## **NMML**

## **OCCASIONAL PAPER**

## PERSPECTIVES IN INDIAN DEVELOPMENT

**New Series** 

**62** 

# **Macroeconomic Policy for an India in Transition**

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Nehru Memorial Museum and Library

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## Published by

Nehru Memorial Museum and Library Teen Murti House New Delhi-110011

e-mail: director.nmml@gov.in

ISBN: 978-93-84793-07-4

# Macroeconomic Policy for an India in Transition Ashima Goyal\*

### **Abstract**

The paper will develop two types of macroeconomic policies, call them Type I and Type II, compare them, and show why Type II would lead to better growth and inflation outcomes in the Indian context. It will go on to discuss analytical frameworks, data and fundamentals all of which are found to support Type II policy, and then show that India's recent macroeconomic policy has tended to be of Type I. This implies growth and employment creation falls below potential even as the potential itself falls. Also, ironically, the primary inflation expectations anchoring function of inflation targeting is under-utilized.

**Keywords**: Macroeconomic policy, transition, analytical frameworks, inflation targeting

#### 1. Introduction

I particularly welcome these lecture series on 'India in Transition' because change is faster than our perception or understanding it. Discussion and debate is therefore required, making the Nehru Memorial Museum and Library initiative extremely valuable. It is, moreover, in keeping with its history that demonstrates the contribution of ideas to development.

Extremes themselves lend to ideology. Moreover, established theories are easier to understand compared to nuanced middles, so the intellectual ball seems to toss only between old verities of underperformance or modes of analysis more suitable to developed economies. If you always study underdevelopment perhaps you lose the ability to see development. And if you apply advanced economy (AE) equilibrium concepts to an economy in transition you are likely to be often incorrect.

Decades of non-performance may have led to an entrenched pessimism in India. When I was visiting Claremont in the mid-2000s, the discussion was full of expected vibrancy and high growth from 'Chindia'. It was such a contrast to pessimistic domestic views I had just left behind. At about this time, Chris Wood of CLSA wrote in an advisory that he was more optimistic about India's long-run prospects compared to those of China, and this despite his recent trip to Delhi and interaction with pessimistic Delhi economists!

<sup>\*</sup> This paper is an expanded version of an invited public lecture given at the Nehru Memorial Museum and Library in May 2017. I thank Shakti Sinha for the invite, audience participants for enthusiastic questions and comments, and Reshma Aguiar for secretarial assistance.

Intellectuals and policy economists did tend towards pessimism, but business was relatively more optimistic. This explained the distinct divide between the views of economists from Delhi and some of us from Mumbai who used to participate in the Board of India Today Economist (BITE) dialogue. There is a lot happening in Delhi now, with many policy initiatives, but views are similar even today. A 2017 World Bank survey of South Asian economists found Indian economists' future expectations to be more pessimistic than the World Bank's own, while those of Bangladeshi economists were more optimistic than those of the World Bank.

Internationally, India is widely regarded as having the best growth prospects among emerging markets (EMs), and these growth rates are obviously much higher than those AEs can hope for. Markets have priced in this potential and are booming, but the strange thing is actual growth in India has remained subdued and below potential ever since 2011. This is a long time to underperform. The period, moreover, has coincided with fiscal consolidation, tight monetary policy, and the adoption of an inflation targeting framework since 2014. Is there an element of self-fulfilling pessimism in this? Are policymakers doubtful of change and therefore failing to facilitate it? There is excess capacity in industry and few high productivity jobs are being created.

In this paper, we will broad-brush macroeconomic policy into two types. The first, Type I, reflects a pessimistic view of possibilities. It takes growth as given, limited by supply-side inadequacies, and sees its task as preventing any short-run attempt to overtake these limits since that would create inflation. This comes from a narrow supply-side approach, where all available factors of production determine potential growth, while demand affects only inflation not output. It leads to a sole focus on structural reform. Type II views potential growth as uncertain in an economy in transition, and acknowledges that macroeconomic policies could impact this potential. In an economy in transition, as under-utilized factors begin to be used more productively, demand need not be inflationary and can play a major role in shifting to a higher level of performance. It can have persistent effects on growth.

