1. When I received the invitation to speak in a seminar having the theme titled “The Shrinking Money: Combating Debt Crises and Inflation”, I took some time trying to understand what exactly “shrinking money” could mean? In the global context, shrinking money could possibly be related to advanced countries’ fiscal excesses which have been fully accommodated by their respective central banks in conducting monetary policies. In other words, despite inflationary risks in the medium-run from the persistent easy monetary and liquidity conditions created by their central banks, monetary policy has no choice but remain subjugated to the fiscal excesses and the impact of such excesses on the economy. Moreover, monetary policy strategy in advanced economies has explored new options, particularly after hitting zero nominal interest rate bound, such as “quantitative easing” and “twist operations” but their effectiveness in delivering a durable robust recovery in growth has belied expectations. In that sense, it could be “shrinking scope for monetary policy” India, however, does not face these constraints in the conduct of its monetary policy. On a second thought, therefore, I looked for an answer from the domestic macroeconomic context. Whether shrinking money refers to “shrinking value of money” because of the persistently high inflation that we have been experiencing for more than two years now? Is it about what monetary policy could do about inflation in an environment of large borrowing programme of the government and inadequate fiscal and other structural response to address the supply side pressures on inflation? I realised that it must be the second interpretation, since I am from RBI, an institution which has been subjected to intense public scrutiny in last about one year or so for its monetary policy response to contain inflation and anchor inflation expectations.

2. It would not be proper on my part to speak on what monetary policy should do in the near term, particularly when the mid-quarter review of our monetary policy is due on December 16. There are many market analysts who try to guess RBI’s actions ahead of the policy, and you all, being faculties and students of leading business schools, must be already having a sense of that from the financial dailies. I am sure many of you may be having your own assessment of the inflation situation and your own expectations from the RBI in terms of what it should or should not do. I would try to cover in my address the way we see the recent inflation path in terms of its determinants, and why monetary policy matters so much, even if that alone is not sufficient to ensure a low and stable inflation environment. Monetary policy can still
ensure a fast softening of inflation but only at the cost of large sacrifice of growth, which is equally non desirable as high inflation. Low inflation and robust growth- both are essential to improve economic welfare. Fiscal policy also has a major role in inflation management, both in terms of containing government demand in the short-run and augmenting the supply situation in the medium-term. The effectiveness of monetary policy improves in a supportive fiscal environment. I will, therefore, also cover some of the fiscal issues in this address, and by doing so, I will try to touch upon some other dimension of the overall theme of this seminar.

3. Let me start with the oft asked question of why inflation has persisted despite RBI's significant anti-inflationary monetary policy response. When we say that inflation has been “high” over successive months over almost two years now, it has to be seen as a relative concept. It could be high relative to either past averages or the inflation goal of the RBI. Prior to the global crisis, the average WPI inflation over the five year period 2003-04 to 2007-08 was about 5.5 per cent. Since January 2010, however, the WPI inflation has remained within a range of 8 to 11 per cent in each of the 22 successive months. That is high relative to what we experienced before the crisis. Moreover, RBI’s monetary policy statements suggest that RBI’s monetary policy continues to aim at conditioning and containing perception of inflation in the range of 4 to 4.5 per cent. The recent inflation trend, therefore, is clearly above the stated comfort level of the RBI. What explains then this persistence of high inflation?

4. India was already dealing with double digit inflation when it had to face the contagion from the global financial crisis. India avoided a financial crisis at home, but there was some moderation in growth. Along with the beneficial impact of sharp moderation in global commodity prices, domestic slowdown in demand led to significant decline in inflation by the end of 2008-09, which continued in the first seven months of 2009-10, with inflation hovering at below 2 per cent. In fact over two months during this period, the year on year inflation was negative, when many had started asking RBI whether India faces the risk of deflation. How then the inflation situation deteriorated so fast thereafter? It happened over successive phases, with contribution to the inflation build-up coming from different items covered in the WPI.

