Barbara Harriss-White on Demonetisation

Part 1

Barbara Harriss-White is an Emeritus Professor at the University of Oxford, with decades of experience studying India's vast informal economy. It was this economy that was most hit by the move to demonetize higher denominations of currency taken on November 8.

She answers a series of questions on the noteban with Madras Courier – painting a comprehensive picture of what demonetization has done to democracy, the 'black economy', corruption, agriculture,

Introduction by Barbara

I have been following notebandi from Europe (where the media are paying little attention) and I'm not watching Indian TV. So my experience isn't first-hand, and my answers are conditioned by what I've gleaned from over a quarter million words in the Indian press, in English editorials and op-eds by some three score economists, practically none of whom saw this coming. How the economists have understood the unfolding events since November 8th is a story in itself – but one for another time. I need to stop reading and draw breath. I'm responding after the deadline of December 30th, the day on which a senior official was reported as saying 'the economy will be running far more smoothly than it ever has', when Mr Modi assured the electorate that 'the sufferings of the poor will cease' and Mr Jaitley reported that 'the impact doesn't appear to be as adverse as it was being predicted.'

- **What are your views on India's demonetisation drive?**

The government doesn't use the term demonetisation, it prefers 'notes ban', and the illegalising of Rs. 500 and 1000 notes on November 8, is popularly known as notebandi in Hindi. I don't always agree with Mr Chidambaram but the evidence suggests he was right to conclude on Nov 18 that's it's not a good decision badly implemented, it's a bad decision badly implemented. It is a sledgehammer, and we now know that it didn't crack the nuts it was apparently aimed at.

- **Is India ready for such a drastic, radical experiment?**

If everyone had been ready and preparations had been well made, note-swapping for the reasons given on Nov 8 could have proceeded as smoothly as the introduction of the Euro, or the much more modest replacement of £5 notes that's currently happening in the UK. Incidentally a report in the Guardian in September 2015 revealed that an astonishing half of all British banknotes are currently used in the UK's shadow, i.e. black and illegal, economy.

The very fact of describing demonetisation as drastic and radical – as you do in your question – together with the evidence streaming in, suggests that India wasn't and still isn't ready.

To judge from the painfully slow printing of about 24 billion notes for the Rs. 2000 and Rs. 500 denominations (whose replacement deadline is shooting into the future and by several accounts, is now early December 2017) what is really happening is a real demonetisation and not a currency swap. And then consider the lack of physical fit between the new notes and the calibration of 2.2 lakh ATMs, the 'deadly shortage' of Rs. 100 notes and imbalances in the distribution of circulating currency, persistent anecdotes about the hoarding of increasingly valuable Rs. 100 denominations, the lack of preparation and the serious overburdening of bank staff with non-trust-based activity outside the remit of retail banking, the sudden involvement of (urban) petrol stations but the exclusion of (rural) co-ops, the longer delays in changes of instructions to banks than to customers (e.g. about ceilings for routine weekly withdrawals or rules for exceptional marriage withdrawals), the mismatches between bank rules for cash allocations and severe cash-rationing - especially intense in poorly-provided rural areas.

This is not evidence of readiness. Notice reports of queue dodging, new informal markets for Q-labour, the escalating reinforcement of 'circles of privilege' beyond the reach of vigilance. Ponder on the shifting of responsibilities and objectives, the RBI's evident lack of preparation, its mysteries of consultation, its politicisation, the dubious legality of its withdrawal of the obligation to honour banknotes, its pusillanimity about the breakneck speed or was it the long forethought leading to the decision to swap notes, its vast task (estimated at 600 days' mechanised work) to count notes, test for forgeries and penalise. Factor in the contradictory instructions from different ministries concerning exemptions, the 62 amendments in procedure during the first three weeks, the official coyness about vital information (for instance cash in circulation varying from Rs 13 lakh crores to 20- to settle down at 15.4).

Consider reports of irregularities in the depositing of (some reportedly vast sums of) cash and preferences for private banks in the disbursement of (wads of) new notes, 11th-and-a-half hour decision to make it a crime to even hold the already illegal tender, so as to remove any shred of state liability for it –I could go on and on.

