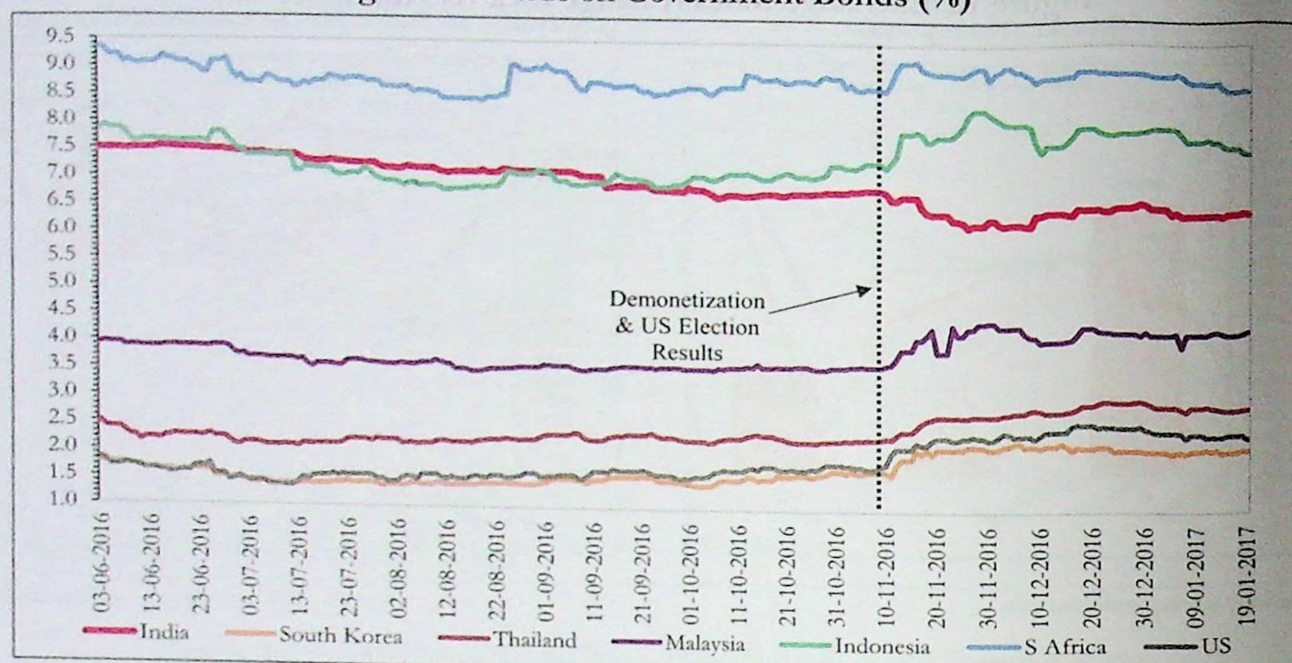
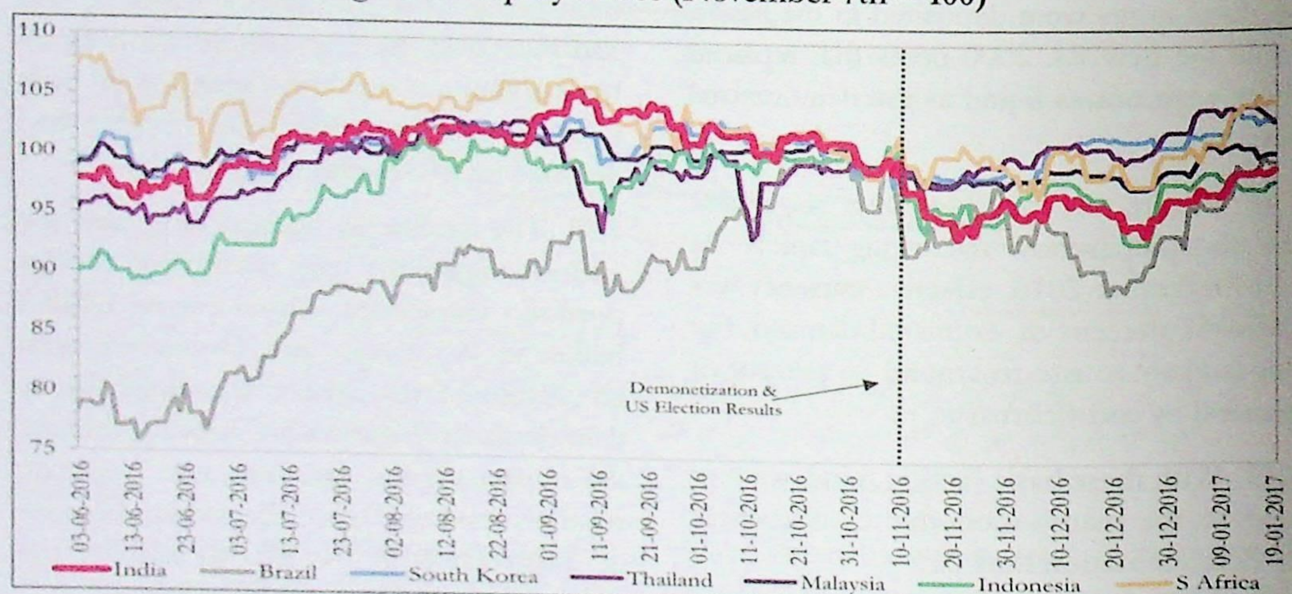
Figure 10. Yields on Government Bonds (%)