5. In 2009-10, 22 per cent deficiency in South-West monsoon came as a supply shock. Despite high food stocks and resilient agricultural sector output, the adverse expectations associated with this supply shock kept food inflation high throughout the year. Since non-food inflation was very low in the first half of 2009-10, in some of the months during this period the contribution of food inflation to headline WPI inflation was almost 100 per cent. Why then food inflation has remained so high on a sustained basis, despite record food grains production in 2010-11 and a normal
South-West monsoon this year? Has the dynamics of food inflation changed in recent years? Some recent trends seem to suggest so, which include:

(a) The growing demand supply imbalance, more so in protein based food items – Production and productivity enhancement in food articles have not kept pace with increasing demand and income level of the growing population of the country. As one would expect, with rising per-capita income, the dietary pattern could also change, away from staples and in favour of protein rich items. This is what being experienced in India in recent years consistent with the Bennett’s Law which suggests that as incomes increase, the proportion of starchy staples in the food basket declines relative to the share of more expensive sources of calories. Supply of protein based food items such as pulses, milk, eggs, meat and fish have not increased as much as one would expect in response to higher prices, while demand continues to grow. Data on expenditure pattern in both rural and urban areas suggest that the shares of expenditure on protein food in total expenditure have increased. At some point the structural imbalance in protein involved high protein inflation in the range of 25 to 34 percent over successive eight months between November 2009 and July 2010.

(b) Significant increases in rural wages, particularly in the post-MGNREGS period - Inclusive growth is essential to make the growth process sustainable in a democracy of 1.2 billion population, but there could be occasional tradeoffs between inclusive growth and inflation, particularly when wage increases do not reflect corresponding increases in productivity, and higher transfers of purchasing power do not accompany measures to improve the supply situation of commodities on which these higher fiscal transfers could be spent. Data on the increase in rural wages over last several years suggest that the rate of increase has been in excess of comparable consumer price inflation in rural areas. MGNREGS, guaranteeing 100 days of employment per year is in operation since 2006, and recently MGNREGS wages have been indexed to consumer price inflation in rural areas. The wage pressures in rural areas could be partly ascribed to MGNREGS, and the manifestation of wage pressures has been in the form of significant step up in per-capita expenditure levels. Available data suggest that average nominal per capita expenditure increased sharply in the second half of last decade (2005-10) compared to the first half (2000-05), from 3.6 per cent to 10.5 per cent in rural areas, and from 5.3 per cent to 10.9 per cent in urban areas. Wage increases at high rate in rural areas accompanied by a trend growth in agriculture sector of about 3 per cent could exert both cost-push as well as demand-pull inflationary pressures.

(c) Large increases in minimum support prices (MSPs) – In India, there is a long standing debate on the role of remunerative price incentive to improve production of
farm output, given the implications of such an approach for food inflation. Even when a segment of the population benefits from subsidised provision of food, large increases in MSPs could add to pressures on food inflation by providing a floor to market prices. Even though there have been occasional reports of procurement taking place at below MSP or market prices at times falling below the announced MSPs, in general, market prices hover at or above the announced MSPs. In recent years, the rate of increase in MSPs has been large. For example, the average increase in MSPs for rice during 2007-2011 has been 13.6 per cent, as against 1.8 per cent during 2003-07. For wheat, over the corresponding periods, the increases in MSPs have been 11.3 per cent and 4.0 per cent, respectively. High MSPs generally reflect high input costs, such as wages, fodder, diesel oil, fertilizer and pesticides. When input costs increase, in the absence of remunerative price, farm production could be adversely impacted, which in turn could be inflationary. At the same time, higher MSPs that reflect higher input costs also become inflationary. The best possible solution to this logjam could be higher productivity, and raising productivity remains a major medium-term challenge for the agriculture sector in India. Among the G-20 countries India’s productivity in rice and wheat is one of the lowest. After the significant increase in yield following the green revolution, yield levels have stagnated relatively in recent two decades, while population and per-capita income have increased and the population below poverty line has declined. Reflecting this, demand keeps rising while per-capita availability of foodgrains has not improved much. Higher productivity is the only means that could improve the income of the farmers while also helping in containing food inflation.

