India and China: New Tigers of Asia, Part III

India to Outpace China's Growth by 2013-15
Special Economic Analysis

Chetan Ahya
Tanvee Gupta

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Morgan Stanley

Morgan Stanley Asia (Singapore) Pte.

Chetan Ahya
Chetan.Ahya@morganstanley.com
+65 6834 6738

Morgan Stanley India Company Private Limited

Tanvee Gupta
Tanvee.Gupta@morganstanley.com
+91 22 2209 7927

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For important disclosures, refer to the Disclosures Section, located at the end of this report.

Preface

The huge surplus in the working-age populations in India and China has forced the world economy to recognize the countries' roles in the global competitive dynamic. Both markets are increasingly integral to the business strategies of multinational companies and are viewed as structural drivers for global productivity. By 2020, we forecast India's GDP will cross the US$6trn mark while China's will surpass US$20trn, driven by the powerful combination of favorable demographics, structural reforms, and globalization. We expect the two economies to be the dominant growth stories for the next 20 years.

This report is the third part of our *India and China: New Tigers of Asia* series. Part I, published in July 2004, assessed the long-term outlook for the two economies during a period of rapid globalization. We highlighted how the rise of India and China is the most significant economic force in the world economy and that their growing presence will continue to change the rules that underpin the structure of global manufacturing and services output.

In Part II, published in June 2006, we focused on the challenges the two economies faced to maintain their growth trajectories beyond the then current boom. In that report, we highlighted that India had the potential to catch up to China's economic growth rates over a 10-year period. Indeed, India is now not far from doing so.

In Part III, we focus on the long-term growth outlook in India. We believe that, over the next two years, India should start matching China's economic growth, barring another global crisis, clearly reaping the rewards of very positive demographics and an increasingly dynamic economy.

We will continue to see both these economic powerhouses develop and reform as their respective models or stages of growth evolve as they create wealth and see their demographics change. The drive and dynamism both these economies provide to the world has and will become ever more important as they continue to develop and engage more intricately with the global economy.

This report provides some terrific insights into that evolution and the longer-term comparative factors driving the success of both economies. We now increasingly have a genuine double act from China and India in terms of dynamic economic growth engines willing and enthusiastic to engage with the global economy. This can only be beneficial for the continued growth and stability of the region and the world economy as a whole.

Marcus Walsh

Director of Asia Pacific Research

Hong Kong, August 2010

Contents

Preface 3
India to Outpace China's Growth by 2013-15 6

Chart Scan

Growth Trends: India Bridging the Gap with China 16
Consumption – Macro: China's Consumption to GDP To Rise, India's To Decline 18
Consumption – Micro: Markets for Most Products in India are a Third to a Tenth of China's 20
Investments: China's Total Capex is More Than Five Times India's 22
External Trade: China's Share in Global Exports Is Five Times India's 24

Appendices

Appendix 1: India - Summary of Reforms Implemented Since 1991 28
Appendix 2: Fact Sheet 31
Appendix 3: India and China – Income Distribution 34
Appendix 4: Key Economic Indicators – India 35
Appendix 5: Key Economic Indicators – China 36
Glossary 37

India to Outpace China's Growth by 2013-15

In our second report comparing India and China in 2006 (*India and China: New Tigers of Asia, Part II* dated May 29, 2006), we made a call that India had the potential to catch up with China in terms of GDP growth rates. That time has come, in our view. We believe that, over the next two years, India should start matching China's GDP growth of around 8.5-9.5%, barring another global financial crisis. More importantly, we think that, by 2013-15, India will start outpacing China's GDP growth notably. Morgan Stanley's Chief Economist for China, Qing Wang, believes that China's growth will move towards a more sustainable rate of 8% by 2015, following the remarkable 10% average over the past 30 years. We believe India's growth will accelerate to a sustainable 9-10% by 2013-15, after an average of 7.3% over the past 10 years. In other words, over the next 10 years, we expect India's growth to outpace China's. Indeed, we expect India's per-capita income to reach China's 2009 levels of US$3,750 over the next 10-11 years. We believe India will see further rise in investments to GDP, particularly infrastructure, and China will see a gradual rise in consumption GDP.

India Is Transitioning to Higher Sustainable Growth Rates
India's GDP growth has moved from a range of 6% in the early 2000s to 8-8.5% currently. We believe this shift has been premised on three key factors.

First, the improvement in demographics as measured by declining age-dependency (the ratio of the dependent population size to the working-age population size) has been the most important factor supporting this acceleration in growth. The ratio of the number of elderly people and children to the working-age (aged 15-64 years) population has declined from 68.6% in 1995 to 55.6% in 2010, according to United Nations (UN) estimates. In other words, the working-age population has been growing faster than has the dependent population. This has helped support a structural rise in domestic savings.

Second, **structural reforms** have improved the utilization of the working-age population, a key resource. A positive demographic trend may be a necessary condition for strong growth, but it is not sufficient alone. Favorable demographics need to be converted into a virtuous cycle of acceleration in growth. A critical step in this process is the opening up of productive job opportunities through reforms. Over the years, India's government has been initiating reforms to encourage private sector investment, which helps create the platform of employment for the working-age population. In this context,

Exhibit 1
India's Growth Story: What Is Changing

	1995	2000	2005	2009E	2011E
Nominal GDP (US$bn)	354	462	810	1,224	1,761
Real GDP growth (YoY%)	7.4%	5.6%	9.2%	6.7%	8.4%
Age Dependency	68.6%	64.7%	60.5%	56.6%	54.8%
Saving to GDP*	24.4%	23.7%	33.1%	31.9%	34.2%
Consumption to GDP*	73.9%	76.3%	68.9%	69.6%	67.3%
Investment to GDP*	26.2%	24.3%	34.3%	34.4%	36.5%
Infrastructure Spending*	4.1%	5.0%	5.4%	7.5%	8.4%
Exports of goods & services (US$bn)	37	58	152	249	375
As % of GDP	10.6%	12.6%	18.8%	20.3%	21.3%
Imports of goods & services (US$bn)	45	70	190	318	471
As % of GDP	12.6%	15.3%	23.5%	26.0%	26.8%
Current Account Deficit (US$bn)	-5.6	-4.6	-10.3	-26.6	-45.1
As % of GDP	-1.6%	-1.0%	-1.3%	-2.2%	-2.6%

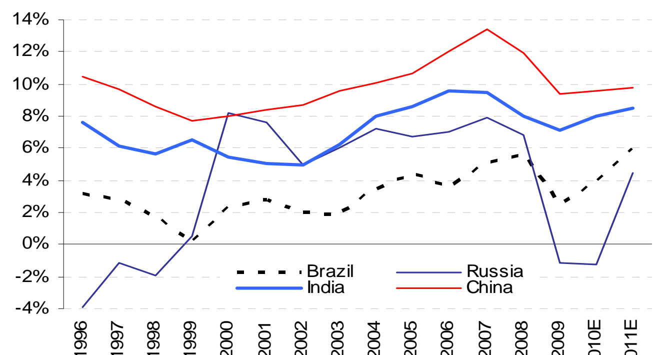
E = Morgan Stanley Research estimates; Note: * Data refers to the corresponding financial year. Source: CEIC, IMF, Planning Commission, WTO, Morgan Stanley Research

Exhibit 2
China and India: GDP Statistics

	1990		2009	
	India	China	India	China
Nominal (US$bn)	314	404	1224	5000
PPP Basis (US$bn)	722	910	3526	8765
Growth (CAGR for trailing five yrs)				
--Nominal	7.3%	5.6%	12.8%	20.8%
--PPP basis	9.4%	11.4%	11.0%	13.3%
Share in World GDP				
--Nominal	1.4%	1.8%	2.1%	8.6%
--PPP	2.8%	3.6%	5.1%	12.6%
Share in World GDP Growth (trailing five-year average)				
--Nominal	0.9%	1.0%	3.5%	19.2%
--PPP	3.6%	5.2%	8.3%	23.5%

Source: CEIC, CSO, IMF, Morgan Stanley Research

Exhibit 3
BRIC: Two-year Trailing Average GDP Growth



E = Morgan Stanley Research estimates; Source: CEIC, IMF, Morgan Stanley Research

one of the long-standing challenges for India was acceleration in infrastructure spending. The government has finally been able to address this.

We expect infrastructure spending to rise to 8% of GDP in 2010 from 7.5% of GDP in 2009 and 5.4% of GDP in 2005. Similarly, business capex has been accelerating, except for during the recent period following the global credit crisis. The corporate sector has evolved from infancy to be ready to grow in an open global competitive environment. This rise in investment has indeed created the employment platform for the growing working age population. These reforms have played a critical role in boosting productivity growth. For an exhaustive list of reforms, please see Appendix 1.

Third, globalization, as reflected in the steady rise in exports to GDP and capital inflows to GDP has also helped accelerate the pace of growth. India has relied on both goods and service exports. India's performance in services has been a key differentiating factor. We believe services exports have higher value-added components and more potential in terms of the impact on the rise in savings rate. India's share in global services exports increased to 2.6% in 2009 from 1.1% in 2000. Also, we believe India has benefited significantly from a rise in capital inflows.

A combination of structural reforms (including reduction in import tariffs and other protection), an increase in private corporate and infrastructure investments, and financial deepening, and changing corporate sector efficiency, has resulted in a steady increase in total factor productivity (TFP) growth. Our estimates indicate that India's TFP growth accelerated from an average of 2.4% in the 1990s to 4% in 2005-09.

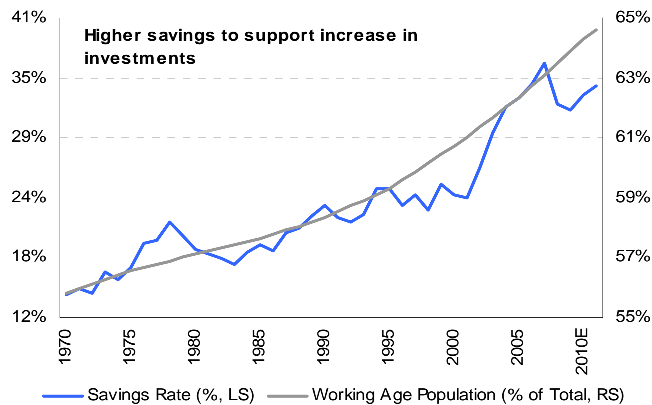
This interplay of demographics, reforms, and globalization is crucial for the virtuous cycle of faster growth in productive job creation – income growth – savings – investments – higher growth. Over the past 10 years, India's savings to GDP has risen from 24-25% to 33-36%. Similarly, investment to GDP has risen from 24-25% to 35-38% and GDP growth has accelerated to a trailing five-year average of 8.5% in 2009 from 5.9% in 2000.

Factors Behind the Lag In India's Performance vs China

China has managed to convert its advantage of a growing working population into a virtuous loop of creating productive jobs for its expanding workforce and translate this to higher savings, investment, and growth since the early 1980s. China's age dependency peaked in 1965 at 80.4%. Since then, the country's working population has been rising sharply. Its age

Exhibit 4

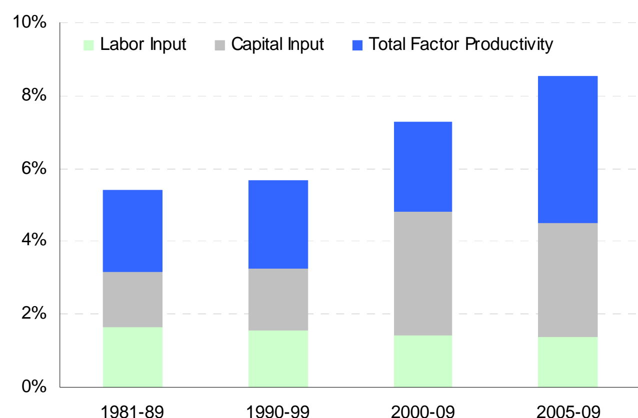
India's Age Dependency vs. Savings Rate



E = Morgan Stanley Research estimates. Source: CSO, UN, Morgan Stanley Research

Exhibit 5

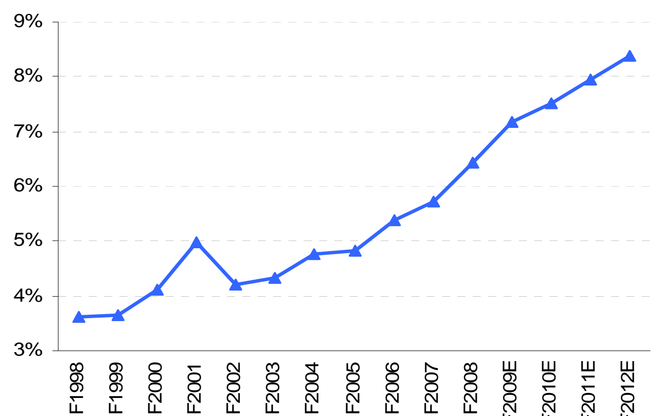
India: Higher Productivity and Capital (investments) Inputs Are the Key Driver to Growth



Source: CEIC, UN, Morgan Stanley Research

Exhibit 6

India's Trend in Infrastructure Spend



E = Morgan Stanley Research estimates. Source: Morgan Stanley Research

dependency fell to 67.4% in 1980, 48.2% in 2000, and 39.1% in 2010. Concurrently, China's government has been able to increase productive employment opportunities and, in turn, generate higher savings. China's savings rate increased from about 25% in the mid-1960s to 35% in 1980, 37.5% in 1990, and 51.4% in 2009, supporting a major rise in investments to GDP. Real GDP growth in China has averaged 10% annually over the past 30 years, compared with 6.2% in India. During this period, China's GDP grew 16 times to US$5trn whereas India's rose seven times to US$1.2trn. China's exports (including services) surged 65 times over this period to US$1,330bn while India's exports increased 22 times to US$250bn.

