

China's and India's Economic Performance after the Financial Crisis*

A Comparative Analysis

R Nagaraj

Abstract

Economic growth in China and India – together accounting for about 18 per cent of global GDP in 2015, and 1/3rd of world population – decelerated sharply after the financial crisis. There was some recovery until 2011-12 on account of monetary and fiscal stimulus, and resumption of capital inflows on account of the QE. With continued great recession, the widely asked question is this: Can these giant domestic-oriented economies help revive global economic growth?

As export-led boom for both the economies ended in 2008, they are now faced with a severe demand constraint. China's sustained rise in investment and decelerating output growth has led to a fall in productivity; India witnessed a sharp decline in investment demand. Both the countries are now saddled with bloated private corporate debt due to credit binge during the boom. If China can avoid (potential) debt deflation and bubble like situation in property market, re-orient investment towards social infrastructure, and consumption, economic growth could turn around. India probably needs to revive demand by stepping up public infrastructure investment to release critical supply bottlenecks; re-direct bank credit for agriculture and small and medium sized enterprises to stimulate agriculture growth and labour intensive manufacturing. China's constraints to shift the policies appear more political economic; India perhaps needs is to re-configure the fiscal rules for a more active role of the state in promoting investment.

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China's and India's Economic Performance after the financial Crisis

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Introduction: Size and structure of the two economies

In 2015, as per IMF data, nominal GDP in current dollar terms, China and India are world's 2nd and 7th largest economies, at \$11 trillion and \$2.25 trillion respectively. In per capita terms, in global ranking, China stood 74th with \$8,141, and India at 141th position with \$1604. In geo-political terms, though China carries considerable heft, it is as yet an emerging market economy as per Morgan Stanley index for emerging market index (MSCI). These countries are the leading members of the "BRICS" economies – a short hand for fast growing industrialising nations accounting for a quarter of world's land mass and 40 per cent of population – a grouping of non-western nations that Goldman Sachs created in 2001 for the purpose of developing financial products. Though the financial firm ceased to use the country grouping for selling financial products, BRICS as a category has stayed in policy discourse and financial markets.

Just prior to the global financial crisis in 2008-09, China was world's fastest growing large economy expanding annually at 9-10 for over 20 years; India was seen as a close second growing at about 9 per cent annually (though for just 3 years). If China had emerged as world's factory, India was getting to be reckoned (at least for a while) as its back office. The global financial crisis (GFC) and the great recession thereafter probably hit China much harder, given its much higher export/GDP ratio (at 30.7%) in 2008, compared to India's share at 23.6%. Moreover financial flows into China were much higher than in India. As part of the G20 initiative, both the countries undertook fiscal and monetary stimulus to prevent a repetition of the great depression – China did it on an enormous scale compared to India, given its greater external exposure, and to prevent large scale unemployment and the potential political backlash domestically.

Economic growth in both the countries recovered quickly, giving rise to (instant) theorising of "de-coupling" of the emerging market economies (EMEs) (especially BRICS countries) from the developed economies, signifying the autonomous nature of their growth. Soon it was realised that growth in China and India were sustained by large scale short-term capital inflows on account of the QE in the advanced economies, that is, capital flowing into these economies in search of higher yield (or rate of return). However, the hint of a tapering off of the QE in August 2013 led to panic known as "taper tantrum" – putting breaks on the capital inflows, adversely affecting growth in these countries. Thus, China's annual growth rate got nearly halved, from 13-14% immediately prior to the financial crisis to less than 7% last year. In a slight contrast, India's growth rate which also went down sharply to less than 5% in 2013-14, has reportedly climbed back to over 7% - now claiming to be world's fastest growing large economy. Among the BRICS nations, China and India are perhaps the only one to maintain positive growth in the last few years.

With the advanced economies still gripped by the great recession (despite visible signs of improvement in the US), and a bleak IMF growth forecast for 2017 at 3.4 per cent (as per July 2016 report), global economic performance seems to hinge on how these two large economies perform. Can China and India – accounting for 18 per cent of global GDP in 2015 and 1/3rd of population –

emerge as a significant node for global economic recovery? This short paper seeks to offer a tentative and speculative answer. The paper is structured as follows.

Careful scholarship on Chinese economy has long been concerned about the quality and veracity of official economic statistics. Hence, it is useful to briefly review the data concerns to be able to make a reasonable assessment of its economic performance and prospects. Indian macroeconomic statistics have recently come under cloud with the latest revision of the base year of GDP in 2015. So, the paper will begin in Section I with an assessment of the economic statistics of both the countries. Sections 2 will briefly review China's and India's the economic performance after the financial crisis. Section 3 will make a comparative assessment of the prospects their economic revival – necessarily a speculative effort. Section 4 will conclude the study summarising the main findings.

Section I

Concerns about quality of macroeconomic data

Chinese official statistics are widely believed to overstate economic growth rate systematically. One of the known inconsistencies is that the sum of the provincial output is systematically higher than national GDP estimates. Apparently, the overestimation happens because the official have an incentive to record the plan targets as achievements, since their career prospects often depend on performance as measured by output growth (Harry Wu, ???).

The long held scepticism about Chinese growth number got confirmed in the Wiki Leaks by Li Keqing, when the then Party Committee Secretary of Liaong province in 2007 told the US Ambassador in Beijing that Chinese GDP numbers are for reference only (NYT, February 26, 2016). The true measures of Chinese economic growth are rail cargo volume, electricity consumption and bank credit. Taking cue from this, private financial firms (including *The Economist*) have created Li Keqing index as a proxy for Chinese GDP growth.

Questioning of the Chinese official growth estimates got intensified after the financial crisis, when critics claimed that growth could be considerably lower than official estimates (Figure 1).^{*} There are also concerns about the true state of real estate economy with questions about the accuracy of property price index, bank credit accruing to the sector, and data on sale of property.

The scepticism got recently confirmed, when a top Chinese official admitted to data falsification. To quote the official: "Currently, some local statistics are falsified, and fraud and deception happen from time to time, in violation of statistics laws and regulations," Ning Jizhe, director of the National Bureau of Statistics, wrote in a column for Communist Party mouthpiece the *People's Daily* on Thursday", (http://paper.people.com.cn/rmrb/html/2016-12/08/nw.D110000renmrb_20161208_1-12.htm) as quote in *The Financial Times*, December 12, 2016. All this goes to show the need for caution is using Chinese official statistics.