Certain digital tech firms seem to have been ready – even some foreign ones - but 'India' certainly wasn't.

Besides being understandably judged 'drastic' and 'radical' the policy has also been condemned as being coercive, illegal, a theft of property, unconstitutional, despotic, trust-destroying and immoral – by authorities ranging from the eminent Marxist economist Prabhat Patnaik through Nobel economics laureate Amartya Sen and former PM and economist Manmohan Singh, to Steve Forbes in the January 2017 issue of the US financial magazine bearing his name. When both left and right draw such conclusions - something is evidently seriously amiss.

- **What does it mean for India's democracy and the electorate?**

You are right to put politics before economics here, because this demonetisation never emerged from an economics textbook.

For decades the cost of fighting elections in large constituencies has exceeded the official ceiling for election expenses, so that India's democracy is well known to be underpinned by untraceable funds. And over 75% of funds officially recorded as received by Indian political parties between 2004 and 2011 were from ‘unknown sources’.

After elections, the untraceable borrowing is repaid through a range of democratic malpractices and black market activity. A respectable academic paper has shown how this can be tracked in official data on the cement industry – vital for black real-estate – as the demand for cement dips regularly before elections when its funding is diverted to politics.

The question is whether notebandi will change this.

My reading suggests that while notebandi may have threatened the cash reserves of opposition parties, for the BJP it is business as usual. The sudden announcement does not seem to have surprised the ruling party. The media have reported unexpected large-scale land purchases outside future Smart Cities in advance of November 8th by ruling party members, and the use of co-ops – at least in Gujarat – to receive suspiciously huge deposits. While the PM admits the need to reform political funding, the Bill to do this has languished before Parliament for two decades, thanks to permanent cross-party reluctance to discuss it. There’s no attempt to make party funding transparent. Political parties depositing non-legal currency notes in their accounts are exempt from income tax provided individual donations are below Rs. 20,000. Reports suggest that deposits of less than Rs 2.5 lakhs in political party accounts will ‘not necessarily be chased by the Income Tax’. India will have to wait for reform until the BJP feels secure in its funding. Well-discussed and obvious steps forward include tighter, un-corrupt audit, exemplary punishment for offences, and digitisation so there is the same trail for politics as for the economy. So much for democracy.

As for the electorate, most of which earns between Rs. 3500 and 7500 per month, its conditions of political acquiescence and powerlessness and of economic hardship are well-established. It’s persistently reported to support the sharp increase caused by notebandi to its own routine distresses on the grounds that their dishonestly wealthy exploiters are said to be being exposed and hammered too. Recent victories by the BJP in local and bye-elections in Chandigarh, Maharashtra and Gujarat are used to support this proposition. While opposition party disunity is against the national interest, opposition to notebandi is branded anti nationalist: in the PM’s words ‘political pujaris of black money and corruption’. In a society as unequal, socially stratified and politically fractious as India’s, it is genuinely difficult to co-ordinate opposition against a policy that keeps constantly shifting its parameters and for alternatives when these are being closed-off as the policy develops. There have, however, been protests of outrage (e.g. the Salt Corporation women), grumbling by BJP-voting banias in Old Delhi (who may have things to hide), edgy mass responses at BJP political meetings in UP and a million-strong protest the length of Kerala.

- **What effect is it likely to have on India’s informal economy?**

What is the informal economy? Its sheer scale and its dependence on cash make it vital to understand. Yet the term ‘informal economy’ is fuzzy – subject to many meanings. For some it is all activity below the tax threshold of Rs. three lakhs per annum. For others it is unorganised activity with fewer than 10 workers (which does not mean it is disorganised). It involves unregistered or even registered but unincorporated firms - the latter are the 63% of all firms that gain access to just 4 % of formal sector finance. It is small firms not bound by the Labour Laws. It is the 93% of all the Indian workforce that works without a written contract or access to work rights. And not only is this informal labour toiling in small firms but it has also become since 2000 the largest single component of the labour force in the corporate sector and in the workforce subcontracted to the state itself. The informal economy is also unrecorded activity (which includes the black economy). It's a very woolly term.

