

Global Economic Recession and Indian Economy Before and After Recession: An Empirical Investigation

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Abstract: *The present study attempts to analyze the Global economic recession and Indian economy before and after recession which is one of the fast growing economies of the world. Due to global recession, Indian economy is facing a challenge. Subsequently, economic activities are bound to slowdown. The global economic recession, has its beginning in the United States housing sector back in 2001-02, but gradually extended over a period of time and eventually brought the entire world under its clasp. Although, in the beginning Indian officials denied the impact of global economic recession affecting the Indian economy yet later the government had to concede the fact that economic recession will have some impact on Indian economy. The present paper confirms that various sectors of Indian economy are affected by global recession, to a certain extent.*

Keywords: Global Economic Recession, Slowdown, Indian Economy, Macro Economic Indicators

1. Introduction

Recession is a form of normal business cycle. Recession may be a traumatic or stressful change in political, economic, military affairs and large-scale environment event. The recent economic recession is widely viewed as a glaring example of limitless pursuit of greed overindulgence at the expense of caution, prudence, due diligence and regulation. The origin of current economic recession back to mid2007, when three things became clear-Low income or sub-prime US households that had borrowed heavily from banks and financial companies to buy homes, the size of this sub-prime housing loan market was huge at about \$1.4 trillion and wall street financial engineers had packaged these loans to really complicated financial instruments (M. Rakshit).

Since 2001 to 2006 U.S.A. economy was economically sound and the interest rate prevailing in various sectors were low, prices of houses were continuously increasing because lower rate of interest and banking sector was incurring lower profit. There the banks and financial institutions in USA had thought a new idea regarding the lending, in which high rate of interests were charged and loans were given to the sub-prime lenders for purchasing the houses. These were fully aware about the risk involved in sub-prime lending for housing but they have taken such risk on the belief that housing prices would never fall.

Investment in housing sector was found to be profitable to the speculators as well as banks, due to the continuously rising prices of the houses. Americans have made huge speculative investment in housing sector. It caused a rise in demand for houses and housing loans in US. In order to fulfill the demand for huge loans for housing, the funds available with banks and financial institutions were found insufficient. Therefore, American banks and financial institutions introduced a new credit weapon called Mortgage Bonds. The basis of these mortgage bonds was the houses

already mortgaged by the people for borrowing housing loans were again mortgaged by artificially increasing the prices of houses more than their actual prices. These mortgage bonds were sold in international market. Large amounts of funds were collected by American banks by selling these mortgage bonds. These funds were utilized for financing the housing loans in US.

The housing bubble based on sub-prime loans burst in 2006-07. In the same year housing prices had declined after 15-16 years. It adversely affected the speculative investment made in housing sector. Those who had invested in houses to earn profit, have to face losses. Therefore, they stayed to sell the houses but due to lack of demand, houses could not be sold. Huge over dues of housing loans were not repaid by the borrowers. Banks and financial institutions did not succeed in the recovery of these loans. The price of mortgage bonds started a steep fall resulting in loss for those who invested in mortgage bonds. Hence, the liquidity problem in America became very serious. Meltdown set in the third quarter of the year 2007. The large banks like Lehman Brothers, Merrill Lynch had declared bankrupt. In USA, 19 large banks and 100 private institutions were declared bankrupt. Thus, the default in mortgage loans for housing is the primary reason for the recession sweeping the world (SurajWalia).

2. Meaning of Recession

A Recession is a contraction phase of Business cycle, a general slowdown in economic activity over a period of time. A global recession is period of global economic slowdown in prosperity. Recession is the economy shrinking for two consecutive quarters (six months) with a decrease in GDP.

GDP= Value of all the reported goods and services produced by the people operating in the country. The macroeconomic indicators during the recession are production as measured by GDP, employment, investment spending, capital

utilization, household incomes, business profits and inflation all fall during recession, while bankruptcies and the unemployment rise.

According to National Bureau of Economic research (NBER) defines an economic recession as

“A significant decline in the economic activity spread across the country, lasting more than a few months normally visible in real GDP, growth real personal income, employment, industrial production on wholesale-retail sales”.

“A global recession is a period of global economic slowdown. The IMF takes many factors into account when defining a global recession, but it states that global economic growth of 3 per cent or less is equivalent to a global recession.

