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India's urbanization: Emerging opportunities

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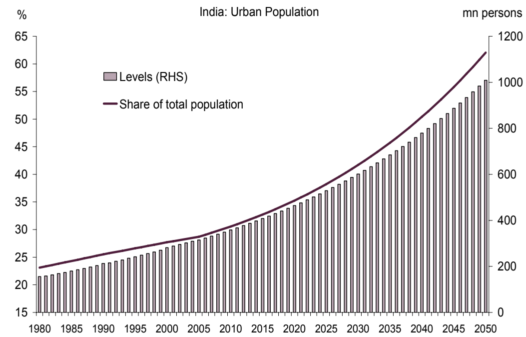
Cities are wealth creators and centers of demand. Thus, picking winners among cities and getting exposure to their growth process can be a key investment theme.

We identify the fastest growing cities in India, as well as the slow growing ones.

In particular, we find that there are significant investment opportunities in urban infrastructure, with sectors such as construction, materials, transportation, and capital goods likely to benefit.

With necessary reforms, the nascent municipal bond market shows enormous growth potential.

India: The impending boom in city life



Source: CEIC, Goldman Sachs Economics Research.

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The speed of monetary expansion, as measured by the M3 growth rate, has now approached its peak level as of mid-2003.

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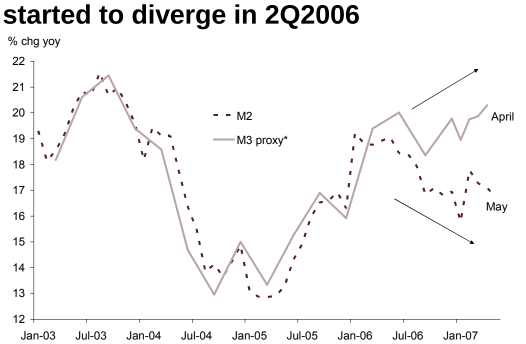

* M3 proxy includes net foreign assets and domestic credits, "other assets" are not included in this graph as the level is only attainable since 2006, however, it should not have much impact on the growth rate of overall financial assets due to its small share and stable performance.

Source: CEIC, Goldman Sachs Economics Research.

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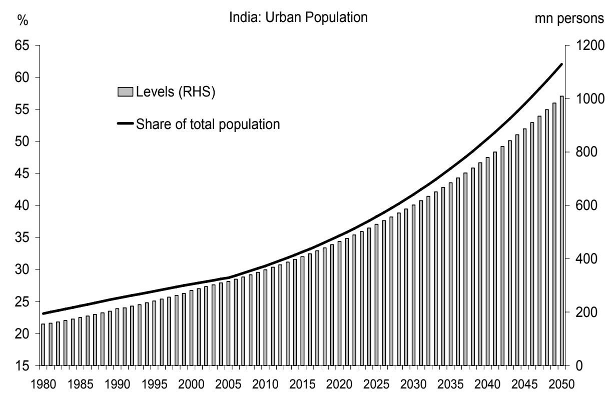
India is on the cusp of a massive increase in its city population. According to our projections, an estimated 140 million people will move to cities by 2020, and a whopping 700 million will urbanize by 2050. The number of cities with populations above 1 million in size will nearly double by 2020, and may increase four-fold by 2050. Although urbanization is occurring globally, the enormous scale of the phenomenon in India makes it imperative to understand the implications and consequent opportunities.

Cities are centers of economic activity and wealth generators. Economic growth is pre-dominantly urban growth. In India, according to our estimates, urbanization adds about 1 percentage point to growth each year simply from productivity gains from the movement of rural workers to urban areas.[1] All cities, however, do not grow at the same rate, especially during a period of rapid urbanization. For instance, Bangalore transformed itself from the mid-1980s from a sleepy, pensioner town to the incubator and hub of India's IT sector. Investors in real estate, retail, consumer demand and a host of businesses apart from IT have benefited by simply locating in Bangalore. Picking winners in cities can go a long way in understanding demand, activity, and even company success. All else being equal, a firm may be more successful if it is located in a fast-growing city, in the presence of other firms, than in a stagnant one.

Exhibit 1: India: The impending boom in city life



Source: CEIC, Goldman Sachs Economics Research.

I. Understanding city growth

Urbanization is associated not only with increases in individual city populations, but also growth in city numbers. It is a fallacy to presume that urban growth is dominated by mega-city development. The 4 largest cities in India have only 5.5% of the country's total population. Much of urbanization occurs through the development of new cities and growth of smaller metro areas. There were 12 cities with populations greater than 1 million in 1981. By 2001, that number had grown to

Exhibit 2: The number of large cities in India is set to multiply

India	1981	1991	2001	2011	2021	2031	2041	2051
No. of cities > 5m	3	4	6	9	10	17	25	36
No. of cities > 1m	12	23	35	50	68	85	108	129
No. of cities > 0.5m	41	55	74	94	120	142	158	165

Source: Census of India, Goldman Sachs Economics Research.

1 See *India's rising growth potential*, Global Economics Paper No. 152, January 22, 2007.

35. According to our projections, there may be 68 such cities by 2020. There will also likely be a large increase in the number of mega-cities (above 5 million), to 10 by 2021 and 36 by 2051.

San Diego, Shenzhen and Surat

What do these cities have in common? They have each grown from very low levels to emerge as some of the fastest growing cities in their respective urban systems. San Diego's population grew by 9 times between 1950-2000, while the total US population less than doubled. Shenzhen saw its population multiply by a phenomenal 20 times over the last 25 years. Surat, in western India has also grown by many times the national average, increasing its population more than 3 times since 1980. Cities can transform themselves in relatively short durations.

Why do some cities grow faster?

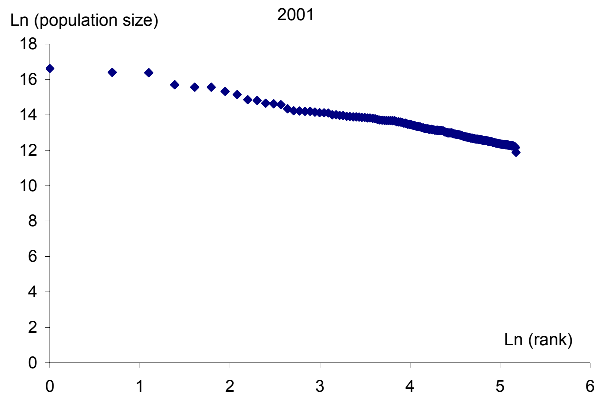
In general, the growth drivers of cities can be grouped under 2 broad headings. First, having a natural advantage such as being on a coast, waterway, or having a favorable climate. Second, being the hub of industrial activity or trade/transport etc. This also includes knowledge centers. Other growth drivers of cities include whether they are a seat of administration and governance, as well as the level of infrastructure. There is also a considerable first-mover advantage for a city—once it starts growing rapidly, chances are it will continue to do so, as firms, workers, and consumers are attracted, creating a clustering effect.

It is worth noting that none of the factors identified above should be considered as 'sufficient' for a city to grow rapidly. However, the presence of one or a subset of them is 'necessary' for them to develop.

In the US, cities in the sunbelt—Orlando, Miami, San Diego, have gained at the expense of mid-western towns like Milwaukee, Cleveland, and Detroit, in part due to favorable climatic conditions, as well as the decline of manufacturing in the mid-west. In China, emerging centers of urban activity—Shenzhen, Wuhan, Dongguan and Shanghai have in part had a strong manufacturing base which has fueled their growth.

Zipf's Law

Exhibit 3: Zipf's Law: The linear relation between city rank and city size



Source: Goldman Sachs Economics Research.

A startling empirical regularity in economics is Zipf's Law[2] which states that the overall distribution of city sizes remains roughly constant over time. Thus, in an urban system, cities show no tendency to converge to a certain population size, or to diverge with a few cities favored by most of the population, and the rest shrinking. Zipf's Law works in practice due to all cities attracting some population, or cities growing in 'parallel' with each other. Indeed, when cities become too large, costs outweigh benefits (see Box 1), which then increases the attractiveness of other, smaller towns. Appendix 1 shows the Zipf's Law for India. The law allows us to investigate the evolution of city sizes and their ranks over time.

Towards a taxonomy of cities

We projected the populations for Indian cities by extrapolating current growth rates, urbanization trends, and Zipf's Law. We then divided cities into 3 groupings—the fastest growing metropolitan areas (what we call the 'Jet Mets'), the metros which are growing steadily, and those that are growing slowly. Apart from the capital city of Delhi, the largest cities are not necessarily the fastest growing ones.[3]

The western town of Surat has seen a massive influx of migrant workers in its textile mills and gems and jewelry business. The population of the city has grown from 0.9 million to around 3.6 million in 25 years. This is after the city decided to clean up its act after an outbreak of bubonic plague in 1994, and has now become a hub of activity.

In the east, Asansol, about 3 hours west of Kolkata is emerging as a trading hub serving the nearby industrial and coal belt. Its location on the Golden Quadrilateral and as a conduit to Kolkata is helping it grow.

