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Can Demonetisation Catalyse the Quest for a Cashless India?

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Has demonetisation provided a boost to the quest for a less cash-intensive economy in India? The Indian government embarked on several initiatives to incentivise, persuade and compel the citizenry to adopt cashless means of payment. This was grounded in the belief that, aside from entailing high costs, cash transactions cannot be detected by fiscal authorities or, indeed, by any wing of the government, thus enabling a large segment of the economy to evade taxes. It also challenges policymakers assessing the impact of monetary, fiscal and other regulatory initiatives on the 'unmeasurable' informal economy. The shift to non-cash transactions offers a number of other benefits that could eventually help the pursuit of growth with equity. The most significant among these may be digital 'Direct Benefit Transfers' – payments to the poor under the federal and state governments' social welfare programmes. If rendered effectively, this could curb a major avenue for corruption, become a catalyst for a shift to digital payments and radically enhance the efficiency of benefit programmes. India is rapidly developing the infrastructure to facilitate this transition, with some of the props already in place. Demonetisation, at best, may have helped expedite this transition.

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Introduction

Could demonetisation have provided a boost to the quest for a less cash intensive economy in India? Following the declaration on 8 November 2016, rendering ₹500 (about S$10.50) and ₹1,000 (about S$21) currency notes invalid, 86 per cent of the currency in circulation in India was deemed unacceptable and taken out of circulation. The Indian government took several initiatives to incentivise, persuade and compel the citizenry to adopt cashless means of payment. This was grounded in the belief that, aside from entailing high costs, cash transactions cannot be detected by fiscal authorities, or indeed, by any wing of the government, thus enabling a large segment of the economy to evade taxes. It also challenges policymakers assessing the impact of monetary, fiscal and other regulatory initiatives on the 'unmeasurable' informal economy. The shift to non-cash transactions, will, it is believed, (i) lower transaction costs; (ii) facilitate better monitoring of policies and of cash transfers, and thereby, enhance the state's capability to levy taxes, expand the tax base and boost revenues; (iii) enable the tax authorities to maintain an audit trail of transactions to check tax evasion; and (iv) create potential savings for the government in terms of note printing, management, and interest payments amounting US$3.5 billion (about S$4.76 billion) annually.[2] Most of this burden falls on the commercial banks.

Table 1: Consumer Transactions Carried Out in Cash

Countries	Volume (%)	Value (%)	Per Capita Income (2015, in US$)
India	98	68	1,598
Mexico	96	57	9,005
South Africa	94	47	5,724
China	90	45	8,028
Japan	86	43	34,524
Brazil	85	38	8,539
United States	55	14	56,116
United Kingdom	48	11	43,876

Source: PricewaterhouseCoopers, "Disrupting cash: Accelerating electronic payments in India" 2015, Per Capita Income data from the World Bank http://data.worldbank.org/indicator/NY.GDP.PCAP.CD

2 'Cost of Cash in India' (2014) Institute for Business in the Global Context, The Fletcher School, Tufts University.

The argument for a cashless society[3] is not new. However, it gained currency in recent years with the publication of several influential books. In *The Curse of Cash*[4], Kenneth Rogoff contends that the average cash holdings for each United States (US) citizen is approximately US$4,200 (about S$5,700), with about US$3,400 (about S$4,600) held as US$100 (about S$136) bills, that are almost never use in transactions in the US. He asserts that most of these are circulating in the global underground economy, well beyond the scrutiny of US regulators. Demonetising US$100 (about S$136) bills would eliminate a vital store of value for tax evaders and others outside the pale of the legal economy. A similar rationale underlay the European Central Bank's decision in early 2016 to phase out €500 (about S$790) bills. In 2014 Singapore demonetised the S$10,000 bill. The argument for a shift towards a near cashless economy rests on the reductions in the cost of transactions and the resultant increased efficiency in the payments system. Cashless transactions have the potential of eliminating a major conduit for holding illegal wealth, and lower costs incurred through issuance and management of currency bills. India's Prime Minister Narendra Modi has determined that a less cash-intensive Indian economy is essential for a transition to a modern economy. A government committee[5] envisions raising digital payments from the current five per cent of personal consumption or two per cent of total transactions to 20 per cent of all transactions in three years.

