DEMONETISATION: SHIFTING GEARS FROM PHYSICAL CASH TO DIGITAL CASH

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Abstract

Demonetization means to the suspension of current currency units and reinstate those currency units with new currency units. In this paper researchers aim to study the advantages and disadvantages of demonetization and its impact on Indian banking sector. Despite major developments in paperless currency over the past decade, physical cash remains widely used throughout the world. Therefore one of the main motivating factors for this study is to find out the alternatives of physical cash payments such as online bank transfer, e- clearing, e- KYC, digital locker and Unified Payment Interface.

Keywords: *money, demonetisation, cash, cash crunch, cashless, e-money*

Demonetization means to the suspension of current currency units and reinstate those currency units with new currency units. It is a most important decision and it blows all the citizens of the country because suddenly all the money you have become a piece of paper which has no value if you do not exchange it with new currency units or deposit it in the banks. It means legal tender is declared invalid. This is usually done whenever there is a transform of national currency; reinstating the old unit with a new one. Such a step, for example, was taken when the European Monetary Union nations decided to assume Euro as their currency. However, the old currencies were allowed to exchange into Euros for a period of time in order to ensure a flat conversion through demonetisation. Zimbabwe, Fiji, Singapore and Philippines were other countries to have opted for currency demonetisation.

History of Demonetisation

It India also it is not for the first time that the government of India has gone for demonetisation of high value currency. First time it was put into operation in 1946 when Reserve Bank of India demonetised the then circulated Rs. 1000 and Rs. 10000 value currency notes and government then introduced higher denomination bank note of Rs. 1000,Rs.5000 and Rs. 10000 value notes in 1954 and in 1978 then prime minister Shri Morarji Desai demonetised these notes in 1978. After 38 years again India witnessed demonetisation of bank notes in November, 2016 and this time government demonetised Rs. 500 and Rs. 1000 notes and replaced it with new designed 500 notes and for the first time Indian government introduced 2000 value note. In India the objective of curbing the hazard of black money and fake notes by limiting the amount of cash available in the system.

Why Demonetization

Boost deposit base and savings: Global agencies have pegged the size of the parallel economy in India at close to 23% as of 2007. Basis this, we estimate unaccounted cash in the economy to the tune of 4500 billion, of which a certain significant proportion will make its way to the banks, thus boosting deposit base as well as financial savings: The banks' deposit base is expected to receive a fillip of 0.5-1.4% of GDP; In turn, financing savings can be expected to rise by close to this proportion due to switch from savings from unproductive physical assets to financial assets.

Improve monetary transmission and reduce lending rates: A rise in deposit base will allow banks to lower the blended cost of funds as higher CASA (current accounts, savings accounts) deposits help to replace the high cost of borrowing and lower overall cost of funds. We expect banks to reduce deposit rates by ~125 bps over the next six months.

The new regime of MCLR (Marginal Cost of Funds based Lending Rate)will immediately take into account the lower cost and will thereby lead to a decline in lending rates, which will boost economic activity in the medium term.

Create room for further monetary accommodation: With improved monetary transmission, economic efficiency and structural moderation in currency in circulation, there is likely to be a greater room for the RBI to ease monetary policy rate further. I am hopeful that the RBI will ease by another 100 bps in 2017-18 to a repo rate of 4% by March 2018; The piecemeal liquidity support from OMO purchases will now to a larger extent be addressed by the structural change in currency demand

Ready, steady, now go: financial inclusion via Jan Dhan: Over the last two years, while the number of Jan Dhan accounts has recorded a stellar growth, the share of these accounts in total deposit base of the banking system has remained under 1%. The demonetization drive of higher denominated notes should give a push to cash deposits in Jan Dhan accounts, of which close to 43% so far have remained dormant. In addition, the move will help to inculcate banking habits among the large *unbanked* population in the country.