The lag in India's performance, in our view, was due to the lower level of support from demographic, reform, and globalization factors. India's demographic cycle is trailing China's. Although the two had similar age-dependency ratios in the late 1970s, China has far outpaced India in the past 20 years. China was also well ahead of India in initiating structural reforms, introducing them in the late 1970s versus in the 1990s in India. One could argue that the pressure on policy makers to create jobs emerged earlier in China because of the way the change in the working-age population progressed there. India was also late in deciding to participate in globalization, as reflected in the import tariff trend.

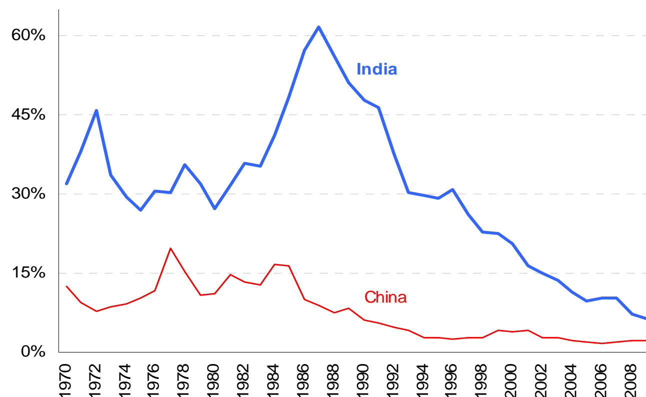
India's integration with the global economy started to accelerate in the early 1990s while China's integration began in the early 1980s. For example, India had import tariffs above 30% until the early 1990s. Indeed, we believe India is following the same path as China when we compare their export-to-GDP ratios, keeping the starting points for both as the years in which the countries initiated the liberalization that allowed their resources to interact with those of the rest of the world.

However, India's GDP growth is now inching closer to China's. Over the past three years, India has been narrowing the gap with China in terms of GDP growth. In 2010, we estimate India's GDP growth at 8.5% and China's at 10%.

India to Start Outpacing China From 2013-15

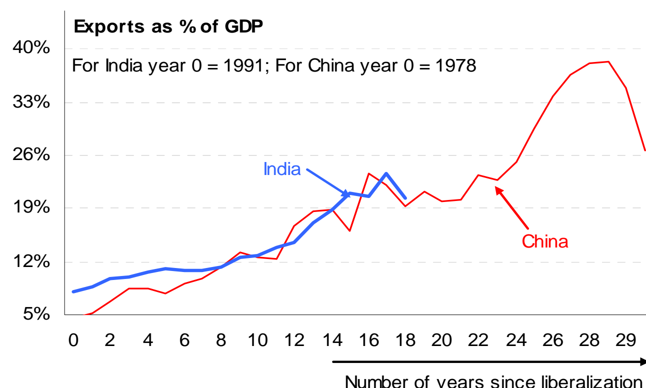
We believe that, by 2012, India and China will likely achieve similar growth rates of closer to 9% and from 2013-15 India will start outpacing China's GDP growth notably. The demographic trend is likely to diverge in the two countries. China is expected to reach an inflexion point in its age-dependency ratio around 2015. The UN estimates China's age-dependency ratio will rise from 39.1% in 2010 to 40% in 2015 and 45.8% in 2025 whereas India's will continue to improve from 55.6% in 2010 to

Exhibit 7
Customs Duty Collections as Percentage of Imports



Source: CEIC, Morgan Stanley Research

Exhibit 8
Exports to GDP since the Start of Reforms



Source: WTO, Morgan Stanley Research

Exhibit 9
India: the Largest Contributor to Growth in the Working Population over the Next 10 Years

	Stock Position 2010E	Addition to working age population by 2020
World	4524	515 (11%)
Africa	582	162 (28%)
India	781	136 (17%)
South East Asia	395	52 (13%)
Latin America	385	50 (13%)
Western Asia	148	32 (21%)
China	973	23 (2%)
Indonesia	156	20 (13%)
USA	212	11(5%)
Japan	82	(-9%) -8
Europe	501	-(-4%) -21

In Millions

Note: Figures in parentheses indicate growth in working age population in 2020 vs. 2010; E = UN Population estimates; Source: UN, Morgan Stanley Research

51.7% in 2015 and 47.2% in 2025. This would be reflected in the median age in China, which by 2020 would reach 37.1 compared with 28.1 for India. The economic impact of India's demographic trends should improve further as age dependency declines.

India to Emerge as the Largest Supplier of Labor
India will account for almost 26% of the increase in global working-age population over the next 10 years, according to UN estimates. The large surplus in India's working population is forcing recognition in the world economy of the country's role in global competition and output dynamics. As mentioned, UN data show that, by 2020, India will contribute an additional 136mn people to the global labor pool.

In comparison, China and the US will contribute 23mn and 11mn respectively while Japan's and Europe's working populations are estimated to decline by 8mn and 21mn.

Demographics alone are not sufficient for acceleration in GDP growth and it is important that the working population is educated. Over the past few years, the trend in education in India has improved significantly. We believe the quality mix of the fresh additions to the workforce over the next 10 years is likely to change dramatically. We estimate only 7-9% of India's population moving into the 15-plus age bracket is illiterate and that this could dip well below 5% over the next 2-3 years.

Over the next 10 years, assuming supportive policy measures, we believe India will emerge as the global leader in producing secondary- and tertiary-educated talent

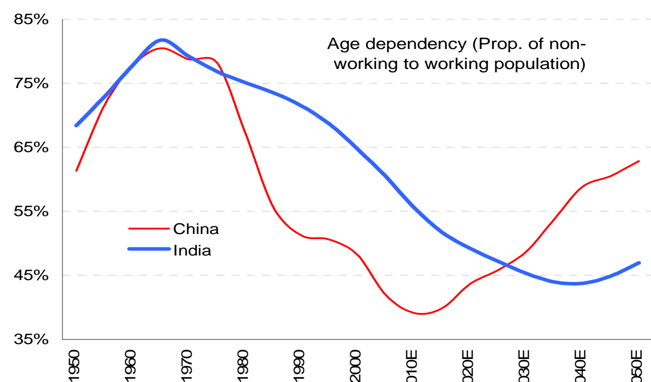
Primary school enrollment rates have risen significantly in India over the past few years – on a net and gross basis to 90% and 113% respectively. Key reasons for this have been the success of the government's Sarva Shiksha Abhiyan (providing universal primary education) program and Midday Meal Scheme (under which a free lunch is provided to students to encourage them to attend school). The number of out-of-school children in the primary age group dropped to around 5.6mn in 2007 from 18mn in 2000, according to World Bank estimates. Also, the drop-out ratio has improved significantly in recent years. According to District Information System for Education (DISE) data, the retention rate (the percentage of students who complete their education) at the primary level improved to 73.7% in F2008 (12 months to March 2008) from 58% in F2005 and 53% in F2004.

Exhibit 10
Median Age (years)

	2005	2010E	2015E	2020E
India	**23.7**	**25.0**	**26.5**	**28.1**
Indonesia	26.5	28.2	30.1	32.0
Brazil	27.0	29.0	31.3	33.6
China	**32.1**	**34.2**	**35.6**	**37.1**
USA	36.0	36.6	37.2	37.9
Russia	37.3	38.1	38.9	40.0
United Kingdom	38.9	39.9	40.3	40.4
Western Europe	40.5	42.2	43.8	44.9
Japan	43.1	44.7	46.6	48.6

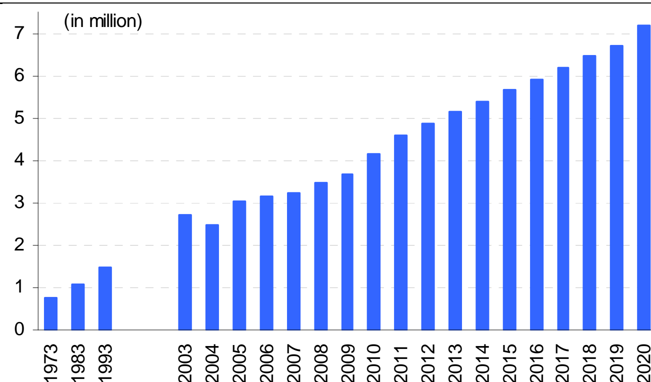
E = UN Population estimates. Source: UN, Morgan Stanley Research

Exhibit 11
Trend in Demographics – One Key Factor Explaining China's Lead So Far and India's Lead in Future



E = UN Population estimates; Source: UN, Morgan Stanley Research

Exhibit 12
India: Potential Out-turn of Tertiary Educated Population



Note: In the absence of any official data on tertiary promotion/repletion rates, we conducted a very simplistic exercise that assumes that gross tertiary enrollment increases from 13.5% in 2007 (as per World Bank estimates) to 22% by 2020.
Source: World Bank, UN, Morgan Stanley Research

We estimate that, if current trends continue, the number of students graduating from primary school each year (out-turn) could increase from 18mn in 2009 to 20.3mn in 2015 and 21.4mn in 2020. The impact of higher enrollment would be felt on out-turn at the secondary level as well. Indeed, secondary enrollment rates have already started to pick up. According to World Bank data, the secondary school gross enrollment rate in India rose to 57% in 2007 from 46.2% in 2000. In India, there are two key secondary education levels – lower secondary (education up to Grade 10) and higher secondary (education up to Grade 12). We estimate lower secondary out-turn could increase from 8.5mn in 2009 to 11.8mn by 2015 and 14.5mn by 2020, and that upper secondary out-turn could increase from 5.8mn in 2009 to 9.2mn by 2015 and 11.2mn by 2020.

This would also filter through to the tertiary level. Out-turn at the tertiary level could increase from 3.7mn in 2009 to 5.7mn by 2015 and 7.2mn by 2020, we estimate. This would imply an increase in India's tertiary-educated workforce size from 50-52mn in 2009 to 114mn by 2020. The out-turn of tertiary graduates in China has been much larger than in India because of a significantly larger delta in population in the 20-24 age bracket. However, this trend is likely to change over the next few years, with the delta in population in this age bracket becoming larger in India. By 2020, we believe India will have the largest annual out-turn of tertiary graduates globally.

The availability of infrastructure and teachers will be key to ensure the quality of education and supply of an educated workforce does not become constrained with the rapid growth. For our estimates of growth in the primary-, secondary-, and tertiary-educated population to materialize, there would need to be adequate measures to increase the number of teachers and professors. India's pupil-teacher ratio at all three levels is higher than those in other key countries. Indeed, at the tertiary level, we estimate additional 40,000 teachers/professors would be needed annually to maintain the current pupil-teacher ratio. This compares with the outstanding stock of teachers at the tertiary level of 540,000.

Steady implementation of structural reforms is important to create the employment platform for rising supply of educated/skilled labor. Further reforms that help create the platform of productive employment for the rising working-age population in India will be needed, in our view. India's voting population demographics are changing rapidly, with a rising bias towards to younger people, who are literate and hungry for development. Indeed, the positive outcome of a larger share of the seats in parliament for the single-largest party in general elections held in May 2009 is allowing the Congress Party-led coalition government to initiate some difficult reforms. For example, over the past 12 months, the government has systematically focused on reducing the subsidy burden on oil and gas. Also, infrastructure execution is picking up gradually.

Over the next 12-24 months, we expect the pace of reforms to pick up with the government initiating the following reforms:

(a) Further steady reduction in subsidies: For instance, the government announced a 10% hike in urea (fertilizers) prices and a new nutrient-based subsidy in February 2010. For gas, the government approved a revision of administered gas prices effective June 2010. Also, the government has increased domestic fuel prices twice so far in 2010 and has announced that gasoline prices will be market-linked from now. We estimate these measures will effectively reduce subsidy expenditure for an annualized rate of about 0.6% of GDP. We expect the government to maintain its path to reduce subsidy burden.

(b) Introduction of Goods and Services Tax (GST) system: A transition to GST would be an important milestone from a macro perspective, moving from the current system of different types of indirect taxes and multiple rates of indirect taxes. The new system would cover a wider base, including all goods and services. The current system taxes production, whereas the GST will aim to tax consumption. Indeed, current law levies taxes on the movement of goods from one state to other – effectively creating borders within borders. It distorts the allocation of resources and inhibits productivity growth. India's budget confirmed government plans to implement the consolidated nationwide GST system from April 1, 2011

(c) Direct tax reforms: These reforms aim to broaden the tax base and will minimize exemptions. The budget for F2011 has confirmed a plan to implement direct tax reforms as recommended in the direct reforms code (DTC) in F2012. The Ministry of Finance has issued a draft new code for direct taxation. The thrust of the new code, as its foreword says, 'is to improve efficiency and equity in direct tax system by eliminating distortions in tax structure, introducing moderate levels of taxation and expanding the tax base.' For broadening the tax base, the code will minimize exemptions. The removal of these exemptions will improve the tax-to-GDP ratio and efficiency in allocation of resources. The new code will also simplify the language and law to reduce litigation and check tax evasion. Moreover, the new code aims to encourage long-term savings. The tax incentives for savings will be rationalized. The code aims to follow the Exempt Exempt Tax (EET) rule, under which initial savings contribution and accrual of interest are exempt but withdrawals would be subject to normal taxes.