India's macroeconomic statistics has come under cloud after the recent revision to the new base year in (2011-12) in 2015, when the growth rates got inflated compared to the previous series (Figure 2). Since the revised growth estimates are quite at variance with other macro correlates – such as flow

^{*} Harry Wu of Conference Board has been a long time critique of the official statistics. More recently, Christopher Balding of HSBC Business School in Shenzhen has written extensively on the issue.

of bank credit or industrial capacity utilisation – there is a growing scepticism of the new series of *National Accounts Statistics* (NAS).^{*} The problem can be illustrated with respect to manufacturing sector growth. Since 2013-14, while GDP manufacturing is steadily rising from 5.6 per cent per year in 2013-14 to 9.3 cent per year in 2015-16, Index of Industrial production (IIP, the leading indicator of physical output) shows dismal improvement – from (-) 0.1 per cent per year in 2013-14 to 2.4 per cent per year in 2015-16. Surely, IIP is underestimating the growth as its base year is out dated (2004-05), yet the gap between the two series is too wide to be attributed only to the dated base year. The change in the methodology of estimating gross value added in manufacturing in the new series is probably responsible for the discrepancy in considerable measure (Nagaraj, 2015b).

Considering the foregoing evidence on the scepticism of China's and India's output estimates, a reasonable view about the recent growth rates may be the following.

1. In the last 3 years or so, China and India are probably growing roughly at the same rate.
2. The view that India has overtaken China to become world's fastest growing economy may be an overstatement. Such euphoria in India ignores the fact that the level of China's GDP per capita is 5 times that of India's in 2015 (as noted above).
3. Growth rates of both the economies have decelerated after 2011-12: China very dramatically, and India somewhat modestly.
4. China's claim that its economy is getting rapidly rebalanced in favour of consumption and services sector output may be suspect, given the data issues. Major part of services growth in China is claimed to be on account of stock market and financial sector, which could be suspected [give references]. The reports that there are long queues at quality public hospitals tell us about the shortages of these services in China (even in Beijing) and hence the argument that the rebalancing is happening rapidly seems questionable.

Section II

Policy and Performance after the financial Crisis

China:

China's party-state draws its political legitimacy by delivering consistently rising living standard with employment generation. While the political power is concentrated in the central government (and party apex), economic decision making is decentralised at the level of provinces and cities, with the centralised party, army and bureaucracy forming the glue that binds the large, unevenly developed country. The party-state sets the national economic goals via 5-year plans, achieving of which becomes the targets for the provinces. Provincial bureaucracy and party-state are incentivised to achieve the plan targets and maintain social harmony (proxied by employment generation locally)

Fiscal decentralisation without an institutional mechanism of devolution of financial resources from the centre to the provinces (after abolition of agricultural taxes?) seems to have compelled provinces to depend on land sale and property taxes as means of raising fiscal resources. This is possible in China because land, by definition, belongs to the state. However, provinces seem to have access to bank credit for investment as long as they support economic growth (via local party-bureaucracy's

[?] For a synoptic view of the debate between the official position and the critics' view points, see http://www.ideasforindia.in/article.aspx?article_id=1728; or, refer to the symposium. For details refer to Nagaraj (2015).

influence on the banking system, which is almost entirely state-controlled). Further, state level party and bureaucracy seem to have an incentive to prioritise economic growth (over other socio economic objectives) because their professional upward mobility seems contingent upon delivering output growth and employment generation in their territory. Similarly, provincial statistical offices have an incentive to show that the targets are met, which is said to be a reason for the overestimation of provincial output growth, and an underestimation of unemployment rates.

Given the incentive structure, and political legitimacy derived from generating growth and employment, the aftermath of the financial crisis posed a major challenge to Chinese policy makers. China, therefore, undertook a massive fiscal and monetary stimulus measures – perhaps largest among G-20 countries – to prop up domestic demand in the face of collapse of the external markets [need to quantify these measures as % of GDP]. Most of these resources went into infrastructure and urban housing. Urbanisation therefore became a policy goal in itself.* Though such a policy did not revive economic growth to pre-financial crisis level, it perhaps prevented a collapse of domestic demand and employment. Investment levels were maintained (or even surpassed the pre-crisis levels), best evidence of it is the rise in debt/GDP ratio from about 160% of GDP before the crisis to the current level of 230-260% of GDP (Figure 3).

Composition of debt: Incremental debt largely accrued to private corporate sector (PCS), which is mostly associated with provincial governments, which use local government financial vehicles (LGFV) to draw credit from the banking system to promote local infrastructure and housing investment. This is evident from an IMF study:

A significant part of corporate borrowing in reality financed off-budget fiscal spending. Off-budget local government borrowing has increased substantially since the GFC. It was undertaken by LGFVs; as local governments were not allowed to borrow explicitly. The loans typically financed infrastructure projects and repayment was covered by future disbursements from local governments (e.g., in a form of service fees). The 'augmented' deficit, which LGFV spending given the fiscal nature of such operations, thus jumped from the average of around 4 percent of GDP before 2008 to about 10 percent in 2015 (IMF, 2014). (Maliszewski et al, 2016: page 20).

Wojciech Maliszewski, Serkan Arslanalp, John Caparusso, José Garrido, Si Guo, Joong Shik Kang, W. Raphael Lam, T. Daniel Law, Wei Liao, Nadia Rendak, Philippe Wingender, Jiangyan Yu, and Longmei Zhang (2016): *Resolving China's Corporate Debt Problem*, IMF wp 16/203.

Another reason for the rapid rise in debt-GDP ratio is the growth in shadow banking institutions, often sponsored by regular financial institutions to circumvent strict regulation and offer higher rate of return to its savers (Figure 4).

The above mentioned debt ratio may be an underestimate as private sector firms have substantial overseas borrowings undertaken by their foreign subsidiaries. Such borrowings do not get registered as China's external debt, as it is recorded by the residency of the issuing entity, not by its nationality. If such borrowing is used to finance capital expenditure in China, then it could cause currency and maturity mismatch, increasing the cost of such borrowing and rising financial fragility. Further, in the event of rising international interest rates (as is the case now with the Fed rising the rates) such a hidden debt could add to the external instability (Shin, 2013) (Figure 5).

