

During the boom years between 2003-2011 India's real GDP growth averaged 8.2 percent, and exports grew at an annual rate of between 20 and 25 percent (in real dollar terms, for goods and services). So, assume conservatively India aims to grow at 8 percent for the next decade and that that requires growth in exports of goods and services of 15 percent, respectively.

Assume that the world will continue to grow at 3 percent growing forward. Define the political carrying capacity of the world for globalisation as the world's export-to-GDP ratio. The latest figure for that is about 21 percent; assume that it remains stable. (Note that if world trade continues to grow more slowly than overall GDP, as it has done in recent years, the equilibrium carrying capacity—the world's export-GDP ratio—would actually fall.)

Political Carrying Capacity of the World for Openness (Current and Future)

	Today			Change in 10 years			
	World	India	China	World (Fixed)	India	China	RoW (Notional)
Exports of goods/world GDP	21.10%	0.40%	2.90%	0.00%	0.80%	1.40%	-2.10%
Exports of services/world GDP	6.10%	0.30%	0.40%	0.00%	0.50%	0.20%	-0.70%
Exports of goods and services/world GDP	27.30%	0.60%	3.30%	0.00%	1.30%	1.50%	-2.80%
Assumptions on GDP growth: World (3%), India (8%), China (5%)							
Assumptions on export growth: World (3%), India (15%), China (7%)							

Source: Survey Calculation.

In these circumstances, the problem is the following. India's GDP and export growth alone will imply an increase in the world's export-to-GDP ratio of about 1.3 percentage points. If China's export growth continues at the pace of the last 6 years (7 percent in real terms), that will lead to a further increase in the world's export-GDP ratio of another 1.4 percentage points. In other words, India's export growth will run up against the world's carrying capacity for globalisation. The squeeze will get worse if the world's trade-GDP ratio declines, and considerably worse if China's export juggernaut continues.

From India's perspective, the political carrying capacity for globalisation is relevant not just for goods but also for services. The world's service exports-GDP ratio is about 6.1 percent. If India grows rapidly on the back of dynamic services exports, the world's service exports-GDP ratio will increase by 0.5 percentage points—which would be a considerable proportion of global exports. Put differently, India's services exports growth will test the world's globalisation carrying capacity in services. Responses could take not just the form of restrictions on labor mobility but also restrictions in advanced countries on outsourcing.

It is possible that the world's carrying capacity will actually be much greater for India's services than it was for China's goods. After all, China's export expansion over the past two decades was imbalanced in several ways: the country exported far more than it imported; it exported manufactured goods to advanced countries, displacing production here, but imported goods (raw materials) from developing countries; and when it did import from advanced economies, it often imported services rather than goods.³ As a result, China's development created relatively few export-oriented jobs in advanced countries, insufficient to compensate for the jobs lost in manufacturing – and where it did create jobs, these were in advanced services (such as finance), which were not possible for displaced manufacturing workers to obtain.

In contrast, India's expansion may well prove much more balanced. India has tended to run a current account deficit, rather than a surplus; and while its service exports might also displace workers in advanced countries, their skill set will make relocation to other service activities easier; indeed, they may well simply move on to complementary tasks, such as more advanced computer programming in the IT sector itself. On the other hand, since skilled labour in advanced economies will be exposed to Indian competition, their ability to mobilize political opinion might also be greater.

In sum, the political backlash against globalisation in advanced countries, and China's difficulties in rebalancing its economy, could have major implications for India's economic prospects. They will need to be watched in the year – and decade – ahead.

³ Though capital goods is a major exception.

but imposing capital controls discourages FDI and undermines China's ambitions to establish the yuan as a reserve currency. China with its underlying vulnerabilities remains the country to watch for its potential to unsettle the global economy.

III. REVIEW OF DEVELOPMENTS IN 2016-17

A. GDP and Inflation

1.28 Since the Survey was presented eleven months ago, the Indian economy has continued to consolidate the gains achieved in restoring macroeconomic stability.