(d) Consolidation of the public sector deficit: The government has accepted in principle the recommendation by the 13th Finance Commission for a fiscal roadmap for fiscal deficit and revenue deficit for F2010-15. The commission's includes the following medium-term fiscal consolidation plan: (i) to cut the consolidated (centre plus state government) fiscal deficit to 7.3% of GDP by F2012 and 5.4% of GDP in F2015. (ii) This will enable the government to reduce consolidated public debt to GDP to 76.6% of GDP by March 2012 and 67.8% of GDP by March 2015.

(e) Meaningful steps towards divestment of the government's stakes in SOEs: The government plans to initiate a meaningful divestment program, targeting collection proceeds. The budget target calls for raising Rs400bn (US$8.7bn, 0.6% of GDP) from divestments in F2011 compared with an estimated Rs250bn (US$5.5bn, 0.4% of GDP) in F2010. We estimate the value of the government's stakes in listed SOEs at US$300bn. If we include unlisted companies, the value would be approximately US$450bn.

(f) Acceleration in infrastructure spending, particularly for roads and power: The government plans to increase infrastructure spending to 8.4% of GDP in F2012 from 7.5% of GDP in F2009. The Planning Commission has estimated the infrastructure investments in F2013-17 will rise to a cumulative US$1trn compared with US$542bn in F2007-12. Key areas where infrastructure spending is rising include power, roads, and telecoms. We believe this plan is realistic and achievable.

(g) FDI in retail marketing and distribution: We believe that by mid-2011 the government is likely to allow foreign direct investment in multi-brand retail distribution with conditions attached for compulsory contribution to back-end infrastructure investments and absorption of rural work force. India, at present, allows FDI in single-brand retailing to the extent of 51%, and 100% for cash-and-carry wholesale trading. If the government were to allow FDI in the retailing sector for multi-brands, it would result in a dramatic increase in retail sector growth, in our view, involving an increase in input of capital, technology, and new management practices, which could reform the whole retail business chain. In our view, this move of allowing FDI for multi-brand retailing would restructure: (a) retail distribution via higher asset turnover and better inventory management; (b) intermediary and logistics management; and (c) production management for agriculture and manufacturing. Inefficiencies in the agriculture sector could be reduced significantly through improvement in the supply chain triggered by retail sector growth. Similarly, SME manufacturing would get a major demand boost and face pressure to increase efficiency.

Exhibit 13

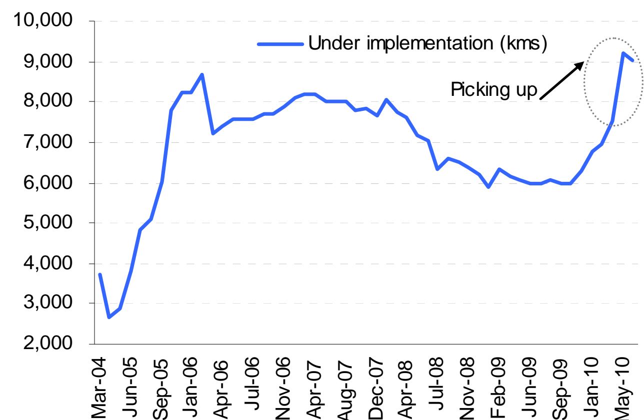
Public Sector Debt to GDP – Target Recommended By 13th Finance Commission

	F2011	F2012	F2013	F2014	F2015
Fiscal Deficit – States	2.6	2.5	2.5	2.4	2.4
Fiscal Deficit – Centre	5.7	4.8	4.2	3.0	3.0
Net Central Loans to States	0	0	0	0	0
Fiscal Deficit – Consolidated	**8.3**	**7.3**	**6.7**	**5.4**	**5.4**
Debt Stock – States	26.6	26.1	25.5	24.8	24.3
Debt Stock – Centre	53.9	52.5	50.5	47.5	44.8
Outstanding Central Loans to States	2.2	2.0	1.7	1.5	1.3
Consolidated Debt	**78.3**	**76.6**	**74.3**	**70.8**	**67.8**

Source: India's Thirteenth Finance Commission Report

Exhibit 14

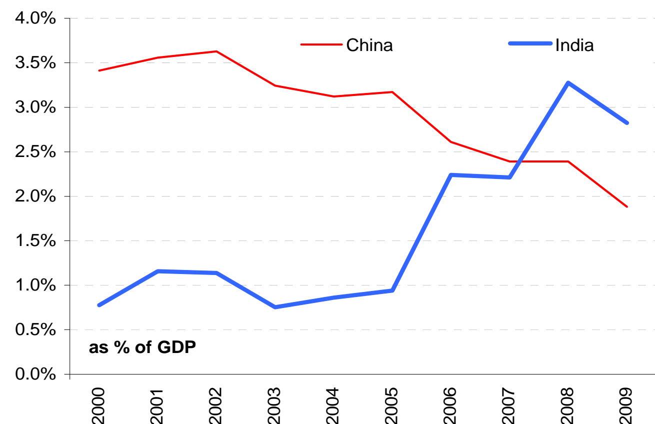
India: National Highway Construction Under Implementation (km)



Source: National Highway Authority of India, Morgan Stanley Research

Exhibit 15

FDI Inflows (as % of GDP)



Source: UNCTAD, CEIC, Morgan Stanley Research

In addition to these positive trends in demographics / talent supply and structural reforms, India will continue to benefit from globalization, which should help increase productive job opportunities for the country's skilled labor force. We expect India's exports to GDP to continue rising. The combined effect of more favorable demographics and increased productive job opportunities should boost India's private savings level and push aggregate savings to 37-40% of GDP over the next 10 years allowing the country to maintain an investment-to-GDP ratio of 39-42%, we estimate. This increase in savings and, correspondingly, the investment-to-GDP ratio should ensure a shift in India's growth to a sustained rate of 9-10% in this period.

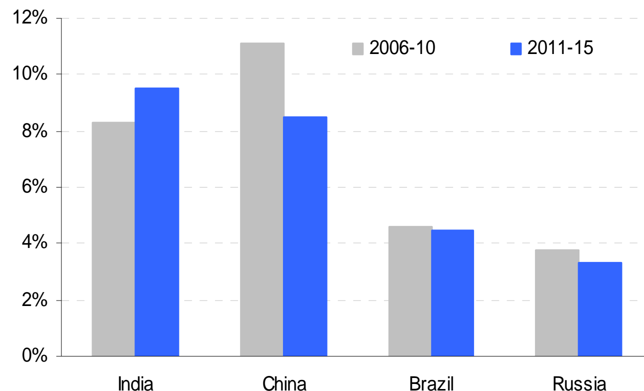
Net capital inflows as a percentage of GDP in India have increased sustainably to 4-5%, except for during the credit crisis. Gross FDI in India increased to 2.8% of GDP in 2009 from 0.9% in 2005. Indeed, FDI as a percentage of GDP in India is now higher than in China and Brazil. Capital inflows help India fund its current account deficit and allow the country to accelerate investments more than savings. Moreover, capital inflows into India tend to be in the nature of high-risk capital. Indirectly, this large source of risk capital acts as a catalyst to private corporate capex. The combined impact of the continued structural reforms, financial deepening and rising investments will help boost productivity growth further over the next 10 years.

Qing Wang expects China's sustainable GDP growth to moderate to 8% towards 2015. With a changing demographic trend, China is unlikely to have a rise in the supply of cheap labour at the same pace as has been the case in the past 20 years. Over the next 10 years, China will add only 23mn people to its working-age population compared with 118mn people added over the past 10 years, according to UN data, while India will add 136mn over the next 10 years. The UN estimates China's age-dependency ratio will start rising from 39% in 2010 to 40% in 2015 and 43.7% in 2020.

In this context, we expect China to initiate structural change in its growth model, reducing the dependence on external demand, increasing consumption to GDP, and narrowing the current account surplus. This rebalancing would primarily be premised on lifting wages as a percentage of GDP and the re-pricing of economic resources such as materials to reduce environmental costs. A corollary to this trend, we believe, will be the transition of the country's exports model from low-value-added manufacturing to higher-value-added manufacturing. Similarly, we think China's share of consumption to GDP and services to GDP will rise over the next 10 years.

Exhibit 16

BRIC: Average GDP Growth, 2006-2015E



E = Morgan Stanley Research estimates; Source: CEIC, IMF, Morgan Stanley Research

India to Offer Best Growth Opportunity over Next 25 Years
Over the next 20-25 years, we expect India to remain the highest growth economy among large countries. India could have the advantage of maintaining its high-growth phase for a longer period than East Asia did as UN data shows that India's age dependency will continue to decline until 2040.

Indeed, UN projections show that India will be the only large country which will still have favorable demographics after 2010. Japan, Europe, and the US (in that order) will have a significant rise in their ageing populations. So, while in the past 20 years, China has benefited ahead of India from a faster fall (improvement) in age-dependency ratio, over the next 20-25 years India will have this advantage.

Internal Challenges to Sustain Strong Growth Story
We believe there are several challenges to India's high growth story. First, the government needs to ensure that it delivers on execution of infrastructure development. The trend in China over the past 25 years indicates that, for 10% sustainable GDP growth, India would need to increase infrastructure spending to 10% of GDP from the current 7.5%. We believe the government would need to focus on laying down the policy framework and support to ensure a sustained increase in investment in key sectors such as electricity, highways, and railways.

Second, one of the key pillars of our strong outlook for India is a structural rise in domestic savings and investments. In that context, reduction of the government's revenue deficit would be critical. The government made a move in that direction in February 2010 by targeting a lower fiscal and revenue deficit, but such efforts would need to continue over the next few years.

Third, labor law reform would need to be prioritized. We believe sustained strong growth in SMEs will be an important driver of India's growth. There are more than 40 labor-related laws from the central government on such issues as compensation, retrenchment, industrial disputes, and trade unions. State governments also have several pieces of labor legislation. Most of these laws are not in sync with the practical realities of a highly competitive globalized world. We believe labor law reforms would be needed to support growth in labor-intensive industries.

Fourth, development of less-developed states. Rising income inequality and high poverty levels in some states have increased the probability of social instability. Already, a few states have faced insurgency from naxalites and the internal security threat from this movement is a concern.

Fifth, as discussed, significant progress has been made in improving primary and tertiary education. The success of primary education has meant the demand for the secondary education infrastructure is beginning to rise rapidly. We believe measures to further improve secondary and tertiary education infrastructure would be required to help sustain the strong growth story.

Chart Scan

Growth Trends: India Bridging the Gap with China

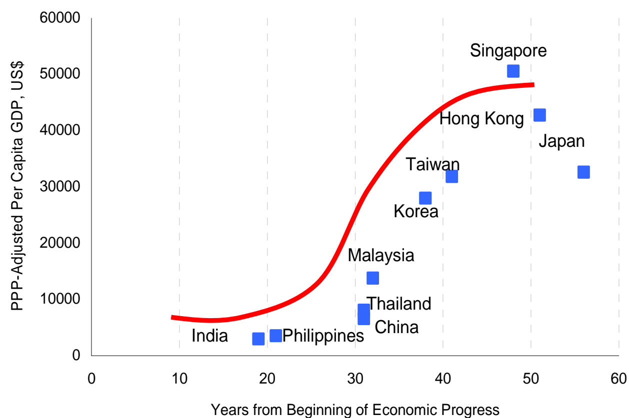
- **Acceleration in growth in the post-reform period:** China's annual economic growth has averaged 10% since 1978. Following a sharp rise in the working-population ratio in the early 1970s, the government initiated major structural reforms in 1978, which allowed a virtuous interplay of labor and capital. India's economic growth underwent a structural shift at the start of the 1980s. Over the decade, the government took an attitude shift in favor of the private sector. India's economic growth averaged 5.7% a year in the 1980s versus 3.5% in the prior three decades. Since 1991, India has initiated major liberalization measures, adopting the open-economy model. India has achieved average growth of 6.6% a year since 1991, and in the past five years, growth has averaged 8.5%.

- **The emphasis for China remains manufacturing and for India, services:** In terms of segment growth mix, China has followed a model similar to that of other Asian countries, relying on manufactured exports as a key anchor for sustainable acceleration in growth and integration with the global market place. As a result, China's manufacturing sector has recorded real growth of 11.6% a year since 1978. Growth in services and agriculture averaged 11.1% and 4.6%, respectively, over the period. India's growth mix, however, has been significantly different from that of China. Over the past 19 years (since the start of India's reforms), India's services sector growth has averaged 8.2% a year compared with 7% for manufacturing and 3% for agriculture. In comparison, China's manufacturing growth has been about 12.6% a year over this period versus 10.7% for services and 4% for agriculture.

- **India trailing China on exports and investments to GDP:** China has been more reliant on exports for stimulating growth than India has. China's export (goods plus services)-to-GDP ratio increased to 38.4% in 2007 from 6.7% in 1980 before declining to 26.6% in 2009. India's exports-to-GDP ratio rose to 20.3% in 2009 from 6.5% in 1980. Similarly, China's investment-to-GDP ratio increased to 48% in 2009 from 35% in 1980 compared with a rise in India's investment share of GDP to 34% in 2009 from 20% in 1980.

