

China and India - Will They Drive the Global Economy ?

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Abstract

In this paper on India and China, an attempt is being made to assess the long term outlook for the two economies during a period of rapid globalization. Focus is on how the rise of India and China is a significant economic force in the world economy and how their growing presence will continue to change the rules governing the structure of global manufacturing and services output. The challenges the two economies now face to maintain their growth trajectories beyond the current boom are also discussed. The huge surplus in India's and China's working-age populations has forced the world to recognize their roles in the global business. Both markets are increasingly integral to the business strategies of multinational companies and are viewed as drivers for productivity. The two economies will be the dominant growth stories for the next 30 years. In the short to medium term, however, there will be challenges for both economies. India and China are at a critical juncture where they need to reassess their growth models and initiate difficult policy reforms for the current strong growth trend to be sustained. India requires an aggressive investment and export thrust while cooling consumption; China needs to slow its investment and export drive in favor of consumption. Both the economies need to reduce unemployment, poverty, and inequality and to improve education. In addition, each country has a unique set of challenges: India has to strengthen its infrastructure, improve public finances; reform its labor laws and augment its resources through higher FDI inflows and privatization. China needs to revamp its financial system, move to a flexible currency regime, and reform its institutional framework. Both countries will require political reform to lift them to the next level of economic development.

Introduction

The China-India comparison is central to the Asia debate and of great importance to the rest of the world. While the Chinese economy has outperformed India by a wide margin over the past 15 years, there are no guarantees that past performance is indicative of what lies ahead. Each of these dynamic economies is now at a critical juncture in their development, facing the choice of whether to stay the course or alter the strategy. The outcome of these choices will have profound implications not just for the 40% of the world's population residing in China and India but also for the future of Asia and the broader global economy. As recently as 1991, China and India stood at similar levels of economic development. Today, the Chinese standard of living is over twice that of India's, with China's GDP per capita at US\$1,700 in 2005 versus India's which is a little over US\$700 (Appendix I). The two nations have approached the development challenge in

very different ways. China has pursued a manufacturing-led growth strategy (hard infrastructure) whereas India has chosen a more services-based development model (soft infrastructure).

The contrast between the two approaches is reflected in numbers. The share of industry in China's GDP has risen from 42% to 47% over the past 15 years, compared to India's generally stagnant 28% manufacturing sector contribution over the same period. By contrast, the share of services in India's GDP increased from 41% in 1990 to 54% in 2005 much higher than the contribution of service sector to the GDP in China, which moved from 31% in 1990 to 40% in 2005 (Appendix II)

China's macro economic factors supported its manufacturing-led growth. Benefiting from a high domestic saving rate, huge inflows of foreign direct investment (FDI), and major efforts on the infrastructure front, China's economic growth has been increasingly fueled

by exports and fixed investment. Collectively, these two sectors now account for over 75% of China's GDP – and are still growing at close to a 30% rate today.

India's macro story has been characterized by a lower saving rate, limited inflows of FDI and sorely neglected infrastructure. Fragmented services sector has driven economic growth in India. Labor-intensive character of services has provided support to India's newly emerging middle class – a key building block for India's consumption-led recovery. As a result, private consumption currently accounts for 61% of India's GDP, far outstripping the 40% share in China.

China – India: Current Perspective and Future Challenges

India and China together represent 40% of the global labor supply but their share in global output is only 6.7% in nominal dollar terms (21% in PPP terms) (Appendix III and IV). Global labor arbitrage is improving the utilization of work forces in India and China. These two countries are likely to contribute significantly to global productivity in future due to availability of "able" working age population.

'Able' is defined as the part of the population that is not only skilled and capable of competing in the global market place but that also has an enabling environment provided through the government's structural reforms (removal of obstacles and provision of infrastructure/platforms). The current low levels of wages, large stock of surplus labor and the expected additions to the labor pools in India and China, will ensure that labor arbitrage will exist in world economy for some time in future

China and India are achieving high growth rates through the powerful interplay of three key macro factors

- Demographic Factors
- Reform Initiatives
- Globalization.

Demographics: Current Status and Future Course

First, age dependency has fallen (the share of the working population in the total population has risen) in both countries since the late 1970s with a much sharper drop in China than in India. *Second*, structural reforms have improved the utilization of the working-age population - a key resource.

Positive demographic cycles have been a key driver of strong growth trends for China and India. The ratio of non-working (elderly and children) to working-age (15-64 years) population has declined in both countries, i.e., the working population's share in the total population is rising.

The benefit of favorable demographics has been a key factor in the emergence of Asia as an economic force in the past 50 years following decades of development in western countries. The entire Asian region has seen the cycle of falling age dependencies (rising share of the working age population) (Appendix V), improving savings (and investment) to GDP and long phases of strong GDP growth. Japan was the first in Asia to experience a positive demographic wave, followed by the former Tiger economies (i.e., Hong Kong, Singapore, Taiwan and Korea) – and now China and, with a lag of a few years, India.

United Nations' data show that, by 2010, India and China will contribute an additional 71 million and 44 million people, respectively, to the global labor pool. In comparison, the US will provide 10 million while Europe's working population will not increase in this time-frame and Japan's will decline by 3 million (Appendix VI)

The potential for India and China to contribute significantly to the world's labor supply is evident from trends in the number of people with tertiary education in India and

China compared with those in some major developed countries. For instance, in 1990/91, the number of science and engineering graduates in India and China was lower than those in developed countries; today, the reverse is true. While India and China are adding about 0.69 million and 0.53 million engineering science graduates, respectively, a year, comparable numbers for Japan, the US and EC are 0.35 million, 0.42 million and 0.47 million respectively (Appendix VII).

The combined strength of the population educated to secondary level and above in India and China is almost twice that of the US, major European countries and Japan combined. Over the past five years, India and China would have added about 16 million and 24 million of secondary-level and above educated people to the working-age population compared with 14 million in the US.

