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India’s Financial System & Architecture 2014: Fault Lines Part Deux

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India's Financial System & Architecture 2014: Fault Lines Part Deux

Abstract

This paper examines the current Indian economic crisis in the context of the Indian financial fiscal and monetary policy and identifies critical imperatives for recovery and renewal. We first present an analysis of major economic indicators and assess the likelihood of various economic crisis outcomes. The outcomes examined range from continued stagflation, to sovereign default, to simple fiscal and monetary crisis, to cascading banking and financial sector crisis and finally to an extreme tri-lemma type catastrophic failure. We next present summarized stakeholder solutions on actionable imperatives for crisis avoidance, economic recovery and then long term progress. The solutions are categorized as critical policy initiatives that first review and restructure with the intent to reduce inefficiency and eliminate corruption, then focus on revenue and better recognition to create new inflows and track existing flows correctly and finally look for policy actions to revive the economy to create centers for excellence and long term growth. This paper is designed to be the first in a series of papers and sets the broader context. Successive work will delve more into the details of each solution area as well elaborate on additional areas for solutions.

Keywords: Indian Financial System, Monetary Policy, Economic Crisis.

I. Introduction

This study is the first in a series of papers and sets the broader context. The context of this paper is the financial system, which provides the dashboard to understand, monitor and make decisions around a nations progress. Financial crisis may develop in the underlying economics of day to day functioning or be triggered by problems in a financial system itself. Such problems can not only disrupt financial intermediation, but they can also undermine the effectiveness of monetary policy, exacerbate economic downturns, trigger capital flight amplify exchange rate pressures, create large fiscal costs related to rescuing troubled financial institutions and accentuate inflationary pressures. Moreover, with increasing connectivity among financial institutions and tighter financial and trade linkages between countries, financial shocks in one jurisdiction can rapidly spill over across financial sectors and national borders. In general, crisis is merely an impetus for reform but that reform occurs is not guaranteed and is a function of the political environment. In a sovereign democratic nation, reform must come from within. Of importance to the Indian context today, [2] we can only deploy in a limited sense monetary, fiscal and exchange rate policies to insulate growth, momentum from adverse external conditions.

The purpose of this study is to examine the current Indian economic crisis in the context of the Indian financial policy, system, and architecture and identify critical imperatives for reform and policy. It is the author's belief that attempting to tactically address the symptoms of mis-management in the Indian context would merely postpone the required reforms in the system. It is better to analyze and rectify the root-causes of mis- investing in the economy and mis-directing the fundamental growth initiatives.

The world is at the cusp of changes in the global axis of economic power. In the 1990s, the G-7 nations had more than 51% of the global GDP in 1990 as compared to Emerging markets, which had 36%. But by 2012 the share of Emerging markets (adjusted for purchasing power parity [PPP]) in the Global GDP rose to around 52%, while that of G-7 nations dropped to 36%.[6] Some sources estimate that the share of G-7 nations may come down to 25% in the next decade. These facts imply that the markets mainly consisting of India and China are potentially re-emerging as major world nodes. Such a shift has not occurred since 1820 when the emerging nations had more than 50% of the global GDP prior to the western colonization, that destroyed their economies. While the Indian economy provides a wealth of material for review, for the purposes of this paper we will be focusing on three aspects: Firstly, we set the context with a review of the salient concepts we plan to use and its historical perspective. Secondly, we examine the fiscal state of the Indian economy together with the indicators of an impending or in- process crisis, and finally, we summarize practical ideas and the potential path forward.

In examining all the macro-economic and fiscal variables, we are compelled to conclude that India is at a

very high risk of a financial crisis. It is our hypothesis that the most likely scenario is a fiscal crisis that may rapidly spread into a vulnerable banking sector creating a banking crisis. Both immediate short-term actions as well as strategic long-term action are needed. If Indian policy makers choose to stave off the short-term crisis alone by borrowing either from public sector banks, or from abroad without putting in place both a strategic plan for fiscal restructuring as well as for growth, it would compound the past mistakes. With high probability the most likely scenario is a fiscal crisis first that in turn triggers a banking crisis in sector weakened by alarmingly large non-performing assets. But even if this worst-case scenario does not occur, we are still stuck with the alarming situation of slow and painful economic stagflation.

There are fortunately many creative solutions and alternatives available to circumventing such an event, due to the innate entrepreneurship and diligence of Indian businesses. However, implementation requires the political will to understand and accept the right solutions, even if they involve transformational change in some areas.

II. Background: Critical Components

Financial systems issues undermine the effectiveness of monetary policy, exacerbate economic downturns, trigger capital flight and exchange rate pressures, and create large fiscal costs related to rescuing troubled financial institutions. Moreover, with increasing connectivity among financial institutions and tighter financial and trade linkages between countries, financial shocks in one jurisdiction can rapidly spill over across financial sectors and national borders.

Therefore, resilient financial systems that are well regulated and well supervised are essential for both domestic, international economic and financial stability. Financial systems must be regulated/managed for both crisis prevention but in the worst-case scenarios modified for crisis management. It is also important to note that financial management cannot by itself fix operational and structural issues and must be done in conjunction with overall reform.

The overall financial policy has two components: fiscal policy and monetary policy.

Fiscal policy refers to the use of the government budget to influence economic activity. The two main instruments of fiscal policy are changes in the level and composition of taxation and government spending in various sectors. These changes impact the nation's economy including the aggregate demand, the distribution of income, the resource allocation and the level of economic activity

The fiscal policies have an impact on the goods market and the monetary policies have an impact on the asset markets. Since the two markets are connected to each other via the two macro-variables - output and interest rates, the policies interact while influencing the output or the interest rates. Traditionally, both the policy instruments were under the control of the national governments. Thus traditional analyses were made with respect to the two policy instruments to obtain the optimum policy mix of the two to achieve macroeconomic objective as the two were perceived to aim at mutually inconsistent targets. But when, the goals of one authority is made subservient to that of others, then the dominant authority solely dominates the policy making and no interaction worthy of analysis would arise. Also, it is worthy to note that fiscal and monetary policies interact only to the extent of influencing the final objective. So long as the objectives of one policy are not influenced by the other policy, there is no direct interaction between them.

A nation has the following five avenues to affect fiscal policy: **Tax Policy, Seignoirage, Borrowing External and Internal, Fiscal Reserve Consumption and Fixed Asset Sale**. For more detail please refer to background references.

Monetary policy is the process by which the central bank controls the money supply. Monetary policy involves the management of expectations and involves both actions as well the clear communication of the intent of the actions. Monetary policy rests on the relationship between the rates of interest in an economy, that is the price at which money can be borrowed, and the total supply of money. Monetary policy uses a variety of tools to control one or both of these, to influence outcomes like economic growth, inflation, exchange rates with other currencies and unemployment. Where currency is under a monopoly of issuance, or where there is a regulated system of issuing currency through banks, which

are tied to a central bank, the monetary authority has the ability to alter the money supply and thus influence the interest rate (to achieve policy goals).

Developing countries have more challenges in establishing an effective operating monetary policy. These challenges are related to the higher indebtedness of developing nations that is required to sustain a higher growth. Developing nation monetary authority is more likely to be subject to political pressures and the pursuance of other non-monetary goals. Additionally, the lack of validated, verified information leads to a poorer ability to measure and forecast the impact of monetary policy in developing nations. There is the issue of "transmission" of the policy in the context of the large role played by money-lenders and other unincorporated financiers.

The government has 3 tools to affect monetary policy: **Interest Rates (or Repo Rates), Monetary Base and Money Supply and Reserve Requirements.** For more detail on these, please refer to appendix on background.

Financial Standards are a critical component of financial systems. Better financial systems adhere to better standards that allow them to be less fragile and crisis prone. There are four types of standards: Accounting standards, Financial Standards, Capital Standards, Legal Standards. Accounting Standards relate to transparency and measurement of performance. Capital standards relate to the capital requirements on the banking and regulatory systems and cannot work without accounting standards or rules in place. Legal standard relate to the judiciary and will not work without an effective and independent judiciary. Finally, financial standards will not work in the absence of governance principles and in the presence of corruption. The Indian system conforms to **IAS (merged with IFRS in 2010) for accounting standards and Basel for capital standards.** For more detail on these standards as well as detail on Basel III, the reader may refer to the background references.

Financial Architecture refers to the institutions and processes involved in monitoring and managing a financial system. There are several institutions and sovereigns that are involved in the monitoring and resolution of international financial systems and markets. These include the IMF, The World Bank, and Regional Development Banks such as ADB etc., Standards bodies such as G20/G7, National Governments and Consultation forums. Obviously the private sector and civil society are participants.

These agencies monitor and provide support to nations. Inside a nation there are separate set of institutions that form the financial architecture. The main function of the financial architecture is to mobilize resources through financial assets or debt instruments and to facilitate the allocation and deployment of these mobilized resources to maximize the growth of the economy and achieve the highest rate of return on the resources deployed. Within a nation, the financial architecture is constituted by Institutional regulators such as SEBI, Reserve Bank (RBI), IASB International standards of accounting to ensure transparency, Corporate governance norms for management, shareholders, stakeholders and sound banking or prudential norms. All stakeholders are continually monitoring vulnerability indicators in the system for indicators of crisis. Typical external vulnerability crisis indicators include the Current Account Deficit, the External Debt, Foreign Reserves, Exchange rate etc. However, the inherent internal health of the economy is observed in its GDP, employment, participation and other related metrics.

III. Recent Historical Fiscal & Monetary Crisis

The financial system is merely an intermediary whose purpose is the distribution of capital. If it has performed its function correctly and efficiently, there will be no crisis and growth potential will be maximized. In general the financial system will from time to time engage in measures to affect

- Exchange rate management through a combination of monetary and fiscal policy tools described
- Inflation targeting through a combination of institutional commitment to price stability, mechanisms for rendering the central bank accountable, public announcement of targets for inflation and policy commentary to the public.

It is critical to note that the financial system cannot be used as an end-all to target inherent internal weaknesses or external threats but must be used in concert with operational and structural management to navigate the country effectively.