The above types share aspects of traditional classifications. Type 1 is related to monetarist theories or the view from capital markets valuing conservative policies that keep inflation low and leave markets free. Type II is closer to Keynesian theories or the labour view that values the creation of employment, but it differs in bringing in structural EM features not normally included in Keynesian theories.

That Type II also studies how expectations can be self-fulfilling, animal spirits can be unleashed or quelled, makes it is even more appropriate for economies where there are inherent grounds for business optimism. Animal spirits also resonate with the Indian cultural idea of the *sankalp*, or that an idea must come before its execution. Any type of creation must first be seen as possible. This is not to deny reality or the necessity of hard work and

improved systems for success. But without 'can do' the required work will not happen.

To be fair, moreover, Indian policy has been fighting inflation that rose into double digits in 2008 and persisted high for long. Doesn't high inflation point to demand exceeding supply, and therefore isn't macroeconomic tightening required to reduce demand? Section 2 develops an analytical framework to answer this question; Section 3 shows that fundamentals of the Indian economy on the whole support Type II policy; Section 4 contrasts actual with Type II policy. Section 5 concludes.

#### 2. The structure and implications of Indian aggregate demand and supply

Should Indian supply bottlenecks be taken to imply that output is fixed in the short-run? Observed excess capacity and widespread underemployment contradicts such a view. Earlier macroeconomic analysis for India (Rao, 1952) argued that pervasive supply bottlenecks made demand stimuli ineffective. They implied an inelastic vertical aggregate supply (AS) curve. But India's post-reform experience of inflation is difficult to reconcile with such a structure.

Post-reform India had frequent episodes of either: (i) Low growth with high and sticky inflation, or (ii) lower inflation and higher growth. With a vertical AS a fall in demand reduces inflation, while growth is unaffected. In such a case policy tightening should reduce inflation, not growth. But in 2008, 2011, and 2013, monetary tightening reduced growth while inflation remained sticky—the opposite effect. If the fall in growth was due to a vertical AS shifting leftwards, the fall should precede the policy shock, not follow it as was observed. In addition, tightening should still impact inflation more than growth. But inflation remained high and sticky despite sharply higher policy rates, while growth fell in the quarter immediately following peak rates (Goyal, 2015a). This experience as well as research<sup>1</sup> supports the structure shown in Figure 1 for Indian aggregate demand (AD) and AS curves. AS is flat but a number of factors tend to push it upwards.

In Keynesian macroeconomics, AS is flat until full employment is reached when rising wages raise the marginal cost of production. In EMs less productive labour in the large informal sector is treated as structurally not cyclically unemployed, so that it is better analysed in traditional dual economy development models. But once a populous EM crosses a critical threshold and high catch-up growth is established, higher labour mobility blurs the distinction between formal and informal sectors. In an economy in transition some part of the hitherto structurally unemployed are better treated as cyclically unemployed. A macroeconomics of the aggregate economy becomes both necessary and feasible. Rural-urban migration takes

<sup>&</sup>lt;sup>1</sup> Structural VAR based tests, time series causality tests, GMM regressions of AD and AS, and calibrations in a DSGE model for such an economy, surveyed in Goyal (2015a), all support the elastic longer-run supply and the dominance of supply shocks. Goyal (2011) is a basic dual economy DSGE used to derive AS and AD curves.

place and short-term training becomes available to diverse entrants for a range of low level jobs.<sup>2</sup> In India, moreover, the demographic structure is such that approximately 12 million youth with varied skills are expected to enter the labour force each year through the 2010s, while increase in employment opportunities is limited. NSS survey round of 2009-10 showed unemployment to be over 20 per cent for those with a degree or diploma (Goyal and Arora, 2013).