China has managed to convert its advantage of a growing working population into a cycle of productive jobs for its expanding work force and translating this into higher savings, investment and growth. China's age dependency (share of non-working to working population) peaked in 1965 at 80%. Since then, its working population has been rising sharply. Its age-dependency ratio fell to 67% in 1980 and further to 46% in 2000 and 41% in 2005. At the same time, the government has been able to increase productive employment opportunities and, in turn, generate higher savings (Appendix VIII).

India could have the advantage of maintaining its high-growth phase for longer for a long time into the future. UN data shows that its age dependency will continue to decline (i.e., the share of the working-age population will continue to rise) until 2035. Indeed, United Nations' projections show that India will be the only large country still enjoying favorable demographics after 2010.

Japan, Europe and the US (in that order) will witness a significant rise in their ageing populations (Appendix IX).

There will be a sharp rise in the age dependency ratio in China after 2010. The median age in China, which by 2015 will reach 37 compared with 27 for India. The economic impact of India's demographic trends should improve further as the age dependency ratio falls to 55% by 2010 and to 52% by 2015 from an estimated 60% currently.

Reforms: Current Status and Future Course

China was also well ahead of India in initiating structural reforms, introducing them in the 1980s versus the 1990s in India. In the context of structural reform, there are two major roles for the government of an emerging economy. *First*, the government needs to reduce its interference in the real economy, allowing factors of production to operate more freely (i.e. deregulation of economic activities). *Second*, the government is required to play an active role as a productive public sector in certain areas to enable factors of production to operate more effectively. For instance, the government is best positioned to invest in building public infrastructure and providing basic services such as education and healthcare for the rural poor. The Indian government's performance in this regard is significantly lacking compared to that of Chinese government.

Over the next 10 years, as China's growth rate moderates from a high base, India's economic growth has the potential to accelerate to a sustained 8%-plus rate, breaking out of its average growth band of 6-6.5% for the past 10 years. The experts calculate nominal GDP will cross the US\$2 trillion mark by 2015, up from an estimated US\$773 billion in 2005. The analyst believe that the path to a higher level of growth will be supported by further improvement in demographics, structural reforms and globalization.

The two countries' ability to achieve their long-term potential also depends on how they handle internal challenges. Both need to implement political reform to move to the next level of economic development. They need to restructure their growth models: for India, exports and investments have to increase while China's export-led investments have to slow to shift the focus to consumption. Common challenges for India and China include the need to reduce unemployment, poverty, and inequality and improve education. At the same time, the two countries have pressures that are unique to them. India's major headwinds include the need to strengthen the infrastructure, improve public finances, reform labor laws, and augment resources through higher FDI inflows and privatization.

China's main challenges include the strengthening of the banking system, moving to a flexible currency regime, and improving the institutional framework.

Globalisation: Current Status and Future Potential

India was also late in deciding to participate in globalization. India's integration with the global economy started to accelerate in the early 1990s while China's integration began in the early 1980s.

Globalization has been key to the acceleration in Asia's growth cycle. However, as this trend continues, political pressures are mounting. Not only is the trade in goods scaling up but also the share of the tradable portion of the services sector is rising. As India and China continue to add their work forces to the global labor supply chain, this will have implications for the real wage growth of middle-income groups of the developed world and raises the risk of protectionism.

Analysts believe that, with the marginal supply of the skilled work forces in India and

China increasing, globalization could further undermine this middle-income group's real wage growth in developed economies. Political pressure for protecting domestic industry in the developed part of the world is expected to increase. However, it will be difficult to implement protectionist policies in view of the high costs that the developed economies are plagued with currently

India's Specific Challenges

Infrastructure Deficiencies

India's Infrastructure Spending Is One-Seventh of China's The single most important macro constraint on the Indian economy, limiting its average growth rate, is the low spending on infrastructure. In 2005, total capital spending on electricity, railways, roads, airports, seaports and telecoms was US\$201 billion in China (9.0% of GDP) compared with US\$28 billion in India (3.6% of GDP). India needs a national plan to increase infrastructure spending to 7-8% of GDP, from an estimated 3.6% of GDP (Appendix X) in 2005, to push the economy onto a sustained growth path of 8-9% a year.

The cost of most infrastructure services is 50-100% higher in India than in China. For instance, average electricity costs for manufacturing in India are roughly double those in China. Railway transport costs in India are three times those in China. Similarly, the average cost of freight payments as a percentage of imports is about 10% in India versus around 5% in developed countries and an overall global average of 6%.

Apart from high costs, the lack of basic infrastructure facilities is impeding the efficiency of production. The gap is evident in almost all areas of infrastructure: roads, airports, seaports, railways, electricity and industrial clusters/estates (SEZs). Infrastructure is key for job creation. India's strengths of a huge skilled and semi-skilled

work force, entrepreneurial expertise and natural resources are currently being inadequately utilized because of lack of infrastructure. The UN estimates that India will be the largest contributor to the additional working-age population globally over the next five years, accounting for 23% of the worldwide increase. Infrastructure is, in many ways, the key to unlocking underutilized manpower. Efficient and low-cost infrastructure is the key facilitator of globalization and labor arbitrage. India has been able to make major inroads into software services IT-enabled business process outsourcing exports (ITES) because of the availability of high-quality telecom facilities, the infrastructure backbone for these exports, at a reasonable cost.

The manufacturing sector in India is constrained by relatively inefficient and high-cost infrastructure. The lack of adequate infrastructure is limiting inter-state as well as global trade. This is evident in India's share of global goods exports, at just 0.9% in 2005, compared with China's 7.3% (Appendix XI). With the exception of a select few, Indian companies that have globally competitive cost structures are not able to scale up their operations due to poor infrastructure. Low government spending on infrastructure hurts high employment-generating, labor-intensive small enterprises the most. While large companies can draw on their own resources for basic infrastructure services, such as a captive electricity plant or a diesel generator set, small enterprises suffer when public infrastructure support is lacking. In many cases, it is not cost per se but the sheer lack of infrastructure that holds back small enterprises. In addition to attracting domestic investors for aggressive capital expenditure, improved infrastructure should pull in foreign direct investment in manufacturing and augment a sustainable recovery in the investment cycle and growth.