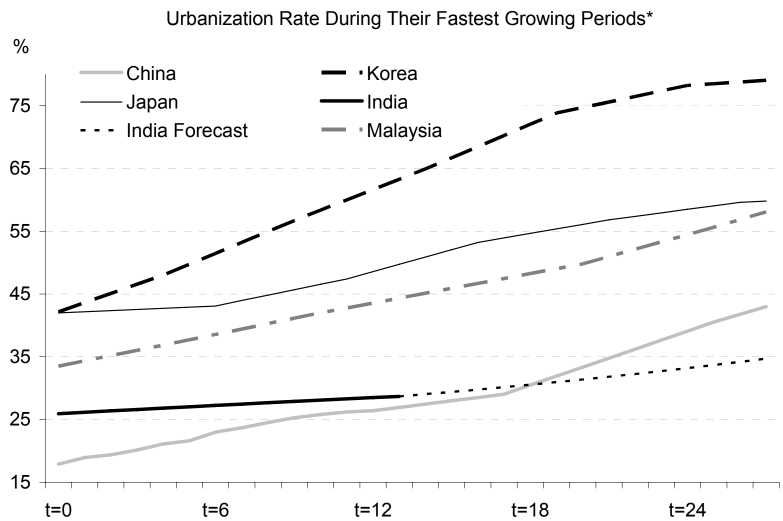
[2] Also known as the rank-size rule. Simply put, if one multiplies the rank of a city in terms of its population with its size, then the outcome is a constant for all cities within that urban system. There is enormous literature on Zipf's Law in urban economics. For further reading on Zipf's Law, see Volker Nitsch, *Zipf Zipped*, Journal of Urban Economics, 2005.

[3] Regressions of city growth rates on lagged population sizes were insignificant, suggesting that there is no relation between city sizes and growth rates.

Box 1: The benefits and costs from urbanization

Cities are centers of economic activity and demand growth. Estimates of the contribution of cities to total output in India ranges from 60%-80%. Urbanization in India is being driven by economic growth, demographics—younger workers tend to migrate more than older workers, low initial stage of development and urbanization, better transport, especially roads, and better communications and openness. India's urbanization rate, however, is slower than that of China's as well as other Asian economies (see Exhibit B1) in part due to government policies. Although, a lower growth rate and a smaller manufacturing sector vis-à-vis China are fundamental factors, government policies such as lack of investment in urban infrastructure, the Rural Employment Guarantee Act which guarantees employment for 100 days each year to rural households, and the non-taxation of agricultural income act as a deterrent for the movement of labor to towns. As we discuss below, this prevents the realization of the gains from urbanization and leads to sub-optimal city size. There is a misconception that urbanization will lead to only the growth of mega cities and increase congestion and other costs, while most of urbanization actually occurs in small towns. To achieve the full gains from urbanization, it is imperative that it is, at the very least, not discouraged by government policy.

Exhibit B1: India's urbanization rate is lower than it could be



* India: 1992- 2019, China: 1978-2005, Korea: 1971-1998, Japan: 1955-1982, Malaysia 1970-1997.
Source: World Bank, CEIC, Goldman Sachs Economics Research.

Gains from urbanization to the economy stem from several factors:[4]

- There are efficiency gains from having firms located in the same place. The variety of goods offered is greater, search and travel costs are reduced, and competition is stronger. This is what we call 'economies of scale.' A good example is a shopping mall which leads to efficiency gains in retail.

- Firms want to be close to their customers, whether it be firms in the same industry, or a mass of consumers. This creates a powerful force for clustering of firms in related industries in cities. Firms are then able to learn about and imitate the practices of other firms in the industry. Good examples include the clustering of software firms in Bangalore and car manufacturers in Detroit.

- Cities are also centers of innovation in the production of ideas, knowledge, and their commercialization. People can absorb knowledge from contact with more skilled individuals in their own industry. Large cities therefore facilitate learning, and are particularly attractive for highly-talented young people, e.g., London.

Other benefits of moving to cities include political access, enhanced by proximity to the administrative and governance center, as well as the anonymity that city life brings. The latter is especially the case in India where urbanization can often mean freedom from the oppressive caste system of the villages.

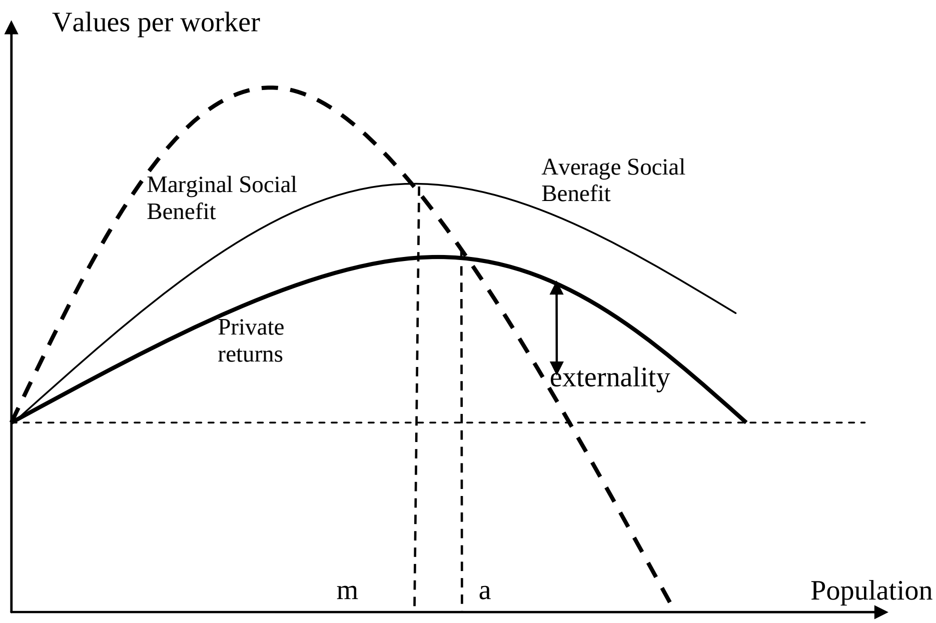
[4] This section draws from Overman and Venables, *Cities in the developing world*, mimeo, LSE.

Box 1 continued

The costs of urbanization

Excessive urbanization, however, imposes costs which are relatively well-known, but requires re-iteration. They include the cost of travel and commuting required by urban inhabitants, the much higher urban rents, congestion and air and water pollution. In addition, since cities are a magnet for labor, they also tend to be centers of unemployment, which can then lead to the development of slums, poverty, crime, and disease. This is especially the case in a developing country like India, where slums often accompany urbanization.

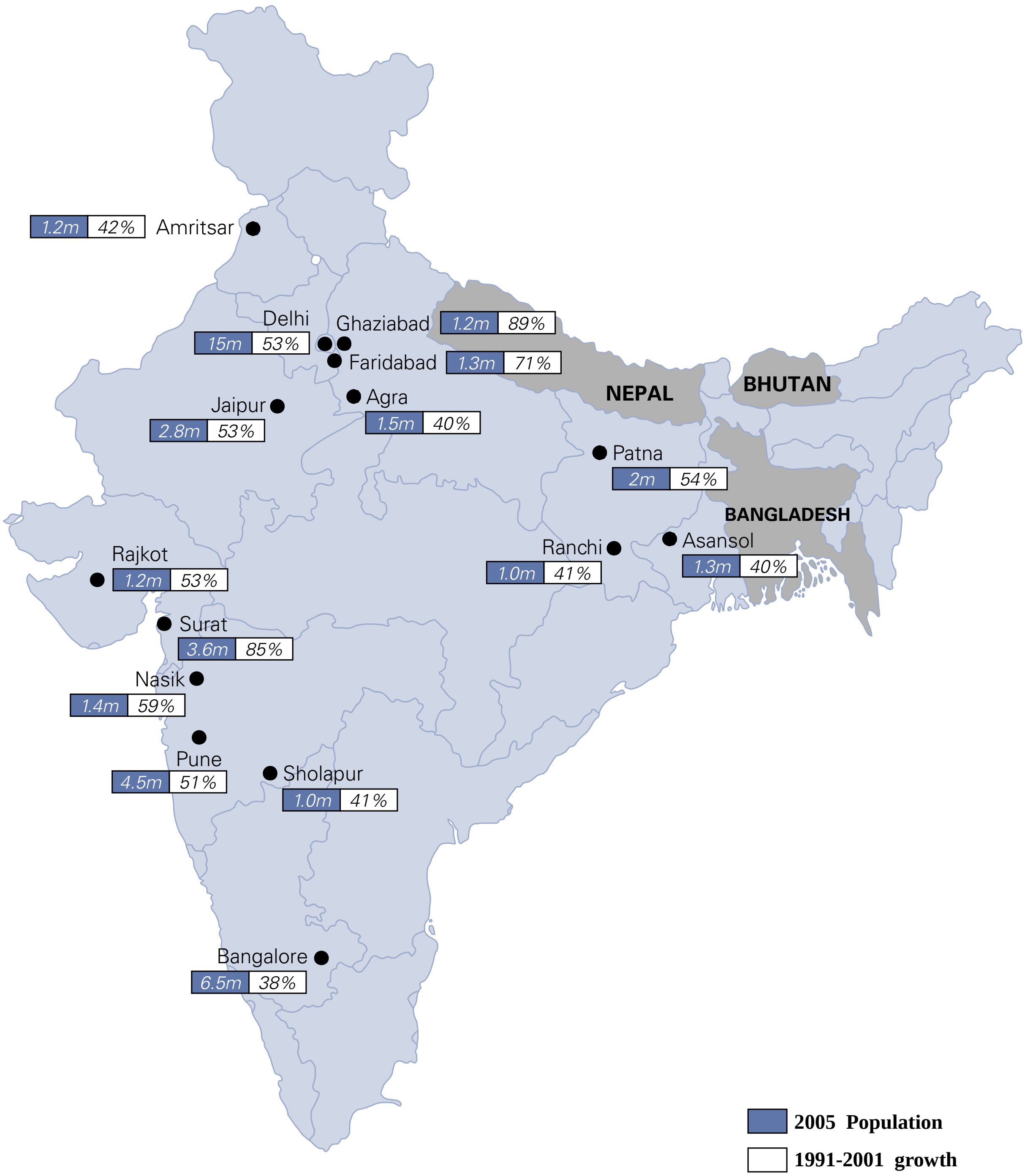
Exhibit B2: The benefits from urbanization and the optimal city size



Source: Overman and Venables, Cities in the developing world, 2005, mimeo, LSE.