Support government finances: With some part of unaccounted money making way into the formal channel, the government stands to benefit from higher income tax collections. This should help cushion the government's FY17 fiscal deficit target, especially post the shortfall in anticipated spectrum revenues; The latest move will move the economy from the unorganized to organized sector, dovetailing into the GST architecture that is expected to come on board next year. This is likely to enhance the government's ability to tax commercial transactions resulting in a structural improvement in tax to GDP ratio in the economy.

Positive impacts from a bond market perspective: Improvement in bank deposit base leads to higher SLR (statutory liquidity ratio) demand; On the supply side, with tax buoyancy seeing an improvement, supply of g-secs is likely to get more rationalized due to gradual reduction in fiscal deficit over time as the impact of FRBMA (Fiscal Responsibility and Budget Management Act) is underway; Anticipation of monetary easing to further support bonds.

Rise in GDP growth potential: While there are short-term implications for growth in cash-intensive sectors such as real estate, construction, and discretionary household consumption in general, I believe that long-term benefits for GDP growth will outweigh the short term transitional impact. We are now surely heading towards a 9% GDP growth by FY2018-19.

In a single master stroke, the government has attempted to tackle all three malaises currently plaguing the economy—a parallel economy, counterfeit currency in circulation and terror financing. In addition, the Indian economy has been provided a new lease of life—a "reset" if you will—with huge positive implications for liquidity, inflation, fiscal and external deficit in the short term. Over the next two-three years, improvement in India's position on transparency and corruption in the global stage will further add to its investor appeal. With GST on the anvil, India is now on the cusp of higher growth in the medium term—to be steered by the organized sectors including MSMEs and the revival of the private sector capex cycle.

Advantages of Demonetization

The biggest advantage of demonetization is that it helps the government to track people who are having large sums of unaccounted cash or cash on which no income tax has been paid because many people who earn black money keep that money as cash in their houses or in some secret place which is very difficult to find and when demonetization happens all that cash is of no value and such people have two options one is to deposit the money in bank accounts and pay taxes on such amount and second option is to let the value of that cash reduced to zero.

Since black money is used for illegal activities like terrorism funding, gambling, money laundering and also inflating the price of major assets classes like real estate, gold and due to demonetization all such activities will get reduced for some time and also it will take years for people to generate that amount of black money again and hence in a way it helps in putting an end this circle of people doing illegal activities to earn black money and using that black money to do more illegal activities.

Another benefit is that due to people disclosing their income by depositing money in their bank accounts government gets a good amount of tax revenue which can be used by the government towards the betterment of society by providing good infrastructure, hospitals, educational institutions, roads and many facilities for poor and needy sections of society.

Disadvantages of Demonetization

The biggest disadvantage of demonetization is that once people in the country gets to know about it than initially for few days there is chaos and frenzy among public as everybody wants to get rid of demonetized notes

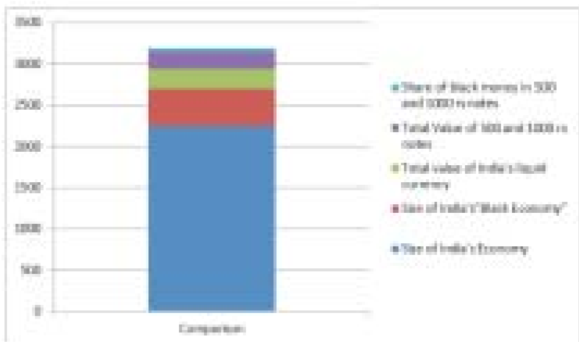
Destruction of old currency units and printing of new currency new units involve costs which has to be borne by the government and if the costs are higher than benefits then there is no use of demonetization.

Most of times this move is targeted towards black money but if people have not kept cash as their black money and rotated or used that money in other asset classes like real estate, gold and so on then there is no guarantee that demonetization will help in catching corrupt people.

Impact of Demonetisation on Indian Banking Sector

In 1985 and 2010 the Indian Government and the World Bank respectively carried out two different studies on how big the black or "Shadow Economy" of India is. They both reached to the same conclusion- it is around 20% of the total GDP.