The Rationale for Going Cashless in India

The preference for cash is deeply ingrained in India. 98 per cent of transactions are carried out with cash, a substantially higher proportion than in comparable countries (Table 1). The shift towards non-cash payments is slow (Table 2). The move to a cashless economy is predicated on the need to widen a very narrow tax base and shrink India's huge informal sector which accounts for 83 per cent of the work force and 40 per cent of the gross domestic product (GDP) outside agriculture. One per cent of Indians pay income tax. India's tax revenue as a percentage

[3] A cashless society is not possible, the intent is to reduce cash transactions, especially high value transactions that facilitate tax evasion and are a major conduit for circulation of 'black' money.

[4] The rationale laid out by Kenneth Rogoff in the 'Curse of Cash' (Princeton University Press, 2016) is that, if all deposits are electronic, then depositors do not have the choice of negating negative interest rate policies by withdrawing from the banking system and holding cash. Wolman in "The End of Money: Counterfeiters, Preachers, Techies, Dreamers – and the Coming Cashless Society" Da Capo Press, 2012, envisages an end to cash due to a combination of technology, policy, and consumer habits.

[5] 'Committee of Digital Payments: Medium-term Recommendations to Strengthen Digital Payments Ecosystem" Report December 2016. Constituted by Ministry of Finance, Government of India.

of GDP is low compared to other countries at a similar level of development. The use of cash is similarly more widespread than in comparable economies (Table 1). The ability to track transactions, and trace the sources and uses of financial flows will enable the tax authorities to levy taxes in a precise, targeted manner, and also impart fairness to a system in which the salaried class pay their dues to the government, while under-reporting of income among the self-employed professionals and small businesses is endemic.

A higher proportion of cashless transactions will allow for better data compilation, help monitor the effects of policy initiatives through more accurate tracking of funds flows in the economy, thereby improving information flows and lowering transaction costs.

The government hopes that demonetisation and accountability for currency notes that it expects to engender should result in a shift to digital transactions. This will help lower costs of currency production for the Reserve Bank of India (RBI), and cash management for the banking system. Tax revenues are expected to benefit the most from increased reportage and tracking of cash.

Table 2: Cash and Non-Cast Transactions Profile for India (In Percentage)

Payment Type	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Card Payment Transactions (Excluding Commercial)	2.8	3.1	2.9	2.8	3.5	4.1
Electronic Direct / ACH Transactions	2.6	3.0	3.8	4.5	5.6	6.8
Cash	90.6	90.0	89.7	89.5	87.9	86.6
Other Paper Transactions (Checks, Demand Drafts)	4.1	3.9	3.6	3.2	2.9	2.5

Source: Euromonitor passport 2014 (Table culled from 'Cost of Cash in India', Tufts University, Chakravorti et al.)

The Payments Landscape in India

The payments scenario is changing rapidly, especially in urban India, fuelled by changes both on the supply as well as demand side of the market. A study by the Government of India[6] (2016) identifies five changes that are shaping the digital payments landscape.

6 'Committee of Digital Payments" (2016), Ibid.

1) The ongoing digital and technology revolution, reflected in a rapidly increasing smart-phone ownership, increasing connectivity, the possibilities from cloud computing and the internet of things.

2) The entry of non-bank financial institutions in payments services and solutions space – The development of the Unified Payments Interface and Immediate Mobile Payments System should allow for easier interoperability across payment platforms. In February 2017, the launch of the app BHIM (Bharat Interface for Money) offers a uniform payment option for those with smart-phones and bank accounts. It will link payments with the Aadhaar card,[7] allowing for the hundreds of millions of card holders to execute cashless transactions.

3) The emergence of 'NextGen' payment service providers, including bank-led and Telco-led prepaid wallets – The growth of e-commerce and digital wallets such as Ola Money, Flipkart Wallet, Snapdeal, and permission granted to payments banks to start operations, has lent diversity and depth to the payments space.

4) Discerning and demanding customers expecting one-touch payments solutions, and wider merchant acceptance – A government directive to have all 'ration shops', the retail outlets for the Public Distribution System through which subsidised food-grains and essential supplies are sold to the public, install point-of-sale machines (PoS) by March 2017. By May 2017, over 40 per cent of ration shops disbursing food grains and other essential goods across the country had installed the PoS machines, with the process expected to be completed later in 2017.

