

Demonetization and Policy Credibility: Does India Pass Muster?

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Abstract

This paper examines India's demonetization from the standpoint of policy credibility, employing the standard norms for assessing macroeconomic policies. The credibility appraisal constructs a narrative from contemporaneous economic records, computes the fiscal and quasi-fiscal bailout costs for mitigation, monetary costs of implementation, as well as effects upon the financial sector using public data and other empirical evidence. It considers counterfactual policy tools to examine if demonetization objectives could have been more effectively achieved at lesser costs. Based upon these comprehensive measures, the paper concludes that demonetization does not meet the established principles of credibility in the macroeconomic literature.

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I Introduction

The scale and breadth of India's demonetization continues to attract universal attention and curiosity. The macroeconomic interactions of the shock monetary action – abrupt termination of the legal tender status of Rs. 500 and Rs. 1000 notes – are a fascinating study, not the least because of its novelty. A one-shot, surprise deployment of a single instrument – a monetary aggregate in this instance – to attain multiple and proximately fiscal objectives is unique in the macroeconomic annals. If it weren't for its wide-ranging objectives (black money believed hoarded in cash; counterfeit banknotes and the illicit financing of terrorism through fake notes; digitization and formalization appended subsequently), the closest analogy would be a sudden, sharp tightening of money supply to control high inflation. Understanding the impact of demonetization, which withdrew 86% of the monetary base (12% of GDP) suddenly, thus extends beyond the well-understood effects of liquidity withdrawal upon economic activity.

It is not surprising, in this light, that academic interest in different aspects of demonetization endures. The passage of time enables better insights, as more information becomes available. As a result, research studies examining different aspects of demonetization continue to appear in recent times. Briefly, the aggregate impacts of demonetization were researched in Chodorow-Reich *et al* (2018), focusing upon demand for cash to facilitate economic activities and for tax evasion; acknowledging measurement difficulties¹ and using a nightlights-based proxy for the real economy, they estimate the magnitude of peak output impact was a cumulative 2 percentage point contraction in employment and output, and in bank credit, in the demonetization quarter (2016Q4); comparable to a 200 basis point monetary policy tightening,² they conclude cash fulfils an essential role in facilitating economic activity in India, as opposed to the cashless limit of new-Keynesian models³.

Karmakar & Narayanan (2019) regard demonetization a 'purely exogenous macroeconomic shock' to household incomes and expenditures; they find the impact was transient, concentrated in December-2016, as higher borrowings enabled consumption-smoothing and assisted post-demonetization recovery of household finances⁴. Technology diffusion is examined by Crouzet *et al* and Aggarwal *et al* (both 2019); these studies find the large, temporary reduction of cash led to a persistent increase in the adoption of electronic payments, which mitigated the cash crunch, though with substantial state-dependence, viz., high adoption responses in areas with pre-existing strengths, with potential accentuation of the initial gaps. Lahiri (2020) evaluates the goal achievements along with costs and benefits of demonetization in a review. Subramaniam (2020) looks at the supply-side impact upon the informal sector using a difference-in-differences approach to study formal-informal channels, with data from two separate surveys (workers and informal enterprises) and a manufacturing census that are merged with quarterly financial statements of firms; the study finds that cash-intensive firms with relatively larger shares of informal inputs (labour or material) suffered greater declines in post-demonetization months, while casual workers were more likely to report being unemployed compared to organized farmers, industrial workers, white-collar employees, and businessmen.⁵

A dimension not examined so far is the policy credibility of India's demonetization: Is it a credible policy? Against its extraordinary scale, breadth and varied objectives, an evaluation from this

standpoint is a useful supplement to the above literature. This paper examines if demonetization passes the test of a credible policy. It evaluates the strategy, design, implementation, target attainment, and effectiveness of demonetization using standard norms for assessing credibility of macroeconomic policies. These include, *inter alia*, consistency, goal adherence, clear communication of targets and objectives, and policy costs. These are well known building blocks that burnish policy credibility, which itself is earned by demonstrated commitment and success.

A narrative approach is combined with publicly available data and other empirical evidence as methodology; the narrative is constructed from contemporaneous economic records, viz., announcements, statements, speeches, interviews and press reports. The narrative method allows one to relate the sequence of actions and announcements, and to benchmark these to usual yardsticks of assessing credibility of any policy. For a comprehensive appraisal from a policy credibility perspective, the costs incurred towards mitigation, implementation, and other macroeconomic burdens are considered; in particular, the paper computes *bailout* costs of fiscal and quasi-fiscal nature. Finally, it asks if the demonetization policy objectives could have been equally, or perhaps, better achieved through less-costly instruments, and whether it constitutes a lasting example for other countries to emulate.

This paper contributes to the literature on demonetization in the following ways. One, it complements existing research on demonetization from a different and unexplored perspective. Two, the sequential narrative serves as a valuable historical record of the demonetization-related actions and responses. Three, it provides a comprehensive assessment of costs that span fiscal, quasi-fiscal, monetary, and the financial sector. It differs from other research studies because of the distinction made between originally announced policy objectives from those appended later, viz., digitization, formalization, etc.) to underline credibility impact of goal-broadening; the detailed quantification of costs, which include those to counter the adverse economic fallout of demonetization, the intangible and opportunity costs, and the lagged, adverse consequences upon the financial sector.

Some important caveats are flagged at the outset. *Inter alia*, the short time period, limited information, and data are constraints; intangible and/or indirect costs or those observable as lagged build-ups over subsequent years (e.g., financial sector imbalances and risks), as well as the loss of freedom for macroeconomic policies are difficult to measure or explicitly ascribe, but mostly provable by reasoning and cross-reference. The paper is organized as follows. Section 2 examines policy credibility of demonetization with respect to targets, strategy, design and timing. Section 3 presents the bailout, implementation and other costs; Section 4 considers some counterfactual measures, and Section 5 concludes.

II Policy credibility

Demonetization has enhanced policy credibility in some countries. An immediate example preceding India's demonetization is of the Euro area. On May 4 2016, the 500-euro note was demonetized with the explicit objective of discouraging the facilitation of illicit activities.⁶ The Euro zone demonetization policy permitted it to remain legal tender until the end of 2018 in consideration of its widespread usage; the cancelled bill will always retain its value with unlimited period of exchange. The design and implementation of the Euro zone demonetization thus ensured that the

500-euro bill's payment and store of value functions are neither adversely affected nor disrupted. These features burnish the credibility of Euro zone's demonetization with regard to its objective, i.e., concerns and allegations of the cancelled bill's use by terrorists and criminals, and with its design and implementation, which provided abundant time and were cautious to avoid disruptions or cause disturbance. These testify to avoidance of a sudden monetary shock, and reflect sensitivity to the function and value of the bill to its genuine holders, as also to the status of the euro as an international currency. Such attributes serve to maintain or preserve public confidence, boosting credibility of the policy action.

How does the credibility of India's demonetization compare? In contrast to the Euro zone action, demonetization in India was sudden and unanticipated, a one-stroke cancellation of two bills in wide use (with 86% share in the monetary base); the exchange period of the invalidated notes was restricted to less than one quarter with replacement by two new bills - one of *identical* denomination (Rs 500) and another of higher value, Rs. 2000. The initial currency exchange amounts were severely restricted, per person and on a weekly basis; the limits were progressively eased with complete halt upon exchange in four months; and the replacement pace of the cancelled currency stretched to several quarters. Because of the surprise action, the central bank was unprepared to meet the extraordinary currency demand.⁷ In further contrast to the Euro zone demonetization, the policy objectives in the Indian instance were several, viz. to nullify black money hoarded in cash, tackle counterfeit banknotes, and prevent terrorism financing through fake notes.