² Uprooting rural settlements to house them in multi-storied apartments seems to have caused considerable dislocation in rural economic activity and rural way of life.

China has also sought to re-balance the economy away from manufacturing to services, and away from investment-led economy to consumption driven economy (Figure 6). On the face of it, looking at the official numbers, there is a change in the desired direction, in particular in the rise of financial services. But how much of it represents expansion of genuine financial services, how much of it is optical illusion caused by over blown shadow banking seems to be an open to question.

That China has made excessive investment in physical infrastructure and in urban housing – relative to effective demand – is a widely accepted fact (based on innumerable news reports about “ghost towns, unused roads and bridges). Rising credit and debt growth (as per cent of GDP) after the financial crisis and decelerating out growth has resulted in rising incremental capital output ratios (ICORs), or credit intensity of output.

Rising real estate prices: While rate of investment in real estate seems to be decelerating lately, property prices seems to continue to rise (Figure 7)

The usual official defence of such an investment strategy are twofold: One, it is wise to build infrastructure ahead of demand to avoid short-run bottlenecks (as exemplified by Indian experience), as recommended in development literature (*a la* Arthur Lewis); two, as capital stock per head in China is way below that in the developed economies, China has to invest more, and not less, quickly if it is to graduate to the status of a developed economy.

But there has been a growing concern about China’s debt sustainability, and the potential instability that could follow. There are apprehensions that the magnitude of debt could, if it crosses the tipping point, could potentially lead to Japanese style debt deflation; or, the real estate bubble burst.

There are other concerns about potential capital outflows on account of global financial instability or domestic political consideration (in particular the on-going anti-corruption drive) that could lead to capital flight (as evident from depreciation of yuan, or due to capital market gyrations last year).

Given China’s huge foreign exchange (forex) reserves, *prima facie*, external debt crisis seems ruled out. Moreover since the majority of China’s private sector debt is in domestic currency, it is argued, Chinese government can re-schedule the debt without destabilising its external sector. But can China avoid getting into Japanese style debt deflation is hard to speculate. Similarly, Chinese central government seems unable to regulate housing investment adequately as much of it seems to be financed by shadow banking driven by interests at the provincial level. So, whether China can avoid a real estate crash remains an open question.

One is inclined to argue that the outcome would ultimately depend on political economic factors. Apparently China is a strong state (yet brittle state?), with the capacity to carry through its political mandate (even if it means high social and economic costs). But if there are serious fissures in the state apparatus, as seems to be emerging after the crackdown on corruption under the present regime (which is apparently hurting many powerful political actors as evident from their efforts to hide their investments abroad), the outcome could be unpredictable.

India:

India witnessed a decade long cycle of boom and burst, starting in 2003. During the boom Indian economy grew close to 9 per cent annually, led by services and exports. This was accompanied by a

rapid rise investment to GDP ratio (to 38-89 per cent of GDP) largely in private corporate sector (PCS) financed by rising domestic saving rate (35-36 per cent of GDP), and supplemented by a flood of foreign private capital peaking at 10 per cent of GDP in 2007-08. This was accomplished under benign macro economic conditions, especially with stable fiscal balance as state withdrew from infrastructure investment in favour of PCS to reduce fiscal deficit.

After the global financial crisis in 2008, economic growth recovered quickly on the strength of capital inflows caused by QE in the advanced economies, and fiscal stimulus and monetary easing undertaken to stimulate domestic demand to compensate for the loss of external markets. However, the high growth rate could not be sustained beyond 2011-12, when the macroeconomic conditions changed quickly. GDP growth rate plummeted below 5 per cent in 2013-14, but recovered somewhat thereafter, though it is hard to be sure of the strength of the recovery.

After the boom went bust, India is now saddled with excess capacity in manufacturing due to lack of investment demand, plummeting external demand for both services and manufacturing. Large number of infrastructure projects under private-public partnership (PPP) remained incomplete, as cost of financing shot up, and legal and technical issues bogged down their completion. This non-financial private corporate sector is saddled with unprecedented amount of unserviceable debt, which has turned into banking sector's non-performing assets pulling down its profits and thus adversely affecting fresh lending. This is associated with a sharp fall in domestic saving and investment rates. The problem of bad debt is unprecedented, but seems quite in line with many EMEs currently, but smaller than that of China's [provide evidence].

With continued great recession, India's external market for services, and capital and skill intensive manufactures has dwindled – with explicit protectionist law such as “Buy America” enacted by the Obama administration. India as well as China has the advantage of large domestic market. Yet the PCS is not in a position to step up investment given high debt ratios and declining profitability. Therefore, the way out of the present impasse is to step up public infrastructure investment to ease demand constraint for capital and intermediate goods industries, and supply cheap credit to agriculture and small scale sector to step to augment food production, and labour intensive manufactures.*

In political economic terms, unlike China India is a liberal democracy, with reasonable political stability, with well defined separation of powers between political executive, legislators and judiciary, and well developed market based institutions such as capital markets, a strong domestic private corporate sector, and market regulators (Huang and Khanna, 2003)

Section III

A Comparison between China and India

Similarities: Both the economies slowed down after the financial crisis, both lost their export markets, thus they face excess capacities, high corporate debt and corporate invisible debt via subsidiaries.

Differences:

[?] This is a gist of the India's story of “Dream Run” of 9% growth rate. For detailed account of the boom and burst, and policy options to revive growth refer to (Nagaraj, 2013, and 2014).

China is investment driven economy, household consumption is just 1/3rd of GDP; India's investment rate is lower than China's and it declined rapidly after the financial crisis. Consumption/GDP ratio in India is over 60 per cent with supply constraint still a matter of long term concern. China's debt is a 260 per cent of GDP; the ratio for India's is just about 60 per cent. Excess capacities in India are probably modest compared to China's. China is an over invested economy in infrastructure and housing, India suffers from their shortages.

Question 1: Can China avoid further deterioration of growth rate, given the debt overhand and the limits of further debt-led growth? Can India engineer a turn around with more reforms and FDI without public investment (as envisioned by current policy makers) – given the overhang corporate debt on the banking sector?

Answer 1: Both in China and India, after the financial crisis, growth was sustained by easy credit extended to private corporate sector by domestic banks and by foreign capital inflows (facilitated by QE) – China much more than India. Growth in China's debt/GDP ratio is unprecedented; in India the rise in the ratio has been modest (if at all).

