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What Demonetisation Sought: Was it a Bridge Too Far?[1]

On November 8, 2016, the Indian Prime Minister, Mr Narendra Modi, announced the demonetisation of the Rs 500 and Rs, 1,000 currency notes from that midnight. This was arguably the most radical monetary policy initiative since 1947, leaving no part of the population unaffected. The main objective was to curb the black economy.

This paper contends that demonetisation has proven to be a blunt policy instrument for checking the parallel economy. Data shows that a small proportion of black money is held as cash, with an overwhelming majority of illegally generated funds held in other asset classes such as precious metals, property, other financial instruments and offshore accounts. Of the funds unaccounted for by the tax authorities, a significant proportion has been returned to the banking system. Though precise estimates are difficult to obtain, collateral damage on the informal sector and those on the economic margin seem to have been severe, while the return of a large proportion of invalidated cash to the banking system, may have negated the original objective of seizing black money. There are likely to be benefits for public finance and progress in the quest for digitalising payments. However, without structural reforms and reforms in tax administration, a sustainable impact on the parallel economy is doubtful. From that perspective, the rationale for demonetisation is open to question.

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At 8 pm on November 8, 2016, after banks and financial markets closed for the day, the Indian Prime Minister, Mr Narendra Modi, announced in a televised address the demonetisation of the Rs 500 and Rs, 1,000 currency notes from that midnight onward.[3] Aside from some government hospitals, railway stations and post offices, no other entities were to accept the large denomination notes. With this move, an extraordinary 86% of currency by value was removed from circulation.

The intended objectives of this policy initiative were to curb the shadow economy and remove counterfeit notes that were believed to be a major source of financing for terrorist activities. Subsequently, the goals were articulated to encompass a move towards a cashless economy that would facilitate tracking and monitoring transactions, and thereby expand India's tiny tax base. Tracking transactions was also expected to nudge informal enterprises that account for nearly 96% of total businesses in India, to formalise. The effects were immediate, pervasive and severe, and unlike any other policy move since 1947, impacted every segment of the economy.

Objectives

The initiative raises a number of questions. What were the assumptions underlying demonetisation? What were the immediate effects of demonetisation and how are these likely to play out in the medium term? Is demonetisation the best instrument to achieve the intended objectives? Can one make a priori inferences about the efficacy of such an initiative and its consequences for equity? Of equal importance may be the consequences for expectations of future policy initiatives and policy credibility that could have serious implications for business confidence.

This paper contends that thus far, demonetization has proven to be a blunt policy instrument for checking the parallel economy. Data shows that a small proportion of black money is held as cash, with an overwhelming majority of illegally generated funds held in other asset classes such as precious metals, property, other financial instruments and offshore accounts.[4] Of the funds unaccounted for by the tax authorities, a significant proportion may already have been injected into the banking system. Though precise estimates may be impossible to compute,

[3] Press Information Bureau, Prime Minister's speech on November 8, 2016.
[4] White Paper on Black Money, Government of India, 2012.

collateral damage inflicted on the informal sector that runs on cash and accounts for a large part of the economy is likely to be severe. The January 2017 Nikkei Purchasing Managers Index fell to 49.6, a reading below 50 being indicative of economic contraction. Several market estimates suggest a slow-down in growth.[5]

Despite relative macroeconomic stability and robust economic growth conditions, the conditions for effective demonetisation do not exist in a developing economy like India. Indeed, other than in periods of hyperinflation, the case for demonetisation is weak.

A priori reasoning, past experience and anecdotal evidence suggest that the burden of demonetisation has been asymmetric, borne disproportionately by the informal sector where an overwhelming proportion of the poor and others on the economic margin are employed. There may be some beneficial effects on the financial sector and for public finances, and possibly for the quest for digitization of the cash economy. While final numbers from the RBI are awaited, preliminary estimates suggest that up to 97% of total outstanding currency may have been deposited by December 30[6], the closure of the period for depositing invalidated currency notes, suggesting the possibility of undeclared wealth being recycled through the banking system. The implementation raises an associated risk of impairing policy credibility. The eventual outcome will also be shaped by follow up policy initiatives indicated by government, such as the Benami Transactions (Prohibition) Amendment Act 2016[7], that became effective on November 1, 2016. However, it is difficult to find a clear rationale for a policy initiative that has indiscriminately affected large swathes of the economy, without a clear impact on those at whom the initiative was targeted.

Precedents for Demonetisation

Demonetisation has been carried out in developing and transitional economies experiencing high inflation or hyperinflation: the Russian Federation in 1991, Argentina in 2001, Brazil in 1986 and 1989 along with other Latin American economies in the aftermath of the debt crises and hyperinflation in 1980s, a period often referred to as the lost decade, Germany during the

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[5] A number of economists and institutions contend that demonetisation will have a dampening impact on growth. These include Ambit Capital, the former Prime Minister, Jean Dreze and Rating agencies ICRA and CARE.

[6] Estimate from Bloomberg https://www.bloomberg.com/view/articles/2017-01-11/modi-s-setback-on-black-money.