Source: Bloomberg

Figure 11. Equity Prices (November 7th = 100)



Source: Bloomberg

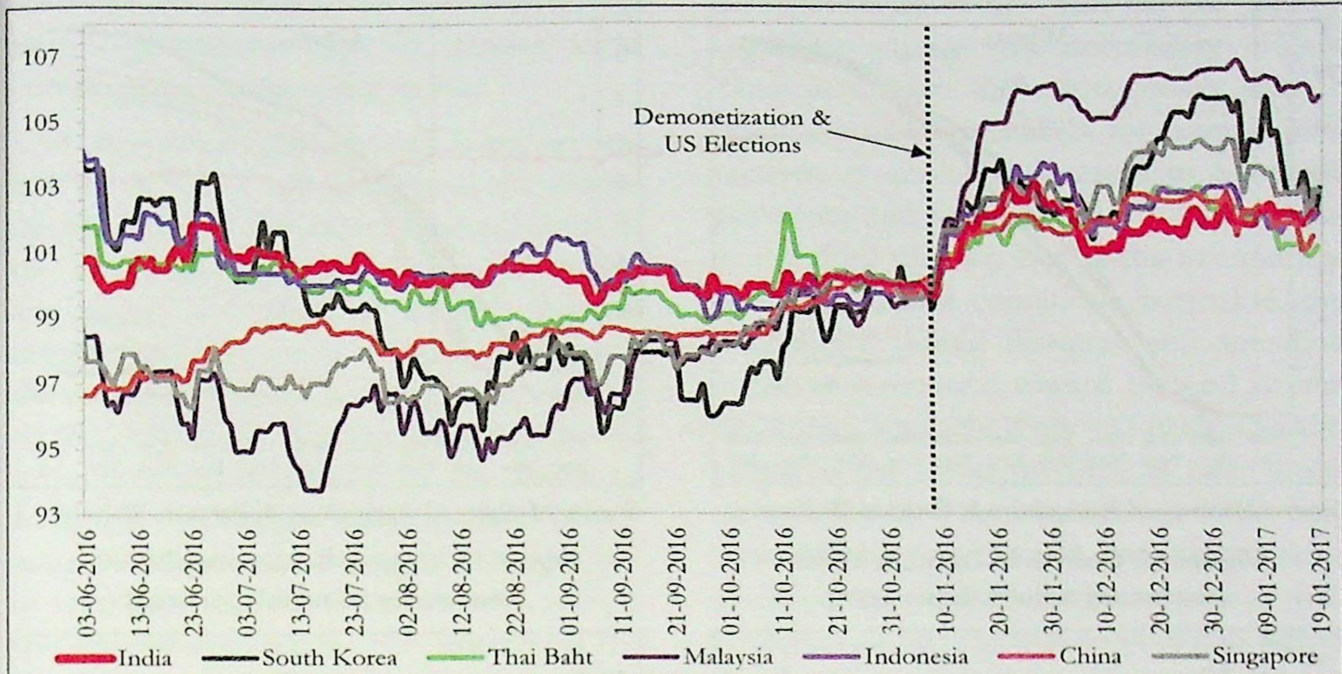
consumer spending and two-wheelers, as the best indicator of both rural and less affluent demand;

