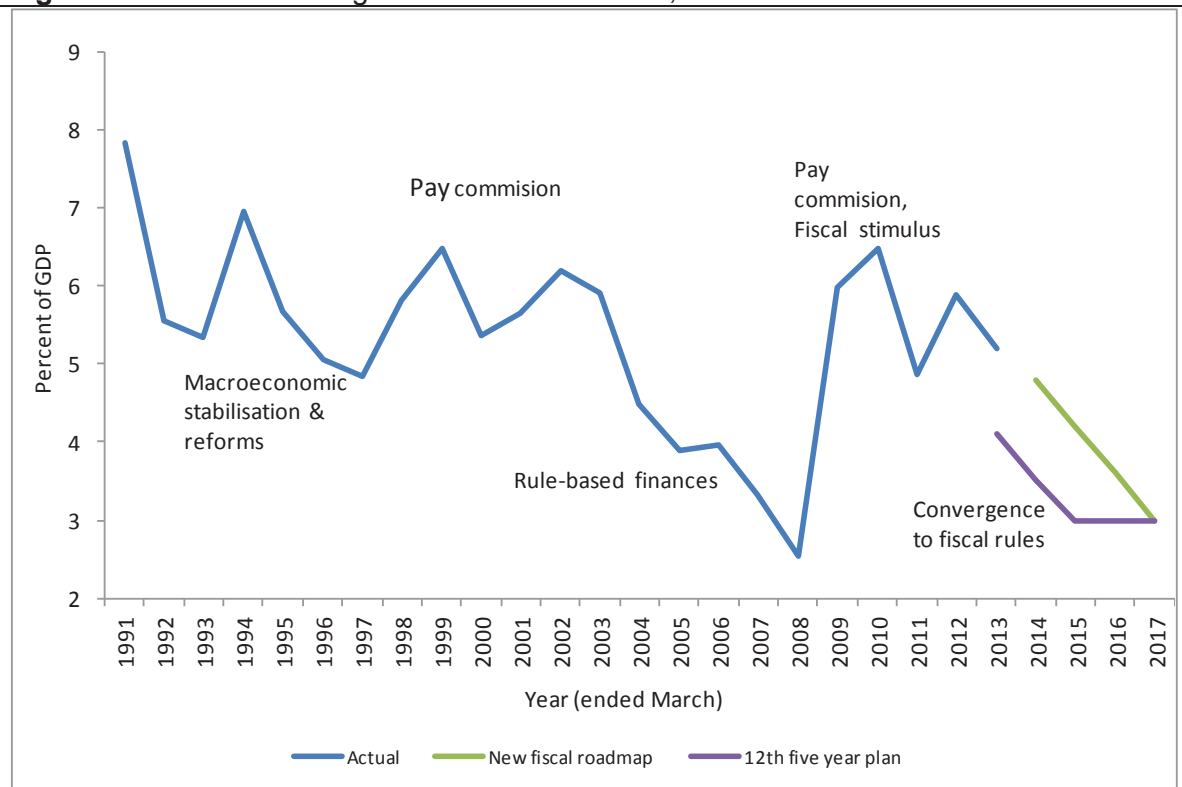
*The government is aiming to reach its fiscal rule target of 3 percent of GDP for the fiscal-deficit ratio by 2016-17 based on taxation, disinvestment and expenditure reforms as recommended by its expert committee.*

*Based on its reform experience, India may become fiscally more stable in the next five years by implementing technical administration and disinvestment measures first. This could be followed by tax reforms, which may take a bit longer depending upon consensus building among centre and all the States. Provided government remains fiscal-rule bound, a favourable macroeconomic impact could be visible by 2019-20.*

Gains from rule-based consolidation over 2004-07 have been more than wiped out and inherent fiscal slippages pose significant downside risks for India to sustain a growth rate of over 8 percent at this juncture. The government had appointed an expert committee to suggest corrective measures and a roadmap for fiscal consolidation (Kelkar, 2012). The committee had projected the Central Government's fiscal deficit-GDP ratios for 2012/13 at 6.1 percent ('no reform' scenario) and 5.2 percent (reform scenario). The Government's corrective action restricted its fiscal deficit-GDP ratio to 5.2 percent in 2012/13. But the ratio was significantly higher than 4.1 percent (assumed in the 12<sup>th</sup> Plan) and 3.0 percent (medium-term fiscal rule target) (Figure 8). The expert committee had recommended reforms in taxation, disinvestment, subsidies and expenditure management as steps for reducing fiscal deficit towards the medium-term target. Among the tax reforms, the committee recommended tightening of tax administration measures, introduction of a goods and services tax and pruning of the exemption list for services tax. It also recommended reduction of petroleum subsidies (through price decontrols in some administered products) and controlling of fertiliser subsidies through revising urea prices. It also suggested rationalising of plan expenditure and better targeting of beneficiaries. Based on these recommendations, the Government announced several measures and set out its fiscal roadmap to reduce its fiscal deficit to 3 percent of GDP by 2016/17 (the final year of the 12<sup>th</sup> Plan).



**Figure 10: India's Central government fiscal deficit, 1991-2017**



Sources: Union Budget 2013/14; Kelkar (2012); 12<sup>th</sup> Five Year Plan document

Based on the reform experience of the early 1990s, India may be able to stabilise its fiscal conditions in the next five years. Technical measures on tax administration and disinvestment may be implementable but progress could be visible only over time. With suggested re-examination of the direct tax code bill and no firm schedule for a roll-out of goods and services tax (GST), the impact of structural reforms on government's revenue buoyancy would take a longer time to be visible. Nonetheless, with an in-principle agreement on these reforms both within and outside the government, it is reasonable to expect their impact will be measurable, at least by 2019-20. With a history of roll-backs, reforms in respect of subsidies are more uncertain and could be critical in reducing structural rigidities on a more durable basis. The government's commitment is visible with a number of reform measures (fuel subsidy, disinvestment, FDI in aviation and insurance, restructuring of State electricity boards and raising of urea prices) announced since September 2012.

The Government set out its fiscal consolidation plan of reducing the fiscal deficit-GDP ratio to 3.0 percent by 2016-17. Since the pace of fiscal consolidation has been more gradual than anticipated for the 12<sup>th</sup> Plan, the targeted growth of more than 8 percent could be difficult to achieve. According to the Kelkar Committee, assuming an employment elasticity of 0.4, any growth below 6.25 percent could fail to absorb a labour force growth of 2.5 percent, and jeopardise utilisation of India's demographic dividend advantage. If India sustains average growth of around 6.25 percent per annum during the current decade, then it would be on course to realising its 'dream potential'.



### 3.6 Outlook for the Indian States

#### **Key Assessment**

*India's pre-global financial crisis growth uptrend permeated across almost all the States. The inter-State divergences, however, widened depending upon regulatory set up, initial conditions, diversification in manufacturing, business climate and demographic dividend conditions across the States.*

*In future, over the long-term, the three leading States (Maharashtra, Gujarat and Andhra Pradesh) could continue to be a major driver of India's growth process. The policy emphasis on 'inclusive growth' strategy is likely to uplift performance of poor States (Bihar, Madhya Pradesh, Rajasthan, Orissa and Uttar Pradesh, often referred to as BIMAROU States).*

India's growth uptrend was reflected nationwide during the decade of 2000s with all States/Union Territories (except two) recording significantly higher average per capita income growth rates during 2004-11 (over their performance during 1994-1999) and with a majority of them recording above 8 percent average growth rates of real Net State Domestic Product. Traditionally, the 28 States in India are grouped into 17 general category States and 11 special category States, with latter particularly dependant on resources of the central government to compensate for their lower capacities on account of geographical condition (hilly terrain) and socio-economic status. Using the national average as the basis of comparison, the economic profile of States can be viewed in terms of three categories (which may overlap), whereby they are classified into those which recorded higher shares in 'agriculture and allied', industry or services sectors in their net State domestic product (NSDP) in comparison with the country standard over the period, 2004-05 to 2011-12 (Table 9 and Exhibit 1).