3. Review of Literature

R Mohan, Deputy Governor, RBI (2008) in his speech during IMF-FSF meeting analyzed the impact of financial turmoil on emerging and Asian economies. Observations given by him were that India's growth process is mostly domestic demand driven and country is having comfortable foreign exchange reserves. Further the financial stability in the country has been achieved by prudent policies which prevents from excessive risk trading.

Crotty (2009) locates the deep cause, on the financial side, of the current crisis, in the New Financial Architecture (NFA) and the radical financial deregulation process associated with its institutions and practices. He argues that the current crisis is but the latest stage in a series of financial boom and bust cycles, stretching back to the late 1970s, in which financial deregulation and innovation alternated with government bailouts to allow renewed expansion after each crisis. Crotty provides an enlightening account of disaster gradually spreading and eventually hitting through a careful point-by-point refutation of the main hypothesis and claims of the proponents of the NFA.

Walia (2012) analyzed the impact of global economic crisis on Indian economy using some indicators such as saving, investment, export and import, foreign exchange reserve and level of employment in a considerable manner for the period 2000 to 2012 and used compound growth for this impact. He concluded that Indian economy is also suffered from global economic crisis. **Patnaik (2008) and Kregel (1998 & 2008)** in their study identified that a noteworthy feature of the current global crisis has been the failure of most mainstream analysts to predict its onset, estimate its duration and severity or lay bare the mechanisms that contributed to its unfolding. This weakness of telescopic and analytical faculty has been most evident with respect to developing Asia, especially China and India.

Long, Li, et al (2012) conducted a study on impact of U.S financial crisis on different countries: based on the method of functional analysis of variance. This paper made a comparative analysis on the economic development process and the degrees crisis-affected in financial crisis of five categories countries. In this paper, the method of Functional

Analysis of Variance (FANOVA) was applied to make a comparative study on the economic development process of different types of countries, including the differences on the economic growth rate, the time of economic recession, the extent of the recession and recovery situation of the economy. Moreover, the paper performs a dynamic test on the significance of the difference on the economic growth rate during the whole stage.

Objectives

- 1) To study the framework of both the concepts of Global Recession and Indian economy.
- 2) To assess the impact of recession on Indian Economy through the indicators namely, sectoral growth, external sector, gross domestic product and productivity.

4. Methodology

Since the globalization, it is explicit that the shocks in the world economy may affect the Indian economy also. There is a need to assess those effects on our economy is the need of hour. In the light of that purpose this paper aims to assess the impact of 2008 global economic recession on India's sectoral growth, external sector and gross domestic products. To assess that effects, secondary data of India's sectoral growth, external sector and gross domestic products from the economic survey and Reserve Bank of India has been used and with the help of the statistical tools such as simple growth rate, per centage and average an analysis has been carried out.

In the analysis, forty four years data has been taken as decade wise. The period from 2001-2002 to 2014-15 has been divided into pre-recession, recession and post-recession period.

Causes of global recession

The hint of the trouble came from the collapse of two Bear Stearns hedge funds early 2007. Subsequently, a number of other banks and financial institutions also began to show signs of distress. Matters really came to the fore with the bankruptcy of Lehman Brothers, a big investment bank, in September 2008.

The reasons for the recession are varied and complex. Some of them include boom in the housing market, typical characteristics of US financial system failure of global corporate governance, inaccurate credit ratings, oil prices, inaccurate economic forecasting, mismatch between financial innovation and regulation, fair value accounting rules, poor regulation and high-risk mortgage loans and lending practices.

Boom in the housing market Sub-prime borrowing was contributor to an increase in house ownership rates and the demand for housing. This demand helped fuel housing prices increase and consumer spending. Some house owners used the increased property value experienced in housing bubble to re-finance their homes with lower interest rates and take second mortgage against the added value to use the purchases during the boom period eventually led to surplus inventory of houses causing house prices to decline, begging in the summer of 2006 easy credit, combined with the

assumption that housing prices would continue to appreciate had encouraged many sub-prime borrowers to obtain adjustable-rate mortgages which they could not afford after the initial incentive period. Once housing prices started depreciating moderately in many parts of the US, re-financing became more difficult. Some house owners were unable to re-finance their loans reset to higher interest rates and payments amounts. Excess supply of houses placed significant downward pressure on prices. As prices declined, more house owners were at risk of default and foreclosure (Mishra, et al).