- Real credit growth; and
- Real estate prices

1.54 Contrary to early fears, as of January 15, 2017 aggregate sowing of the two major rabi crops—wheat and pulses (gram)--exceeded last year's planting by 7.1 percent and 10.7 percent, respectively (Figure 13). Favourable weather and moisture conditions presage an increase in production. To what extent these favourable factors will be attenuated will depend on whether farmers' access to inputs—fertilizer, credit, and labour—was affected by the cash shortage.

1.55 The other high frequency indicators present a somewhat mixed picture (Figures

Figure 12. Exchange Rates (Change vis a vis November 7th)



Source: **Bloomberg**

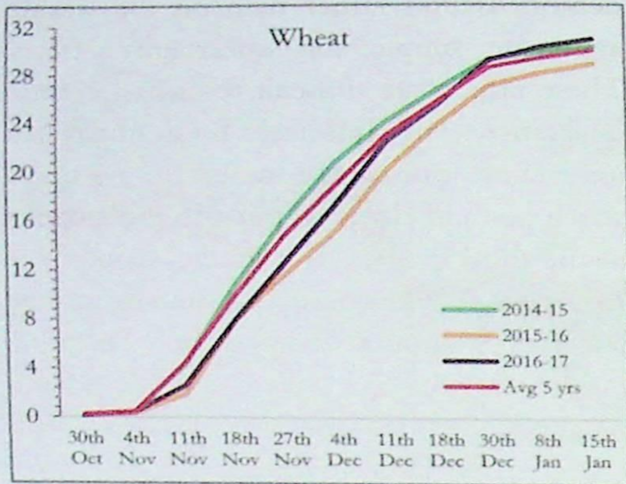
14-17). Passenger car sales and excise taxes bear little imprint of demonetisation; property markets in the major cities and sales of two-wheelers show a marked decline; credit was already looking weak before demonetisation, and that pre-existing trend was reinforced[6]. Indirect tax performance stripped of the effects of additional policy changes in 2016-17 look less robust than the headline number. Their growth has also been slowing but not markedly so after November 8. The balance of evidence leads to a conclusion that real GDP and economic activity has been affected adversely, but temporarily by demonetisation. The question is: how much?

1.56 To estimate a demonetisation effect, one needs to start with the counterfactual. Our best estimate of growth in the absence of demonetisation is 11¼ percent in nominal terms (slightly higher than last year's Survey forecast because of the faster rebound in WPI inflation, but lower than the CSO's advance estimate of 11.9 percent) and 7 percent in real terms (in line with both projections).

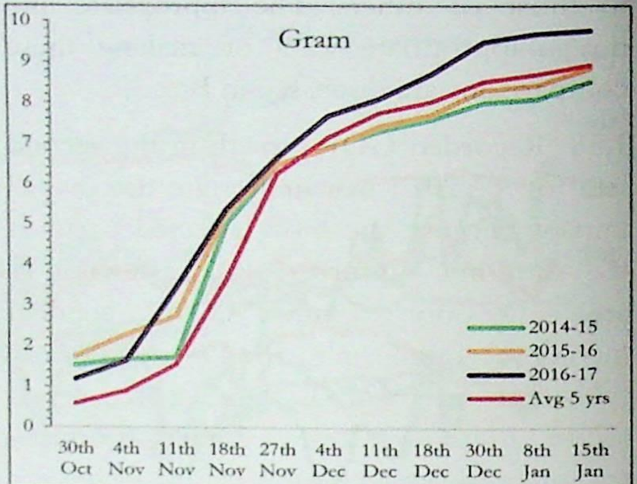
1.57 To assess growth after demonetisation, a simply model relating money to GDP is employed. Then, making assumptions about the use of cash in the economy and the magnitude of the shift toward digital payments methods, we compute the impact on nominal and real GDP growth for FY2017. Given the uncertainty, we provide a range: a ¼ percentage point to 1 percentage point reduction in nominal GDP growth relative to the baseline of 11¼ percent; and a ¼ percentage point to ½ percentage point reduction in real GDP growth relative to the baseline of estimate of about 7 percent. Over the medium run, the implementation of the GST, follow-up to demonetisation, and enacting other structural reforms should take the economy towards its potential real GDP growth of 8 percent to 10 percent. For reasons -- good and self-serving -- the

[6] Weak credit growth was offset to a small extent by increase in other forms of private sector borrowing such as bonds, External Commercial Borrowings (ECBs), and commercial paper.