It is a question of degree, not kind: External debt in both the countries is higher than officially reported because of debt taken on by subsidiaries of private corporate firms (as highlighted by Shin of BIS).

Can China avoid a debt crisis? Given China's huge foreign exchange reserves, the possibility of external debt crisis seems remote. But if there is a panic, no amount of reserves probably matter, as evident from last year's episode, when China almost lost 1 trillion dollars in no time.

However, since the majority of China's private sector debt is denominated in domestic currency, which in principle can be re-scheduled without destabilising external sector. But can China avoid getting into Japanese style debt deflation, is another matter. Japan's debt was (and continues to be) mostly in the domestic currency, more so than China today.

Similarly, China's real estate market seems to be in a bubble territory. Chinese government seems unable to regulate it adequately since much of it seems financed by shadow banking. So, whether China can avoid a real estate crash remains an open question. Admittedly, Chinese authorities are tightening the rules for real estate lending by increasing the equity or the contribution of the buyer.

India's external debt is modest in a comparison to most EMEs, and especially China. Even if the global interest rates rise, India is unlikely to face a debt crisis, though there could be instability in the foreign exchange market in the short run. But Can India avoid a prolonged period of slow growth (without a change in policies) is another matter.

Question 2: Can China change its debt and investment-led growth, given the incentive structure of local governments and their access to bank credit? In other words, can China disembark its credit led investment growth strategy, to keep employment growth going without causing political unrest? In other words, is it a case of Chinese policy makers riding the political tiger?

Answer 2: Given China's seemingly solid macro foundations, there is no apparent reason why the government cannot shift public investment away from physical infrastructure (road, rails, bridges and urban housing) to schools and hospitals, and make them available for free for poor. Descriptive

accounts show how Chinese struggle to get entry into good public hospitals (give reference]. The answer probably lies in political economy centralised politics and decentralised economy.

India, on the other hand, may find it hard to reverse the declining domestic investment rate given (i) the non-performing assets (NPAs) of the banking system, (ii) reluctance of foreign private capital to step-up investment given the debt situation of the private corporate sector, and (iii) government's reluctance to raise public infrastructure investment given its commitment to fiscal orthodoxy.

Question 3: Can China embrace consumption led growth given the interests of local state for revenue from land sale and property development? Can India curb its consumption-led growth towards public investment and capital good led industrialisation? [Disconcertingly, much of the so-called FDI into India lately represents import-led growth financed by private equity funding of e-commerce companies].

Answer 3: It is well known that China's social infrastructure and personal consumption growth are modest, though claimed to be improving. These need to be stepped up and physical infrastructure growth needs to be curtailed, if China is to change its growth pattern. But very little of it seems evident on the ground (despite avowed objective). China's disposable income is just 44 per cent of GDP. Why? [provide comparable figure for India]. The answer, perhaps lies in the incentive structure of the local party-state. Building public hospitals and better schools or providing better facilities does not seem to bring in revenue for the local governments and the private benefits to party-bureaucracy, in the same way as infrastructure and real estate investments do.

Question 4: Housing starts and sales are declining, but prices continue to rise. Why? Access to non-bank credit (shadow banking) seems to be a cause for concern. Will the inflated real estate prices deflate gently as demand grows, or could it result in a burst causing a disruption?

Answer 4: Could China's high debt ratio trigger a financial crisis, is the million dollar question among China watchers, but the answer is anybody's guess. Economic literature provides very little guidance in this matter.* Those raising a red flag about it are mostly guided by the debt-GDP ratio and its steady rise since the GFC in 2008. The ratio is among the highest in the world. My cautious answer to the question is as follows: Though very high, China's debt is mostly domestic, and China's domestic saving and investment ratios are also very high by any standards. Moreover, the party state has enough instruments (though some of them blunt) to quell any financial meltdown. However, Japanese style prolonged deflation or stagnation cannot be ruled out if return on investment falls drastically, and state is unable to stimulate domestic consumption faced with aging population.

India, on the other hand needs to get its fixed investment rate back to 38-39% of GDP (to secure East Asian like economic outcomes). Given the current levels of bad debts, it is really wishful to expect PCS to resume a fresh investment cycle, unless government writes-off loans (or socialises their costs). Perhaps a better option would be to step up public infrastructure investment by adopting a flexible fiscal deficit targets. "Priority sector" lending for agriculture and SMEs needs to be revived, boosting capital formation in the unorganised or HH sector, implying a stronger role of state in steering the economy. Correspondingly, objective of FDI needs to be to augment capacity expansion to meet

² Before the 2008 financial crisis very few really believed that there was a bubble in the sub-prime market in the US. There was an oblique hint of it in Raghuram Rajan's paper in 2006 Jackson hole conference, a suggestion that Lawrence Summers rejected outright.

“make in India” campaign, not for augmenting import-led consumption growth (as mentioned above).

If India cannot get its policy act right, reasons would be policy makers' commitment to fiscal orthodoxy, not the economy's objective conditions.

Section IV

Summary and Conclusion

Both China and India are still poor countries with low per capita income – with the average of OECD member countries being \$38,423 as of 2014. There is a need (and a potential) for substantial growth of China and India that can help revive global economy. Both countries have large domestic markets that are their biggest advantages in present times, which can help withstand external demand shocks. China needs to move away from housing and infrastructure investment to social sector investment, and consumption led growth – though widely admitted, but finds it hard to change the policy gears apparently for political economic reasons. Rules governing the distribution of fiscal resources between the centre and provinces perhaps need to be re-drawn to reduce the incentive for provinces to rely on land sale and real estate.

India perhaps needs to make a move in the opposite direction of regaining investment led growth witnessed during the last decade to improve not just physical infrastructure but social infrastructure to stimulate private investment, improve human resources. This is urgently needed if India has to seize the one time opportunity offered by potential demographic dividend.

Critical questions: Will China succumb to Japanese style debt deflation? Difficult question to answer. India does not seem to face a similar fragility; it may be growing slowly, its growth numbers may be suspect, but the prospect of macroeconomic crisis seems remote, relative to China. India's external financial position is not very sound, but in a comparative EME perspective, the risks do not seem large. Though India's corporate debt is very large compared to its past levels, it is not high by the contemporary levels among EMEs. India also has greater political stability and certainty, its market institutions are more rule based hence supportive of market economy. China on the other hand is far more state dominated; though may appear strong but may in fact be brittle.