High-Risk Mortgage Loans and Lending Practices: A variety of factors caused lenders to offer high-risk loans to higher risk borrowers. The risk premium required by lenders to offer a subprime loan declined. In addition to considering high-risk borrowers, lenders have offered increasingly high-risk loan options and incentives. The high-risk loans included “No Income, No Job and No Assets Loans”. It is criticized that mortgage underwriting practices including automated loan approvals were not subjected to appropriate review and documentation.

Speculation: Speculation in real estate was a contributing factor. During 2006, 22 per cent of houses purchased (1.65 million units) were for investment purposes with an additional 14 per cent (1.07 million units) purchased as vacation homes. In other words, nearly 40 per cent of house purchases were not primary residences. Speculators left the market in 2006, which caused investment sales to fall much faster than the primary market.

Inaccurate Credit Rating: Credit rating process was faulty. High ratings given by credit rating agencies encouraged the flow of investor funds into mortgaged-backed securities helping finance the housing boom. Risk rating agencies were unable to give proper ratings to complex instruments (Gregorio 2008). Several products and financial institutions, including hedge funds, and ratings agencies are largely if not completely unregulated.

Impact of Global Economic Recession on Indian Economy

The old saying “history doesn’t always repeat itself, but often rhymes”, is based on fact that fiction. It’s been a lot of time we hear of “Recession” going on in US market. Everyone is talking about recession. We cling to newspapers, television and news channels, and financial reports only to discover “what next” in recession. It would be naïve to imagine that a recession in the United States would have no impact on India. The United States accounts for one-fourth of the world GDP. The fears of US recession led to a panic in the Indian economy.

The Indian economy had performed well during the last two decades, resulting in high growth of real Gross Domestic Product (GDP), besides increase in domestic savings and increase in investment and productivity. India could not

insulate itself from the adverse developments in international financial markets, despite having a banking and financial system that had little to do with investments in structured financial instruments carved out of subprime mortgage. Though, the epicenter of the economic recession was the US subprime mortgage market, its agitations are being felt in financial markets all over the world. Although in the beginning Indian officials denied the impact of global economic recession affecting the Indian economy yet later the government had to acknowledge the fact that global recession will have some impact on the Indian economy.

The US recession which shook the world had little impact on Indian economy, because of India’s strong fundamental of the economy, well regulated banking system and less exposure of Indian financial sector with the global financial market. Perhaps this has saved Indian economy from being swayed over instantly. Unlike in US where capitalism rules exist, in India, market is closely controlled by the government. The recession in the US has not created any credit crunch in Indian economy but the credit crunch in US led to panic in India. After a long spell of growth of Indian economy experiencing a downfall, faltering of industrial growth, double digit inflation, widening of current account deficit etc.

The global recession affected the health of several sectors of Indian economy through distinct channels: sectoral growth, gross domestic product and export sector.

Impact on Sectoral growth

During the recession the industrial growth as well as agricultural growth were also hampered. The main reason behind that was depressed demand from the export markets as well domestic markets resulted from unemployment due to recession. The liquidity squeeze created in global markets had hampered the Indian companies’ credit facilities from the foreign institutional institutes and compelled to shift to Indian banks resulting that in credit crunch in domestic markets. With the increased risk in overseas markets, Indian banks also curtailed the credit expansion for the domestic money demand and this led to the drastic fall in industrial as well as agricultural production data also. In the phase of uncertainty and to manage their balance sheets the banks and the financial institutes curtailed credit available in automobile, housing and consumer durables. In manufacturing sector, the growth has come down to 4.0 per cent in April-November, 2008 as compared to 9.8 per cent in the corresponding period last year. As per the Reserve Bank of India (RBI) reported it was a drastic fall in credits and resulted into lower demands from the consumer side. The service sector which contributes more than 50 per cent share in total GDP of the nation and main growth indicators also slowed down specifically banking, financial services, transport and communications, hotels and restaurant services (RBI, Report 2012-13). The below table analyses the impact of recession on India’s sectoral growth:-