Internal Robustness vs. Tools: However, as [1] and [2] note, one must articulate cautionary notes on the judicious use of these tools. Inflation targeting will only work in the presence of fiscal consolidation, financial restructuring and institutional reform. In their absence, any attempt to target will deliver more inflation than targeting as monetary authorities print or pull back to address inherent fiscal, financial and political weakness.

External Shocks vs. Tools: Additionally, as [2] notes, we can only deploy in a limited sense monetary, fiscal and exchange rate policies to insulate growth momentum from adverse external conditions.

A financial crisis develops in an economy by 3 routes of causation [5]:

a. **A run in foreign currency market that induces banking collapse, which in turn triggers a fiscal crisis.**
b. **A banking collapse that causes a fiscal crisis which then induces a foreign currency run.**
c. **A fiscal crisis that triggers a banking crisis, which subsequently induces a foreign currency run.**

Different economies have exhibited different forms of crisis. The indicators of brewing crisis lie in the corresponding fiscal, banking or currency indicators that are most vulnerable that could in turn trigger the remainder. More often than not, poor intervention by a sovereign authority can itself trigger a crisis. A government that unknowingly attempts to fix one aspect of the economy may actually trigger an unstable reaction in an already fragile system.

While there are many crises' to examine as a precedent, the four most relevant recent crises are the Mexico Mark II 1994-95, the Latin American Crisis of 1982, the East Asian Crisis of 1997 and the US sub-prime collapse of 2008. For the purposes of this, we will focus on reviewing the latter two events.

The East Asian crisis was started by a run in the foreign currency market that induced a banking collapse, which in turn triggered a fiscal crisis. The crisis started with Thailand, spread to Indonesia and South Korea, which suffered the most. Even countries like China, Singapore and Vietnam, which did not require IMF intervention, suffered a loss of demand and confidence throughout the region.

Thailand: The Thailand crisis began with the financial collapse of the Thai Baht triggered by currency speculators. Foreign investors took note of the large current account deficit, which stood at more than 8% of GDP. The Thai government attempted to float the Baht to support its fixed exchange rate, cutting its peg to the dollar. This followed several attempts by the government to

Macro-Economic Variables as a % of GDP During Asian Crisis										
	Investment		Domestic Savings		Fiscal Balance		Open-ness to trade		ICOR	
	1986-95	96	1986-95	96	1986-95	96	1986-95	96	1986-95	96
Indonesia	32.6	31.2	33.8	31.2	0.9	-1.0	15.9	20.6	19.2	22.6
Korea	33.9	36.8	36.4	35.2	0.3	0.0	30.7	28.9	32.9	20.2
Malaysia	32.7	42.2	35.8	42.6	-3.2	0.7	44.3	78.9	25.1	22.1
Philippines	20.5	23.2	17.5	15.6	-1.9	0.3	16.4	31.2	20.5	12.2
Thailand	36.3	42.2	33.5	35.9	2.1	0.7	20.9	34.9	32.6	19.6

Source: BIS Annual report 1998, [26]

support the Baht in other ways as it weakened due to severe real estate triggered financial overextension. Thailand was already in a fiscal crisis as a result of its foreign debt burden. This crisis spread to most of Southeast Asia and Japan, which were already vulnerable with debt creating cascading currencies, devalued stock markets and tumbling asset prices all around. It was observed that Thai foreign debt-to-GDP ratios that rose from 100% to 167% prior to the crisis and then rocketed to over 180% during the crisis. Thai monetary authorities used high interest rates to tighten money supply, halt currency speculation and devaluation, stabilize exchange rate, and as a result contain inflation. However, the interest rates had the effect of making debt burdens more onerous and triggering fiscal issues. The IMF provided a rescue package for Thailand with over $20 billion in multiple tranches. But this package was contingent on conditions such as passing laws relating to bankruptcy (reorganizing and restructuring) procedures and establishing strong regulation frameworks for banks and other financial institutions. It took another 3 years for Thailand's economy to start to recover. The increasing tax revenues allowed the country to balance its budget and repay its debts to the IMF in 2003, four years ahead of schedule. The Thai baht continued to appreciate to 29 Baht to the Dollar in October 2010.

The recovery required the IMF to step in with $40 billion program to stabilize the currencies of South Korea, Thailand, and Indonesia, economies particularly hard hit by the crisis. The crisis resulted in widespread rioting that resulted from the sharp price increases caused by a drastic devaluation. The effects of the crisis also included a flat-lining of growth. By 1998, growth in the Philippines was virtually zero. While both Singapore and India were impacted by local demand, the two proved relatively insulated from the shock. The former was a product of a robust well-architected financial architecture and system, while the latter was kept stable through its inherent isolation from the local ecosystem.

South Korea: The South Korea crisis was triggered by the banking system vulnerability in the forms of debt. The South Korea's government saw its national debt-to-GDP ratio more than double (approximately 13% to 30%) as a result of the crisis. While the South Korean economy, eventually recovered and tripled post 1997, it was marred by widespread bankruptcies. The banking sector was burdened with non-performing loans as its large corporations were funding aggressive expansions. During that time, there was a haste to build great

conglomerates to compete on the world stage. Many businesses ultimately failed to ensure returns and profitability. South Korean conglomerates, simply absorbed more and more capital investment. Eventually, excess debt led to major failures and takeovers.

Japan: Japan provides by far the most interesting study since it continues to try to overcome 15 years of deflation. The crisis dates back to the 1990s when the Japanese asset price bubble's collapsed within the Japanese economy, which occurred gradually rather than catastrophically to today, where the Japanese economy has still not recovered from what is often referred to as the lost decades. The collapse was triggered by a banking crisis triggered by a speculative asset price bubble of massive scale by Japanese companies, banks and securities companies. The combination of exceptionally high land values and low interest rates briefly resulted in heightened liquidity in the market. It led to massive borrowing and heavy investment mostly in domestic and foreign stocks and securities. The economy contracted or grew at a paltry rate and unemployment rates were high, but not at a crisis level.

When the Bank of Japan intervened with a sharp policy of raising interest rates to arrest this, it caused the bubble to burst, and the stock market crashed. A debt crisis followed and the Japanese banks and insurances were now loaded with bad debts. The financial institutions were bailed out through capital infusions from the government, loans from the central bank and the ability to postpone the recognition of losses. This resulted in the creation of zombie firms that were kept alive as banks kept injecting new funds into unprofitable "zombie firms" to keep them afloat, arguing that they were too big to fail. However, most of these companies were too debt-ridden to do much more than survive on bailout funds and eventually a wave of consolidation rolled these entities into larger banks.

The traditional Japanese frugality and social norms had both positive and negative impacts; on the positive the frugality ensured that there was low impact of the standard of living through the lost decades but on the negative the Japanese notion of honor made it hard for the country to shut down and write down non-performing institutions, forcing the economy to continue to carry non-performing debt to perpetuity. The Japanese were willing to give up efficiency in the interests of community due to the age old tradition of life long jobs and loyalty at a premium compared to western notions of "hire and fire" The solution though filled with protracted pain was appropriate to their identity

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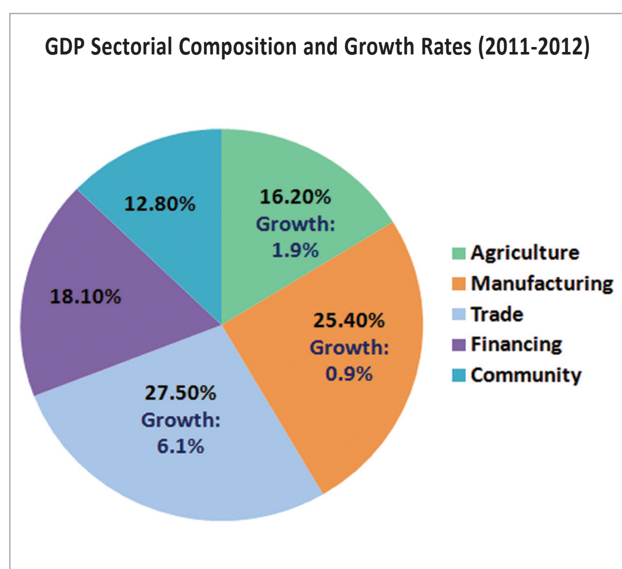
United States: The U.S. economy in 2014 is still currently experiencing the effects of its worst crisis since the Great Depression. The crisis started as a banking collapse that caused a fiscal crisis - the currency impacts were staved by the facts that the US is the world market leader so there is no competitor to benchmark against or cause a currency run against. However of note, China today is the largest holder of US denominated debt and the EU currency has emerged stronger as opposed to the dollar. The crisis started as a banking crisis in the home mortgage market, especially the market for so-called "subprime" mortgages, and spread beyond subprime to prime mortgages, commercial real estate, corporate junk bonds, and other forms of debt. It led to a sharp reduction in bank lending, which the US government attempted to diffuse with a low interest rate to stimulate growth. But the inherent fundamentals of the US economy continue to flat-line with pension funds, social security and medical

safety nets failing. The worsening government debt at a trillion dollars shutdown and debt-ceiling wrangling coupled with high profile government bankruptcies like Detroit are indicative of a situation that still has not recovered from the excesses and financial sector mis-management of 2008. The 2013 jobs numbers show that even before partisan politics impaired recovery, job growth was actually slowing. In an economy that is based on 70% consumer spending, a job-less recovery impairs growth and the sort of wage competition that encourages firms to raise workers' pay. It is critical to note that implementation thoughtfulness is key because mandated or regulatory imperatives on worker pay are mostly counter-productive leading to shutdowns, diffidence in hiring and stunted entrepreneurship.