Figures 13. Rabi Sowing for Wheat and Gram (in million hectares)

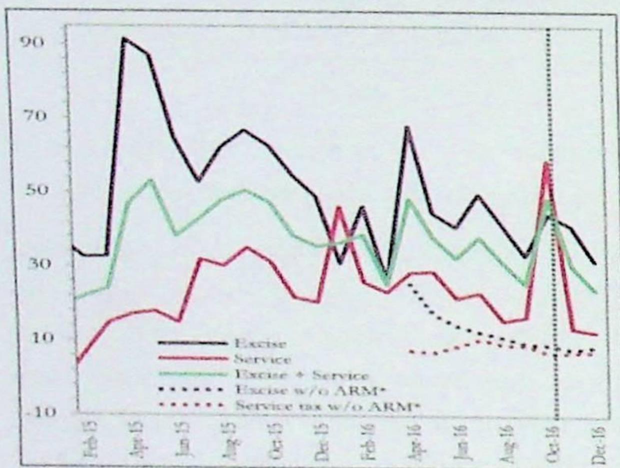


Source: Ministry of Agriculture & Farmers Welfare



Source: Ministry of Agriculture & Farmers Welfare

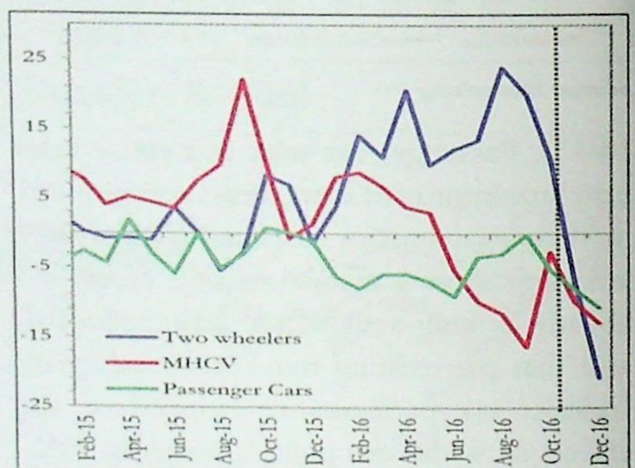
Figure 14. Growth in Indirect Taxes (seasonally adjusted, per cent)



Source: Department of Revenue and survey calculations

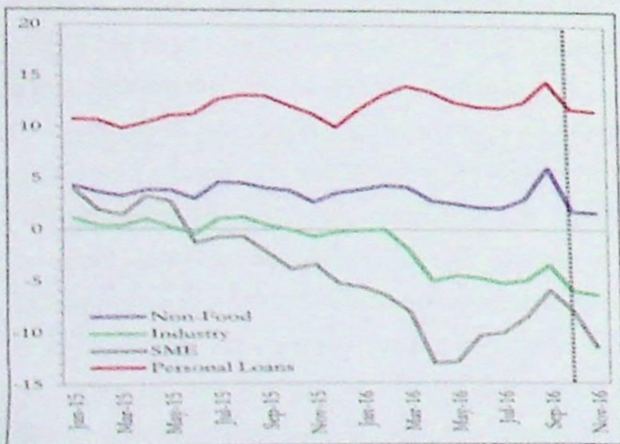
* Cumulative growth

Figure 15. Growth in Automobile Sales (seasonally adjusted, per cent)