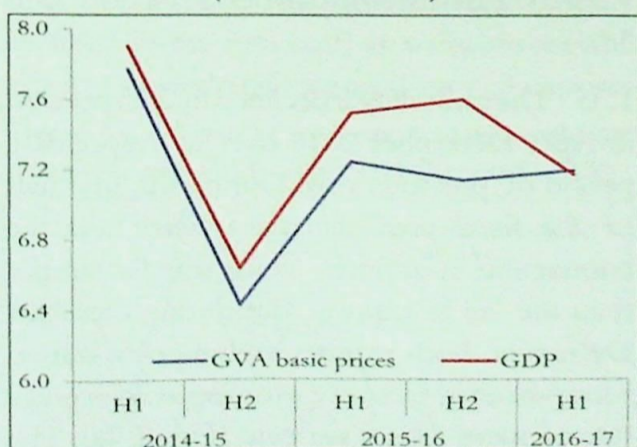
1.29 Real GDP growth in the first half of the year was 7.2 percent, on the weaker side of the 7.0-7.75 per cent projection in the Economic Survey 2015-16 and somewhat lower than the 7.6 percent rate recorded in the second half of 2015-16 (Figure 1a). The main problem was fixed investment, which declined sharply as stressed balance sheets in the corporate sector continued to take a toll on firms' spending plans. On the positive side, the economy was buoyed by government consumption, as the 7th Pay Commission salary recommendations were implemented,

and by the long-awaited start of an export recovery as demand in advanced countries began to accelerate. Nominal GDP growth recovered to respectable levels, reversing the sharp and worrisome dip that had occurred in the first half of 2015-16 (Figure 1b).⁴

1.30 The major highlights of the sectoral growth outcome of the first half of 2016-17 were: (i) moderation in industrial and non-government service sectors; (ii) the modest pick-up in agricultural growth on the back of improved monsoon; and (iii) strong growth in public administration and defence services—dampeners on and catalysts to growth almost balancing each other and producing a real Gross Value Addition (GVA) growth (7.2 per cent), quite similar to the one (7.1 per cent) in H2 2015-16 (Figure 1a).

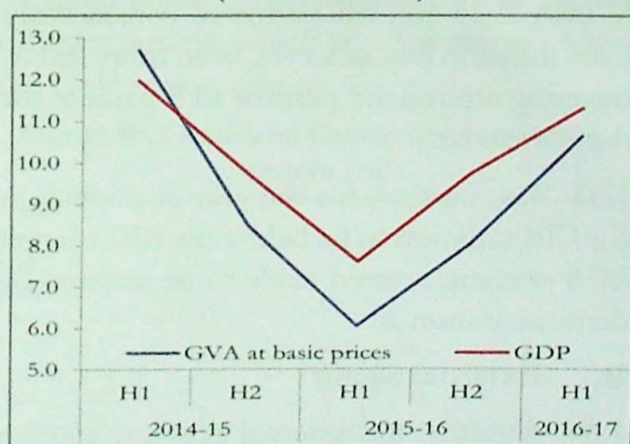
1.31 Inflation this year has been characterized by two distinctive features (Figure 2). The Consumer Price Index (CPI)-New Series inflation, which averaged 4.9 per cent during April-December 2016, has displayed a downward trend since July when it became apparent that kharif agricultural production in general, and pulses in particular would be bountiful. The decline in pulses prices has

Figure 1a. GVA and GDP Growth (Constant Prices)



Source: CSO

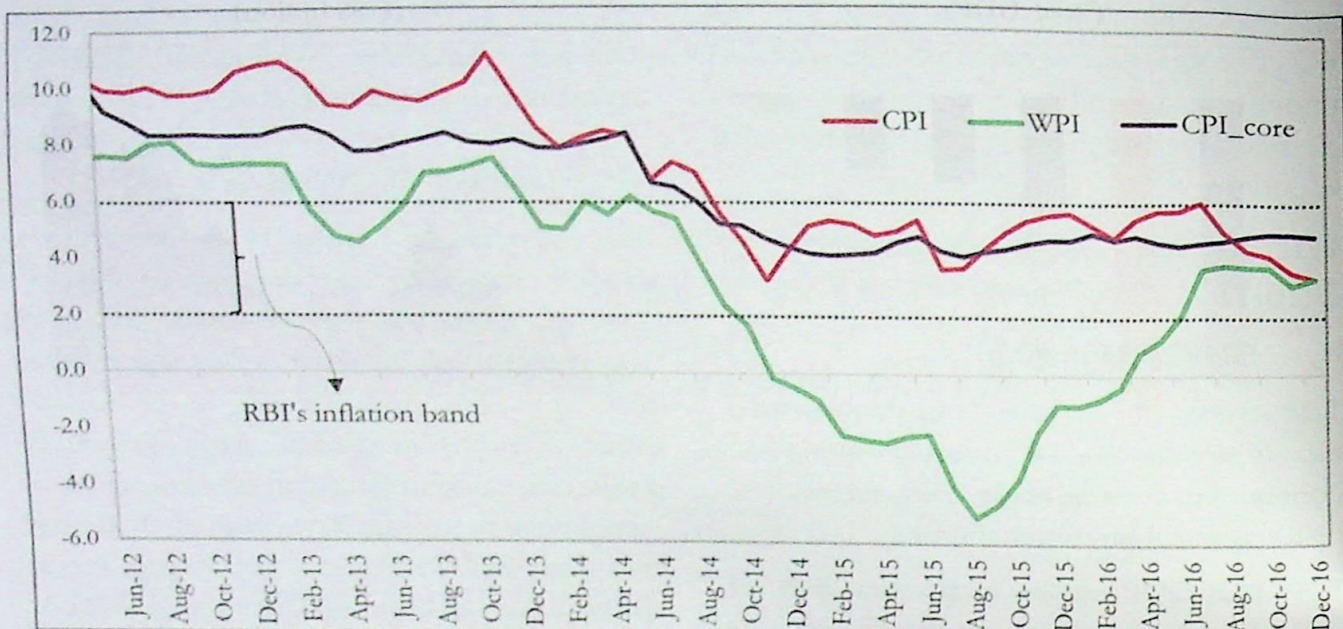
Figure 1b. GVA and GDP Growth (Current Prices)



