K C Chakrabarty: Transit path for Indian economy – six steps for transforming the elephant into a tiger

Address by Dr K C Chakrabarty, Deputy Governor of the Reserve Bank of India, at the interaction with members of the Delhi Chapter of the Young Presidents Organization, New Delhi, 7 December 2012.

*   *   *

Assistance provided by Dr. Mridul Saggar in preparation of this address is gratefully acknowledged.

Shri Prabhat Jain and other members of the Delhi Chapter of the Young Presidents Organisation! It is my pleasure to be here amidst some of the young captains of the Indian industry, who, I believe, would continue to guide their respective enterprises for a foreseeable future and make immense contributions in shaping the Indian Economy going forward. I have been asked to speak to you today on “transforming the elephant into a tiger” and in this regard, I would suggest six steps that I think are essential for such a transformation. However, at the outset, I thank the Delhi Chapter of the Young Presidents Organisation (YPO) for inviting me to share my thoughts on this important topic. YPO has really established itself as an extra-ordinary network of young global business leaders and a think tank on issues that are critical to economy, businesses and society. I am told the network has hosted some illustrious speakers in the past and therefore, I have to live up to high expectations. I believe the decades of my experience in commercial banks and in the Central Bank have provided me with insights into enterprise, governance, growth and society and their impact on nation-building, which, I would share with you today and hope you find them interesting and worth emulating.

Let us now focus on the topic for the evening. Transforming the elephant into a tiger can mean different things to different people. In reality, the state of the art in genetic engineering still cannot contemplate such a modification. An Ang Lee or a Steven Spielberg can, of course, use computer generated special effects to bring about such a transformation. But it is time to get real – given that the metaphor of elephant is used to denote the Indian economy and deals with our lives and the future of our children.

In 2007, Dr. Shashi Tharoor wrote an enchanting book, “The Elephant, The Tiger and The Cellphone: Reflections on India: – The Emerging 21st Century Power”. The book, ingrained in history, culture and socio-economic change, criss-crosses the Indian life from Ajanta-Ellora and cricket to cellphones and call centres and makes a simple point of Indian growth effecting change in daily lives and imparting confidence to the Indian people. In December 2008, the Economist of London published a special report that India was elephant, not a tiger. It noted that for all its chaos, bureaucracy and occasional violence, India has had a remarkably successful past few years. But, it wondered how it will cope with an economic downturn and the general elections that were about to follow. It added that the democracy tax was rising and storm-clouds were gathering. The prognosis, however, were proven to be off beam by the events that followed. The elections removed uncertainty and the Indian economy staged a V-shaped recovery clocking 8.4 per cent growth during 2009–10 and 2010–11. Yet, we lost steam and the chinks in the tiger skin that we tried wearing, got exposed.

In July 2011, Shri Swaminathan Anklesaria Aiyar, my journalist friend and a profound observer on the political economy of India, wrote a paper for the Cato Institute, “The Elephant that Became a Tiger”. In this paper he persuasively argued that 20 years of economic reforms in India had transformed the Indian economy into a tiger. Later the same year, the Reserve Bank Governor Dr. Subbarao, while delivering the Haksar Memorial Lecture, argued that India may be an elephant, but even elephant can dance. The elephant dance was disrupted by the zoo party in the form of global financial crisis. He then suggested ten steps to get back on course by re-jigging the elephant dance.

Growth in India has clearly slowed down since then to 6.5 per cent in 2011–12 and a likely 5.8 per cent in 2012–13, with significant downside risks. The twin deficits – fiscal and balance of payments – have compounded our problems. This may set us thinking on whether we are an elephant or a tiger or a goat, about to be devoured by global forces and our domestic inaction? So should we at all pursue the tiger dream? If yes, what do we need to do to earn the tiger tag?

The elephant and the tiger: which one should we prefer?

Before I touch upon what we need to do, the first step is to understand what these metaphors mean. So let me upfront visit the key attributes of elephants & tigers. There are four key attributes of an elephant – the size, the herbivores nature, its perceived moderate pace and its anatomy that includes large ears, the trunk and the tusks. Tiger, on the other hand, is not as large as the elephant, but is largest of the cat species. It is carnivore, and is known for its speed and agility. Its anatomy includes the stripes, the powerful jaws and razor sharp teeth, sharp claws and a flexible backbone. But, what conclusively differentiates the two is the tiger's killer instinct.