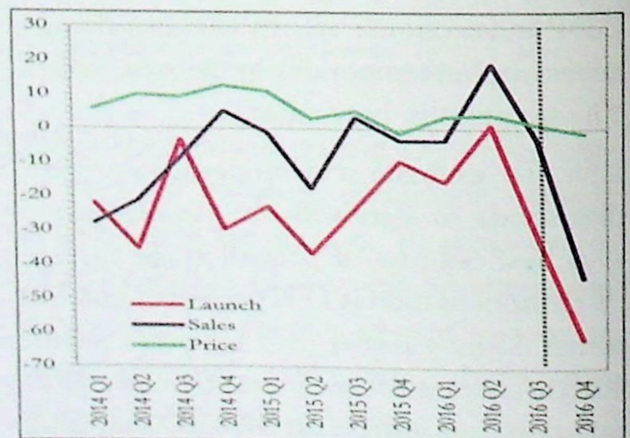
Source: SIAM and survey calculations

Figure 16. Real Credit Growth (seasonally adjusted, per cent)



Source: RBI and survey calculations

Figure 17. Real Estate Prices (seasonally adjusted, per cent)[7]



Source: Knight Frank data and survey calculations

[7] The quarterly data on real estate prices is on a calendar year basis.

projections for 2016-17 will be compared to those of others. The appropriate and not-so-appropriate ways of making these comparisons are discussed in Box 3.

1.58 Recorded GDP growth in the second half of FY2017 will understate the overall impact because the most affected parts of the economy—informal and cash-based—are either not captured in the national income accounts or to the extent they are, their measurement is based on formal sector indicators. For example, informal manufacturing is proxied by the Index of Industrial Production, which includes mostly large establishments. So, on the production or supply side, the effect on economic activity will be underestimated. The impact on the informal sector will, however, be captured insofar as lower incomes affect demand for formal sector output, for example, two-wheelers (Box 3).

1.59 These estimates are based almost entirely on the liquidity impact of demonetisation rather than on the wealth, aggregate supply and uncertainty effects. These effects are difficult to assess, even in qualitative terms. It is likely, for example, that uncertainty caused consumers to postpone purchases and firms to put off investments in the third quarter. But as the economy is remonetised and conditions normalise, the uncertainty should dissipate and spending might well rebound toward the end of the fiscal year. Similarly, there was likely a wealth shock in the initial months, as cash assets were turned into the banks (from where they were difficult to withdraw), but as restrictions are lifted this effect should disappear as well. Indeed, to the extent that some of this wealth has been transferred to those with higher propensity to spend, including the government, demand could eventually increase.

1.60 But this relatively benign outcome would materialise if, and only if, remonetisation is

Box 3. Clarifying in Advance Possible Misinterpretations in GDP-Demonetisation Effects

The GDP growth estimates of the CSO and the Survey, and especially the demonetisation impact, could potentially give rise to a number of misinterpretations which must be anticipated and clarified.

For example, many commentators will be tempted to compare this year's real GDP growth estimate with last year's outturn of 7.6 percent. But this would be inappropriate, because many other factors have influenced this year's performance, quite apart from demonetisation. For example, international oil prices have stopped falling, providing less of an updraft to the economy. So growth would have inevitably differed, even without demonetisation.

Consequently, the appropriate benchmark would be an estimate of what real GDP growth would have been in the absence of demonetisation. A reasonable counterfactual to use would be the CSO's advance estimate of real GDP growth of 7.1 percent, which is close to the Survey's counterfactual, as well.

An even better counterfactual for comparison would be the level of nominal rather than real GDP growth. After all, demonetisation is mostly a nominal demand shock, so its effect in the first instance will be on nominal magnitudes. Moreover, as noted in the Mid-Year Economic Analysis (2015), the large wedge between CPI and WPI inflation has created difficulties in measuring the GDP deflator, which is used to converted nominal magnitudes into real GDP. While the wedge has converged to zero this year as per December 2016 data, nominal magnitudes remain a better basis for identifying the demonetisation effect until the wedge closes durably.

Therefore, the most appropriate gauge of demonetisation would be to compare actual nominal GDP growth -- or the Survey's estimate of it -- with the counterfactual nominal GDP growth without demonetisation. According to the CSO this counterfactual is 11.9 percent, while the Survey's estimate is around 11¼ percent.