[7] A transaction is named 'benami' if property is held by one person, but has been provided or paid for by another. The Act prohibits recovery of the property held 'benami' from 'benamidar' by the real owner. Benami properties are liable for confiscation by the government.

interwar period in 1923, Myanmar in 1987, and Zimbabwe in 2015. Middelkoop[8] documents these and several hundred other instances of demonetisation between 1700 and 2013. Every demonetisation was preceded by civil war, cross-border war, hyperinflation or abandonment of a currency be a new regime or a monetary union. There is no instance of a growing relatively stable economy demonetising its currency.

In developed economies with mature financial systems, demonetisation is primarily confined to high denomination currency notes held by a small percentage of the population. These notes tend to be popular with organised criminals and tax evaders as they are a lighter and an efficient way of moving large amounts of cash. In early 2016, the European Central Bank stopped issuing 500 euro notes as most of these were being held outside the Eurozone as takings from illegal activities. In 2010, Britain's Serious Organised Crime Agency had estimated that 90% of 500 euro banknotes exchanged in Great Britain were held by organised crime syndicates. In July 2014, the Monetary Authority of Singapore announced stoppage of production of S$10,000 notes because of the "risks associated with large value cash transactions and high-value notes". In Singapore and the Eurozone, existing notes were to remain in circulation. In a widely-read volume, Kenneth Rogoff[9] made a similar case for demonetising US$100 bills, contending that 80-90% of this denomination circulated in the underground economy allowing for tax evasion, corruption and crime on a large scale. Rogoff estimated tax evasion at 3% of GDP in the US. The indirect and the social costs of tax evasion were considered to be substantially higher. Rogoff has gone on further to make a strong case for a near cashless economy in the US. Rogoff's viewpoint has been contested by a number of other economists, including John Taylor on the grounds that currency has strategic value, and a simple solution such as increasing the size of the currency notes has acted as a deterrent. Furthermore only a small proportion of illegally obtained wealth is held as cash. Rogoff, in a recent commentary, advised against developing economies using this strategy as underdeveloped financial systems, soft currencies, and economies where banking and digital transactions were developing ran the risk of compounding logistical problems and economic dislocation.

As an illustration, a study by the UK government's treasury department[10] revealed that illegally obtained money was laundered primarily through offshore bank accounts, real estate and other investments, rather than cash. Regulated institutions, including multinational banks and law

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[8] The Big Reset: War on Gold and the Financial Endgame Paperback – January 15, 2014, by Willem Middelkoop, Amsterdam University Press.

[9] "The Curse of Cash" Kenneth Rogoff, Princeton University Press, 2016.

[10] UK National Risk Assessment of Money Laundering and terrorist financing, HM Treasury, Oct 2015.

firms and accountancy services, such as the Panamanian firm, Mossack Fonseca, posed the highest risk of facilitating laundering of illegally obtained funds. These findings are mirrored in data from seizures by the Income Tax authorities in India (White Paper on Black Money, Government of India, 2012). These findings weaken the case against banning cash.

Demonetisation in India

India has demonetised its currency on two previous occasions. On both occasions, the objective was to eliminate black money believed to be held primarily as high denomination banknotes. On January 12, 1946, an ordinance was passed demonetising Rs 500, Rs 1,000 and Rs 10,000 banknotes. 40% of these notes were believed to be held in British India, the rest in the princely states, beyond the control of the RBI. The public was given 10 days to exchange notes, subsequently the deadline was extended to February 9. On January 16, 1978, the then Prime Minister, Mr. Morarji Desai announced demonetisation of Rs 1000, Rs 5000 and Rs 10,000 banknotes. The public was given 3 days to exchange currency notes. Media reports from the two periods indicate that in both instances, the then RBI Governors, Mr C D Deshmukh in 1946, and Mr I G Patel in 1978, opposed the moves. In both instances, demonetisation failed to check the growth of the parallel economy. Mr Deshmukh felt that the inconvenience for 'unoffending holders' of the demonetised notes and the lack of a compelling economic argument that the move would eliminate the parallel economy did not warrant demonetisation. He couldn't see a parallel for this move anywhere else in modern times. Mr Patel believed that rich tax evaders held little of their wealth in cash, and most would be able to exchange it back into legitimate cash holdings by breaking up larger holdings into conversion by smaller depositors.

The current demonetisation is distinct in two respects. 1) It has been conducted during a period of growth with a low inflation rate, and 2) The currency notes demonetised are of a low denomination, i.e.; Rs. 500 (US$7.5) and Rs 1,000 (US$15); even after adjusting for differences in purchasing power parity or taken as a percentage of per capita income, the notes are widely held among the population and unlike the high value 500 Euro or US$100, are commonly used in daily transactions, including by those at the low end of the wage scale.

It is difficult to find an instance where a government of a major rapidly growing economy has demonetised such a large proportion of the monetary base, for the ostensible purpose of striking the parallel economy. The structure of the Indian economy is distinct from other major economies in that nearly 50% of GDP is generated in the informal sector that employs 93% of the labour force (83% of the labour force outside agriculture).[11]Agents in the informal economy transact primarily in cash and would thus bear the brunt of the dislocation triggered by the withdrawal of currency.

Context for Current Demonetisation

The most pressing challenges confronting the Indian economy include endemic corruption, prevalence of red tape hindering business and low tax revenues, all of which are of course closely linked to demonetisation.