I think, in terms of size, the Indian economy is, of course, an elephant. It is also herbivores by habit given its democratic structure, unlike the carnivore habits of tigers and dragons. In terms of speed, many people have a misconception that elephants can't run or walk fast. The fact is that elephants can walk as fast as 25 miles per hour (mph), while tigers can run only a shade faster. Bengal tigers can run at 35 mph, but for short spurts and they can't keep this pace for long.

So, in my view, it is not axiomatic that one should try transforming the elephant into a tiger. Yes, we could do with an added bit of speed but what we should really aim at is developing a tiger's killer instinct. These, together with a better use of our anatomy or resources, both human and capital, would help us achieve what the dragons and the tigers have achieved, perhaps, with a smaller downside. For this to happen, in my view, we need to take the following six steps:

1. Preserve demographic dividends by investing in human capital

India's demographic dividend presents the country with a great opportunity to enhance its growth and seek convergence of per capita incomes with that in the developed world. India's birth rate has fallen from 45.6 per 1000 in 1951 to an estimated 21 currently, but still remains highly driven by a slowly falling infant mortality rate that remains high at about 46 per 1000. The death rate has fallen dramatically from 37.2 per 1000 birth in 1951 to an estimated 7 currently, but has still not caused population ageing. Median age for India's population is about 27 years compared with over 40 for most OECD economies. It will add significantly to its labor pool and, even as the median age bucket rises, it will still be at a relatively young 30–34 age bracket by 2026. India's age-dependency ratio (ratio of dependents-people younger than 15 or older than 64-to the working-age population) is currently about 54. This is already lower than Japan and France.

Most developed countries would see a rapid ageing of their population over the next 2–3 decades putting severe pressure on their social security systems with the rise in dependency ratio. The overall median age of these countries rose from 29.0 in 1950 to 37.3 in 2000, and is forecast to rise to 45.5 by 2050.

Many developing countries like China, Brazil and Thailand too face issues of ageing population having passed through the demographic transition. Over the last 60 years, China has experienced demographic change at a historic pace that had a profound impact on its population structure. Baby boom began in the mid-1960s after the period of "Great Leap Forward" saw famines and a sharp rise in death rate and a fall in birth rate. China is now a "post-transitional" society, where life expectancy has reached new heights, fertility has declined to below-replacement level, and rapid population ageing is expected over the next few decades. China's population will start to shrink after reaching a peak of about 1.4 billion by 2025 A.D. The median age of its population could touch 50 years by then. India's population would overtake that of China at that point. Its population is expected to peak only at 1.7 billion by 2060 A.D.

Clearly, India has a potential advantage of demographic dividend over its emerging market peers. But, this demographic dividend could be a boon or a curse depending upon how we exploit it, for, the time to reap these gains is finite. By the turn of this century, India would be facing a demographic discount rather than dividend because India's population would have aged and the developed countries' population would be much younger. So what do we need to do to reap the demographic dividend while they exist?

The very first thing is to invest in the resources that are expected to give us advantage. India invests much less than it should in its human capital. The combined spend of central and state governments in education, is just about 3.3 per cent of GDP, while that on health is another 1.3 per cent of GDP. In contrast, the European Union (EU) countries spend from their general government account, 5.5 per cent of their GDP on education and 7.5 per cent of their GDP on health – i.e. nearly three times more of their GDP. Canada's public spending on health alone is over 11 per cent of their GDP and that on education is nearly 5 per cent. India needs to step up its public spending on education and health considerably over the next five years. However, spending alone does not guarantee high quality human capital. We also need to focus on the quality of this spending and think whether we can achieve better outcomes with less spending.

The second step we need to take is for right skilling of our work force. There is shortage of trained manpower for the industry, both at the bottom of the pyramid and higher up the ladder. India is often considered to be a source for skilled labour supply to the rest of the world, given its sheer size of manpower. It is often not recognized that over four-fifths of our rural population and over half of our urban population remains unskilled. Women participation rate in the labour market remains poor. The biggest problem is the lack of focus on technical education that could absorb a large chunk of unskilled labour, if backed by greater push to primary education. Less than 11 per cent of the job-seeking population in the age group of 15–29 receives any form of vocational training in India and only one of every three who do get vocational training receive it from specialized training institutes. Furthermore, even in the value added segment, where we have the largest pool of skilled manpower i.e. in the area of information technology, real wages are rising at a pace that may impact our competitiveness.