Finally, commentators will be tempted to compare the *Survey's* real GDP growth estimates with those of other institutions such as the World Bank and International Monetary Fund. But their baseline growth for 2016-17 (pre-demonetisation) was much higher than CSO's Advance Estimates and the *Survey's*. Therefore the more appropriate comparision would be based on the *change* in the forecast, rather than its level.

effected expeditiously (Figure 9b shows that nearly 90 percent of transactions demand can be met before the end of the year), and decisive policy actions taken to clear away the uncertainty and dispel fears of over-zealous tax administration. Only then could the effects of demonetisation prove non-permanent in nature.

1.61 Finally, demonetisation will afford an interesting natural experiment on the substitutability between cash and other forms of money. Demonetisation has driven a sharp and dramatic wedge in the supply of these two: if cash and other forms are substitutable, the impact will be relatively muted; if, on the other hand, cash is not substitutable the impact will be greater.

V. Outlook for 2017-18

A. Real GDP

1.62 Turning to the outlook for 2017-18, we need to examine each of the components of aggregate demand: exports, consumption, private investment and government.

1.63 As discussed earlier, India's exports appear to be recovering, based on an uptick in global economic activity. This is expected to continue in the aftermath of the US elections and expectations of a fiscal stimulus. The IMF's January update of its World Economic Outlook forecast is projecting an increase in global growth from 3.1 percent in 2016 to 3.4 percent in 2017, with a corresponding increase in growth for advanced economies from 1.6 percent to 1.9 percent. Given the high elasticity of Indian real export growth to global GDP, exports could contribute to higher growth next year, by as much as 1 percentage point.

1.64 The outlook for private consumption is less clear. International oil prices are expected to be about 10-15 percent higher in 2017 compared to 2016, which would create a drag of about 0.5 percentage points. On the other hand, consumption is expected to receive a boost from two sources: catch-up after the demonetisation-induced reduction in the last two quarters of 2016-17; and cheaper borrowing costs, which are likely to be lower in 2017 than 2016 by as much as 75 to 100 basis points. As a result, spending on housing and consumer durables and semi-durables could rise smartly. It is too early to predict prospects for the monsoon in 2017 and hence agricultural production. But the higher is agricultural growth this year, the less likely that there would be an extra boost to GDP growth next year.

1.65 Since no clear progress is yet visible in tackling the twin balance sheet problem, private investment is unlikely to recover significantly from the levels of FY2017. Some of this weakness could be offset through higher public investment, but that would depend on the stance of fiscal policy next year, which has to balance the short-term requirements of an economy recovering from demonetisation against the medium-term necessity of adhering to fiscal discipline—and the need to be seen as doing so.

1.66 Putting these factors together, we expect real GDP growth to be in the 6¾ to 7½ percent range in FY2018. Even under this forecast, India would remain the fastest growing major economy in the world.

1.67 There are three main downside risks to the forecast. First, the extent to which the effects of demonetisation could linger into next year, especially if uncertainty remains on the policy response. Currency shortages also affect supplies of certain agricultural products, especially milk (where procurement has been low), sugar (where cane availability and drought in the southern states will restrict production), and potatoes and onions (where sowings have been low). Vigilance is essential to prevent other agricultural

products becoming in 2017-18 what pulses was in 2015-16.

1.68 Second, geopolitics could take oil prices up further than forecast. The ability of shale oil production to respond quickly should contain the risks of a sharp increase, but even if prices rose merely to $60-65/barrel the Indian economy would nonetheless be affected by way of reduced consumption; less room for public investment; and lower corporate margins, further denting private investment. The scope for monetary easing might also narrow, if higher oil prices stoked inflationary pressure.

1.69 Third, there are risks from the possible eruption of trade tensions amongst the major countries, triggered by geo-politics or currency movements. This could reduce global growth and trigger capital flight from emerging markets.

1.70 The one significant upside possibility is a strong rebound in global demand and hence in India's exports. There are some nascent signs of that in the last two quarters. A strong export recovery would have broader spillover effects to investment.

B. Fiscal outlook

1.71 The fiscal outlook for the central government for next year will be marked by three factors. First, the increase in the tax to GDP ratio of about 0.5 percentage points in each of the last two years, owing to the oil windfall will disappear. In fact, excise-related taxes will decline by about 0.1 percentage point of GDP, a swing of about 0.6 percentage points relative to FY2017.