These intrinsic design properties of demonetization were later explained by the need to ensure secrecy, necessary to achieve the desired objectives that would otherwise be vitiated by a prior, elaborate currency replacements at the banks and ATMs.⁸ Hence, the ensuing currency shortage, extensive disruption of payments, transactions, exchange and economic activities was inbuilt into the policy design and deliberate as the government confirmed. While this raises questions with regard to the strategy and design on one hand, on the other, it increases the weight upon goal achievement in assessing credibility.

The framework employed to assess policy credibility is that applicable for macroeconomic policies. In the standard monetary or fiscal policy framework, especially the former, credibility requires clear definition of objectives, the means or instruments for realizing these, and approximate time path of achievement. This may seem too rigid a structure for policy actions such as demonetization, which are one-off, not strictly comparable to macroeconomic policies; the propagation of the shock has diverse channels and is non-linear in nature, which limits understanding of agents' behaviour and second-round responses.

In addition, monetary and fiscal policies are able to provide precise targets whereas in demonetization actions, the targets are approximate (e.g., expected black money amounts) or not amenable to quantification (e.g., illicit activities, terrorism financing). Despite these dissimilarities, a loose application of this framework makes credibility assessment tractable by pinning down targets and eventual goals, evaluating the strategy, design and timing, and bringing them together on one platform. A further justification for using this framework was put forward by the Indian government, which argued that demonetization was part of fiscal or economic policy and therefore, not subject to judicial review.⁹

2.1 Targets, policy design and credibility

2.1.1 No target estimates announced, the ambiguity opening a curious, speculative gap

Demonetization was deployed to achieve three specific objectives: (i) nullify black money hoarded in cash, (ii) tackle counterfeit banknotes, and (iii) curb terrorism financing through fake notes. These objectives were announced on November 8, 2016 and specified in respective press releases of the government and the central bank.¹⁰ No other objectives such as formalization, digitization, and tax base expansion in the medium- to long-run were originally stated; these came in more than a month later.¹¹ This is additionally supported by communication records of the government and RBI, as Lahiri (2020: pp 59) notes on the basis of relevant minutes of the RBI's board meeting. It is arguable if expanding the scope of policy goals in accordance with evolving situation and results contribute to flexibility and adaptability of a policy action or reflects adversely upon its credibility. We reason below that it is the latter rather than the former.

Two, no estimate or expected amount of black money target was communicated; neither was there any disclosure of the extent of counterfeit or fake currency notes in circulation. Narrative records and policy design do indicate the clear expectation of fiscal gains from trapping black money. For instance, the quantitative caps and disclosure rules¹² of exchange/deposits of the cancelled notes aimed at deterrence and forced destruction of unaccountable cash by agents who would instead be subjected to audit and tax scrutiny if deposited at banks. The currency stock or 'black money' that remained outside the banking system as a result constituted the expected sovereign windfall after extinguishing the central bank's currency liabilities.

What was the anticipated fiscal boon? While there was no official 'black money' target, an expected sum of Rs. 4-5 trillion is quite easily established from widely reported submissions of the government to the Supreme Court^{13,14} in the week following the announcement (November 15, 2016). The attorney-general stated in this that the government "expects people to deposit Rs. 10-11 lakh crore in banks", while the remaining "Rs 4-5 lakh crore were being used in the northeast and J&K to fuel trouble in India. That will be neutralized." Thus Rs. 10-11 trillion out of the Rs. 15.4 trillion cancelled was expected back as bank deposits by the end of the exchange period (i.e. by December 30, 2016).

Such statements and reports about large fiscal gains lent credence to demonetization as an effective policy and engendered positive expectations despite no target being specified. Absence of a target also triggered abundant speculations about black money amounts that demonetization could fetch and what use the funds could be put to, setting in motion a virtuous expectations spiral about improved economic prospects in extensive media discussions. The third, most disturbing outcome of a missing 'black money' target was the ample scope this provided to manoeuvre, realign and expand originally announced objectives and secondary actions. These evolved fast, within a fortnight of the initial announcement, and in arbitrary correspondence with the volumes of returning deposits by the public. None of these helped policy credibility, as discussed below.

2.1.2 Design failure

Of the three specified objectives, those of blocking counterfeit currency and its use for terror funding were discredited within days of the announcement. News reports, anecdotal, and statistical

evidence support this conclusion, e.g., fake Rs. 2000 notes that were newly-launched in place of Rs. 1000 denomination were found with terrorists and other agents in different parts of the country within a fortnight of demonetization.¹⁵ This indicates quick adjustment/response by multiple actors, casting doubts over demonetization's efficacy, or that of its design.

Next, the 'black money' target also headed rapidly towards failure, as the public managed to subvert the implementation strategy and design by depositing the de-legalized notes at post offices and banks at a furious pace: Rs. 5.5 trillion or 36% of the cancelled currency stock (Rs. 15.4 trillion) was deposited in the first week (November 10-18), followed by 55% (Rs. 8.44 trillion) in the fortnight to November 27, 2016.¹⁶ The time span was significantly less than the time allowed for limited, permissible use of the cancelled tenders. It quickly became obvious that the invalidated currency that would return legally to the formal financial system was likely to exceed Rs. 10-11 trillion (subtracting the expected black money, Rs. 4-5 trillion) well before December 30, 2016, the deadline for exchange.

The public capably managed to circumvent, manoeuvre and manipulate rules in innumerable, unimaginable and unforeseen ways for legal deposits of cancelled notes. For example, there was a remarkable surge in new, no-frill bank accounts (*Jan Dhan*)¹⁷ opened in the period. Although this was offered as proof of a public shift from cash and therefore, a success of demonetization, it is notable the new accounts were a channel for both genuine and/or unaccounted currency deposits – because many of these, amongst others, have remained under investigation since.¹⁸ These responses indicate failure of the design and implementation framework, which was structured around fear and deterrence. On the metric of its design therefore, the credibility of demonetization stands considerably lowered because the faulty blueprint failed to anticipate counter-responses.

The above developments or failures also prompted rule modifications and a resort to regular fiscal policy measures as narrated next.

2.1.3 Policy strategy modified towards tax rules, shifted course

With the 'black money' target becoming visibly impossible to achieve, the strategy was reworked in less than three weeks from initial announcement. On November 24, 2016, this sought recourse to the taxation channel, using two methods: encourage 'black money holders' to disclose and come clean; and 'track' those who didn't. A voluntary disclosure scheme - *Taxation and Investment Regime for Pradhan Mantri Garib Kalyan Yojana, 2016* (PMGKY)¹⁹ - was introduced on November 28, 2016. The scheme opened a door for paying taxes on black money deposits with heavy penalties, guaranteed confidentiality, and immunity from prosecution. A simultaneous law was also passed, i.e., *Taxation Laws (Second Amendment) Bill, 2016*, which held out a threat: unaccountable cash deposits that neither matched tax returns nor revenue authorities' income assessment of the depositor were subject to prohibitive taxes.²⁰ In addition, citizens were encouraged to blow the whistle on 'black money' suspects.²¹

The shift in strategy – deployment of regular fiscal instruments – is a strong indicator that demonetization by itself was failing to achieve its 'black money' target. It is notable that the voluntary income disclosure scheme was the second such, close upon the heels of a preceding one,²² which had ended less than one quarter before demonetization. This corroborates demonetization's failure to accomplish its original objective to unearth black money. If tax amnesties and harsh penalties could help attain the 'black money' target, demonetization becomes unnecessary and superfluous; the

former are non-disruptive, and come with only administrative costs. The qualitative strategy shift undermines policy credibility. Further endorsement of failure comes from official statements, e.g., “...the expectation is that the entire money which is in circulation has to come to the banking channel so that we can trace the transactions and trace the entire money, who does it belong to and has tax been paid on it”.²³ This was a departure from the previously expected 4-5 trillion estimate that would not return back to the formal financial system.