Source: CSO

⁴ In normal times, nominal GDP growth would not be of particular policy interest. But at a time when the GDP deflator has been subject to unusual measurement uncertainty, nominal growth conveys additional information about real activity.

Figure 2. WPI and CPI Inflation



Source: CSO

contributed substantially to the decline in CPI inflation which reached 3.4 percent at end-December.

1.32 The second distinctive feature has been the reversal of WPI inflation, from a trough of (-)5.1 percent in August 2015 to 3.4 percent at end-December 2016 (Figure 2), on the back of rising international oil prices. The wedge between CPI and WPI inflation, which had serious implications for the measurement of GDP discussed in MYEA (Box 3, Chapter 1, MYEA 2015-16), has narrowed considerably. Core inflation has, however, been more stable, hovering around 4.5 percent to 5 percent for the year so far.

1.33 The outlook for the year as a whole is for CPI inflation to be below the RBI's target of 5 percent, a trend likely to be assisted by demonetisation.

B. External Sector

1.34 Similarly, the external position appears robust having successfully weathered the sizeable redemption of Foreign Currency Non-Resident (FCNR) deposits in late 2016, and the volatility associated with the US

election and demonetisation. The current account deficit has declined to reach about 0.3 percent of GDP in the first half of FY2017. Foreign exchange reserves are at comfortable levels, having risen from around US\$350 billion at end-January 2016 to US\$ 360 billion at end-December 2016 and are well above standard norms for reserve adequacy. In part, surging net FDI inflows, which grew from 1.7 percent of GDP in FY2016 to 3.2 percent of GDP in the second quarter of FY2017, helped the balance-of-payments (Figures 3a to 3d).

1.35 The trade deficit declined by 23.5 per cent in April-December 2016 over corresponding period of previous year. During the first half of the fiscal year, the main factor was the contraction in imports, which was far steeper than the fall in exports. But during October-December, both exports and imports started a long-awaited recovery, growing at an average rate of more than 5 per cent (Figure 4a). The improvement in exports appears to be linked to improvements in the world economy, led by better growth in the US and Germany. On the import side, the advantage on account of

Figure 3a. Current Account Balance (% of GDP)

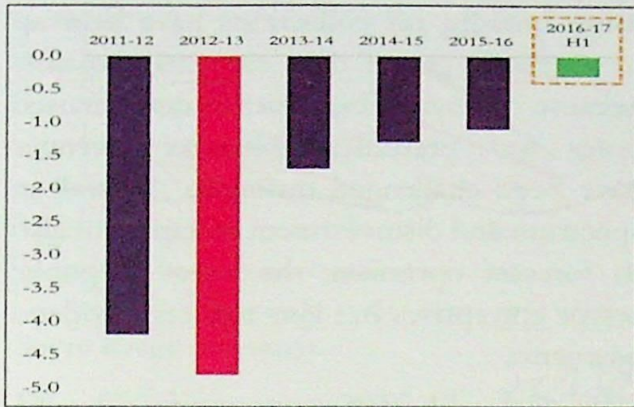


Figure 3b. Foreign Exchange Reserve (US\$ billion)