1.72 Second, there will be a fiscal windfall both from the high denomination notes that are not returned to the RBI and from higher tax collections as a result of increased disclosure under the Pradhan Mantra Garib Kalyan Yojana (PMGKY). Both of these are likely to be one-off in nature, and in both cases the magnitudes are uncertain.

1.73 A third factor will be the implementation of the GST. It appears that the GST will probably be implemented later in the fiscal year. The transition to the GST is so complicated from an administrative and technology perspective that revenue collection will take some time to reach full potential. Combined with the government's commitment to compensating the states for any shortfall in their own GST collections (relative to a baseline of 14 percent increase), the outlook must be cautious with respect to revenue collections. The fiscal gains from implementing the GST and demonetisation, while almost certain to occur, will probably take time to be fully realized.

1.74 In addition, muted non-tax revenues and allowances granted under the 7th Pay Commission could add to pressures on the deficit.

C. The macroeconomic policy stance for 2017-18

1.75 An economy recovering from demonetisation will need policy support. On the assumption that the equilibrium cash-GDP ratio will be lower than before November 8, the banking system will benefit from a higher level of deposits. Thus, market interest rates—deposits, lending, and yields on g-secs—should be lower in 2017-18 than 2016-17. This will provide a boost to the economy (provided, of course, liquidity is no longer a binding constraint). A corollary is that policy rates can be lower not necessarily to lead and nudge market rates but to validate them. Of course, any sharp uptick in oil prices and those of agricultural products, would limit the scope for monetary easing.

1.76 Fiscal policy is another potential source of policy support. This year the arguments may be slightly different from those of last

year in two respects. Unlike last year, there is more cyclical weakness on account of demonetisation. Moreover, the government has acquired more credibility because of posting steady and consistent improvements in the fiscal situation for three consecutive years, the central government fiscal deficit declining from 4.5 percent of GDP in 2013-14 to 4.1 percent, 3.9 percent, and 3.5 percent in the following three years. But fiscal policy needs to balance the cyclical imperatives with medium term issues relating to prudence and credibility.

1.77 One key question will be the use of the fiscal windfall (comprising the unreturned cash and additional receipts under the PMGKY) which is still uncertain. Since the windfall to the public sector is both one-off and a wealth gain not an income gain, it should be deployed to strengthening the government's balance sheet rather than being used for government consumption, especially in the form of programs that create permanent entitlements. In this light, the best use of the windfall would be to create a public sector asset reconstruction company (discussed in Chapter 4) so that the twin balance sheet problem can be addressed, facilitating credit and investment revival; or toward the compensation fund for the GST that would allow the rates to be lowered and simplified; or toward debt reduction. The windfall should not influence decisions about the conduct of fiscal policy going forward.

1.78 Perhaps the most important reforms to boost growth will be structural. In addition to those spelt out in Section 1--strategic disinvestment, tax reform, subsidy rationalization—it is imperative to address directly the twin balance sheet problem. As Chapter 4 makes clear, the problem is large, persistent and difficult, will not correct itself even if growth picks up and interest rates decline, and current attempts have proved grossly inadequate. It may be time to consider something like a public sector asset reconstruction company.

1.79 Another area of reform relates to labour. Given the difficulty of reforming labor laws per se, the thrust could be to move towards affording greater choice to workers which would foster competition amongst service providers. Choices would relate to: whether they want to make their own contribution to the Employees' Provident Fund Organisation (EPFO); whether the employers' contribution should go to the EPFO or the National Pension Scheme; and whether to contribute to the Employee State Insurance (ESI) or an alternative medical insurance program. At the same time, there could be a gradual move to ensure that at least compliance with the central labour laws is made paperless, presenceless, and cashless.

1.80 On the expenditure side, the results in Chapter 9 make clear that existing government programs suffer from poor targeting. One radical idea to consider is the provision of a universal basic income discussed later. But another more modest proposal worth embracing is procedural: a standstill on new government programs, a commitment to assess every new program only if it can be shown to demonstrably address the limitations of an existing one that is similar to the proposed one; and a commitment to evaluate and phase down existing programs that are not serving their purpose.