2.2 Was the timing optimal?

Timing or appropriate economic context is critical to policy setting and plays a crucial role in determining its success with minimal sacrifice. Economic conditions are also material for framing the size and magnitude of macroeconomic policy response. This applies equally to demonetization, which was knowingly delivered as a surprise. It was also expected to have a non-linear impact, i.e., disproportionate burden of the currency withdrawal impact upon cash-intensive segments of the economy; for example, real estate, jewellery, and the broader informal economy where transaction demand for cash is high, while technological and educational drawbacks impede quick adaptation or flexible switch to electronic modes, compared to organized segments that are more empowered.

The government argued that demonetization was optimally timed,²⁴ but the evolving economic conditions suggest otherwise. GDP growth in the pre-demonetization quarter was measured at 7.1% in April-June 2016, representing a sequential loss of momentum from 7.9% growth in January-March 2016. Private consumer spending successively shed a respective 1.10 and 1.8 percentage points of its GDP share in these two quarters. In its October 2016 review, the RBI flagged the negative output gap and slowing business cycle; it noted the depressed construction, below-long-term-average use of industrial capacities, and financial stress in iron and steel, construction, textiles, and power, amongst other attributes of a slowing business cycle.²⁵ Overall, macroeconomic policies in 2016-17 were geared towards demand support before demonetization: fiscal policy had frontloaded public expenditure in the first half of the financial year 2016-17, while monetary policy eased 25 basis points in October 2016 with an accommodative stance. The divergence with macroeconomic policy settings against the assertion of ‘optimal timing’ questions credibility. It leaves little doubt about an ill-timed introduction, notwithstanding signs of cyclical slowing, especially consumer spending that forms more than half of Indian GDP.

2.3 Was the ‘black money’ target achieved?

A policy is deemed credible if successful in achieving its target. Is demonetization convincing on this measure?

Official information on the final amount of annulled currency returned to depository institutions was not released until August 30 2017, with publication of the RBI *Annual Report*. This showed 99% or Rs. 15.28 lakh crores of the annulled currency in circulation (Rs 15.44 lakh crores) returned to the formal financial system, formally proving demonetization’s failure to achieve the ‘black money’ target.

Credibility was adversely affected also because of the long gap in official disclosure, the last previous one being in December 2016²⁶ - which confirmed deposits of Rs. 12.44 trillion. The long interval was explained by the RBI as time required for reconciliation of “data on junked 500- and

1,000-rupee notes” with ‘physical cash’;²⁷ the central bank asserted the ‘final numbers’ would be divulged after June 30²⁸, the day of closure of all currency exchange windows. However, an eight-month break without official dissemination created abundant space for speculation and triggered numerous unofficial estimates, which reflects poorly upon credibility. For instance, in January 2017, *Bloomberg Quint*²⁹ estimated 97% of cancelled notes (Rs 15 trillion) were re-deposited, citing anonymous sources; estimates inferred from weekly monetary statistics³⁰ the same month; continuing to June 2017, when Rs. 17.95 trillion were assessed in circulation against Rs. 17.9 trillion on November 8, 2016 (Khullar, 2017).³¹ Before any official confirmation, it was commonly concluded and believed that all de-legalized bills had returned to the formal financial system and no black money had been recovered. This diminishes credibility of the policy action.

What was the ‘black money’ fetched by the tax amnesty scheme, PMGKY? This was a modest Rs. 49 billion from disclosures by 21,000 persons, according to quoted official sources.^{32,33} This was less than 0.5% of an expected Rs. 1 trillion, with officials admitting the response had ‘not been so good’...as ‘...people had tried to put their cash into different accounts...’ even before the scheme’s announcement and ‘...the (tax and penalty) rate’.³⁴ This is an admission of policy failure. When combined with numerous reports of the legal return of almost all the outlawed notes, the inevitable conclusion is that along with demonetization, even supplementary fiscal efforts (tax penalties and amnesties) failed to achieve the “Rs. 4-5 trillion” ‘black money’ target. The universal failure to achieve the policy objective is an indictment of demonetization’s credibility.

3. Bailouts, Implementation, & Other costs and damages

In the monetary policy literature, the ‘sacrifice ratio’ (output loss from aggregate demand contraction due to interest rate tightening) captures the associated cost of any policy action. The central bank gains credibility from demonstrating commitment to price stability and achieving this objective over time, even as some growth is sacrificed in the bargain. Demonetization could be considered analogous to this, viz., a reliable policy if it is able to retrieve targeted ‘black money’ with output and other costs as part of the trade-offs. However, the policy action failed in target achievement, while imposing universal burden upon the economy. Table 1 summarizes these costs. These are differentiated by their nature and attributions, e.g., costs to the public exchequer, monetary authority, financial intermediaries, and macroeconomic policies. The compilation, with detailed discussion below, endeavours to be as comprehensive as possible.

Fiscal costs

In December 2016, about two months after demonetization, a series of relief measures were announced. These ranged from budgetary grants, interest subsidies, credit guarantees and limit enhancements, top-up refinancing, incentive-linked reductions in tax liabilities, easy and targeted cheap loans (Table 1). The broad population segments covered were farmers, small businesses, senior citizens, women, and housing (rural and urban). Not all of these costs are quantifiable; while some are difficult to measure because of insufficient information, others are difficult to attribute directly to demonetization. However, a few can be computed from the final budget accounts of 2016-17,

supplemented by inferences based upon reasonable assumptions with respect to a few components. Using the relief measures from Table 1, Table 2 presents the direct and indirect fiscal costs of demonetization calculated from the actual budgetary expenditure in the year – this distinguishes between the original budgeted outlays in March 2016 and the final spending amounts, assuming the overshoot owes to demonetization relief in some components as explained. Column 4 shows this difference amongst the respective budgeted components.

Overall fiscal costs cumulate to Rs. 246.2 billion, with an expenditure increase of 12% relative to the initial outlay. Within this, spending components that can be cleanly linked to bailouts listed in Table 1 are classified as direct fiscal costs, under the assumption that the additional expenditure was incurred to offset privation caused by demonetization privation. These aggregate to Rs. 149 billion (1-4, top panel, Table 2); the largest increase (Rs 110 billion) is for the tribal development programme. Excess expenditure under MGNREGA, a countercyclical rural work programme (second panel, item 5) was Rs. 97 billion, or 25% above the budgeted amount; it is assumed the increased work demand under the programme arose from the reported job losses and deflationary effects upon farm prices and incomes (RBI, 2017a)³⁵ induced by demonetization. The bottommost panel reveals that although specified budgeted transfers increased 4%, spending on ‘other transfers’ component jumped 23%; again, it is assumed that ‘unspecified’ transfers relate to demonetization. Including transfers under central government sponsored welfare schemes, total welfare transfers in 2016-17 were 7% higher (Rs 196 billion) than the initial outlays.

There are further quasi-fiscal costs incurred by the monetary authority from sterilizing the excess liquidity created by large-scale currency deposits at the banks and which eventually devolve upon the government balance sheet. The bottom panel of Table 2 estimates the quasi-fiscal costs from interest payments on MSS bond issuances³⁶ for excess liquidity absorption at Rs. 110 billion over two years, 2016-18. Aggregate fiscal costs due to demonetization are estimated at Rs. 356.1 billion, or about 0.2% of GDP. The balance, i.e., revenue foregone from lower central bank profits is considered next.

Table 1: Bailout and Implementation Costs**I. Fiscal**

1. **Sterilization of excess liquidity created by currency deposited: Increased ceiling on market stabilization scheme (MSS bonds) for liquidity management to Rs. 6 trillion from Rs. 300 billion previously.**³⁷ Interest payments on these constitute quasi-fiscal costs through reduced surplus/profit transfers from central bank to the government.

2. **Bailouts**³⁸ - **Interest subsidies, Budgetary grants**

2.1 Farmers

- i. 60-day waiver on *rabi* loans from district cooperative banks
- ii. Rs. 200 billion contribution to NABARD Fund.