Exhibit B2 illustrates the benefits/costs of urbanization. Private returns are initially increasing in population size because of the productivity advantages of increasing the scale of urban activity. Returns start decreasing after a point due to increasing urban costs. There are positive externalities for the city initially for each additional job, thus leading to increasing marginal social benefits. After point ‘a’ the congestion costs etc are higher, leading to negative externalities from increasing the population size. We can define an optimal city size ‘m’ at which the social benefits are maximized. This point yields the highest benefit per worker; it is efficient to grow each city to this point, and then expand the overall urban population further by replicating cities rather than expanding this city further. Most cities tend to be too small rather than too large, with only some of the ‘mega-cities’ crossing the threshold.

Exhibit 4: Map of India showing the Jet Mets



Source: Goldman Sachs Economics Research.

Meanwhile, nearby Dhanbad (50 km away) on the same coal belt has seen an increase of only about a fourth as much due to governance issues even though it has similar triggers as Asansol.

In the north, the satellite townships of Gurgaon, Noida, Ghaziabad and Faridabad have all benefited from spillovers from Delhi, and strong manufacturing bases, to grow very rapidly.

There are numerous other examples of cities—industrial towns and trading hubs such as Ludhiana, Aurangabad, Rajkot, knowledge centers such as Pune and administrative and governance centers such as Bhubaneshwar which are showing rapid growth. It is extremely rare to see a city show an absolute decline in population size, but in relative terms some cities will show higher growth than others.

Our aim is not to provide a fully-fleshed ranking of cities, but an attempt to understand city dynamics, and differentiate between fast-growing and slow-growing ones only on the basis of population growth, excluding other metrics. It should also be interpreted as a relative ranking, as in terms of absolute numbers, the largest cities will tend to add more numbers due to their higher base.

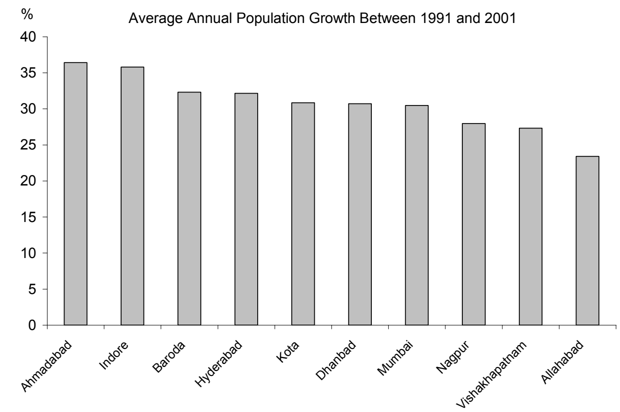
Delhi versus Mumbai

There is a tendency for the largest city in an urban system to grow much larger than the second largest city. It is called the 'primate' city, and this phenomenon has been much studied in the urban economics literature. For instance, London is 4 times the size of Birmingham the next largest city in the UK. Similarly, Tokyo is 3 times as large as Osaka-Kobe, and Paris is 7 times the size of Lyon.[5]

In India, the race for the largest city is between Mumbai and Delhi. Mumbai is currently the largest city in the country, and has been a magnet for migrant workers due to its status not only as the premier financial city, but also as the home of Bollywood and the entertainment industry. However, in recent years, Mumbai has not been growing fast, in part due to physical limitations—as it is a peninsula, and also due to congestion, long travel times and increased land values. Meanwhile, Delhi has grown twice as fast as Mumbai and has inherent advantages in terms of infrastructure, being the national capital as well as a union territory with its own revenue base and government, and simply geography, which allows it to expand radially outwards. It is also the centre of industry in the north, and its surrounding townships of Gurgaon,

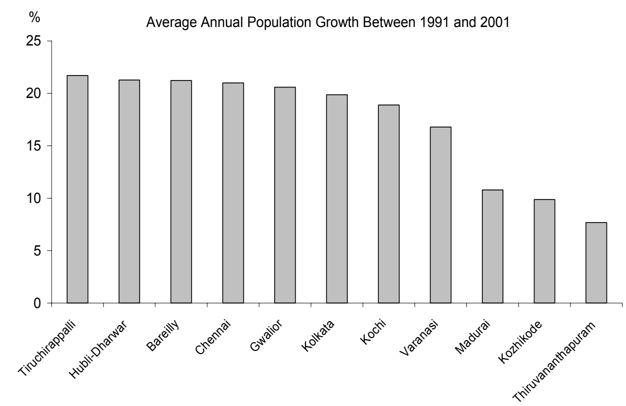
[5] This phenomenon is still compatible with Zipf's Law since the relation is in logs, and a larger 'primate' city simply changes the y-intercept but not appreciably the slope of the relationship between rank and size.

Exhibit 5: Steady growth cities



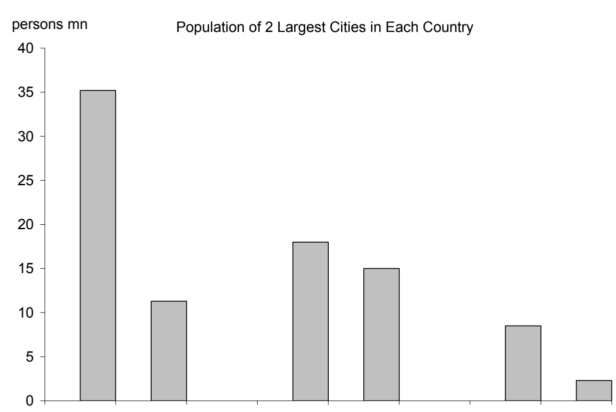
Source: Census of India, Goldman Sachs Economics Research.

Exhibit 6: Slow growth cities



Source: Census of India, Goldman Sachs Economics Research.

Exhibit 7: Winner takes all: The gap between the two largest cities



Source: UN, Goldman Sachs Economics Research.

Exhibit 8: Urban infrastructure financing requirements are large and growing

	Per capita cost over 5 year period US$	Total investment sought over 5 year period, US$ bn		
	2007-2012	2007-2012	2012-2017	2017-2022
Urban transport	283.6	42.7	48.5	55.2
Water supply	82.7	12.4	14.2	16.1
Sewerage/sanitation	68.8	10.4	11.8	13.4
Drainage	41.5	6.2	7.1	8.1
Mass Rapid Transport System	24.9	3.7	4.3	4.8

Source: Ministry of Urban Development, Goldman Sachs Economics Research.

Noida, and Faridabad are some of the fastest growing in the country. Based on current trends, Delhi may well become India's largest city and increase its dominance over time.

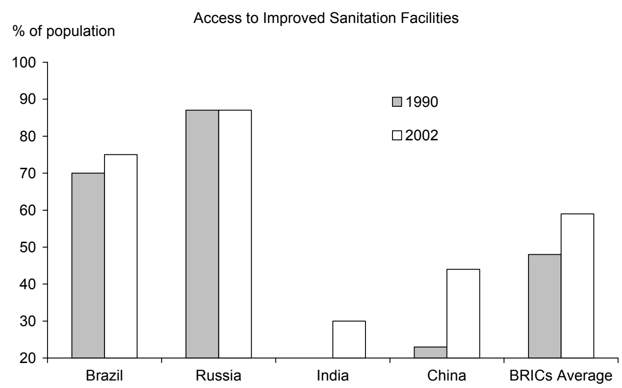
II. The opportunities in urban infrastructure

The gains from urbanization critically depend on the necessary infrastructure to be in place to house, educate, and transport the moving masses, or else it could turn out to be a curse. Investments are required in urban infrastructure, i.e., water supply, sewerage and sanitation, urban transport, and urban renewal which are distinct from investments in power, telecom, roads, and airports. Sectors which stand to gain the most include construction, materials (steel, copper, aluminium, cement), capital goods, and transportation. Based on city development plans, the Ministry of Urban Development estimates that only for the 60 largest cities, over the next 5 years, investment required will be about US$80 billion.[6] Urban infrastructure investment requirements will continue to increase as urbanization continues and the number of cities grow.