Singapore: Singapore was relatively unaffected by the crisis, though it did see some economic slackening due to the local Asian economic softening. This was in part due to Singapore's unique status of running a strong current account surplus as opposed to the deficits that other economies in the region chose as a fiscal policy. Singapore had concertedly moved their economy from a 10% current account deficit prior to 1980 to an 18% current account surplus. Given Singapore's role as a financial sector hub; low sovereign risk was always a critical aspect of their economic success. Additionally, the Singaporean government had a unique system of isolating the domestic economy from international financial shocks by maintaining two different sets of books for each financial organization: domestic books vs. external books. While Singapore had never imposed capital controls as part of a policy to ensure financial investor confidence, it ensured a policy of strict standards and continuous supervision, monitoring on risky financial asset metrics and portfolios. The Singaporean monetary policy was always managed to very low inflation with a unique government note that provided close to 0% interest coupled with a small steady currency appreciation that was managed to band. Singapore provides a very interesting set of best practices to how to remain stable through shocks but the uniqueness of its model makes it less feasible for a larger economy with agriculture-sustained populations etc. to reproduce it or sustain it in entirety.

IV. Current Indian Economic Situation

The Indian economy is in slow, painful stagflation today with distressing growth and inflation performance indicators. India shows stagnation in GDP with growth at 4.4 percent (CSO) estimated for 2013-2014. This growth has been consistently declining over the last decade and while some attribution may be made to external factors such as the global recession, the nodal factors lie in the poor economic development and financial mis-management of the internal Indian economy. In particular, Agriculture which employed the bulk of the Indian populace and formed 16% of GDP grew at only 1.9% and the Industrial sector which formed



Source: Economic Survey of India 2013-2013, GOI Website indiabudget.nic.in, 2014

GDP Sectoral Composition and Growth Rates

Rs. Crores	Agri	Manu	Trade	Financing	Community
2011-12(1R)	847,744	1,334,249	1,440,312	948,808	672,469
Percent	16.2%	25.4%	27.5%	18.1%	12.8%
Growth Rate	1.9%	0.9%	6.1%		

Source: Economic Survey of India 2013-2013, GOI Website indiabudget.nic.in, 2014

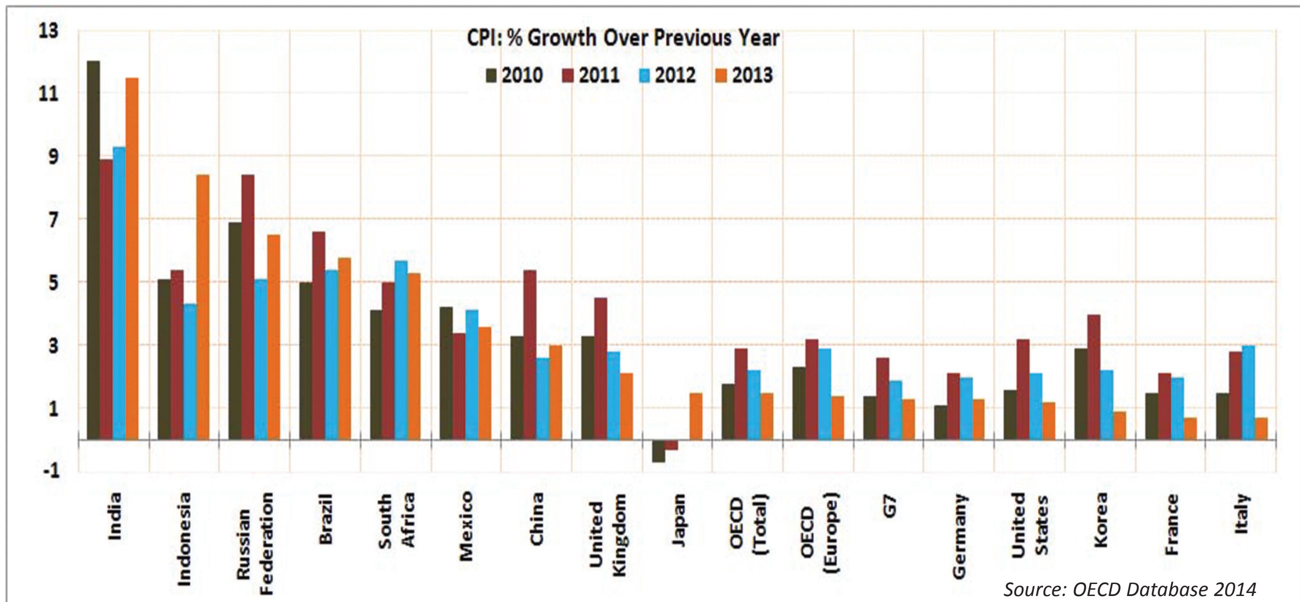
CPI: % Growth Over Previous Year

	2010	2011	2012	2013
India	12.0	8.9	9.3	11.5
Indonesia	5.1	5.4	4.3	8.4
Russian				
Federation"	6.9	8.4	5.1	6.5
Brazil	5.0	6.6	5.4	5.8
South Africa	4.1	5.0	5.7	5.3
Mexico	4.2	3.4	4.1	3.6
China	3.3	5.4	2.6	3
United Kingdom	3.3	4.5	2.8	2.1
Japan	-0.7	-0.3	0.0	1.5
OECD - Total	1.8	2.9	2.2	1.5
OECD - Europe	2.3	3.2	2.9	1.4
G7	1.4	2.6	1.9	1.3
Germany	1.1	2.1	2.0	1.3
United States	1.6	3.2	2.1	1.2
Korea	2.9	4.0	2.2	0.9
France	1.5	2.1	2.0	0.7
Italy	1.5	2.8	3.0	0.7

Source: OECD Database 2014

25% of GDP flat-lined at 0.9% leaving the onus of growth almost entirely on a service sector that provides 58% percent of the GDP but only employs a little over 30 percent of the population. The nature of a majority of these services is low value add; according to IBEF the high value add IT/ITES segment only contributes to 1% of employment or about 12.5Mil direct and indirect jobs. All software IT/ITES related activities come under business services, which itself is about 5% of national income.

The low growth and high inflation have exacerbated poverty. While the average populace in the cities may not notice the Gini coefficient at 33.9, which is comparable to Ethiopia, Latvia and Sudan, they certainly notice the effects of inflation as evidenced by rapidly increasing Consumer Price Index (CPI),



Source: OECD Database 2014

which grew 10% just over the past year and has grown steadily at 7.7% annually over the past decade. We note that the CPI measure does not fully capture the inflationary impact due to services like education and health.

In real terms, the average Indian is becoming poorer compared to the rest of the world. India's Gini at 33.9 puts it in the bottom quartile of the World Banks developing nations profiled from 2009-2013. While it isn't as compromised as some South Asian economies such as Malaysia, India's economic disparity falls far behind Eastern block nations like Ukraine at 26. As the largest democracy in the world, this is a dubious distinction and a product of poor deployments of capital. In effect, the financial system and policy is to be held partly accountable for a situation that took a growth situation trending to 10% in the 90's and reduced it to 4.5% with inflation at 7.9%.

Developing Nation Gini Statistics (Complete Data Table of Gini Coefficients Provided in Appendix)

Gini Coefficient	2009	2010	2011	2012	Average
COUNT	42	35	10	1	63
Average	41.65	39.95	35.75	38.70	40.97
Stdev	9.25	8.93	6.99		8.75
plus one stdev	50.90	48.88	42.74		49.72
India		33.9			33.9

Source: Internal Analysis, World Bank Website 2014

In recent times, the RBI has attempted to address the symptom of inflation by raising interest rates as well as the bank repo rate to 8% bps in order to throttle the flow of money. But the fundamental issue of supply side economics of Indian GDP production remains unaddressed. If the population grows at 2%+ percent while agriculture grows at 1.9%, manufacturing at less than 1% and the balance of payments is steadily negative and deteriorating at 25-30%, we can neither feed nor cloth our people, nor than we afford to import food.
Furthermore, while education has increased, the rate of creation of employment is determined by the

growth of industry and our educated people find insufficient employment, leading to a decline in the average wallet size of the Indian person. As per the vote on account of February 2014, these numbers show no significant improvement. In fact, critics argue that for political reasons, the numbers presented by the GOI in February 2014 were adjusted for a political agenda and would suffer serious re-statements as the year unfolds.

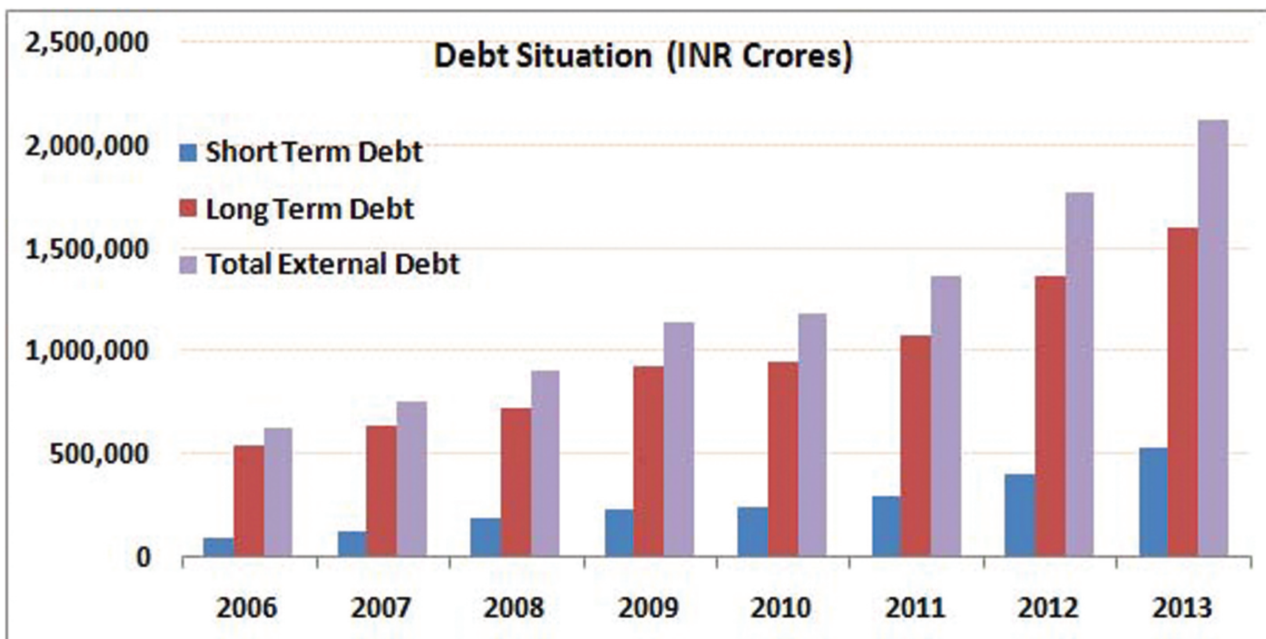
India: Fiscal Threat

As discussed in the prior section, India's macro-economic indicators show extreme vulnerability. While the macro variables indicate a struggling economy, the indicators of a disastrous financial crisis, triggered by a fiscal crisis are shown in the fiscal performance variables and the balance sheet. In order to understand fiscal vulnerability, we next examine the balance of payments statement for the Indian economy.