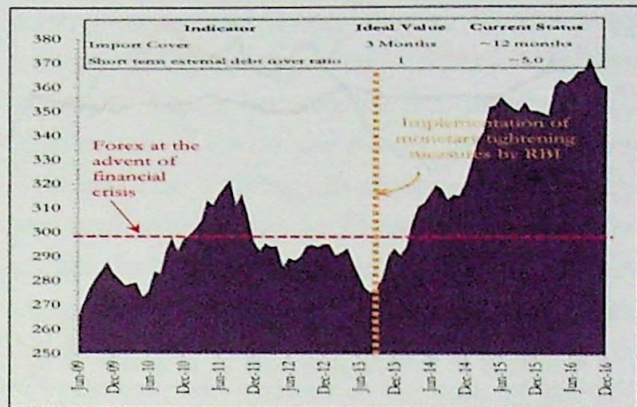


Figure 3c. Trends in Major Components of Capital Inflows (US\$ billion)*

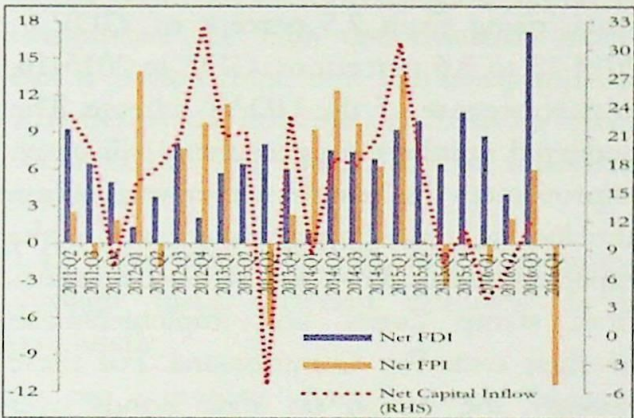
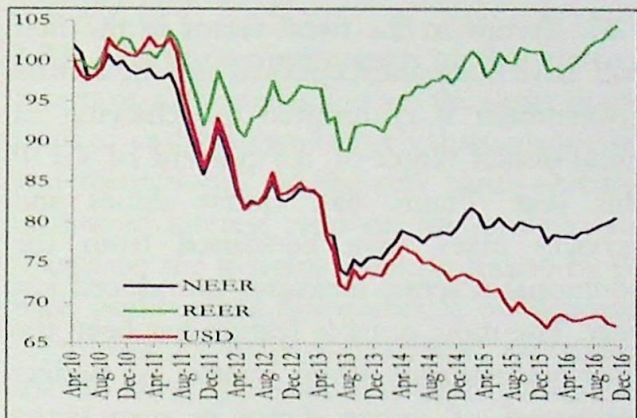


Figure 3d. Index of NEER, REER and US dollar exchange rate (2010=100)

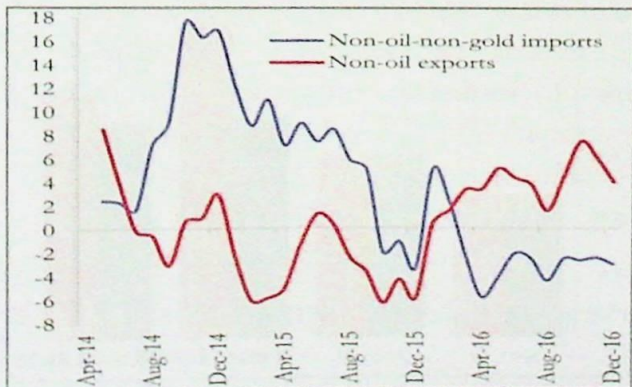


Source: RBI; *Years in Chart 3c are calendar years

benign international oil prices has receded and is likely to exercise upward pressure on the import bill in the short to medium term.

1.36 Meanwhile, the net services surplus declined in the first half, as software service exports slowed and financial service exports

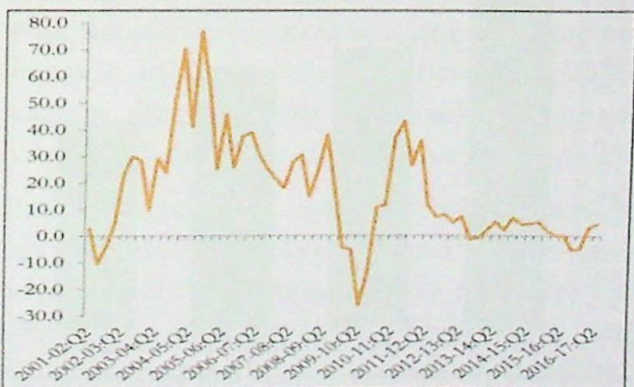
Figure 4a. Growth of imports & export volume (non-oil, non-gold) index (%) (3 months MA)



Source: DGCIS and Survey Calculations.