Funding such a massive infrastructure requirement represents both a challenge and an opportunity. Currently, the urban local bodies are not financially capable of funding the investment needs, as less than 5% of the over 500 local bodies are considered credit worthy. To address this gap, the government has launched a flagship program, the Jawaharlal Nehru Urban Renewal Mission (JNNURM), to provide grants and subsidies for urban infrastructure ranging from 35%-80% of the costs of the project.[7] The program is envisaged more as an incentive mechanism to reward urban local bodies which reform and to put them on a firm financial footing and will be a test-case for the government's commitment to urban development, with large consequences in terms of realizing the gains from urbanization.

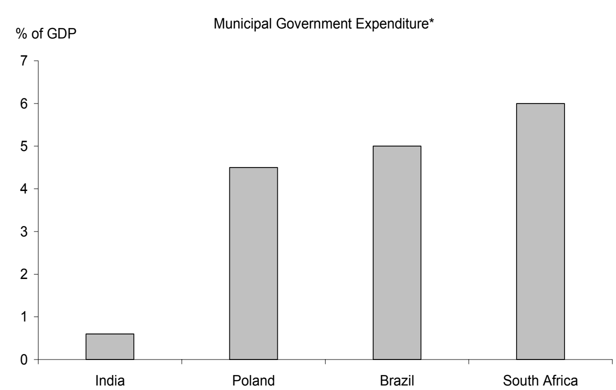
The nascent municipal bond market represents a significant opportunity. It currently remains small and underdeveloped due to the lack of credit quality of urban local bodies and the uncertainty of municipal cash flows.

Exhibit 9: Spending on sanitation facilities is the lowest among the BRICs



Note: Russian date is for 2003.
Source: World Bank.

Exhibit 10: India's municipal spending is considerably lower than other emerging markets'



* Latest available data point.
Source: World Bank.

[6] India's Planning Commission estimates the total investment needs in all infrastructure, including roads, ports, power, airports, and railways to be about US$320 billion over the next 5 years. For the BRICs, we estimate total spending on infrastructure as US$390 billion annually. See *Building the World: Opportunities in Infrastructure*, Global Economics Weekly, June 14, 2006.

[7] The Jawaharlal Nehru Urban Renewal Mission commits about US$12 billion over the next 5 years as grants and subsidies to urban infrastructure projects. It is buttressed by a commitment from state governments to supplement central grants for such projects.

It does, however, have enormous potential due to various reform initiatives to improve the credit worthiness of urban local bodies. These include proposed reforms in the property tax and the levying of user charges under the JNURM, tax-free status to municipal bonds, allowing municipal bond holdings of commercial banks to be used to satisfy priority sector lending requirements, a proposal to provide credit ratings to all municipalities, and finally, pooling a subset of them together to increase their credit worthiness. If these reforms were to proceed as envisaged, a vibrant and large municipal bond market can potentially emerge.

The huge capital subsidy available from the government for urban infrastructure has opened other channels for investors. One of these is the Pooled Municipal Debt Obligation Facility, where a number of financial institutions have come together to pool their resources to fund urban infrastructure. The facility is currently investing in projects in the city of Nanded, which could prove to be a test-case for the success of such financing mechanisms.

The critical need is for urban reforms, including more administrative autonomy to local bodies, equipping them with trained personnel, and the imposition of user charges and cost recovery, in order to unlock the full potential arising from urbanization. The cities which can successfully implement reform, with Surat being a good example, will be more able to benefit from inward migration and growth.

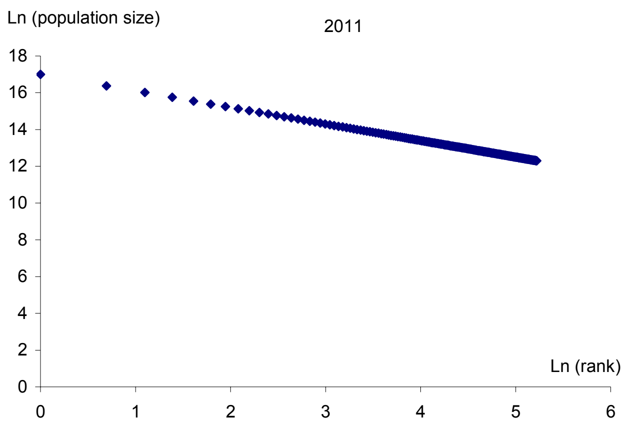
Conclusion

The great centers of civilization, commerce, and administration have been urban—from Mohenjo-Daro and Rome to Constantinople and London. Thus, in a fast urbanizing country such as India, it is imperative to understand city growth in order to track the centers of value-addition. Isolating the fastest growing cities has enormous significance in understanding investment opportunities, in terms of demand growth, industrial activity, real estate, retail, but also in infrastructure and its financing. Opportunities in urban infrastructure in India have received relatively less attention than accorded to power, telecom, ports, and roads, and yet may turn out to be one of the more lucrative ones over the long term.

Tushar Poddar

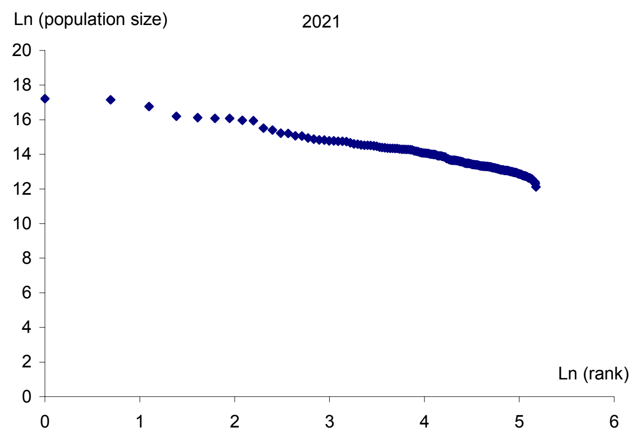
Appendix 1: Zipf's Law for India for different projection periods

Exhibit A1



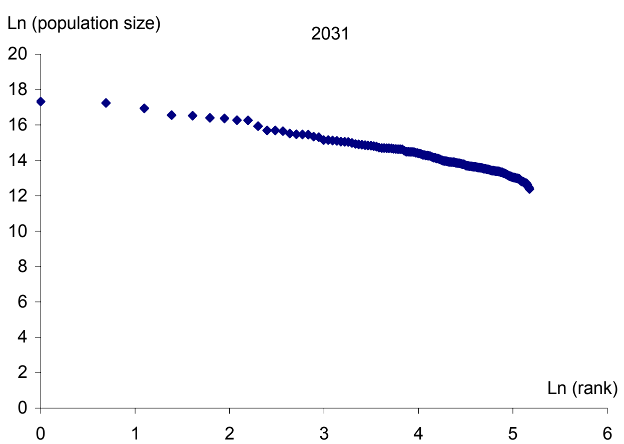
Source: Goldman Sachs Economics Research.

Exhibit A2



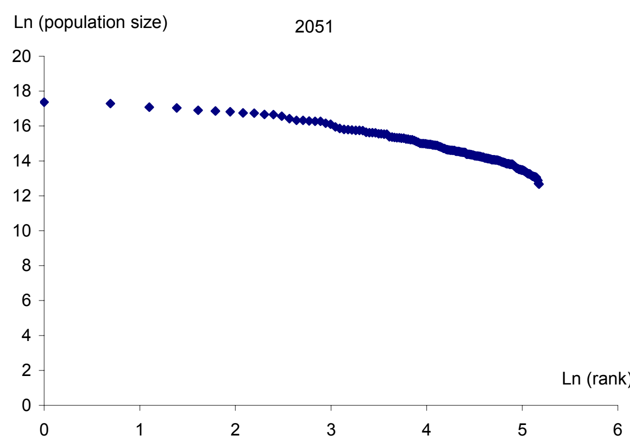
Source: Goldman Sachs Economics Research.

Exhibit A3



Source: Goldman Sachs Economics Research.

Exhibit A4



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China: M2 growth may have understated the speed of monetary expansion

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…likely reflecting the fast accumulation of capital-market-related financial assets, such as mutual funds and bonds held by non-financial institutions.

The speed of monetary expansion, as measured by the M3 growth rate, has now approached its peak level as of mid-2003.

As a result, we see upside risks to growth and inflation, as well as risks of more decisive policy tightening in 2H2007.

Data from China has continued to show strength in the economy since the beginning of this year. At this moment, few investors are concerned about any imminent slowdown in growth, but anxiety is running high on the near-term trajectory of inflation, as well as potential policy responses given the buoyancy in the economy. In our view, the key for assessing the near-term growth-inflation outlook goes to how monetary expansion has been, or has not been, controlled.

In this context, we find that some recent developments in the Chinese financial markets may have complicated the assessment of monetary expansion compared with earlier periods. Specifically, we noticed that the M3 growth rate has been faster than that of M2 since 2Q2006, likely reflecting the fast accumulation of capital-market-related financial assets.

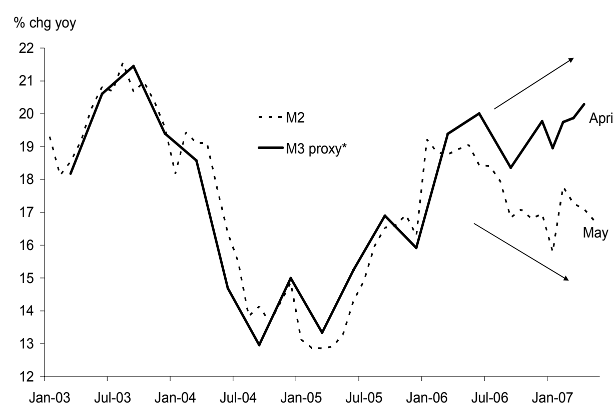
Indeed, we believe the growth rate of M3 has now approached its peak level as in mid-2003, highlighting the need for *swift* policy actions to rein in excess demand growth and control inflation pressures. We believe delays in monetary tightening will increase the risks of macro volatilities of a similar magnitude as those in the 2003-2004 tightening episode.