2.2 Small firms/businesses

- i. Doubling of underwriting limit for small firm loans (Rs 20 million), with extended coverage to NBFCs.
- ii. Credit limits enhanced to 25 per cent of turnover against previous 20 per cent.
- iii. Reduction in tax liability for firms with turnover up to Rs. 20 million – from 8% of income to 6% on digital transactions.

2.3 Women, senior citizens

- i. Doubled budgetary allocation of Rs. 2.44 trillion for PMMY³⁹ for MUDRA loans - Dalits, Tribals, Backward Classes and Women as chief beneficiaries.
- ii. Direct Rs. 6000 credit to bank accounts of pregnant women delivering at an institution, vaccinate child.
- iii. Senior citizens scheme - Fixed 8% interest on deposits upto Rs. 7.5 lakhs for 10 years, paid monthly.

2.4 Housing

Pradhan Mantri Awaas Yojana:

- i. Interest subsidy of respective 4 and 3% on loans \leq Rs. 9 and 12 lakhs;
- ii. 33% increase in number of homes to be built; *iii*) New category created in rural areas - 3% subsidy on loans upto Rs. 2 lakhs for fresh homes or extensions to old.

3. **Farm loan waivers: Rs. 909 billion (UP, Punjab Maharashtra)**

II. Quasi-fiscal costs of sterilizing excess liquidity

Surplus liquidity from excess reserves held by banks and absorbed by RBI via

1. Market stabilisation scheme (MSS bonds)
 2. Reverse repo operations, and
 3. Issuance of treasury and cash management bills.
-

III. Burden upon monetary-exchange rate policies

1. **Loss of policy space:** Excess funds constrained RBI's ability to intervene in forex market to curb sharp rupee appreciation driven by excess capital inflows.
2. **Exchange rate appreciation impact on output, inflation:** Cumulative, month-on-month, nominal and real (36- and 6-currency trade weights) appreciation of respective 5% and 4% (Feb-Mar 2017). Annual nominal and real appreciation of respective 12% (end-of-period), 29% (36-currencies) and 31% (6-currency trade weights).

IV. Financial sector costs and burden

1. **Small finance banks:** Marked deterioration in asset quality. Portfolio at risk (> 30) increased to 14% in 2016-17 from 0.4% in the previous two years. The abnormal increase attributable to lower recoveries, post-demonetization, as cash shortage adversely impacted incomes and livelihoods of low-income households (MFIN, *Annual Report*: pp 52).
2. **Commercial banks**
 - a. Incremental cash reserve ratio (ICRR) of 100% on increase in net demand and time liabilities in Sept 16-Nov. 11, 2016 to drain excess liquidity (about Rs. 40 billion).
 - b. Opportunity costs of business foregone due to exclusive currency-exchange operations over a quarter;
 - c. Profitability impact from
 - reduced interest income due to steep halving of nonfood credit growth from 9.3 to 4.4% in October 2016-February 2017.
 - steady widening of deposit-credit growth gap
 - Increase in non-performing assets in subsequent years
 - Rapid acceleration in lending by NBFCs, Mudra loans, that fueled consumption and other imbalances

Source: Author's compilation from various sources

Table 2. Fiscal Costs, Direct & Indirect, 2016-17

	<i>In Rs. Billion</i>		<i>In per cent</i>	
	Budgeted I	Actual II	Change III=II-I	Change II/I
Direct				
1. Interest subsidy	155.2	178.9	23.7	15.2
2. Umbrella Programme for Development of 3. Scheduled Tribes	3209	3319	110.0	3.4
4. Pradhan Mantri Awas Yojna(PMAY)	200.8	209.5	8.8	4
5. Credit Support Programme	0.5	7.16	6.7	1332
Indirect^a				
6. MGNREGA	385	482.2	97.2	25.2
Total costs (Direct + Indirect, Column III)			246.2	12.1 <i>(avg excl. 4)</i>
Quasi-fiscal				
Interest costs of MSS bonds ^b	-	109.9	109.9	
Total fiscal & quasi-fiscal costs			356.1	
<i>in percent of GDP</i>			0.2	
Memo				
Total Transfers ^c <i>of which</i>	3770.2	3915.0	144.8	3.8
Centrally Sponsored Schemes ^d	2319.0	2413.0	94.0	4.1
other transfers	444.7	546.5	101.8	22.9
<i>CSS plus other transfers</i>	2763.7	2959.5	195.7	7.1

Notes:

- Not directly linked to announced bailout, but scaling-up represents increased unemployment transfers
- Distributed over FY17 (Rs 56.7 bn) & FY18 (Rs 53.3 bn)
- Sum of Centrally Sponsored Schemes, Finance Commission & other transfers.
- Further categorized as Core of the Core (items 2 & 3), Core (item 5) & Major schemes (item 4)

Sources: Statements 1 & 7, Budgets FY16-FY20

Monetary Costs

Table 3 calculates costs incurred by the central bank due to demonetization. The monetary costs are essentially quasi-fiscal in nature because they directly translate into reduction in public revenues (non-tax) from lower surplus profit transfers from the RBI. At Rs. 306.6 billion or 0.2% of GDP, these are conservative or lower bound estimates, as the RBI's balance sheet reports *net* interest income; this makes it impossible to disaggregate the income erosion due to currency appreciation in a year from the offsetting increases in coupon income due to higher rupee securities, i.e., Rs. 1.10 trillion of open market purchases in April 2016-June 2017. Overall surplus transfer to government declined 53.5% in 2016-17, a 50% fall relative to the three-year average, while expenditure increased 107.8%. A decomposition of the direct monetary costs, Rs. 225.5 billion, shows interest payments of Rs. 180.04 billion towards surplus liquidity absorption under reverse repo, attributable to higher interest

payments under the liquidity adjustment and marginal standing facility operations following withdrawal of *Specified Bank Notes* (RBI 2017b: pg. 201). Printing costs, Rs. 45.4 billion, are estimated as excess over the previous year. In addition, the central bank's income from foreign sources decreased 35.27% from rupee appreciation in 2016-17, while earnings on foreign currency assets slowed to 0.8% from 1.29% the previous year. These reductions are, however, difficult to source to demonetization, even though intervention abilities were visibly limited because foreign currency purchases would have either compounded domestic currency liquidity or added to quasi-fiscal costs from sterilization.

Table 3: Monetary Costs

	<i>Rs billion</i>	<i>in per cent</i>
Interest income loss, Reverse Repo, net	180 ^a	
Printing costs	45.4 ^b	
Total	225.5	
Surplus transferred to govt	306.6	
<i>Decline over 2015-16</i>	-352.2	53
<i>Decline over previous 3-yr average</i>	308.2	50
<i>in percent of GDP</i>		0.2

Notes:

a. Higher expenditure from surplus liquidity absorption

b. Increase over printing costs in 2015-16 (Rs 34.21 bn)

Source: RBI balance sheet, FY17, FY18 with author's calculations

Financial Sector

Demonetization imposed severe costs upon financial intermediaries, immediate and lagged. Yet only some of these can be directly tied to demonetization. For one, the depository institutions bore a disproportionate burden from the currency exchange, business foregone, and loan defaults. Two, they were also a primary channel for relief measures such as MUDRA loans and farm-loan waivers (Table 1, panel IV). Three, the resulting distortions and imbalances that developed with a lag possibly increased instability risk. Many of these effects are difficult to source to demonetization without specific data.