(d) **High global food prices** – Even when much of India’s food grains may not be traded physically cross-border, international price trends do influence domestic prices. Global food prices had increased at a rapid pace before the global crisis, softened somewhat after the crisis, before rising back to the pre-crisis level in the recent period. Various estimates by the FAO and other international agencies indicate that agriculture prices, which reflect the growing demand arising from food, fuel and feed requirements, would remain elevated over the medium term. What is important for India is that even when global food prices may drop below domestic food prices, import option for India as a means to contain food inflation could be limited, since once India enters the global market on the buying side, that could raise global prices. Global commodity markets track demand-supply positions across major countries in a forward looking manner, and at times assessment about shortfall in supply relative to demand in one single country could inflate international prices.

(e) **Rigidities in supply chain** – For a large country of India’s size and population, distribution networks – from farm gate to retail level – occupies a central role in the
determination of prices at different levels, and hence in conditioning food inflation. The phenomenon of 1-2-3-4 is often cited in this regard to show how while the farmer gets one Rupee and the consumer pays four Rupees, the intermediaries pocket the rest. In an inflationary environment, there could be a tendency to manage the supply chain to the advantage of the middle men. This calls for greater competition and stricter rules to deal with anti-competitive practices. Better transportation and warehousing facilities could also lower costs and reduce waste of perishable products. Multi-brand retail has been seen as a possible means to improve the supply chain that will be beneficial to both producers and consumers. Given the current debate on the subject in India and varied international experience, multi-brand retail has to be seen as a potential instrument whose effectiveness, however, could be known only over time.

6. Besides food, fuel has been another major source of price pressure, which is directly linked to international trends in crude petroleum prices. Indian basket crude price had scaled to as high as USD 132.5 per barrel in July 2008, i.e. just before the global crisis. The impact of the global crisis in the advanced economies was so strong, that it dragged international oil prices down sharply, and the Indian basket crude price fell to as low as USD 43.2 per barrel in February 2009. Since then, notwithstanding the persistence of weak growth momentum in advanced economies, oil prices have bounced back to high level. In April 2011 Indian basket crude price reached USD 118.6 per barrel, before softening thereafter somewhat, but still remaining range bound at high level between USD 110 to 105 per barrel.

7. In India, changes in international crude prices are not fully passed through to domestic prices of petroleum products, because of the administered pricing mechanism. While petrol prices have been deregulated since June 2010, prices of diesel, LPG and PDS kerosene are still regulated to insulate consumers against high global crude oil prices, which, however, inflate the subsidy bill with every increase in oil prices. While in the short-run the impact on inflation gets suppressed through administered pricing, the subsidy induced pressure on the fiscal position becomes a risk to the inflation situation in the medium run. Moreover, subsidised pricing does not encourage the desired level of energy conservation, which is critical given our high level of dependence on oil imports. According to the draft of the approach to the 12th five year plan (2012-13 to 2016-17), India’s import dependence on oil is expected to increase from 76 per cent in 2010-11 to 80 per cent by the end of the plan. During the same period, import dependence in natural gas is projected to increase from 19 per cent to 28.4 per cent and in the case of coal the increase will be from 19.8 per cent to 22.1 per cent. Current assessments about oil price trends in the medium-run suggest that oil prices may only firm up further rather than
moderate. Despite a prolonged period of growth weakness in the advanced economies if oil prices have remained firm over successive months, when the global economy returns to a durable phase of higher growth, oil prices could only harden further, unless some technology breakthrough improves availability of alternative sources of energy significantly, which though looks quite unlikely. The extent of India’s import dependence on oil and the expected trend in oil prices in the medium-run suggests that subsidised provision of fuel and power to 1.2 billion population could be possible only with a very weak fiscal situation, which in turn will be inflationary and defeat the very objective behind subsidised provision of fuel. Despite suppressed inflation resulting from administered pricing of certain items, because of the firm international oil prices, fuel group inflation has been in double digits for 21 consecutive months now.