The biggest challenge is to ensure jobs for additional supply of labour that comes in to join the workforce. On a rough basis, about 10 million people would need a job every year for the next 15 years. Though disguised unemployment in agriculture sector has reduced over the years, it may not be possible for the sector to provide additional jobs given the rising rural wages and the need to shift to a corporate, more mechanized and capital intensive model of farming. While the services sector has led India's growth and employment story for some time now, India's growth pace may not be sustained unless the manufacturing sector also becomes more competitive and creates lot more jobs. This poses a significant challenge in employment generation and skilling our work force.

2. Improve productivity and efficiency

Productivity is an important driver of growth. Productivity depends on the efficiency with which scarce resources are allocated – be it your time, work effort, natural resources, capital or any other inputs. A great deal of the growth for most countries can be explained by productivity growth, especially total factor productivity growth (TFPG). Factor accumulation (such as increase in labour or capital) explains a smaller part of the growth. Given this experience, if India were to become a tiger, it would need to focus on technological developments to improve its rate of TFPG. Capital deepening may also help, but the key lies in overall productivity enhancements.

In India, output per worker has increased at an impressive rate in the services sector after the reforms initiated in early 90s. In this period, TFPG growth has also been impressive for this sector, though I will eschew quoting precise numbers as the growth accounting research generally gives varied quantitative estimates. TFPG growth has also improved for the manufacturing sector since the 1980s. So, progress is being made. However, the rate of this technical change, still, has been lower than that for the East Asian economies during the period in which they earned the tag of being East Asian tigers.

I would rather focus on the issue of larger policy initiative that would be necessary in the quest to transform India into a tiger. In this context, I would make four suggestions. First, improving agriculture productivity is necessary as, clearly, increase in area under cultivation is just not practical and, therefore, increasing demand for cereals, pulses, fruits and vegetables would need to be met by improving yields. Substantial productivity enhancements are possible on the farm through adoption of precision farming techniques, better cultivars and optimal water management. Better adoption of modern technologies in the area of biotechnology, genomic tools, cost-effective and eco-friendly integrated pest management technologies, seed-supply chains and systems, regionally adapted varieties and hybrids, would help.

Second, we need to focus on issues confronting our Small and Medium Enterprise (SME). SME sector accounts for over a third of our industrial output and contributes an equal share of our total merchandise exports. In the current downturn, SMEs are facing adverse business climate with rising receivables, inadequate credit and high cost of credit. SME sector does not enjoy the economies of scale and scope that a large corporation enjoys. It also cannot fully reap the benefit of information technology as it has high sunk cost and a high rate of obsolescence. Though having strong links with large firms, institutional mechanisms for transfer of technology to SMEs are lacking. If SMEs are to effectively integrate with supply chains, we need to ensure that links of finance and technology with large firms work at all times.

Third, as I mentioned a little earlier, India's next growth push has to come from manufacturing sector. We had a missed century of opportunities. India cannot boast of one big "home grown" global brand while much smaller nations like South Korea, Taiwan, etc. have plenty of them. Our abundant human capital has not been effectively channelized for supporting the manufacturing growth. But what I would really blame for this is a lack of "R & D" culture that we suffer from. Globally, India figures at near the bottom in terms of R&D intensity. It spends less than one percentage of its GDP on R&D expenditure, Countries like Israel, Finland, Sweden, Korea, Japan, US and Germany have R&D intensities that are higher by three times or more.

Fourth, a key issue related to productivity is our attitude to work. It is strange that India, that epitomised the dignity of labour in the Early Vedic period, has imbibed a culture that does not respect workers. We have forgotten Swami Vivekananda's contribution in equating work to worship. No form of work, whether manual or intellectual is less inferior to the other. As a nation, we have been steadily neglecting our respect for dignity of labour. Since the manual labour does not receive the same respect as an intellectual work in India, work efforts are lost. This results in lower GDP and lower Welfare. Individuals idle away than take up a manual job. What else would explain the fact that labourers from poor states like Bihar, Orissa, UP, etc. migrate and work hard in the agricultural farms in Punjab and Haryana, while refusing to do the same in their own locality where the land is more fertile and same amount of labour would be much more productive. We must emulate the western society in this regard where no form of labour is discriminated against. If President Cleveland could accept dignity of labour in 1894, more than a century down the line it is time that we give respect to casual labour that operates around us – be it our maids, our drivers or the workmen in our factories – a due recognition and respect. If we do so, more women and men would join the workforce. Unemployment would be reduced and Indian industry would become more competitive globally.