India's informal economy long predates its being identified as such, which has shaped the very poor evidence we have about it. The Economist estimates its current contribution to GDP at anywhere between 25 and 70 percent. Although economists usually do not take this position, it is useful to think of it as the Indian economy. It thrives despite lousy infrastructure and access to utilities - challenging the textbook view that public and private investment feed on each other. It embraces all of Indian agriculture except for plantations, which are however rapidly informalising their workforces. Whereas India's formal economy suffers jobless growth, it is the informal economy that has generated almost all the jobs and a significant part of consumer demand. It has a longstanding informal banking sector. It is innovative and expands through the multiplication of tiny businesses. The informal economy is the cash economy: 80-90% of the workforce is paid in cash. All the poor users of Rs. 100 notes and below working it; and some 200 million households are thought to use and save Rs. 500 and Rs.1000 notes.

Scores of millions of firms operate informally, some wealthy, the vast majority simply making ends meet: 95% Indian firms have under five employees. Between 1990 and 2011 the average number of employees per firm dropped from three to two, and the rapidly expanding majority of India's livelihoods consists of self-employed people.

The informal economy is outside direct state control in ways which have become complicated. These days, firms with employees are usually registered with the municipality, and most will have one or more bank accounts. But they under-contribute tax (local taxes on property, and profession, income tax and commercial tax). They tend to ignore building regulations, they flout environmental laws, they abuse the labour force and they follow customary norms about contracts and standards. When provoked, their business associations supplement the rules about market behaviour that are still governed in some measure by caste and ethnicity.

In minimising costs, especially of labour, in under-cutting and out-competing the formal sector, the informal economy generates competitive advantages for India. Of India's manufactured exports, some 40% are from urban gullies and alleys. Domestically, the informal economy is dominated by trade and services, some of which are sophisticated but still mediated through verbal contracts. It runs on cash plus 'rolling', trust-based credit. This flexibility in loaning also substitutes for the lack of state social protection.

Informal finance is some 70-80% of rural credit and generates an estimated 26% of GDP. Banks have made some progress in formalising the informal economy; some firm-owners hold as many as ten bank accounts. But by August 2016 there were just

27.3 million credit cards enabling cash withdrawals for retail transactions and rapid long distance payments. The cashless economy was in its infancy.

At the same time, a larger scale of subnational business is poised to turn small-town India's bazaars into franchises, branches and agents –also using banks.

All the evidence that we have so far on the effect of notebandi on the informal economy consists of unsystematic material briefly gathered from the 'field' by heroic economists and economic journalists, and there is no sign that other elements – particularly in government – have access to better information. What does this evidence suggest?

Fivefold impact on agriculture

Notebandi has hit the bulk of agricultural producers; first through the direct costs of, and the income foregone by, the time and travel needed to access unfamiliar banks in order to deposit the old notes. Or to deal with informal note-changing intermediaries who are reported to charge a premium of 20-40%. Some of them then re-sell old notes to the millions of larger businesses at 20% higher than their paper value. 'Not to pay labour, but to fill shell company balance sheets purchased with 'cash in hand' slots in which their black money could be laundered'.

Second, for both perishable and non-perishable food crops and agro-industrial raw materials, marketing has suffered a generally reported severe collapse in post-harvest wholesale prices caused by lack of cash (a lack currently not matched in the retail sector, and therefore benefitting traders).

Third, the timing (lately justified as a most appropriate moment, after the Diwali festival season) has in fact wrecked preparations and purchases of inputs for the rabi production cycle. Fourth, the liquidity crisis has forced a return to barter and to diverse sources of trust-based credit on terms which still often discriminate against low caste borrowers. Increasingly adverse terms and conditions are imposed on deprived people as the weeks of cash-starvation stretch out.

Fifth, cash-strapped rural families are reported to be forfeiting food, fertiliser and kerosene consumption, and to be deferring the payment of bills for education and health – let alone for marriages or 'income-elastic' items from the national market.

Fishing is being hit too. So is transport.