Inefficiencies, distortions, and cost shocks, however, push aggregate supply upwards, over an entire output range, rather than only at full employment. The latter is not reached at existing output levels so that output is elastic. Average cost rises rather than cost at the margin. The AS becomes vertical only as the economy matures and full productive employment is reached.

The structuralist school imposed a disaggregated structure to study a dual economy where industrial output is demand determined but agricultural output is fixed at a time period. Such a dual economy is no longer relevant, however, because the share of agricultural output has become small and in an open economy supply bottlenecks are easier to alleviate. Agricultural commodities can also be imported, although the price depends on the exchange rate and world prices. A depreciation of the currency therefore becomes one of the forces raising costs and pushing up the supply curve.

Given low per capita incomes and the large share of food in the consumption basket, the food price wage cycle is, however, a major mechanism propagating supply shocks and creating inflationary expectations. If markets are perfectly clearing and prices and wages are flexible, then a fall in one price balances a rise in another with no effect on the aggregate price level. But prices and wages rise more easily than they fall. So, a rise in a critical price such as food can raise wages and therefore other prices, generating inflation if wages rise above productivity.

In addition to these wage-price expectations, commodity and nominal exchange rate shocks, populist policies that give short-term subsidies but raise hidden or indirect costs, also contribute to cost-push. Examples are poor governance, infrastructure, and public services (Goyal, 2012). The Indian economy is supply constrained in the sense of Figure 1, which differs from the vertical supply curve used to indicate supply bottlenecks in Type I policies. In the Figure 1 structure, demand has a greater impact on output and supply on inflation. Output is demand determined but the supply side raises costs.

<sup>&</sup>lt;sup>2</sup> Krishnan and Hatekar (2017) show the 'new middle class', defined as those who spend between \$2 and \$10 per capita per day valued at 1993PPP, doubled between 2004-05 and 2011-12 to 600 million—about half the population. Growth took place mainly in the lower, not the upper classes, suggesting social and employment mobility at the lower end, as we expect in an economy in transition. CSO (2017) shows unorganized sector compound annual productivity growth (7.2 per cent) over 2011-2016 much exceeded that in the organized sector (3.2 per cent).

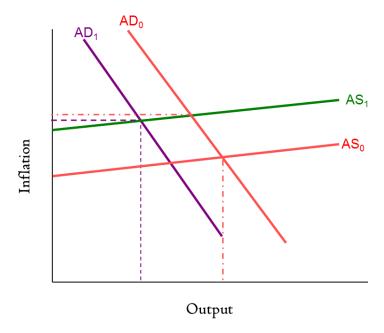


Figure 1: Aggregate demand and supply

In response to supply shocks, monetary and fiscal policy tends to reduce AD. But in Figure 1 the output loss from a demand contraction, after an upward shift in the AS, is much higher than the fall in inflation it induces. Then reducing demand to control inflation results in a large output sacrifice with little impact on inflation.

What type of monetary-fiscal policy, therefore, would be effective in transition? Optimal coordination requires policies to work together to shift the AS downwards. For example, if the government is able to change the composition of public spending away from distorting subsidies towards improving infrastructure and other public services, the CB can afford to reduce interest rates in anticipation of a fall in future costs and inflation. Fiscal policy should therefore pay particular attention to the composition of government expenditure. Supply-side effects imply public expenditure that creates public assets has a higher and more persistent growth multiplier compared to the public consumption expenditure multiplier (Goyal and Sharma, 2015); it also tends to reduce the current account deficit over time (Goyal and Kumar, 2017). This happens because, apart from maintaining demand, it also shifts down the AS curve.

Monetary tightening does lower inflationary expectations, but reducing food price inflation through a combination of agricultural reform, and a stable nominal exchange rate, can more effectively anchor expectations at less cost in terms of output and employment foregone.

#### 3. **Arguments for Type II policy: Fundamentals**

Type I policy sees structural reforms that improve fundamentals as a prerequisite for any demand stimulus. For Type II policy also reforms are necessary, but especially those that shift down the AS curve. Are there fundamental grounds to believe such a shift is happening?

