

Did the Shock Therapy of Demonetization of Currency Notes Work for India?

To What Extent have the Economic Goals of the Indian Government for this Scheme been Realized?

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1. INTRODUCTION

On November 8th, 2016, the Prime Minister of India sent shock waves to the nation in a live television telecast by announcing immediate discontinuation of all the 500 and 1000 Rupee currency notes. This was a very secretive plan, known only to select few. The majority of the Indian population was not expecting the discontinuation of notes which represent 86.9% of the total currency in circulation.

The government's goals for the demonetization included removing counterfeit banknotes from circulation, reducing corruption, terror funding and black money in circulation, lowering the size of the informal sector, and promoting electronic forms of payment.

However, it truly was massive shock therapy to achieve the above very crucial goals. The Sudden announcement of Demonetization created cash shortages for many individuals and firms in the economy. There were snarls of people waiting outside banks to exchange their cash to new denominations, completely paralyzing the country that practically runs on cash. Additionally, labor-intensive sectors were negatively affected by the demonetization. Small firms and low income earners were hurt adversely by cash shortages compared to bigger firms and higher income earners. This was inconsistent with the Indian government's goal to help poorer households. Labor-intensive firms employ about 80 million workers and account for about 40% of Indian exports.

The demonetization also affected the overall economic performance - GDP growth rate dropped by 1%, employment decreased in labor-intensive sectors. Unlike export and exchange rate figures, GDP growth rate did not recover immediately and remained at 5.6% as compared to pre-demonetization growth rate 6.8% (see figure 2). Therefore, demonetization scheme had a significant cost on Indian economy as slower GDP growth could imply slower improvements in the well-being of the society. In contrast, there were positive developments in the electronic transactions

and deposits growth. Electronic transactions increased by about 25% that is an indication that informal sector started to shrink (see figure 8). Similarly percentage of deposits increased by about 6% (see figure 9). Importantly, the number of people who filed the tax return applications also rose by about 25% (see figure 7). This implies higher tax revenues for government.

2. GOALS OF THE INDIAN GOVERNMENT

India has a very limited banking penetration which means a large number of the population do not have bank accounts resulting in heavy reliance on cash transactions. Much of these transactions are unaccounted to avoid taxation, or are kept secret (black money). Such money is therefore, stored in high value currency notes (for ease of storage and liquidity). This is one of the reasons why the government demonetized these high currency notes.

Another reason for the demonetization includes terror funding. India faces substantial terrorist threats, and most of the terror networks are funded through cash from hidden sources. Such cash is again stored in high value denominations. Also, a major part of the political funding is in an unaccounted manner, again stored in high denomination notes, providing the government with one more reason to demonetize high currency notes, putting opposition parties completely off guards. India also suffered from substantial presence of counterfeit currency, often linked to the terror networks wanting to achieve dual purpose of destabilizing the economy while funding themselves thru foreign printed counterfeits.

Demonetisation was intended to give a shock therapy to all of the factors above, as the currency they had stacked up became useless paper, unless brought into the banks and hence be accounted for.

3. SHORT-RUN EFFECTS OF DEMONETIZATION

In spite of all the efforts made in implementing the scheme, due to the challenge of keeping confidentiality, huge supply of

new notes could not be printed and stocked at banks as the news will leak out and miscreants be alerted, defeating the very purpose. Hence, for weeks, even months, there was a massive shortage due to restricted supply of new currency notes. People had to stand for hours to wait for their turn at the banks, and even then receive only a maximum of INR 24000 per week per account. Also, substantial percentage of Indians who do not have bank accounts faced many daily issues such as getting groceries and basic necessities, as they had no other recourses like check books or digital transactions. Additionally, the low income earners living in rural areas faced even bigger issues as there were no bank branches in many deep rural areas, in some cases the nearest bank could be as far as 50 km, and the cost of travel could be more than the meagre amount the poor farmer may have had to exchange.

After about three to four months of struggle, the cash is now freely available at banks and ATMs in most of the Indian towns and the economy is slowly limping back to normality. The government is hoping that the hardships faced by the public and small businesses initially, will bear positive fruits for the economy in the future.