(i) Corruption

Corruption, or rent seeking activities, has been a major issue in public discourse across the globe over the past several years. It became a particularly contentious issue in India following several high profile scandals during the tenure of the previous government. On the Transparency International Corruption Perceptions Index, India ranks 78 out of 167countries. The relative scores assigned to India have actually declined since 2012 and 2013. Corruption and black money are related, yet, distinct issues. All bribes may be black income but all black income is not bribes. The term black money is used loosely to denote income that has evaded taxes, income from rent-seeking activities (bribes), as well as income generated in the informal economy which is not recorded and thus evades taxes. From a legal standpoint, most transactions in informal sector enterprises are deemed to be carried out with ‘black money’, though the activities in this sector are legitimate. The distinction between ‘black’ and legitimate or declared income is often blurred. Consider a professional, a lawyer, doctor or a consultant, who carries out activities that are perfectly legal, but the professional also evades taxes on some earnings, thus operating in both domains.

A primary aim of the demonetization process is to eliminate the parallel economy that comprises funds from tax evasion and illegal activities, known in India as ‘black money’.

[11] http://nceuis.nic.in/Final_Booklet_Working_Paper_2.pdf Contribution of the Unorganised sector to GDP Report of the Sub Committee of a NCEUS Task Force, NCEUS.

"Black money refers to money that is not fully legitimate in the hands of the owner".[12] Black money arises from two types of activities. Drug running, human trafficking and corruption are illegal and merit full prosecution of the law. Income generated from these activities are considered to be black money. However, a large part of the Indian economy is concentrated in the informal sector in activities that are legitimate but not legal. "Tackling black money in this sector is complex and may require modifying, reforming, and redesigning major policies to promote compliance with laws, regulations and taxes and deter active economic agents from generating, hoarding, and illicitly transferring abroad such unaccounted wealth".[13] Businesses in the informal sector do not pay taxes.

Corruption has a corrosive impact on economic efficiency, growth and on public morale. Over the past decade, especially in the aftermath of the global financial crisis, it has evolved into one of the most contentious issues in global politics. Erasing corruption and the maxim of "minimum government maximum governance" were major planks of Mr. Modi's election campaign in 2014.

The genesis of India's parallel economy lies in the import substitution strategy of industrialisation pursued from 1950 to 1991, underpinned by a belief in self-sufficiency. This entailed high tariff barriers and a strict licensing and control regime covering every stage and aspect of the production process. As is the record with import substitution strategies, the eventual effect was to shelter inefficient domestic industry, reduce competitiveness, and lower investment and growth. Low tax revenues necessitated high tax rates to bridge public finance deficits. As a result, India has had to borrow to meet its deficit obligations because its tax base was and continues to remain too narrow.

Business was viewed as essentially extractive, discouraging private investment as well as expansion of existing projects. Domestic private investment remained low, with savings locked in gold, property and other unproductive assets. Conversely, conforming to regulatory norms resulted in high costs of doing business, which deterred private investment.

The large public sector and the extensive regulatory regime created opportunities for political rent-seeking. Funding of political parties is through cash, lacking transparency and disclosure. Extensive regulation required investors to obtain permission from multiple regulatory

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12 "Black Money" pg.1. White Paper, Ministry of Finance, Department of Revenue, Central Board of Direct Taxes, New Delhi.

13 "Black Money" – ibid-

authorities, each of whom could indefinitely delay or obstruct a project, creating a fertile ground for rent-seeking activities, also known as the 'license permit raj'. The outcome is a large informal sector, arguably the largest in the world in terms of persons employed. Businesses find it optimal to remain informal, creating a demand for informality.

Corruption permeates all aspects of life, from the various stages of setting up a business to the seemingly mundane tasks of getting utility services. The nature of corruption is impacted by political structures. Contrasting Indonesia and India, which at that period were considered to be at similar levels of corruption, Bardhan (1997) [14] contends that the centralisation of power in Indonesia, with control vested in the Presidency and a handful of large conglomerates, resulted in predictable consequences of corruption, while the fragmented chaotic structure of the Indian political system tended to be more disruptive. Examining corruption at high-level policy making (e.g. policy on infrastructure financing, or a public works program), mid-level policy implementation (construction of roads, administration of social welfare programs), and low-level delivery of public services (the low petty corruption), mid-level and high-levels of government, Bussell (2013)[15] points out that the distribution of 'gains' from corruption between politicians and bureaucrats shifted with the levels of decision-making. At the low level, low-level bureaucrats and middlemen extracted the most from corruption, at the mid-level, middlemen, mid and high-level politicians and mid-level bureaucrats benefitted the most in that order. At high-level corruption, high-level politicians and mid-level bureaucrats were deemed the main beneficiaries. These conclusions find validation in actual cases of corruption that have been exposed in recent years.

ii) India's Narrow Tax Base

India's tax revenues as a proportion of GDP are low compared to other countries at a comparable stage of development (Table 1). Barely 1% of the population pays income tax. Agriculture is not taxed, nor are political parties – one of the largest beneficiaries of 'black money'. A large proportion of tax payers are those on fixed salaries with taxes deducted at source. Since the eighties, the share of direct taxes in total tax revenues has grown continuously from 20% in 1989-90 to 54% in 2014-15, conversely, over the same period, the share of indirect

[14] Pranab Bardhan, 1997. "Corruption and Development: A Review of Issues," Journal of Economic Literature, 35(3): 1320-1346.
[15] Jennifer Bussell, 2013 "Varieties of Corruption: The Organization of Rent-Seeking in India". UC Berkeley Working Paper.

taxes has fallen from approximately 80% to 46% of total tax receipts. This suggests a progressive tax regime and also reflects rationalisation of the direct tax structure. At its peak, the marginal income tax rate was 97.5%, while today it is approximately 34% - in line with other developing as well as developed economies. However, the narrow tax base and wide-spread tax evasion are issues that need to be resolved in the interest of equity and to help finance the huge infrastructure outlays needed.