In a democracy, ultimately votes drive policy. The Indian case is puzzling in that total political inclusion did not translate into economic inclusion. The heterogeneous electorate may have encouraged the carving out of vote banks. But as awareness and per capita incomes rise, vote banks are giving way to demand for public services such as health, environment, education, and for better governance (Goyal 2015b). In state after state elections and in the general election of 2014, mainly the development and governance plank has won votes, rather than caste and community based campaigns. Better governance raises productivity and reduces costs of supply. Since those with low income are more dependent on public goods, better provision of these goods improves economic inclusion.

The literature distinguishes between narrow versus broad or active inclusion (Johnson and Andersen 2012). While the first just reduces inequality, the second gives broad rights, voice, and capabilities to make the excluded active participants. Active inclusion enhances human capacity and makes labour supply more elastic in transition. Since active inclusion increases rewards to work, it would suit India's youthful demographics and growth potential, while redistributive strategies are necessary to alleviate persistent poverty (Goyal 2016).

An economy in transition should be one which is innovating. Goyal (2016) shows pure income transfers need not shift the poor to dynamic technologies that show continuous improvement, while active inclusion would do so. It would also induce more innovation in accessible technologies as their market size increased. And innovation reduces costs.

Given international trends, India may well follow the US rather than the China model of growth, where services play a greater role compared to pure manufacturing. Innovation trends indicate the manufacturing of the future will share service-like features with a 3D printer located near the local market delivering customized products.

The slowing growth in productivity in AEs is one of the major reasons for the slow growth recovery after the global financial crisis. IMF (2017b, Chapter 2) shows productivity growth has also slowed in Asia with slower convergence towards AEs at the technological frontier, but it has continued in India. Factors behind the productivity slowdown include sluggish investment, falling trade, slowing human capital formation, transfer of resources to less productive sectors, and the aging population. Although the investment and trade slowdown impacts India also, aging is a problem for the AEs of the region and in China. India does have a long way to go from its current levels of about 45 to reach the US frontier at 100, but with the correct policy catch-up can be rapid. New technologies that leverage youthful skills and reduce prices to target low income masses can give India a special advantage.

Much is happening in the Indian digital space. The pre-paid card helped the mobile spread to low income categories also, and coverage exceeds 70 per cent (Goyal 2016). There are many applications for improving governance and inclusion also from direct benefit transfers and other aadhar (identification) enabled innovations. The pessimistic view regularly decried Indian growth in outsourcing and Internet and communication technology as low-paid mechanical work, but the industry developed from Y2K to body-shopping to value addition and entrepreneurship in a variety of internet-linked businesses. Koramangala in Bangalore is an example of such a venture-capital fed business hub that targets the large domestic market as well as exports. Innovations such as cash-on-delivery helped domestic consumers adopt online shopping.

A major problem under rapid change and catch-up is the difficulty of measuring change. This helps Type I policy ignore it. The large differences in recent revisions of India's Gross Domestic Product (GDP), Wholesale Price Index (WPI) and Index of Industrial Production, illustrate the difficulty for policy that relies too much on data. Growth was higher and inflation rates lower in the new series (Figures 2 and 3). It suggests the AS was shifting down but the pessimistic view would not recognize it. There is a school of thought arguing inflation is over-measured worldwide, since many free services the new economy provides, such as You Tube videos, are not measured.

The revised GDP series led to a whole cottage industry of economists questioning the data and the jump in growth rates from about 5 to 7 per cent. But much of the change came, apart from moving closer to international practices, from shifting from the outdated RBI sample of 2500 firms to the MCA21 online database of 3 lakh firms. It reflected the growing depth of the economy.