8. The inflation process thus started from primary food and fuel, and these two together accounts for as high as 29 per cent of total weights in WPI. The increase in these prices spills over to non-food and non-fuel (or the core) inflation through both higher input costs and higher inflation expectations getting reflected in wage revisions. In the presence of strong demand conditions, the spillover could be faster, to cause a generalised inflationary process. In India, non-food non-fuel manufactured product inflation was negative in the first half of 2009-10 and remained very low, i.e. less than 4 per cent in the second half. In the first eight months of 2010-11 also it hovered in a range of 5.3 per cent to 5.9 per cent. Since February 2011, however, it has remained at or above 7 per cent over nine successive months, which is clearly above the RBI’s comfort level.

9. Let me try to answer some obvious questions that the RBI has faced in recent years. Many have raised the question why RBI has raised its policy rate 13 times when much of the inflationary pressures are from food and fuel, which would not respond to monetary policy actions. Yes, it is correct to say that food inflation cannot decline because of higher policy rates but the rationale for monetary policy action has to be seen from two major standpoints. First, a generalised inflation process cannot persist in the absence of aggregate demand and, hence, if monetary policy succeeds in containing aggregate demand, that could help in softening inflation. Containing non-food non-fuel manufactured products inflation through policy induced moderation in demand is what monetary policy could achieve. Second, even when monetary policy cannot address food and fuel inflation directly, it can certainly prevent inflationary expectations getting worse under the influence of high food and fuel inflation. If monetary policy could anchor inflationary expectations, then it can influence the wage and price setting behaviour in the economy, and thereby help in containing inflation.
A related question that many have asked is how effective is monetary policy in India and whether anti-inflationary policies entail large sacrifice of growth. One needs to understand in this context the fact that effectiveness of monetary policy depends on the structure of the economy and the level of development of the financial sector. The composition of aggregate demand would broadly suggest three types of demand, i.e. government demand, private consumption demand and private investment demand. Government demand is generally not very sensitive to higher policy rates. Private consumption demand in India also is not financed by credit to the extent we see in advanced economies. Hence, private consumption demand may also not be very sensitive to higher interest rates. Private investment demand, however, may be relatively more sensitive to higher policy rates, and slowdown in investment demand has implications in terms of growth sacrifice. Recognising this, the RBI balances the growth-inflation goals in the conduct of its monetary policy. As long as the inflation process was largely driven by food and fuel inflation, RBI’s calibrated tightening was consistent with what monetary policy should do in the presence of supply shocks. When inflation became generalised and persistent, the RBI had to raise its anti-inflationary accent of monetary policy, recognising the sacrifice of growth at the margin. This was necessary given the risk high inflation itself could pose to growth in the near-term. In a high inflation environment, both saving and investment activities could get severely impacted. Empirical estimates for India suggest that India’s threshold inflation could be in the range of 4 to 6 per cent, and inflation levels exceeding the threshold on a sustained basis is harmful to growth. Thus, anti-inflationary increases in policy rates may look anti-growth in the short-run, but such a policy stance is necessary for achieving low inflation and high growth objective in the medium run. Since monetary policy operates with a lag, it is this medium-term goal of non-inflationary high growth that explains the RBI’s monetary policy actions taken so far. Level of development of the financial sector is important for transmission of monetary policy actions. Large informal sector with limited access to formal finance could dampen monetary policy transmission, and given the large degree of financial exclusion in India, the RBI has placed significant emphasis in recent years on financial inclusion, that is expected to raise the percentage of population participating in and benefiting from the formal financial sector. With better access to finance, growth opportunities could be better harnessed while the effectiveness of monetary policy transmission could also be strengthened. Recognising the country specific lags in policy transmission, it was generally expected that the lagged impact of monetary policy will soften demand, which in turn could help in containing inflation. Accordingly, while projecting the inflation to moderate to 7 per cent by March 2012, the growth projection was revised downwards from 8 per cent to 7.6 per cent in the October 2011 monetary policy
statement. That downward revision was consistent with the expected impact of past monetary policy actions as also the impact of deteriorating global economic conditions on domestic growth. The second quarter GDP growth for 2011-12 at 6.9 per cent has magnified the growth concerns, given the continuous flow of negative news and assessments about the outlook in the advanced economies. One has to wait till December 16th to see how these recent developments are taken into the RBI’s assessment of the domestic macroeconomic outlook.