**Table 9: Profile of States of India at a Glance for period 2004-05 to 2011-12**

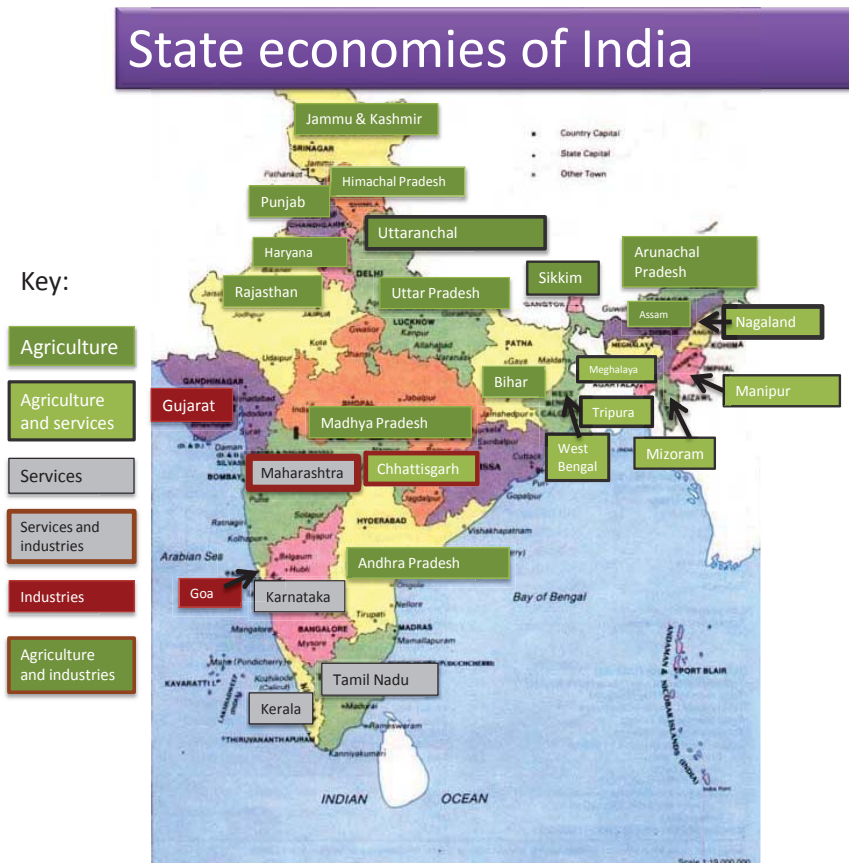
Agriculture share at or more than national average of India (16 percent)	Industry's share more than national average of India (20 percent)	Service sector's** share more than national average of India (64 percent)	Per capita Income more than national average
(1)	(2)	(3)	(4)
<p><b>11 general category States</b> (Punjab:29%;Uttar Pradesh and Madhya Pradesh: 27% each; Bihar:25%; Rajasthan: 24% West Bengal and Orissa :22% each; Chattisgarh: 21%, Haryana: 20%, Karnataka:17% and Gujarat: 16%)</p> <p><b>11 special category States</b> (Arunachal Pradesh:33%; Nagaland: 31%; Assam, Jammu &amp; Kashmir, Manipur and Tripura 25% each; Mizoram: 23%, Himachal Pradesh:22%, Meghalaya:21% and Sikkim:16%)</p>	<p><b>5 general category States</b> (Goa:33%, Jharkhand:32%, Chattisgarh: 30%, Gujarat:28%, Maharashtra:21%)</p> <p><b>1 Union Territory</b> (Puduchery: 36%)</p>	<p><b>5 general category States</b> (Kerala:79%; Tamil Nadu:73% Maharashtra:69%; Karnataka and West Bengal:67% each)</p> <p><b>8 special category States</b> (Mizoram:74%;Sikkim:73 %;Tripura:70%, Manipur:69%; Meghalaya:66%; Nagaland: 67%; Uttarakhand and Jammu &amp; Kashmir: 65% each)</p> <p><b>3 Union Territories</b> (Delhi and Chandigarh: 93% each; and Andaman &amp; Nicobar Islands)</p>	<p><b>9 general category States:</b> (Maharashtra, Andhra Pradesh, Tamil Nadu, Gujarat and Karnataka (with their state product shares in all states' product of 5% or more); Kerala, Punjab, Haryana and Goa (with their state product shares &lt; 5% of all states' product);</p> <p><b>3 special category States</b> (Himachal Pradesh, Meghalaya and Nagaland)</p> <p><b>3 Union Territories</b> Delhi, Chandigarh and Andaman &amp; Nicobar Islands</p>

\*Based on Net State Domestic Product (Base:2004-05) at Constant Prices

\*\* Includes Construction

Source: Based on data from Reserve Bank of India

**Exhibit 1**



A number of features follow from the economic profile of the states based upon above categorisation. Interestingly, the number of States more agrarian by the country standard exceeded the number of service-oriented states during 2004-11. There were only a few industrial states. Apart from major cereal producing states like Punjab and Bihar, all the special category states were part of the agrarian category. Second, the states from western India (Maharashtra, Gujarat and Goa) were among the very few States with higher shares of industry than for the country. Third, States from southern India (Kerala, Karnataka and Tamil Nadu), apart from Maharashtra, had higher shares of services sector than for India. Finally, among the big states, only those in western and southern parts of India had higher per capita incomes than the national level. There were five big States (Bihar, Madhya Pradesh, Rajasthan, Orissa and Uttar Pradesh, often referred to as BIMAROU States), which had lower than the national per capita income levels.

Inter-State growth divergence widened during the decade of the 2000s with richer States, on an average, growing faster than the laggard States and convergence coefficient was much lower (1.1 percent) for 2000s than (1.7 percent) for 1990s (Kumar and Subramanian, 2012). Some studies argued that States with employer-friendly regulations grew faster than those with pro-labour regulations (Aghion *et al*, 2008). Others pointed that the differences in initial conditions and diversification in manufacturing in explained inter-State divergences (Kochhar *et. al*, 2006). Some others drew attention to the worsening of the business climate in some States (like West Bengal) as a factor impeding the State's development (Lahri and Yi, 2009).

The demographic dividend was also identified as a key factor driving performance of the States. The States in the southern and western regions of India (Tamil Nadu, Karnataka and Gujarat) with higher shares of working age population were found to perform better than others in the heartland (Bihar, Madhya Pradesh and Uttar Pradesh)(Aiyar and Mody, 2011). It was estimated that the demographic dividend may have contributed up to 2 percentage points to per capita GDP growth during the 2000s and 2010s. Others, however, found that the positive correlation between growth rates in income per capita-income and share of working age population broke down during 2000s, thereby indicating that some States could not automatically reap benefits from a demographic dividend (Kumar and Subramanian, *op cit*). Nonetheless, a laggard State like Bihar recorded significant acceleration in its per capita income growth rates during the 2000s reflecting the impact of better enforcement of law and order, and improvements in infrastructure with a change in political leadership.

Economic activities for most states are expected to switch towards industry, and infrastructure, IT, new economy and high value added services. Agrarian states in India are increasingly focusing on improving their industrial climate. Among them, Punjab (with 60 percent rural population and home for Green revolution of late 1960s), which ranks second (behind Bihar) in foodgrains production (wheat and sugarcane) and specialises in textile industries, is now turning its focus towards IT and electronic industries. The state has established Food Park (at Fatehgarh), electronic township (at Mohali) and Biotech park (Chandigarh). It is attracting FDI inflows (Chandigarh) and operations of multinational corporations<sup>8</sup>. Prominent cities of Punjab include Ludhiana (a garment producing centre was selected to be the best place of doing business in India by a World

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<sup>8</sup> Ranbaxy, M&M, HCL, Nestle, Dell, IDS Infotech are among prominent MNCs with their homes in Punjab.

Bank study), Jalandar (producer of sports, auto, electrical and leather) and Mohali (IT-hub) (PhD Chamber of Commerce and Industry, 2011). Similarly, Bihar, with more than 90 percent rural population, lowest per capita income in India and 55 percent of population below poverty line, is now trying to revive its stagnant economy recording an annual average growth of over 11 percent since 2004-05 with several non-agrarian sectors (registered manufacturing, construction, communications and trade, hotels and restaurants) recording near or above 20 percent growth rates. Food products, beverages and tobacco industries cover a range of products accounting for around 80 percent of industrial income for the State but the potential remains unutilised. The state produces major agriculture crops like cereals, pulses, fruits and vegetable but is unable to reap full benefits in absence of processing industries.