First let us gain an understanding of the severity of the external debt situation. The Indian economy benchmarks at comparable rates to distressed economies such as Turkey (at 29%) and Argentina (at 27%) with respect to India's short-term debt at 24.7% of total debt. India's short-term debt is also 28.8% of our foreign reserves as compared to China at only 15%.

It behooves us to play to scenarios to understand the likelihood of a default; look at servicing 4 months and 8 months of imports together with short term debt, interest and speculative FII. In short, to examine whether subtracting the transaction, precautionary and speculative flows from the foreign exchange reserves leave the country with adequate reserves. Absence of this would trigger a sovereign default scenario.

Thus, if we were to subtract from foreign reserves 4 months of imports, current interest payments due



Source: Economic Survey of India 2013-2013, GOI Website indiabudget.nic.in, 2014, Internal Analysis 2014

Debt Situation								
Rs. Crores	2006	2007	2008	2009	2010	2011	2012	2013
Short Term Debt	87,155	122,631	182,881	220,656	236,188	290,149	399,962	525,931
Long Term Debt	533,367	628,771	714,409	921,469	942,450	1,075,820	1,366,095	1,593,689
Total External Debt	620,522	751,402	897,290	1,142,125	1,178,638	1,365,969	1,766,057	2,119,620
Short Term Debt/GDP	2.45%	3.15%	4.40%	4.89%	4.78%	5.53%	4.23%	5.25%
Total Debt/GDP	17.4%	19.3%	21.6%	25.3%	23.9%	26.1%	18.7%	21.2%
Short Term/Long Term Debt	16.3%	19.5%	25.6%	23.9%	25.1%	27.0%	29.3%	33.0%
Short Term/Total Debt	14.0%	16.3%	20.4%	19.3%	20.0%	21.2%	22.6%	24.8%

Source: Economic Survey of India 2013-2013, GOI Website indiabudget.nic.in, 2014, Internal Analysis 2014

and short term debt due near term, we immediately encounter a situation where the country is not able to meet its short term obligations, leading to a fiscal crisis and default on short term liabilities. Even if the short-term liabilities themselves were restructured and rolled over, we continue to face the same default and crisis just based on interest payments. In general, a country must meet a minimum 4 months of import payments, safely 6 months of import payments and preferably 8 months of import payments. As per the situation 2013, it is highly likely that India will default and trigger a fiscal crisis even with the barest cover at 4-month import payment.

While some may disagree with a debt-cover approach to evaluating fiscal stability, we must also note that India's debt situation is worrisome in many more ways. In earlier sections, we discussed the potential of a fiscal default triggered by external factors and showed the insufficiency of India's foreign reserves in serving short term debts and income - even with restructuring, the situation is not ameliorated. In addition, the baseline economy is not generating enough growth to serve its debt. Short-term debt levels at 4-5% of GDP and 30% of long-term debt are comparable to debt levels of many of Asian's nations during the 1997 crisis.

FDI merely forms about 2% of GDP. In fact, FII+FDI together form less than 4% of GDP on an average. The majority of India's investment comes from domestic savings. Assuming an ICOR of 4 and domestic savings of 32% of GDP, a 10% growth would indeed require either an increase in domestic savings or additional FDI to bridge the gap.

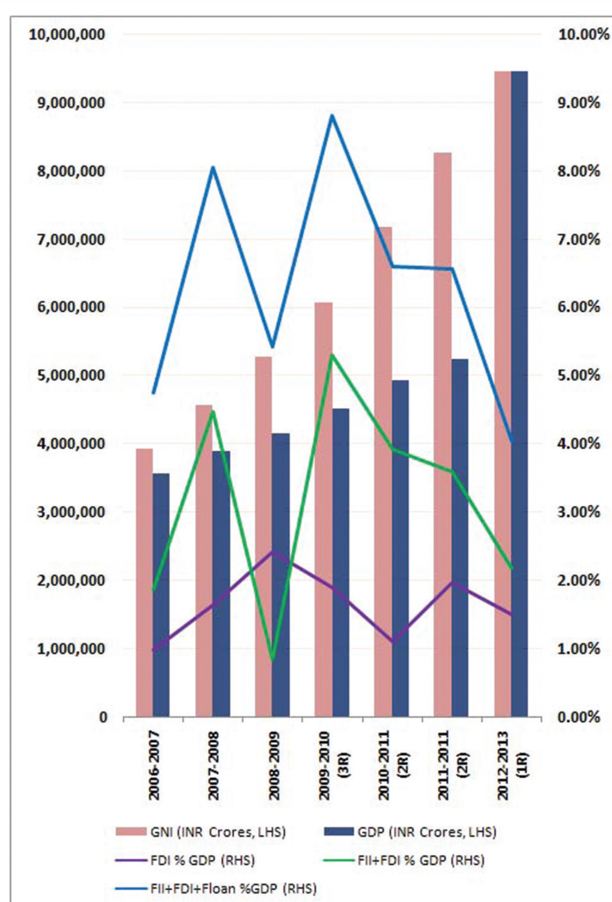
Three cautionary notes must be added; Firstly given India's recent track record of fiscal performance, there is serious concern among foreign investors, secondly FDI cannot come in any industry where the local business are made disadvantaged or uncompetitive by its entrance and thirdly FII must come with a long term horizon. Both FDI and FII in India are complicated by instruments like participatory notes that allow illicit black money to rapidly be moved anonymously in and out of the Indian system causing further instability and capital flight in times of uncertainty. Post these caveats, we must also note that in general, FII investors as opposed to individual diaspora, have a stable asset

Danger of Externally Triggered Fiscal Crisis (Sovereign Default)						
2013	Precautionary 8 Month Scenario		Precautionary 6 Month Scenario		Precautionary 4 Month Scenario	
	Rs Crores	USD Mils	Rs Crores	USD Mils	Rs Crores	USD Mils
Foreign Reserves	1,619,400	295,600	1,619,400	295,600	1,619,400	295,600
Transactional (Short Term Debt)	525,931	96,697	525,931	96,697	525,931	96,697
Transactional (Interest)	269,279	53,856	269,279	53,856	269,279	53,856
Precautionary (8 Month)	1,748,908	321,131	1,311,681	240,848	874,454	160,565
Speculative (Portfolio FII)	64,400	11,592	64,400	11,592	64,400	11,592
Net	(989,118)	(187,675)	(551,891)	(107,393)	(114,664)	(27,110)
Net with Debt Restructure	(463,187)	(90,978)	(25,960)	(10,696)	411,267	69,587

Source: Economic Survey of India 2013-2013, GOI Website indiabudget.nic.in, 2014, [5], Internal Analysis 2014

allocation exposure on India and are more likely to provide capital on competitive terms than individual diaspora that tend to have emotional and social agenda driven response.

Furthermore, it is of note that the dominant portion of Indian savings comes from the internal household sector rather than FDI or FII. Over the past decade on an average 75-80% of domestic savings come from the internal household sector. Of this sector 25% to 30% comes from the household non-corporate sector. The Indian traditional values of thrift and savings are critical aspect of the psyche and are unchanged. Unlike the US economy, which is driven on consumption, the traditional Indian economy continues to be driven on savings. Unfortunately, over the past 5 years, there has been an erosion in the Indian savings; some suggest that this is in part because of a shortage of instruments that the average individual can invest in that provide an adequate return. Due to cultural and economic reasons, Indians tend to invest in gold, real estate and limit their exposure to equities. In actuality, less than 3% of the financial savings of households is invested into stock markets.



Source: Economic Survey of India 2013-2013, GOI Website indiabudget.nic.in, 2014, Internal Analysis 2014

FDI, FII & F Debt							
Rs. Crores	2006-2007	2007-2008	2008-2009	2009-2010(3R)	2010-2011(2R)	2011-2011(2R)	2012-2013(1R)
GNI	3920042	4561574	5270644	6070903	7185159	8276665	9462000
GDP	3564364	3896636	4158676	4516071	4937006	5243582	9462000
FDI % GDP	0.98%	1.64%	2.41%	1.90%	1.10%	1.97%	1.49%
FII+FDI % GDP	1.87%	4.48%	0.84%	5.31%	3.92%	3.60%	2.17%
FII+FDI+Floan %GDP	4.75%	8.05%	5.43%	8.81%	6.60%	6.56%	4.05%

Source: Economic Survey of India 2013-2013, GOI Website indiabudget.nic.in, 2014, Internal Analysis 2014

Given all this evidence, it is fair to say that if India persists in the current course, it is expected that the Indian economy will see a fiscal crisis within the next 3 years and even today India is teetering dangerously on the edge of a fiscal crisis. We must next examine the balance of trade to see if there is any hope for this improving over time.