Tax departments are now scrutinizing all the deposits made in the mad rush to convert old notes to new, to find out the sources of the earnings and bringing more and more people to the in to the tax net as India currently has an extremely low tax inclusion (the number of people paying taxes), at below one percent of the entire population. Tax collection will provide more funds for public spending on infrastructure, health, education, and in nation building in general. The counterfeit currency which was destroying the Indian economy will also get swept out, and will remain under check at least for sometime. An increase in the use of cashless systems, like electronic means and cards for payment is a speedy, secure and efficient way to make payments and also helps in proper accounting.

1. Effect of Demonetization on the GDP

The overall effect on overall GDP can be seen on Figure 1, which shows the Gross value add (GVA) data published by the National Statistics office of the Ministry of Commerce and Industry of India.

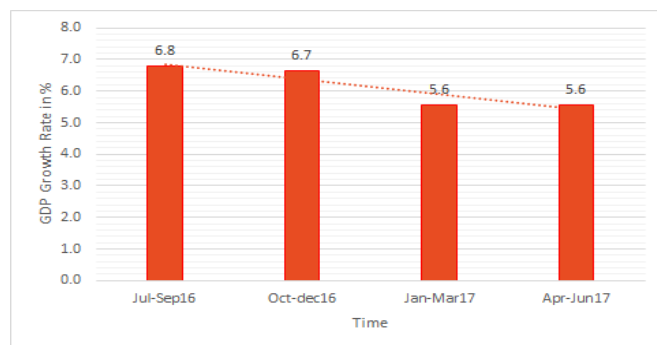


Figure 1: GDP Growth Rate

As is evident, the Indian economy grew by 6.8 and 6.7 percent in the third and fourth quarters of 2016 respectively, but Demonetization resulted in a reduction in GDP growth rate in the first and second quarters of 2017, where the growth rate dropped to 5.6 percent between January and June in 2017.

2. Decline of Production in Labor-Intensive Sectors

However, the effect of demonetization was very different across various sectors of the economy (RBI Monetary Policy Report October 2017). Figure 2 shows how different sectors were affected by the introduction of the demonetization scheme.

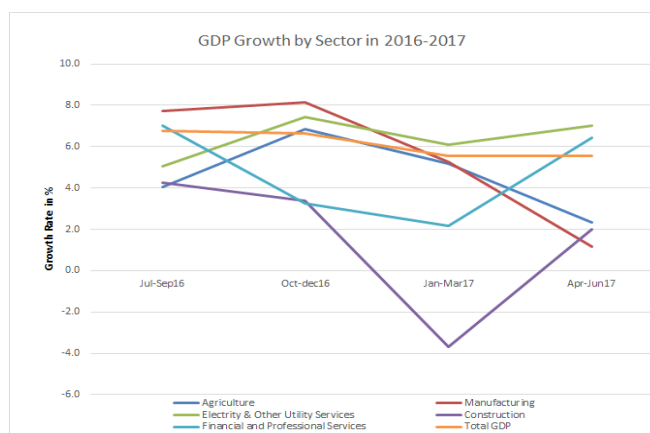


Figure 2: GDP Growth by Sector in 2016-17 (National Accounts Statistics)

The Ministry of Statistics and Program Implementation (National Accounts Statistics) of India classifies sectors in five groups: agriculture, electricity and other utilities, financial services, manufacturing and construction. The horizontal axis indicates how sectoral growth rates varied during four quarters. While vertical axis measures growth rate in year-over-year percentage terms. Few interesting observations can be made based on the data: firstly, all sectors declined; secondly, the least decline was in the electricity and other utilities sector; thirdly construction sector was most severely affected as growth rate turned negative. In addition, manufacturing and financial services had a lower growth rate starting from the first quarter in 2017. The sectoral changes in the economy can be explained by the nature of supply and demand for the goods produced within each sector. Demand for electricity remained high and did not decline as electricity belongs to the necessity good category - individuals continued consumption of electricity in a similar quantum as before. Furthermore, labor-intensive sectors started to decrease sharply as opposed to the other sectors of the Indian economy (RBI Monetary Policy Report, 4th Oct 2017).