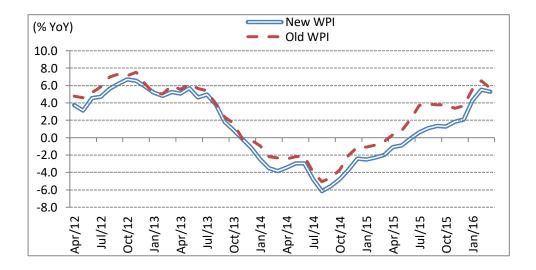


Figure 2: Inflation: Old WPI base (2004-05) and new WPI base (2011-12)

One of India's great advantages is its human and geographical diversity since this encourages innovation and also diversifies risk. The nineties reform added economic diversity, since exports became another source of demand.

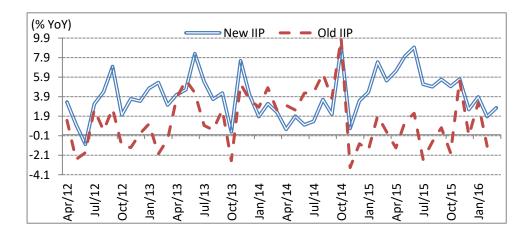


Figure 3: Growth rates: Old IIP base (2004-05) and new IIP base (2011-12)

Perhaps the adverse impact of demonetization was less than expected because of this diversity. While the informal sector and construction suffered, other sectors were less affected making for a lower overall impact. For the same reason, NPAs, despite unforgivable neglect, have not led to financial instability. Only a subset of banks and firms are affected—most continue to be healthy. This concentration of the problem can help in possible resolution. Although negotiation among lender banks in the Joint Lenders Forum has taken long, resolution infrastructure has come up under the New Bankruptcy Law. Twelve large accounts amounting to 2 lakh crores or about 25 per cent of the NPAs have been identified—with some push from the government and the RBI—and sent to the National Company Law Tribunal in June 2017.

Food price inflation that triggered India's high inflation episode starting in 2007, has remained moderate through four years of bad and good monsoons over 2014-17, suggesting there are structural supply-side improvements. Competitive demands for farm loan waivers are escalating from States. But larger untied transfers from the 14<sup>th</sup> Finance Commission as well as tax buoyancy from GST reforms may help them meet these without compromising more sustainable on-going marketing and productivity improvements in agriculture. Innovations in decentralized power distribution show some promise in reducing hitherto intractable power supply cost recovery problems. Hard budget constraints and better incentives imposed by fiscal responsibility legislation will prevent an explosion in state deficits (Garg, Goyal and Pal, 2017).

Standard structural reforms are also taking place, with improvements in infrastructure, ease of doing business, more facilities, improved data collection, and standardization for micro small and medium enterprises (MSMEs).

Despite its federal structure India never had one domestic market. This raised transaction costs of business. GST, being implemented this year, will over time reduce these costs.

There is enough happening to improve fundamentals that can shift down the AS. The optimism of markets has some foundations.

#### 4. Operative aspects of actual versus Type II policy

If improvements in fundamentals as above are shifting down the AS curve, then macro policy can support a rise in demand. But Type I thinking worries that any rise in demand could result in inflation exceeding targets set. The output gap is positive if output exceeds potential, or actual exceeds potential growth. This indicates excess demand. Most measures give output gaps as negative for India. But potential growth is normally measured by time series methods, which give extra weight to the recent past. As growth falls, the measured potential will then also fall, indicating the gap is narrowing. But if the structure is as in Figure 1, output can rise without raising inflation as long as there are supply-side improvements. It may be better to use inflation as a measure of potential growth. If inflation is sustained above some threshold, only then would growth have reached potential (Goyal and Arora, 2013).

The AD-AS structure of Figure 1 also supports inflation targeting but a flexible targeting of Type II. It would largely work by reducing inflation expectations thus further shifting down the AS curve. Since the aggregate demand transmission channel to reduce inflation is weak, it is through the expectation or cost push channels that transmission occurs. For example, the forward guidance channel of inflation targeting would be more effective than reducing aggregate demand. But if authorities follow Type 1 monetary policy, they believe suppressing demand will help reduce inflation. The real interest rate then has to be kept high, with the nominal interest rate exceeding expected inflation. A higher future expected inflation rate allows policy rates to be kept higher.