Fiscal Performance Variables & Balance Sheet

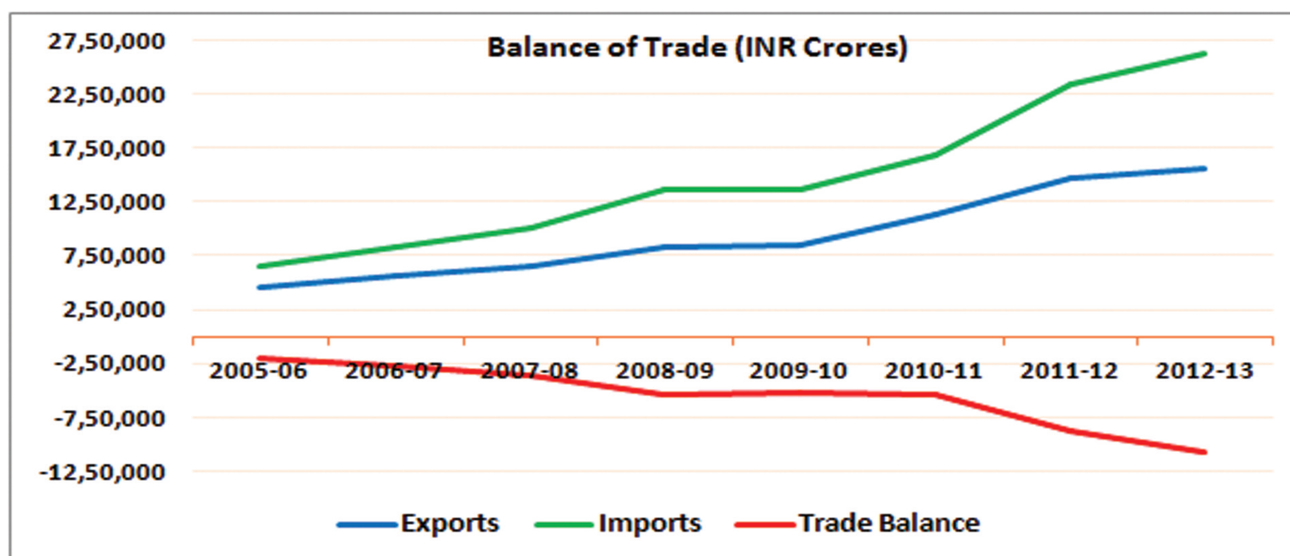
India's balance of trade presents a similarly gloomy picture over the past year where imports have grown at 3 times the rate of exports, which have only grown at 2.7%. In fact over the past 5 years, the negative balance of trade has grown at the 30% annually with exports only growing at 9.2% as opposed to imports at 12.5% annually as indicated below. Coupled with a rising interest rate (to combat inflation), a dismal growth in both Agriculture and Manufacturing, this suggests that the probability of a fiscal default increases every year in a dramatic form as both the gap and interest due increase yearly.

India's current account deficit as a percentage of GDP is also high at between 5% and 8% of GDP over the last 3 years even with multiple adjustments and restatements. Of note, early 2014 saw large inflows of foreign money through participatory notes that temporarily alleviated the current account deficit to 3.1% and lower (as per planning commission data.) However, this hot money is temporary window dressing in anticipation of the election and will flow out as soon as the political process is determined.

While these numbers suggest a directionality of where corrective action must be applied, it is critical to have a financial or banking sector that is indeed

Balance of Trade				
Year	Exports Rs. Crores	Imports Rs. Crores	Trade Balance Rs. Crores	Trade Imbalance Growth
2005-06	456,418	660,409	-203,991	62.3%
2006-07	571779	840506	-268727	31.7%
2007-08	655864	1012312	-356448	32.6%
2008-09	840755	1374436	-533680	49.7%
2009-10	845534	1363736	-518202	-2.9%
2010-11	1142922	1683467	-540545	4.3%
2011-12	1465959	2345463	-879504	62.7%
2012-13	1555252	2623363	-1068111	21.4%

Source: Economic Survey of India 2013-2013, GOI Website indiabudget.nic.in, 2014, Internal Analysis 2014



Source: Economic Survey of India 2013-2013, GOI Website indiabudget.nic.in, 2014, Internal Analysis 2014

able to facilitate this action. In order to understand the health of the Indian financial/banking sector, it becomes important to understand critical banking performance variables. But before we dive into the banking sector situation, let us examine the challenges and pitfalls that the monetary authority of India faces in trying to navigate the turbulent waters generated by this fiscal situation.

India: Fiscal-Monetary Threat - Addressing the Unholy Tri-lemma

The Tri-lemma relates to the interdependence of three open macroeconomic policies-exchange rate stability, financial market openness, and monetary policy independence. It states that it is not possible to get simultaneous exchange rate stability, financial market openness and independent monetary policy in a stable financial system. Policy makers attempt to achieve noninflationary, stable economic growth through the use of economic and financial policy.

Guiding policies toward more stable exchange rates or adopting a fixed exchange rate regime could help achieve price stability by providing an inflation anchor. It would also foster international trade and investment by lowering risk premiums and mitigating currency risks. In a globalized world, countries can share risks and help smooth consumption, investment, and/or output over time

Current Account Deficit

Rs. Thousand Crores	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
Current Account Deficit	-86,081	-152,690	-208,850	-262,850	-484,561	-546,840
Current Account as % GDP	1.30%	2.30%	2.80%	2.70%	4.20%	4.70%

Source: Economic Survey of India 2013-2013, GOI Website indiabudget.nic.in, 2014, Planning Commission Data Book planningcommission.nic.in, Internal Analysis 2014

by opening financial markets. Retaining monetary policy independence, i.e., implementing monetary policy without being constrained by other economies' macroeconomic shocks and policies, could also help contribute to economic stabilization. Conceptually, higher levels of exchange rate stability, financial market openness, and monetary policy independence would all help stabilize the economy, but policy makers cannot achieve all three policy goals to their full extent at any one time.

To understand when and where the tri-lemma conditions would apply to the Indian system and make it vulnerable, one must examine the current interest rate, the monetary policy as well as capital controls.

- **Floating Interest Rate:** Firstly, the Indian exchange rate is currently a floating as opposed to a fixed peg as shown by the high volatility over the recent past. The table below illustrates that the standard deviation at 10% of mean is indicative of the high volatility exhibited by a pseudo-floating currency irrespective of a fixed exchange claim. Additionally, the Indian government has shown a reticence to use foreign reserve to stabilize the currency, most probably because of its weak reserves situation in relation to balance of payment and short-term debt (as discussed previously).

Real Exchange Rate & Volatility

Multi-Year	
Stdev (as percent of mean)	10.36%
Mean	53.59
Stdev	5.55
Mean + 2 stdev	64.70
Mean -2stdev	42.49

Source: FDEI Indicative Market Rates, RBI Website www.rbi.gov 2014

- **Open Monetary Policy:** Secondly, India maintains an open monetary policy but regulates the money supply through monetary operations that operate on monetary magnitudes such as money supply, interest rates and availability of credit aimed to maintain Price Stability, Stable exchange rate, Healthy Balance of Payment, Financial stability, Economic growth. RBI is the apex institute of India which monitors and regulates the monetary policy of the country stabilizes the price by controlling Inflation. The RBI has historically executed monetary policies: Open Market Operations (buying or selling of government securities from or to the public and banks), Cash Reserve Ratio (percentage of bank deposits which banks are required to keep with RBI in the form of reserves or balances), Statutory Liquidity Ratio (liquid assets with financial institutions at any point of time of their total time and demand liabilities), Bank Rate Policy (the rate of interest charged by the RBI for providing funds or loans to the banking system), Credit Ceiling (direction that loans to the commercial banks will be given up to a certain limit), Credit Authorization Scheme (authorizes the banks to advance loans to desired sectors), Moral Suasion (request commercial banks not to give loans for unproductive purpose) and the Repo Rate(rate at which RBI lends to commercial banks generally against government securities).

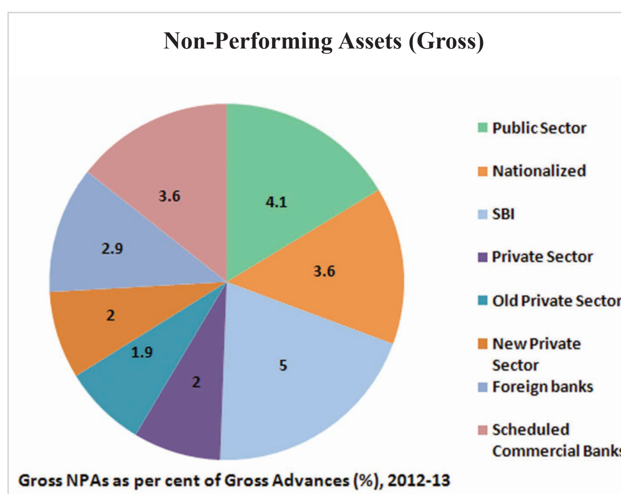
- **Open Financial Market Dilemma:** Thirdly, the government has historically not kept an open financial market. However, the government has taken a number of incremental measures to liberalize legal and administrative impediments to international capital movements in recent years. In general, economists have used deviations from covered interest rate parity to measure capital control effectiveness and an extensive literature investigates deviations from CIP, inferring market segmentation to capital controls, transactions costs, and other institutional impediments to arbitrage. Until 2009, large and persistent deviations from CIP were evident in the Indian market, indicating large transactions costs and the effectiveness of capital controls. These showed that India has consistently and constantly used capital controls. However over the recent past, the Indian government has shown a

reticence to imposing capital controls despite very high capital flight, in order to uphold investor confidence. In 2013, the Reserve Bank of India tightened rules for overseas investments by Indian companies and individuals in an effort to stem capital outflows and prop up the rupee. The Reserve Bank of India limited the investment Indian companies can make overseas without seeking its approval to 100% of their net worth. They were previously allowed to invest up to four times their net worth. The RBI also reduced the amount that people living in India can send abroad to $75,000 a year from $200,000. Further, it stated that the remittances cannot be used for buying property abroad. The steps raised worries that authorities could impose more restrictions on capital flows, potentially making it difficult for foreign investors to pull out their money and additionally dampened enthusiasm from foreign investors.

Over 2013-2014, all evidence indicates that India is skirting the edge of the tri-lemma as it desists from using foreign reserves to stabilize the currency while keeping it floating as well attempting to adhere to an open monetary policy as it tries to keep foreign investor confidence by not imposing outright capital controls. The monetary authorities recent behavior is reminiscent of a game of "whack a mole" as it attempts to fix one problem tactically, only to have it appear somewhere else. But to be fair, monetary policy is only effective in coordination with the fiscal side and it cannot fix structural fiscal issues.