M3 growth has been much faster than M2 since 2Q2006

M2 supply in China includes currency in circulation, demand deposits, time deposits and savings deposits in banks, plus the customer clearing reserves in non-bank financial institutions.[1] M3 is defined to include M2, plus deposits in non-bank financial institutions other than customer clearing reserves, and securities issued by financial institutions. In other words, total M3 liabilities should equal the amount of total financial assets of the overall banking system (including the central bank).

In the past, the growth rate of M2 had tracked that of M3 very closely, because changes in non-M2 liabilities in China's financial system were relatively small. However, the growth rates of these two series have begun to diverge noticeably since 2Q2006: M3 growth has remained on an overall expansionary track while M2 growth has moderated except for an up-tick in January-February 2007 (see Exhibit 1). By April 2007, the gap in these two growth rates has widened to 2.1 percentage points. While M2 growth edged down to 17.1% year on year (yoy), M3 growth picked up to 19.2% yoy. M2 supply growth moderated further to 16.7% yoy in May, but with credit growth staying flat and trade surplus growth picking up, it is highly likely that M3 growth had inched up further and the gap had widened more in May.

Exhibit 1: Growth of M2 supply and overall financial assets in the banking system started to diverge in 2Q2006



* M3 proxy includes net foreign assets and domestic credits, "other assets" are not included in this graph as the level is only attainable since 2006, however, it should not have much impact on the growth rate of overall financial assets due to its small share and stable performance.

Source: CEIC, Goldman Sachs Economics Research.

[1] M2 supply statistics first started to include customer clearing reserves in 2006.

Exhibit 2: China financial institutions' balance sheet (including the central bank) by end-April 2007

	Rmb trillion	(% chg yoy)
Total outstanding financial assets	44.0	(19.2)
Domestic credit (DC)	30.4	(14.7)
Net foreign assets (NFA)	11.3	(38.5)
Other financial assets*	2.4	(2.5)
Total outstanding financial liabilities	44.0	(19.2)
M2	36.7	(17.1)
Non-M2 liabilities	**7.3**	**(30.9)**
Bonds issued to non-financial sectors	2.8	(30.3)
Paid-in capital	1.6	(40.2)
Deposits not included in M2	1.1	-(5.9)
Deposits of other financial institutions not included in M2**	**1.8**	**(62.8)**

* Other financial assets are mainly made up of the asset injections for NPL disposal in 2003 and 2005, the total amount has not changed much since then.
** Other financial institutions include insurance companies, securities companies, stock exchange, trust companies etc.
Source: CEIC, Goldman Sachs Economics Research.

Fast accumulation of capital-market-related financial assets is responsible for this divergence

Upon more detailed analysis of the balance sheets of financial institutions, we find faster bond issuance to the public and surging equity-related deposits are the key driving forces behind the divergence between M3 growth and M2 growth.

Specifically, the rise in "bonds held by non-financial institutions" and "deposits in financial institutions not including M2" has contributed most to the rapid build-up in non-M2 liabilities (see Exhibit 2).[2] Bonds issued to non-financial institutions have been growing at 30%+ yoy as of April 2007. In the meantime, "non-M2 deposits by other financial institutions," albeit off a lower base, increased by 63% yoy in April. These non-M2 deposits include mutual funds, retained gains from investments and funds transferred from "other channels." Micro-level evidence suggests that the dramatic increase in this item is connected to the stellar equity market performance.

Why is M3 becoming a better indicator for monetary expansion in China?

With ongoing fast development in the capital markets, we believe that a broader money supply measure, such as M3, would increasingly be a more useful parameter to assess the extent of monetary expansion and to forecast future changes in aggregate demand.

Economists define "money" as properties that carry three functions: 1) unit of account; 2) store of value and 3) medium of exchange. In our view, the "power" of those non-M2 items have become increasingly similar to the traditional M2—bonds issued to the public can now be priced and exchanged in liquid markets, and equity-related financial institution deposits, such as mutual funds, are as liquid as, if not more liquid than, savings deposits.

For example, the flip side of the diverging M2 and M3 growth is the swift rise of equity-market-associated financial institutions in China. In our view, their rapid asset accumulation is now contributing a non-trivial share to the overall monetary expansion. Therefore, M2 supply growth alone might have been understating the true extent of monetary expansion by leaving out part of the most vibrant segment of the financial sector.

For the same reason, we have revamped the Goldman Sachs China Financial Conditions Index (GS China-FCI) in January to incorporate equity prices as an important parameter in gauging monetary policy stance.[3] We argued that the equity market expansion is becoming a more important force in driving growth in China. Our new GS China-FCI shows that with the rapid increase in asset prices and equity market capitalization, current financial conditions in China are more accommodative than the narrower measures of monetary policy suggest (see Exhibit 3) Furthermore, our GS China-FCI rightly predicted the pickup in activities growth in 1H2007, and has flagged further need for monetary tightening.

Implications of rapid M3 expansion: Strong activity growth and elevated inflation pressure in the near term

In our view, inflation risks in China are driven by monetary easing and the resulting over-expansion of

[2] See Box I for a detailed examination of financial institutions' balance sheet.

[3] See *China: Financial conditions loosening and asset price inflation,* Asia Economics Flash, January 19 2007.

aggregate demand relative to the economy's supply capacity.[4] Domestic food price inflation also mainly reflects buoyant aggregate demand, although it could be set off by supply-side factors, or rising global food prices. Since M3 growth has been hovering over 19% yoy in recent months, we are likely to see continued acceleration in activities growth, and as a result, elevated inflation pressures in the near term.

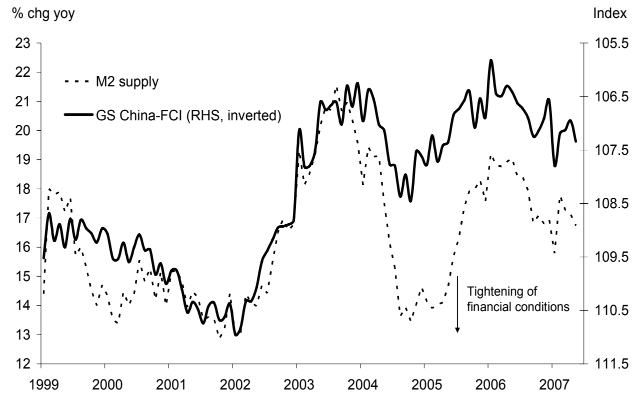
Fast monetary expansion has also highlighted the need for *decisive* monetary tightening to rein in the excess demand and avoid the risk of another overheating episode similar to the one in 2003-2004. The experience from the 2003-2004 tightening cycle suggests that the longer the authorities put off decisive policy actions, the higher the risk of blunt administrative measures being used by policymakers, in an attempt to get back on the curve.

Therefore, we expect macro policy to maintain a tightening bias and more tightening measures to be introduced in the near term. We continue to expect two more 27-basis-point lending and deposit rate hikes in the remainder of the year, and 9% CNY appreciation in 12 months. In the meantime, tighter controls on credit expansion and investment demand are also likely to be enforced more strictly.

We maintain our top-of-the-consensus CPI inflation forecast of 3.6% in 2007, which implies an average of over 4% CPI inflation in the rest of the year. Given our forecast of more decisive tightening in 2H2007, we continue to expect CPI inflation to ease to 2.6% in 2008.

Hong Liang
Eva Yi

Exhibit 3: Our GS China-FCI suggests that financial conditions are more accommodative than indicated by the changes in M2



Source: CEIC, Goldman Sachs Economics Research.

[4] See *Growth-inflation nexus part 1: China*, Asia Economics Analyst, May 26, 2006 and *Assessing inflation risks in China*, Asia Economics Flash, March 26, 2007.

Box 1: Deciphering the banking system's balance sheet (including the central bank)

In this section, we investigate the combined balance sheet of all financial institutions (including the central bank) in order to find out the driving forces behind the recent divergence between M2 and M3 growth.

In the official "Depository Corporation Survey" published by the central bank, there are two items under "assets"—net foreign assets (NFA) and domestic credits (DC), and five items under "liabilities"—M2, bonds held by non-financial institutions, paid-in capital (PIC), deposits not included in M2 and net other liabilities (see Exhibit B1).