Table 1: Tax Revenues (% of GDP)

	Total Tax (as % of GDP)	Total Expenditure	Expenditure on health and education	Direct tax	Individual Income Tax	Property Tax	Indirect Tax	Income tax rate (%)
Brazil	35.6	40.2	11.0	7.3	2.3	2.0	15.7	27.5
China	19.4	29.7	7.2	5.3	--	2.0	12.7	45
India	16.6	26.6	5.1	5.6	2.1	0.8	10.1	35
South Korea	24.3	20.0	8.4	7.1	3.7	2.5	7.5	38
Russia	23	38.7	7.2	7.2	--	1.1	7.1	13
South Africa	28.8	32.0	10.7	15.0	--	1.4	10.2	41
Turkey	29.3	37.3	7.2	5.9	4.1	1.4	13.5	35
Vietnam	22.0	28.0	8.8	8.4	--	--	--	35

Source: Economic Survey 2015-16 Volume 1, page 108.

The Central government has made a concerted effort to raise tax revenues. In the 1970s, the marginal tax rate was as high as 97.5%. Since the eighties, rationalisation of the tax structure in the form of lower tax rates has substantially increased tax revenues. Implementation of the General Sales Tax (GST) in 2017 or 2018 will help simplify the indirect tax structure and stem evasion of indirect taxes. More importantly, it will conceptually treat the country as one entity, rather than a confederation of states taxing the flow of goods at their borders.

Nevertheless, tax evasion is rampant. Very few self-employed pay taxes, as a tiny percentage of transactions are recorded. Tax avoidance and outright evasion is facilitated by the inability of the government to track transactions. The large informal sector limits both direct and indirect tax collection. Businesses often keep two sets of records, one to record actual transactions and one version for the tax authorities that understates the value of transactions and thus tax liabilities. The government is also making efforts to move towards a digital economy by advocating the use of cash cards, digital payments, online payment, and measures designed to enlarge the tax collection base.

The low tax revenues severely constrain expenditures needed to bridge the sizable infrastructure gap as well as social expenditures on health and education. It can be argued that this creates a loop between the inability of the Indian State to provide basic services and widespread tax avoidance. It is plausible that the paucity of revenue pushes the Indian government in the direction of excessive regulation, since this is one of the few levers it has to influence the direction of economic behaviour and activity.

The tax burden is borne disproportionately by modern corporations that record transactions and meet disclosure norms, implicitly subsidising informal sector firms. This distorts the structure of the Indian economy. However, it should be borne in mind that firms remain informal and small as an optimal response to onerous and expensive regulation, including archaic labour laws and the lack of an exit policy. In order to boost tax revenues and broaden the tax base, it is essential that India makes it easier for companies to do business and induce a larger part of the corporate sector to 'formalise'.

Prerequisites for Effective Demonetisation

Demonetisation literally entails substituting new currency notes for 'old' or demonetised currency notes. As mentioned earlier, demonetisation was launched with the objective of weeding out 'black' money. Rogoff (2016) contends that demonetisation, entailing invalidation of currency bills of a particular denomination, can be effectively carried out in a strong state. These states are characterised by capabilities to monitor and record economic activity, track transactions in the formal economy, clear channels of transmission of monetary policy. They have the capacity and capability to implement and monitor policies effectively, and stifle the regulations and incentive structures that fuel corruption. It also requires avenues for redeeming invalidated currency for the new currency bills. These prior conditions have helped minimise dislocation in the Eurozone after the European Central Bank discontinued production of 500 euro bills. It will minimise adverse effects were the US to demonetise $100 bills. To use a phrase currently popular in India, demonetisation will be the equivalent of a surgical strike on the parallel economy. However, in a developing economy such as India, the effect of demonetisation will be diffused. With the widespread use of Rs 500 and Rs 1,000 bills, the collateral damage is likely to be high. Other instruments and policies discussed below, designed to check the growth of the parallel economy will have a more precise impact. Demonetisation of widely held bills risks impacting a large cohort of those with legitimate earnings.

These conditions are present partially in India. Economic exchange is not tracked, there is no paper or a digital trail for an overwhelming proportion of transactions (98%). There are a total of 1.5 million point-of-sale machines in the entire country, though the number is growing. A tiny proportion of the population uses credit cards, and although 700 million debit cards have been issued, a tiny fraction are in operation, used primarily for withdrawing cash from banks. Data collection is poor, with even the Economic Survey, the main official document on the state of the economy, drawing upon secondary data, from research studies, or sources outside the government. The near universal coverage of Jan Dhan accounts is essential as it allowed for deposits of demonetised notes into bank accounts instead of a one-for-one conversion into cash. 43% of these accounts have been dormant[16], nearly 70% had zero balance, but thousands of accounts may also be being used as conduits for cash deposits by those with large unaccounted for cash holdings.