I suspect a contradiction could emerge in China between the centre's desire to stabilise the economy on to a more sustainable path, where as the provinces may continue to pour money (via bank credit) into fixed investments and shadow banks continue to finance real estate investment. (This is evident from the fact that when the central government decides to scrap excess capacity in manufacturing or close down unsafe mines, the efforts are thwarted by local interests who tacitly oppose it, because such efforts are not in the interests of provisional party-state in terms of keeping peace and generating employment and earning tax revenue for provinces.) Then, at some point, the economy risks spinning out of control of the central government and monetary authorities, unless the rules of engagement between the centre and provinces are amicably changed with an alternative political incentive structure in place.

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Figure 1: A comparison of China's official GDP growth with Li Keqiang index (Source: China GDP Delate gate, by Tom Orlik, Bloomberh Intelligence Economist, September 15, 2015)

Sinking Li Keqiang Index Contrasts With Stable GDP

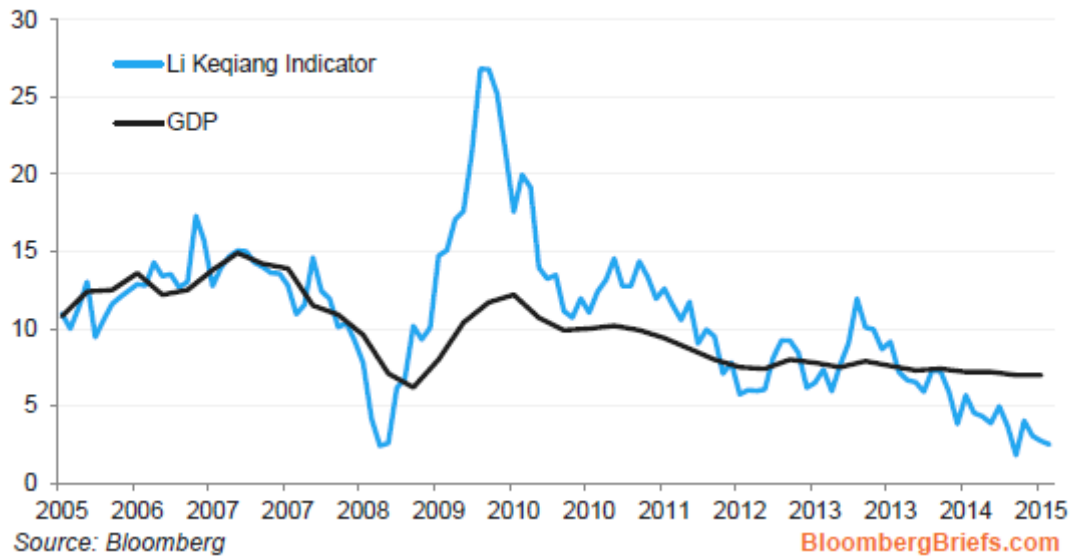


Figure 2: Disaggregated GDP growth rates for 2013-14 (Source: http://www.ideasforindia.in/article.aspx?article_id=1728)

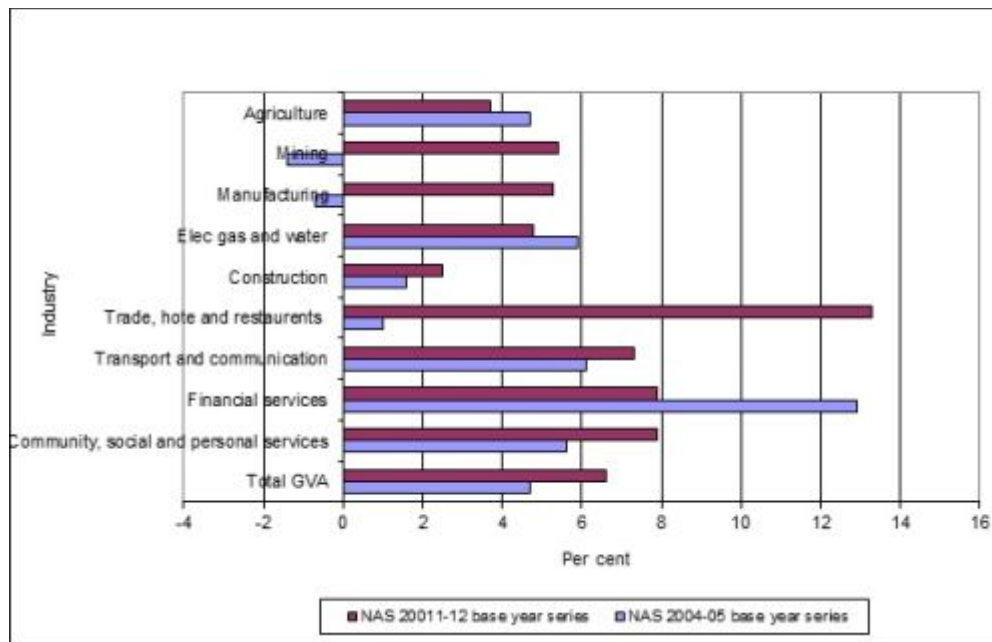
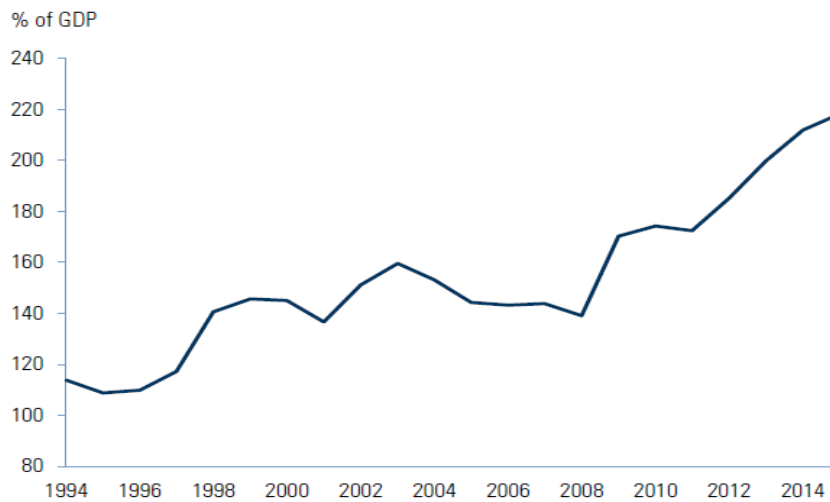


Figure 3: China's debt-GDP ratio (Source: Goldman Sachs: *Walled in: China's Great Dilemma*, 2016)

Exhibit 26: China's Debt-to-GDP Ratio

China's debt burden has risen rapidly, especially since the 2009 stimulus.