But if the announced rate of inflation is kept higher, it prevents inflation expectations from falling as much as they could have otherwise. The most effective role of inflation targeting— the guiding of inflation expectations—is then underutilized, although the long-term inflation target continues to play an anchoring role.

The bimonthly monetary policy statements from 2014-16 show the oneyear-ahead inflation announced was almost always about one per cent above realized inflation. If a forecast is unbiased it should undershoot as often as it overshoots. Moreover, the expected inflation path depicted was always U-shaped or flat, with inflation rising eventually, even if it fell in the short-term. Since from 2014, on IMF advice, a positive natural rate of 1.25 to 1.75 per cent was built in (IMF 2017a pp. 15-16), the forecasting bias meant real interest rates were actually in the contractionary range of 2.25 to 2.75. These discouraged durable goods consumption demand as well as investment that could have reduced supply side bottlenecks—and this at a time when estimates of natural rates for AEs were being brought down to zero. India with more underemployment and indebted firms, whose balance sheets were sensitive to high interest rates, should also have been a candidate for lower natural rates.

An incorrect emphasis on the weak demand reduction channel reduced the effectiveness of the expectation channel, even though repeated research, at the RBI itself and included in its Inflation Targeting Report, showed the importance of food prices for household inflation expectations, while the output gap played a limited role.

Figure 4 shows the policy reporate exceeded all types of inflation after mid-2014, and was especially high compared to core wholesale price inflation (WPI) thus burdening firms. Core inflation indices exclude commodities and therefore capture prices affected by aggregate demand. WPI core was far below the policy rate over the entire period of industrial slowdown. One problem was the large dispersion between different measures of inflation over this period. With inflation targeting it was decided to shift from targeting the WPI to targeting the highest inflation rate—headline consumer price inflation (CPI). Although monetary policy has little effect on commodity prices, the latter affect household inflation expectations, which in turn affect core inflation. Headline CPI was not expected to fall rapidly but it did with the collapse of global oil prices in 2014. Type 1 policymakers took the view the fall was temporary and lost the opportunity to cut repo rates. And headline inflation did not rise as they expected. But type I policy makers began to say sticky CPI core indicated excess demand for services such as education and health.

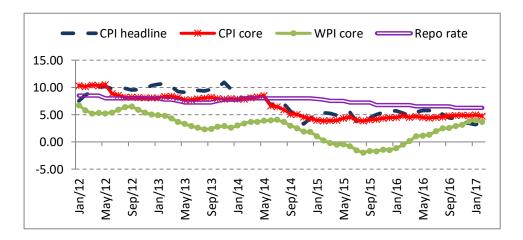


Figure 4: Inflation and policy rates

The new Monetary Policy Committee (MPC) (RBI 2017a, b) continued with the same communication that future inflation is expected to rise, thus undercutting the expectation channel. Moreover, the arguments given to support an expected rise in inflation were weak (RBI 2017a). One was that core CPI inflation is sticky. But this fell sharply in 2012 from 10 to 8 per cent and in 2014 from 8 to 4 per cent along with a fall in household inflation expectations (Figure 4). It follows these, built into wages, affect core inflation, not excess demand for services due to shortages of skills. As food inflation remains low, core inflation will fall again<sup>3</sup>. A second one was that agricultural wages are rising. But the current low rate of increase can be absorbed by productivity increases. It is only the double-digit type rise of 2011, following double digit food inflation that causes inflation (Goyal and Baikar, 2015). A third one was fear of oil price rise, outflows and rupee depreciation. But US shale production can kick in quickly and caps price rise, while some rise in oil prices is good for our exports. Fourth, inflows and the rupee have strengthened despite a rise in US fed rates. Indian political stability and growth prospects continue to be the primary drivers of inflows. The interest rate differential only leads to excessive debt inflows as in the first half of 2017. Finally, structural improvements, such as those captured in the new indices, that are improving productivity, were ignored. The MPC (RBI 2017a) severely over-estimated inflation and had to reduce its April average inflation forecast of 4.5 per cent in the first half and 5 per cent in the second half of 2017-18 to 2.8 and 4 per cent respectively in June (RBI 2017b).