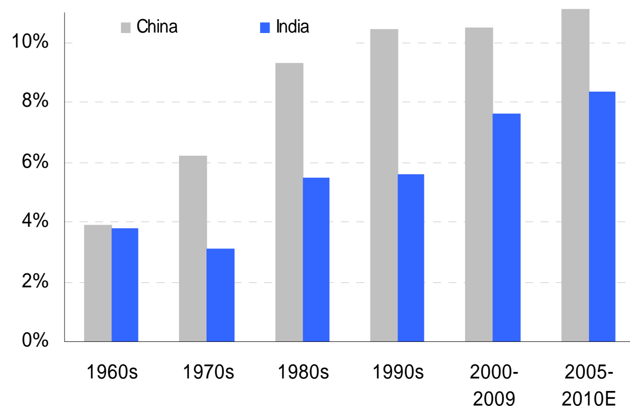
- **Accounting for growth differences:** A simplistic way to account for growth in a country would be to consider the contributions from the three basic drivers: (1) labor force inputs, (2) capital inputs, and (3) Total Factor Productivity (TFP). TFP is that part of non-factor inputs that enables higher growth with less application of factor inputs. It encompasses the contribution of technology and managerial aspects to the growth of real output. The two major areas where India's growth suffers compared with that of China are capital accumulation and lower productivity growth. In the past 10 years, on average, about 5.4 percentage points of China's GDP growth was accounted for by capital accumulation, supported by a high national savings rate. In comparison, capital accumulation in India contributed only about 3.4 percentage points of GDP growth. For India, the proportion of its growth accounted for by TFP was lower than that for China on average in the past 10 years.

Exhibit 17
S-Curve for Income Growth



Source: IMF, World Bank

Exhibit 20
GDP Growth Trends



E = Morgan Stanley Research estimates; Source: CEIC, CSO, Morgan Stanley Research

Exhibit 18
Segment Growth Rates

(Real YoY%)	1960s	1970s	1980s	1990s	2000s
China					
Agriculture	2.8%	2.9%	5.3%	4.3%	4.0%
Industry	2.1%	10.9%	10.6%	12.9%	11.2%
Services	1.1%	6.1%	12.6%	9.4%	11.2%
India					
Agriculture	2.5%	1.1%	4.6%	3.3%	2.7%
Industry	6.5%	3.5%	5.6%	5.7%	8.2%
Services	4.8%	4.4%	6.6%	7.3%	8.8%

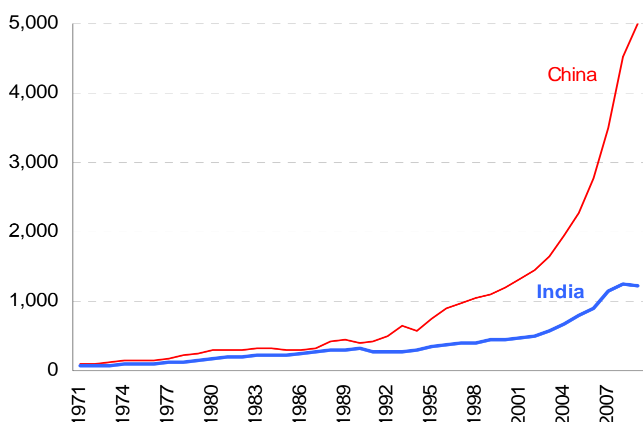
Source: RBI, CEIC, CSO, Morgan Stanley Research

Exhibit 21
Sector Breakdown of GDP

	1960	1970	1980	1990	2000	2009
China						
Agriculture	23%	35%	30%	27%	15%	10%
Industry	44%	40%	48%	41%	46%	46%
Services	32%	24%	22%	32%	39%	43%
India						
Agriculture	44%	43%	37%	32%	26%	20%
Industry	19%	20%	23%	24%	24%	26%
Services	38%	37%	40%	44%	50%	55%

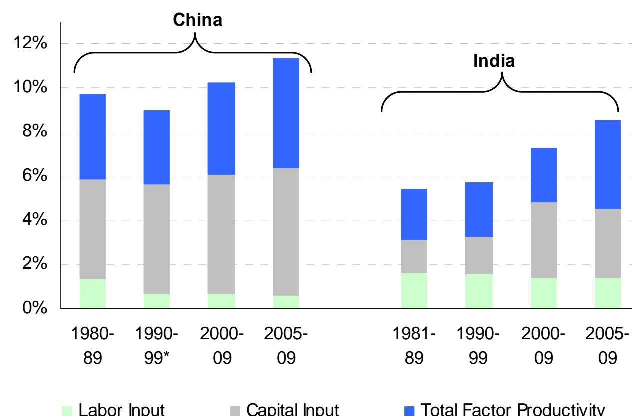
Source: RBI, CEIC, CSO, Morgan Stanley Research

Exhibit 19
Nominal US$ GDP (US$ billion)



Source: CEIC, IMF, CSO, Morgan Stanley Research

Exhibit 22
Accounting for GDP Growth Differences



Note * excluding 1992 and 1993.
Source: CEIC, UN, CSO, Morgan Stanley Research

Consumption – Macro: China's Consumption to GDP To Rise, India's To Decline

- **India's consumption-to-GDP ratio is higher than China's:** Although in nominal US dollar terms, India's GDP is 26% of China's size, India's consumption spending is about 38% of China's. India's overall consumption-to-GDP ratio was 70% in 2009 compared with 49% for China. Over the years, as the age-dependency ratio has declined, the two countries' consumption-to-GDP ratios have also decline. A significant part of the difference in consumption-to-GDP ratios is explained by the age-dependency ratios of the two countries. India's age-dependency ratio is higher than China's. Even so, India's consumption-to-GDP ratio is slightly higher than China's relative to the demographic position. India's active consumerism culture, populist attitude of the government, and larger share of household income in GDP are key reasons for consumption's relatively higher share of GDP.

- **China's consumption growth rate is higher than India's:** Although China's share of consumption in GDP is lower than India's, China's consumption growth has been higher at 9.5% over the past 10 years (compared with India's 6.1%), driven by higher per-capita income growth. In 2009, China's per-capita consumption was US$1,822 compared with India's US$782.

- **China's share in consumption to start rising, while India's consumption will likely continue to decline:** Over the next few years, as China's age-dependency starts to rise, we expect a gradual rise in consumption to GDP whereas in India, as its age-dependency ratio continues to decline, we expect a further reduction in consumption to GDP.

- **A shift in consumption mix in both countries:** In India and China, rising per-capita income, changing demographics (rising middle class), rapidly emerging modern retail formats, and increased access to financing are bringing about a change in the consumption basket. The share of organized sector products is increasing, while that of primary products is declining. An average Indian spends about 62% of their expenditure on products other than food, beverages, and tobacco, compared with the average in China of 75%.

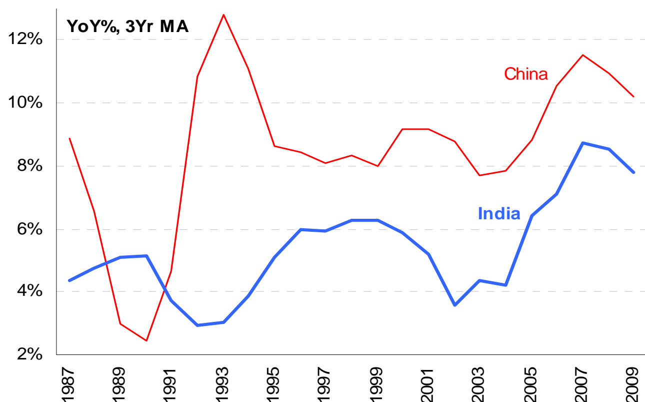
- **Reforming the retail distribution network:** China has been ahead in building a modern retail distribution system while India has initiated such a network only in recent years. FDI in multi-brand retail distribution would accelerate retail distribution reform in India. The new retail format is beginning to drive a change on the supply side in India. This is a reverse of the process in China, where the supply chain was relatively modernized for exports before the shift was initiated in retail distribution. We believe this change in the retail sector could lead to a significant transformation in India's SME manufacturing and farming segments. This, coupled with rising infrastructure investments, could provide India with the opportunity to participate in the global export market for low-ticket manufactured goods.

Exhibit 23
Consumption: Basic Facts

As of 2009/F2010	China	India
GDP (Nominal US$bn)	**5000**	**1314**
Consumption (Nominal US$bn)	**2432**	**915**
---Private consumption	1782	753
---Government consumption	650	162
Consumption (as % of GDP)	**48.7%**	**69.6%**
---Private consumption	35.6%	57.3%
---Government consumption	13.0%	12.3%
Consumption per capita (US$)	**1822**	**782**
---Private consumption	1335	644
---Government consumption	487	138

Source: CEIC, Morgan Stanley Research

Exhibit 24
Real Total Consumption Growth Trends



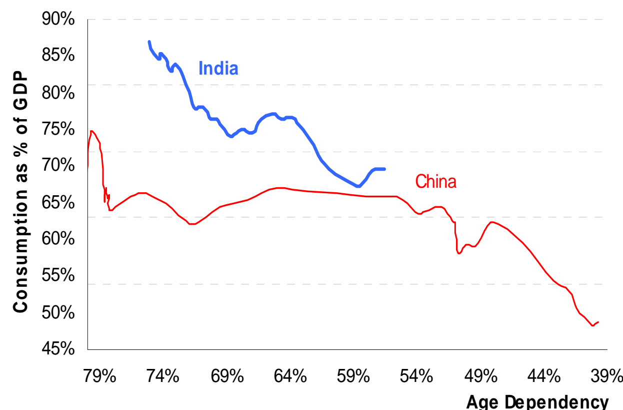
Source: CEIC, Morgan Stanley Research

Exhibit 25
Consumption Basket Components

As of 2009	China	India
Food, beverages and tobacco	25%	38%
Transport & Communications	11%	18%
Housing	15%	12%
Leisure and education	10%	5%
Clothing and footwear	8%	4%
Household goods and services	5%	4%
Health	7%	4%
Hotels and catering	8%	3%
Miscellaneous goods and services	11%	11%

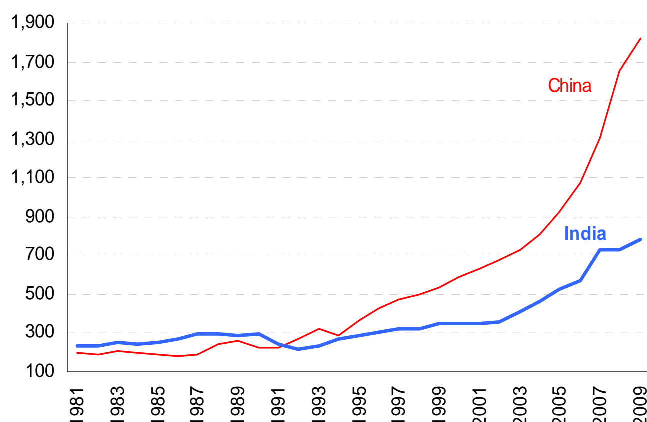
Source: Euromonitor, Morgan Stanley Research

Exhibit 26
Share of Consumption in GDP Tracking Demographics



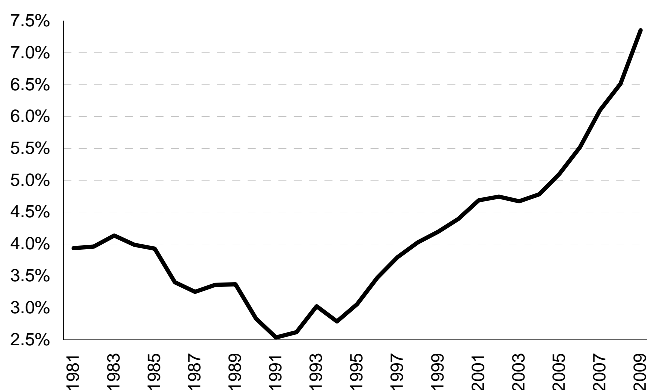
Source: UN, CEIC, CSO, Morgan Stanley Research

Exhibit 27
Consumption per-capita Trends (Nominal US$)



Source: CEIC, Morgan Stanley Research

Exhibit 28
India and China: Share in World Nominal US$ Consumption



Source: IMF, UN, CEIC, CSO, Morgan Stanley Research

Consumption – Micro: Markets for Most Products in India are a Third to a Tenth of China's

- **Consumer product penetration rates higher in China:** Penetration rates and per-capita consumption are higher in China than in India for most broad-based manufactured consumption items because China's per-capita income is 3.6 times that of India. In fact, real private consumption expenditure in China has increased by an average of 9.2% a year over the past 10 years compared with 6.2% in India.

- **China's consumer product market is significantly larger than India's:** Not only is China well ahead of India in terms of exports, its domestic market for consumer products is also much bigger. For consumer non-durables as well as durables China's market (annual sales) is about three to ten times that of India. Among durables, annual sales in China for products such as telephone lines (fixed plus wireless) are about 1.5 times those in India, while for other items such as passenger cars annual sales in China are about five times those in India. For non-durables, India's market is of a similar size to China's for basic products such as bath and shower products, but is smaller for products such as detergents, skincare products, and bottled water.

- **India lags China in per-capita consumption of key items by a range of 3 to 13 years, depending on the product:** As discussed, India's consumption to GDP is higher than what China's was when China's age dependency was where India's is today. Hence, the lag in penetration of consumer goods in India relative to that in China is less compared with the lag in penetration of investment-related goods such as steel and cement. As India shifts its growth trajectory higher to 9-10%, it is likely to be able to reach China's penetration in 3 to 13 years for various products, we estimate.

  To approximate the amount of time the market size for the various consumer products in India will take to reach China's current market size, we perform a regression analysis with India's per-capita consumption of various products being dependent on the country's respective per-capita income levels. Based on this analysis, we arrive at India's per-capita consumption to income slope levels, which explain the penetration trend to per-capita trend relationship, as shown in Exhibits 30 and 33.

  These slopes help explain the relationship between past growth in per-capita consumption and the increase in per-capita income levels. We have projected per-capita consumption and, in turn, the market size in India based on two scenarios: 1) India will continue to follow its own past slope i.e., it follows its past penetration to per-capita income trend; we call this Type I; and 2) India will shift to a new slope that could be somewhere in between India's historical trend and China's historical trend i.e., India follows an alternative consumption to per-capita income trend; we call this Type II.