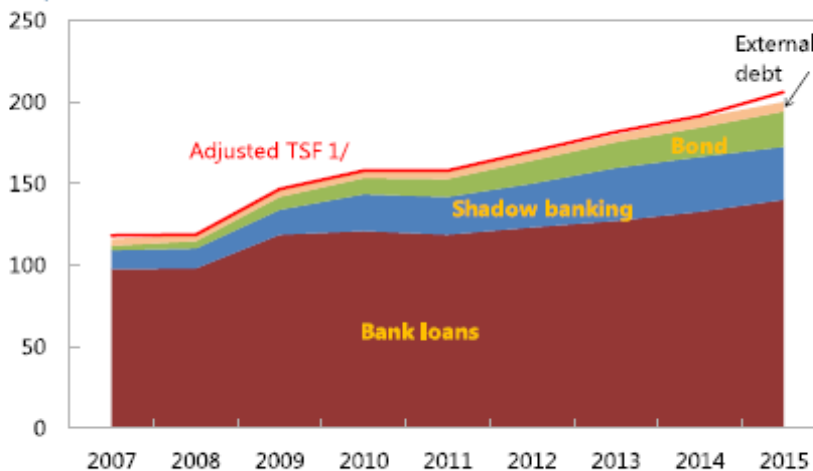


Data through 2015.
Source: Investment Strategy Group, Bank for International Settlements, IMF.

Figure 4: Rising share of shadow banking in China's credit growth (Source: Maliszewski *et al*, 2016)

High and Evolving Shadow Banking

(In percent of GDP)



Sources: Haver Analytics; and IMF staff calculations.
1/ Including external debt but excluding equity.

Figure 5: International debt securities outstanding for non-financial corporate by nationality and by residence (Source: Shin and Zhao, 2013)

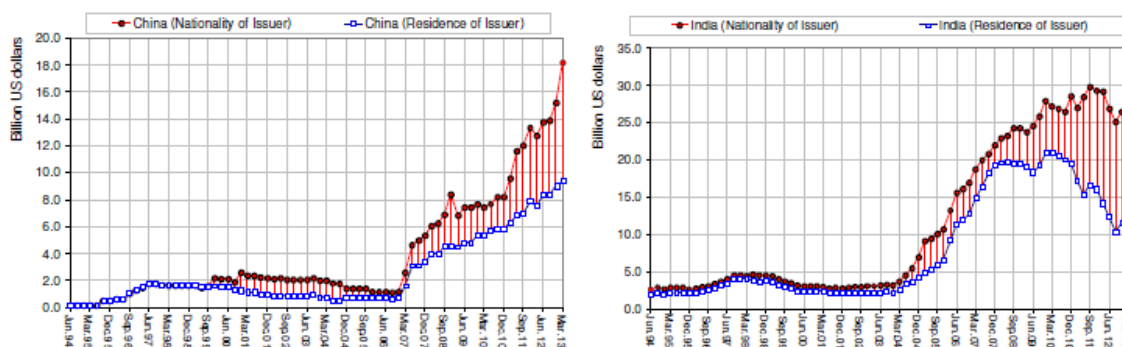
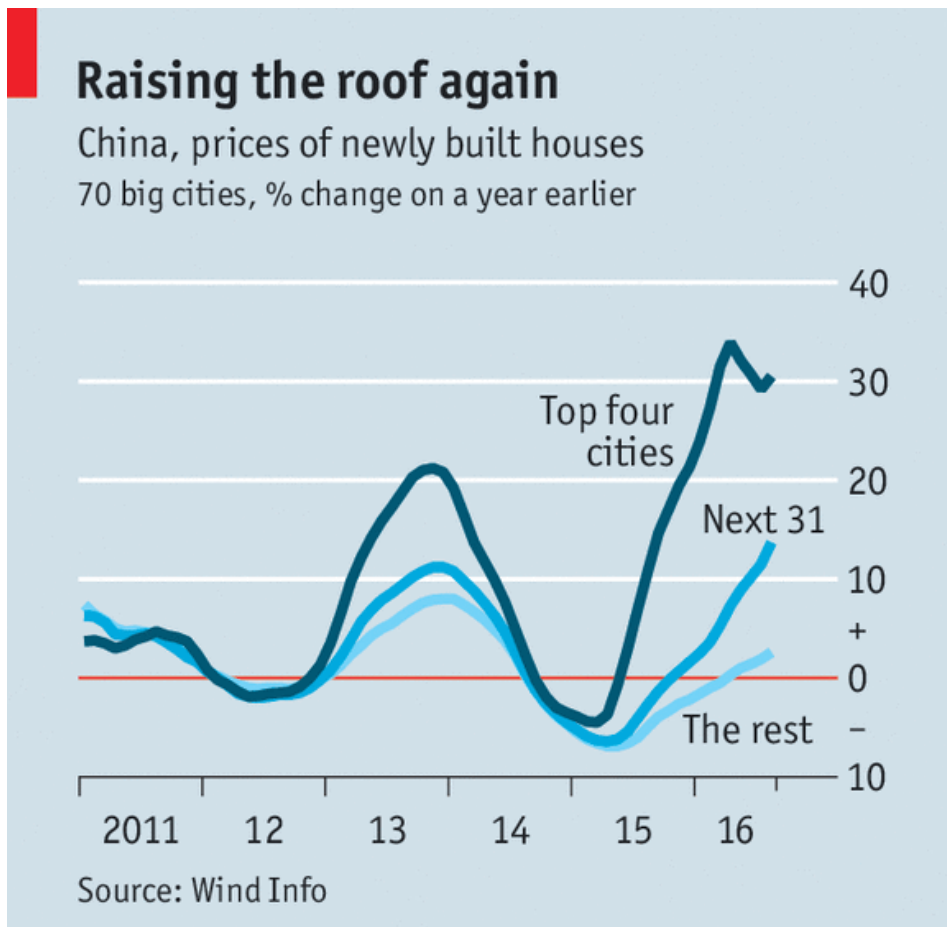


Figure 1: China (left) and India (right): International debt securities outstanding for non-financial corporates by nationality and by residence (Source: BIS Debt Securities Statistics, Table 11D and 12D)

Figure 6: Rising share of services in China’s GDP (Source: Steve Johnson, “Old economy focus 'understates' Chinese growth”, FT, December 9, 2015.)