Over the longer term, the three leading States (Maharashtra, Gujarat and Andhra Pradesh) could continue to collectively be the major driver of India's growth process. The policy emphasis on 'inclusive growth' strategy is likely to lift performance of poor States (Bihar, Madhya Pradesh, Rajasthan, Orissa and Uttar Pradesh, often referred to as BIMAROU States). Gujarat has been proficient in instilling self sufficiency in its rural areas by boosting agriculture productivity and promoting cooperatives, while equally keeping strategic focus in energy and industrial sector. An Indian Overseas Bank study has projected Gujarat is poised to become the second largest contributor to India's GDP by 2017 and surpass Maharashtra in terms of per capita income by 2020. Maharashtra, where three (Mumbai, Thane and Pune) out of 34 districts account for 48 percent of the State Domestic Product, is expected to go for more balanced development through developing cooperative industrial estates in backward districts, demarcating new growth centres and incentivising industrial development in rural areas. The study projected an increase in contribution of BIMAROU States to incremental nominal GDP from 18 percent to 26 percent by 2020 by leveraging their potential for a catch up. Bihar is focusing in bridging its vast infrastructure gaps in roads, power and irrigation which would uplift its growth in the coming decades. With households in these States spending a high proportion on food (65 percent in Bihar), there is scope for expansion of food processing market (45 percent of food market comprises processed food products in Bihar). In States with rich mineral reserves (Madhya Pradesh), policy is focusing on developing mining and quarrying activity. The surge in industrial entrepreneur memoranda in Madhya Pradesh reflects an improvement in the industrial climate of the State. The State is also attracting mega power projects.

### 3.7. India's urbanisation outlook

#### **Key Assessment**

*Global middle class consumption is now skewed towards advanced economies. Over the long-term, however, global consumption is expected to be progressively driven by the Asian middle class. Within Asia, Indian middle class consumption is expected to grow by 19 percent in the next two decades, in contrast to fractional growth likely for advanced economies.*

*With India's population expected to be dominated by the middle class, the structure of its consumption demand would progressively switch towards high value products like processed and protein products in food consumption as already evident.*

At present, advanced economies account for two-thirds of global middle class consumption. This is poised for a structural transformation in favour of the Asian economies led by India, China and Indonesia. Asian middle class could drive global

activity through twin forces. It could shape demand for goods and services. The Asian middle class could also drive supply side processes through provision of savings and entrepreneurship for new products. Thus, it could be a key driver of the structural transformation of the Asian economies in the coming forty years. Under the ADB's 'Asian Century' scenario, India's middle class is expected to account for around 24 percent of the world middle class by 2030 (China: 22 percent; US: 4 percent), to be sustained till 2050 (China: 21 percent; US: 2 percent). On current trends, India's middle class could constitute about 70 percent of its population within the next 15 years. ADB projected India's middle class consumption to grow by 19 per cent in the next 20 years, much higher than 13 percent for Indonesia and 0.6 percent for the advanced economies. India's government is gearing for massive urban infrastructure investment as it expects the share of its urban population to increase from 31 percent to 40 percent over 2011-2030.

### 3.8. India's international trade and investment linkages

#### **Key Assessment**

*An open Indian economy is more susceptible to external vulnerabilities through trade, finance and confidence channels.*

*Quite clearly, thus, India is working towards countering downside risks to growth emerging from slowing advanced economies through rebalancing its domestic demand towards investment and infrastructure.*

*Over the long-term, another key offset would come through switching direction of its international trade towards Asian and Oceania economies, as has already been evident since late 1980s.*

India's current account became convertible during the 1990s. The capital account liberalisation has been phased more gradually in line with the progress in fiscal consolidation and reforms in the financial sector. Since the 1990s, the openness of the Indian economy has increased significantly with many analysts considering the Indian economy more open than that of the United States in terms of measures of openness (Mohan and Kapur, 2009). India's current account openness (current account receipts and payments) worked out to more than 60 percent of GDP in 2011-12 as compared with 33.3 percent in 2000-01 and 18.8 percent in 1990-91 (Table 10).



**Table 9: India's Balance of Payments-Current Account**

(Percent of GDP)

Year	Trade Account			Invisibles			Current Account		
	Exports	Imports	Balance	Receipts	Payments	Balance	Receipts	Payments	Balance
1990-91	5.8	8.8	-3.0	2.4	2.4	0.0	7.9	10.9	-3.0
1991-92	6.9	7.9	-1.0	3.6	2.9	0.7	10.1	10.5	-0.3
1992-93	7.3	9.6	-2.3	3.6	3.0	0.6	10.6	12.2	-1.6
1993-94	8.2	9.7	-1.5	4.1	3.1	1.0	12.0	12.4	-0.4
1994-95	8.3	11.1	-2.8	4.8	3.1	1.7	12.7	13.7	-1.0
1995-96	9.1	12.3	-3.2	5.0	3.4	1.6	13.7	15.3	-1.6
1996-97	8.8	12.6	-3.8	5.5	2.9	2.6	13.9	15.0	-1.1
1997-98	8.7	12.5	-3.8	5.6	3.2	2.4	13.9	15.3	-1.3
1998-99	8.2	11.4	-3.2	6.2	4.0	2.2	14.0	15.0	-0.9
1999-00	8.3	12.3	-4.0	6.7	3.8	2.9	14.6	15.6	-1.0
2000-01	9.9	12.6	-2.7	7.0	4.9	2.1	16.4	16.9	-0.5
2001-02	9.4	11.8	-2.4	7.7	4.6	3.1	16.5	15.8	0.7
2002-03	10.6	12.7	-2.1	8.3	4.9	3.4	18.3	17.1	1.2
2003-04	11.0	13.3	-2.3	8.9	4.3	4.6	19.4	17.1	2.3
2004-05	12.1	16.9	-4.8	9.9	5.5	4.4	21.4	21.8	-0.4
2005-06	13.0	19.4	-6.4	11.1	5.9	5.2	23.4	24.6	-1.2
2006-07	13.6	20.1	-6.5	12.1	6.6	5.5	25.6	26.6	-1.0
2007-08	13.4	20.8	-7.4	12.0	5.9	6.1	25.4	26.7	-1.3
2008-09	15.4	25.2	-9.8	13.7	6.2	7.5	28.9	31.2	-2.3
2009-10	13.4	22.1	-8.7	12.0	6.1	5.9	25.4	28.1	-2.8
2010-11	14.9	22.6	-7.7	11.8	6.7	5.1	26.6	29.3	-2.7
2011-12	16.8	27.0	-10.2	11.9	5.8	6.1	28.6	32.9	-4.2
Amounts in US\$ Billion									
1990-91	18	28	-9	7	8	0	26	36	-10
2002-03	54	64	-11	42	25	17	96	89	6
2008-09	189	309	-120	168	76	92	357	385	-28
2011-12	310	500	-190	219	108	112	529	607	-78