  We use an alternative consumption to per-capita slope because we believe India's consumption to GDP will decline compared with the historical trend. We also provide alternative calculations, assuming two real GDP growth scenarios, 9% and 10% a year. We forecast the number of years India will take to reach China's market size under these growth scenarios and under the two slope functions – one using India's past trend and the other using an alternative path. Our nominal GDP growth forecasts for India assume constant real GDP growth of 9-10% a year. For per-capita calculations, we use UN population growth projections.

Exhibit 29
Penetration Rates for Non-Durable Products

As of 2009	Unit	China	India
Bath and Shower	US$ spending per person	1.6	1.6
Skin care	US$ spending per person	5.9	0.6
Detergents	US$ spending per person	3.6	1.8
Shampoo	US$ spending per person	2.0	0.5
Oral Care	US$ spending per person	1.9	0.7
Carbonated Drinks	litres per person	6.7	1.1
Bottled Water	litres per person	12.1	2.8

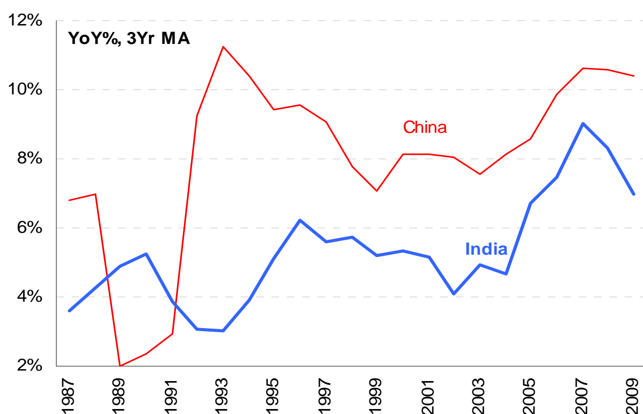
Source: Euromonitor, Morgan Stanley Research

Exhibit 30
Years Needed for India to Reach China's Current Market Size If It Follows Trend of Current Consumption to Per-capita Income Slope (Type I)

Assumed GDP Growth Rate of:	No of Years		Trailing 3 Yrs Growth	Implied Annual Sales/Consumption Growth	
	9%	10%		9%	10%
Cars	8	7	13%	19%	25%
Televisions	11	10	18%	21%	24%
Telephone*	4	3	39%	-12%	-1%

Note: * including fixed and wireless subscribers; Source: Morgan Stanley Research estimates

Exhibit 31
Real Private Consumption Growth



Source: CEIC, Morgan Stanley Research

Exhibit 32
Penetration Rates for Durable Products

As of 2009	Penetration Rate (Per 1000 people)		Annual Sales/Consumption		
	China	India	Units	China	India
Passenger Cars	36	13	mn	10.3	1.9
2 Wheelers	78	72	mn	27.1	9.4
Telephone Lines (fixed plus wireless)	795	481	mn	258	170
Internet Subscribers	81	13	mn	11	2
Televisions	277	110	mn	3	7

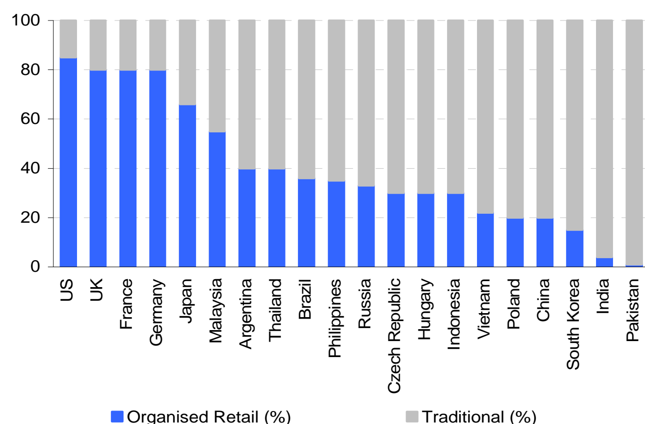
Source: CEIC, Company data, Euromonitor, company data, Morgan Stanley Research

Exhibit 33
Years Needed for India to Reach China's Current Market Size If It Follows Alternative Consumption to Per-capita Income Slope (Type II)

Assumed GDP Growth Rate of:	No of Years		Trailing 3 Yrs Growth	Implied Annual Sales/Consumption Growth	
	9%	10%		9%	10%
Cars	9	8	13%	15%	19%
Televisions	13	12	18%	16%	18%
Telephone*	5	4	39%	-17%	-12%

Note: * including fixed and wireless subscribers; Source: Morgan Stanley Research estimates

Exhibit 34
Modern Retail Trade as a Percentage of Total



Source: India Retail Report 2009, Morgan Stanley Research

Investments: China's Total Capex is More Than Five Times India's

- **China's investment-to-GDP ratio is 1.4 times that of India**: In 2009, China's investment was 48% of GDP (US$2,376bn) while India's was an estimated 34% of GDP (US$451bn). The key driver for China's high investment rate is a higher domestic savings rate. Indeed, China's capex to GDP is now three times that of the US and it accounts for about 19% of global investment. India's capex accounts for 3.6% of global investments.

- **Rising share in global capex:** While the world investment-to-GDP ratio has been largely constant over the past 10 years, except for during the recent period after the credit crisis, the ratios for India and China have increased; hence, the combined share for the two in global investment rose significantly to 22.8% in 2009 from 7.4% in 2000 and 4% in 1990.

- **China's infrastructure and property bias:** One of the major areas of difference in the capex of the two countries is in investment for infrastructure. In 2009, China infrastructure investments were an estimated US$539bn (10.8% of GDP) compared with US$99bn (7.5% of GDP) for India. Another key variation is in investment in property. In 2009, China's real estate construction was US$630bn (12.6% of GDP) versus an estimated US$65bn (5% of GDP) in India.

- **Manufacturing, services and agriculture mix:** Not surprisingly, while China's investments are biased towards manufacturing India's investments are evenly spread between manufacturing and services. Both countries have cut the share of agriculture in total investment.

- **India's poor penetration in fixed investment-dependent products:** As discussed, India's consumption to GDP is higher than China's was when China's age dependency was what India's is today. A corollary to that is that India's investment to GDP is relatively lower. China's steel and cement penetration rate reflects the differences in spending on capex. China's steel and cement demand is about 7.7 and 8.2 times that for India, respectively. However, the growth in demand for these products in India should accelerate as its investment-to-GDP ratio rises further, reflecting an improvement in savings to GDP. Hence, we expect demand for investment-related goods in India to improve compared with the historical trend.

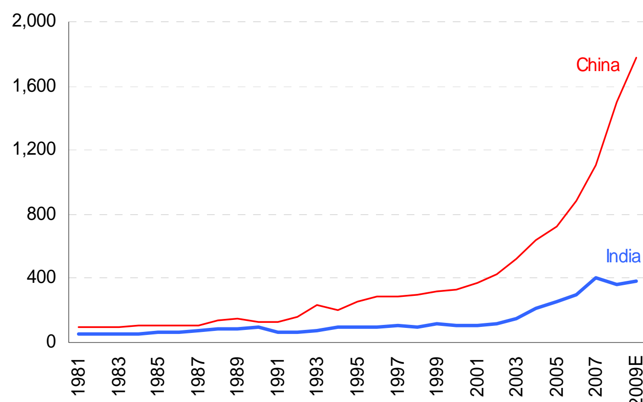
Exhibit 35
Investments: Basic Facts

As of 2009/F2009		China		India
GDP (Nominal US$bn)		5000		1212

	FAI#	Investment*	Investment*
Capex (Nominal US$bn)	**2842**	**2376**	**423**
---Private capex	1575	NA	302
---Government capex	1267	NA	114
Capex (as % of GDP)	**57%**	**48%**	**34.9%**
---Private capex	32%	NA	24.9%
---Government capex	25%	NA	9.4%
Capex per-capita	**2129**	**1780**	**366**
---Private capex	1180	NA	262
---Government capex	949	NA	99

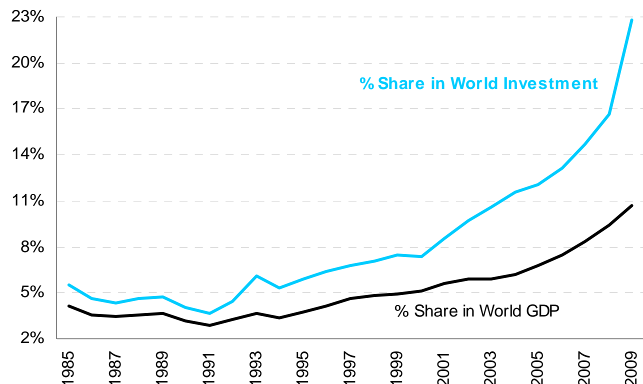
Note: # We have used Fixed Asset Investment: Urban data. * For Investments, we have used Gross Capital Formation data; Source: CEIC, CSO, Morgan Stanley Research

Exhibit 36
Investment Trends (Per-capita Nominal Dollar)



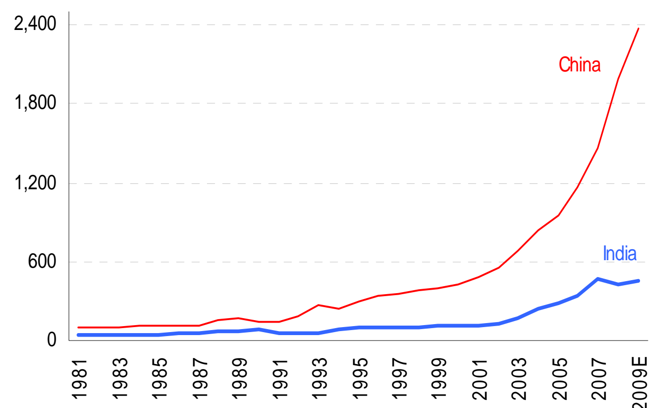
Source: CEIC, CSO, Morgan Stanley Research. E= Morgan Stanley Research Estimates

Exhibit 37
India and China: Combined Share in World Investment and GDP (Nominal US$ Terms)



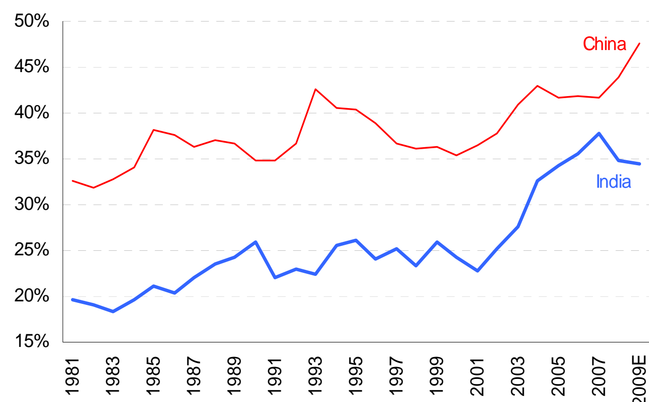
Source: CEIC, CSO, IMF, Morgan Stanley Research

Exhibit 38
Investment Trends (Total Nominal Dollar)



Source: CEIC, CSO, Morgan Stanley Research. E= Morgan Stanley Research Estimates

Exhibit 39
Investments Trends (As % of GDP)



Source: CEIC, CSO, Morgan Stanley Research. E= Morgan Stanley Research Estimates

Exhibit 40
India: Estimated Market Size of Cement and Steel

	Absolute (mn tonnes)		Implied Growth	
	Cement	Steel	Cement	Steel
2009	195	55	10%	5%
2020 - If India follows its own historical slope[1]				
9% GDP Growth	712	205	12%	13%
10% GDP Growth	790	228	14%	14%
2020 - If India follows China's historical slope[1]				
9% GDP Growth	1253	386	18%	19%
10% GDP Growth	1418	438	20%	21%

1. Slope of product penetration to per-capita income.
Source: CEIC, CMA, Morgan Stanley Research

External Trade: China's Share in Global Exports Is Five Times India's

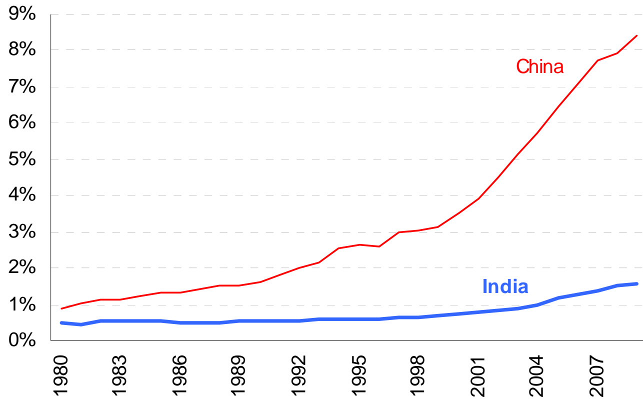
- **India lags China substantially despite an improvement in the trend over the past few years:** While India had a 2.2% share of global goods exports in 1948, this position has been steadily eroded, reaching a low of 0.4% in 1981. Since then it has gradually improved to 1.3% currently. India's combined share in goods and services was 1.6% in 2009 versus 0.5% in 1990 and 1980. In contrast, China's combined share in goods and services rose sharply to 8.4% in 2009 from 1.6% in 1990 and 0.9% in 1980.