The complexity around infrastructure development is unlikely to be resolved quickly. The biggest hurdle is the political environment. Lack of political will to work toward infrastructure spending that is oriented to longer payback periods is an overriding worry.

In addition, there are several challenges to achieving the required steep increase in infrastructure. *First*, the current state of the government balance sheet allows little scope for a major rise in infrastructure spending from public resources. Public debt to GDP is at 82% and the annual consolidated fiscal deficit (including off-budget subsidies) is close to 10% of GDP. *Second*, over the years, the ability of the government administrative machinery to handle large infrastructure projects efficiently has weakened. *Third*, political interference has resulted in a large gap between user charges and the costs of operating infrastructure utilities. Often the government covers the subsidy gap by overburdening the paying customer – mostly industrial users. In many cases, the gap in collection is due not just to legitimate subsidization but also to widespread theft. This is a critical problem, considering that a substantial proportion of infrastructure utilities is owned by the government or government-owned entities. *Fourth*, poor private participation is also a hurdle to improving efficiency. Experts believe that, for many infrastructure sectors (such as electricity); the only way to ensure significant improvements in service is privatization. The electricity distribution network is currently owned more than 90% by the government or government-owned entities.

However, extensive privatization of public utilities is likely to be difficult to achieve. There seems to be a consensus among policymakers that the infrastructure issue needs immediate focus. The government is introducing a set of measures for different sectors to accelerate infrastructure spending growth. Experts

expect infrastructure investment to increase to US\$50 billion (4.9% of GDP) by F2009 from US\$28 billion (3.6% of GDP) currently. Some of the major areas receiving government attention are roads, airports, SEZs, railways and urban infrastructure. The largest increase in investments is planned for the roads sector. The government is implementing a seven-phase program, which is likely to be around Rs1,750 billion (approximately US\$38 billion), and it is scheduled for completion in 2012. The government recently privatized Mumbai and Delhi airports, which should help increase investments in these two major airports. The government has recently cleared the new SEZ Act, which aims to attract private sector investments in SEZs. The government also plans to initiate a US\$5 billion Greenfield railway network dedicated to freight traffic (Freight Corridor) through funding from a Japanese government-owned financial institution. In December 2005, the government launched the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) aimed at improving urban infrastructure and urban basic services in over 60 cities. The plan envisages a cumulative investment of US\$22 billion over the next seven years (US\$3.1 billion a year).

Weak Public Finances

India's deficit is the highest among those in major emerging markets and about two to three times those of major developed economies on a percentage to GDP basis (Appendix XII). Although the central government has been less profligate in this period, poor management of state finances has been the key reason for the recent sharp rise in the combined deficit. The states' deficit was an estimated 4% of GDP in F2005 (Appendix XIII). While the state governments' revenue collections increased by 0.8 percentage points of GDP over this period, aggregate expenditure rose to 16.3% of GDP, from 14.0%. This increase in expenditure was largely due to higher non-development

expenditure on items such as interest, pension and administrative services. For a decline in the deficit, the government would have to initiate expenditure reforms but there is no sign of such a move yet.

Labor Laws outdated

The median age of the Indian population is currently 24.3 years, the lowest among large nations. India will add 71 million to its working-age population of 691 million by 2010, according to estimates by the United Nations. India has to convert the advantage of having a growing working population into a cycle of creating productive jobs for the expanding work force, which, in turn, should translate into higher savings, investment and economic growth. Reducing labor rigidity through labor reforms is crucial for creating this cycle. Improving labour productivity is also critical

Based on a study by the Confederation of Indian Industries (CII), labor productivity in China's organized sector is about 10 to 300% higher than in India for certain large industries.

Low Foreign Direct Investment

A key reason for India's below-potential economic growth rates is the government's relatively weak resource mobilization effort. FDI and privatization are the key funding sources that can help augment the resource availability. India has received an average of about US\$4.4 billion a year from privatization and FDI over the past ten years compared with US\$53 billion a year in China. In 2005, India's FDI flows were estimated at US\$6.6 billion (0.9% of GDP) compared with US\$60 billion in China (2.7% of GDP) (Appendix XIV). Although FDI inflows for India should rise modestly over the next three years, an aggressive thrust is necessary to augment resource mobilization meaningfully.

Gradual reforms should ensure a moderate pickup in FDI inflows although these are still

Table I Hurdles to FDI Flows to India

Comments	
Regulations and Laws	Laws in general rather than those specific to FDI are in many cases a major hurdle to investments. For instance, laws relating to food processing are complex, making it difficult for investors, domestic as well as foreign, to invest large amounts in this area
Infrastructure	Except for telecoms the cost of most infrastructure services is 50-100% higher in India than in China. For instance average electricity costs for manufacturing in India are roughly double in China. Railway transport costs in India are three times those in China. High costs aside, the simple lack of basic infrastructure facilities are impeding efficiency of production
Labor Laws	More than 40 labor-related laws have been enacted by the central government. In addition state governments have introduced several pieces of labor legislation. Most laws are outdated and are not in sync with the practical realities of a highly competitive globalized world. Currently, any factory employing more than 100 people needs to undergo a rigorous approval-seeking process not only for closing down but also for laying off employees.
Procedures	Approval for investment proposals and clearance requires long lead times. Although the government is steadily taking steps to reduce the time required, it is still much longer than is desired.
Legal Proceedings	Although the rule of law is a big attraction with respect to India, the effectiveness of this sound legal environment is hampered by the long delays in legal proceedings. There are currently 28-29 million legal cases pending for the courts.
Tax Structure	The high Indirect tax rate for the organised sector in India is a key contributor to the higher manufactured product prices compared with those in China. In addition, the Indian tax system suffers from a multiplicity of rates and surcharges compared with one single rate in most other emerging markets, including China. The government, is in the process of reforming the indirect tax laws but it could be another three years for these changes to be fully implemented.

likely to be less than desired levels. *First*, India is continuing to expand as a major destination for services sector outsourcing. While FDI inflows for services tend to be relatively small as this sector is not very capital intensive, its contribution is rising. *Second*, one can expect an increase in FDI in mining and metals manufacturing (exports and domestic markets) because of India's strength in natural resources, including iron ore, bauxite and thermal coal. *Third*, there should be a steady increase in FDI focused on growing domestic market opportunities, especially in consumer goods.