There has also been no official impact evaluation, barring the early assessment by the RBI that, in the case of banks, related to just two quarters. About six months after demonetization, the RBI examined the early balance sheet effects upon scheduled commercial banks, including the size and composition (RBI, March 2017a). In its brief, one-quarter analysis, the central bank calculated that net returns to banks were about 3.08 percent, based upon the aggregate net interest income (Rs 45 billion) from Rs. 6 trillion liquid asset investments in reverse repos and MSS securities. Incremental credit rose just 18.2% in the period – the preliminary assessment flagged the negative, short-term effects upon loan disbursements and repayments in the case of non-bank and micro-finance intermediaries, whose borrowers are predominantly cash-dependent. The central bank then stated it was too early to adjust the gains in interest income against costs to banks from managing currency

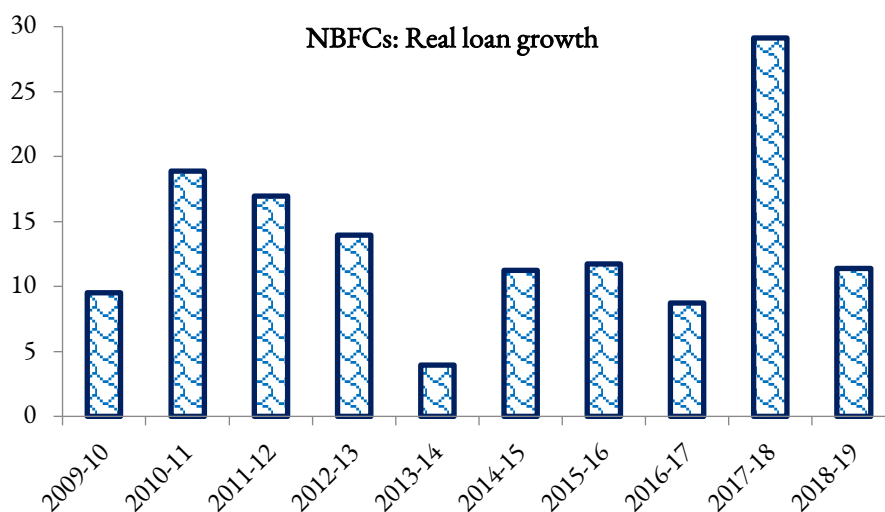
withdrawals and injections (e.g., re-calibrating ATM machines, staff overtime, security arrangements, fee reductions/waivers on digital payment modes, amongst others) as precise details were unavailable. However, no comprehensive cost-benefit evaluation followed; at least, no such evaluation was published thereafter. This is a conspicuous gap.

The above are glaring omissions for a policy action of demonetization’s scale and magnitude, which calls for a holistic appraisal towards better understanding for the future. A rigorous assessment of policy credibility with respect to the financial sector is thus impossible because nearly all the costs, distortions, and losses are hard to identify or link upfront with demonetization. However, it is possible to connect some of the dots, supported by aggregate evidence and sequential evolutions. This is the method employed here.

Table 4 presents key performance indicators of banks and nonbanks over four years. Noteworthy changes in their trend can be summarized as follows. One, there is a severe drop in bank credit growth of 2.5 percentage points, with corresponding acceleration in sovereign bond investments; this pattern lingered in the subsequent two years. Two, the exceptions to an overall decline in bank credit are the rapid growth of Mudra loans extended by banks, NBFCs and MFIs to micro-entrepreneurs and individuals, and from the banks to the NBFCs where a sharp acceleration – a 2.5 times increase – is observed in the following year.

Three, lending by the NBFCs ramped up remarkably; in real terms, this exceeded the decade historical levels (Chart 1). Its correspondence with scaling-up of bank loans to these entities is an indication that excess deposits piled-up at the banks from demonetization were diverted to the NBFCs. Over 2017-19, more than one-third of the NBFC credit growth was driven by retail loans, followed by commercial real estate. Industry share in NBFC credit fell after demonetization, with only the micro and small industry loans accelerating a respective 49% and 34% respectively in 2016-2018; this possibly also reflects the raised credit limits under the *Mudra* loan scheme as part of remedial measures (Table 1). Four, nonperforming loans (NPAs) of both banks and nonbanks increased in 2017-18; this is more pronounced for the public sector banks, where NPAs jumped relative to 2015-16. Five, there was a distinct and collective deterioration in the health of all financial intermediaries, where again the public banks fared worse with persistent fall in profitability.

Figure1: Real loan growth in NBFCs



Source: RBI, CSO with author’s calculations

Table 4. Financial Sector

Scheduled Commercial Banks (year-on-year change, in percent)				
	2015-16	2016-17	2017-18	2018-19
Aggregate deposits	9.3	15.3	6.1	9.3
Non-food credit	10.9	8.4	8.4	12.3
All industry	2.7	-1.9	0.7	6.9
Large	4.2	-1.7	0.8	8.2
Medium	-7.8	-8.7	-1.1	2.6
Micro & Small	-2.3	-0.5	0.9	0.7
NBFCs	13.2	10.9	26.9	29.2
MUDRA		31.9	40.6	26.8
Investment in Govt Bonds	5.4	15.5	9.5	4.0
Gross NPAs, % of gross advances	7.5	9.3	11.2	9.2
Public sector banks	9.3	11.7	14.6	11.6
Interest income	5.3	2.1	1.0	11.6
Net Interest income	7.0	5.5	7.5	16.7
Return on Assets (in percent)	0.40	0.35	-0.15	-0.09
Public sector banks	-0.07	-0.10	-0.84	-0.65
Return on Equity (in percent)	3.6	4.2	-2.8	-1.9
Public sector banks	-3.5	-2.0	-14.6	-11.4
CRAR (capital, % of risk weighted assets)	13.3	13.7	13.8	14.3
Public sector banks	11.8	12.1	11.7	12.2
NBFCs (consolidated, ND-SI)				
Loan growth	16.6	13.2	32.7	14.8
Gross NPAs, % of gross advances	4.5	6.1	5.3	6.1
CRAR (capital, % of risk weighted assets)	24.3	22.5	22.6	19.7
Leverage Ratio		2.9	3.1	3.2
Memo				
GDP growth, constant market prices, %	8.0	8.3	7.0	6.1
CPI Inflation, %	4.9	4.5	3.6	3.4
Interest rates, 10-yr yield, annual avg. %	7.7	7.0	6.9	7.7
Policy rate, eop, %				
Exchange rate				
Nominal, Rupee-Dollar, annual average	65.5	67.1	64.5	69.9
end of period	66.3	64.8	65.0	69.2
Real, 36-currency trade weighted REER	112	115	120	114
Foreign Currency Assets, USD billion	336	346	399	385

Note: Banks data includes Small Finance Banks.

Source: Reserve Bank of India, CSO, and author's calculations

Bank and nonbank credit growth movements and the drivers suggest a credit-fuelled boost to consumption after demonetization. For one, the initial GDP projections and estimates showed a drop in output; the RBI's assessment also attributed about 33 basis point decline to demonetization in March 2017. Two, Karmakar & Narayanan (2019) findings support this conjecture, viz., increased household leverage due to substantial increase in subsequent borrowings from various sources,

including money lenders and shops, to finance consumption; they observe that demonetization contributed to this ‘unintended consequence’. Three, at the aggregate level too, total household liabilities grew 22% in 2016-17 and further doubled the pace next year (57.5% in 2017-18) even as per capita income growth decelerated sharply to 5.8% from 6.9% (in 2016-17) in this period. Finally, gross fixed assets’ creation growth slowed at the same time, bolstering the conclusion of a credit-push to consumption to support growth.

In the same vein of sequential reasoning, the rapid NBFC credit growth can be linked to the subsequent build-up of imbalances, and risk-accumulation in the financial sector, although it is open to debate if all these can be attributed to demonetization aftershocks alone. The second panel of Table 4 shows non-bank credit growth accelerated even as NPAs were elevated and rising, with increasing leverage on the back of unsecured bank borrowings (56% and 108% growth in 2017-19), short-term market borrowings through inter-corporate loans (28% and 33% growth), and commercial papers. Longer duration loans were extended against these, creating large-scale asset-liability mismatches that succeeding developments exposed.