While it is clear that inflation is an immediate symptom of economic stress in the Indian economy in 2013-2014, a pure monetary policy approach to approach to inflation is unlikely to be productive. Here, we note that a simplistic western capitalistic approach would argue that inflation is purely a monetary policy issue and we counter that only in a perfect efficient market, may we make that simplistic assumption.

In particular, investment in India is down due to certain structural issues that lead to declining investor confidence in India's ability to delivery. In effect, investor belief that growth in core sectors such as agriculture and manufacturing is down due to structural issues that prevent productivity. Interspersed sequencing and stimulating of investment is a critical aspect of stable recovery. If the Indian government were to merely increase interest rates as well as the repo rate to combat inflation (open monetary policy), stabilize the exchange rate towards a fixed regime while keeping an open financial market, they would hit the

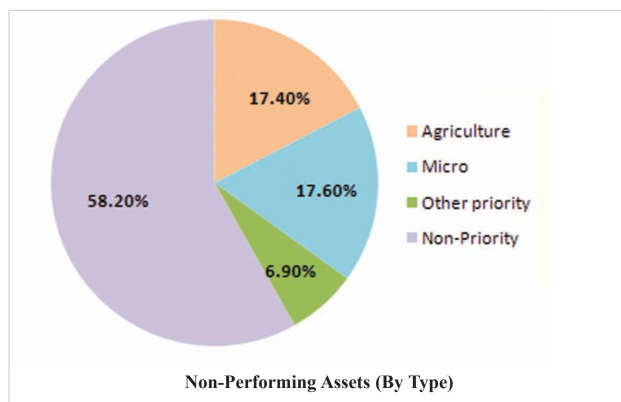


Source: RBI Report on Trend and Progress in Banking 2012-2013, Internal Analysis 2014

Non-Performing Assets (By Type)

Rs Crores	Agriculture		Micro		Other priority		Non-Priority	
All Banks	103,400	17.4%	104,500	17.6%	40,800	6.9%	345,800	58.2%

Source: RBI Report on Trend and Progress in Banking 2012-2013, Internal Analysis 2014



Non-Performing Assets (By Type)

Source: RBI Report on Trend and Progress in Banking 2012-2013, Internal Analysis 2014

boundary conditions of the tri-lemma.

India: Banking Threat

We now return back to our thread of proceeding from the danger of a triggering fiscal crisis to the robustness of the banking system should it happen. The economic indicators in the previous sector describe the inherent vulnerability as well as the growth and disparity challenges that have been amplified over the last decade but the Indian banking sector itself has threats and structural challenges that have made it vulnerable today. The greatest vulnerabilities in the banking sector come from a combination of its Non-Performing Assets/Loans (NPA/NPL) coupled with volume/price effect of increasing loans to the government. The banks have a faulty selection policy that is based on large collaterals/balance sheets whether it is governments or large industries that are ironically the most at risk. This results in a poor capital allocation as well as risk-reward management. In general, banks need to have well diversified portfolios that provide capital universally instead of moving closer and closer to "too big to fail" territory.

The banking sector is heavily exposed to riskiness through large corporates and infrastructure projects burdened with large debts that are now far more expensive to service. Groups like Adani, Essar, GMR, GVK, Jaypee, JSW, Lanco, Reliance ADA, Vedanta and Videocon, have been on a borrowing spree with their liabilities rising six-fold over the six years ending March 2013 to touch Rs 6.31 trillion. The bank loans to just these six groups account for 35 per cent of the gross bank credit outstanding from scheduled commercial banks to large industry and 28 and 11 per cent, respectively, of bank lending to industry and all sectors. This also amounts to over 98% of the net worth on the Indian banking sector. Bank exposure here is large enough to destabilize the banks if the firms concerned are in trouble. There is only one among these groups that has a debt equity ratio of less than one, two have ratios between 1 and 1.5, three have ratios between 2 and 4, another three between 4 and 5 and one with a ratio of 9.4. As a result of restructuring, the ratio of gross NPAs and restructured advances to infrastructural loans has risen from 4.66 per cent to 17.43 per cent between March 2009 and March 2013.

In sum, Indian banking is on the verge of what could be a crisis because of its exposure to both the Indian government fiscal indebtedness and its concentration in just a few large organizations with high NPA levels. While this may go unnoticed because of the other more visible problems that afflict the economy, it is critical to note that a sovereign default could in turn easily trigger a banking crisis in turn.

A substantial part of financing of the non-corporate sector is done by non-bank financial system, which includes Chit-funds, local moneylenders etc. Most of these funding operations are at exorbitant rates and also impact small businesses negatively. The monetary policy of the central Bank is not fully transmitted to these operations.

V. Summary and Action Plan

The Indian economy today in 2014 faces significant challenges that are both the result of external factors such as the global financial crisis as well as internal factors related to mismanagement, corruption and cronyism of the political regime. A slew of pay for play scandals over the last decade have eroded the financial system, leading to collapsing growth. In particular, in the Indian context today, the inflation is of concern. But as per [1] inflation targeting can only work with fiscal consolidation, financial restructuring and institutional reform. In their absence, any attempt to target will deliver more inflation than targeting.

As part of this exercise, we polled a set of stakeholders in the Indian and adjacent financial system for practical solutions for both short term and long term. These stakeholders included both consumers and suppliers of capital. The view of every stakeholder is influenced by his or her own agenda and context, but listening and integrating their views allows us to provide best solution to the country's current problem. Both immediate short term action as well as strategic long term action is needed. We must note that staving off a short-term crisis alone by borrowing from abroad or selling the country's assets, without putting in place actions for growth would be a disaster for the future.

In general with challenging situations as seen with the Indian economy today, there is no silver bullet and each stakeholder tends to bias the solution towards their best interests. However certain common themes appear to emerge from both the quantitative and qualitative input.

Top Critical Priorities

Both the data and stakeholder comment lay out distinct themes that direct our attention to the top critical priorities.

■ **Fiscal Stabilization:** The single most critical priority is government fiscal policy and the imminent danger of a fiscal crisis and potential sovereign default. The government's balance sheet and expenditure must shrink. In general, the government is borrowing more and more to fund its deficit. The fiscal crisis could rapidly turn into a systematic collapse if the interplay of fiscal and monetary policy from an external context comes into play in the shape of the unholy trinity of exchange rate, capital controls and monetary policy, aka the tri-lemma. This also involves a reduced role for the so-called Nehruvian government. While, overall fiscal deficits (as well as fiscal risks and contingent liabilities) must come down, there should be room left for reallocating government spending (and revenue raising) towards more growth inducing, employment generating and equitable composition.

■ **Investing for Growth:** The second most critical priority is seeding pockets of growth and reasons optimism that are based and structured around a performance mindset rather than a subsidization approach. One consistent message from all stake-holder irrespective of industry and context has been that the Indian government needs to rationalize, simplify and make decisions easy, simple and transparent with an emphasis on enabling capability rather than form filling. We will elaborate on this directive in the context of different industries in the nest section.

■ **Financial Architecture and Standards:** The third most critical priority is addressing the financial architecture and banking system to create a more broad-based financial sector with a better understanding of actual risk-reward portfolios as opposed to a collateral based approach. The banking system is failing in its risk management and portfolio diversification as well as its ability to practically

provide financial access where it is needed for growth and development as opposed to where it is most easily accessible.

Roadmap to Performance Based Growth

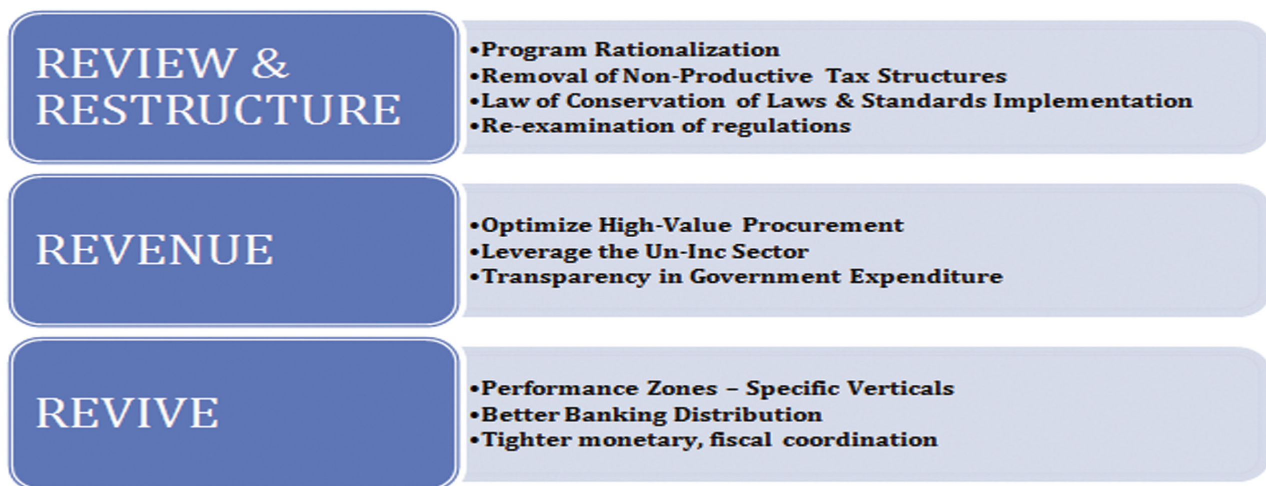
While crisis is an impetus for action, crisis management alone provides no roadmap for the future. However there is no question that looming crises must be addressed immediately and they provide the impetus for change. The consensus in the market is also looking for a clear change and decisive political leadership. While strong political leadership is the first step, India must also take the second step of creating growth because cutting expenditure alone will merely drive things into a death spiral.

In order to achieve the objectives of Stabilization, Growth and the Adoption of World-Class Standards, a roadmap of initiatives is required. This paper merely lays out a high-level summary of stakeholder input around each of these classes of initiatives.