- **India takes the lead in high-end commercial services:** On an aggregate basis, China's share in world commercial services exports is 3.9% versus India's 2.6%. However, this includes tourism and transport revenues. China's total services exports are about US$129bn compared with US$86bn for India. The mix, however, is very different. India has a bias toward scalable IT software services and IT-enabled business process services (IT and ITES). IT and ITES currently account for about 60% of India's total services exports. As a result of strong growth in IT and ITES, India's commercial services exports have grown 18% a year in the past five years compared with 16% for China. We believe India's aggregate share in global commercial services trade will start to outpace China's share in the next five to six years.

- **Relatively less supportive business environment constrains India's manufacturing:** China's success in manufacturing is well demonstrated by the country's 9.6% share of global goods exports compared with 1.3% for India in 2009. China's goods exports recorded a CAGR of 17% from 1990 to 2009 versus India's 12%. We believe India would need a further overhaul of its manufacturing business environment to follow China's lead in manufacturing. The key factors constraining manufacturing so far are lack of world-class infrastructure, complex tax laws, and government regulation.

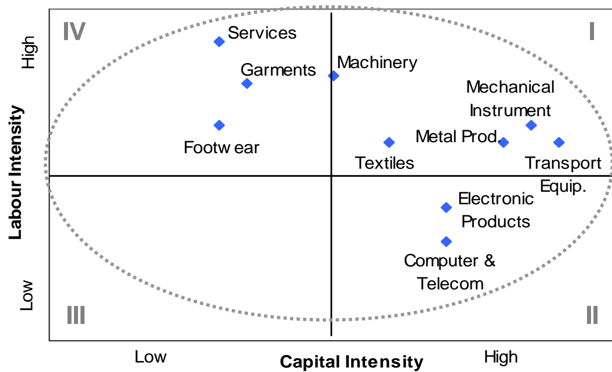
- **With gradual implementation of reforms and a rise in its savings rate, India is beginning to make inroads into manufactured exports:** India's top exports are currently biased towards products that are high in labour intensity and natural resources (Quadrant I in Exhibit 44). However, incrementally, India's exports will move towards high capital/infrastructure intensity sectors (Quadrant II and III in Exhibit 44). India is already beginning to compete well in complex manufacturing such as chemicals, engineering goods and machinery, and transport components.

Exhibit 41
Share in World Goods and Services Exports



Source: IMF, WTO, CEIC, Morgan Stanley Research

Exhibit 42
China Has Done Well in Almost All Manufacturing Sectors (China's Current Top Exports)



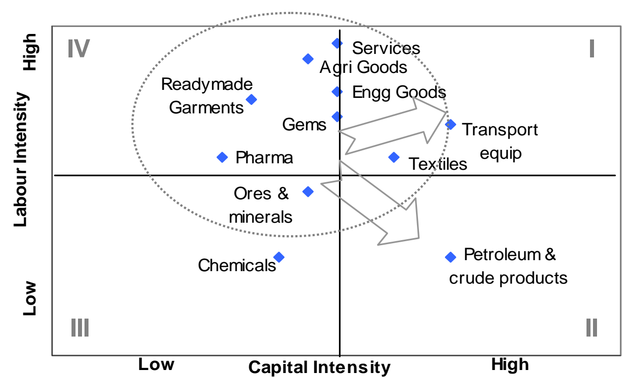
Source: CMIE, CEIC, WTO, Morgan Stanley Research

Exhibit 43
Trend in Exports and Market Share

	China			India		
	1990	**2009**	**CAGR**	**1990**	**2009**	**CAGR**
Goods Exports (US$bn)	62	1202	17%	18	163	12%
Share in World Exp.	1.8%	9.6%		0.5%	1.3%	
Services Exports* (US$bn)	6	129	18%	5	86	17%
Share in World Exp.	0.7%	3.9%		0.6%	2.6%	
Total Exports-Goods & Services (US$bn)	**68**	**1330**	**17%**	**23**	**249**	**13%**
Share in World Exp.	1.6%	8.4%		0.5%	1.6%	

Note: Total world good and services exports have increased to US$15,773 bn in 2009 from US$4,230 bn in 1990 a CAGR of 7.2%. * Services include travel, transportation and other comm. Services Source: WTO, IMF, CEIC, Morgan Stanley Research

Exhibit 44
India Has Done Well In Exports of Labor-Intensive Products (India's Current Top Exports)



Source: CMIE, CEIC,WTO, Morgan Stanley Research

Exhibit 45

China and India: Competitiveness in Exports

2008	Total Exports				Share in Global Exports	
US$bn	World	China	India	China times India	China	India
Merchandise Exports						
All Merch. products	**16,097**	**1,431**	**195**	**7.3**	**8.9%**	**1.2%**
Agricultural Products	1,342	42	21	2.0	3.2%	1.6%
Fuels & Mining Products	3,530	55	43	1.3	1.6%	1.2%
Manufactures	10,458	1,330	112	11.9	12.7%	1.1%
--Iron and Steel	587	71	11	6.3	12.1%	1.9%
--Chemicals	1,705	79	20	3.9	4.7%	1.2%
--Machinery and transport equipment	5,348	674	25	27.4	12.6%	0.5%
--Textiles	250	65	10	6.4	26.1%	4.1%
--Clothing	362	120	11	11.1	33.2%	3.0%
--Other Manf. Products	2,206	320	35	9.2	14.5%	1.6%
Others	767	4	18	0.2	0.5%	2.3%
Services Exports						
All Commercial Services	**3,804**	**146**	**103**	**1.4**	**3.9%**	**2.7%**
Travel & Transportation	1,857	79	23	3.4	4.3%	1.2%
Other Commercial Services	1,946	67	79	0.8	3.5%	4.1%
Grand Total	**19,901**	**1,577**	**297**	**5.3**	**7.9%**	**1.5%**
Memo Items:						
IT Services & IT Enabled Services	1004*	na**	47.1***	na	na	4.7%

* * Total worldwide IT services + BPO + Package software spend in 2008. ** We believe that China's exports in this segment are negligible. *** India's total IT + ITES exports (including software products and engg services and excluding hardware. Source: WTO, NASSCOM, Morgan Stanley Research

Appendices

Appendix 1: India - Summary of Reforms Implemented Since 1991

India	
How did the reform process begin?	
	The reform process in India was triggered by a major macroeconomic crisis in early 1991. This was caused by a large fiscal and current account deficit, high inflation, increasing internal and external debt, three changes of government in a span of two years and socio-political upheaval. In June 1991, the new government (led by Mr. PV Narasimha Rao from the Congress Party, with Dr. Manmohan Singh as the Finance Minister) immediately made a commitment to structural reform. The rupee was devalued by 19% against the US dollar in two quick moves in July 1991. Various external as well as internal reform measures have been implemented subsequently. The government cut tariffs on imports, reduced quantitative restrictions on trade, liberalized the foreign investment policy and encouraged exports through tax exemptions. On the internal front, licensing requirements were removed for most major sectors, undue control on trade & business was reduced, and banking reforms and the process of fiscal consolidation were initiated.
External Sector Reforms	
Trade Reforms	
Exchange Rate	The macro economic reforms commenced with the devaluation of the rupee by 19% to Rs26:US$1 from Rs21 in July 1991. The rupee was subsequently floated on the current account. Over the years, the Reserve Bank of India has allowed market-oriented movements in the currency. Its interventions have usually been with the aim of checking volatility rather than setting the direction. In August 2008, dollar-Rupee currency futures were allowed on recognized exchanges, and since January 2010, these have been expanded to three more currencies — the Euro, the Pound Sterling and the Yen. Further, in July 2010, the joint regulators of exchange-traded currencies, RBI and Sebi, have allowed recognized stock exchanges to launch European style currency options (in dollar-rupee currency pair).
Tariffs	India has lowered its import tariff rate as reflected in customs duty collections as a percentage of imports from 47.8% in F1991 to 30% in F1994 to around 6-7% currently.
Capital Account Reforms	
FDI	India initiated the liberalization of its FDI policy in 1991. It allows 100% FDI in most of its manufacturing sectors, except those pertaining to defense equipment. 100% FDI is allowed in infrastructure sectors except atomic energy. In services, 100% FDI is allowed for many sectors other than civil aviation, retail trade, satellite TV/FM broadcasting, banking, insurance and professional services. Recently, there has been some pick up in the proposals for liberation of FDI policy in few of these sectors. TRAI has put forth recommendations entailing approval for FDI limits in the DTH, IPTV, Mobile TV etc sectors to be set at 74%, while for local cable operators the limit is recommended to be fixed at 26%. In addition, the DIPP has released a discussion paper inviting public comments on proposal to allow FDI in multi brand retail.
Portfolio Investments	In September 1992, the government allowed FIIs to invest in Indian capital markets. A single FII is allowed to invest up to 10% in a company. Initially, the government limited the investment by FIIs to a ceiling of 24% of paid-up capital; however, this has since been liberalized and FIIs are now allowed to invest in Indian companies with no limits (subject to certain sector caps). In 2003, domestic mutual funds/resident individuals were allowed to invest in companies abroad that have a reciprocal 10% holding in a listed Indian company (subject to specified conditions). The reciprocity condition for domestic mutual funds was relaxed in 2006.

Internal Sector Reforms	
Agricultural Reforms	After independence, India initiated some land reforms by dividing land among the tenants and introduced the green revolution, which increased agricultural output in the 1960s. However, since the broader macro reform process began in 1991, agriculture has seen relatively very few reforms. The government's spending on infrastructure for agriculture has been very low. Total public spending on agriculture dropped from 0.6% in F1991 to 0.4% of GDP in F2000 and further to 0.2% in F2009. Only about 44% of the land is irrigated, leaving farmers exposed to the vagaries of monsoons. Over the past few years though, the government has launched some initiatives to accelerate agriculture growth, including allowing exchange-trading of commodities; encouraging states to reform laws to liberalize marketing of agricultural produce by amending the APMC act; and encouraging banks to increase lending to the agriculture sector. Further, in February 2010, the reform on fertilizer prices was approved. The Cabinet allowed a 10% hike in the retail price of urea and the implementation of Nutrient Based Subsidy (NBS) Policy on phosphatic and potassic fertilizers with effect from April 1, 2010. In addition to the subsidy on nitrogen, phosphorus, potash and sulphur, there will be an additional per ton subsidy for fertilizer carrying other secondary nutrients and micro nutrients.
Industrial Reforms	Key industrial reforms implemented in India are: *Removal of licensing regime:* The government abolished licensing requirements for setting up all but 18 industries in 1991. In 1998-99, further de-licensing took place and now licenses are required only in industries such as alcohol, tobacco products and those pertaining to defense equipment. *Removal of undue control of trade and business:* In 1991, the government abolished the Monopolies and Restrictive Trade Practices Act, which constrained corporate acquisitions and over-regulated business practices. *Deregulation of product prices:* The prices of various goods, such as steel, cement, paper and pulp, have been deregulated since the reform process began. Most manufactured product prices are determined by market forces with the exception of select few products such as oil and coal. Even on oil pricing, the government has announced that petrol prices will be market linked from now on. Further, the government has raised the Administered Price Mechanism (APM) based gas price for power and fertilizer units and city gas projects. *Reduction of protection to SME sector:* The government has over the years been reducing reservations for small-scale industries (SSI). The number of items reserved was reduced from a peak of 873 in October 1984 to 326 in May 2006 and further to 20 currently. *Privatization of SOEs:* In India, the disinvestment process initially focused on the transfer of minority rights to public and financial institutions. However, no controlling right was sold to the private sector. In 2003-04, the government privatized a few public sector enterprises, where it passed the controlling interest to strategic investors. Indeed, F2004 saw a sharp jump in divestment proceeds to US$3.7bn, as compared with a combined US$3.9bn in F1998-F2003. However, following the formation of the coalition government led by the United Progressive Alliance in May 2004, the pace of divestment slowed again. The total proceeds from divestments during the five years ending March 2009 were just US$2.7 bn. Starting F2010, the government plans to initiate a meaningful divestment program, targeting collection proceeds. The budget target calls for raising Rs400bn (US$8.7bn, 0.6% of GDP) from divestments in F2011 compared with an estimated Rs250bn (US$5.5bn, 0.4% of GDP) in F2010. *Labor reforms:* India still lags many other emerging markets in terms of labor reforms. Current regulations require enterprises employing more than 100 people to undergo a complex approval process before retrenching employees.
Fiscal Reforms	***Tax structure**:* India initiated major tax reforms in the early 1990s. It has reduced the marginal rate of personal tax from 56% in F1992 to 30% currently, lowered the corporate tax rate from 50% in F1992 to 30%, and cut the peak excise and non-agriculture import tariff from over 100% and 150% in F1992 to 22% and 10%, respectively. Since the mid-1990s, the government has expanded the tax net by levying taxes on services. In 2005-06, the government replaced the multiple-rate sales tax (ST) system, which was independently managed by various states, with a synchronized single-rate system. The government has since announced its intention to transition to a consolidated nationwide goods and services tax (GST) system from the current system of different types of indirect taxes and multiple rates of indirect taxes, which it now expects to implement from April 1, 2011. The government also intends to reform direct tax codes, in order to improve efficiency and equity in the direct tax system by eliminating distortions in tax structure, introducing moderate levels of taxation and expanding the tax base. The Ministry of Finance is likely to start implementing the new code from F2012. ***Fiscal Prudence**:* This is one area where the progress has been slow. India's headline fiscal deficit improved significantly to 4% of GDP in F2008 compared with 9.9% of GDP in F2002, underpinned by strong growth and higher tax revenue. However, after going through the phase of correction, the fiscal deficit again jumped to 8.6% in F2009 and further to 9.8% in F2010. To be sure, a number of one-off factors took deficit levels to these high levels: the government accelerated pre-election spending; a sharp rise in oil prices meant increases in the oil and fertilizer subsidy burden; wage hikes were implemented for central government employees; additional stimulus in the form of tax cuts; and increasing government spending overall. In the February 2010 budget, the government took the first step towards reducing the deficit to more sustainable levels and accepted in principle the recommendation by the 13th Finance Commission for medium-term fiscal consolidation plan. We believe the government would need to initiate major expenditure reforms and move effectively to outcome-based expenditure management from the current outlay-based system to cut non-interest revenue expenditure.