Source: Reserve Bank of India

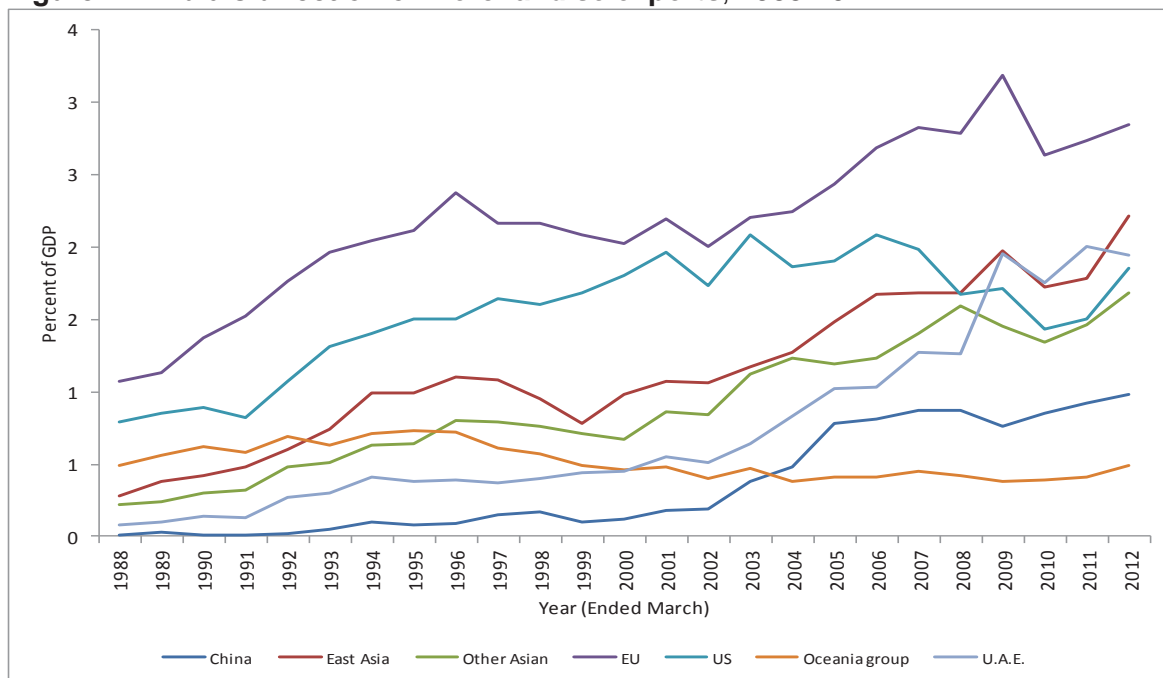
Potentially, an open India is now more susceptible to external vulnerabilities. A slowdown of advanced economies poses downside risks to India's growth through trade, finance and confidence channels; liquidity-infusions in these economies can also potentially fuel inflation expectations in India. With the IMF scaling down its growth projections for the global economy, the Reserve Bank of India also progressively revised down its growth forecast for the Indian economy for 2012/13 from 7.3 percent (April 2012) to 6.5 percent (July 2012), 5.8 percent (October 2012) and 5.5 percent (January 2013). The actual growth was lower at 5 percent for 2012/13. Apart from global risks, India is now confronting a 'halted' investment demand, slowdown in consumption and eroding export competitiveness (RBI, 2012). A key offset to the global economic slowdown would be a recovery in domestic demand in India, particularly investment, which would require that the positive sentiment generated by the government's recent announcements of reforms be translated into concrete investment decisions. The growth forecast for 2013/14 was placed at 5.7 percent with global growth still not expected to improve significantly (RBI, 2013).

Equally important for India is to progressively switch its direction of international merchandise trade towards Asian and Oceania economies as has been the case in the recent years. Directionally, India's export destination shifted from the OECD countries (from 59 percent to 34 percent in total exports) to Asia (12 percent to around 30 percent in total exports) and also to OPEC (from 6 percent to 12 percent in total exports) over

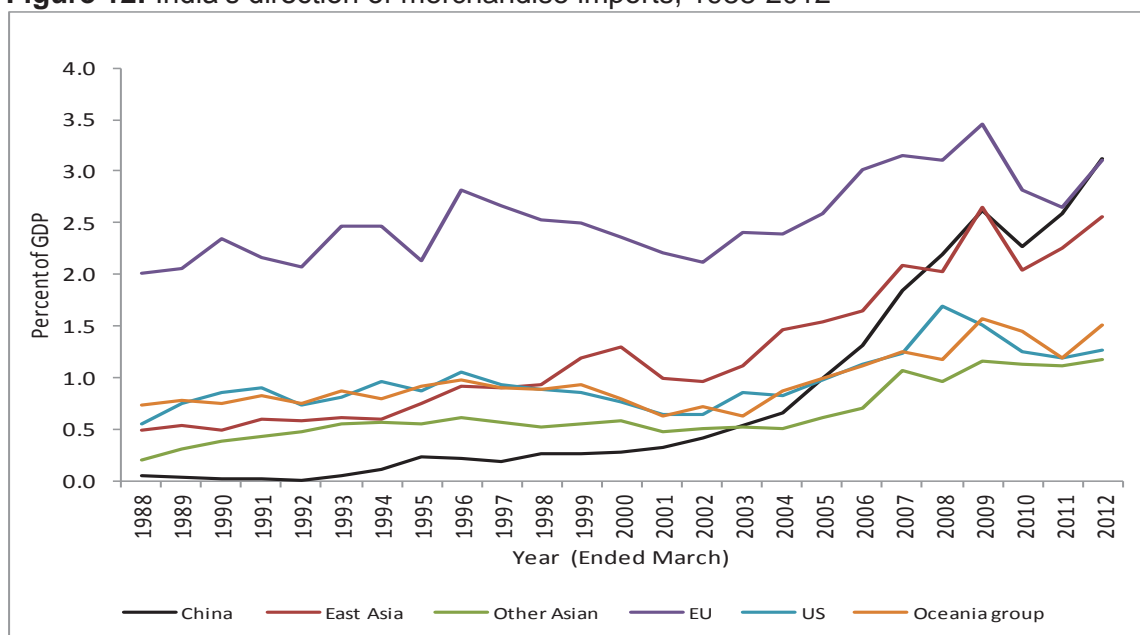


1987-2012. India's exports to China and the UAE have grown particularly sharply since 2000, which enabled the Indian economy to work through the global financial crisis. Import patterns also capture these shifting dynamics towards Asia, and more particularly China, UAE and Saudi Arabia (Figures 9 and 10).

**Figure 11: India's direction of merchandise exports, 1988-2012**



**Figure 12: India's direction of merchandise imports, 1988-2012**



Source: Handbook of Statistics on Indian Economy, Reserve Bank of India (2012)

On top of a switch towards domestic investment demand and growing international linkages to emerging market economies, the Indian economy could benefit from consumption demand from the growing middle class both within the country and other Asian economies. If Asian middle class consumers can substitute for slowing demand from advanced economies, then Asian economies can become major exporters to each other and benefit from mutually-driven rapid growth. A more balanced growth of Asian economies can also potentially counter a slowdown from China.

## 4. Implications and opportunities for New Zealand

### **Key Assessment**

*Working towards closer integration between New Zealand and India would be beneficial for both economies. India's promising long-term outlook with expected shifts towards high-value added middle class oriented consumption demand and huge infrastructure and energy requirements make it a strong market for New Zealand's engagement in international trade, investment, skilled migration and deeper regional integration, as already identified under NZ Inc India Strategy targets.*

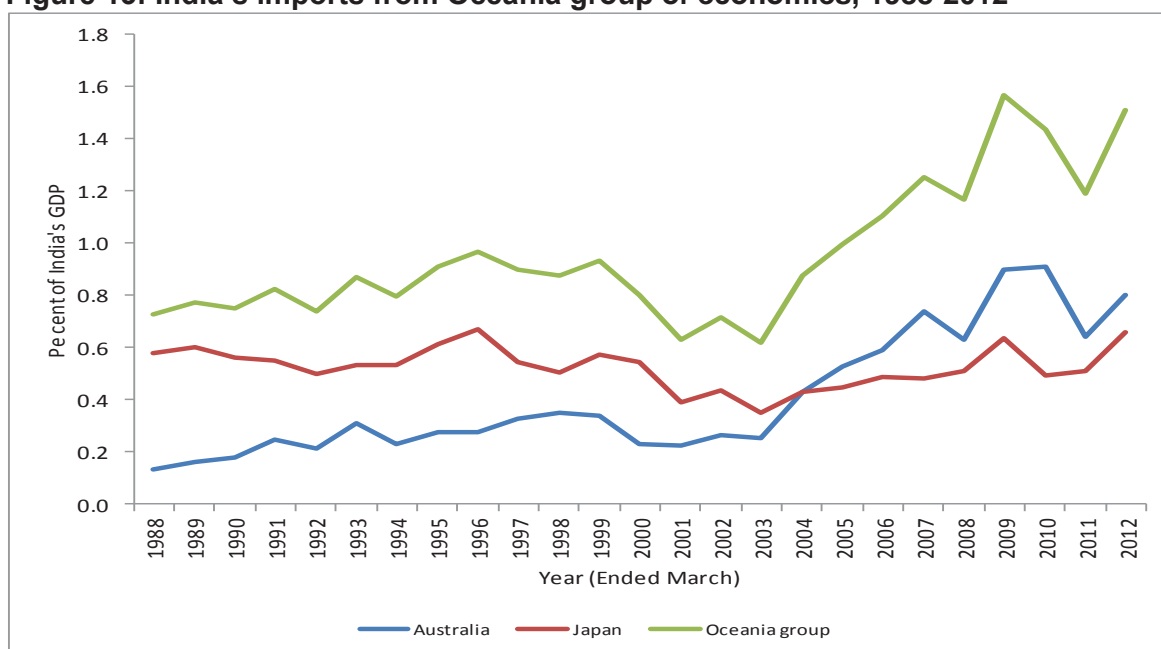
*Stronger trade integration would assist New Zealand to consolidate its gains in respect of exports in dairy, meat and other protein products where it has a comparative advantage and India is likely to face shortfalls. This would, however, necessitate dropping of tariff barriers, which makes completion of the Indo-NZ Free Trade Agreement quite important.*