Impact of Demonetisation

India is a cash based economy. The withdrawal of currency and the resultant contraction in money supply had the predictable downward pressure on prices. This can be simply illustrated by the Quantity Theory of Money[17], with a contracting money supply and a sharp fall in transactions resulting in falling prices.

[16] Global Findex database, 2014, World Bank.

[17] The Quantity Theory of Money states $PV=MT$, P is the price level, M the money supply, T volume of transactions and V, the velocity of money, i.e. the number of times each unit of currency is turned over a year.

Consumer confidence fell sharply as the paucity of cash and growing uncertainty about the direction of policy resulted in deferment of consumer purchases and hoarding of cash, further aggravating the shortage in the supply of new currency notes.

The impact of demonetisation was immediate on sectors where transactions are carried out primarily with cash, including consumer durables, luxury goods, real estate, and the vast heterogeneous informal sector. Equity prices fell sharply in these sectors. The transportation sector operating almost entirely on cash, was brought to a virtual standstill. The most severe impact has been on internal trade and services that are almost entirely in the informal sector.

In the first few weeks, demonetisation affected the poor and farmers and others in rural areas disproportionately. The announcement of demonetisation coincided with the sowing of the winter crop. Transactions in agriculture, and indeed in all of rural India, are almost entirely in cash. The vulnerability of small farmers producing perishables such as fruits and vegetables was exposed. Lacking access to cold storage facilities, and in the midst of pervasive cash shortages, they were forced to sell crops at substantially lower prices than expected. After the initial shock, exemptions made by the government should help reduce the impact on agriculture. Data from the Ministry of Agriculture shows that growth of agricultural output, especially the summer (Kharif) crop is robust, however the acreage sowed for the winter crop was adversely affected.

In the days following demonetisation, banks were overwhelmed with long queues of depositors and endemic shortages of cash. While deposits are increasing beyond expectations, and seemingly defying expectations of the volume of 'black money' to be recovered through non-recycling of cash, other daily business of generating loans and providing other services has slowed down substantially.

The Government of India's White Paper on Black Money suggests that 90% of black wealth (accumulated black money), has already been laundered through purchases of gold, transfers overseas into gold. By December 30, 2017, the last day for turning in old currency notes, estimates of returned currency range from 93% to 97% of outstanding currency.

Over the medium term, demonetisation should help broaden the tax base resulting in increased tax revenues in the future. However, it is a moot point if without other policy initiatives raising incentives to disclose income or hold it in bank accounts, behaviour will change due to demonetisation – an imperative to facilitate financing of the massive infrastructure deficit. In the absence of a social safety net, individuals will continue to hold high levels of precautionary savings, at the household level, often in cash or as gold.

Bank deposits increased sharply, to the point where the Reserve Bank of India had to step in to mop up the surfeit of liquidity by increasing the cash reserve ratio. The increased liquidity should help banks expand their loan portfolio after a period when they were credit constrained. The interest costs and costs of dealing with a sudden and massive increase in deposits is substantial. On the other hand, demand for credit is low. The increase in liquidity, has allowed banks to lower rates on deposits, however, unless demand for credit picks up soon, it could worsen bank’s earnings profiles. A sharp contraction in economic activity could aggravate the nonperforming loan problem. The RBI’s quarterly report on the banking system, published in late December, paints a sobering picture of stress in the banking system.

Boost to Cashless (or Digital) Economy

Demonetisation has given a boost to the quest for a cashless economy. Aside from exhortations by the political leadership, it is also one of the strategies helping people cope with the shortage of cash. Increasing use of point of sale machines, even for small kiosks and retail, have given an impetus to the quest for cashless transactions. However, the infrastructure is sparse, with negligible coverage and connectivity over vast tracts of rural India. The government has undertaken the task to provide point of sale (PoS) machines to all shops dispensing ‘rations’ through the public distribution system. In addition, mobile-to-mobile payment networks (such as M-Pesa, PhonePe, and other mobile wallets are helping with the switch to digital payments. There is also the major challenge of how to incentivise and incorporate the millions of tiny informal enterprises into a more formal payment network. Low wages and low business margins in informal enterprises favour cash transactions. Liquidity constrained poor clients cannot access bank credit lines, and thus remain partial to informal credit networks.

Payment platforms are growing, though the coverage is still limited to urban and some semi-urban areas. There is potential for growth of payment services, along the lines of the immensely successful M-Pesa in Kenya. M-Pesa in Kenya is illustrative of the widespread benefits and ease of adoption of payment technologies that are intuitive, easy to use and address fundamental challenge confronting the poor. Changes in payments habits take time, reflecting changes in broader confidence, acceptance and adoption. Whether a digital payments economy will be sustained in the long term once shortage of cash eases is an open question.

Nevertheless, the move over time to a cashless economy will lower transaction costs, enhance traceability of transactions, enable monitoring of cash flows and induce some firms to shift to the formal sector. The pressing question is whether the boost to digital payments is transitory until cash is restored in the economy, or could it lead to a permanent change in payment habits. Demonetisation offers a useful opportunity to push for a sustainable shift to digital payments.

Impact on Informal Markets

The informal economy is vast and heterogeneous. It includes, nearly all of agriculture and construction and fisheries and employs nearly two-thirds of the workforce in industry. The informal sector comprises multitudes of small firms operating in highly competitive sectors on narrow margins.