A key trigger for the latter was monetary policy reversal - the policy rate tightened 50 basis points in June-August 2018, while short-term market rates rose nearly 100 basis points in six months to September 2018. The interest rate shock hit the NBFCs, heavily reliant upon short-term debt, through rollover and funding pressures, resulting in adverse effects upon balance sheets and future intermediation. This triggered default of the largest non-bank entity, IL&FS, in September 2018, causing a severe liquidity squeeze and lending standstill in the nonbank system; the risks spilled over to the broader financial system, especially banks due to extensive interconnectedness, severely undermining confidence and inducing risk aversion (*Financial Stability Report*, RBI, December 2018). The contagion spread with further defaults and insolvencies (e.g., two large NBFCs with real estate exposures).

Acharya (2019) describes the sequence⁴⁰, additionally drawing attention to the fiscal dimension in this context: a rise in government borrowings is found to impact the ability and willingness of NBFCs to borrow long-term, with a 10% increase in the share of government debt is associated with a 1.7% fall in the share of long-term debt for NBFCs; financial stability risks therefore escalate because private entities are forced to rely more upon short-term paper as their access to long-term funds is crowded-out. Post-demonetization (late 2017), government borrowings were raised 30% over and above the pre-announced amounts; fiscal transfers rose 17% in 2017-18 after increasing 15% the previous year of demonetization, possibly to counter its contractionary impact and a fiscal cost. These interrelationships may have played a role in triggering the NBFC crisis.

Compelling as some of the above evidence and reasoning may be, it is important to flag that the Indian financial sector was already strained at the time of demonetization. Bank balance sheets were stressed, especially public ones, and the lending vacuum created by their retreat led to credit substitution by the non-banks before 2016-17. It was viewed positively then (e.g., see *Report of Trends and Progress in Banking in India*, RBI, December 2016, 2017). The central bank raised caution on unbridled NBFC-loan growth financed by short-term borrowings *after* the crisis erupted (*Report of Trends and Progress in Banking in India*, RBI, December 2018). Two, there was a strict asset quality review from 2015-16 for complete recognition of bank NPAs.

These caveats weigh against some incontrovertible evidence on the deleterious impact of demonetization. Besides the above, the MSME loan stress aggravated after 2016-17, a development undoubtedly mixed with differential impact of a new indirect taxation system (goods and service tax or GST) introduced in July 2017, close on the heels of demonetization. MSME loans were given, and continue to be covered with, regulatory relief from February 2019 to date (extended now because of COVID-19). *Mudra* loan scheme has often elicited caution and discomfort of the RBI⁴¹ on growing stress and contingent liability of the government due to underlying credit guarantee; bad assets are reportedly high and understated.⁴² Other weakening effects include the farm loan waivers and write-offs⁴³, though difficult to directly associate with demonetization except sequentially, e.g., Rs. 363.6 billion announced for the state of Uttar Pradesh (March 2017), Maharashtra (June 2017, Rs. 305 billion), Karnataka (June 2017, Rs. 500 billion), and Punjab (Rs. 100 billion, October 2017).

Risk-aversion, fear and under-confidence effects from interrelatedness across financial intermediaries⁴⁴ have persisted in the following years, with three successive bank failures in 2019-20⁴⁵, although these are difficult to ascribe wholly to demonetization. On balance, it is fair to conclude that demonetization no doubt exacerbated the existing stress and risks in the financial system, thus prolonging its repair and recovery, with adverse consequences for growth.

IV Could alternate policies achieve demonetization objectives, at lower costs?

Another yardstick to assess policy credibility is to pose a counterfactual. Could the demonetization objectives have been achieved by alternative policies, at lesser cost?

To answer this, one need look no further than the new tax rules and amnesty given soon after the demonetization announcement. Section 2.1.3 elaborated these, while 2.3 specified the meagre amounts fetched by the fiscal measures. Their deployment is proof that fiscal policy incentives perform better, including in determent of black money. It's important to distinguish these revenues, as they are not attributable to demonetization, and are misleadingly clubbed with overall collections in the period.

The next alternative policy measure, which followed in mid-2017, was the shift to an integrated, national sales tax system (GST). This was already cleared for implementation, and was widely anticipated to formalize a significant part of the informal economy, because firms were necessarily required to register and transact online for input tax credit claims in the planned structure. A key expected outcome of migration to the GST system was integration of previously unregulated/unregistered firms into the formal, organized setup as business dealings, invoicing, payments and transactions moved to the technology platform devised for these purposes. Improvements in income disclosures and tax compliance were important outcomes of GST introduction. These were also the objectives of demonetization! In the broader context of policy formulation and actions, demonetization seemed superfluous and unnecessary. This calls into question its credibility.

A third gauge is the series of post-demonetization steps taken by the Indian government to promote card and digital payments. *Inter alia*, these included the launch of *Aadhaar* and *UPI*(unified

payments interface) payment systems, *BHIM*,⁴⁶ etc. It is difficult to see how demonetization aligns with such measures for electronic and technology adoptions in payments and settlements. Moreover, these underline the low costs and absence of damages from such measures, compared to the scale and magnitude incurred by demonetization. Demonetization again seems inessential in comparison, challenging its credibility.

Finally, the role of tax administration is necessary to consider. This has the primary responsibility to collect taxes, check evasion, encourage and improve compliance, using publicly available and specifically gathered information and intelligence. An almost static tax-GDP ratio despite a decade of administrative reform and information technology adoption suggests the scope for greater tax efforts, identifying the true revenue potential, and increasing efficiency and compliance. There's little doubt that fundamental changes in processes, procedures, and methods would be the best policy substitute. Evidence from Indonesia shows that improving tax administration can be very effective, more than even raising tax rates⁴⁷. The case for using demonetization becomes more unconvincing when examined in the light of recommended overhaul of the structure, governance, functions of the revenue administration by the TARC,⁴⁸ which remains unimplemented to date.

V Conclusion

This paper evaluates demonetization from a policy credibility perspective. Based upon announcements, complementary, and supplementary actions, it appraises the strategy, design, and timing of demonetization. A sequenced narrative constructed from compiled news reports, official interviews, and statements is combined with statistical as well as secondary empirical evidence to establish the purpose of demonetization. The frequent changes to rules and directions, the shifting of goalposts, unspecified targets, and employment of fiscal policy tools in order to realize demonetization's main 'black money' target, are analysed to appraise policy credibility.

The paper also calculates the implementation, bailout, and other costs of demonetization policy to the extent possible with existing information; indirect costs are quantified or listed with supporting assumptions, linkages and identification of co-movements; and all costs are categorized as monetary, fiscal, quasi-fiscal, and those attributable to the financial sector. Through these diverse sources and the narrative method, the paper concludes that the failure to achieve objectives, poor design and strategy, and numerous inconsistencies contribute uniformly to undermine the policy credibility of demonetization.

Many significant costs and damages elude quantification; others may be imperfect because precise calculations or attributions are impeded by data and information constraints. The paper also excludes the burdens or restrictions that demonetization is likely to have imposed upon macroeconomic policies - monetary, fiscal, and exchange rate - that are also subject to other contemporaneous influences, limiting assignment to demonetization-induced constraints alone. Suffice it to mention that to an extent, this gap can be bridged by notable departures from usual behaviors or patterns concomitant with an aggregate shock (demonetization).