*Meanwhile cooperation can go beyond trade linkages, with New Zealand providing technical guidance and support to India to upgrade productivity of its primary sectors, food processing, cold storage chains and waste management segments.*

*With India's emphasis on making its economy IT-enabled and upgrading its infrastructure, there are prospective opportunities for joint collaboration and co-innovation in a whole range of financial and non-financial sectors, in addition to trade opportunities.*

In 1991, the incoming Finance Minister of India (now Prime Minister) Dr. Manmohan Singh launched wide ranging reforms which were envisioned by him to represent the start of India's emergence as a major world economic power. In his inaugural Union Budget Speech 1991-92 he quoted Victor Hugo's saying, "no power on earth can stop an idea whose time has come". Since then, as shown by the foregoing assessment, the Indian economy reached a trillion US dollar milestone in 2007, its per capita income crossed lower middle income economy threshold in 2008 and its structure transformed through expansion of services sector, greater openness in international trade particularly in industry and rise in investment demand. India's long-term outlook is also very promising with its GDP potentially projected to account for around 14 percent of global GDP by 2050 (from around 2 percent in 2011) and GDP per capita (PPP) placed \$41,700 (from \$3,652 in 2011), as per ADB's Asian Century scenario. India's policy authorities are committed to take reform measures to address domestic structural constraints across its various sectors, bridge infrastructure gaps and explore foreign opportunities, so as to avoid falling into a "middle income trap". A growing Indian economy with its expanding middle class opens up opportunities for New Zealand exports in its geographical vicinity. More importantly, from a New Zealand perspective, India's imports from Oceania countries (excluding Japan) are growing (Figure 13).

**Figure 13: India's imports from Oceania group of economies, 1988-2012**



**Source:** Handbook of Statistics on Indian Economy, Reserve Bank of India (2012)

India's strong growth outlook, potential shifts in consumption structure towards the upper-end of the value chain in tune with a younger, more educated and progressively more urban and middle class population, and huge infrastructure requirements make it a strong market over the long term for New Zealand's engagement in international trade, investment, skilled immigration and deeper regional integration. Both Indian and New Zealand Governments are working towards strengthening their bilateral trade and economic relationship. A joint study group (JSG) (set up by both Governments) demonstrated that significant complementarities exist between the two economies such that a Comprehensive Economic Cooperation Agreement (CECA)/Free Trade Agreement (FTA) would increase both countries' real GDP, welfare and merchandise exports (JSG, 2009).

A CECA/FTA between the two countries is still awaited. Nonetheless, the New Zealand Government set out a vision in 2011 under its *NZ Inc India Strategy* is to make India its core trading, economic and political partner by 2015 (NZTE and MFAT, 2011). The Government laid out strategic goals in New Zealand's merchandise exports, services trade and bilateral economic relationship with India. A substantive approach towards achieving these targets would call for identifying opportunities for New Zealand inherent in India's strategies for addressing its structural constraints over the long term. The New Zealand Government's internationally-focussed growth strategy aims at increased trade and investment to create jobs and opportunities for New Zealand (NZ Government, 2013). This section sets out New Zealand's current state of readiness towards these targets and pathways to work towards the objectives.

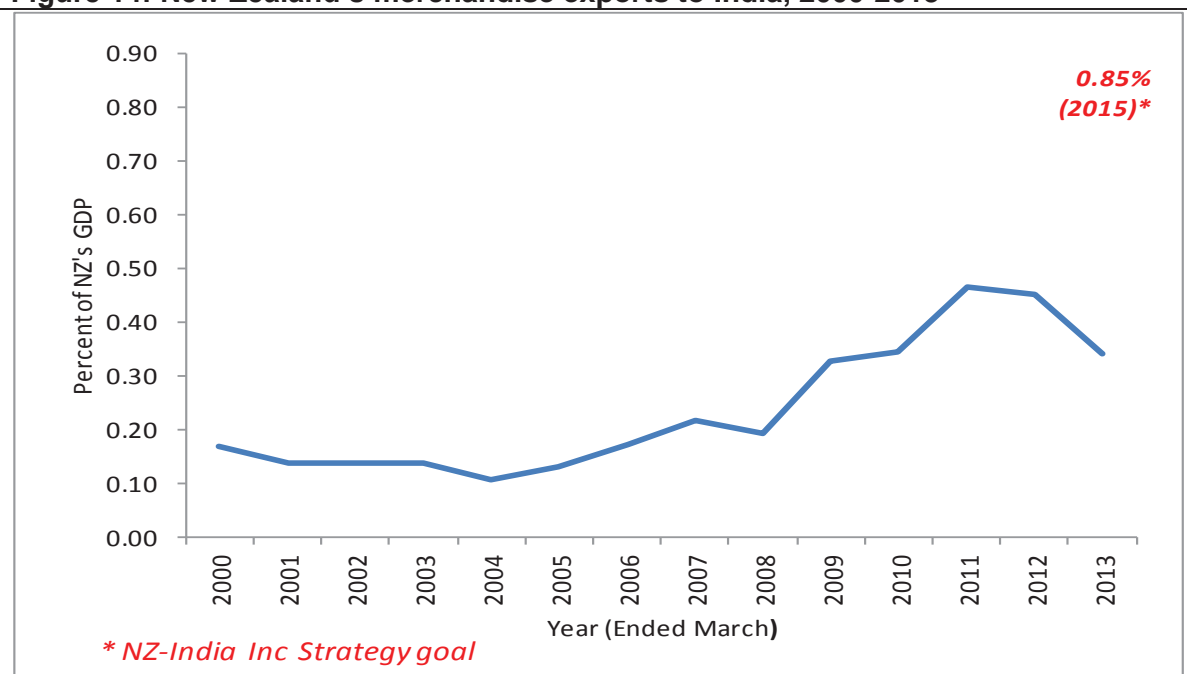
#### 4.1 Opportunities for trade in goods and services

**More than doubling of New Zealand's exports to India is required to reach the target of NZ\$ 2 billion by 2015**

Historically, New Zealand's exports to India have accounted for less than 1 percent of India's total imports. The share picked up from 0.11 percent in 2004/05 to 0.17 percent in

2011/12. These exports increased more than five-fold since 2002/03 to NZ\$ 931 million by 2011/12. New Zealand's exports to India grew rapidly between 2007/08 and 2010/11, which made India the seventh largest export market (from being the 24<sup>th</sup> largest). As part of New Zealand's whole-of-government approach to build its exports and open up new markets, the New Zealand Government had set a goal of increasing its merchandise exports to India to at least NZ\$ 2 billion by 2015 under its *NZ Inc India strategy*. This could increase New Zealand's exports to India from 0.46 percent of New Zealand's GDP in 2011 to 0.85 percent by 2015. The pace, however, slackened after 2011, which makes achievement of the goal for exports to India difficult by 2015 (Figure 14). Over the long-term, the Indian economy could catch up to its Asian Century potential, given its average real GDP growth of 7.9 percent during the decade-ended March 2013. More importantly, India could open up towards Oceania group of economies. This raises prospects for New Zealand's exports to India even if New Zealand can maintain its current share in India's imports over the long-term.