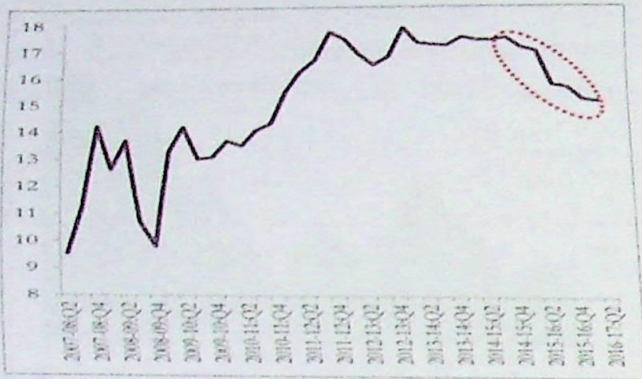
declined (Figure 4b). Net private remittances declined by \$4.5 bn in the first half of 2016-17 compared to the same period of 2015-16, weighed down by the lagged effects of the oil price decline, which affected inflows from the Gulf region (Figure 5).

Figure 4b. Growth of Export of Non-Factor Services (%)



Source: RBI and Survey Calculations.

Figure 5. Private Remittances (US\$ billion)

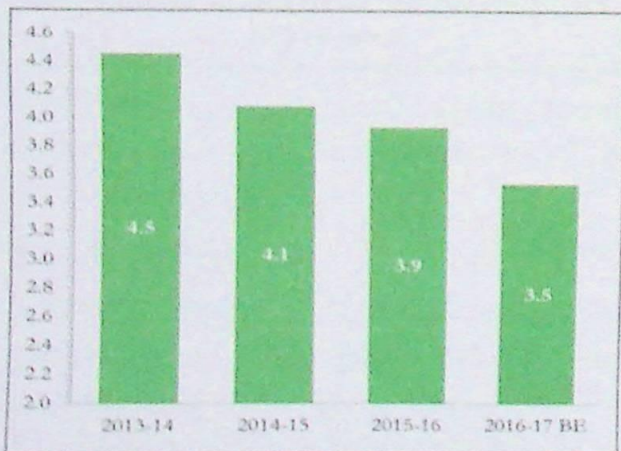


Source: RBI.

C. Fiscal

1.37 Trends in the fiscal sector in the first half have been unexceptional and the central government is committed to achieving its fiscal deficit target of 3.5 percent of GDP this year (Figure 6a). Excise duties and services taxes have benefitted from the additional revenue measures introduced last year. The most notable feature has been the over-performance (even relative to budget estimates) of excise duties in turn based on buoyant petroleum consumption: real consumption of petroleum products (petrol) increased by 11.2 percent during April-December 2016 compared to same period in the previous year. Indirect taxes, especially petroleum excises, have held up even after

Figure 6a. Fiscal Deficit of Center (% of GDP)



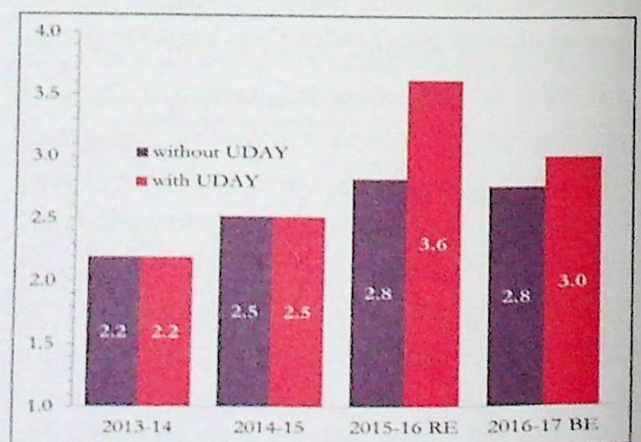
Source: Central Government Budget documents.

demonetisation in part due to the exemption of petroleum products from its scope. More broadly, tax collections have held up to a greater extent than expected possibly because of payment of dues in demonetised notes was permitted. Non-tax revenues have been challenged owing to shortfall in spectrum and disinvestment receipts but also to forecast optimism; the stress in public sector enterprises has also reduced dividend payments.

1.38 State government finances are under stress (Figure 6b). The consolidated deficit of the states has increased steadily in recent years, rising from 2.5 percent of GDP in 2014-15 to 3.6 percent of GDP in 2015-16, in part because of the UDAY scheme. The budgeted numbers suggest there will be an improvement this year. However, markets are anticipating some slippage, on account of the expected growth slowdown, reduced revenues from stamp duties, and implementation of their own Pay Commissions. For these reasons, the spread on state bonds over government securities jumped to 75 basis points in the January 2017 auction from 45 basis points in October 2016.