11. Another development which has received significant public attention in past few months is the depreciation of the exchange rate, and its inflationary impact working against what the tight monetary policy actions intend to achieve. It is important to recognise that in a largely market determined exchange rate regime, exchange rate could move in any direction; it is an exogenous factor as far as inflation management is concerned, akin to other exogenous determinants of inflation, such as, commodity prices or a non-normal monsoon. RBI’s exchange rate policy is not guided by any specific level of the exchange rate that could either be beneficial to exports or help in containing inflation. Limiting volatility remains the primary policy objective of the RBI but the assessment of volatility is a dynamic process, depending on changing domestic as well as global conditions. Excessive volatility in exchange rate is a potential source of macroeconomic instability, and accordingly, the RBI aims at containing volatility to ensure a stable macroeconomic environment. The Indian rupee has depreciated by about 15 per cent against the US dollar since July 2011, and this has more than offset the beneficial impact of modest softening of global commodity prices on domestic inflation. Thus exchange rate depreciation has emerged as a new shock and is an area of concern.

12. Many have questioned the effectiveness of monetary policy in an environment of higher than expected fiscal deficit level and borrowing programme of the government as also inadequate fiscal measures to improve the supply situation. No one can deny the importance of a sound fiscal environment for enhancing the flexibility and effectiveness of monetary policy, but at the same time India’s fiscal situation should not be seen in the prism of sovereign risk concerns in advanced economies. India was on a path of fiscal consolidation prior to the global crisis, following a rule based approach under the FRBM (Fiscal responsibility and Budget Management) Act that came into force on July 5, 2004. The combined gross fiscal deficit (of the central and state governments) declined significantly from pre-FRBM period of 9.5 per cent to 4.1 per cent in 2007-08. To deal with the contagion of the global crisis and to avoid a sharp moderation in domestic growth, it became imperative to use adequate
fiscal stimulus, which involved deliberate temporary deviation from the path of fiscal consolidation. Reflecting that combined gross fiscal deficit jumped to 8.5 per cent in 2008-09 and further to 9.3 per cent in 2009-10. Since then, there has been downward rigidity in the fiscal deficit level.

13. Centre’s gross fiscal deficit in 2010-11 at 4.7 per cent of GDP may appear as a significant improvement over the budgeted 5.5 per cent level and the 6.4 per cent level in 2009-10. This improvement however reflected one off revenue proceeds from 3G/BWA auctions as also revenue buoyancy associated with cyclical upswing in growth, as reflected in 20 per cent growth in nominal GDP relative to 12.5 per cent budgeted growth in nominal GDP. Thus, the role of permanent or structural drivers of fiscal consolidation was rather weak. In 2011-12, developments so far indicate that fiscal deficit target of 4.6 per cent of GDP could be breached, which will have implications for domestic inflation. The moderation in private demand resulting from anti-inflationary monetary policy stance of the RBI will be partly offset by the expansion in public sector demand in terms of the size of the fiscal deficit.