**Figure 14: New Zealand's merchandise exports to India, 2000-2013**



**Sources:** Statistics New Zealand; NZAT and MFAT, 2011

Achievement of more than doubling of New Zealand's export target (from NZ\$ 0.7 billion in 2013 to \$ 2 billion by 2015) requires deeper utilisation in sectors where New Zealand has a comparative advantage, while building up prospects in other sectors. New Zealand's growth in exports to India in 2010 and 2011 were contributed by unprocessed food and elaborate manufactured products (Table 11). New Zealand's pattern of total exports to India showed that the shares of high value food items (fruits, dairy and animal originated products) (averaging 11 percent) and construction materials (wood and metal items) (averaging 24 percent) were significant over the period, 2009-13. India's shortfall in meeting its demand for food and requirements for infrastructure provide good prospects for exports/other opportunities for New Zealand over the long-term. Further, over the long-term, India's demand for processed food, and both simple and elaborate manufacturing products would increase.

**Table 11: New Zealand's Exports to India (NZ\$ million)(fob)**

Type\December years	2008	2009	2010	2011	2012
1 Primary products	187	265	440	441	322
1.1 Unprocessed	176	184	271	327	281
1.2. Processed	12	81	169	114	41
2. Manufactures	87	74	144	74	147
2.1. Simply transformed	30	35	39	28	25
2.1. Elaborately transformed	57	39	105	46	122
3. Miscellaneous, unclassified, and confidential trade	269	291	317	423	317
<b>Total</b>	<b>544</b>	<b>630</b>	<b>901</b>	<b>938</b>	<b>786</b>

Source: Global New Zealand - International trade, investment and travel profile, Statistics New Zealand, May 2013

Protein-based food items, where India currently faces shortages and New Zealand has traditional comparative advantage, could serve as good starting point for raising New Zealand's exports to India. Dairy is New Zealand's largest merchandise exports sector. Unusually, New Zealand's dairy exports to India were almost negligible (2.5 percent of its total merchandise exports to India) as compared with its dairy exports to all countries (20.8 percent) in 2008/09. Subsequently, dairy exports picked up and their share in New Zealand's total merchandise exports to India averaged 13.1 percent during the period, 2009/10 and 2011/12. These exports were driven by milk powder, cream, butter and dairy spreads. India ranks first in milk production but its per capita availability (273 grams/day) still trailed world average levels (284 grams/day). As per the Indian National Dairy Development Board's assessment, India would have to double its annual milk production levels to meet the projected requirement by 2021-22. Fonterra, New Zealand's top dairy exporter of the world, projected India's dairy demand to grow (10 percent per year) fastest among the emerging markets by 2020 driven by income and population growth while its production growth lagged (2 percent)<sup>9</sup>. Given limitations to its domestic production capacity, the dairy exporter is planning for setting up capacities outside New Zealand in the emerging markets through joint partnerships and supply agreements. It has already opened office in India. Over the long-term, India's demand for dairy products would increase with rising population and income levels. New Zealand's dairy producers could benefit from a new growing market, while the Indian consumers could have a wider range of products, especially specialised dairy products.

The projections of the Indian Institute of Nutrition/ICAR indicated that India could face shortfalls in meeting demand in meat, eggs, fish and fruits by 2021-22. Meat, another key exporting item for New Zealand, lacks presence currently in India. In the past, New Zealand had exported insignificant amounts of frozen bovine and sheep meat products. JSG's report had indicated that India's growing affluent middle class could be a significant future market for New Zealand. During the past, meat was exported to the hotel and restaurant sector in India. Apart from the hotel sector, high quality meat requirements of the supermarkets in India could also serve as good prospects for New Zealand exports. However, India's import tariffs on meat are high.

Total horticulture exports were around 7.8 percent of New Zealand's total merchandise exports in 2012 (New Zealand Government, 2013a). Fresh fruits (apples and kiwifruit) and processed fruits (wine) accounted for the bulk of horticulture exports. New Zealand's exports of fresh fruits to India increased in recent years, with their share moving up from

<sup>9</sup> As reported in, agrimoney.com "Fonterra gains foothold in huge Indian dairy market", accessed from <<http://www.agrimoney.com/news/fonterra-gains-foothold-in-huge-india-dairy-market--5272.html>> on June 17, 2013.



1.3 percent in 2010/11 to 3.6 percent of total exports in 2012/13. Wine exports to India remained insignificant.

Despite the increases in recent years, New Zealand's dairy and horticulture exports to India are insignificant compared to New Zealand's global exports, mainly on account of tariff barriers. This makes completion of the Indo-NZ Free Trade Agreement (FTA) quite important. The JSG had suggested that due to the complementary nature of Indian and New Zealand production, FTA would offer further opportunities for New Zealand horticulture exporters without displacing Indian domestic producers. Nonetheless, tracking India's seasonal shortfalls in various food items, such as fruits and vegetables, could provide prospective opportunities for New Zealand in the short-term as India tends to relax its import restrictions on such occasions.

A possible list of India's economic indicators/markets for strengthening New Zealand's food exports to India is as follows.

- Rainfall index (*India Meteorological Department*), crop sowing progress, agriculture production indices (*India's Ministry of Agriculture*), buffer stocks of foodgrains relative to norms (*Food Corporation of India*), food inflation (including protein items) trends (*India's Ministry of Commerce and Reserve Bank of India*) – [indicators of food shortages that often trigger import relaxations on food by India for meeting shortfalls]
- Trends in food consumption pattern, per capita availability of dairy, meat and other protein products, protein dietary changes (across fresh and frozen varieties), shifts towards processed and packaged food and growth in wine market (indicators/assessment of shortages over long-term released by food departments/agriculture research institutes)
- Changes in tariffs (Central Board of Excise and Customs).

Amongst other commodity based trade, wood exports steadily grew to become New Zealand's top exporting item to India. The share of wood products in New Zealand's total exports to India picked up from 13 percent to 23 percent between 2007 and 2013. In future, New Zealand's wood exports could grow with infrastructure requirements, demand for furniture items and income levels over the long-term in India. The sheer scale of expected increase in India's construction activity could provide New Zealand an opportunity for wood exports to grow. While currently, most New Zealand timber is exported as logs to Gujarat, opportunities would expand in particularly backward Indian states like Bihar, Orissa and Madhya Pradesh given India's inclusive growth strategy and emphasis on infrastructure. India's wood imports could potentially diversify beyond raw logs to other varieties, which New Zealand has in abundance. This would, however, call for reduction of duties for higher value-added products. With India's strategy towards forest conservation amidst population pressures, its wood imports are likely to grow in future. Similarly, New Zealand's iron and steel exports increased in recent years though their share was less significant.

New Zealand's wool exports to India remained at reasonable levels because of low domestic production in India. There was a pick-up in these exports during the last decade which reflected India's preference towards raw wool from New Zealand relative to China. New Zealand's wool is used in India's labour-intensive carpet making industry supporting employment. India's raw wool consumption was projected to double by 2019/20 from its level in 2008/09 because of population growth and income. In contrast, its domestic production was projected to grow by around 1 percent during 2009-2014. India would depend on wool imports to meet both its domestic and export requirements (GoI, 2010).



Notably, however, New Zealand's wool exports to India declined from NZ\$63 million to \$34 million during 2005-2013. With India reducing its import duty on wool in 2012, there would be opportunities for increase in New Zealand's wool exports to India over the long-term.

New Zealand's mineral fuel exports were quite significant during 2002-2007 (average share of 24 percent in total exports to India) but subsided later. In future, however, India's energy shortages could increase its requirements for coal imports. India's strategy to address energy constraints through promoting greater competition and reliance on imports in coal, acquiring coal assets abroad, encouraging investment in renewal energies production and rural electrification could also provide opportunities for New Zealand.

In manufactured products, New Zealand's machinery exports to India picked up in the mid-2000s but subsided later. Its exports of therapeutic respiration apparatus has been increasing steadily and picked up significantly during 2011/12. Over the long-term, opportunities would also grow in New Zealand's exports of specialised machinery to India. With growth in India's urban population, satellite cities around major centres would grow. This would also be driven by establishment of industrial clusters, as being planned under India's national manufacturing policy. In consonance, there would be rising awareness of environmental issues and the green building movement. New Zealand can develop products servicing the niche property market in India which would increasingly depend upon application of innovative green products.