Years	Primary sector (Agriculture, Fishing and Forestry)	Secondary sector			Tertiary sector			
		Mining and Quarrying	Manufacturing	Electricity, Gas and Water supply	Transport, Storage, Communication, Trade and Hotel	Construction	Finance Insurance, Real estate and Business	Community, Personal and Social services
1971-72 to 1980-81	2.1	4.8	4.6	7.1	5.3	3.7	4.3	3.8
1981-82 to 1990-91	3	7.3	5.8	8.4	5.8	4.6	8.9	6.3
1991-92 to 2000-01	3.2	4.5	7	6.5	8.5	4.7	7.5	7.1
Pre-Recession Period								
20001-02 to 2006-07	2.8	5	8.3	6.5	10.1	11.9	9.1	4.1
Recession Period								
2007-08 to 2009-10	0.4	3.9	7.5	5.2	8.6	5.8	10.3	11.4
Post- Recession Period								
2010-11 to 2014-15	3.4	-0.3	2.4	5	4.2	4	11	5.1

Source: Handbook of statistics on Indian Economy Reserve Bank of India Bulletin Various Issues

The above table 4.1 depicts that the growth rate of agricultural and allied activities was 2.1 per cent in 1971-72 which increased to 3.0 per cent in 1980-81 and 3.2 per cent in 1990-91 but it decreased to 2.8 per cent in pre-recession period and 0.4 per cent in recession period. It occurred due to fall in demand of India's goods and services in USA because America is the biggest importer of India's goods and services. But this sector shows recovery in post-recession period and the growth rate becomes 3.4 per cent.

The table also depicts that the growth rate of Mining and Quarrying was 4.8 per cent in 1971-72 which had been increased to 7.3 per cent in 1980-81 and decreased to 4.5 per cent in 1990-91. The growth rate was 5.0 per cent in pre-recession and decreased to 3.9 per cent in recession period and -0.3 per cent in post-recession period. It did not show any recovery in post-recession period.

The table also shows that the growth rate of Manufacturing was 4.6 per cent in 1971-72 which increased to 5.8 per cent in 1980-81, 7.0 per cent in 1990-91 and 8.3 per cent in pre-recession period but the growth rate decreased to 7.5 per cent in recession period and -0.3 per cent in post-recession period. It occurred due to fall in demand for India's iron ore and decline in India's exports mainly garments exports.

It is analyzed from the table that the growth rate of Electricity gas and water supply was 7.1 per cent in 1971-72 which increased to 8.4 per cent in 1981-82 but it decreased to 6.5 per cent in 1991-92 and remained same in pre-recession period and decreased to 5.2 per cent in recession period and 5.0 per cent in post-recession period.

It is also analyzed from the table that the growth rate of transport, storage, communication, trade and hotel was 5.3 per cent in 1971-72 which increased to 5.8 per cent in 1981-82, 8.5 per cent in 1991-92 and 10.1 per cent in pre-recession period, 8.6 per cent in recession period and 4.2 per cent in post-recession period. This sector does not show any recovery in post-recession period.

It is also analyzed from this table that the growth rate of construction was 3.7 per cent in 1971-72 which increased to 4.6 per cent in 1981-82, 4.7 per cent in 1991-92, 11.9 per

cent in pre-recession period but decreased to 5.8 per cent in recession period and 4.0 per cent in post-recession period.

This table also depicts that the growth rate of finance insurance, real estate and business was 4.3 per cent in 1971-72 which increased to 8.9 per cent in 1981-82 but decreased to 7.5 per cent in 1991-92 and increased to 9.1 per cent in pre-recession period, 10.3 per cent in recession period and 11.0 per cent in post-recession period. There is not any effect of recession on this sector.

It is also concluded from this table that the growth rate of community personal and social services was 3.8 per cent in 1971-72 which increased to 6.3 per cent in 1981-82, 7.1 per cent in 1991-92 but it decreased to 4.1 per cent in pre-recession period. The growth rate of this sector was 11.4 per cent in recession period decreased to 5.1 per cent in post-recession period.