3. Revive infrastructure investments and harness natural resources better

Much has been said about India's infrastructure deficit and rightly so. India does not have sufficient roads, nor sufficient power. When I was growing up, I was taught that India is a land of poor, but is rich in resources. Today we have made a giant leap in lowering poverty and still remain abundant in natural resources. Yet, we have not learnt to optimally utilise them. Take for example coal, which accounts for India's 55 per cent of energy needs. We have hard coal reserves of around 246 billion tonnes, of which 92 billion tonnes are proven. Yet, we are able to produce only 530 million tonnes of coal, leaving supply shortages of over 150 million tonnes. Coal shortages are constraining our power generation and though about 55 GW of new capacity was created during the 11th Five Year Plan (FYP), a large part of it remains unutilised due to coal shortages. Private sector has failed to develop most of the new coal blocks that were allotted to them. We ended up with inadequate planning and poor execution in this area. We are now planning to create even more thermal power capacity during the 12th FYP, but remain unsure of coal supplies. At the same time, banks have heavily extended themselves into lending to power sector both on generation and distribution side. On the distribution side, the State distribution companies (discoms) are sitting on huge losses and bank debt that is threatening to go bad. The end result is a loss of business confidence that has brought the investment boom to a premature halt.

What is most important in this context is to revive the confidence for investing and lending to the infrastructure sector. The government, in recent period, has taken several steps to facilitate this. The broad contours of the New Fuel Supply Agreements (FSAs) have been worked out, though some thorny issues such as price pooling of imported and domestic coal are still to be resolved. These pending issues must be solved quickly. Similarly, a debt restructuring package for the discoms has been worked out. The private sector must seize the initiative and rekindle the Schumpeterian spirit at this juncture. Banks also need to perform their core banking business while balancing risk assessment with the functional need to support growth.

We also need to harness our natural resources much better. Take the simple example of water. We are a country blessed with water resources with a network of perennial rivers and abundant rainfall. The rainfall provides four times the water that we use annually. Yet, water is a scarce resource in India. We haven't harnessed our resources enough and haven't planned the storage and distribution of water efficiently. India's per capita storage capacity is significantly lower than that of other countries. For example, the quantum of water that can be stored as a proportion of average river runoff for India is just 50 days of average runoff with wide variations – from 220 days in the Krishna to just two days in the Brahmaputra/Barak Basin. The comparable figures for the Colorado River Basin and Australia's Murray-Darling Basin are 900 days while for South Africa's Orange River Basin it is 350 days. Better water management could radically alter the agriculture situation in India.

India also needs to utilize its mining, spectrum and air resources better. The importance of clean air is often not recognized. We need to strike a right balance between our development needs and environmental commitments to ensure long-run growth sustainability. We are not among the world's top polluters. It needs to be recognized that average per square kilometre carbon dioxide (CO_2) pollution in Japan is 7.5 times more than in India. Similarly, per capita CO_2 emission by India is amongst the least globally. Nevertheless, we also need to note that air pollution has serious health costs and India ranks fourth in the list of the largest CO_2 pollutants after China, US and Russia. As such, if we want to ensure not just fast growth but also good quality growth sustainable for a fairly long period of time, we must continue to make efforts to exploit natural resources in an environmentally friendly way.

4. Improve governance at every level

The World Bank's worldwide governance indicators 2006–11 place India below average on key parameters of governance. It scores about 15 per cent on political stability and absence of violence, 40 per cent on control on corruption as well as regulatory quality, 55 per cent on rule of law as well as government effectiveness, while 60 per cent on vice and accountability. Clearly, there is lot of scope for improvement on these parameters. Both, our overall governance and corporate governance needs improvement. In fact, we need better governance at every level – from hospital and schools to polity, firms, non-profit institutions, sports, banking and finance, regulation, land records and even in our daily lives.

Our governance deficit, in some form, is reflected in our ranking on ease of doing business. According to the IFC-World Bank Report 2013 released this year, India ranks 132nd on the index measuring "ease of doing business" amongst 185 economies. Singapore and Hong Kong got the top and second spots overall. In its sub-components, India stands at an impressive 23rd on the criteria of ease of getting credit and 49th in terms of protecting investors. However, it figures at 173rd in terms of starting a business, 182nd in terms of dealing with construction permits and 184th in contract enforcement.

According to the same report, on an average, in India it requires 173 days to start a business, 196 days for obtaining a construction permit and 67 days to get electricity. In Singapore one needs just 3 days to start a business, 26 days for construction permit and 36 days for getting electricity. All other East Asian tigers also have a far superior record than India on these parameters.