Through demonetisation, the government hopes to induce informal sector firms to formalise. In ideal circumstances, this would be a welfare enhancing proposition for private business, by enabling access to formal finance and government assistance programs, as well as for the government. If increasing numbers of informal businesses and professionals are brought under the tax regime and transactions are recorded, it would help ease the tight public finance situation. However, the incentive structures for 'formalisation' have not changed; the cash shortage is a short-term phenomenon, and without structural reforms, 'formalisation' will not turn into a value enhancing proposition for informal firms.

Manufacturing firms choose to remain in the informal sectors due to the high costs of registration of a business, the costs of complying with regulatory norms, the running costs of a business, high tax rates and the overall regulatory burden.

These firms cannot access formal finance and benefits from state programs meant to encourage business. The decision to remain informal should be seen as a rational decision on the part of the entrepreneur – a decision that is privately optimal, though socially sub-optimal. However the benefits of remaining informal outweigh the benefits of formalising. These firms obtain credit and make payments in informal markets. Despite the absence of access to formal finance and the inability to avail of government incentives, these firms remain informal not necessarily to evade taxes, but to avoid the high costs of 'formalising'. If forced to adhere to formal norms and register their business, many of these entrepreneurs may choose to opt out of doing business altogether. With 93% of the work force employed in the informal sector, forcing firms to make a choice could have a devastating impact on employment, on livelihoods, and overall well-being.

The preponderance of informality in agriculture and related services has perhaps been accentuated by the inability or refusal of successive governments to allow for large retail chains that could possibly work as a catalyst for contracts with farmers and other suppliers of consumer goods, help develop the logistics sector, and formalise parts of the trade and logistics sectors.

For an individual entrepreneur operating in such a setting, the decision to formalise is akin to the 'commons problem' – if you are the only one who's paying the high cost of 'formalising', for the benefits, you'll lose out. Informality may also be seen as a manifestation of low trust levels between small businesses and the government. The imperative for the government is to lower the hurdles to doing business, both in terms of costs and entry and operational barriers.

Can Demonetisation Roll Back the Black Economy?

An implicit assumption underlying demonetisation is that a substantial volume of undeclared income and assets are held as currency notes. According to a Government of India White Paper on Black Money, of the total undisclosed assets detected by tax authorities, cash holdings vary between 3.7% and 7.4% (Table 2). A substantial portion is held as real estate and as financial instruments, both locally and offshore. At a rough estimate, the government at best can hope to collect a fraction of an estimated 6% of unaccounted wealth held as cash. Over 90% of unaccounted wealth is held as other assets and in offshore accounts, financial assets and overseas real estate. As assets other than cash are not impacted by demonetisation, the government can at best hope to recoup money that is not turned in, as well as that collected through tax penalties. As to how much money is identified as 'black' depends on how the tax authorities choose to deal with large deposits. This is a grey area. The informal sector, most of which is engaged in legitimate, albeit, not legally recognised activities, deals entirely in cash. Assessment of what is black and what constitutes legitimate earnings in the informal economy and on the part of households that hold cash as precautionary savings, would require careful analysis by the tax authorities. Else, there is a risk of the state being seen as predatory, with long-term implications for how personal portfolios are adjusted.

It is impossible to obtain reliable estimates of the size of the parallel economy. The Global Financial Integrity Report estimates outflows from India exceeding $500 billion between 2003-04 and 2013-14. In the several studies it has conducted[18], illicit outflows from developing economies are estimated at about $1trillion per year in 2008, by 2010 the stock of such wealth approximated $10 trillion. According to the Panama Papers, the HSBC whistle blower, and other recent high profile disclosures of wealth transferred to offshore financial centres suggest that these amounts dwarf the domestic parallel economy. James Henry, former Chief Economist at McKinsey, estimates that at $21 trillion, funds in offshore financial centres exceeded the GDP of the United States.[19] The opaque nature of transactions shields tax evading businessmen, corrupt officials and leaders and criminals alike, all deploying the same banks, lawyers and agents to create shell companies and launder funds. The 90% of unaccounted wealth that is not held as cash, would be part of this global parallel economy. The National Institute of Public Finance and Policy (NIPFP) estimates for the years 1975-83 rose steadily, with Black Money believed to account for 10-21% of GDP by 1983-84. The most widely quoted estimate of the domestic stock of black money in 2007, at approximately 23.2% of GDP, is a World Bank estimate from 2010.[20]

<u>Table 2</u>: Search and Seizure Statistics

Central Board of Direct Taxes, Government of India

Financial Year	No. of warrants executed	Value of assets seized (In millions of rupees)				Total Undisclosed Income Admitted	Cash as % of undisclosed income
		Cash	Jewellery	Other assets	Total		
2006-07	3,534	1,874.8	991.9	779.6	3646.4	36128.9	5.18%
2007-08	3,281	2,063.5	1280.7	933.9	4278.2	41605.8	4.95%

18 These studies are cited in the White Paper on "Black Money" 2012, Ministry of Finance, India.
19 "How to hide $400 million" Nicholas Confessore, Ney York Times Magazine, November 30, 2016.
20 World Bank, 2011 Policy Research Working Paper 5356, "Shadow Economies all over the world: New Estimates for 162 Countries from 1997 to 2007". Friedrich Schneider, Andreas Buehn, and Claudio E Montenegro.