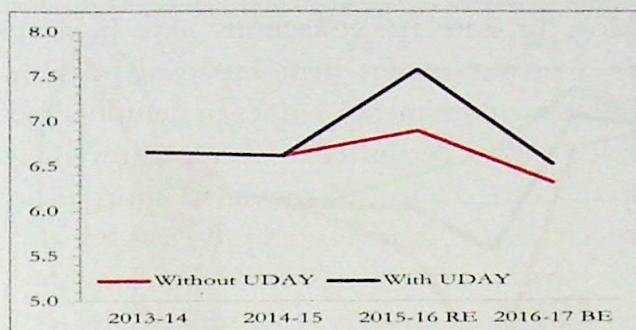
1.39 For the general government as a whole, there is an improvement in the fiscal deficit with and without UDAY scheme (Figure 6c).

Figure 6b. Fiscal Deficit of States (% of GDP)



Source: States' Government Budget documents.

Figure 6c: Fiscal deficit of the General Government (% of GDP)



Source: Budget documents.

IV. OUTLOOK FOR 2016-17

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1.40 This year's outlook must be evaluated in the wake of the November 8 action to demonetize the high denomination notes. But it is first important to understand the analytics of the demonetisation shock in the short run (the long run benefits are addressed in Chapter 3).

1.41 Demonetisation affects the economy through three different channels. It is potentially:

- an aggregate *demand* shock because it reduces the supply of money and affects private wealth, especially of those holding unaccounted money;
- an aggregate *supply* shock to the extent that economic activity relies on cash as an input (for example, agricultural production might be affected since sowing requires the use of labour traditionally paid in cash); and
- an *uncertainty* shock because economic agents face imponderables related to the magnitude and duration of the cash shortage and the policy responses (perhaps causing consumers to defer or reduce discretionary consumption and firms to scale back investments).

A. Impact on supply of cash and money and interest rates

1.42 Demonetisation is also very unusual in

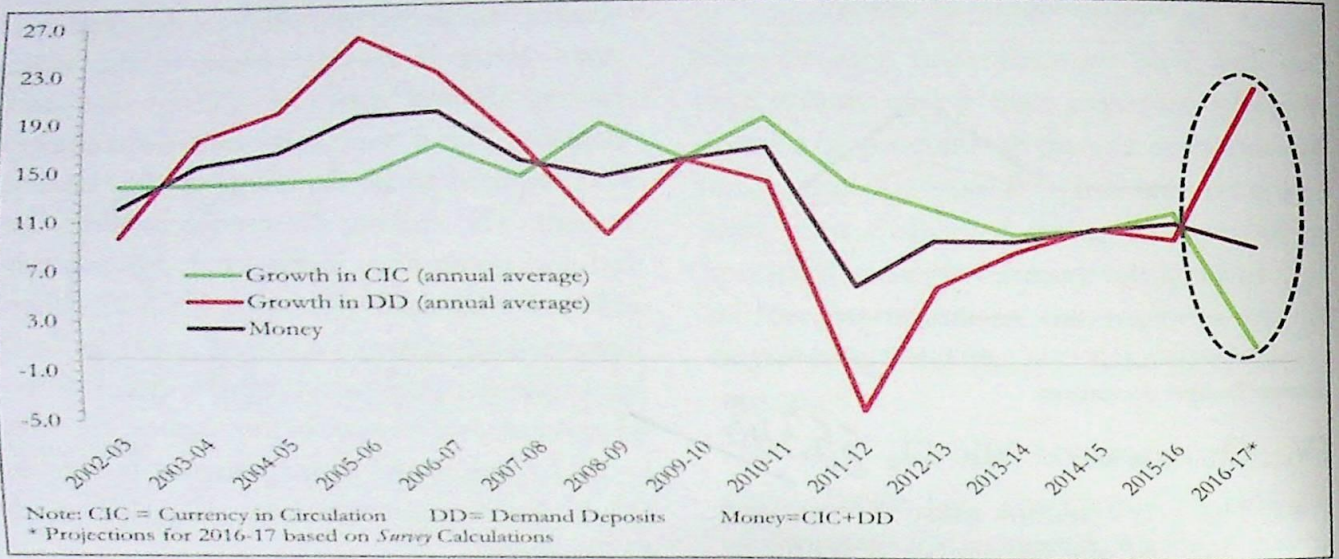
its monetary consequences. It has reduced sharply, the supply of one type of money—cash—while increasing almost to the same extent another type of money—demand deposits. This is because the demonetized cash was required to be deposited in the banking system. The striking divergence between the red and green lines in Figure 7 captures this effect. In the third quarter of FY2017 (when demonetisation was introduced), cash declined by 9.4 percent, demand deposits increased by 43 percent, and growth in the sum of the two by 11.3 percent (the corresponding figures in Q3 of the previous year were 12.5, 10.5, and 11.7 percent).