FDI in India is deterred by the general business environment rather than specific FDI regulations. The main obstacles are inadequate infrastructure facilities throughout the country, rigid labor laws, bureaucratic controls

and procedures and long delays in legal proceedings. For instance, although POSCO has shown keen interest in setting up a steel plant in the state of Orissa, translating that intent into investments is taking an unusually long time. POSCO initially faced hurdles in identifying mines and negotiating the terms with the government for accessing those mines. Later it encountered problems in acquiring land for the plant and ports. POSCO first announced its investment plan in July 2004 but it appears that meaningful investment will start flowing only from 2007. Similarly, the government has liberalized FDI rules in real estate recently but the domestic regulations relating to the Urban Land Ceiling Regulation Acts (ULCRA) and other laws and procedures remain impediments to rapid expansion in construction investment by

foreign companies. Many large states have yet to repeal the ULCRA. Such obstacles prevail in many sectors and, unless the general investment environment improves, there is likely to be only a gradual increase in FDI investment.

Most of the improvement in total capital inflows has been due to higher non-FDI flows. Cumulatively, for the past three years non-FDI flows accounted for about 83% of total capital flows in India compared with 32% for the top emerging markets. (Appendix XV) The most important non-FDI source for India has been portfolio investment. Of the total capital flows of US\$65 billion received over the past three years, US\$29 billion were in the form of portfolio inflows. Indeed, in 2005 portfolio flows accounted for about 45% of the total capital flows in India. India has been one of the most favored markets over the past three years, representing an estimated 20%-25% of total portfolio flows into developing markets.

China's Specific Challenges

Weak Banking Sector

Although, China's GDP is about three times India's, its banking system (in terms of loan assets) is 8.5 times larger. India's credit to GDP ratio at 39% is significantly lower than China's 113%. Although one of the key differences between the two economies that explain the huge variation in the sizes of the banking systems is their savings to GDP ratios. China's credit growth has run ahead of the sustainable trend. China's credit-to-GDP ratio is far higher relative to its per capita income when compared with other Asia/Pacific markets.

The four large banks in China, which account for about 54% of the total assets of the banking system, have been traditionally operating under the strong influence of government bureaucracy and mandates, including credit allocation decisions. This has resulted in multiple and mixed business goals

for banks. Large banks' ownership structure and corporate governance have adversely affected their ability to evolve a self-managing risk-assessment system. The incentive system in China is aligned in a way that encourages them to over-invest. The high level of NPAs in the banking system is to a very large extent a reflection of this incentive structure.

Only eight of the total of around 115 banks in China had a capital adequacy ratio (CAR) over the Basel I requirement of 8% as of 2003. However, the situation has improved with the number of banks with a CAR over 8% increasing to 53 as of 2005. The Chinese government also improved the CAR of the two large banks (Bank of China and China Construction Bank) by injecting US\$45 billion in January 2004. In addition, the two banks raised over US\$19 billion via equity issuances. In India, most banks already comply with the stricter norm of 9% and will move to meeting Basel II requirements by March 2007. India's Banking System – On a Better Footing In comparison. Indian banks are in a much better position in terms of risk-assessment systems, NPLs, capital base and effective central bank supervision.

Issues to be addressed by China

China needs to undertake five fundamental reforms to achieve balanced growth.

Decrease the role of government in the economy

The government has controlled a large proportion of economic resources and directed them in a way that ensures strong economic growth. This has helped China in the initial

stages improve utilization of all resources, i.e., capital, labor, land and natural resources. Going forward, China should reduce the dominance of government ownership to improve market discipline.

Improve the institutional framework

China needs to focus on improving the institutional framework to provide a structure that encourages the efficient allocation of capital for sustaining the current strong growth trend. Financial sector reforms are an important part of these overall reforms aimed at reducing the government role. Under the current structure, state-owned banks are not able to effectively discharge their role.

Return assets to the people

The government owns land, natural resources, and numerous state-owned enterprises. Households, therefore, have a lower share of the country's wealth. The return of assets to the people could provide support for household consumption growth.

Reform the healthcare and education sectors to reduce households' cost concerns

Healthcare and education, in theory, are still under government control; however, these sectors usually raise funds from students and patients through a range of unofficial levies and charges. Adequate funds are not provided to local authorities for running these social programs. China does not enjoy either the benefits of efficient private ownership or the low costs of public ownership. The high cost of health and education adversely influences household behavior towards consumption.

Boost supply of affordable housing

Property is the most important expenditure item for a typical family. High property prices are a secular force against consumption. Some cities have witnessed a significant rise in property prices. A rise in property prices in a country where home ownership is still low can cause social tension and make people save more from a sense of insecurity.

Conclusion

While China's growth model is driven by supply (investment), India's is underpinned

by demand (consumption). A sharp fall in real interest rates driven by high global liquidity boosted consumption more than investment in India. There are many challenges emerging from this consumption-driven growth, posing risks to macro stability. Analyst feels that a commensurate rise in the supply side is critical for ensuring a sustained acceleration in the growth cycle. The government needs to implement measures to stimulate the supply-side response by investing in infrastructure, implementing labor reforms, improving the management of government finances and strengthening the administrative framework.