Exhibit B1: Official banking system balance sheet (including the central bank) from the "Depository Corporation Survey" in April 2007

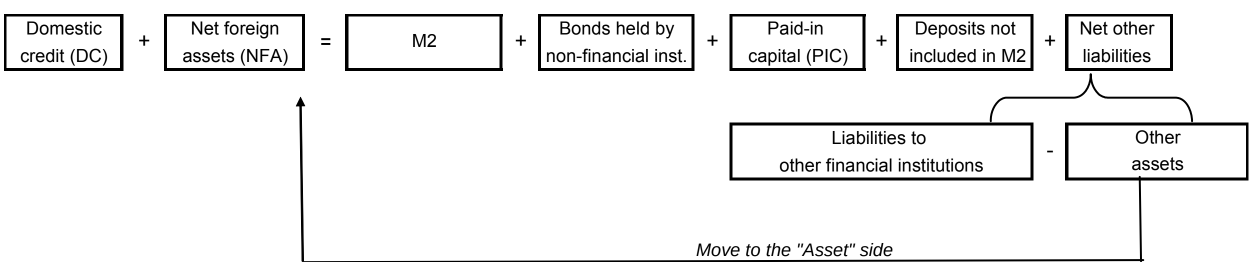
	Domestic credit (DC)	+	Net foreign Assets (NFA)	=	M2	+	Bonds held by non-financial inst.	+	Paid-in capital (PIC)	+	Deposits not included in M2	+	Net other liabilities
Rmb tn	30.4		11.3		36.7		2.8		1.6		1.1		-0.6
(% yoy)	(14.7)		(38.5)		(17.1)		(30.3)		(40.2)		-(5.9)		(level at Jan-2006: -Rmb1.3 tn)

Source: CEIC, Goldman Sachs Economics Research.

On the liability side, M2 growth has significantly underperformed those "non-M2 liabilities" (17% yoy vs. 31% yoy in April 2007), resulting in much higher total asset, i.e., M3 growth compared with that of M2. But what's been driving the higher growth of non-M2 liabilities?

We find that the rise in "bonds held by non-financial institutions" and "other net liabilities" have contributed the most to the growth in overall non-M2 liabilities. Bonds held by non-financial institutions have been growing at 30%+ yoy, while "other net liabilities," albeit off a lower base level, has surged to -Rmb0.6 trillion in April 2007 from -Rmb1.3 trillion in January 2006. The later increase was mostly driven by a rise in "other liabilities" by 63% yoy as of April (see Exhibit B2). These liabilities are the financial institutions' deposits in the "other financial institutions"[5] that are not included in the M2 statistics,[6] including mutual funds, retained gains from investments and funds transferred via other channels. Micro-level evidence suggests that the dramatic increase in this item is associated with the stellar equity market performance.

Exhibit B2: A transformed and more comprehensible banking system balance sheet (April 2007)



Therefore:

	M3	≡	Domestic credit (DC)	+	Net foreign assets (NFA)	+	Other assets

	M3	≡	M2	+	Bonds held by non-financial inst.	+	Paid-in capital (PIC)	+	Deposits not included in M2	+	Deposits of other financial institutions not included in M2
Rmb tn	44.0		36.7		2.8		1.6		1.1		1.8
(% yoy)	(19.2)		(17.1)		(30.3)		(40.2)		-(5.9)		(62.8)

Source: CEIC, Goldman Sachs Economics Research.

[5] "Other financial institutions" include insurance companies, securities companies, stock exchange, trust companies, etc.

[6] Only the "customer clearing reserves" part financial institutions' deposits in "other financial institutions" are covered by M2 statistics, the rest are excluded from M2 and categorized under "other liabilities to other financial institutions."

Statistical Appendix

Interest Rate Outlook

(%)		Current	3-Month Horizon		6-Month Horizon		12-Month Horizon	
		Jul 4	Forward	Forecast	Forward	Forecast	Forward	Forecast
Japan	3M	0.70	0.90	0.90	1.00	0.90	1.30	1.20
NJA								
ASEAN								
Indonesia	3M	8.37	8.29	8.75	8.08	8.50	8.08	8.50
Malaysia	3M	3.62	3.59	3.75	3.59	3.75	3.59	3.75
Philippines	3M	3.48	5.75	3.50	5.71	4.00	6.08	4.50
Thailand	3M	4.03	3.85	4.00	3.99	3.50	4.02	3.50
China	3M	2.75	NA	3.00	NA	3.25	NA	3.25
India	3M	6.00	9.28	8.25	7.26	8.50	7.50	8.50
NIE								
Hong Kong	3M	4.54	4.56	4.00	4.68	3.75	4.75	3.50
Korea	3M	5.00	5.10	5.00	5.20	5.00	5.20	5.00
Singapore	3M	2.44	2.52	2.75	2.73	2.75	2.82	2.75
Taiwan	3M	2.36	NA	2.75	NA	3.00	NA	3.00

Hong Kong: 3M HIBOR, CEIC, Bloomberg (GINAY91), **Indonesia:** 3M JIBOR, CEIC, **Korea:** 3M certificate of deposit, CEIC, **Malaysia:** 3M KLIBOR, CEIC, **Philippines:** 91D T-bill, CEIC, **Singapore:** 3M Interbank, CEIC, **Taiwan:** 61-90D New Taiwan dollar, Secondary, Bloomberg (NTSEC90), **Thailand:** 3M BIBOR, GS estimates. **China:** 3M PBOC Bill yield.

Exchange Rate Outlook

(Local per USD)	Current	3-Month Horizon		6-Month Horizon		12-Month Horizon	
	Jul 4	Forward	Forecast	Forward	Forecast	Forward	Forecast
Japan	122.35	120.88	118.00	119.52	118.00	117.08	112.00
NJA							
ASEAN							
Indonesia	9,000	9,030	9,000	9,055	9,300	9,143	9,300
Malaysia	3.45	3.43	3.41	3.42	3.40	3.38	3.38
Philippines	45.95	45.77	47.00	45.67	46.00	45.64	45.00
Thailand	31.70	32.58	35.00	32.78	35.50	33.00	36.00
China	7.59	7.51	7.55	7.42	7.37	7.26	7.03
India	40.48	40.66	41.30	40.86	42.10	41.26	42.40
NIE							
Hong Kong	7.81	7.80	7.80	7.78	7.80	7.76	7.80
Korea	919	916	935	914	925	912	900
Singapore	1.5236	1.5121	1.5100	1.5021	1.4900	1.4835	1.4700
Taiwan	32.80	32.53	32.75	32.33	32.50	31.93	32.00

Global Macroeconomic Outlook

					2007				2008			
	2005	2006	2007E	2008E	1Q	2QE	3QE	4QE	1QE	2QE	3QE	4QE
Real GDP Growth (% yoy)												
Advanced Economies	2.6	3.2	2.7	2.8	2.7	2.7	2.8	2.4	2.7	2.7	2.8	2.9
United States	3.2	3.3	2.1	2.6	1.9	2.0	2.1	2.2	2.6	2.5	2.6	2.7
Euroland	1.6	2.9	2.8	2.4	3.0	2.8	2.9	2.5	2.5	2.4	2.3	2.3
Japan	1.9	2.2	2.5	2.5	2.6	2.6	2.9	2.1	1.9	2.2	2.6	3.0
CPI Inflation (% yoy, avg.)												
Advanced Economies	2.3	2.3	2.1	1.9	1.9	2.0	2.0	2.5	2.3	1.8	1.8	1.8
United States	3.4	3.2	2.8	2.2	2.4	2.6	2.5	3.6	3.1	2.0	1.8	1.8
Euroland	2.2	2.2	2.0	1.9	1.9	1.9	2.0	1.8	2.3	1.9	1.8	1.8
Japan	(0.3)	0.1	(0.1)	0.5	(0.1)	(0.1)	(0.1)	0.1	0.4	0.5	0.5	0.6
Interest Rates (% p.a. eop.)												
Fed funds	4.16	5.24	5.25	5.25	5.26	5.25	5.25	5.25	5.25	5.25	5.25	5.25
UST 10-year	4.47	4.56	5.00	5.25	4.56	5.00	5.00	5.00	5.00	5.10	5.20	5.25
Euro yield 10-year	3.30	3.97	4.65	4.70	4.09	4.50	4.60	4.70	4.70	4.70	4.70	4.70
Exchange Rates (eop.)												
USD/EUR	1.22	1.32	1.35	NA	1.34	1.35	1.35	1.35	1.35	1.35	NA	NA
JPY/USD	110.2	116.3	111.3	105.0	119.4	119.9	115.7	114.4	110.0	105.6	105.0	105.0
WTI Oil (average $)	56.7	66.2	69.4	NA	63.0	70.5	71.8	72.3	72.8	NA	NA	NA