Figure 7: Rising real estate prices (Source: The Economist:



Economist.com

Appendix 1: China's Economic Indicators (Source: IMF's country report 2016)

China: Selected Economic Indicators											
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
						Projections					
NATIONAL ACCOUNTS											
Real GDP	9.5	7.9	7.8	7.3	6.9	6.6	6.2	6.0	6.0	5.9	5.8
Total domestic demand	10.7	7.9	8.1	7.2	7.2	7.2	6.5	6.2	6.1	6.0	5.9
Consumption	12.2	8.7	7.2	7.2	8.3	7.8	7.7	7.1	6.8	6.6	6.4
Investment	9.2	7.1	9.1	7.1	6.1	6.4	5.2	5.2	5.3	5.3	5.3
Fixed	8.8	9.0	9.3	6.8	6.8	6.6	5.3	5.3	5.4	5.4	5.4
Inventories (contribution)	0.4	-0.7	0.1	0.3	-0.2	0.0	0.0	0.0	0.0	0.0	0.0
Net exports (contribution)	-0.8	0.2	-0.1	0.3	-0.1	-0.5	-0.2	-0.1	0.0	0.0	0.0
Total capital formation (percent of GDP)	48.0	47.2	47.3	46.7	45.0	43.9	43.3	42.8	42.2	41.6	41.0
Gross national saving (percent of GDP)	49.8	49.7	48.8	49.3	47.9	46.3	44.9	44.1	43.2	42.4	41.6
LABOR MARKET											
Unemployment rate (annual average) 1/	...	...	5.0	5.1	5.1	5.1	5.1	5.0	5.0	5.0	5.0
Wages	16.7	14.0	12.9	10.0	9.9	9.0	8.7	8.5	8.5	8.3	8.1
PRICES											
Consumer prices (average)	5.4	2.6	2.6	2.0	1.4	2.1	2.3	2.4	2.6	3.0	3.0
GDP Deflator	8.1	3.2	2.4	1.2	0.4	0.7	0.9	1.4	1.6	2.0	2.1
FINANCIAL											
7-day repo rate (percent)	6.4	4.6	5.4	5.1	2.5	...	...	...	...	...	...
10-year government bond rate (percent)	3.4	3.6	4.6	3.7	2.9	...	...	...	...	...	...
Real effective exchange rate (average)	2.8	5.6	6.3	3.1	10.1	...	...	...	...	...	...
Nominal effective exchange rate (average)	0.1	5.0	5.3	3.1	9.5	...	...	...	...	...	...
MACRO-FINANCIAL											
Total social financing 2/	18.1	19.1	17.5	14.3	12.4	12.7	11.9	11.4	11.0	10.3	10.1
In percent of GDP	157.9	0	180.0	189.5	198.4	208.3	217.4	225.1	232.0	236.9	241.6
Domestic credit to the private sector	16.2	19.8	16.6	13.5	14.7	14.7	13.4	12.1	10.9	9.9	9.7
In percent of GDP	124.8	3	141.9	148.2	158.3	169.2	179.0	186.5	192.1	195.5	198.7
House price 3/	5.7	8.7	7.7	1.4	9.1	8.9	7.3	7.0	7.3	6.9	6.8
Household disposable income (percent of GDP)	58.3	59.4	60.0	60.7	62.2	63.2	63.6	63.9	64.2	64.2	64.2
Household savings (percent of disposable income)	41.0	40.8	38.5	37.9	37.4	36.9	35.8	34.7	33.7	32.7	31.7
Household debt (percent of GDP)	27.8	29.6	33.0	35.3	38.4	41.8	45.5	49.1	52.4	55.3	57.5
Nonfinancial corporate domestic debt (percent of GDP)	97.0	7	108.9	112.8	120.0	127.4	133.5	137.5	139.7	140.2	141.2
GENERAL GOVERNMENT (Percent of GDP)											
Net lending/borrowing 4/	-0.1	-0.7	-0.8	-0.9	-2.7	-3.0	-3.1	-2.9	-2.9	-2.8	-2.7
Revenue	26.9	27.8	27.7	28.0	28.6	27.8	28.1	28.0	27.8	27.7	27.5
Expenditure	27.0	28.4	28.5	28.9	31.3	30.8	31.2	30.9	30.7	30.4	30.2
Debt 5/	15.2	15.2	15.9	38.5	38.3	38.6	39.1	39.3	39.3	39.2	39.0
Structural balance	-0.1	-0.5	-0.5	-0.5	-2.4	-2.9	-3.1	-2.9	-2.9	-2.8	-2.7
BALANCE OF PAYMENTS (Percent of GDP)											
Current account balance	1.8	2.5	1.5	2.6	3.0	2.4	1.6	1.3	1.0	0.8	0.6
Trade balance	3.0	3.6	3.7	4.1	5.1	5.1	4.5	4.3	4.0	3.8	3.7
Services balance	-0.6	-0.9	-1.3	-1.6	-1.6	-2.0	-2.3	-2.6	-2.7	-2.9	-2.9
Net international investment position	22.4	21.8	20.7	15.2	14.3	16.5	16.9	16.7	16.3	15.5	14.8
Gross official reserves (bn US\$)	3,256	8	3,880	3,899	3,406	3,181	3,064	2,993	2,890	2,813	2,740
MEMORANDUM											

Nominal GDP (bn RMB) 6/	48,604	54,099	59,696	64,849	69,630	74,715	80,118	86,159	92,834	100,244	108,246
Augmented debt (percent of GDP) 7/	45.8	47.1	51.0	51.8	55.8	60.4	64.5	67.8	70.4	72.2	73.5
Augmented net lending/borrowing (percent of GDP) 7/	-6.0	-5.1	-7.6	-7.2	-7.8	-8.4	-8.2	-7.8	-7.4	-7.0	-6.6
Augmented fiscal balance (percent of GDP) 8/	-8.2	-7.8	-10.3	-9.8	-9.5	-10.1	-9.8	-9.3	-8.8	-8.4	-8.0

Sources: CEIC Data Co., Ltd.; IMF, Information Notice System; and IMF staff estimates and projections.