In the context of assessing infrastructure constraints, the track list of indicators includes **growth of core and infrastructure sectors** encompassing power, coal, fertiliser, cement, roads and petroleum products, as released by India's Ministry of Statistics and Programme Implementation.

The JSG identified New Zealand's comparative advantage across a range of sectors including agriculture, forestry and wood products, horticulture, aluminium and specialised machinery. New Zealand's share in world exports in each of these sectors exceeded the share of its total exports to world exports. Further, the group's Global Trade Analysis model demonstrated that a Comprehensive Economic Cooperation Agreement (CECA) or Free Trade Agreement (FTA) between India and New Zealand would increase New Zealand's merchandise exports to India and its GDP as trade barriers are removed. There would be added benefits to Indian consumers in terms of lower prices and a wider range of products after removal of tariffs. Across New Zealand's prime exporting items, India's import tariffs range from 30 percent (for dairy and meat products), 10 percent (across all wood products, iron and steel), 7.5 percent (for majority of the machinery items) and 5 percent (for wool). Notably, tariffs on forestry products came down in recent years.

***Boosting of services trade growth by 20 percent would require broad-basing of opportunities across all the sectors***

India's current emphasis is on making its economy IT-enabled. This is expected to raise activities across a whole range of financial and non-financial sectors in the Indian economy. India is working towards making its tax administration and financial governance system more effective and efficient by creating IT projects which are reliable, secure and efficient. IT projects like the Tax Information Network, New Pension Scheme, National Treasury Management Agency, Expenditure Information Network and Goods and Service Tax, are in different stages of roll out. India is also pursuing financial inclusion strategy to

make financial products and services available to weaker sections of the society in a fair and transparent manner through banks and other financial institutions. These present significant potential opportunities for New Zealand for collaboration and co-innovation across banking, financial services, insurance, telecommunications and other diverse sectors. New Zealand is already exporting ICT products to India in the areas of marketing and product development. Health care providers in India are also engaging with more than 20 New Zealand companies.

Among the professional services, provision of engineering consultancies has been identified as an opportunity under the NZ-Inc India strategy for New Zealand's service providers. In addition, New Zealand can provide technical guidance and equipment to India to upgrade its productivity in dairy, horticulture and meat processing. The cooperative approach in the Indian dairy sector was based on the New Zealand experience. Similarly, New Zealand can impart expertise for boosting productivity in Indian horticulture. Opportunities also exist in food processing, cold chain and waste management segments in India. These opportunities could increase as India liberalised FDI norms for retail sector. Monsoon plays a key role in India's agriculture performance. As discussed, India's Earth System Science Organization (ESSO)/Ministry of Earth Sciences under its *National Monsoon Mission* seek to develop accurate rainfall prediction models over the next five years (Gol, 2010). New Zealand's National Institute of Water and Atmospheric Research Ltd (NIWA) have developed reliable and accurate Numerical Weather Prediction (NWP) systems (Turner, *et. al*, 2003). It can be a good opportunity for the NIWA for devising ways it could support India's development of accurate weather forecasting systems. Utilising these opportunities would be important for attaining the targeted expansion of New Zealand's services trade with India by an average of 20 percent per year. India is keen to collaborate with other countries including New Zealand on research projects for increasing yield and improve quality of its domestic wool production. India's strategic plan for textiles also involves incentivising investment for technological upgradation of the wool sector (Gol, 2009).

The watch list of indicators for tracking the outlook for India's services and manufacturing sectors would be:

- Tracking expansion of modern service segments (IT, telecoms and financial services) and checking whether their shares in GDP are rising at a faster pace than rates of increase in per capita income;
- Growth of trade, social services and personal segments and their association with IT growth and relaxation of FDI norms;
- Inter-linkages between growth rates of services with industry segments;
- Time taken by industrial GDP to recover to more normal trends can be assessed in terms of tracking monthly behaviour of index of industrial production – overall, manufacturing and capital goods;
- Bank lending rates to industry.

## **4.2 Education, tourism and skilled migration**

### ***India's emphasis on education and growing youth present opportunities in education***

Traditionally, education and tourism sectors have been prime contributors to New Zealand's global services exports (JSG, 2009). The number of Indian student enrolments in New Zealand increased from around 2,600 to 11,300 over the period 2006-2012, which has raised sharply their share in international student enrolments from 2.7 percent to 12.4

percent (NZ MoE, 2013). The Indian students have grown to be a key market for Institutes of Technology and Polytechnics (ITP). New Zealand's education sector can benefit from attracting a greater number of Indian students in the future, given India's emphasis on education and its demographic dividend. India was New Zealand's third-largest source country for students. India has launched reforms at all levels of the education sector and is encouraging participation of private and foreign providers. This has opened up opportunities to New Zealand to cooperate with India in higher education and research, particularly in dairy and food science, agritech, and climate change, as well as technical and vocational education and training. With growth of private providers in education in India, there is also opportunity to develop joint ventures with Indian companies and promote New Zealand's education sector. At present, New Zealand education businesses are not active in this regard. The New Zealand-India Education Cooperation Arrangement, which was renewed in 2010, provides a broad framework of bilateral cooperation and serves as a platform for interaction of senior officials of the two countries. New Zealand Universities can jointly set up student placement agency in India as is currently being done by Australia.

The total number of tourist Indian arrivals to New Zealand has more than doubled since 2003 to around 30,000 by 2013 (New Zealand Government, 2013b). The share of Indians in total arrivals to New Zealand has been just over one percent. Almost 3/4<sup>th</sup> of the Indian visitors to New Zealand have been for holiday/visits to relatives/friends. The Indian tourists have been found to spend beyond the main tourist hubs, visit in New Zealand's slack season, and stay longer and do more capita spending than tourists of many other nationalities (NZTE, 2011). Over the long-run, the number of Indian tourists could grow given the greater share of younger population than in many other countries.

New Zealand's skill shortages complement with India's skill surpluses such as in the software sector. A strategic goal under the NZ Inc India strategy is to attract and retain skilled migrants from India. Indians constituted an average share of around 7.8 percent in the total number of permanent arrivals during 2008-2012. The share of Indians in the total permanent departures from New Zealand is much lower (Table 13). There would be benefits from establishing a non-stop air link between India and New Zealand, which has been a constraint on trade, business and travel.

**Table 13: Short-term and Permanent Arrivals from India and Permanent Departures to India**

Type\December years	2008	2009	2010	2011	2012
1 Short-term Indian Visitors	23,860	25,336	29,486	28,262	29,856
<i>% to total from all countries</i>	1.0	1.0	1.2	1.1	1.2
2. Permanent and Long-term Indian Arrivals	5,923	6,888	7,509	6,281	6,392
<i>% to total from all countries</i>	6.8	8.0	9.1	7.5	7.5
3. Permanent Departures to India	755	937	1,195	1,348	1,293
<i>% to total to all countries</i>	0.9	1.4	1.7	1.6	1.5

Source: Global New Zealand - International trade, investment and travel profile, Statistics New Zealand, May 2013