It is fairly an astonishing steadiness over a quarter of a century. So, we can presume that this share of "black economy" in India is still around 20% of its nominal GDP. According to both the IMF and World Bank India now is the 7th largest economy in the world. According to the IMF the size of India's economy is 2.25 trillion dollars. 20% of 2.25 trillion is 450 billion dollars. Prior to the demonetization the total value of liquid currency in India was around Rs. 16250000000000 or around 240 billion dollars. Rs. 500 and Rs.1000notes which have been ceased as legal tender comprised 86% of this total amount which calculates its value up to around Rs. 14000000000000 or around 207 billion dollars.



So, it can be concluded that the total value of the "black economy" is more than twice the total value of all the 500 and 1000 rupees notes. Now, let us consider that 20% of the 500 and 1000 rupees notes were "black money". Even then, it will constitute only around 9% of what is generally considered to be the size of India's "black or shadow economy". It means demonetization is not going to affect more than 91% of the "Black Economy". Thus it becomes more interesting to know why Indian government took such economically painful step on the people and what are their cost benefit calculation and that too at a time when Indian economy has reached to the 7th position as compared to 11th position in 2015 as the largest economy of the world in 2016. The answer may be to shift the paradigm from physical cash to digital cash and to prevent the delicate Indian banking sector adjacent to future uncertainty caused by reasons like US Presidential Elections.

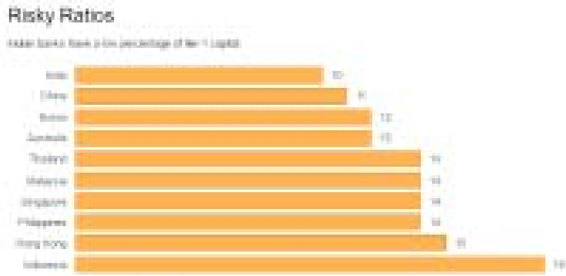


Figure 2: Source IMF[v].

The "tier 1" capital is the capital set aside by banks under the Basel Agreements so that the banks can carry on with their business even after facing a financial calamity thus providing assurance of stability to customers. But as is clear from the above diagram this assurance is lowest in India amongst other leading Asian economies. Also according to the Fitch ratings agency- Indian banks lack tier 3 capital as well. This capital is supposed to protect against tertiary risks like market risks and commodity prices risks.

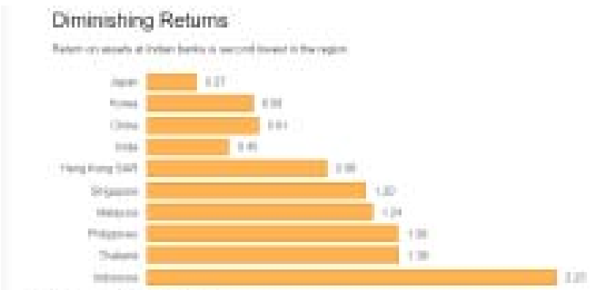


Figure 3: Source IMF[vii]

The above figure shows that only Japanese Banks have lower returns on investments than Indian banks. Consider this- Japan has been going through not years but decades of recession and India is the fastest growing big economy in the world.

According to the Reserve Bank of India, 14.5% of the total loans given out by Indian banks have become NPAs or stressed assets. This amounts to 7% of India's total GDP or around146 billion dollars. By all parameters the Government of India (GoI) also realises that the situation is quite grim. In 2015 the GoI began the "Indradhanush" plan to re-capitalize the banks by injecting 70,000 crore rupees by 201 But this was not enough as the downgrades l happened after this plan had been launched.

If we consider this in the light of the results of the US Presidential Election where the Indian Government was staring at a possible Donald Trump victory- a person who made cancelling both intercontinental and regional free trade agreements with some of the closest allies of the US his central theme in the election campaign. Trump's most significant foreign policy goal was to go back to the isolationism of 1920s and 30s something which aggravated the Great Depression. Whether these things happens or not, India will have to wait till the beginning of next year but, if that happens or even if there is an indication of that happening it would lead to more serious pressure on the international markets including India and since India lacks severely in tier 1 and tier 3 capital, its banks will not be able to sustain this pressure. So, it seems that government instead of dealing with the hypothetical situation mentioned above decided to deal with the consequences of demonetization. How this works out in future time will tell but we cannot ignore one of the immediate impacts of the "currency ban".