Structural reforms have reduced macro vulnerabilities, yet policy remains underconfident. It could use external shocks as an excuse to tighten further or even reverse a domestic accommodative cycle as it did in 2013. Such excuses are inadequate; policy is supposed to counter shocks and has the required tools to do so. But rather than use them to smoothen outflows due to the Euro debt crisis in 2011 or the US taper-on in 2013, policy squeezed domestic demand further, raising interest rates in unsuccessful attempts to reduce outflows. This past experience, however, shows many ways exist to smooth capital flow shocks. Goyal (2015c) provides a ranking of these in terms of effectiveness. Temporarily taking oil marketing companies demand out of the market was the most effective, since small demandsupply mismatches lead to large currency movements in thin markets. Prudential measures such as increasing position limits and margin requirements are to be preferred to a ban on a market or a transaction-type. If market restrictions become necessary, they should be carefully targeted. Accumulation and use of reserves, uses of market information, and of signalling can all help reduce excess exchange rate volatility.

Therefore it need not be necessary to raise domestic rates as the Fed raises rates. India survived the rise to 1.25 per cent by June 2017 well, with

<sup>&</sup>lt;sup>3</sup> Core inflation excluding food and fuel fell over April-June 2017, reaching 4 per cent in June, pushed down by falling education and health services, prices of which the MPC had regarded as sticky.

<sup>&</sup>lt;sup>4</sup> Of \$ 27 billion inflows from foreign institutional investors, \$ 17.5 billion were debt inflows.

continuing inflows not outflows. Fears proved unfounded. Therefore a defensive rise in domestic rates, neglecting past experience that it hurts both inflows and domestic growth, should be avoided. It will again make the domestic cycle hostage to external shocks.

There seems to be a belief that there is no need to cut repo rates since banks are not in a position to transmit low rates. But NPAs affect only a subset of banks. The shift in stance from accommodative to neutral did raise G-sec interest rates. The expected path of policy rates has a major impact on market, firm, and bank decisions under forward-looking behaviour. AD estimations using the gap between the policy rate and the natural rate show a high interest elasticity of demand (Goyal and Arora, 2016). It is not only firms that do not invest at real interest rates that exceed natural, but consumers do not spend and so excess capacity persists.

There have been some useful structural reforms in fiscal policy including fiscal responsibility legislation. But policy was pro-cyclical because of external rating agency driven fiscal compression. Also it proved unable to sufficiently change the composition of expenditure towards productive assets that could shift down the AS curve. The allocation and efficiency of public investment needs to improve. Innovative financial instruments and mechanisms can be used to trigger larger investment from limited public expenditure, thus leveraging the latter many times. Instead of railing against rating agency bias (GOI, 2017) it would be better to build a convincing framework for communicating to rating agencies, showing how growth enhancing productive expenditure can best reduce debt ratios. Country ratings have been shown to be correlated to per capita income levels. They will give more weight to credible growth raising agendas than to growth reducing debt reductions. Type II policy does not, however, require or condone wasteful fiscal consumption.

Type II policy has to analyse both demand and supply and adjust according to shocks affecting both. Both blades in a scissor have to be used. Type 1 policy believes only the supply-side is relevant for output and demand for inflation. But in a mature economy steady-state growth can be regarded as separately given by the supply-side, not in an economy in transition. A framework is needed to identify factors that shift down the AS curve and adjust policy accordingly.

Forecasts cannot be based purely on past data, especially at a time of structural change. A theoretical framework is also required. Since data are unreliable, the structure within which data is interpreted becomes even more important. Rather than simple time series methods, forecasts should be based on Bayesian statistical techniques that allow theoretical priors to be refined with new information. If there are systemic errors the underlying model of the economy must be rethought. Different types of consistency checks can be used. If the pattern of inflation is changing, underlying structural changes must be identified. If inflation does not rise even as output exceeds the expected potential, the potential must have risen. Errors in forecasts can be used as a revelation mechanism to adjust potential

growth upwards. If inflation targeting is used flexibly as it should be, changes in potential can reveal themselves without being squeezed by excessive tightening.