5) A progressive regulatory framework – The relaxation of Know-Your-Customer norms and exemption from two-factor authentication are helping to ease the transition to cashless transactions. The focus is on developing a common payments infrastructure that offers ease and convenience to the customers.

[7] The Aadhaar refers to the Indian government's programme, under the Universal Identification Authority of India, to assign a unique bio-metrics ascertained identity number to every resident of India.

Furthermore the growth of e-commerce, the rapid penetration of the market by start-ups in transportation (such as Ola and Uber), in e-commerce (such as Amazon and Flipkart), and in the hospitality space (such as Oyo and AirBnB) is fuelling the growth in cashless transactions.

For the economy as a whole, the most promising developments lie in a shift to the targeted delivery of benefit transfers from the government. If executed effectively, this singular development has the potential of eliminating a major source of leakage of funds earmarked for the poor,[8] and check corruption. While there have been problems in the initial stages, over the longer run, cashless payments will help streamline the implementation of the Goods and Services Tax (GST), recorded payments will help monitor cash flows and assess tax liabilities with greater precision, enhancing the effectiveness and benefits from the GST.

The Costs and Benefits of Going Cashless

The protagonists of the use of cash believe that it helps keep expenditures under control and it is secure. For the poor, cash provides an immediate liquidity at a low cost. It allows for negotiation and control over-spending, it is the fastest transaction method and offers a perceived assurance of exact payments. Contrary to beliefs that the poor lack financial management skills, a study by Collins et al (2010)[9] revealed that families earning as little as US$2 (about S$2.70) a day, managed complex multiple financial relationships, including loans and tiny investments, and almost always hold some savings. For this cohort that accounts for over 40 per cent of the population, cash is a very important store of value. Their aversion to digital transactions is not due to the lack of knowledge, but a deep risk aversion and extreme sensitivity to any 'user fee' charges for small or tiny transactions. A switch to the use of instruments other than cash for payments would require convincing that it is a value-added proposition. The bar for transition is high but there are precedents for a successful adoption of non-cash instruments. In the case of the hugely successful M-Pesa, the use of mobile phones and recharges, and a facilitating regulatory framework were critical to its rapid adoption and success. The same experiment has not worked well in other countries. The reluctance to use

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[8] In the late 1980s, then-Prime Minister Rajiv Gandhi stated in public that less than 15 per cent of the funds earmarked for the poor, reached the beneficiaries. The rest 'leaked' into the hands of contractors and other intermediaries, and the bureaucrats.

[9] "Portfolios of the Poor: How the World's Poor Live on $2 a Day", 2010. Daryl Collins, Jonathan Morduch, Stuart Rutherford and Orlanda Ruthven.

non-cash payment instruments also stems from deeply ingrained habits, inertia, complexity of using non-cash methods, lack of a compelling value proposition, and episodes of fraud and hidden charges.[10]

However, the transition to digital transactions is not costless. It shifts the burden from the government and the central bank to the parties to the transaction. In a developing price-sensitive economy such as India, these costs will lead to a backlash. Some of this was witnessed during the later phase of demonetisation when cash shortages forced consumers to shift to non-cash transactions. The linking of the Aadhaar card with the Permanent Account Number (PAN) card and tax payments has raised questions about the rationale behind linking citizen identities, including phone numbers, with the Aadhaar and PAN numbers. It has also raised concerns about privacy.

A switch to cash is not permanent. Studies[11] have found many instances of reversal from non-cash transactions back to cash. The reasons for stopping the usage of digital payments methods varied – from the complexity of remembering multiple passwords and usernames, and limited acceptance of non-cash payments by merchants to the possibility for technical/human mistake, and the likelihood of fraud and hidden charges. Merchants cannot be coerced into adopting non-cash technologies, unless it has a value-added proposition or provides a competitive advantage. A switch to digital payments is not costless. A 'user-pays' model imposes additional costs on the user. In a price-sensitive setting, unless the merchant bears the cost, the user costs will further raise the bar for adopting cashless transactions.