Elsewhere

By all accounts, notebandi has had a similar impact on firms in the informal non-farm economy, where financial independence based on dealing in cash is widely regarded as an indicator of security and commercial status. When payments for sales are delayed and those for purchases have to be rapid, a stock of cash for working capital is essential. Lack of cash freezes transactions. A repeat survey in small towns on the Karnataka-Tamil Nadu border showed after an initial collapse of 80%, by late December sales had partially recovered but were still down 30%. Those with collateral have started to make payments by cheque – but these are said to be a 'drop in the ocean'. At the same time, where possible, deposits are being withdrawn in the new Rs. 2000 notes, because, if they were ever trusted, banks are now less appreciated as reliable holders of one's funds. Queueing to deposit – and withdraw - banknotes has also prevented people from earning their living.

Most seriously, it rapidly became impossible for firm-owners and labour contractors to pay labour. The ceilings for weekly cash withdrawals from banks have borne no comparison with cash needs. Traders say labour is by far the worst hit by notebandi. The idea that the poor don't have access to – or avoid – Rs. 500 and 1000 notes and would therefore be protected from the 'pain' of notebandi is not borne out by reports.

Casual labourers paid in cash are the most rapidly growing part of the workforce – disproportionately Dalit and Adivasi. Some firms resorted to paying workers in food. But the order of the day has been mass lay-offs. All over the country, early reports from celebrated industrial clusters and informal markets for essentials like coal suggested that units were closing down, up to 70% of their workforces had been laid off and many workers were returning to their villages of origin –further exacerbating the rural disaster. There, demand for MGNREGA shot up by 60% in December and 84 million were in need of work by the year-end. The marginal, small and medium manufacturing sector was 60% down on jobs and 55% down on business. When, in the 2014 election voters backed 'development' by which they meant jobs, they did not vote for this. If, as reported, 100 million people previously in work are now out of work, and if their average earnings are optimistically assumed to be Rs. 300 a day, then the Indian economy is losing Rs. three lakh crores for every day through missed work alone.

Women (48% of the population), whether employed for wages or not, have been particularly stressed because of the widespread savings they make in secret against daughters' marriages and the many hazards of life. They especially fear its diversion to alcohol and other male expenditures. Not only did these savings have to be revealed but, needing to queue for hours, women were unable to perform their daily household work. The aged (10%) and disabled (15-19%) were forced to wait in high temperatures, with the outcomes always being uncertain owing to reported discrimination against them by bank tellers.

All this creates negative multipliers in the formal economy. It has been impossible to find any evidence for the PM's assurance that 'the informal economy would accelerate its absorption into the formal without jobs being affected'.

- **What is the impact it will have on curbing "black money"?**

Not much. As with the informal economy, experts on India's black economy give us estimates varying massively between 25 % GDP (Indian Institute of Public Finance and Policy) and 62% (Arun Kumar).The extent to which the black economy is highly concentrated in the top wealth percentiles or extends everywhere – to the relatively humble ration shop for instance – has been debated for decades. But the proportion of the black economy held in money form is thought to lie between 1% and 6 %. The rest is in kind – about half in real estate (not widely expected to change after notebandi), less in gold and jewellery and the rest exported or laundered overseas through well-established hawala and 'layering 'channels that operate through Nepal, Singapore, Dubai and Mauritius. From there it may return in whitened forms, and may even be eligible for investment subsidies. Black money also escapes through untaxed donations to temples - and certain hospitals - which may benevolently return some fraction of the receipts to their donors.

We now know from the volume of currency returned by the end of December deadline that from a "black" economy totalling somewhere between Rs. 35 lakh crore and Rs. 90 lakh crore in kind and cash, a maximum of a few thousand crore in cash was not returned and thus written-off, punishing its owners. This is a comparatively small change. For the time being, the remaining black cash has been successfully laundered.

Currency notes move in and out of this black cash sub-sector and Rs. 2000 notes are less bulky than the now illegal lower denominations, so they are easier to hoard and transport. Laws exist to curb black money, of course, but they have been poorly and selectively enforced. In the first 6 weeks, of the Rs. 500 crores seized by the Income Tax department, Rs. 92 crore, or nearly 20%, was already in Rs. 2000 notes. The new denomination cannot be a 'frontal assault' on the black economy as claimed.