2008-09	3,379	3,398.6	1,221.8	881.9	5502.3	46130.6	7.37%
2009-10	3,454	3,009.7	1322.0	5303.3	9635	81013.5	3.72%
2010-11	4,582	4,402.8	1841.5	1505.5	7749.8	106491.6	4.13%
2011-12	5,260	4,999.1	2714.0	1343	9056.1	92,894.3	5.38%

Source: White paper on 'Black Money' Ministry of Finance, Government of India, May 2012.[21]

As can be seen in Table 3 above, assets other than cash seized by the Government of India in income tax raids between 2006 and 2012 accounted for over 90% of the total value of assets discovered during tax raids. Demonetization will not affect the existing stock of non-cash assets; in fact, it could drive Indians to convert cash into other assets like jewellery and property to avoid future disruptions. Demonetisation thus addresses the stock of black money in the economy and not the flow of black income. Unless major rent-seeking activities are tackled at the root, this will temporarily drain the reservoir of unaccounted for cash, with generations of black money continuing as before.

To avoid this from happening, demonetisation will have to be followed by structural reforms aimed at tightening business conditions. This will be a challenging transformation for large segments of the business sector as they move towards what should hopefully be a rules-based regime, with greater emphasis on self-certification and reporting. Minimum government, maximum governance was what the current government had promised voters in the election campaign, along with an assurance to generate jobs. Imposition of new rules and closer monitoring runs the risk of adding to the shock of demonetisation. If some tangible benefits of demonetisation do not manifest themselves soon, there is a risk of business seeing the State as capricious and responding accordingly. The press carries daily reports of income tax raids yielding tens of millions of new currency notes that cannot be accounted for by the holders of this currency. As an illustration, on November 30, the income authorities seized Rs 47 million of the new Rs 2,000 currency notes from the properties of two state government employees.[22] Early investigations revealed the money was channelled through the branch of a private sector bank.

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[21] While paper on black money", Ministry of Finance, Government of India, 2012.
[22] http://www.thehindu.com/news/cities/bangalore/Rs.-4.7-crore-in-Rs.-2000-notes-seized/article16737787.ece.

Why had Demonetisation Fallen Short of Expectations

A major critique of demonetisation is the manner in which it has been administered. It is evident that Demonetisation is a blunt policy instrument. A priori reasoning, empirical evidence from demonetisations experiments in the past and the obviousness of scenarios and situations cropping up, suggest that many of the problems should have been anticipated. Discretionary consumption spending has been deferred. Demonetisation has been followed by frequent changes in policy rules. Some of these are unavoidable as the authorities try to close loopholes and transactions that undermine the intent of the programme. The government is moving into unchartered waters. Some of the responses are to alleviate unanticipated pressure points, others in response to evasive behaviour. Poor implementation has reduced its effectiveness and raised concerns of policy credibility.

Within a week, the lack of preparation had become evident. The government did not have an adequate number of currency notes to replace the ones that were deemed illegal, nor were disbursement methods thought through. But planning, disbursement of cash, paucity of notes and a grossly inadequate infrastructure to cope with digital payments are issues that could have been expected to arise in a cash based economy. This has hurt economic activity in the cash based economy, with a particularly severe impact on business in the informal sector.

The effect has been diluted by an entire class of intermediaries facilitating deposits, and conversion into legit money has sprung up. The rich have found ways of converting into gold and foreign currencies, and through intermediaries, even continue to make real estate transactions.

The asymmetric effects of this policy should be a matter of deep concern for the government. Media reports, perhaps dramatized on occasion, show how access to treatment in hospitals, emergency travel, food purchases, etc. have been affected strongly. The panic hit hard in remote unbanked rural areas, where media reports suggest the poor paid a premium for converting 500 and 1,000 rupee notes into the newly minted 500 and 2,000 rupee notes. This is all the more surprising in a government that prides itself on efficiency but was so ill prepared for the fallout and consequences that should not have been hard to predict.

Mainstream discourse suggests that this may be seen as a reverse helicopter drop - instead of adding liquidity to the economy, it has drained a large proportion of cash from the economic system. Conversely, continuing with aeronautical metaphors, it could be seen as a spaceship that had indiscriminately sucked up currency.

Aftermath of Demonetisation and the Outlook

How does demonetisation fit in with the broader reform agenda? The timing of demonetisation is a matter of concern. While the desire to rid the country of the odious and corrosive influence of black money is universal, the concern is that this initiative addresses the symptoms rather than the source of problems.

Demonetisation is the latest move in an effort to erase the parallel economy. The renegotiation of Double Tax Avoidance Agreements (DTAA) to eliminate recycling or round-tripping of capital flows, the voluntary disclosure scheme ending in September that netted $10 billion, was of limited success. In a country with a GDP of $2 trillion, the tax amnesty netted just $10 billion, or 0.5% of GDP. By contrast, Indonesia declared a tax amnesty over the same period that also attracted about $10 billion, albeit on a GDP of approximately $900 billion. As has been the case with past tax amnesties in India, the incentive structures do not seem to have worked to transform black money into legitimate money. In another initiative, the government made it mandatory that all purchases exceeding Rs 200,000 should be recorded with the tax identification number (the PAN card number) and be made by cheque or credit card. This seems to have worked, in the initial stages, dampening purchases of luxury goods that were paid for with cash. Efforts at the multilateral level to check offshore banking, are all aimed at choking access to avenues for parking funds evading taxes and those arising from criminal activities. India has been proactive in the international fora, including the G20, to bring more transparency and accountability to offshore financial centres. While the desire to rid the country of the odious and corrosive influence of black money is universal, the concern is that this initiative addresses the symptoms rather than the source of problems. It would have been useful to close some of the gaps in exchange of notes, including illegal exchanges at banks and other intermediaries by offering an opportunity on November 8 to pay a penalty to convert black money into legitimate money, and thus dissuade people from going to informal channels to exchange at a cost. The premium, appropriately, would have accrued to the government instead of illegal middlemen.