VI. Other Issues

A. Redistribution: Universal Basic Income (UBI) as a radical new vision

1.81 Chapter 9 discusses India's extensive efforts at redistribution. The central government alone runs about 950 central sector and centrally sponsored sub-schemes which cost about 5 percent of GDP. Clearly,

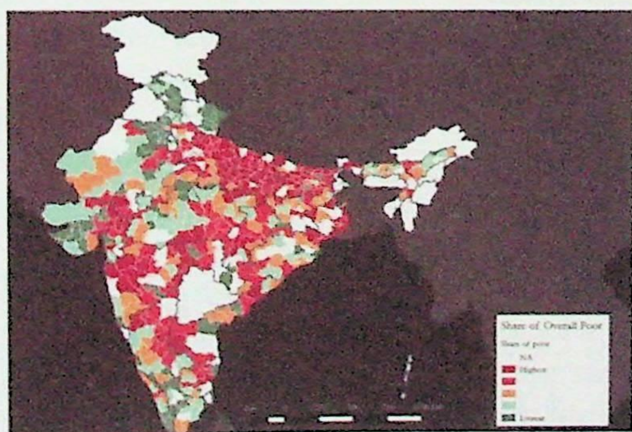
there are rationales for many of them. But there may be intrinsic limitations in terms of the effectiveness of targeting. Figure 18 below provides evidence of misallocation: for six of the largest programmes, it contrasts the share of poor in India's districts (Figure 18a) with the shortfall in allocation of funds to them. (Figure 18b shows this shortfall defined as the difference in the share of fund allocation and the share of the poor.) What the two charts starkly convey is that often the very districts that house the most number of poor are the ones facing the greatest shortfall in the allocation of funds (these districts are consistently red across both charts). This misallocation has consequences: it results in exclusion of the deserving poor from access to government welfare benefits, leakages to non-poor and benefits to corrupt local actors. One of the key problems with many programs is that the take-up and effectiveness of targeting will be correlated with a state's institutional and implementation capacity. States such as Tamil Nadu and Andhra Pradesh, which do not necessarily have the largest number or proportion of poor avail themselves of the program to a greater extent than say Bihar which has many more poor people and a higher poverty rate. This is not an unusual phenomenon but almost intrinsic to anti-poverty and social programs. In such cases, the risks of making "exclusion errors" -- that is leaving out the really deserving and needy -- are high.

1.82 For this and other reasons, the Survey (in Chapter 9) argues that serious consideration be given to the new idea of a universal basic income as a more effective way of achieving Mahatma Gandhi's objectives of "wiping every tear from every eye." A UBI has the merit that it will not necessarily be driven by take-up capability from below but given from above to all the deserving. In that sense, it is less likely to be prone to exclusion errors. And by directly transferring money to bank accounts, and circumventing multiple layers of bureaucracy, the scope for out-of-system leakages (a feature of PDS schemes) is low. Of course, there are considerable implementation challenges which will have to be debated and addressed. Chapter 9 lays out a number of possible ways forward, each with its own challenges. But the support for this idea from all ends of the ideological spectrum suggests that this idea should enter the realm of active policy discourse.

B. Exchange rate policy: Vigilance and new ways of monitoring

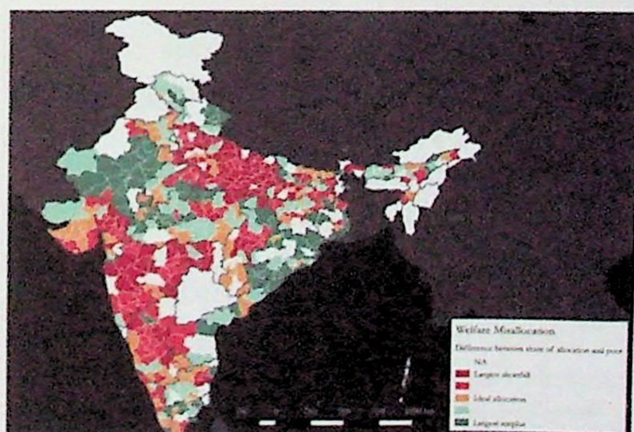
1.83 In the aftermath of the Global Financial Crisis, the eurozone crisis, and the China scare of 2015, international

Figure 18a. Share of Overall Poor



Source: NSS 2011-12.

Figure 18b. Shortfall in Allocation to Poor



Source: GOI and NSS 2011-12.