We lay out 3 different categories of critical priorities as collated from stakeholder input below:

1. Review & Restructure: Reduce Inefficiency and Eliminate Corruption

■ **Program Rationalization:** Government expenditure is tied up in a morass of non-productive, subsidy spiral inducing programs. In order to counterbalance this, there is a need to find ways of steadily adjusting existing programs to incentivize self-sufficiency and productivity. As an example, a subsidy based program like MGNREGA, which creates poor assets and long term dependency, can be re-adjusted to be non-applicable during peak agricultural growing seasons. The solution should therefore include a third-party independent "asset audit" linked to incentives/ disincentives to promote asset quality improvement. The effectiveness of MGNREGA can be measured in terms of how soon it will taper off. These steps lead to controlling government expenditure and incentivizing greater productivity. Programs like minimum selling prices are shown to not benefit the subsistence farmer, to induce massive CPI inflation, to incentivize a drift to higher end produce that results in greater shortages and to engender a loss to the exchequer. These programs must be rethought incrementally to get the economic equation right. Petroleum taxes combined with subsidies is yet another example of programs



needing rationalization. Both the central and the state governments tax petroleum products heavily on one hand but subsidize them on the other. The fiscal crisis has amplified the taxation and created a lop-sided situation in which the consumer is misled into believing that domestic prices of petroleum products are going up because the world market prices are going up. In actuality it has to do with the burden of both central and state taxes.

- **Removal of Non-productive Tax Structures:** Some rationalization of the current tax structure in terms of contribution is essential. Income tax, in particular, is particularly ineffective in India because it is responsible for producing a minimal relative contribution and it is the root cause of black money. India gets less than 10 % of proceeds from its income tax and spends it through a dedicated staff of 60,000 IT officers. In terms of GDP, the Direct Tax to GDP ratio is about 6%. Furthermore, it is the source of most black money that is then repatriated abroad in secret accounts. Therefore, the direct income tax is effectively a net negative contributor to the economic health. Rebalancing the economic equation requires the removal of low contribution activity and replacing it with progressive consumption based taxation coupled with the repatriation of black foreign reserves. In order to sweeten the impact of this action, a limited amnesty could be provided in the form of amnesty in return for a 30% fine on such assets. We could allay fears of currency risk by allowing holding of foreign currency in local Indian bank accounts by Indian nationals and that would both provide greater stability by limiting capital flight and increase the domestic capital.

- **Law of Conservation of Laws:** Instead of a continually burgeoning set of rules, most stakeholders wished for fewer rules which were more transparent, consistent and more aggressively implemented. The action item is to start to prune and simplify rules/regulations, while simultaneously tightening monitoring and enforcement. In countries like Singapore or the US, it takes 1 day to incorporate a company. In comparison, in India it takes nearly 6 months to set up a new entity. A critical aspect of any solution that takes the system forward is to simplify/prune activities but ensure that remaining activities are held to a world class standard. Financial standards merely provide the backbone that allows the stakeholders to conduct their activities with greater ease. Indian stakeholders all around have requested actual implementation of consistent, stable, non-retro-actively modified financial rules and standards. Of note, financial standards will not work in the absence of governance principles and in the presence of corruption. In general, it is naïve to think that transparency and disclosure standards will solve the problems in a financial system. Capital standards cannot work without accounting standards, rules in place and legal standards will not work without an effective and independent judiciary. Thus, while it is good to put the standards in place, active and continual management of the fiscal system by both the government and regulatory bodies is the primary activity that keeps the stability.

India has created a huge non-performing regulatory framework at Municipal/State and Central levels. These are used by many of the agents of the state for extortion and bribery. There is an urgent need to abolish lots of these regulations and initiate simple laws where punishment is severe and swift. Under the current dispensations cases can drag on for decades with low level of punishment

2. Revenue and Recognition: : Create New Inflows and Competencies Track Existing Flows Correctly

- **Provide Outsourced High Value Add Services:** In terms of verticals that would trigger manufacturing

capability; India would benefit from greater emphasis on defense capabilities -- perhaps triggered by outsourced regional defense services contracts from the west that is struggling with the cost issues of patrolling the region. Both the nuclear and space program have cleared the international bar so it is un-doubtable that those types of indigenous manufacturing capabilities can be enabled to encourage Indian sourcing. We recognize that there is a strong need to put focus on manufacturing given it's extraordinarily low growth coupled with its importance to high value add employability in the Indian context. Such generation of external revenue would stimulate internal competency down the value chain of manufacturing. In addition, manufacturing like most sectors would benefit from transparent regulatory requirements that also focus on capability assessment rather than form filling - the ability to demonstrate the ability can then be tracked based on actual performance. Some labor reform is critical so as to allow competitive exit perhaps in a graduated manner but it must be counterbalanced by more standards rather than certification in labor training that uses practical mandated internships to bridge a yawning gap between education and employability. Finally, manufacturing like all other sectors in the Indian system looks for "make it easy" by putting all enablers in one place -- infrastructure, roads, power, logistics with single window clearance naturally with transparent checks. In general, the message of greater end-to-end connection and quality must be heard (the last mile is consistently lacking in Indian planning).

■ **Leveraging the Un-Inc. Sector:** The dominant focus of western economic and investment towards India has been on the large corporates and government organizations. In reality the unorganized sector, the dominant section of livelihood for Indians, remains ignored. This group is not easy to address but forms 40% of overall savings (the household sector forming 75-80% of savings). A critical imperative is getting the savings rate up again and getting both investment and returns from this sector. At the heart of getting that result, is Indian entrepreneurship. As opposed to western entrepreneurship that is built on high write-down rates and big hits, Indian entrepreneurship has always been about steady cash flow but small expectations as evidenced by the ever-present local Kirana stores and vegetable sellers. There are two aspects of this: firstly this sector has to be provided a way to receive investment and to generate returns in new ways. They need to get credit at appropriate rates and in time. To affect this result, the non-bank financial system should be streamlined and developed at the local levels. For a sector like agriculture, this is about increasing agricultural productivity with investment in new methods. For a sector like the trade sector, it is about making it competitive with new technology and capital. Irrespective of the sector, the focus away from the government and large corporates is critical to enabling this very important section of the economic population. Combing the need of local partly community-owned self-sufficiency and critical industry to a balance of payments, leads us to recognize the importance of local production/consumption hubs of industries like Energy and Agriculture. A critical aspect of rightsizing our balance of payments is to develop local alternative energy(e.g. solar). In particular locally generate-able and distributable solutions like local solar. Big power projects and subsidy-based approaches have been fraught with lack of competitiveness and corruption, which lead to overall drop in GDP over time. Approaches to alternate energy must be done so as to make it a UNINC sector enterprise, which creates local self-sufficiency, much in the nature of energy cooperative.

■ **Better Tracking of Government Expenditure:** We have already discussed the issues with the Indian fiscal deficit, in particular current account deficit.

Unlike developed nations, in India tracking government expenditure is in itself fraught with issues. A first step in using money better, is tracking money flows better. This starts with the government itself that current runs its accounting on a pure cash basis rather than accrual, leading to a system that has no understanding of the impact of government decisions on the balance sheet of the country. Moving to a cash plus registry based accounting would be the first step towards better tracking. But beyond that digitization of electronic payments would be the next step. Rather than drive this by mandate and subsidy, the creation of programs that enable people to realize the positive benefits of electronic transfer would be preferable. While it wouldn't change the inherent nature of cash and carry businesses, it would enable new flows to occur through the more efficient channels. At the extreme of technology, electronically tagging all currency through RFID tags, could in effect allow one to bitize and track all monetary transactions. Today, these types of technology are a reality. Irrespective of how far down the path one chooses to go, taking the first step is at least better accounting for expenditure and its residual impact. This is a critical action item towards making better use of the country's money.

3. Revive: Create Centers of Excellence and Catalyze Growth

■ **Performance Zones, Clusters and Hotspots.** There is a critical impetus to find and seed good ideas that quickly start moving the nation towards a performance oriented growth culture. Small wins and early results are hard if one should attempt to immediately put in place systematic transformation to simultaneously create broad-based world-standard financial systems, architecture and standards. Much of the idealist instantiation of a perfect financial system and architecture has been laid out in section I. with more detail in the background references. However a practical roadmap must find implementable small quick wins that lead one towards the ideal. One of the most repeated input from both suppliers and consumers of capital has been "make it easy to do business in a performance focused manner". India has the unique advantage of being strategically located between the west and the east, exactly halfway around the world from North America. Thus, it is possible to emulate models like Singapore for small initial pockets within India. The notion of a "performance zone or cluster or hotspot" would be very compelling to business that wants to be able to execute at world-class norms. Within this cluster, there would be a financial architecture comparable to Singapore - ahead of the curve of broad-based Indian roll out. Instead of inheriting a morass of regulatory, tax and subsidization legacy, these clusters would be subject to higher standards and shorter approval times. There would be zero tolerance for corruption in these zones, which would be monitored more strictly and the ability to operate in the zone would be determined by performance. The zones would have zero reservations and labor laws would simpler. The cluster would have higher standard infrastructure such as un-interrupted 24x7 power, better connectivity in return for a willingness to pay for the higher service level. In return their tax contribution would be a flat percent of performance, thereby creating an incentive for alignment between the goverment and zone entities. As each performance cluster reaches a certain size, new clusters would be created elsewhere. There are more than 800 clusters geographically spread over the country doing business with different types of activities. These can be leveraged and incorporated under the proposed system. Financial performance zones have different performance requirements from agriculture performance zones, manufacturing performance zones or trade performance clusters. Inter-cluster transference must be standardized; potentially

through the passage of the long proposed GST reform.