As shown in Figure 2, labor intensive sectors were negatively affected by the demonetization. Labor intensive sectors are agriculture, manufacturing, construction and financial and professional services. Similar to other sectors, Indian

agriculture sector is not automat zed therefore it remains as one of the highly labor intensive industry in India. Manufacturing sector include firms that produce gems, jewelry, textile, carpets, handlooms and other similar products. Construction sector has higher share of labor as compared to capital and therefore is also considered as a labor-intensive industry. Financial and professional sector includes individuals employed in the financial sector or professionals like doctors and teachers (National Accounts Statistics). There are over 80 million workers employed in the labor intensive sectors. The value of goods produced by these firms is about 40% of Indian exports. As a response to the demonetization employment started to decrease in the labor-intensive sectors (Macroeconomic Impact of Demonetisation).

The fall in the produced goods in the labor-intensive sectors occurred after firms experienced cash shortages. Firms that produce goods using labor-intensive systems heavily depend on cash as they buy inputs by cash - including payments to employed workers. After the demonetization firms' existing cash stock became invalid means of payment - 86% of banknotes became invalid (Macroeconomic Impact of Demonetisation). Firms had to bring the existing banknotes to banks and exchange for the new banknotes. However, banks supplied only limited amount of new banknotes. Therefore, firms faced serious problems after having lower amount of cash. Firms started to purchase lower amount of inputs and employ less workers as they could not pay them in cash. Decrease in in number of employees and input purchases generated a fall in production in labor-intensive industries. As a result some workers were fired and production of products like gems and jewelry decreased. Lower supplied goods and services in labor-intensive industries lowered the amount of exports of India.

3. Depreciation of Indian Rupee

The Indian Rupee saw a depreciation immediately after the demonetization, and it took about three months for it to return to the pre-demonetisation levels. October 2016. Figure 3 shows the dynamics of the USD/INR exchange rate during September 2016 - February 2017.

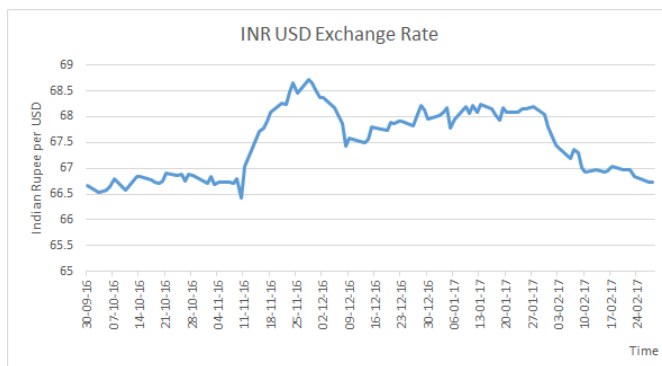


Figure 3: Dollar per INR rate

USD/INR exchange rate was stable before the demonetization. This can be seen in Figure 5, where the exchange rate deviated around its mean 66.5. The standard deviation of the Indian Rupee around its mean was about 1 as well. This implies that there was no volatility in the USD/INR exchange market. The turbulent period for the INR started on the 11th of November 2016. Hence, foreign exchange market reacted to the demonetization scheme implementation (started on November 8) very quickly. The Indian Rupee continued to depreciate till the end of November 2016 and started to gain positions in early December, finally returning to the October levels only in february,2017.

4. Tax Base Growth

Indian economy has one of the lowest number of taxpayers (ref Srivastava, Spriha). One of the Indian government's goals was to increase the size of the formal sector and number of taxpayers. Figure 4 shows the number of firms and individuals who submitted the income tax return forms was about 22.7 million in the financial year of 2016 (Demonetization and Bank Deposit Growth). Financial year in India ends March, therefore demonetization did not affect 2016 financial year tax returns. In contrast, demonetization increased the number of taxpayers rapidly in 2017. Interestingly, the number of taxpayers have increased due to a huge rise in the number of individuals starting to pay taxes (see Figure S1 in Appendix). In contrast, the number of firms who filed tax return forms started to decrease. This might have been because of financial difficulties experienced by firms that were highly dependent on cash.