For instance, the cumulative 7% real exchange rate appreciation in two years (2016-18, Table 4, bottommost panel) can be seen in the light of restricted forex intervention capacity of the central bank

from overwhelming domestic liquidity pressures,⁴⁹ it is also buttressed by the RBI's explanation of extensive support from exchange rate management for the persistence of heavy rupee liquidity in November 2016.⁵⁰ Similarly, fiscal deterioration in the subsequent years may not be delinked, e.g., a remarkable rise in welfare spending (current transfers grew a respective 15% and 17% in 2017-18), expenditure was increasingly borrowing-financed with additional spending that was unrecorded/off-budget after 2016-17,⁵¹ crowding-out of the private sector,⁵² increase in public debt stock despite extensive monetary efforts to lower interest costs.⁵³ While macroeconomic policies and variables can depart from normal patterns for many reasons, it merits underlining these cannot be immune to an aggregate shock, which typically elicits response as much as it would impose constraints while leaving much to speculation.

On balance, taking note of all dimensions considered in the paper, the evidence and reasoning make it hard to avoid the conclusion that a policy cannot be deemed credible when it is poorly-designed, fails to achieve the stated targets, and incurs substantial costs while inflicting significant damage.

Several important questions arise here. Does India's demonetization serve as an example for other countries to emulate for realizing similar objectives? Is it a fool proof addition to the existing macroeconomic policy tools? Would other agencies, including international ones engaged in policy advice, advocate demonetization for any of the stated objectives, both initially announced as well as subsequently appended, of India's demonetization? Answers to such questions would be equally revealing as a test for the policy credibility of demonetization. Most are debatable and perhaps await clearer answers in the future.

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NOTES

¹ The notable coincident influences listed include the US election of Donald Trump; a 60% rise in global crude oil prices; improved monsoon rainfall in 2016-17; exchange rate uncertainty and volatility due to capital movements into Foreign Currency Non-Repatriable accounts; indirect tax system overhaul in July 2017; and the fact that early official GDP estimates omit much of the cash-dependent informal sector, which was most affected.

² Based upon median estimates of Ramey (2016) for US data (Chodorow-Reich et al, 2018: pg 39).

³ Money exclusively serves as unit of account while interest rates, set by monetary policy, determine outcomes; in fact, cash constrains monetary policy by providing a floor upon interest rates (Woodford, M. [2003] *Interest and Prices: Foundations of a Theory of Monetary Policy*. Princeton University Press).

⁴ By construction, the policy helped households with bank accounts in disposing of the demonetized cash. Primary sources of household borrowings were informal (money lenders, shops), pointing to the ‘unintended consequence’ of increasing leverage despite its transience.

⁵ A one standard deviation increase in cash usage, by either measure, translates to a 1.5 percentage point decline in labour share, and a 1.6 percentage point decline in materials share in value added.

⁶ ECB Press Release 4, May 2016.

⁷ See Lahiri (2020) for a detailed account.

⁸ The affidavit filed by government to the Supreme Court, November 24, 2016, stated “The gigantic dimensions and possibilities of compromising on secrecy were taken into consideration. If elaborate prior arrangement for distribution of new currency notes were made prior to the announcement of the scheme, the very objective of the scheme would have been defeated.” *The Hindu Business line*, November 24 2016. See <https://www.thehindubusinessline.com/economy/policy/demonetisation-to-eradicate-black-money-to-benefit-all-govt-to-sc/article9382728.ece#>.

⁹ Appearing for the Central Government, the Attorney General argued a judicial review of the demonetization scheme was “impermissible...the courts...cannot interfere with economic and fiscal policies of the Government”. “Demonetisation: Judicial review of fiscal policy impermissible, Centre tells SC” *Mint*, 10 Dec 2016. <https://www.livemint.com/Politics/ZubsSRJK8IX6y1bKs4gljM/Demonetisation-Judicial-review-of-fiscal-policy-impermissi.html>.

¹⁰ Prime Minister’s speech, November 8, 2016; “Notification no. 2652 dated November 8, 2016, *Government of India*; and RBI *Press Release*, November 08, 2016.

¹¹ Prime Minister’s interview, December 29, 2016 (<http://indiatoday.intoday.in/story/narendra-modi-black-money-demonetisation-opposition/1/845224.html>); Union Budget speech, *Minister of Finance*, February 2017.

¹² These were rules like maximum deposit of Rs. 2.5 lakhs per account, with income tax account details, etc.

¹³ <http://timesofindia.indiatimes.com/india/Supreme-Court-refuses-to-stay-ban-on-Rs-500-Rs-1000-notes/articleshow/55433955.cms>.

¹⁴ <http://www.firstpost.com/politics/supreme-court-refuses-to-stay-demonetisation-but-says-cant-have-surgical-strike-against-common-man-3106384.html>.

¹⁵ For example, “Jammu and Kashmir: Rs. 2,000 notes recovered from terrorists killed in Bandipora” *Indian Express Web Desk*, New Delhi, November 22, 2016; “Two Arrested in Punjab With Fake Rs. 2,000 Notes” IANS, News18.com, November 14, 2016; “Karnataka: Two days after new Rs. 2,000 note,

a ‘fake’” *Indian Express* Bengaluru, Nov 13, 2016; “First fake Rs. 2,000 note surfaces in Gujarat” *Times of India*, Nov 22, 2016; “Rs 2,000 fake currency notes seized near Hyderabad, 6 held” *Hindustan Times*, Nov 26, 2016; <http://www.hindustantimes.com/india-news/demonetisation-100-days-fake-currency-entering-india-through-bangladesh/story-YxbTDqzoM9jf2lBFo3B3oO.html>.

¹⁶ RBI *Press Release*, 2016-2017/1349, Nov 28, 2016, RBI, Mumbai.

¹⁷ ‘Over 2-crore Jan Dhan accounts opened since Nov 8 demonetization move’, *The Hindustan Times*, November 20, 2016.

¹⁸ “With Covid restrictions gone, demonetization cash deposits back under the taxman’s scanner” https://economictimes.indiatimes.com/news/economy/policy/with-covid-restrictions-gone-demonetisation-cash-deposits-back-under-the-income-tax-scanner/articleshow/78267023.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst.

¹⁹ The effective tax rate upon declared income was 50 per cent, with 25 per cent to be invested for four years in the interest free government deposit scheme. <http://pib.nic.in/newsite/PrintRelease.aspx?relid=154450>.

²⁰ Against the usual 30% flat rate, plus surcharge and cess, the rate was 60 per cent plus 25 per cent surcharge, i.e., 75 per cent, a further penalty of 7.5 per cent, taking overall incidence to 77.5 percent. *Ibid*.

²¹ An email id, blackmoneyinfo@incometax.gov.in was set up for this. See <http://economictimes.indiatimes.com/news/economy/policy/government-announces-new-income-declaration-scheme-pm-garib-kalyan-yojana-stringent-penalties-prescribed/articleshow/56020146.cms>.

²² <http://indianexpress.com/article/business/economy/expect-all-demonetised-money-to-come-back-to-system-revenue-secretary-hasmukh-adhia-4414447/>.

²⁴ “...if India’s economy had been weak, this decision could not have been made. It was consciously taken when the economy was in good shape, as such a sharp correction could have been only be made then to fortify its foundations and give it a further boost”. It was also “...timed before GST to clean up the stock of black money before it came into force. GST and digital payments will thus be critical elements of the network of checks and balances...to curb future generation of black money” (Prime Minister, December 29, 2016, *Ibid*. footnote 6).

²⁵ Fourth Bi-monthly Monetary Policy Statement, 2016-17, *Resolution of the Monetary Policy Committee* (MPC), October 4, 2016.

²⁶ RBI *Press Release*, December 13, 2016.

²⁷ *Edited Transcript* of RBI’s 6th Bi-Monthly Post Policy Conference Call with Media, February 08, 2017, RBI.

²⁸ June 30 is the end of RBI’s financial year, with balance sheet transfers (surplus/profit) to the sovereign.

²⁹ “Indians Said to Deposit 97% of Notes Banned to Curb Graft”, *Bloomberg*, January 4, 2017. <https://www.bloombergquint.com/markets/2017/01/04/india-said-to-get-97-banned-notes-in-setback-to-graft-crackdown>.