If we aspire to become a tiger we must become more business friendly, both for domestic and foreign firms, traders and tourists. We, of course, have an enviable record of a democratic system, a responsive government, an active media and an independent judiciary. However, the risk of dealing with India must come down further. We have to reach where the East Asian tigers reached. It is for this reason that we advocated the adoption of Singapore model in the last RBI Annual Report. In a limited way, this is being attempted in the form of National Investment Board (NIB). A well-functioning NIB can go a long way in cutting project delays. However, in our federal structure, NIB would still have some limitations. It will not have jurisdiction over project clearances that are required at sub-national levels. The Singapore model is a step further. It requires all concerned agencies to sit together in a time bound manner to clear or reject projects, failing which the clearance is deemed to be automatic. We must make doing business easy, to unleash entrepreneurship and venture capitalism in India.

We also need to improve our record of corporate governance in both financial and non-financial firms. Barriers to entry must collapse and a more competitive environment needs to be generated. However, we must develop a framework and inculcate practices of arms length relationships that do not permit connected lending and business relationships that may promote "looting" behaviour as described by Akerlof (awarded the Nobel Prize in 2001) and Romer. They argued that an economic underground can come to life if firms have an incentive to go broke for profit at society's expense (to loot) instead of to go for broke (to gamble on success). Bankruptcy for profit will occur if poor accounting, lax regulation, or low penalties for abuse give owners an incentive to pay themselves more than their firms are worth and then default on their debt obligations. There is still a large gap arising from our nominal compliance of good corporate governance in accordance with regulatory provisions and real compliance of practicing it in law and spirit. We need to bridge this gap.

5. Enforce accountability in all walks of life

All the other five steps that I talk of in this address, including real compliance of good governance cannot be achieved unless we enforce accountability. Just as we need better governance at every level, we also need to enforce accountability in all walks of life. Our accountability structures, especially in public sector, are weak. In administration, the civil servants are insufficiently incentivized for the risks they take, are seldom rewarded for successful completion of their goals and are, at best, merely transferred for poor implementation. Mangers in public sector enterprises face similar problems in addition to bureaucratic interventions that delay decisions or require them to move away from policies which may be in the best interests of a public sector unit. It is difficult to enforce accountability in this climate.

On corporate accountability, the principal-agent relationship between the management or those who wrest ownership and control and the shareholders as actual owners is rather weak. We have seen asset stripping and bankruptcies in this weak environment. This has been especially true where a complex web of companies within business groups prevail. There is a strong case for simplifying these structures that are often developed to evade taxes, indulge in regulatory arbitrage and to strip assets of the firm for personal use. In recent period, we have come across instances where corporate debt restructuring is sought but ownership commitment of those who have control is rather left weak. We must enforce accountability in such cases by forcing such business entities to bring in more of their capital. There are, sometimes, grave cases of businessmen launching new firms, renaming firms or indulging in M&As to garner fresh public money after they misused funds in the first instance. The concept of the modern firm based on limited liability principle requires care to prevent such practices.

Our political process ensures a fair deal of accountability through our democratic institutions. Yet, there is debate on whether a right to recall should exist. A more fragmented polity and existence of coalitions and minority governments, sometimes, make matters worse. Accountability at the municipal levels is also lacking. This, in turn, impacts the upkeep of our infrastructure that gets built. Roads seldom last more than a year. Drainage systems choke.

What is, therefore, necessary in this climate is to do four things. First, stakeholder engagement must be intensified in all institutions – public or private. Furthermore, there should be a principle of inclusivity in stakeholder engagement so that any sort of regulatory capture by interest groups is avoided. Second, individuals, rather than committees or groups, should be made accountable even where a collegiate approach is adopted. Such accountability should not be time barred by transfers of jobs or retirements. Third, financial accountability must be enforced for all. For enhancing fiscal transparency, the budgetary processes should be made tighter so that slippages are eliminated. Similarly, financial accountability needs to be promoted for firms and non-profit institutions. Fourth, accountability should be codified to the degree it can be done and a periodic evaluation must be done to assess achievement, failures and correctives.

6. Make finance more responsive to real sector and promote inclusive growth

Let me, at last, cover the role of finance in India's transformation from elephant to tiger. I have kept this for the end because this is where finance should belong to. In recent period, finance has become big and rather than responding to the real sector needs, it is leading the real sector. Too-big to fail syndrome, firms depending on other incomes to shore up their accounts, market herd behaviour driven by noise rather than fundamentals, are all examples of finance sector becoming too big for its boots. Yet, the finance to support real activity is still inadequate. Firms and businesses still get crowded out by information asymmetry. Financial frictions and financial constraints come in the way of investment and growth in the economy. For want of collaterals, the poor cannot access even elementary banking services, resulting not only in some potential saving getting lost but leaving the society more unequal and polarized with insufficient support for Pareto superior outcomes just because gainers can't compensate the losers.