	Outlook	Key issues
United States	US investors continue to earn more on investments abroad than foreigners do in the US. Most of the US advantage in direct investment returns represents a big gap in retained earnings. With no reason to expect these factors to change soon, we are allowing our optimistic view on US trade prospects to show up more clearly in the current account deficit, which we now expect to drift down to 5.25% of GDP by yearend 2008.	Currently, we view the economy as being caught in the midst of a tug of war between manufacturing and housing, the two most cyclical sectors. As continued weakness in the housing sector pulls down GDP, the recovery in manufacturing has been pulling it up. With other parts of the economy running essentially at trend, which of these influences is stronger will largely determine the direction of the economy. To us, it appears that housing has a slight edge.
Japan	May industrial production declined for the third month in a row. The slump in May can be almost entirely explained by weaker-than-expected production of non-durable goods. But the underlying production trends remain firm. We are looking for a more pronounced production recovery in July-September, in part because the inventory correction in IT-related goods is winding down.	The upper-house election is looming large. While the result remains hard to predict, given limited policy differences, it should not have any major market impact on a medium to long horizon. However, the market could be strongly affected in the near term, and particularly by political volatility following a heavy LDP defeat.
Euroland	The German Ifo survey was weaker than expected, but is still consistent with strong growth, especially in combination with healthy labour market data in June. France and Italy maintained their more moderate momentum, with the ISAE and INSEE surveys both increasing. As a whole, the surveys suggest robust activity in Euroland in Q2.	The Euroland rate of return on capital has been both higher and more stable than that of the US over the past 10 years, until recently. But this aggregate stability masks significant changes at a country level. While Germany's rate of return has risen sharply, Italian and Spanish returns have fallen, exposing the two countries to the recent rise in real bond yields.
Non-Japan Asia	A pulse check on Asia bolsters our confidence in the global decoupling call. Exports are regaining momentum, latest export number from China and Korea in particular showed a broad-based pick up. Recovery in exports momentum indicates that the global inventory cycle might be bottoming out. NJA domestic capex recovery remains on track, underpinned by strengthening corporate profits. We believe consumption will follow suit, underpinned by income growth and positive wealth effect from buoyant asset prices.	Central banks in the region are facing the policy delimma in the face of surging asset prices, while CPI inflation remains quiescent. Our baseline view remains moderate tightening. Therefore, monetary conditions should remain accommodative, and unlikely to be "unwound" in a great hurry. We are happy to maintain our above-consensus growth forecast; the risk to growth is skewed to the upside. The widening gap between the assets accumulation at the central bank vs. the commercial banks indicates plenty fuels left in the tank for further asset price reflation cycle. On this backdrop, we maintain our stance on bullish Asian asset prices.

Main Economic Indicators

	GDP						Inflation					
	2005	2006	2007E	2008E	Latest (yoy)		2005	2006	2007E	2008E	Latest (yoy)	
Pan Asia*	7.5	7.8	7.7	7.4	7.8	(1Q)	2.4	2.7	3.1	2.8	2.9	(May)
NIE + ASEAN	4.9	5.4	5.2	5.6	5.0	(1Q)	4.9	5.1	3.2	3.5	2.6	(May)
ASEAN	5.1	5.4	5.4	5.7	5.6	(1Q)	7.4	8.1	4.2	4.5	3.5	(May)
Indonesia	5.6	5.6	5.9	6.0	6.0	(1Q)	10.5	13.1	6.0	6.5	**5.8**	**(Jun)**
Malaysia	5.2	5.9	5.5	6.0	5.3	(1Q)	3.0	2.5	2.5	2.8	1.5	(May)
Philippines	5.1	5.4	6.2	6.7	6.9	(1Q)	7.7	6.3	2.8	3.3	**2.3**	**(Jun)**
Thailand	4.5	5.0	4.0	4.5	4.3	(1Q)	4.5	4.6	3.2	3.0	**1.9**	**(Jun)**
Japan	1.9	2.2	2.5	2.8	2.0	(1Q)	(0.3)	0.1	(0.1)	0.5	**0.0**	**(May)**
China	10.4	10.7	10.8	10.0	11.1	(1Q)	1.8	1.5	3.6	2.6	3.4	(May)
India (FY Basis)	9.0	9.4	8.0	7.8	8.7	(1Q)	4.1	6.1	5.0	5.0	5.2	(May)
NIE	4.7	5.3	4.9	5.5	4.4	(1Q)	2.2	1.8	2.1	2.5	1.6	(May)
Hong Kong	7.5	6.9	5.5	5.7	5.6	(1Q)	1.1	2.7	3.0	4.0	**1.3**	**(May)**
Korea	4.2	5.0	4.8	5.3	4.0	(1Q)	2.7	2.2	2.3	2.5	**2.6**	**(May)**
Singapore	6.6	7.9	6.7	6.5	6.1	(1Q)	0.5	1.0	1.0	1.6	**1.0**	**(May)**
Taiwan	4.1	4.7	4.5	5.5	4.2	(1Q)	2.3	0.6	1.5	1.8	(0.0)	(May)

	3 M Interest Rates					Exchange Rates				
ASEAN										
Indonesia	14.5	9.8	8.5	8.5	8.4	9830	9020	9300	9300	9000
Malaysia	3.2	3.7	3.8	3.8	3.6	3.78	3.53	3.38	3.38	3.45
Philippines	6.1	6.0	4.5	5.0	3.5	55.0	49.6	45.0	45.0	46.0
Thailand	4.5	5.3	3.5	3.5	4.0	41.0	35.8	36.0	36.0	31.7
Japan	0.1	0.5	1.1	2.0	0.7	110.2	116.3	113.8	105.0	122.4
China	—	—	—	—	—	8.08	7.81	7.31	6.91	7.59
India	6.1	7.8	8.5	8.5	6.0	44.6	41.0	42.4	42.4	40.48
NIE										
Hong Kong	4.2	3.8	3.8	3.5	4.5	7.75	7.77	7.80	7.80	7.81
Korea	4.0	4.9	5.0	5.0	5.0	1013	930	900	900	919
Singapore	3.3	3.4	2.8	2.8	2.4	1.66	1.53	1.47	1.47	1.52
Taiwan	1.5	1.8	3.0	3.0	2.4	32.9	32.6	32.5	31.5	32.8

*Pan Asia includes India.

GDP and inflation are annual averages. Interest rates and exchange rates refer to end-period. Figures in bold indicate recent revisions.

Hong Kong: 3M HIBOR, CEIC, Bloomberg (GINAY91), **Indonesia**: 3M JIBOR, CEIC, **Korea**: 3M certificate of deposit, CEIC, **Malaysia**: 3M KLIBOR, CEIC, **Philippines**: 91D T-bill, CEIC, **Singapore**: 3M Interbank, CEIC, **Taiwan**: 61-90D New Taiwan dollar, Secondary, Bloomberg (NTSEC90), **Thailand**: 3M BIBOR, CEIC. **India:** 91 D T-bill

Asia in a Nutshell

	Present Situation	Key Issues
CHINA	May exports growth remained strong while imports growth continued to lag. The trade surplus widened to US$22.5 billion. Meanwhile, CPI inflation picked up to 3.4% yoy in May amid higher food, in particular, pork prices. We expect yoy CPI inflation to trend above 4% in 3Q2007, partially contributed by high-base effects. Retail sales growth in nominal terms picked up amid higher inflation. Growth of retail sales in real terms remained largely unchanged. Industrial production and fixed asset investment both posted strong growth. Strong activity growth and rising inflationary pressures highlight the need for further policy adjustments. In terms of monetary policy, we believe the central bank will hike both the lending and deposit rates twice in the rest of the year (by 27 bp each time). We will also watch for tightening policies from the NDRC, possibly targeting high-energy-consumption industries.	The CSRC issued an announcement on June 20 with detailed regulations for overseas investment under the QDII scheme. Under these new rules, qualified security brokerages and fund management companies will be allowed to invest in overseas equities, bonds, asset and mortgage-backed securities, futures and other derivatives that trade on CSRC-certified exchanges. We view this as a positive move, although the impact on overseas markets will likely be limited, especially in the near term, given: 1) the size of the QDII investments are likely to be limited compared with QFII and 2) it takes time for existing QDIIs to issue new funds and for other institutions to apply for QDII status. As a result, we believe the impact of this measure on anchoring the elevated expectations in the domestic A-share market and diverting fund flows from it may also be limited.
HONG KONG	We expect the 3-month HIBOR to remain stable at around 4.5% till end-2008, given our US Economics Team’s forecast of no rate changes in the US. We maintain our above-consensus GDP growth forecasts (2007: 5.5% and 2008: 5.7%), since we have long argued that income growth is a far more important determinant to consumer demand than interest rate trends, this is also supported by the buoyant retail sales growth in May. Headline CPI inflation appears lower in May, but mainly due to temporary data distortions, which is likely to weigh on the headline CPI until September. In the mean time, we remain comfortable with our positive asset reflation story.	We do not expect a change in the HKD exchange rate regime in the next few years, as we do not see strong political incentive doing so. In the medium term and beyond, the benefit/cost balance could deteriorate sharply, especially if inflation trends up faster than expected. Although a peg to the CNY will not happen soon, various developments in Hong Kong and the mainland point to such a peg in the distant future and the detailed rules regarding issuance of CNY-denominated bonds announced on June 8 was a positive step towards increasing CNY circulation in the Hong Kong monetary system. The synergies from the integration with southern China are the key drivers for growth in the long term.
INDIA	The current account balance swung into surplus in 4QFY2007, with increased services exports and inward remittances offsetting the merchandise trade deficit. However, we expect the current account to worsen in FY2008 due to the recent large appreciation in the INR.	We continue to expect more monetary tightening going forward. We expect another 50-bp increase in the cash reserve ratio. Although inflation has eased in recent weeks partly due to base effects playing themselves out, demand pressures are still present and, liquidity is still loose.
INDONESIA	BI cut the policy rate by 25 bp to 8.25% as expected at its July meeting. BI is probably nearing the end of its rate cut cycle and we expect rates to bottom at around 8.0%. Sentiment is improving at the margin, driven by an improving cyclical growth outlook and stable inflation trend (latest CPI at 3-year low of 5.8%).	Investors are hoping that the fall in interest rates will underpin the domestic consumer rebound and are sniffing out a more positive growth story. We remain more cautious. In terms of growth, Indonesia will find it harder to surprise highly bullish expectations.
KOREA	Headline exports grew 15.9% yoy in June, stronger than both the 11.4% yoy gain in May and consensus expectation of 12.0%. On a sequential basis, exports growth continued to build momentum, accelerating to 29.8% qoq; seasonally-adjusted; annualized, up from 24.5% qoq in May. Our Global Leading Indicator continues to point to an acceleration in the global industrial cycle in 2H2007. We expect the robust exports trend to continue going forward.	We have recently revised up our 2007-2008 GDP growth forecasts to 4.8% and 5.3%, respectively, from 4.0% and 4.5%. Our new forecasts put us above the consensus of 4.5% and 5.0%. Among GDP components, we see greater upside surprise in exports and capex. We believe stronger exports will feed into a steeper recovery path in capex, which in turn will bolster the labor market. This will set the stage for stronger consumption down the road.
MALAYSIA	One of the key market issues is execution slippage risk on GLC reform. It is certainly true that the "financial" restructuring of a GLC is a lot easier politically than downsizing the non-competitive parts of a business. However, our sense is that there is enough "fat" that can be trimmed from the system to support the GLC reform sentiment in 2007.	Structurally, investor opinion is still quite split between the "Malaysian political economy will never change" camp, and the "Malaysia is changing, but at a pace determined by the complexities of its political economy." We are biased towards a more "glass half full" read of the structural story. Malaysia is a small open economy, getting dragged along by the energy of regional change.