70000 crore rupees the Indian government was planning to spend on recapitalizing our banks. Well, within just one day after demonetization was announced the State Bank of India alone received deposits worth 53000 crore rupees. Also when the massive crowd in the banks lining up to deposit their now- worthless currencies it can be understood that probably the 70000 crore rupees target has already been crossed and by the end of this year the Indian PSU banks should have sufficient resources to deal with their stressed assets comfortably.

Moving From Physical Cash To Digital Cash

One of the main motivating factors for this study is that, despite major developments in paperless currency over the past decade, physical cash remains widely used throughout the world. As such, the entry barrier for adoption of alternate proposals is extremely high. An appealing aspect of physical cash is that people can trade it without the assistance of computing devices. People expect that simple visual and tactile inspection reveals fake bills. Physical cash can survive extreme situations: it can endure a cycle in a washing machine and it can survive extreme temperatures that would render any smartcard unusable. Although not perfectly anonymously, physical cash, especially smaller and widely circulated bills, provides a reasonable level of privacy.

On the other hand, paperless, cryptographic digital cash offers numerous benefits, and provides two key advantages over physical money. First, an adversary cannot forge digital cash, assuming the security of the cryptographic mechanisms and the secrecy of the associated cryptographic information are preserved. Second, replication of digital cash is easy, so that one can easily safeguard against loss or theft of digital cash through digital backups. The idea to use digital cash as a solution against money counterfeiting is not new.

This has received considerable interest from the technical community; Counterfeit resilience also spurred a large body of research as one application of quantum cryptography, although current quantum cryptography implementations are still far from being practical. A bank may offer many methods of payment, such as cheque, giro, debit and credit transfers, Unified Payment Interface, Digital signature, digital locker , e- KYC by linking Adhar card change the nature of authentification and variations thereof. Currently, the bulk of high and medium-value payments is mediated by such transactions, replacing the need for physical cash transfer. More recent efforts (e.g. the design and evaluation of a peer to-peer mobile payment system) argue that with the ubiquity of cellular phones and PDAs, mobile devices can greatly facilitate adoption of digital cash by the masses. However, the transaction, coordination, and social costs associated with any large scale switch to digital cash explain why, in spite of the advance of cell phones and credit cards, we are still far from becoming a cashless society, especially in many developing nations. It may be more beneficial for an economy to preserve the appealing aspects of physical cash, including its ubiquitous deployment, and combine those with the advantages of digital cash essence, a kind of physical-digital money, Indeed, a few hybrid solutions coupling physical security with cryptographic verification have been suggested. Each has its own specific trade-offs. By embedding an easily verifiable cryptographic value in regular bills, the issuing government can combine physical and digital cash without requiring drastic changes to the underlying existing monetary infrastructure. However, devising such bills, or physical-digital cash, also leads to trade-offs between the security properties achieved, the technological complexity involved, and the economic costs incurred.

Conclusion

The demonetization move could change the face of the Indian economy. This is a step which will make a positive difference, if the transition challenges get handled well by the administration, The International Monetary Fund supports the measures to fight corruption and illicit financial flows in India, but at the same time, given the large role of cash in everyday transactions in India's economy, the currency transition will have to be managed prudently to minimize possible disruption. The role of cash and high-value bank notes in the Indian economy cannot be understated. The Indian reality is that many trades and areas are still cash-based and cannot be digitized just by willing it. Resulting disruption in the real economy stemming from this move is very significant and potentially fatal for some vulnerable sections of society. If some of the key areas are hampered, there is risk of mob violence and rioting. Since the entire country is at risk, there is no way of anticipating and preparing for this, either. So there is a risk of the situation getting out of hand as well. Apart from that it will not be enough just to do this [demonetization]. It has to be matched with a better; more streamlined and integrated tax system.

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