Part 2

- **What impact is it likely to have on India's criminal economy?**

Let's first be clear about what we mean here. First there is illegal activity involving legal goods such as land, sand, roads, coal, timber, water, film and even banknotes. Second there is illegal dealing in illegal commodities – notably trafficking in labour, body organs, fire-arms and drugs. The two are entangled through India's 'mafia raj' – the powerful and pervasive nexus of businesses, police, politicians, officials and (in sectors like coal) some trade union organisers.

On December 29th the PM was quoted as concluding that demonetisation had had a 'crippling impact on damaging illegal activities'. Yet there has been far less press comment about demonetisation's impact on the apex of the criminal economy than on the policy's monetary and fiscal effects, and what there is mostly takes the form of low-quality evidence. We need to know much more about each mafianised sector. For instance, there are shards of evidence that the trade in stolen coal from tailings and abandoned mines in Jharkhand and West Bengal, and the hub in Assam dealing in illegal Meghalayan coal have all collapsed – or paused - due to the cash shortage and the need to invest time in depositing illegal tender. Notebandi has mixed effects however. On the one hand a coal mafioso was seized in West Bengal in early December with Rs. 33 lakhs in the new notes, plus arms and ammunition, in the company of a local BJP leader, while a Tamil Nadu sand baron was arrested in late December after an IT raid. On the other hand, other crack-downs – as in August 2016, on boats and engines of the Gujarat sand mafia, and in the September destruction of psychoactive plants in Himachal Pradesh - preceded the November 8 decision, proving you didn't need demonetisation to punish criminal activity, you simply needed to enforce the law.

When it comes to illegal commodities, it appears from reports by ten rescue groups and the testimony of Nobel peace prize winner Kailash Satyatri that the massive cash-based supply-chain through which girls and women are trafficked for prostitution has indeed dried up due to demonetisation. Contradictory reports find that cash demand for prostitutes has atrophied, that the new bank notes create demand for 'higher quality' sex workers (read young virgins) and that prostitutes are starting to work on credit, for digital payment and even temporarily for just enough to cover their board and lodging.

Meanwhile, drugs seizures are reported by local Narcotics Control Bureaus to be down in Himachal Pradesh, Mumbai and on the Bangladesh border. Whereas small drug-peddlers are busy depositing cash and investing in real estate. Petty smuggling (as in the North East) can be halted by securitising the border with barbed wire fences, proto-militarised border security forces and automated guns. It does not need demonetisation. And the significant international trade in hard drugs uses hardly any cash and is said to have been unaffected.

- **Do you think that this gives state and tax authorities unprecedented power to harass and bully those that are not in their good books?**

Yes, I do. The Indian state is a big, complicated set of ideas, institutions and practices, of which tax authorities are but a component. People in their 'bad books' come in at least two forms: first, law-breakers; second, private / political opponents.

In the first case, harassment to enforce the law is the act of a legitimate, responsible state–one which may lack capacity. Amnesties for tax evaders have not been successful: the criminal is more powerful than the bureaucrat – the client more powerful than the patron. The increase in powers of surveillance and reporting by the banking system together with new pressures on the understaffed Income Tax Department may goad vigilance and inspection agencies out of their alleged torpor. According to one estimate there are70 lakh people suspected of evading income tax. If the economy falters, even though tax evasion is reduced, revenue will be squeezed and Income Tax authorities will be inclined or ordered to pursue citizens suspected of non-compliance.

In the second case, harassment of political opponents may or may not be legitimate. In this scenario, the Indian state is a battleground of private interests and of muscular politics. It is the crucible of the mafia raj. Informality is deliberate and pervasive; extra-legality, corruption and complicity with tax evasion is hardwired into its structure and behaviour. This is the kind of state that is being tested now.

Much of the regulation of the black and informal economy is by threat and force inside the state apparatus itself - as we see in the tax raids on political rivals in Tamil Nadu, Uttar Pradesh and West Bengal. The Indian state has also developed through networks of party, of patronage, and of co-ownership in the private sub-contacting of state functions, with loyalties based on kinship and status together with the pressures of collective lobbies. This sociologically complex state, far removed from Weber's 'iron cage' of bureaucratic rationality, structures accumulation by the powerful. It avoids forms of harassment that are costly to itself while acting as a predator on petty interests that it deems too vulnerable to resist it. New Delhi can also harass elements in the constituent states - as when central government's para-military forces were recently used to cordon off and raid the most senior state government officer in Tamil Nadu, and misleading information was apparently supplied to the press.