1.43 The price counterparts of this unusual aspect of demonetisation are the surge in the price of cash (inferred largely through queues and restrictions), on the one hand; and the decline in interest rates on the lending rate (based on the marginal cost of funds) by 90 basis points since November 9; on deposits (by about 25 basis points); and on g-secs on the other (by about 32 basis points) as indicated in Figure 8.

1.44 There is yet another dimension of demonetisation that must be kept in mind. By definition, all these quantity and price impacts will self-correct by amounts that will depend on the pace at which the economy is remonetized and policy restrictions eased. As this occurs, consumers will run down their bank deposits and increase their cash holdings. Of course, it is possible, even likely that the self-correction will not be complete because in the new equilibrium, aggregate cash holdings (as a share of banking deposits and GDP) are likely to be lower than before.

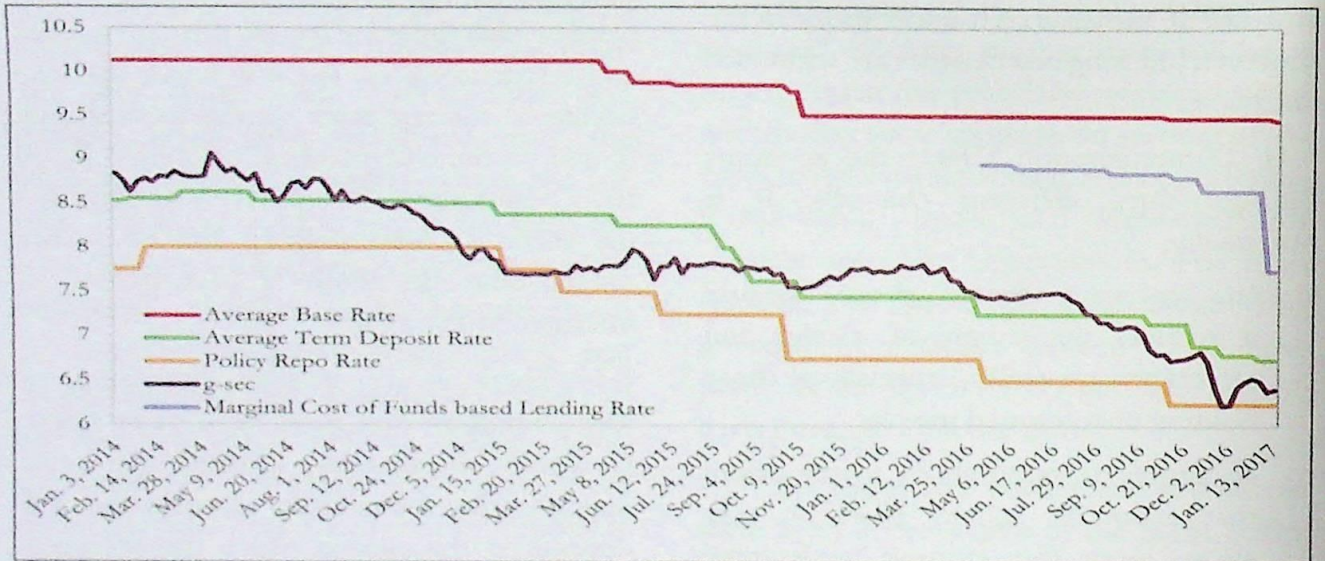
1.45 It is too early and difficult to quantify all the demand, supply and uncertainty effects but it is possible to quantify the impact on liquidity/cash. Figures 9a and 9b plot, respectively, the headline numbers of cash in circulation and our estimates of

Figure 7. Cash and demand deposit growth (%)



Source: RBI and Survey Calculations.