Banking Sector Reforms	India has steadily strengthened its banking system, improving the regulatory framework, imposing strict prudential norms and encouraging greater competition. The prudential norms in terms of capital adequacy requirements have gradually tightened, and currently banks have moved to the BASEL 2 norms. The government has allowed private sector entry since the mid-1990s. Private players have already built a 27% share of loan assets in the banking system. In 2002, the government enacted the Foreclosure Act, which gave lenders powers to forfeit assets of defaulting borrowers, enabling quick recovery of NPAs. In August 2010, the RBI has released a discussion paper on the "Entry of New Banks in the Private Sector". Following this, the RBI will hold detailed discussions with various stakeholders and then release the final guidelines for granting new licenses. One area where the Indian banking system would need to open up is access to foreign capital. Currently, the foreign investment limit for SOE banks is capped at 20% and for private banks it is 74%.
Infrastructure Reforms	Infrastructure investment is picking up. The government plans to increase infrastructure spending to 8.4% of GDP in F2012 from 7.5% of GDP in F2009. A set of measures is being introduced by the government for different sectors to accelerate infrastructure spending growth. To meet the funding needs and improve operating efficiency, private sector participation is also encouraged. Infact, the share of private sector in the development of infrastructure facilities is expected to improve further to 36% in the 11th five-year plan from 25% registered in 10th five-year plan (F2003-F2007). ***Roads:*** Over the last few years, there has been conscious effort on part of the government to develop and upgrade the road network with road spending almost doubling from US$5.5bn in F2003 to US$11.7bn in F2009. The National Highway Authority of India (NHAI), the government body in charge of driving road development, has already laid out plan for development of road network of 55,000km in several phases, entailing an estimated investment of Rs3,000bn (US$60bn). ***Seaports*:** Over the past few years, the government has introduced several measures to augment private investment in the sector. The average turnaround time at Indian ports improved to about 2.5 days in F2009 from 8.5 days in F1996. The ports handled 743mn tonnes of traffic in F2009, an increase of almost 1.6 fold compared with five years back. Although a good beginning has been made, progress is still slow, leaving the overall cost-efficiency at Indian ports relatively low compared with world averages. ***Telecom:*** The government opened up services such as cellular, radio paging, and data services to the private sector in F1993 and followed it up with the opening up of basic telephony to private participation and foreign equity (up to 49%) in F1995. It also fixed a 49% foreign investment limit for cellular telephony, which was increased to 74% in F2005. Recently, the government conducted auctions for 3G telecom services representing the next step in the evolution of mobile cellular communication. The favorable policy environment has encouraged the private sector to participate aggressively, and private investment has contributed significantly to growth in the sector. Significant technological change has resulted in a sharp decline in the cost of accessing telecom services over the past few years. Infact, India has the lowest telecom tariffs in the world. The average per minute cost of mobile telephony services (air-time, excluding rental costs) has declined by 70% to just Rs0.50 (1 US cent) over the past five years. Overall progress in this sector is impressive, with India's wireless subscriber numbers having grown 10-fold from 57mn in F2005 to over 550mn currently. The country now adds 18-20mn subscribers per month compared with 1-2mn five years back. ***Airports:*** Over the past few years, the government has initiated a number of policy measures to attract the private sector and improve efficiency. The increased competition led to greater connectivity, better services and higher growth. Infact, domestic air traffic almost tripled to 85mn passengers in 2009 compared with 28mn in 2002. Similarly, international air traffic has more than doubled to 33mn passengers in 2009 from 14.3mn in 2002. Some of the major initiatives taken by the government in this context include restructuring and privatization of Mumbai and Delhi airports, construction of greenfield airports in select cities and undertaking the modernization of other domestic airports. ***Electricity:*** Over the past few years, we have seen reforms undergoing in the power sector, albeit at a gradual pace. While the Electricity Act 2003, allocation of Ultra Mega Power Plants, and encouraging greater private participation have been steps in the right direction, the slow pace of progress since is an area of concern, in our view. India's total installed generation capacity was 159GW as of end-March 2010. This is one segment that has been able to attract relatively meaningful investment interest by private players. In fact, in the 12th five year plan (F2013-F2017), the government envisages the share of the private sector in incremental generation capacity addition to increase to close to 45% from 19% planned in the 11th five-year plan. However, the most important investment deterrent in the power sector is the financial condition of the state electricity boards (which own more than 90% of the distribution in the country). The electricity operations of the public sector incur annual losses of US$5-6bn due to the large burden of subsidies and theft in electricity distribution. While the government has initiated several measures over the past few years, the effective implementation of reforms in this area is still slow. This constrains investments in the sector with peak electricity shortages at 13.3% as of end-March 2010. ***SEZs:*** The government initiated the first major change in April 2000 for the establishment of Special Economic Zones. However, the response from investors was limited. In May 2005, the government approved a new SEZ legislation which is more comprehensive and provides for a larger tax incentive package. Since the new legislation was passed, various private investors/developers have announced their intentions to set up SEZs. However, the response from the private sector is in a large part for investing in small SEZs and some for large-format SEZs. Tax benefits are a key attraction for investors, developers and tenants. The recently announced draft for Direct Tax Codes has created some ambiguity about the longevity of SEZ benefits.

Appendix 2: Fact Sheet

Equity Markets

	India	China
Market Capitalization (US$bn)	1391	4424*
MSCI Weight in (Asia Pacific ex Japan)	8.2%	19.4%
Average Daily Volumes (US$bn)		
Cash	3.6	22.9
Derivatives	17.8	na
Total Domestic Mutual Fund Assets (US$bn)	142.8	310
FII Ownership (% of Mcap)	17.1%	na
Key Valuation Metrics (as of July 28 ,2010)		
Trailing P/E	21.1x	17.2x
Trailing P/Book	3.2x	2.4x
ROE (%)	15.2%	14.1%

Note: * corresponds to Hong Kong- listed Chinese stocks + mainland-listed stocks.
Source: CEIC, Fact set , AMFI, BSE, MSCI, Morgan Stanley Research

Economy

	India	China
National Income Statistics		
Nominal GDP (2009, US$bn)	1224	5000
Real GDP Growth		
-- 1981-1990	5.5%	9.3%
-- 1991-2000	5.6%	10.4%
-- 2001-2009	7.6%	10.5%
Per-capita GDP (2009, US$)	1049	3745
GDP Per-capita Growth	6.9%	13.8%
(Nominal US$ terms %, 1991-2009)		
Composition of GDP (As of 2009)		
Agriculture	20%	10%
Industry	26%	46%
Services	55%	43%

Note: For India, except for national income statistics, the corresponding financial year-end numbers have been stated. Source: IMF, CEIC, Morgan Stanley Research

Demographics

	India	China
Population (mn, 2009)	1170	1335
Population Growth (YoY%, 2009)	1.4%	0.5%
Age Dependency Ratio* (2010)	56%	39%
Median Age (2010)	25.0	34.2
Crude Birth Rate (2010-2015, per 1000 ppl)	21	13.7
Crude Death Rate (2010-2015, per 1000 ppl)	8.1	7.3
Urban Population (% of total, 2010)	30%	45%
Female Population (% of total, 2010)	49%	48%

* Ratio of non-working to working population.
Source: UN, Morgan Stanley Research

Trends in Urbanization

	Urban Population (mn)		Avg annual increase in urban popn (mn)		% of Total Popn.	
	India	China	India	China	India	China
1970	109	145	3	4	20%	17%
1980	159	196	5	5	23%	20%
1990	220	315	6	12	26%	27%
2000	289	454	7	14	28%	36%
2005	326	531	4	8	29%	40%
2010E	367	607	4	8	30%	45%
2020E	473	756	11	15	34%	53%

Source: UN. E= UN estimates

Infrastructure

F2010/2009	India		China	
	US$bn	% of GDP	US$bn	% of GDP
Electricity, Gas & Storage	43.3	3.3%	162.2	3.2%
Railways & Urban Transport	10.5	0.8%	129.7	2.6%
Communication	15.7	1.2%	36.8	0.7%
Roads	13.4	1.0%	152.0	3.0%
Ports	2.0	0.2%	24.3	0.5%
Airports	1.7	0.1%	8.9	0.2%
Irrigation and water supply	12.0	0.9%	25.5	0.5%
Total	**98.7**	**7.5%**	**539.4**	**10.8%**

Source: Planning Commission, CEIC, Morgan Stanley Research

Agriculture: Some Facts

	India	China
---Share in GDP (2009)	20%	10%
---Average growth in agriculture GDP (2001-2009)	3.0%	4.2%
-- Production of Rice (mn tonnes, 2009)	89	195
-- Production of Wheat (mn tonnes, 2009)	81	115

Note: For India, the corresponding financial year-end numbers have been stated.
Source: CSO, CEIC, Morgan Stanley Research

Percentage Share of Income/Consumption*

	India	China
Lowest 20%	8.1	5.7
Second 20%	11.3	9.8
Third 20%	14.9	14.7
Fourth 20%	20.4	22.0
Highest 20%	45.3	47.8
Gini Index	36.8	41.5

* Survey Year: 2005; Source: World Bank, Morgan Stanley Research

Trade

	India	China
Trade Data (% of GDP), 2009		
Goods Exports	13.7	24.1
Goods Imports	22.4	19.1
Trade Balance	-8.7	5.0
Current Account Balance	-2.2	5.9
Main Goods Export Destinations (% share in total exports), 2009		
Asian Countries (Ex-Japan)	24.2	39.2
USA	10.7	18.4
Japan	1.3	8.2
Europe	19.2	22.0
Main Goods Import Origins (% share in total imports), 2009		
Asian Countries (Ex-Japan)	24.3	47.0
USA	5.2	7.7
Japan	2.4	13.0
Europe	19.9	16.1
Share of World Goods Exports		
1950s	1.4%	1.5%
1960s	0.9%	1.3%
1970s	0.5%	0.8%
1980s	0.5%	1.3%
1990s	0.6%	2.7%
2000s	0.9%	6.8%
Share of World Services Exports		
1980s	0.7%	0.7%
1990s	0.6%	1.4%
2000s	1.9%	3.0%

Source: World Trade Organization, CEIC, CMIE, Morgan Stanley Research

External Debt

As of 2009	India	China
External Debt (US$bn)	252	429
External Debt (% of GDP)	21%	8.6%
Short Term Debt/Total (%)	18%	60%

Source: RBI, CEIC, Morgan Stanley Research

Monetary Aggregates

	India	China
GDP (US$bn, 2009)	1224	5000
M3/GDP (for China M2/GDP, 2009)	86.2%	178%
M1/GDP (2009)	21.9%	64%
Bank Credit/GDP (2009)	55.2%	117%
Bank Deposit/GDP (2009)	73.1%	175%
Bank PLR (end-2009)	11.5%	5.3%
1 Yr Deposit Rate (end-2009)	6.0%	2.3%
Inflation, CPI (avg for 2009)	10.8%	-0.7%
Forex Reserves (US$bn, June 2010)	276	2454

Source: CEIC, RBI, Morgan Stanley Research

Public Finances

	India*	China#
Aggregate Fiscal Deficit (2009, US$bn)	129	139
Aggregate Fiscal Deficit (2009, % of GDP)	9.8%	2.8%
Public Debt (2009, % of GDP)	76%#	36.7%

*Excluding off-balance sheet subsidies. # only Central government; Note: For India, the corresponding financial year-end numbers have been stated. Source: RBI, CEIC, Morgan Stanley Research

Sovereign ratings

Sovereign ratings	India		China	
Long-term debt	Foreign Ccy	Local Ccy	Foreign Ccy	Local Ccy
S&P	BBB-	BBB-	A+	A+
Fitch	BBB-	BBB-	A+	AA-
Moody's	Baa3	Ba1	A1	A1

Source: Bloomberg, Morgan Stanley Research

Consumption of Key Products

(As of 2009)	Per Capita Consumption			Annual Sales/Consumption		
	Units	India	China	Units	India	China
Cars	Per 000 Ppl	13	36	mn	1.9	10.3
Two wheeler	Per 000 Ppl	72	78	mn	9.4	27.1
Televisions	Per 000 Ppl	110	277	mn	7	3
Telephone Lines (fixed plus wireless)	Per 000 Ppl	481	795	mn	170	258
Cement	Tonnes Per 000 Ppl	167	1201	mn tonnes	195	1603
Steel	Tonnes Per 000 Ppl	47	321	mn tonnes	55	428
Aluminium	Tonnes Per 000 Ppl	1.3	10.4	000 tonnes	1463	13931
Electricity	KWH per person	646	2742	bn KWH	756	3660

Source: Company data, Morgan Stanley Research

Education

	India	China
Gross Enrollment Ratio (%, 2007)		
-- Primary Schools	113	112
-- Secondary Schools	57	74
-- Tertiary Education	13	22
Adult Literacy (%, 2007)		
-- Total	66	93
-- Male	77	96
-- Female	54	90
Total Public Expenditure on Education (% of GDP, 2009)	3.2%	3.1%