It would have been more straightforward to snare tax evaders by simplifying the tax system, ramping up the tax administration and enforcing the laws against evasion than to complicate the relation between banks, tax authorities and citizens.

- **What could possibly be the motivations behind such a radical experiment?**

Looking at motivation we must first be clear about the stated objectives. On Nov 8, the sudden illegalising of tender was officially said to be aimed at destroying corruption, black money, counterfeiting, and terrorism. On December 27, the PM declared mission accomplished.

However, this objective does not stand scrutiny - either in theory or in practice.

In theory only 'retail (low-level) corruption' requires cash. High-level corruption can be electronic, or involve transactions in kind, and/or take place off-shore. World-wide there's no relation between the size of the cash economy and the extent of corruption. And now in India, we read of a growing list of stings in new notes suggesting corruption continues. Corruption is the common man's normal expectation in his encounter with the state, but tax evasion is estimated to be twenty times more significant. Notebandi is to hit at both.

Black activity such as tax evasion is activity not reported (formally) to the state, even when it involves state officials; banknotes themselves are neither black nor white. It is their niches in the circuits of money that make them black. The black economy will continue until addressed by a battery of reforms targeting practices such as under- and over-invoicing, and capitation fees. It will need enforcement power. In effect, capital has to find black activity much more uncomfortable and on the whole less profitable than operating in white.

The circulation of counterfeit money is also an implausible reason for the overturn of so much of the economy involved in notebandi. Unless it is detected when it is deposited in a bank, existing counterfeit money will not be affected by demonetisation. After the present spurt of printing new notes, forged notes will in future depend on access to (illicit) technology and (imported) paper. In practice, counterfeit money is variously estimated at between 0.0002 to 0.0008 % of all notes in circulation, with just Rs. 30 crore recovered in 2015-16. Its practical importance has been greatly over-rated.

As for terrorism, the fact that money in new Rs. 2000 notes was recovered from the dead bodies of terrorists in Kashmir and other places speaks eloquently about the practical success of notebandi in combating terror.

As Kancha Ilaiah Shepherd has written: demonetisation is like burning a house to flush out rats - rats that have already scarpered.

So since November 8th other objectives have been either announced or deduced. For some commentators these shifts in policy justifications are being made on the hoof, while for others the moves betray the deep forces behind the original decision– in their view a vital new cog has been inserted quite deliberately into the policy machinery of new India. Y.V. Reddy calls it a 'paradigm shift'; M. Venkiah Naidu a 'cultural revolution'. For some, the new India is a domestic project while for others, braving criticism as conspiracy theorists, it is (also) the result of foreign influences.

So I read notebandi as a concatenation event – one serving more than one purpose and arising from many factors.

Conflicting motivations

First, notebandi is alleged to be motivated by the ruling BJP's desire to undermine opposition parties in advance of 2017 elections in UP, Punjab and Goa- and others elsewhere, running up to the General Election in 2019. This motive has been less discussed by economists as notebandi rolls out and as other parties, which are supposed to have higher proportions of reserves in cash and were given no advance warning in which to react, use the loopholes mentioned earlier in order to recover. We read of cases of old notes being rapidly advanced to party workers for them to deposit in return for future campaigning and that cash-planning for the latter is disrupted. Opposition rallies have been cancelled, will be smaller in size and will have fewer freebies attached. Instead of a bonanza, the events management industry – a cash sector - fears the doldrums. Some even think that these problems will increase bipartisan support for electoral reform.

Second, notebandi relieves the Indian banking system of a major crisis of escalating non-recoverable debt – in the region of Rs. 6-7.5 lakh crores, which is many multiples larger than the likely scale of tax evasion in the informal economy. Notebandi is the forced recapitalisation of banks using deposits from the informal economy. To the extent that this really is demonetisation– that deposits of old currency are not replaced by new notes – notebandi transfers resources from the poor to shield the banking elite from its epidemic of irresponsible crony capitalist loans. The PM has referred to notebandi as 'mop(ping) up public savings.'