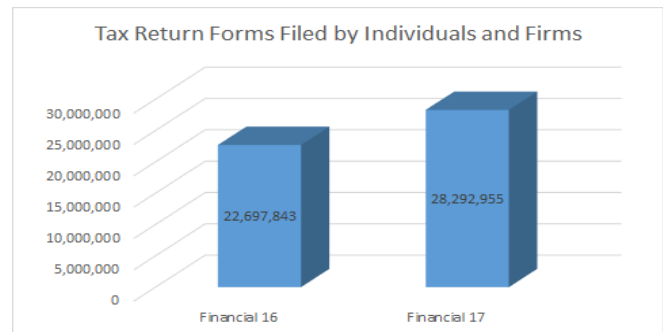


Figure 4: Tax Return by Individuals and Firms (Demonetization and Bank Deposit Growth)

5. Growth in the Deposits

As a response to demonetization households started to accumulate more deposits in commercial banks, Figure 5 shows that annual growth rate in deposits rose by about 6% from 8.1% to 14.5% in December 2016 (Demonetisation and Bank Deposit Growth). This indicates that government's effort in increasing the deposit volume has been successful.

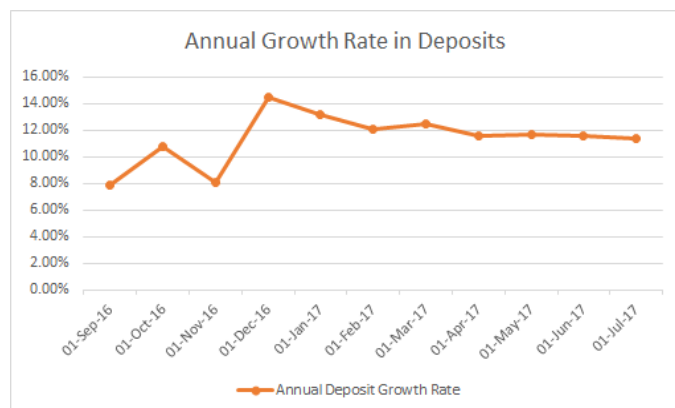


Figure 5: Annual Growth Rate in Deposits (Demonetisation and Bank Deposit Growth)

6. Growth in the electronic Transactions

Huge informal sector and little amount of taxpayers was one of the incentives for the Indian government to implement the demonetization scheme. Consonant with the policy goals, indeed, the number of transactions started to rise immediately in December 2016. Figure 6 shows the number of transactions in millions. December 2016 depicts the record high growth in transactions from 671.5 millions to 957.5 millions. This is about 42% growth in the volume of transactions (Macroeconomic Impact of Demonetisation).

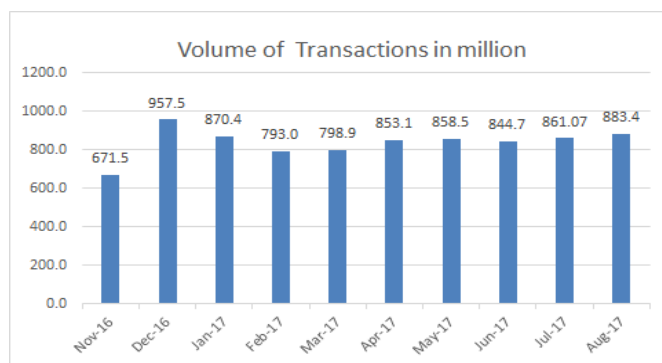


Figure 6: Volume of Transactions in million (Macroeconomic Impact of Demonetisation)

4. CONCLUSION

While the Government of India had very clear goals to chase, the demonetisation has at best been a mixed bag of successes and failures. Some important goals of the Indian government were successfully realized. This can be seen in the growth trend of three measures: amount of bank deposits, number of Electronic transactions and number of taxpayers. This implied a lower size of the informal sector.

However there have been some clear negative outcomes like depreciation of Indian Rupee and the reduction in Exports and production in labour intensive sectors. These however have

been very short term, the GDP growth rate remained low even after three quarters after the demonetization. This can be considered as one of major costs of the demonetization to the Indian economy. In addition, I find that

This intervention, the Currency Demonetization in India, is one of the most disruptive measures deployed in recent times in the world, and while there is partial success on the goals, the negative impact on GDP growth is sizable. We will thus, have to wait to see the long-run economic outcomes, to conclude whether this was a successful intervention, and whether all the pain that entire country went through, brought commensurate returns for India in the long run.

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