Finance must be regulated more tightly. This does not require more regulations but perhaps less and newer regulations with greater effectiveness. At the same time, those who engage in finance must have an obligation towards promoting financial inclusion, without which inclusive growth cannot be achieved. Banking should have a human face for it is the households who provide the base for all banking activities. They are the only ones with financial surpluses which can be intermediated to corporate and public sectors that run financial deficits. It has been my endeavour to push policies on bank lending with a view to encourage credit flows to the vulnerable section of the population that would otherwise get financially excluded.

Over the years, this has been the ethos of the Reserve Bank. The branch licensing policy and the directed lending route have been the two pillars on which the efforts for financial inclusion have rested for a long time. The bank licensing policy, mandating a certain ratio of rural bank branches for each license for urban branch, has often been criticised by banks as coming in the way of their business interests. However, there is strong research evidence to suggest that this social banking experiment in India has been successful in improving the credit flows to the rural population and even in lowering poverty as a result. The priority sector lending (PSL) stipulation has also improved the flow of credit to certain productive sectors of the economy that would otherwise have been crowded out of the bank credit market due to information asymmetries. There are reasons to believe that with proper planning and use of technology-enabled efficient delivery channels, banks can pursue financial inclusion in a profitable way.

Our approach should not be seen as being interventionist. In practice, Reserve Bank has deftly balanced objectives of equity and efficiency so that financial inclusion is furthered, but banks' financial health is not impaired. In more recent period with which I have been associated, we have redoubled our efforts at financial inclusion. For instance, the prescription for PSL in respect of foreign banks has been raised from 32 per cent to 40 per cent in case of those banks which have 20 or more branches. We have also imparted a more human touch to basic banking for those who did not have bank accounts.

Conclusion

Let me end by talking about something we need to learn from the East Asian tigers in our quest to become one. Growth acceleration in these tigers were supported by liberalization, export-led growth, high investment in education, large share of educated workforce, high public and private savings rate and macroeconomic discipline and governance. We are pursuing some of these policies and can pursue some more of them. However, these tigers also failed to maintain their spurt because of some mistakes they committed. Some of them maintained high interest rate to attract foreign investments, others pegged currency arrangements and many of them developed a vulnerable financial system. An unanticipated shock from banking and currency side, therefore, resulted in growth collapse for them during the East Asian crisis. Corporate failures added to the financial sector woes in some countries (especially Chaebols in Korea). While transforming the Indian economy into a tiger, we need to calibrate policies taking into account the lessons learnt during the East Asian crisis.

Thank you for your patient hearing. Downturns come and go away as business cycles run their course. In our present predicaments with macro-economic stabilization, we must not lose sight of our larger goals, whether we walk at an elephant's pace or run like a tiger. Let me assure you that as a society, if we can inculcate an aggressive and tenacious urge to attain a set goal – the killer instinct of the tiger – we would definitely earn our rightful place under the sun.

Bibliography

Aiyar, Swaminathan Anklesaria (2011), "The Elephant That Became a Tiger: 20 Years of Economic Reform in India" Cato Institute, Development Policy Analysis, no. 13, July 20, 2011.

Akerlof, George A. and Paul M. Romer (1993), “Looting: The Economic Underworld of Bankruptcy for Profit”, Brookings Papers on Economic Activity, Vol. 1993, No. 2 (1993), pp. 1–73

Bosworth, Barry and Susan M. Collins (2007), “”Accounting for Growth: Comparing China and India”, NBER Working Paper No.12943, February.

Tharoor, Shashi (2007), The Elephant, The Tiger and the Cellphone: Reflections on India: – The Emerging 21st Century Power, New York: Arcade Publishers

Subbarao, Duvvuri (2011), “Rejigging the Elephant Dance”, Haksar Memorial Lecture delivered by Dr. Duvvuri Subbarao, Governor, Reserve Bank of India at the Centre for Research in Rural & Industrial Development, Chandigarh on November 25, 2011, reprinted in RBI Bulletin, December 2011, p.2041–48.

World Bank and IFC (2012), Doing Business 2013: Smarter Regulations for Small and Medium Enterprises, Washington, The World Bank