Over the past three years, India's GDP growth was an average 8% a year, up from the 5.4% annual average for the preceding five years (Appendix XVI). A key factor in this acceleration in growth has been the sharp rise in capital flows in response to an increase in the global risk appetite. The global liquidity spillover into India has allowed the government to pursue relatively loose monetary and fiscal policies. Over the past five years, households and government have lapped up this liquidity, increasing India's debt-to-GDP ratio by 26 percentage points (Appendix XVII). This compares with increases in the debt-to-GDP ratios of 25 percentage points for the US and 8 for China during this period. A large part of the borrowing by the Indian government and households has been used to boost consumption rather than increase productive investments (Appendix XVIII)

Cumulatively, over the past three years India has received capital flows of US\$72 billion versus US\$28 billion in the preceding three years. A bulk of the rise in capital flows has been from less stable non-FDI sources. The experts believe that the unusually high appetite for risk has been a key factor pushing real rates in India down to unsustainably low levels. In mid-2004, the real yield on Indian government bonds was lower than that in the US, implying that US government bonds

carry greater risk than their Indian counterparts. Although Indian interest rates have corrected significantly over the past 12 months, the real 10-year government securities yield is still at levels similar to those in the US, indicating that global risk appetite remains high.

Ideally, the sharp fall in real interest rates should have generated a stronger investment response from the corporate sector. However, over the past five years, corporates have been reducing their debt-to-equity ratios and their capex-to-depreciation ratios have been falling despite the rising return on equity (Appendix XIX). The fall in US interest rates from the beginning of 2001 has evoked a sharp acceleration in capex (supply response) in China. In contrast, in India it ushered in a new paradigm in household consumption spending (demand response) through leveraging.

Initially, the growth in consumption, supported by government and household borrowing, was not necessarily a negative development as it helped improve domestic capacity utilization. Experts believe that, since early 2004, a rising proportion of this consumption is being met through imports. In other words, incrementally every rupee of consumption boosted by borrowing is not generating the same positive impact on domestic output. This trend is also posing significant challenges (a point that the central bank has highlighted), including deterioration in credit quality, asset bubbles (especially property prices), a decline in household financial savings and a widening current account gap. More importantly, implementation of aggressive capex schedules now could cause interest rates to rise sharply – especially in a tightening global environment – as the financial capacity in the system has already been used to boost consumption.

China and India represent the future of Asia and quite possibly the future for the global

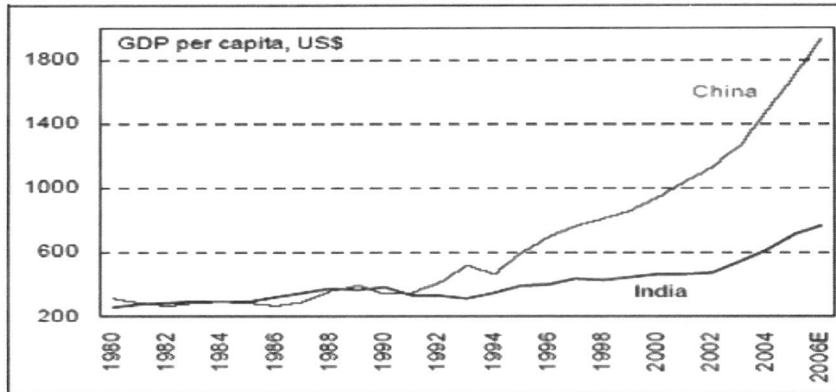
economy. Yet both economies now need to fine-tune their development strategies by expanding their economic power bases. If these mid-course corrections are well executed – China and India should play an increasingly powerful role in driving the global growth dynamic for years to come. With that role, however, come equally important consequences. IT-enabled globalization has introduced an unexpected complication into the process – a time compression of economic development that has caught the rich industrial world by surprise. The resulting heightened sense of economic insecurity that has stoked an increasingly dangerous protectionist backlash could well pose yet another major challenge to China and India – learning how to live with the consequences of their successes.

References:

- Helen (Hong) Qiao, "Will China Grow Old Before Getting Rich?", *Global Economics Paper No. 138, Goldman Sachs*
- Edouard Mathieu, "Investment from Large Developing Economies in France and Europe", *UNTAD's World Investment Report 2006*, <http://www.afii.fr>
- Dominic Wilson, Roopa Purushothaman, "Dreaming with BRICs: The Path to 2050", *Global Economics Paper No. 99, Goldman Sachs*
- Richard Jackson & Neil Howe, "The Graying of the Middle Kingdom: The Demographics and Economics of Retirement Policy in China", *Center for Strategic & International Studies, April 2004*
- Surjit S. Bhalla, "Rethinking Indian Growth 1950-2005: Misunderstood or Mis-judged?", *NCAER – NBER Conference Neemrana, January 2006*
- Ira Kalish, "China and India: The Reality Beyond the Hype", *Deloitte Research*
- Chetan Ahya, Andy Xie, Amit Agarwal, Denise Yam, Sharon Lam, Mihir Sheth, "India and China: A Special Economic Analysis"
- National Bureau of Statistics; <http://www.stanford.edu/~LJLAU>
- RBI website; www.rbi.org
- www.imf.org
- www.imf.org/Beijing
- <http://www.foreignpolicy.com/story/story.php?storyID=13774>