1/ Surveyed unemployment rate.

2/ After adjusting local government debt swap, staff estimate that TSF stood at 203 percent of GDP in 2015.

3/ Average selling prices estimated by IMF staff based on housing price data (Commodity Building Residential Price) of 70 large and mid-sized cities published by National Bureau of Statistics (NBS).

4/ Adjustments are made to the authorities' fiscal budgetary balances to reflect consolidated general government balance, including government-managed funds, state-administered SOE funds, adjustment to the stabilization fund, and social security fund.

5/ Estimates of debt levels before 2015 include central government debt and explicit local government debt (identified by MoF and NPC in Sep 2015). The large increase in general government debt in 2014 reflects the authorities' recognition of the off-budget local government debt borrowed previously. The estimation of debt levels after 2015 assumes zero off-budget borrowing from 2015 to 2021.

6/ Expenditure side nominal GDP.

7/ Augmented fiscal data expand the perimeter of government to include local government financing vehicles and other off-budget activity.

8/ "Augmented fiscal balance" = "augmented net lending/borrowing" - "net land sales proceeds" (in percent of GDP) as we treat net land sales proceeds as financing.

Appendix 2: India's Economic Indicators (Source: IMF Country report, 2016)

II. Economic Indicators						
	2011/12	2012/13	2013/14	2014/15	2015/16 Proj.	2016/17 Proj.
Growth (in percent)						
Real GDP (at market prices)	6.6	5.1	6.9	7.3	7.3	7.5
Industrial production	2.9	1.1	-0.1	2.8	...	...
Prices (percent change, period average)						
Consumer prices - Combined	9.5	9.9	9.4	5.9	5.0	5.3
Saving and investment (percent of GDP)						
Gross saving 2/	34.7	31.5	30.8	30.2	29.8	29.6
Gross investment 2/	38.9	36.3	32.5	31.6	31.1	31.1
Fiscal position (percent of GDP) 3/						
Central government deficit	-6.1	-5.1	-4.6	-4.2	-4.2	-4.0
General government deficit	-8.1	-7.4	-7.6	-7.0	-7.0	-7.0
General government debt 4/	68.1	67.5	65.8	66.1	66.3	65.7
Structural balance (% of potential GDP)	-8.4	-7.3	-7.5	-6.9	-6.9	-6.9
Structural primary balance (% of potential GDP)	-3.9	-2.8	-2.8	-2.2	-2.3	-2.1
Money and credit (y/y percent change, end-period)						
Broad money	13.5	13.6	13.4	10.8	11.1	13.6
Credit to private sector	17.8	13.5	13.7	9.2	11.1	13.7
Financial indicators (percent, end-period)						
91-day treasury bill yield (end-period) 5/	9.0	8.2	8.9	8.3	7.2	...
10-year government bond yield (end-period) 5/	8.6	8.0	8.9	7.8	7.7	...
Stock market (y/y percent change, end-period) 6/	-10.5	8.4	18.7	24.9	-9.1	...
External trade 7/						
Merchandise exports (in billions of U.S. dollars)	309.8	306.6	318.6	316.5	277.9	280.1
(Annual percent change)	20.9	-1.0	3.9	-0.6	-12.2	0.8
Merchandise imports (in billions of U.S. dollars)	499.5	502.2	466.2	461.5	429.8	449.3
(Annual percent change)	30.3	0.5	-7.2	-1.0	-6.9	4.5
Terms of trade (G&S, annual percent change)	-6.1	-0.3	2.3	3.5	7.0	1.8
Balance of payments (in billions of U.S. dollars)						
Current account balance	-78.2	-88.2	-32.4	-26.7	-27.7	-34.8
(In percent of GDP)	-4.2	-4.8	-1.7	-1.3	-1.3	-1.5
Foreign direct investment, net	22.1	19.8	21.6	31.3	34.2	37.4
Portfolio investment, net (equity and debt)	17.2	26.9	4.8	42.2	-6.8	12.4
Overall balance	-12.8	3.8	15.5	61.4	22.7	40.8
External indicators						
Gross reserves (in billions of U.S. dollars, end-period)	294.4	292.0	304.2	341.6	364.3	405.1
(In months of imports) 8/	6.1	6.4	6.7	7.9	8.0	7.9
External debt (in billions of U.S. dollars, end-period)	360.8	409.4	446.3	475.2	513.3	550.4
External debt (percent of GDP, end-period)	19.6	22.3	23.8	23.2	24.0	23.6
Of which: Short-term debt 9/	7.5	9.0	9.8	9.0	9.6	9.7
Ratio of gross reserves to short-term debt (end-period) 8/	2.1	1.8	1.7	1.9	1.8	1.8
Debt service ratio 10/	6.0	5.9	5.9	7.5	7.1	7.8
Real effective exchange rate (percent change) 11/ (based on annual average level)	-3.4	-2.3	-2.4	7.3	6.0	...
Exchange rate (rupee/U.S. dollar, end-period) 5/	50.3	54.4	61.0	62.6	66.8	...
Memorandum item (in percent of GDP)						
Fiscal balance under authorities' definition	-5.8	-4.9	-4.3	-4.0	-3.9	-3.8

Sources: Data provided by the Indian authorities; CIBC Data Company Ltd; Bloomberg LP.; World Bank, World Development Indicators; and IMF staff estimates and projections.

1/ Data are for April–March fiscal years.

2/ Differs from official data, calculated with gross investment and current account. Gross investment includes errors and omissions.

3/ Divestment and license auction proceeds treated as below-the-line financing.

4/ Includes combined domestic liabilities of the center and the states, and external debt at year-end exchange rates.

5/ For 2015/16, as of 6 January 2016.

6/ For 2015/16, year-to-date as of 6 January 2016.

7/ On balance of payments basis.

8/ Imports of goods and services projected over the following 12 months.

9/ Short-term debt on residual maturity basis, including estimated short-term NRI deposits on residual maturity basis.

10/ In percent of current account receipts, excluding grants.

11/ For 2015/16, year-to-date as of November 2015.