Impact on External sector

Sluggish export markets have also very adversely affected export-driven sectors like gems and jewellery, fabrics and leather, to name a few. For the first time in seven years, exports have declined in absolute terms for five months in a row during October 2008-February 2009 in a globalized economy, recession in the developed countries would invariably impact the export sector of the emerging economies. Exports growth is critical to the growth of Indian economy. Export as a percentage of GDP in India is closer to 20 per cent. Therefore, the adverse impact of the global recession on our export sector should have been marginal. But, the reality is that the export is being and will continue to be adversely affected by the recession in the developed world. Indian merchandise exporters are under extraordinary pressure as global demand is set to slump alarmingly. Export growth has been negative in recessionary months and the government has scaled down the export target for the current year to \$175 billion from \$200 billion. For 2009-10 the target has been set at \$200 billion (Economic survey, 2013-14). The below table is presenting the growth rate of export and import:-

Export and import growth rate (value in US \$ in Million, in percentage)

Years	Exports	Imports
1971-72 to 1980-81	15.4	19.4
1981-82 to 1990-91	8.2	5.1
1991-92 to 2000-01	9.7	11.2
Pre-recession period		
2001-02 to 2006-07	21.6	27.0
Recession period		
2007-08 to 2009-10	4.6	6.9
Post-recession period		
2010-11 to 2014-15	6.4	5.9

Source:-Handbook of statistics on Indian economy Reserve Bank of India Bulletin Various Issues.

The above table 4.2 shows that the growth rate of export was 15.4 per cent in 1971-72 which decreased to 8.7 per cent in 1981-82 and it increased substantially to 9.7 per cent in 1991-92 and 21.6 per cent in pre-recession period. But due to the impact of recession the growth rate of export eroded to 4.6 per cent in recession period. But with effect of the export specific stimulus measures adopted in Indian economy, started stimulating the exports and as a result the growth rate of exports became 6.4 per cent in post-recession period.

The table also shows that the growth rate of import was 19.4 per cent in 1971-72 which decreased to 5.1 per cent in 1981-82 but due to the impact of liberalization the growth rate of import increased to 11.2 per cent in 1991-92 and 27.0 per cent respectively in pre-recession period. But the growth rate eroded to 6.9 per cent in recession period and 5.9 per cent in post-recession period.

Impact of recession on India’s Output/GDP

The Indian economy has shown negative impact of the recent global financial meltdown. Though the public sector in India, including nationalized banks could somehow insulate the injurious effects of globalization as we are also part of the globalization strategy of new-liberalization, there is a limit of our ability to resist global recession, which may change into a great depression. The impact of the recession was significantly different for the Indian economy as opposed to the western developed nations.

Below the India’s GDP growth rate table is given to show the impact of economic crisis on GDP growth rate for the country. Economic growth is the increase in value of the goods and services produced by an economy. It is conventionally measured as the per cent rate of increase in real gross domestic product or GDP. Growth is usually calculated in real terms, i.e. inflation adjusted terms, in order to net out the effect of inflation on the price of the goods and services produced (Economic survey, 2014-15). Indian GDP growth rate for last forty four year are compared in given table:-

Output/ GDP Growth Rate (Value in US\$ million)

Years	GDP (per centage)
1971-72 to 1980-81	3.6
1981-82 to 1990-91	5.2
1991-92 to 2000-01	6.2
Pre-Recession Period	
2001-02 to 2006-07	7.4
Recession Period	
2007-08 to 2009-10	7.4
Post-Recession Period	
2010-11 to 2014-15	5.1

Source:-Handbook of statistics on Indian economy Reserve Bank of India Bulletin Various Issues.

The table 4.6 shows that the growth rate of GDP in 1971-72 was 3.6 per cent which increased substantially to 5.2 per cent in 1981-82, 6.2 per cent in 1991-92 due to the impact of reform and 7.4 per cent in pre-recession period. The growth rate of GDP remained same in recession period and declined to 5.1 per cent in post-recession period. The recession started to show its effect on GDP since 2010-11.

Impact of Recession on Productivity

Productivity is a marginal contribution of a factor to the output growth of a product. If productivity is increasing in an economy; it means that its factor of production and commodity inputs are manifesting an increase in their output efficiency. The productivity improvements along with the increase in quantities of factors will also be contributing an additional source of output increase (Brahmananda, 1982). Productivity increases when the growth in output is greater than the growth in input, or when the rate of growth of output minus the rate of growth of the composite input is positive. Economic growth can be obtained either by increasing inputs or by improving productivity factor. Productivity growth occurs when a higher output can be attained with a given amount of input, or a certain level of output can be attained with smaller amounts of factor input. This productivity growth is obviously preferable to growth due to increase in factor inputs, since the later might be subject to diminishing marginal return. Productivity growth is necessary not only to increase output but also to enhance competitiveness of a country. The estimation of factor productivity will be very useful to evaluate the variations in the performance of an industry over a period of time. The prosperity of a new developed nation has been attributed mainly to the sustained growth of their total factor productivity (Prescott, 1997). But the recession has also been impacted the productivity of Indian economy. The below table is showing the impact of recession on productivity of Indian economy:-