³⁰ “RBI’s own figures indicate return of 15 lakh cr of banned notes”, *IANS*, January 14, 2017. Available at http://www.business-standard.com/article/economy-policy/rbi-s-own-figures-indicate-return-of-15-lakh-cr-of-banned-notes-117011400304_1.html.

³¹ Sum of notes in circulation, total deposits of banks with RBI and under the market stabilization scheme).

³² <https://timesofindia.indiatimes.com/business/india-business/21000-people-disclose-rs-4900-crore-black-money-under-government-scheme-official/articleshow/60410568.cms>.

³³ <http://indianexpress.com/article/business/economy/pmgky-centre-collects-only-rs-2300-crore-as-tax-penalty-4601271/>.

³⁴ http://www.business-standard.com/article/economy-policy/only-rs-5-000-cr-unaccounted-income-was-declared-under-pmgky-hasमुख-adhia-117060200031_1.html.

³⁵ Food inflation declined sharply, about 240 bps between October 2016 and January 2017, reflecting the “...combined impact of record pulses production, large winter arrivals of vegetables and compression in demand due to demonetization. This was despite large unfavorable base effects.” (RBI, 2017a: pg 13). The central bank successively lowered its GDP growth projections - to 6.9% in February 2017, from 7.1% and 7.6% in preceding quarters, while its early assessment estimated the output impact of demonetization “...at about 33 bps for the full year 2016-17” (*ibid.*: pg. 10).

³⁶ The auctioned bills ranged from 21–63-day tenures aggregating to Rs. 5.25 trillion in 2016-17; Rs. 1 trillion of MSS bills of longer tenure (312-329) spilled over to the next financial year, 2017-18 (RBI, 2017a: pgs 18-19).

³⁷ “Market Stabilisation Scheme (MSS) – Revision of ceiling for 2016-17”, RBI Press Release, December 2, 2016.

³⁸ Announced at “PM’s address to the nation on the eve of New Year 2017” *Press Information Bureau*, Government of India, Prime Minister’s Office, 31-December-2016.

³⁹ *Pradhan Mantri Mudra Yojana*, for lending to Micro Units Development & Refinance Agency.

⁴⁰ “Rise in government borrowings might have triggered NBFC crisis, says Viral Acharya”, *Indian Express*, July 24, 2019.

⁴¹ RBI Governor (R. Rajan) was reported to have highlighted in his note to the *Estimates Committee* of Lok Sabha that loans under Mudra (and Kisan Credit Card) schemes needed closer scrutiny for potential credit risk, that the Credit Guarantee Scheme for MSME (CGTMSE) of SIDBI was a growing contingent liability, needed urgent examination (see <https://economictimes.indiatimes.com/industry/banking/finance/banking/performance-on-mudra-loans-psbs-vs-private-banks/articleshow/72862296.cms>). Subsequently, RBI Deputy Governor (M.K. Jain) raised caution on rising NPAs on these loans, urging banks for keener pre-loan screening of borrowers (<https://economictimes.indiatimes.com/industry/banking/finance/banking/rbi-red-flags-rising-mudra-bad-loans/articleshow/72238422.cms?from=mdr>). In November 2020, SBI reported gross NPAs of 20% in Mudra loan outstanding under the PMMY scheme (see <https://www.businesstoday.in/latest/economy-politics/story/20-of-sbi-mudra-loans-turn-mpa-public-banks-pmmmy-bad-debt-rs-18836-crore-278306-2020-11-10>).

⁴² These loans are regularly reported to have high NPAs, inviting caution and discomfort of the RBI on growing stress and contingent liability of the government from the underlying credit guarantee. For example, see “Mudra loan disbursals & NPAs rise in tandem at PSBs over last 3 years”, *Indian Express*, September 17, 2020; “SBI’s Mudra NPAs at 15%, loan book stabilized, says Rajnish Kumar”, *Mint* 18 June 2020.

⁴³ A summary can be found at <https://pib.gov.in/PressReleasePage.aspx?PRID=1539828>.

⁴⁴ These risks and fragilities are well-documented, and regularly analyzed in successive *Financial Stability Reports* (RBI) from December 2018.

⁴⁵ Punjab and Maharashtra Cooperative Bank (a large cooperative bank), Yes Bank (third largest private sector bank), and Laxmi Vilas Bank (old private bank).

⁴⁶ A national task force was set up in March 2017 to examine the overall e-payments environment, covering temporary waiver of e-transaction charges to initiatives like *Aadhar* and *united payments interface* (UPI) systems, amongst others.

⁴⁷ Reorganisation of the tax administration structure in Indonesia that enabled greater interaction and information-sharing resulted in dramatic increase in revenues – equivalent to raising the marginal corporate tax rate on affected firms by about 23 percentage points at a tiny cost (under-1% of the increase in revenues). See “Tax Administration vs. Tax Rates: Evidence from Corporate Taxation in Indonesia”, M. Chatib Basri, Mayara Felix, Rema Hanna & Benjamin A. Olken, NBER *Working paper* 26150, August 2019.

⁴⁸ *Tax Administration Reforms Commission* (TARC) was constituted in 2013-14 to review the application of Tax Policies & Tax Laws in context of global best practices and recommend measure for reforms required in Tax Administration to enhance its effectiveness and efficiency. The status of TARC recommendations can be accessed at

https://dor.gov.in/sites/default/files/Status%20Of%20TARC%20Recommendations_0.pdf.

⁴⁹ The appreciation adversely impacted exports (IMF Country Report No. 17/54, February 2017: pg 21).

⁵⁰ The unwinding of concessional foreign exchange swaps contracted in 2013 helped “...avoid a sharp fall in the foreign exchange reserves” while the foreign currency sales “...also neutralised the impact on liquidity...” These...swaps were executed against foreign currency non-resident (bank) [FCNR(B)] deposits maturing from September 2016 onwards. Some...outflows also pertained to concessional swaps against overseas foreign currency borrowings (OFCBs) of banks... The Reserve Bank’s forward forex assets were consciously matched with the FCNR(B) and OFCB liabilities.” (para V.18, *Annual Report*, 2016-17, RBI, August 2017).

⁵¹ C&AG’s Audit Report No. 20 of 2018 on *Fiscal Responsibility and Budget Management Act, 2003*, and subsequent reports of presentation to *15th Finance Commission*, which estimated actual deficit at 5.85% of GDP in 2017-18, exceeding the official one by 2.49 percentage points (“CAG demonstrates how govt relies on off-budget resources to fund deficit”, *Economic Times*, July 25, 2019). Besides unpaid subsidy arrears, the outstanding liabilities of borrowings by public sector units (Power Finance Corporation, Indian Railway Finance Corporation, National Highway Authority of India) for government programmes, loans to beneficiaries of some government schemes, borrowings for bank recapitalization, amongst other expenditures.

⁵² See “Public Sector Borrowing, Private Savings and Crowding Out”, Appendix III, *IMF Country Report* No. 19/385, December 2019.

⁵³ The RBI increased recourse to short-term, cash management bills (CMBs) for absorbing surplus liquidity from demonetization, while restricting outstanding volumes of MSS bonds. See footnote 6, pg 17 (RBI, 2017a) “The amount of bills and securities issued for the purpose of MSS is matched by an equivalent cash balance held by the Government with the Reserve Bank, thus, having only a marginal impact on the revenue and fiscal deficits of the Government to the extent of interest payment on bills/securities outstanding under the MSS. The cash management bills (CMBs) issued under the MSS are non-standard discounted instruments, generally issued by the Government to meet the temporary mismatches in their cash flows. CMBs have the generic character of Treasury Bills but are issued for maturities of less than 91 days. Hence, they can be issued to absorb excess liquidity during the period of large surplus conditions, as has been the case after demonetisation.