14. Despite higher fiscal deficit levels since the global crisis, the debt levels as percentage of GDP have not increased. In fact liabilities (of the centre and states) as percentage of GDP have declined from 71.4 per cent in 2007-08 to 64.3 per cent in 2010-11. High inflation and associated higher growth in nominal GDP has contributed to this moderation. Besides the level of liabilities relative to GDP, there are certain other features of India’s government debt that merit specific attention in the context of standard vulnerability assessments about sovereign debt. In India a large of the public debt is held by residents; the weighted average maturity of debt above ten years for the Central Government is much more than what we see in many other countries; and growth in nominal GDP has generally exceeded the nominal interest rates. Notwithstanding these pro-debt sustainability features, however, in nominal terms gross market borrowings of the central government had spiked from about Rs. 180,000 crore in 2007-08 to Rs. 320,000 crore in 2008-09. Since then, the size of the borrowing programme has only increased further, and in 2011-12, as against budgeted gross borrowing programme of about Rs. 470,000 crore, an additional Rs 52,000 crore has been announced. This order of market borrowings, besides creating crowding-out concerns, also complicates management of the borrowings in a tight liquidity condition. It was highlighted often in the immediate aftermath of the global crisis that countries must improve their fiscal position to regain fiscal space so at to deal with future shocks to the economy. In India, with the more than expected moderation in GDP growth in the second quarter of 2011-12, and given the persistence of headwinds from weak global macro-financial conditions, the importance of fiscal space would be better appreciated.
15. In the context of the theme of the conference, some may ask this question whether one could hedge the inflation risk and thereby escape the shrinking value of money. In India, many seem to use gold as an inflation hedge, and high gold prices of recent years, as we know, has not deterred gold buying in India. The basic law of demand – i.e. when prices increase demand must decline – does not seem to apply to demand for gold by Indians. High inflation is a risk to financial savings, since it can reduce the value of savings accumulated over the years. Making financial instruments available in the system that could provide an effective hedge against inflation assumes importance in this context. The Reserve Bank in consultation with the Government is exploring the possibility of issuing inflation indexed bonds (IIBs). It is being debated whether both principal and interest payments should be indexed to inflation, and whether CPI or WPI could be the better benchmark for indexing. Such an instrument could meet the requirements of savers and pensioners to some extent, but the best policy approach to deal with the risk of shrinking value of money would be to ensure a low and stable inflation environment.

**Concluding Observations**

16. Shrinking value of money because of persistent high inflation explains the importance of anti-inflationary monetary policy. For a country with large percentage of population still living below the poverty line, inflation works as a regressive tax. Economic welfare of the population at large could be enhanced primarily through higher growth, that too in a low and stable inflation environment. That suggests why balancing growth and inflation becomes so important to monetary policy. It is a much more complex task than what may appear in any public discussions. To ensure that the grease effect of modest inflation allows economic growth and investment activities to materialise, inflation would have to be positive. A positive inflation within the threshold level would not mean erosion in purchasing power since higher growth would also raise the income levels, and as a result net purchasing power would increase. Unless the benefits of growth get equitably distributed, this net increase in purchasing power may not happen to all. At the aggregate level, some positive inflation that coexists with high growth could be welfare maximising. At high inflation, particularly above threshold level, growth may however, moderate, and both high inflation and low growth could erode welfare.

17. Preventing such an outcome requires both monetary and fiscal policy to be countercyclical, besides enhancing capacity to deal with supply shocks that often weaken growth momentum while raising inflationary pressures. Take for example the fact that global commodity price index has gone up from about 98.2 in February 2009 to 182.9 in October 2011, implying an increase of more than 85 per cent. During the same period, India’s WPI has gone up from 122.9 to 156.8, i.e., an
increase by about 27.6 per cent. That certainly has led to shrinking value of money. Some of the supply side pressures on the value of money however require better capacity to augment the supply situation. Moreover, wages in rural areas and staff remunerations in the corporate sector have grown at rates higher than the inflation experienced in the recent past. The erosion in purchasing power, therefore, is much less than what may appear only from the inflation numbers. Nevertheless, inflation continues to be above the comfort level, and it needs to be contained. RBI’s monetary policy clearly recognises that, and its current anti-inflationary monetary policy stance reflects that. Recent evidence of growth moderation could be expected to dampen demand side pressures on inflation, and in the absence of major supply side risks from global commodity markets, inflation should moderate to about 7 per cent by March 2012. I hope I have been able to explain the role of RBI in inflation management and also the role of several non-monetary factors in contributing to the shrinking value of money.

***