But there is more to this than crony capitalism. After the 2008 global financial crisis, a global regulative architecture has been in the process of being developed to prevent banks from failing. India has signed up to this. It requires a change in the role of India's reserve bank from regulation and supervision to ensuring financial stability – shoring up the banking system by means such as bail-ins and the progressive biasing of its work towards the interests of banks and corporates and against depositors.

On 'good governance day' the PM announced that additional revenues were to be used for public benefit, giving irrigation and housing as examples. Can the RBI then hand over the difference between currency notes deposited and replaced to the government as a special dividend to be devoted to voter-friendly developments, to social sector policies or little transfers to the over 250m Jan Dhan accounts (a quarter of which were empty prior to November 8)? This is as yet unclear. Even so, even if the product of notebandi fails to be redistributed, this can hardly be understood as an 'experiment'. Not one that can be repeated.

Last but far from least is the argument that notebandi was intended as a move towards a currency-less economy. This is now the most analysed motive, because it crept up unobserved by the majority of economists and was rammed home as public policy only when other motives were exposed as questionable. This was openly declared by Mr. Jaitley on December 8, and repeated on December 29. While cash cannot disappear as a yardstick of value, Mr. Jaitley declared that 'obviously one of the intentions as far as government of India is concerned is that the paper currency should shrink and a large part of businesses should be in the alternative digital or cheque mode'.

The torrent of comment this has provoked is suggestive, at its most innocent, of the 'nation's love story with depoliticised tech-fixes for social problems'. But it is not an unpremeditated love-affair. Tony Joseph reminds us that the move to digital payment technology was kick-started in 2013 under UPA-2 by Nachiket Mor's long-awaited report from the Committee on Comprehensive Financial Services for Small Businesses and Low-Income Households. The objective was financial inclusion, not rooting out black money.

Digital policies

Far from being a one-off policy, we can now see digital transfer technology as linked systematically with Aadhar – the unique biometric identifier (launched in 2009 under Congress, but legislation for which is still pending) – and with Jan Dhan – the peoples' bank accounts (launched in 2014 under the BJP). In turn this bundle of policies would enable the merging of the public interest with private interests and private enterprise. There were clear signs, ignored by all but a few specialists, that the move towards cashlessness mediated by electronic technology, was being actively prepared throughout 2016 for a market that had been estimated before November 8 as going to be worth $500 billion by 2020. After November 8, it is surging from just 2% by volume of consumer transactions (or is it double that?) at remarkably high speed compared with the current velocity of printing the banknotes needed by the real economy that is currently so cashless but so in need of cash.

Digital transfer technology was advancing rapidly anyway, with investments from the US and China, and vocal enthusiasm from entrepreneurs like Bill Gates. It didn't need any help from notebandi. This came as a gift to foreign-headquartered corporations, which are immediate beneficiaries of the service charges for electronic transactions.

Meanwhile somewhere between 32% and 46% of adult Indians are estimated to have bank accounts. Many of them lay empty and 80% of Indian women have none. Yet after the 24thof November newly illegal notes could not be exchanged anywhere but through bank accounts, thus penalising the unbanked.

Globally, India is ranked very low in digital infrastructure. Out of a population of 1.3 billion, anywhere between a quarter to a third are believed to have access to the internet – dropping to 13% in rural areas. There are said to be 740 million debit cards, many idle, averaging Rs. 3000 a month - and 27 million credit cards, averaging three times more. Since November 8, cash withdrawals using credit cards are up in volume, but down in value. Although there are nearly two billion sim-cards in India there are only 350 million mobile phone subscribers and only 150 million smartphones, meaning that there are still far more Indians without mobile banking connectivity than with it. A minuscule percentage of rural cell-phone internet users know how to make digital transactions or trust it. The vast majority are said to use it for entertainment.