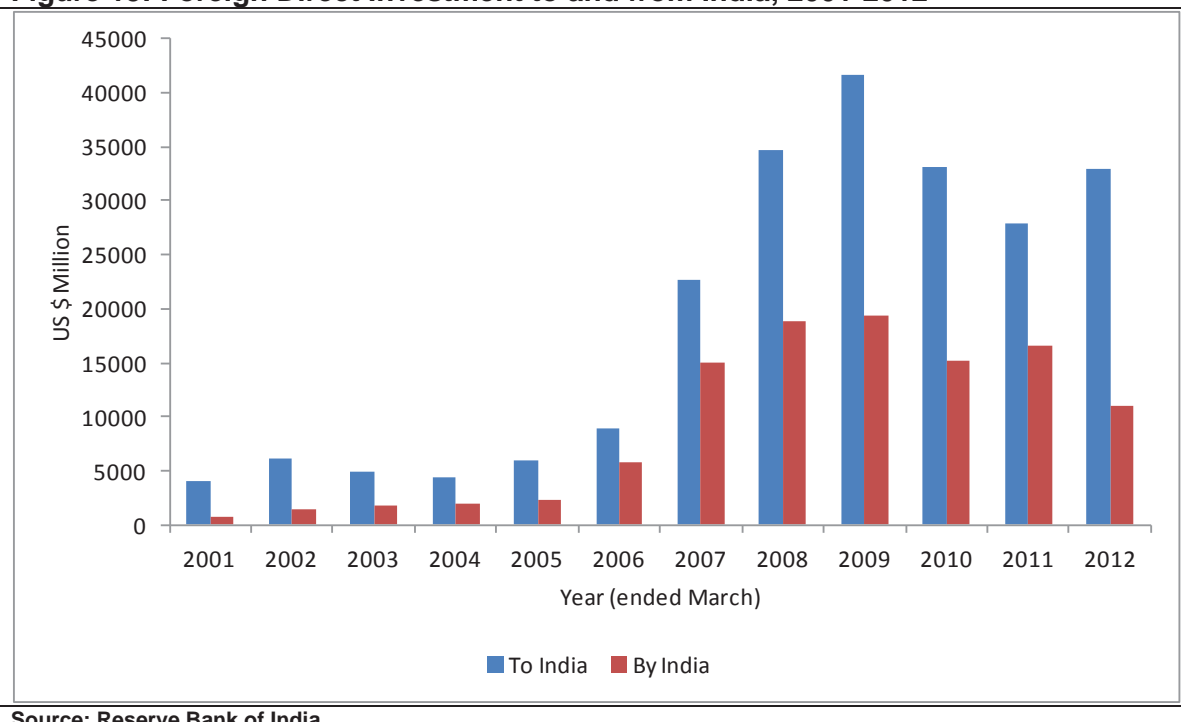
### 4.3 Investment opportunities

***Opportunities for foreign direct investment from and to India would need to be examined both at the country and state levels***

A strategic goal under NZ-Inc India strategy is to increase bilateral investments between New Zealand and India. Both inward and outward investments between the two countries

are presently at a low scale and sporadic. There could, however, be opportunities for New Zealand in future to increase in investment in India and *vice versa*. This is because during the last decade, apart from growth of FDI into India, direct investment outflows have also increased (Figure 11). Since 1991 India has progressively liberalised its foreign direct investment policy. Now 100 percent foreign equity ownership is allowed in most sectors in India under automatic route (without requiring prior Government approval). In the limited number of sectors requiring prior approval, the Government considers recommendation of the Foreign Investment Promotion Board. India's overseas investment policy has also been liberalised. Indian corporates can now invest up to 400 percent of their net worth per year in overseas entities under automatic route (without prior approval from the Government and the Reserve Bank of India). The proposals requiring approval are considered by the Special Committee on overseas investments. The ceiling of 400 percent of the net owned fund is not applicable for the Indian companies engaged in the energy and natural resource sectors (oil, gas, coal and mineral ores) though the proposals would still require approval. Overseas direct investments are, however, not allowed in certain real estate activities and banking business.

**Figure 15: Foreign Direct Investment to and from India, 2001-2012**



Source: Reserve Bank of India

FDI outflows from India are primarily occurring in greenfield projects, particularly in extractive industries, metal and metal products, and business services. India has remained a major investor in less developing economies (LDCs). Investments in mining, quarrying and petroleum remained the dominant form of FDI in LDCs, although investments in the services sector are increasing, especially in utilities, transport and storage, and telecommunication. Recently, there has been an increase of FDI in the pharmaceutical industry in the emerging market economies. This has been driven by dynamic growth of final markets in these economies and from the need to set up production capabilities for new health products and an ongoing restructuring trend throughout the industry. With several popular drugs losing their patent protection, many companies are investing in developing countries, as reflected in acquisition of Ranbaxy (India) by Daiichi Sankyo (Japan). India has been identified as seventh most promising

source country for FDI in UNCTAD's Global Investment Report 2012. Therefore, there is scope in identifying opportunities for inward FDI from India to New Zealand across a diverse range of sectors including extractive industries, IT and other modern services over the long term.

Equally, there is a need to search for New Zealand's investment opportunities in India at a disaggregated level. The richer states in the western and southern parts of India look likely to continue to drive the country's overall manufacturing and service sectors. Maharashtra's state has adopted policies for encouraging investment in biotech, e-governance, infrastructure, IT, special economic zones (SEZ) and tourism. Accordingly, Maharashtra's capital city of Mumbai has attracted 461 FDI projects between 2007 and 2011 particularly in energy, transportation, software and banks / financial services institutions. Based on an index compiled for global cities, Mumbai showed greatest business activity improvement among top 35 cities during 2008-10. In Maharashtra, Pune, with a large industrial base, is also attracting foreign investments. Similarly, Bangalore in Karnataka is attracting foreign investments in IT, engineering and biotech while Chennai in Tamil Nadu is a destination for FDI in the automotive sector. The inclusive growth strategy is also increasing attractiveness for investment in cities in Punjab and other backward states of Bihar and Madhya Pradesh, particularly in infrastructure and food sectors.

## 5. Concluding Observations

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The paper examined India's historical macroeconomic drivers and identified structural constraints to its Asian century potential over its long-term growth outlook. India's growth evolution was tracked across five phases during 1950-2013. The phases during the 1990s and the 2000s were the key turning points as India undertook economy-wide reforms, migrated to rules-based fiscal policy and opened up its economy to international trade and capital accounts. India's growth and structural transformation so far were driven by heavy-industry base, high domestic saving and investment rates, buoyant services and technological gains from economic liberalisation.

In future, the ADB holds that India could be among the top three economies by 2050 if it abridges the technology gap with the advanced economies rapidly and addresses major structural challenges. Notably, India could rely on external support more than before to address some of its bottlenecks across various sectors and states in its economy.

Yields in staple food crops have stagnated in the absence of major technological breakthroughs since the late 1960s in India. Indian agriculture could rely on international support to boost its productivity as had happened earlier. New technology would also have to address concerns of overexploitation of natural resources, particularly in staple foodgrain states in the northern and eastern parts of India. This could be New Zealand's opportunity to support the sustainability of Indian agriculture over the long-term. New Zealand has been promoting sustainable management of resources for more than two decades. Structurally, India's domestic supply of dairy and protein products are projected to fall short of its requirements in future. This could be a good prospect for New Zealand's exports. More importantly, New Zealand could technologically support India's domestic production of these products as was done in the past for dairy products.

India's manufacturing sector has stagnated at around 15 percent of GDP since the early 1990s. It now aims to raise the share of its manufacturing sector to 25 percent of GDP by 2022. India has diagnosed the slowdown to infrastructure and energy constraints, and



lack of machinery and capital goods. Its manufacturing policy focuses on developing capital goods, small and medium enterprises and high value added industries. Food processing segments are getting increasing focus as Indian diet preferences are changing. Thus, New Zealand's export prospects in machinery and processed food could increase over the long-term. Further, India is liberalising FDI in infrastructure. India has projected infrastructure financing requirements of \$US 1 trillion for the 12<sup>th</sup> Plan period (2012/13 to 2016/17). There could be prospective investment opportunities for New Zealand particularly around industrial clusters. Increased construction requirements for backward states and new urban centres in India could boost New Zealand's traditional exports of wood and metal products to India.

India's strong services sector growth is expected to continue in future. India aims for making its IT sector a global hub and enabling the sector's services more widely across the country. The Indian telecom market is expected to expand over the long-term with reductions in costs and a policy of promoting broadband penetration for all. India has raised FDI caps in insurance and pension sectors. FDI has been liberalised in multi-brand retail outlets. India is also encouraging investment in cold storage and supply chains for perishable food products. The paper suggested that India's current emphasis on a whole range of professional services could be prospective opportunities for New Zealand for joint collaboration and co-innovation. New Zealand's traditional exports of education and tourism services could also be boosted with growing young population of India.

New Zealand needs to explore all these opportunities if it intends to work towards the goals set under the *NZ-India Inc* strategy. The joint study commissioned by the Indian and New Zealand Governments in 2009 had demonstrated the existence of significant complementarities between the two economies. The study found that a Comprehensive Economic Cooperation Agreement (CECA) or Free Trade Agreement (FTA) would increase trade and welfare in both these economies. A CECA/FTA between the two countries is still awaited. In the interim, New Zealand could gain from opportunities available at the current structure as India grows and searches for external support to address its structural bottlenecks.



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