Productivity per Hectare Food Grains(Value in US\$ million)

Years	Total Food Grains % age
1970-71 to 1980-81	1.8
1981-82 to 1990-91	3.1
1991-92 to 2000-01	1.9
Pre-Recession Period	
2001-02 to 2006-07	1.0
Recession- Period	
2007-08 to 2009-10	-1.7
Post- Recession Period	
2010-11 to 2014-15	2.8

Source: Handbook of Statistics on Indian economy, Reserve Bank of India Various Issues

The above table shows that the growth rate of productivity was 1.8 per cent in 1971-72 which increased substantially to 3.1 per cent in 1981-82 but declined significantly to 1.9 per cent in 1991-92 and 1.0 per cent in pre-recession period. But due to the impact of recession the growth rate of productivity became negative -1.7 per cent in recession period. But after recession productivity showed good recovery and growth rate became 2.8 per cent in post-recession period.

5. Conclusion

From the above discussion, we could learn that the entire world economies are affected in one way or other by the recent recession. The strength and duration of the impact do vary among the economies on the basis of the nature of their domestic economy. It was noticed that the advanced economies are more badly affected by the recession when compared with the developing and Emerging Market Economies. Indian economy too was not free from the hit of the current recession. The external sector of our economy was severely affected and that the overall BOP position turned negative. The GDP growth rate of Indian economy was also met a slowdown during the period of global recession. The contagion effects of the global recession spread from the advanced economies to the Indian market in three distinct channels- the financial channel, the real or trade channel, and the confidence channel. In order to counter the negative fallout of the global slowdown on the Indian economy, the federal Government responded by providing certain fiscal stimulus packages in the form of tax relief to boost demand and increased expenditure on public projects to create employment and public assets. India's central bank – The Reserve Bank of India (RBI) took a number of monetary easing and liquidity enhancing measures to facilitate flow of funds from the financial system to meet the needs of productive sectors. A number of steps like cutting down the Cash Reserve.

All these timely and strong steps taken by the monetary authorities helped Indian economy show a rapid recovery from the global recession. The world economy is also exhibiting signs of recovery, driven largely by the robust growth in emerging economies. Advanced countries however, continue to face uncertainty with large fiscal deficit, high public debt and large scale unemployment. Indian economy also shows the symptoms of rapid recovery from the sudden set back it had to undergo during 2008-09. This is significantly due to the strong and focused steps taken by country's central bank and the government. The economy remained on the path of rapid resurgence which began in 2009-10 and has virtually returned to the high growth path that it had achieved during 2005-08, before the global recession and economic slowdown.

6. Policy Prescriptions

Developed nations should fix their financial and fiscal system so that real sector can also be protected. Issues of leverage and interest rate regimes should be addressed on

priority basis. Saving rates of household as well as government should be increased in USA and EURO zone.

Fiscal stimulus cannot be unlimited as its effectiveness depends on some preconditions and is questionable due to diminishing returns. It usually involves additions to the public debt of the government. We need to take it back as soon as possible as fiscal deficit is becoming out of control and need to be curbed. Operational aspects of managing public debt also need to be managed.

The link between monetary policy and financial stability need to be understood and more autonomy to the central bank should be given to maintain the enviable reputation earned by RBI.

Fiscal and monetary policy both should be coordinated for overall better performance of Indian economy.

India has huge domestic demand which need to be tapped. There should be quick and consistent policy making which can transmit positive signals to the private sector for boosting the investment levels in the economy. Black money should be brought back and corruption should be controlled. Ethical and moral standards should be enhanced. A transparent and credible.

Export oriented sectors are more adversely affected. Policy responses should be sector specific. Trade relations also need to be more diversified with more number of nations and commodities. Although to increase the private consumption is important India needs more emphasis on infrastructural investment. The fluctuations in currency need to reduce and for that matter foreign investment will have to be promoted which is possible only when more reforms take place and there is consistency in policy actions.

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