- **Better Banking Distribution:** There are 3 critical imperatives to reshape the fragile banking system: Firstly the current log jam has to be broken with a move to a more robust functioning financial architecture, secondly the metrics for capital allocation should be rethought to a more balanced risk-reward portfolio as opposed to a collateral focused approach and finally new types of banks that are customer cluster focused need to emerge. In general, the banking sector should move to a performance and risk-reward based capital allocation as opposed to its current mandate combined with large collateral allocation process. In order to do this, a multi-tiered (customer/local specialized as opposed to product specialized) banking regime is required that encourages the development of local community owned banking. This must be done in conjunction of the implementation of better banking and financial standards that were described in earlier sections. Additionally, non-bank entities should be developed with appropriate regulatory framework at the local levels to meet the ever-increasing demands for credit of the non-corporate sector. "Stakeholder input has emphasized the need for financial system reform that creates well defined, efficient, fast bankruptcy and re-organization standards. Currently it may take several decades before effective re-structuring of distressed enterprises is possible. At the lower end, financial inclusion can only be practically achieved if the smaller accounts were not subject to full account regulatory requirements and process but could potentially be a telco-bank combine light version."

Tighter Fiscal, Monetary and Private Coordination: Despite a strong interplay between fiscal and monetary policy characteristic of an emerging market, there has historically been poor coordination. Thus, monetary policy is reduced to be reactive and tactical - more often than not is used as a blunt instrument that is unable to address the root causes. An alternate is more coordinated Band-managed, Crawl monetary policy that is executed in concert with fiscal changes and lock stepped to the long-term goal of a balanced budget. The Singaporean example illustrates such as situation. Instead of a clear separation between public and private entities, performance oriented entities with the government as a minority partner and limited interference would benefit both the exchequer and private industry. Our debt situation suggests that some measure of privatization is going to be necessary. However, distressed sales of hemorrhaging government assets at cut rate would not give any future upside or investment recovery to the Indian nation.

Thus, a partial divestment where the government retained the rights to the economic upside while divesting control and partial economic rights to the private sector, could be effected in such a case. This would create regulated but transparent entities with participation of the nation in the economic upside. The same rules would apply to the creation of new entities by the government. Pure public sector enterprises would be discouraged but the public as a minority stakeholder would be a possibility. Conversely, there are dangerously non-performing debt laden private enterprises that may be in imminent need of bailout. Rather than that the exchequer be presented with the negatives of the liabilities without an appropriate risk-adjusted return, it is suggested that any bailout be done with partial privatization and on terms that provide the government a sufficient risk adjusted return for their role. It is critical to note that any privatization of public sector enterprises or bailout must be done on terms that make economic sense with ownership to both the exchequer as well as the employees to ensure everyone is an appropriate participant in the economics or control. A cautionary

note must be added that no privatization is better than a situation where there is blind poorly architected economic transference from the exchequer to the private sector.

In all these activities, there is a clear need for creation of coordinating bodies such as exist in the Singaporean nation that create and enable continuous stakeholder alignment between fiscal, monetary and private parties. These bodies should serve the alignment function while the roles of government bodies such as Ministry of Finance, RBI, SEBI, the banking institutions etc. should be clearly delineated to limit encroachment. There is an element of conflict of interest in the linkages between RBI and the banking institutions. For example, RBI is represented on the Board of SBI, whereas RBI is expected to be a banking regulator. The SBI Act should be suitably amended. The Finance Ministry, as the owner of the majority shareholding in PSU banks, is represented on the Boards of the PSU banks. There are better ways to define the relationship between the promoter of a PSU bank and its management. The banks should be at an arms length distance from the government and should be subject to healthy competition.

The table below elaborates the key solution notes and their expected impact of each of these potential initiatives.

I. REVIEW& RE-STRUCTURE			
Area	Critical Issues	Potential Solution	Impact
a. Program Rationalization	- Widespread non-productive subsidization based programs (e.g. MNREGA, MSP). - Creation of dependency cycles that remove self reliance. - Low productivity and competitiveness.	- Keep programs but gradually prune their applicability (e.g. restrict applicability of MNREGA during agricultural peak seasons). - Require payback on program participation as % of produce. - Measure effectiveness by taper off metrics.	- Yearly reduction of 10-20% on programs towards self reliance.
b. Tax Rationalization	- Poor contribution & widespread subversion of certain tax programs (e.g. DirectTax to GDP ratio is around 6%). - Contribution to both corruption and black money bolstering an insidious parallel economy.	- Progressively raise IT ceiling and create a flat tax. First year start with an INR. 25 lakh threshold. - Move to consumption based taxation to counterbalance consumption of public good. - Repatriate existing black money deposited abroad with amnesty based on 20-30% recovery penalty.	- Removal of source of black money. - Removal of low contribution revenue sources. - Gain from repatriation.
c. Law of Conservation of Laws and Standards Implementation	- Regulatory framework that creates big opportunity for corruption and politically motivated implementation through ambiguity. - Distrust for the government. - Lack of ease of enforcement and monitoring.	- Prune regulatory framework to ensure fewer but more consistently enforceable rules. - Ensure regulatory/policy certainty, regulatory/policy transparency and regulatory/policy predictability. - Remove post-facto retroactive regulatory changes. - Practice implementation of benchmark financial standards. - Rigid enforcement of existing rules post-rationalization. - PSU's should be at an arms length distance from the government.	- Enhance trust and confidence in the government and sovereign. - Reduce opportunities for interpersonal variances. - Reduce corruption.

2. REVENUE & RECOGNITION			
Area	Critical Issues	Potential Solution	Impact
External Services, and Internal Savings Returns	- Current account deficit and balance of trade crisis require action. - Large demographic with need for immediate high value added services revenue.	- Provide high value add regional defense services that boost government sector revenues and stimulate internal high tech, strategic competencies and address needs of the external partner. - Provide outsourced high value add services such as healthcare. - Use internal pension savings better (about 10 percent of GDP and growing for economic development.	- Leverage immediate high value added services revenue. - Provide employment without subsidization. - Build much needed high end manufacturing capabilities as this percolates down the value chain. - Bridge the current account deficit.
Leverage the Un-Inc Sector	- High external dependency on foreign investment through majority of capital formation is domestic. - Very poor leverage/access to Un-Inc sector.	- Creation of community oriented local participatory business units. - Local independence in critical BOP sectors such as energy, agriculture co-ops etc.	- Appropriate functioning model for the Indian context. - Local self-sufficiency. - Bolster the dominant anchor of domestic savings.
Transparency in Government Flows	- High leakage in government spending. - Self interest driven expenditure.	- Require fiscal risk and contingent liability management office, and make such statement in each budget, at all levels of government. - Movement of government accounts from cash accounting to cash and registry accounting. - Incentives for electronic payments. - RFID/ electronic tagging of currency. - Implementation of fiscal responsibility & budget management act	- Better tracking and monitoring of cash. - Better fiscal responsibility

3. REVIVE			
Area	Critical Issues	Potential Solution	Impact
Performance Zones	- No easy way to move a large economy with high disparity. - Existing infrastructure has a morass of inconsistent, conflicting, ambiguous regulatory imperatives. - Investor capital is wary of entry into the Indian market.	- Create economic performance rules operating in a different context. - Provide 24/7 availability but charge higher rates. - Provide ease of incorporation (1-5), non-onerous board director requirements, ease of dissolution. - But impose zero tolerance with strict monitoring and decisive removal from zone upon infractions. - Attract Internal and Foreign develooment investment.	- Create opportunities for unfettered growth but with higher governance standards. - Create world-class pockets. - Alleviate the current account deficit and attract all capital flows.
Better Banking Distribution	- Banking system is not deploying capital where it's needed. - Concentrated too big to fail NPL situation. - Development is being stifled by poor capital deployment.	- Multi-tiered banking with more local community banking. - Stringent NPL and portfolio managed risk rules. - Risk based super vision of banks. - Allow storage of foreign denominated holdings in local banking with two sets of books to isolate domestic from external banking. - Remove conflict of interest in the link ages between RBI and the PSU banking institutions - Better and faster bankruptcy and re-organization standards - Reduced paperwork and no-full-account standards for smaller accounts - Leverage telco pervasiveness for banking accounts"	- Capital becomes available for development. - Distribution of risk with greater robustness. - Stronger balance sheet providing government with greater reserves.
Tighter Monetary, Fiscal and Private Coordination	- Despite strong interplay between fiscal and monetary policy, poor connectivity to date. - Public enterprises are sub-optimally run or providing limited value to exchequer. - Need to auction assets to address deficit.	- Management of monetary policy in bands. - Coordination with fiscal to move towards long term targets independent of political as opposed to reactive policy (a la Singapore). - Partial privatization through divestation of government assets where government retains economic upside interest. - When required to shore up failing private enterprises, government only intervenes on a risk-adjusted return basis. - Delineate roles of Ministry of Finance, RBI, SEBI, the banking institutions etc.	- Better alignment with fiscal, monetary and private sector. - Strengthen alignment. - Economic interests of nation are preserved.

VI. Conclusion

In examining all the macro-economic and fiscal variables, we are forced to conclude that India is at a very high risk of a financial crisis. This situation did not develop overnight but is the result of 5-10 years of fiscal mis-management, mis-appropriation, coupled with an incomplete financial architecture and system that is not delivering capital efficiently where it is needed as well as most likely to provide risk-appropriate returns. Having articulated the need for evolution towards a more developed architecture and system, it is also critical to note that a blind imposition of top-down western capitalism has not and will not work in the Indian context, with the caveat that the socialistic approach has not worked either in the Indian situation. The Indian solution is therefore unique and requires one to thoughtfully blend best practices to achieve a middle ground that will take the largest democracy in the world to a better economy.

Both immediate short term actions as well as strategic long term action is needed. If the nation chooses to stave off the short-term crisis alone by borrowing from abroad without putting in place both a strategic plan for fiscal restructuring as well as growth, it would compound the nations past mistakes. With high probability the most likely scenario is a sovereign default or fiscal crisis first that in term triggers a banking crises in sector weakened by alarmingly large non-performing assets. We see this picture in numerous fiscal, monetary and social indicators and we must acknowledge this message. But we also note with optimism that there are solutions that can be implemented and the task of the new government is to demonstrate uncharacteristic strength and leadership required to go forward towards a positive future by taking strong, correct, decisive action.

This paper merely covers the first step in this assessment and actions path. Future work will delve deeper into individual areas and develop more detailed action items and roadmaps to the future in individual areas detailed in this work.

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