Asia in a Nutshell (Cont'd)

	Present Situation	Key Issues
PHILIPPINES	One of the key drivers underpinning our bullish PHP call is the de-dollarization story that is currently underway. This is happening mainly through funds being pumped into domestic risky assets e.g., into the local property and stock markets. The surge in overseas workers remittances is testament to this trend. The other major macro driver of the Philippines story is the upside potential in the consumer credit cycle.	It is still early days in the development of the credit cycle as banks begin to tap into the overseas foreign workers and business process outsourcing streams. The mortgage market is only now starting to develop. The feed-through effect is potentially huge as these streams are geared into a construction boom in the next few years. We are maintaining our 12-month USD/PHP forecast at 45.
SINGAPORE	The sheer scale of the various structural changes enveloping Singapore poses an interesting dilemma for the monetary policy framework. The key question is how to finesse monetary policy in such an environment. The temptation is to minimize exchange rate volatility, in the hope of providing a strong nominal anchor for inflation expectations, while relying more on micro-level policy responses. Unfortunately, the inflexibility of the current SGD-based monetary policy framework risks exaggerating, not smoothing, the cycle.	Clearly, there is a strong case for introducing more flexibility into the monetary policy framework, given the uncertainty that all these major structural shifts are injecting into the economy. Will it happen? Probably not. So, our conclusion remains to stay maximum bullish the Singapore asset reflation story, as the MAS allows more of the real exchange rate revaluation adjustment to come via non-traded goods prices in this cycle.
TAIWAN	The central bank raised the Rediscount Rate by 25 bp to 3.125%, 12.5 bp higher than market expectations. The central bank also expressed concerns over the potential pass through of high upstream inflation, given their better growth outlook for 2H2007. We believe the central bank will try to narrow the TWD-USD interest rate differential further going forward, in order to curb severe capital outflows. May industrial production and export orders growth confirmed the recovery trend in global demand and domestic production, and we expect the recovery to broaden out in 2H2007. Therefore, we remain comfortable with our above-consensus GDP growth forecast of 4.5% for 2007 and 5.5% for 2008.	We believe structural factors that have been weighing on the domestic demand cycle—and hence the interest rates and the currency—is the lack of policy response to the supply-side constraints, i.e., policies that attract the repatriation of the offshore earnings, easing of the restrictions on Taiwanese investment in the mainland and better facilitation of cross-strait economic activities. However, we could see glimpses of hope in a pickup in credit demand in the horizon, given our view of a gradual domestic demand recovery in 2H2007. Given time, we expect stronger credit demand will eventually bring more upside to the market interest rates, and hence the use of the TWD as a funding currency will also turn less favourable
THAILAND	1Q2007 GDP numbers surprised on the upside with headline GDP coming in at 4.3% yoy (same as 4Q2006). However, the headline number was much weaker than meets the eye—domestic demand actually slowed -0.4% yoy with exports propping up the headline numbers. That said, domestic demand indicators are starting to look slightly more positive at the margin.	Structurally though, as we have highlighted before, Thailand continues to be supply-side constrained. These are mainly issues related to the institutional structure of the country, such as the rule of law and the lack of policy deregulation. The government now seems to think of a potential growth trend in the 4%-5% range, whereas it was not so long ago that the market considered 6%-7% growth as a realistic trend assumption.

Central Bank Watch

Country (Date)	Likely Decision / Reasons	Data/ Event To Watch Before Next Meeting
KOREA (July 12)	We are seeing a firmer pickup in growth momentum while inflation remains benign. On balance, we expect no change in the monetary policy stance as property prices are also showing signs of stabilization.	■ Trade data ■ Industrial production ■ CPI
TAIWAN (end September)	We now expect the central bank to hike rates by 25 bp again in its September meeting, given the central bank's concern over upstream inflation pass-through, and the TWD capital outflows.	■ Trade data ■ CPI inflation, WPI inflation ■ Net capital outflow
INDIA (July 31)	We continue to expect another 50-bp increase in the cash reserve ratio. Although inflation has eased in recent weeks partly due to base effects playing themselves out, demand pressures are still present and, liquidity is still loose.	■ Industrial production ■ WPI ■ Money and credit data

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Key Things to Watch

Our US economists believe that slower growth will become increasingly evident during 2H2007, as the consumer starts to buckle under the weight of a weaker housing market and the rise in gasoline prices. But we are still confident of the "global decoupling" view, i.e., growth in rest of the world remaining solid, amid softer growth in US. We will have a slew of China data out over the next few weeks that will provide us with more color on this view. Our Global Leading Indicator continues to point to a acceleration in the industrial cycle in 2H2007, offering a favorable backdrop for Asia's export cycle.	
China Money and credit (Jun) (Jul 9-13) Trade (Jun) (Jul 10) GDP (2Q) (Jul 18) CPI, retail sales, industrial production, fixed asset investment (Jun) (Jul 18)	Will 2Q GDP data be strong? ▪ **Forecast: yes.** We expect 2Q GDP data to be on the strong side despite the high-base effects. Other activity indicators are also expected to show continued strength in growth. ▪ **CPI:** CPI inflation is likely to accelerate further on the back of higher food, in particular, pork prices.
US Non-farm payrolls (Jun) (Jul 6) Trade balance (May) (Jul 12) Retail sales (Jun) (Jul 13) PPI, industrial production (Jun) (Jul 17) CPI (Jun (Jul 18) Housing starts (Jun) (Jul 18)	Consumer-led slowdown more visible in 2H2007? ▪ **Forecast: yes.** Our US economists believe that slower growth will become increasingly evident during 2H2007, as the consumer starts to buckle under the weight of a weaker housing market and the rise in gasoline prices. Watch retail sales for the latest update on the US consumer. ▪ **Non-farm payrolls**: our US economists are tentatively forecasting +150,000 for June's payrolls. They expect no change to the 4.5% unemployment rate and an increase of 0.3% in average hourly earnings.
Taiwan Trade (Jun) (Jul 9)	Signs of a firmer recovery in 2H2007? ▪ **Forecast: yes.** The recent export orders and global indicators are beginning to point to a turnaround in Taiwan's export cycle, which has been lagging the region. ▪ We believe this is setting the stage for a domestic demand recovery, which should begin in late-2007 or early-2008.
Singapore Advance GDP (2Q) (Jul 10)	Domestic demand gaining further traction ▪ **Forecast: yes.** We remain confident in our domestic-demand-driven Singapore reflation story. We expect the flash estimate of 2Q GDP to come in at 6.8% yoy versus a consensus of 6.7%. ▪ We remain comfortable with our above-consensus growth estimates for 2007 and 2008 of 6.7% and 6.5% versus a consensus of 6.0% for both years.
Hong Kong Unemployment (Jun) (Jul 19) CPI (Jun) (Jul 20)	Robust labor market to underpin asset relation cycle? ▪ **Forecasts: yes.** Our long-held view is that the consumption cycle and the asset reflation cycle should remain firm, buoyed by the strong labor market. The unemployment rate recently hit a seven-year low of 4.3% recently, driven by persistently robust employment growth. ▪ **CPI:** the CPI inflation data would remain noisy until September, due to the rate concessions. Despite that, we believe that wage growth is spreading across a wider spectrum of the labor market and will eventually feed into CPI inflation.
India WPI (weekly) (Jul 13, Jul 20) Industrial production (May) (Jul 13)	Some moderation in activity in the months ahead? ▪ **Forecast: yes.** We expect to see a slight moderation in IP growth in the months ahead. April's higher-than-expected print was partly driven by base effects. Also, recent indicators, including June's Purchasing Manager's Index, credit growth, auto sales, and consumer confidence surveys suggest some moderation in activity due to the recent monetary tightening by the RBI and the rapid appreciation of the rupee. ▪ We continue to expect another 50-bp increase in the cash reserve ratio. Although inflation has eased in recent weeks partly due to base effects playing themselves out, demand pressures are still present and, liquidity is still loose.