Appendix 1

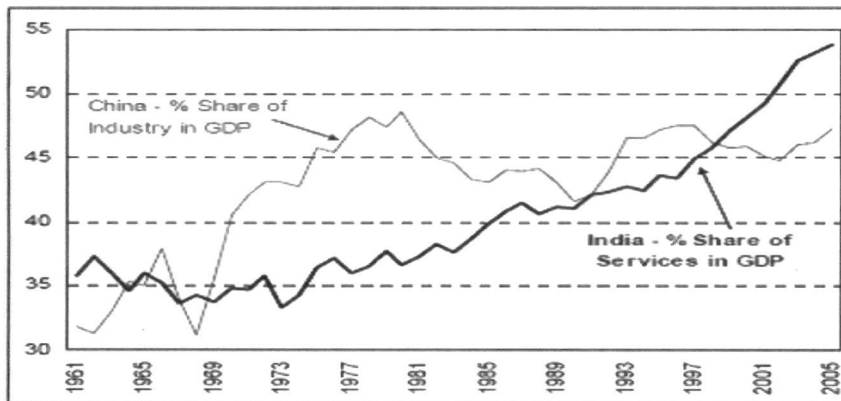
Two Asian Development Paths



Source: IMF

Appendix 2

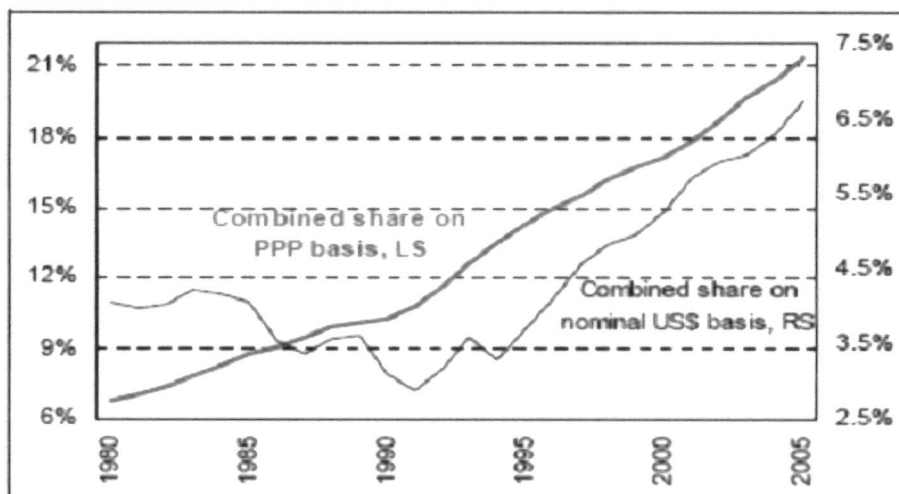
The New Asia



Source: IMF

Appendix 3

China and India: Combined Share in World GDP



Source: IMF

Appendix 4

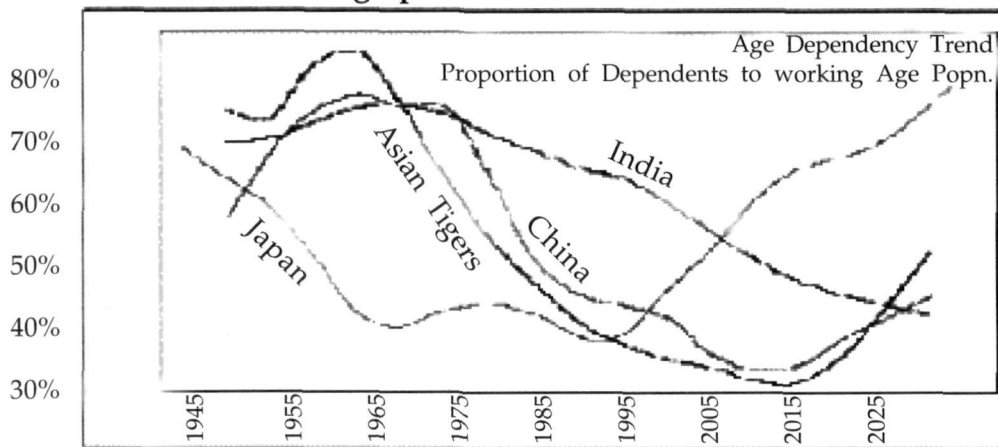
China and India: GDP Statistics

	1990		2005	
	India	China	India	China
Nominal (US\$ Bn)	313	388	773	2225
PPP Basis (US\$ Bn)	1145	1633	3633	9412
Growth (CAGR for trailing 5 yrs)				
-Nominal	7.5%	4.9%	11.0%	13.2%
-PPP Basis	9.6%	11.3%	8.5%	12.0%
Share in World GDP				
-Nominal	1.4%	1.7%	1.7%	5.0%
-PPP	4.3%	6.1%	5.9%	15.4%
Share in World GDP Growth (trailing 5 yrs average)				
-Nominal	0.6%	2.6%	2.5%	8.0%
-PPP	5.4%	8.8%	7.7%	25.6%

Source: IMF

Appendix 5

Asia's Four Demographic Waves



Source: United Nations

Appendix 6

Growth in Global Working-Age Population (15-64)

	Stock Position 2005	Addition to working age population by 2010
World	4168	314
India	691	71
Africa*	500	64
China	934	44
South East Asia	362	33
Latin America	359	31
Western Asia	132	17
USA	200	10
Europe	497	0
Japan	85	-3

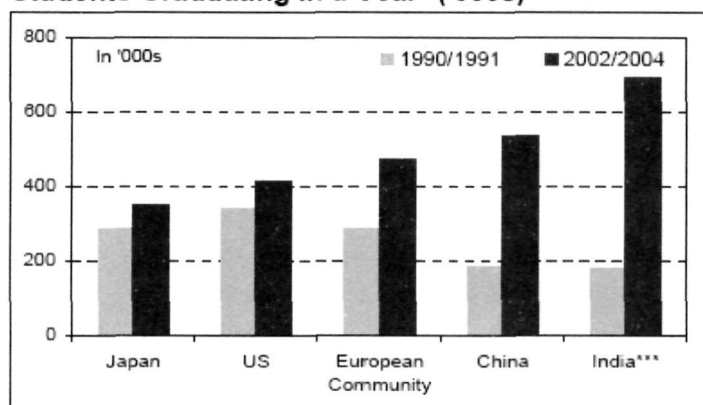
In Millions

* Note: Africa includes a group of 56 countries. Source: UN, Morgan Stanley Research

Source: WTO

Appendix 7

Delta in Global Supply of Science & Engineering Students Graduating in a Year* ('000s)



* Includes people with first university degree in science and engineering; *** Note: India data do not include engineering diploma holders; the data are for the latest year available, i.e. the current data for different countries range over various years from 2002 to 2004; Source: National Science Foundation, NASSCOM, Morgan Stanley Research.