Incentive structures do matter in decision-making – it is the obstacles, including high costs of doing business that keep firms in the informal economy despite the manifold drawbacks. The costs are inability to access finance or any government assistance programs, a constraint on size – limiting scope for expansion, and inability to enter into contracts with firms in the formal sector. On the flip side, these firms do not have to meet regulatory obligations, as a result they often lead a tenuous existence. The challenge for policymakers is to change the cost-benefit calculus. The socially optimal solution would be to induce manufacturing firms to formalise while making it easier for tiny enterprises to carry on informally without fear of harassment from state authorities. The ILO has assembled a rich body of evidence on tiny enterprises in Thailand, Mongolia, Cambodia, and several other countries, making the case for a light regulatory touch and provision of rudimentary infrastructure facilities and clearly defined property rights that would allow tiny enterprises and street markets to operate to their potential. These are critical sources of employment and income for millions of household enterprises. They provide a source of income and a measure of stability to millions of women and others on the economic margin.

Demonetisation, however, has raised concerns about policy credibility. An approach whose effect is to treat all, business and individuals alike as guilty unless they prove themselves otherwise, runs the risk of impairing the state's credibility. The ability of tax authorities and other parts of the executive to track and record transactions is weak. In general, governance capacity is limited. This impairs the ability of the state to execute policies effectively. In its pursuit of growth with equity, the government is hamstrung with a low rate of business formation, poor quality of skills training, and a poor record of creating jobs. Demonetisation is not the magic bullet that can change all this. For shared economic prosperity, the government needs to focus on three areas:

- First, structural reforms are a necessary precondition to improve business conditions. To date, India has made very little progress in making it easier for domestic or foreign investors to invest in India. India continues to be a difficult place to do business. The agenda established at the central level is yet to percolate down to the states. An encouraging sign is the decentralisation of power to the states that is providing greater autonomy to the states to implement progressive measures to attract investment. This will be difficult without strengthening the capacity and capabilities of the state and enacting urgently needed reforms in the domains of land use, labour laws, reform of the corporate law, and, of course, conditions for doing business.
- Second, tax reforms are crucial to ensure the smooth recording and processing of day-to-day transactions and to increase the narrow tax base mentioned earlier. The government

has been trying to discourage cash transactions, however, more needs to be done to incentivise the informal economy into the formal economy. The General Sales Tax (GST), likely to come into effect in 2017, should help streamline tax collection and help boost tax revenues. It will also boost growth.

- Demonetisation is the latest initiative undertaken by the Modi government to encourage a cashless or digital economy. The intent is to eliminate or circumscribe the parallel economy. This is probably the area that holds the most promise. The huge leakages from India’s social welfare programs are because funds are siphoned off en route to the intended beneficiaries. The Aadhar card, based on a biometric identification system, offers great promise, reducing chances of leakages and misconduct on part of intermediaries and politicians. A behavioural switch to digital media for transactions is contingent upon developing the infrastructure and incentives to record payments. The latter is largely contingent upon incentive structures facing individuals and businesses, which in turn requires structural and policy reforms.

The government has initiated a series of reforms and highlighted the call for a concerted international effort to track undisclosed wealth in offshore locations. However, international experience show that these are effective when public institutions improve and the state’s capacity to initiate transparency and appropriate incentive structures is effective. In the absence of these, as expected, agents find and have devised ways to evade detection and launder funds back through other channels.

As a policy instrument, demonetisation has proven to be a blunt policy instrument. The impact on the parallel economy is almost impossible to gauge, the volume of demonetised currency bills returned to the banking system exceed all expectations. Most importantly, as mentioned earlier, demonetisation addresses only the symptoms – the stock of black money, not the factors that generate the parallel economy.

Conclusion

So far, the move has garnered popular support in the belief that demonetisation would root out the underground economy, and a significant percentage of the population seems to be willing to bear the costs and inconvenience. There is a strong perception of the state playing ‘Robin Hood’, advocating demonetisation as a redistributive move. If so, it is a major political and economic gamble, with little economic rationale. Indeed, the strong performance of the ruling party in recent by elections and civic elections in some states have been viewed by them as a vote for demonetisation. But the collateral damage to those on the economic margin has been severe. The credibility of the Reserve Bank, an institution of integrity, capability and one that has brought a refreshing and invigorating voice to monetary policy formulation, has been affected by the frequent policy changes necessary to manage the consequences of demonetisation – some of which could not have been foreseen, and many that could have been anticipated. If the government had focused on the reforms that remain essential for the pursuit of sustainable growth and poverty alleviation, the invalidation of the Indian currency might not have been necessary.

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