Figure 8. Movement of Repo Rate, Base Rate & Term Deposit Rate



Source: RBI.

the effective cash in circulation measured in absolute terms and as a share of transactions demand.⁵

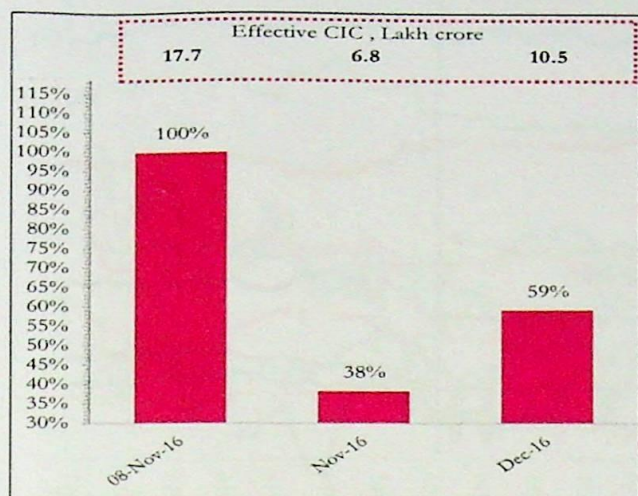
1.46 Three important findings flow from the Figures. First, the liquidity crunch (measured by the effective cash in circulation) was smaller than the headline numbers indicate. The headline numbers suggest that the currency decline after November 8 amounted to 62 percent by end-November, narrowing to 41 percent by end-December.

Our comparable numbers are 25 percent and 35 percent, respectively. In other words, the true extent of the cash reduction was much smaller than commonly perceived.

1.47 Second, the true peak of the currency – as opposed to the psychological – shock occurred in December, rather than November. In the first few weeks following the announcement, effective currency was sustained because most of the demonetized

⁵ The headline numbers are based on taking out all the demonetised notes and adding the new notes. The Survey's estimates take account of other factors (detailed in Chapter 3).

Figure 9a. Effective Currency in Circulation (Market Perception)



Source: Survey calculations

notes still served de facto and de jure as tender (for some purposes). But in December most of these notes were deposited in the banks, while the new Rs. 2000 notes that replaced them were not as liquid as the demonetized currency.

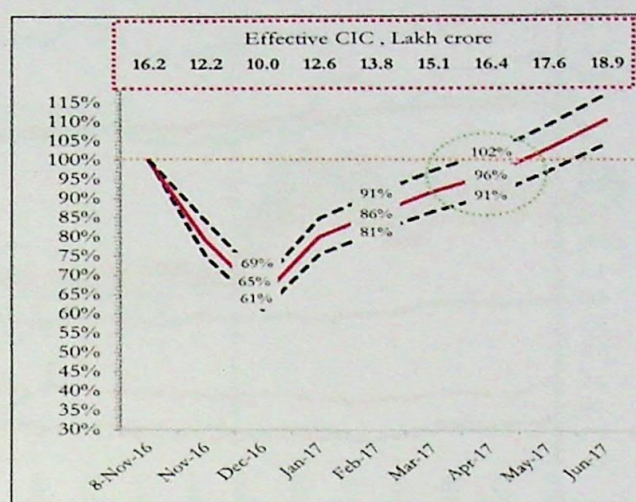
1.48 Finally, the numbers also show that the shortfall is now narrowing rapidly. At end-December 2016, effective currency was about 65 percent of estimated demand, but this is likely to rise to around 86 percent of demand by end-February.

1.49 With these basic facts in mind, we turn next to the macro-economic consequences of demonetisation thus far.

1.50 Figures 10 – 12, plot the interest rate, exchange rate, and stock market effects post demonetisation. Demonetisation coincided with the announcement of the US election results which also heralded a regime economic shift in the US. Hence, the impacts on India are compared with comparable emerging market countries to isolate, albeit imperfectly, the demonetisation effect.

1.51 The most dramatic effect relates to interest rates (Figure 10). In almost all major

Figure 9b. Effective Currency in Circulation as a proportion of Estimated Transactions Demand



countries, bond yields rose sharply after November 8, in the US by as much as 58 basis points as of January 19. In India, they had moved in the opposite direction by 32 basis points, a comparative swing of 90 basis points. Similarly, India's stock market had declined by 0.93 percent (Figure 11).

1.52 The decline in interest rates and the outlook triggered a large outflow of foreign portfolio investment, amounting to US\$9.8 billion in November and December, with 60 percent of the decline accounted for by debt outflows (Figure 3c). Curiously, though, the impact on the exchange rate has been relatively modest (Figure 12), perhaps because of intervention by the RBI to stabilize the rupee.

B. Impact on GDP

1.53 Anecdotal and other survey data abound on the impact of demonetisation. But we are interested in a macro-assessment and hence focus on five broad indicators:

- Agricultural (rabi) sowing;
- Indirect tax revenue, as a broad gauge of production and sales;
- Auto sales, as a measure of discretionary