Source: WTO

Appendix 8

China and India: Savings and Age-Dependency Trends

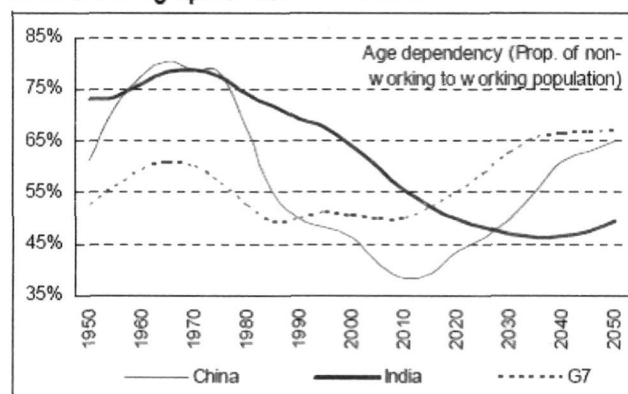
	1960s	1970s	1980s	1990s	2000-05
India					
Age Dependency ¹	77.8%	76.8%	71.7%	67.0%	61.8%
Savings ²	13.0%	18.0%	19.9%	23.8%	26.3%
Investments ³	15.1%	18.1%	21.8%	25.2%	26.0%
China					
Age Dependency ¹	79.0%	74.8%	57.4%	48.1%	43.6%
Savings ²	25.6%	34.7%	35.4%	38.5%	39.8%
Investments ³	26.1%	34.8%	34.8%	40.6%	42.2%

1. Ratio of non working to working population.
2. Gross national saving Ratio.
3. Gross capital formation.

Source: UN, CSO

Appendix 9

India's Demographics vs. G7 and China



Source: UN

Appendix 10

Infrastructure Investment

(As of 2005/F2006)	India		China	
	US\$ bn	% of GDP	US\$ bn	% of GDP
Transport	10.9	1.4%	95.7	4.3%
– Railways	3.5	0.4%	15.2	0.7%
– Roads	5.8	0.7%	67.1	3.0%
– Ports	1.2	0.2%	9.7	0.4%
– Airports	0.4	0.1%	3.7	0.2%
Communication	8.1	1.0%	19.0	0.9%
Electricity	8.4	1.1%	80.1	3.6%
Urban Infrastructure	1.0	0.1%	6.4	0.3%
Total	28.4	3.6%	201.2	9.0%

Source: CEIC, Morgan Stanley Research

Appendix 11

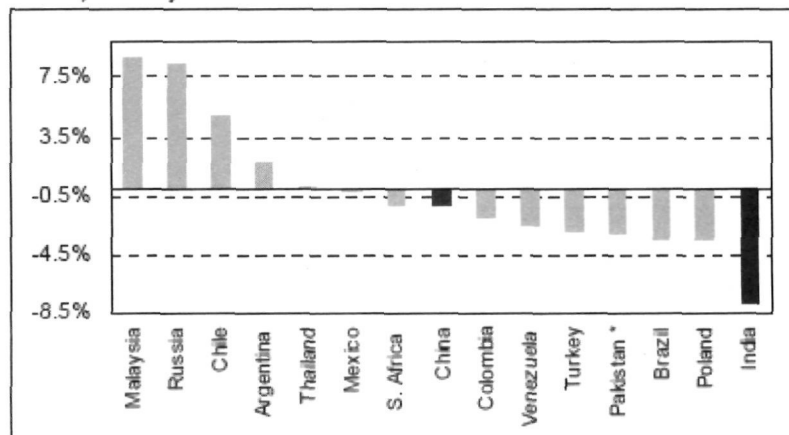
**Major Emerging Markets:
Share in World Goods Exports, 2005**

Country	Rank	Share in World Exports	Country	Rank	Share in World Exports
China	3	7.3%	Malaysia	19	1.4%
Korea	12	2.7%	Brazil	23	1.1%
Russia	13	2.4%	Thailand	25	1.1%
Mexico	15	2.1%	India	29	0.9%
Taiwan	16	1.9%	Indonesia	31	0.8%

Source: WTO, Morgan Stanley Research

Appendix 12

Select Emerging Markets: Budget Deficit (As % of GDP, 2005)



Note: Data relate to emerging markets with nominal US\$ GDP greater than US\$100 bn and per capita income less than US\$10,000. Data for Iran & Algeria are unavailable. * Pakistan data are for fiscal year ended F2005.

Source: CEIC, Central Bank Websites, Morgan Stanley Research

Appendix 13

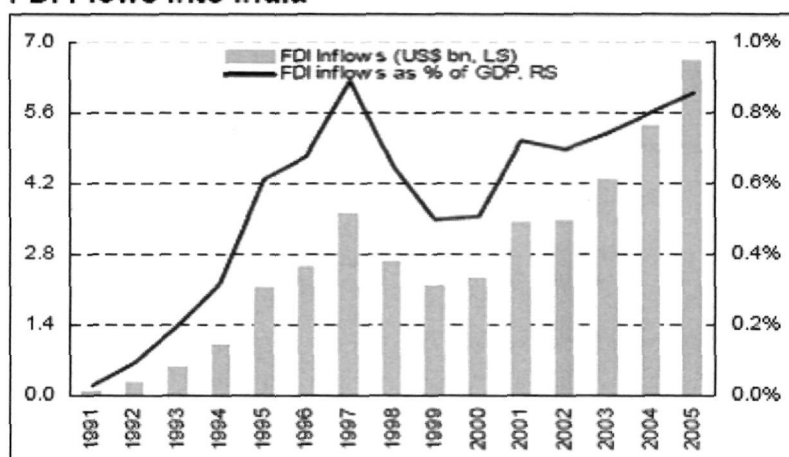
India's Consolidated Fiscal Deficit

(As % of GDP)	F2004	F2005	F2006E	F2007E
Central Fiscal Deficit	4.5%	4.0%	4.2%	4.2%
State Fiscal Deficit	4.5%	4.0%	3.7%	3.6%
Sub-total	8.9%	8.0%	7.9%	7.8%
Inter-government adjustments	-0.5%	-0.2%	-0.2%	-0.2%
Combined Headline Deficit	8.4%	7.8%	7.8%	7.6%
<i>Major Off-budget items</i>				
---Oil Subsidy	0.2%	0.6%	1.2%	1.2%*
---Electricity Subsidy	0.8%	0.8%	0.7%	0.7%
Overall Fiscal Deficit	9.4%	9.2%	9.6%	9.5%