Flexible forward-looking policy can use its knowledge of structure to abort the inflationary process. During a catch-up period of rapid productivity growth, potential growth can be high. As supply shocks are the dominant source of inflation, optimal policy should aim to achieve an inflation target only over the medium-term by which time temporary supply shocks have petered out, or been countered by active exchange rate policy, changes in tax rates, or supply-side improvements. The inflation anchoring function of flexible inflation targeting itself can help prevent inflationary wage-price expectations that lead to a permanent upward shift in the supply curve from a temporary supply shock. Macroeconomic policy needs to tighten sharply only if there is excess demand.

Policy impacts have long lags in India because of a large share of backwardlooking behaviour. So delays have large costs, and can also create instability. Since forward-looking behaviour is limited large policy action is not required; more uncertainty also supports small and therefore fast response. But a small change works best as part of a string. Therefore correct communication of the policy stance is important.

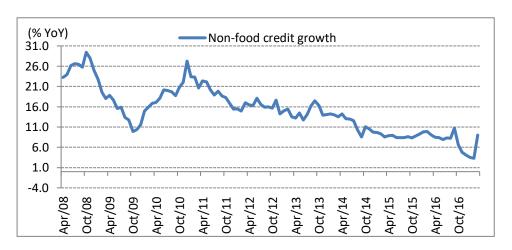


Figure 5: Falling credit growth

What are costs of Type I policy followed? Industrial growth, employment, capacity utilization, and investment have been low since 2011, the period of policy demand compression. Figure 5 shows the steady fall in non-food credit growth since 2011. Bank credit to industry (-5.1 per cent) and private investment growth actually became negative in 2017. Corporate debt grew at double digits from 2012 because high interest rates added to the repayment burden. The share of chronically stressed firms rose while gross NPAs of public sector banks doubled from about 3 to 6 lakh crores over 2012-16. Banks, however, were not lending because of a lack of demand more than NPAs, since other sources of credit also stalled. Corporate market borrowings (commercial paper, corporate bonds and syndicated

loans) at 2 per cent of GDP were below a peak of almost 6 per cent in 2011 (IMF, 2017a). There was hardly any growth in non-bank borrowing either.<sup>5</sup>

#### 5. Conclusion

At a time when India is poised for rapid transition and economic catch-up, a combination of past persistent poverty traps and lack of belief in change maybe hurting its prospects. The US, the country where the GFA originated, has come out the best out of it because of a combination of innovative monetary stimulus, structural reform, and quick cleaning of dented balance sheets. It is unfortunate that in the same period Indian fiscal-monetary policy turned a highly conservative Type I.

Inflation forecasts that rose, even if current inflation fell and that turned out to exceed actual inflation, meant a valuable signal that could anchor inflation expectations was not optimally used. If there is adequate supply-side change, as the paper suggests there is, then the policy stance should be Type II and support demand, but instead it feared any anticipated increase in demand and tightened against it.

Policy Type I believes that pain today will squeeze out waste and make possible a better future. But seven years is too long to suffer to build an elusive future. We need to ask ourselves if the pain has been unnecessary apart from being excessive. Has it hurt both the present and the future? Has it come from imposing an unsuitable structure in which to think of the macro economy? Type II policy has the potential to make waste productive, and reduce output sacrifice today, while building for the future.

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<sup>&</sup>lt;sup>5</sup> Indian total credit to the non-financial private sector (core debt that includes market securities as well as bank credit) ratio to GDP reported by BIS (217 pg. 247) for Q3 2016 at 60 was below the average for all economies (156.7) and for EMs (145.5). The ratio for Indian non-financial corporations increased only by 0.3 between 2011 and 2015 compared to 29.4 for EMs.

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