Source: World Bank, CEIC, India Budget Documents, Morgan Stanley Research

Health

	India	China
Physicians (per 1,000 people), 2005	0.6	1.5
Health Expenditure (% of GDP), 2007	4.1	4.3
-- Public	1.1	1.9
-- Private	3	2.4
Health Expenditure per-capita (US$), 2007	40	109

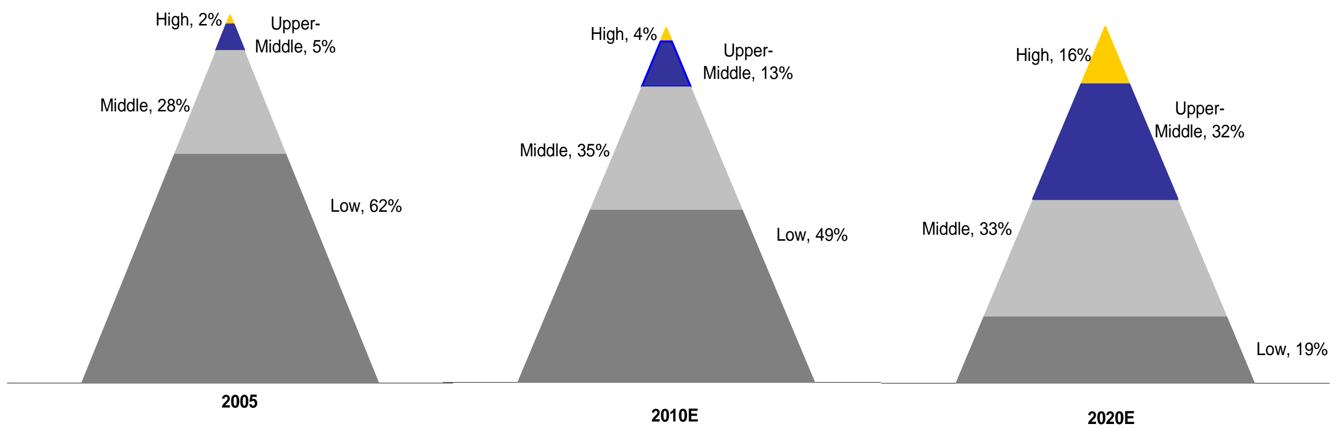
Source: World Development Indicators

Appendix 3: India and China – Income Distribution

Definitions:

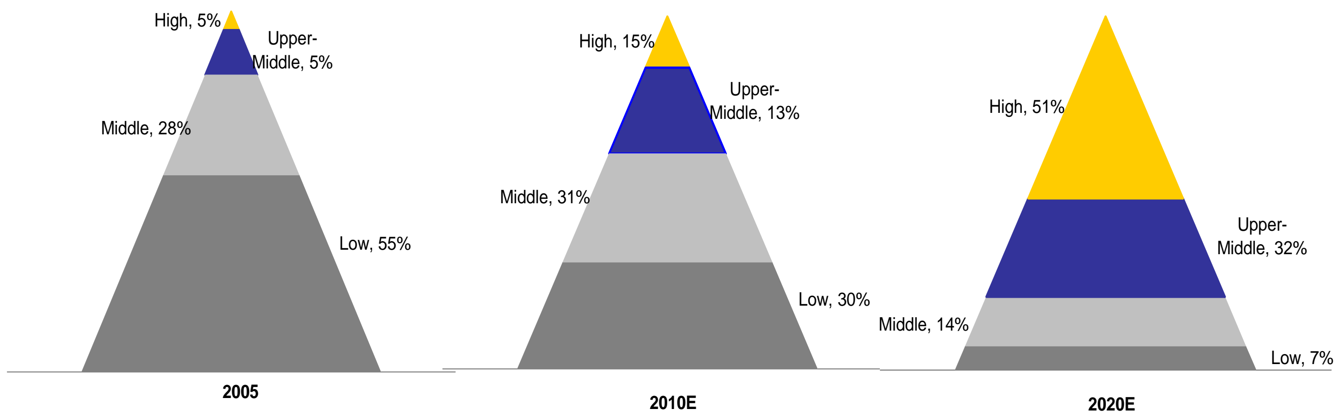
Low	Up to US$2,500
Middle	US$ 2,500 – 5,000
Upper-Middle	US$ 5,000 – 10,000
High	US$ 10,000 and above

India: Income Pyramids



E = Euromonitor estimates. Source: Euromonitor, Morgan Stanley Research

China: Income Pyramids



E = Euromonitor estimates. Source: Euromonitor, Morgan Stanley Research

Appendix 4: Key Economic Indicators – India

Years Ending March 31	F2005	F2006	F2007	F2008	F2009	F2010	F2011E	F2012E
National Income								
GDP at Factor cost Rs bn	29,676	32,491	35,646	38,935	41,550	44,641	48,455	52,539
GDP (at current mkt prices) Rs bn	32,392	37,065	42,840	49,479	55,744	62,312	71,555	81,584
GDP (US$bn)	720	837	947	1,229	1,212	1,314	1,559	1,833
Growth rates								
Gross domestic product	7.5%	9.5%	9.7%	9.2%	6.7%	7.4%	8.5%	8.4%
Agriculture and Allied activities (incl. mining)	0.8%	4.7%	4.3%	4.6%	1.6%	1.6%	5.2%	3.3%
Manufacturing, Constn, Electricity	10.5%	10.2%	13.2%	10.1%	4.1%	9.2%	8.6%	8.7%
Services	9.1%	11.1%	10.2%	10.5%	9.8%	8.5%	9.5%	9.8%
Money and Banking								
Money Supply (M3) growth (avg)	14.2%	16.1%	19.6%	21.8%	20.5%	18.7%	20.0%	20.0%
Bank non-food credit (avg y-y increase)	27.5%	33.7%	31.3%	24.3%	24.1%	14.5%	23.0%	25.0%
Interest rates								
91-Day T-Bill Yield (year-end)	5.2%	6.5%	7.4%	7.3%	4.7%	4.3%	6.5%	7.3%
Repo Rate (year-end)	6.0%	6.5%	7.5%	7.8%	5.0%	5.0%	6.8%	7.5%
Prices								
Wholesale price index (avg y-y increase)	6.5%	4.4%	5.4%	4.7%	8.5%	3.9%	8.4%	5.5%
Consumer price index (avg y-y increase)	3.8%	4.2%	6.8%	6.2%	9.1%	12.3%	9.6%	6.8%
External sector								
Current account								
Exports (US$bn)	85	105	129	166	189	182	223	263
Imports (US$bn)	119	157	191	258	308	299	367	433
Trade balance (US$bn)	-34	-52	-62	-91.5	-118.7	-117.3	-144	-170
Exports as % of Imports	71.7%	67.0%	67.6%	64.5%	61.4%	60.8%	60.7%	60.6%
Invisibles, net (US$bn)	31	42	52	76	90	79	99	126
Current account balance (US$bn)	(2.5)	(9.9)	(9.6)	(15.7)	(28.7)	(38.4)	(45.1)	(44.6)
Current account Balance as a % of GDP	(0.3%)	(1.2%)	(1.0%)	(1.3%)	(2.4%)	(2.9%)	(2.9%)	(2.4%)
Capital account								
Debt creating capital inflows (US$bn)	6	7	22	25	15	7	10	12
Foreign investment (US$bn)	13	16	15	43	3	52	43	47
Total capital -net (US$bn)	28	25	45	107	7	54	58	67
Capital inflow as a % of GDP	3.9%	3.0%	4.8%	8.7%	0.6%	4.1%	3.7%	3.7%
Reserves								
Foreign currency reserves (US$bn)*	142	152	199	310	252	279	285	308
Foreign currency reserves as no. of months imports	14.3	11.6	12.5	14.4	9.8	11.2	9.3	8.5
External debt								
External debt (US$bn)	123	138	172	224	225	261	274	291
External debt as a percentage of GDP	17.1%	16.5%	18.2%	18.3%	18.5%	19.9%	17.6%	15.9%
Public Finance								
Fiscal deficit (Rs bn)								
-----Central government	1258	1464	1426	1269	3370	4185	3579	3911
-----State government	1078	901	775	755	1463	1995	1858	2037
-----Consolidated Deficit **	2347	2396	2304	1974	4778	6118	5437	5949
Fiscal deficit (As % of GDP)								
-----Central government	3.9%	4.0%	3.3%	2.6%	6.0%	6.7%	5.0%	4.8%
-----State government	3.3%	2.4%	1.8%	1.5%	2.6%	3.2%	2.6%	2.5%
-----Consolidated Deficit **	7.2%	6.5%	5.4%	4.0%	8.6%	9.8%	7.6%	7.3%

E = Morgan Stanley Research Estimates; Source: RBI, CSO, Budget Documents, and Morgan Stanley Research
** Individual central and state deficits may not aggregate to consolidated deficit due to adjustments relating to inter-government transfers.

Appendix 5: Key Economic Indicators – China

Calendar Year	2004	2005	2006	2007	2008	2009	2010E	2011E
National Income								
GDP (at current mkt prices) RMB bn	16,080	18,713	22,224	26,583	31,490	34,152	39,175	44,702
GDP (US$bn)	1,943	2,284	2,788	3,496	4,534	4,999	5,795	6,985
Growth rates								
Gross domestic product	10.1	11.3	12.7	14.2	9.6	9.1	10.0	9.5
Agriculture and Allied activities (incl. mining)	6.3	5.2	5.0	3.7	5.4	4.2	NA	NA
Manufacturing, Constn, Electricity	11.1	12.1	13.4	15.1	9.9	9.9	NA	NA
Services	10.1	12.2	14.1	16.0	10.4	9.3	NA	NA
Money and Banking								
Money Supply (M2) growth (avg)	16.2	14.8	18.1	17.6	16.6	26.5	17.0	NA
Bank credit (avg y-y increase)	15.1	10.1	14.1	16.7	14.8	29.0	18.8	10.5
Interest rates								
3M Time Deposit Rate (year-end)	1.71	1.71	1.80	3.33	1.71	1.71	1.71	1.71
1 Yr Working Capital Lending Rate (year-end)	5.58	5.58	6.12	7.47	5.31	5.31	5.31	5.31
Prices								
Producer price index (avg y-y increase)	6.1	4.9	3.0	3.1	6.9	-5.4	5.0	4.0
Consumer price index (avg y-y increase)	3.9	1.8	1.5	4.8	5.9	-0.7	2.8	3.0
External sector								
Current account								
Exports (US$bn)	593	762	970	1,220	1,435	1,204	1,547	1,794
Imports (US$bn)	534	628	752	905	1,074	954	1,317	1,561
Trade balance (US$bn)	59	134	218	315	361	250	230	234
Invisibles, net (US$bn)	-10	-9	-9	-8	-12	-29	NA	NA
Current account balance (US$bn)	69	161	253	372	436	297	230	217
Current account Balance as a % of GDP	3.6	7.0	9.1	10.6	9.6	5.9	4.0	3.1
Capital account								
Foreign investment (US$bn)	61	86	87	152	163	114	NA	NA
Total capital -net (US$bn)	111	59	3	70	16	141	NA	NA
Capital inflow as a % of GDP	5.7	2.6	0.1	2.0	0.4	2.8	NA	NA
Reserves								
Foreign currency reserves (US$bn)	610	819	1,066	1,528	1,946	2,399	NA	NA
Foreign currency reserves as no. of months imports	14	16	17	20	22	30	NA	NA
External debt								
External debt (US$bn)	247	281	323	374	375	429	NA	NA
External debt as a percentage of GDP	13	12	12	11	8	9	NA	NA
Short term debt as a proportion of total	50	56	57	59	56	60	NA	NA
Public Finance								
Fiscal balance (RMB bn)								
-----Central government	-209	-228	-216	51	-236	-950	-1,175	-1,341
-----State government	-870	-1,005	-1,213	-1,477	-2,060	-2,844	NA	NA
-----Consolidated Deficit	-1,079	-1,233	-1,429	-1,426	-2,296	-3,794	NA	NA
Fiscal balance (As % of GDP)								
-----Central government	-1.3	-1.2	-1.0	0.2	-0.8	-2.8	-3.0	-3.0
-----State government	-5.4	-5.4	-5.5	-5.6	-6.5	-8.3	NA	NA
-----Consolidated Deficit	-6.7	-6.6	-6.4	-5.4	-7.3	-11.1	NA	NA

E= Morgan Stanley Research Estimates; Source: CEIC, Morgan Stanley Research

Glossary

Working-age Population: Population aged 15 to 64.

Age-dependency Ratio: Ratio of dependents (people younger than 15 and older than 64) to the working-age population.

Revenue Deficit: Refers to the excess of revenue (current consumption) expenditure less revenue receipts (tax plus non-tax).

Fiscal Deficit: Fiscal deficit includes revenue deficit plus capital deficit (gap for funding capital expenditure). This indicates the total borrowing requirements of the government from all sources.

Total Factor Productivity (TFP): The part of non-factor inputs that enables higher growth with lesser application of factor inputs. In other words, TFP implies enhanced output per unit of input. TFP broadly encompasses the contribution of technology and managerial aspects to the growth of real output.

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Morgan Stanley

MORGAN STANLEY RESEARCH

The Americas
1585 Broadway
New York, NY 10036-8293
United States
Tel: +1 (1) 212 761 4000

Europe
20 Bank Street, Canary Wharf
London E14 4AD
United Kingdom
Tel: +44 (0) 20 7 425 8000

Japan
4-20-3 Ebisu, Shibuya-ku
Tokyo 150-6008
Japan
Tel: +81 (0) 3 5424 5000

Asia/Pacific
1 Austin Road West
Kowloon
Hong Kong
Tel: +852 2848 5200

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