* Assuming oil (WTI) @ US\$ 85/bbl; E= Morgan Stanley Research Estimates; Source: RBI, Budget Documents, Economic Survey of India, Morgan Stanley Research;

Appendix 14

FDI Flows into India



Source: UNCTAD, Morgan Stanley Research

Appendix 15

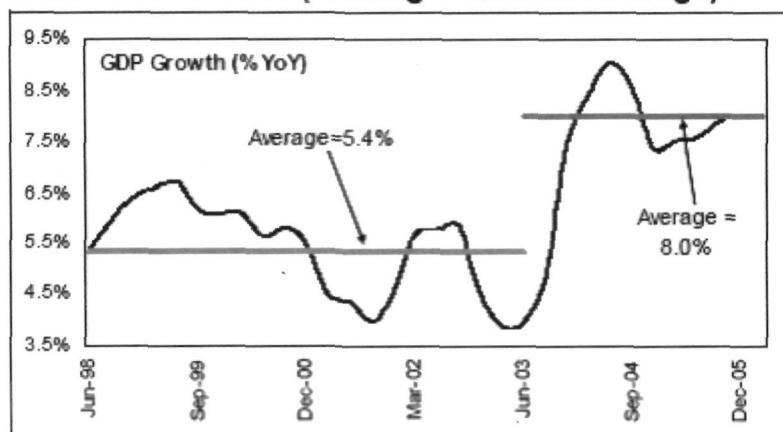
Composition of Capital Flows for Top 10 Emerging Markets¹

(Data for 2003-2005)	EM Basket (Ex-India)	India
Total Net FDI Flows* (US\$ bn)	250	11
Total Capital Flows (US\$ bn)	366	65
% Share of FDI Flows	68%	17%
% Share of Non-FDI Flows	32%	83%

1. Includes Russia, Mexico, India, Turkey, Indonesia, South Africa, China, Korea, Brazil and Taiwan; * FDI inflows less outflows; Source: IMF, Central Bank Websites, CEIC, Morgan Stanley Research

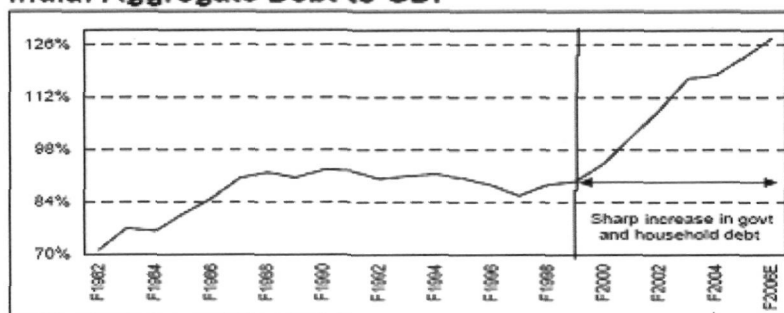
Appendix 16

India: GDP Growth (Trailing 4-Quarter Average)



Appendix 17

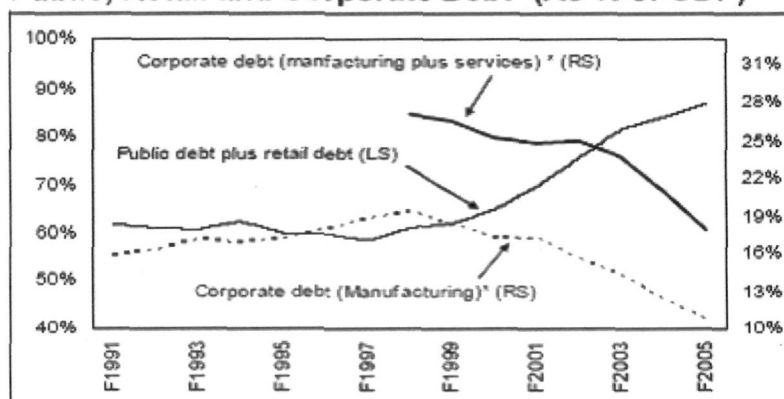
India: Aggregate Debt to GDP¹



Source: RBI, Morgan Stanley Research 1. Note debt stock figures are understated as they do not include external borrowings by corporates and lending by non-banking financial entities; E= Morgan Stanley Research Estimates

Appendix 18

Public, Retail and Corporate Debt* (As % of GDP)



Source: CSO, RBI, CMIE, Morgan Stanley Research
*Based on data for over 3,800 manufacturing and 1,200 services companies

Appendix 19

Indian Corporate Sector's Risk Aversion to Capex

	F1995	F1996	F2000	F2003	F2005	F2006E
MS Research Coverage Universe (80 companies, accounting for 47% of total market cap.)						
Capex to Depn	4.3	2.8	2.4	2.3	2.0	2.4
Cash to Book Value	12.9%	13.0%	17.1%	17.5%	28.0%	26.2%
Debt to Equity	0.60	0.55	0.42	0.42	0.32	0.27
ROE	16.5%	17.4%	16.6%	19.1%	22.3%	20.0%
Top 200 Listed Companies (accounting for 57% of total market cap.)						
Capex to Depn	4.6	4.5	1.9	1.2	2.0	na
Cash to Book Value	10.6%	9.6%	12.7%	17.8%	26.1%	na
Debt to Equity	0.9	0.8	0.7	0.6	0.4	na
ROE	16.2%	16.3%	11.7%	18.2%	22.7%	na

Source: Capitaline, Morgan Stanley Research, E= Morgan Stanley Research Estimates

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