For those in the middle class and the wealthy, who can account for their incomes, the digitisation of cash transactions is, in large measure, a case of preaching to the converted. There is an inverse correlation between personal wealth and income, and the value of transactions carried out using cash. Cash holds a great deal of real value to the poor and segments of the middle class. While the precise data is not available, sociological studies indicate that an overwhelming proportion of women put away a part of their own or the family's earnings as precautionary savings, away from the 'sticky' fingers of the male head of the household. These

[10] Nielsen survey commissioned by BCG and Google, 2016. See also The Boston Consulting Group – Google study on 'Digital Payments 2020: The Making of a $500 billion Ecosystem in India'. (2016).

[11] The Boston Consulting Group – Google study on 'Digital Payments 2020: The Making of a $500 billion Ecosystem in India (2016), Mastercard (2013), Tufts University (2012).

savings come to use during medical and other emergencies or an adverse shock to the household's economic fortunes. Digitisation without privacy for the individual within the household could distort incentive structures. For the poor, a forced switch in how household income is held and spent can be destabilising and could impose additional transaction costs. Cultural habits run deep, and people will wait to see how others fare before making a switch themselves.

The infrastructure to facilitate the shift to cashless via the JAM trinity,[12] in tandem with the GST network established to record payments, offers great potential for a systemic shift to recording transactions and facilitating the direct transfer of benefits offered by a range of public assistance programmes. The network externalities through reducing transaction costs, transfer of government benefits, and easing transactions can lead to reducing leakages and enhancing efficiency in the utilisation of scarce resources, thereby providing a substantial impetus to the pursuit of growth with equity. Mr Nandan Nilekani,[13] the founding architect of the Aadhaar, recommended a multi-layered approach to different target groups, based on their interests, cost-benefits and incentives, to go digital. The rapid growth of e-commerce, the introduction of the Aadhaar cards and the Jan Dhan accounts provide an impetus to switch to cashless transactions.

Policy Initiatives

Policy initiatives should be predicated on a clear understanding of the psychology and economics of payments habits. People are more likely to adopt cashless transactions if they see it is a value-added proposition. As an illustration, in 1999, South Korea introduced a 'Tax Incentive for Electronically Traceable Payments'[14] programme to induce the usage of payments through credit and debit cards, and electronic cash receipts. Wage and salary earners could claim a discount and claim tax deductions. The tax incentive scheme greatly contributed to a

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12 Economic Survey 2015-16, Volume 1, Chapter 3. JAM refers to Jan Dhan (the programme to equip every household in the country with a bank account); the Aadhaar cards and 'M' alludes to the penetration of Mobile phones).

13 Mr Nilekani is a member of 13-person committee set up by the Indian Prime Minister in December 2016 to advise on the strategy to shift to digital payments.

14 "Can Tax Incentives for Electronic Payments Reduce the Shadow Economy? Korea's Attempt to Reduce Underreporting in Retail Businesses", World Bank, (2017), Myung Jae Sung, Rajul Awasthi and Hyung Chul Lee.

substantial increase in non-cash transactions from the past decade to 49 per cent of GDP in 2014.

The adoption of non-cash payments is contingent upon the costs and benefits of each instrument, the ease of usage and the ‘user fees’. On the transactions front, compelling firms to use non-cash mechanisms will not serve to induce the transition to ‘formality’. A decision to register as a formal entity will be contingent upon structural reforms that make it easier to do business as a formal entity, and not due to a push towards cashless transactions that enable the government to record and tax entities.

The RBI has made a concerted effort to reduce barriers to financial access on the supply side. It has adopted a light regulatory touch towards non-bank entities in the payments sector. The onus is on the private sector to make it a value-added proposition to the consumers. The network effects of electronic payments can benefit wage-earners and businesses, and the economy as a whole.

Demonetisation by itself will not fulfil the aspirations of a cashless economy. Structural reforms and favourable ‘user charges’ for non-cash transactions are important pre-conditions. However, demonetisation may have provided the momentum and added a sense of urgency to the pursuit of a cashless economy. Technological developments that allow for leap-frogging cheques and drafts, and a burgeoning payments infrastructure hold out considerable promise for the future. The challenge for policymakers is not to let the recent surge in cashless transactions be shaped by temporary cash shortages alone. Instead, they should proactively nurture the adoption of cashless transactions, especially for direct benefit transfers, and accelerate structural reforms that ease the conditions for doing business.

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