The continuing puzzle of demonetisation

The Economic Survey (Volume II) released by the government recently adds to the controversy surrounding the demonetisation exercise and its impact on the Indian economy. The government pats itself on the back for the "sharp and equilibrium decline" in the use of cash in absolute levels, as a proportion of the gross domestic product (GDP) and the money supply (M1) levels.

In absolute levels, the Economic Survey puts cash holdings at Rs3.5 trillion (20%) lower than what might have been the case had pre-demonetisation trends prevailed. As a proportion to GDP and M1 again, the proportion of currency in circulation (CIC) has fallen by 1.6 percentage points and 5 percentage points, respectively, as per the Economic Survey. Such a decline in cash holdings is used to make the following inferences: One, a large part of cash holdings which were earlier kept idle (the Economic Survey mistakenly refers to these as "savings"), have now been transferred to the banking system. Two, there has been a decrease in the use of cash for transactions due to greater digitalization.

The Economic Survey, presciently, references data for digital transactions for various categories of customers—the digitally excluded, the less affluent, the affluent and the large customers. It thus seeks to pre-empt criticism that such a decline in cash holdings, accompanied by greater digitalization, was restricted only to the "digitally affluent".

Thus, demonetisation, the government would have us believe, seems to have changed the behavioural preference for cash for all categories of Indians—both for transactions and precautionary purposes.

A perusal of the weekly statistical supplement data from the Reserve Bank of India tells a different story. CIC (which includes currency with public, as also cash with banks) has gone down in percentage terms between 28 October 2016 (prior to demonetisation) and 21 July, but this has been only of the order of 2.3 percentage points. As can be seen in the accompanying chart, the CIC to M3 (broad money)—the money supply measure used in India—has remained fairly stable since 2007-08 and after a temporary decline post-demonetisation, has been exhibiting an ascending trend. CIC to the measure of narrow money supply (M1), which happens to be significantly higher than the CIC to M3 ratio, has also been exhibiting an ascending trend.

As regards Indians taking to digitalization with little or no resistance, this conclusion again seems to be a little overstretched. The data, put out by the National Payments Corporation of India (NPCI) shows a descending trend since February. Perusal of RBI data regarding digital gains post the note ban shows that such gains are clearly overstated.

The other part of the puzzle has to do with the growth in nominal GDP by 1.1 percentage points in 2016-17, despite the demonetisation, and despite a fall in the real GDP from 8% to 7.1%. In fact, the Economic Survey, Volume 1 had anticipated a decline in nominal (as also real) GDP. It had stated, "Given the uncertainty, we provide a range: a 0.25 percentage point to 1 percentage point reduction in nominal GDP growth relative to the baseline of 11.25%."

Citing the rise in nominal GDP as a puzzle in a box title *The demonetisation and the Nominal GDP Puzzle*, the Economic Survey points out that while cash growth declined by 16% in 2016-17 over 2015-16, it led to an increase in the nominal GDP by 1.1 percentage points. The deceleration in cash growth was even higher—of the order of 39%—between H1 2016-17 and H2 2016-17, and yet nominal growth rose by 1.1 percentage points over the period. The survey provides no answers to this "puzzle".

One explanation for the rise in nominal GDP may simply be the increase in the velocity of circulation of money during demonetisation. The velocity of money refers to the number of times a unit of currency changes hands in facilitating transactions of various kinds. To understand this, transactions worth Rs100 in the economy may either be facilitated by ten Rs10 notes, or by one Rs10 note circulated 10 times. However, the velocity of circulation would have to increase dramatically in the short run for the 39% decline in cash to be negated enough to cause a 1.1 percentage points rise in nominal GDP.

Turning to the components of such rise in nominal GDP, the provisional estimates of national income and expenditures on GDP (Central Statistics Office data) reveal that much of this increase in the nominal GDP was accounted for by increases in government final consumption expenditure, which rose 25.3% over the period 2015-16 to 2016-17, and changes in stocks, which grew at 8.7% in 2015-16 to 2016-17 from -2.2% in the period 2014-15 to 2015-16. These happened alongside a reduction to half in the rate of growth of gross fixed capital formation (investment).

Turning to the supply side, the growth in the gross value added at basic prices seems to have been primarily on account of the agricultural sector, as also growth in public administration, defence and other services. The latter especially grew at 16.6% compared to 2015-16. Such growth in public administration could not have been employment generating, as pointed out by the Economic Survey 2015-16—between 2005-06 and 2011-12 (the latest year for which data is available) formal public employment at all levels (Central and state government, local bodies and quasi-governmental bodies) actually declined by 580,000 to 17.61 million. Nor could such growth in public administration have added to productivity in the economy.

The GDP statistics, in the last few years, have become the source of much speculation and confusion. The answers to the Indian demonetisation puzzle seem to be similarly elusive.

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