And the infrastructure needed for a cashless economy in rural areas is seriously underdeveloped. Half of India's villages have no electricity and the rest are subject to regular power cuts. Three quarters of India's ATMs are in metros. ATM density in rural areas varies dramatically from one state to another, Maharashtra and Tamil Nadu accounting for a quarter of the All-India rural total. At the best of times rural areas are far more poorly serviced than urban ones. Business correspondents who personally deliver basic financial services in villages can face acute difficulties, as do their clients: batteries die out; the machines fail to recognise thumb and finger-prints of clients desperate for cash for food. Fraud is a recognised problem. So are related risks of breaches of security and privacy.

No imaginative training has been developed and diffused for cashless access by illiterate, innumerate and immobile rural citizens. Private (Paytm) and public (BhimApp) digital money transfer services meet with reported incomprehension in villages. While a bank-note has to be replaced after one lakh transfers by hand, one careful estimate is that the public cost of servicing the use of bank notes is 0.003 per cent of the private service charges banks make for the equivalent value in digital banking. Poor people cannot afford such charges.

Assuming the vast mass of rural people can access the banking system further assumes that the opportunity cost of their waiting time is zero. Un- and under-employment notwithstanding, the vast majority of adult Indians in fact are hard at work for very low returns. They cannot afford the time needed to do banking. They save cash for emergencies and are unavoidably entangled in complex webs of debt. How they are to be extricated from this has not been thought through.

The now heavily promoted step-change towards forced cashlessness is premature and will succeed, if at all, only very slowly.

While demonetisation is a mass invasion of the state into personal economic space, and a betrayal of the state's obligation to respect the claim to value that's embodied in every banknote, 'formalising' the economy is being understood restrictively in terms of electronic money-trails and tax. But the informal economy involves commodities and labour too. Comprehensive laws developed over the 20th century to govern commodity market behaviour have been ignored or selectively/punitively enforced – nowhere more so than in the laws protecting the conditions of labour as a commodity. In the announcements about formalising the informal economy, the problems of regulating commodity transactions and work contracts are completely under the radar.

- **What are some of the short term and long term effects it is likely to have on the economy?**

I'll take 'it' to mean notebandi and 'the economy' to be the aggregate of the formal, informal, black and criminal sectors. To remove 86% of a country's currency at a stroke and replace it slowly is unique in world history. Since other near-parallels involve war and hyperinflation, predictions tend to be based on first principles and early outcomes.

In the short term – the next few months – much will depend on the rate of replacement of cash and the balancing of denominations so the Rs. 2000 note can be exchanged. We are already told that incomes and consumption have declined. Employment in agriculture (250 million), construction (45 million), agro-businesses and other light industries (e.g. 400,000 people in Surat, another 400,000 in Tiruppur, and 50,000 in the Palar valley leather cluster) has taken a hit, and these are jobs which the formal sector is unable to replace. People have lost control over their savings, and some have even lost their savings; new bank loans are frozen thanks to the work-load caused by demonetisation, which is said to be costing banks Rs. 3000 crore a day, and a spike in bankruptcies is reported in the informal economy. We don't yet know what the effect will be on the informal prices of basic wage goods, and the cost structures in the rest of the labour-intensive economy depend on these prices.

Many economic commentators, arguing that the wealthy are least dependent on cash and least affected by notebandi, foresee increases in economic inequality. And, although mocked by the government, the previous PM, the economist Prof Manmohan Singh, has estimated that a drop in GDP growth of up to 2 % is likely. That would be Rs. 2.5 lakh crore lost to the economy.

In the longer term, there are two contrasting scenarios. In one, the increase in deposits not replaced by cash increases liquidity in the banking system enabling it to lower interest rates, so that the loan crisis will be eased (and prices in the underdeveloped bond market increase). Production will gather pace.

In the other, the opposite happens. Every loss in GDP due to the short term shock of demonetisation means a loss in revenue of Rs. 1.5 lakh crore, which prevents the state investing either in growth or welfare, with knock-on effects. A drop in interest rates does not resolve the crisis of bad loans, while new investment needs to be able to expect profits and expanded infrastructure, neither of which are forthcoming. There are reports of unusual rates of pull-out by foreign investment.

- **As a political economist who has studied India, do you think this has done permanent damage to the Indian economy and its growth story?**

To both, yes and yes. Never forget that India's real economy thrives on the energies of scores of millions of tiny firms and their small, precarious labour forces.

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