

Efficacy of Demonetisation in Eliminating Black Money

An Analysis of Indian Demonetisation November 2016

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Abstract

Indian demonetisation 2016 targeted to eliminate black money and counterfeit currency has been questioned in the economic and political discourse on the ground of hardship faced by millions and return of 98.96% of banned currency to the system. It was a popular expectation that a good proportion of banned currency would not return to the system as the black money holders might destroy them to avoid legal consequences. While the demonetisation strategy is dubbed as a failure based on 'cash seizure' parameter, this article reviewed its efficacy using five broader perspectives:

- data mining to trace the sources of disproportionate cash holding,
- improved tax collection,
- balancing currency circulation,
- uninterrupted flow of foreign direct investment despite short run economic down turn and
- public perception.

Economic growth and corruption are found to be negatively correlated except the 'Asian Paradox' observed in few research studies. In general, Indian economy is smudged by high level of corruption, tax evasion and accumulated black money which has been reflected in the continuing low rank of India in the Corruption Perception Index. Demonetisation failed in 'cash seizure' parameter as the black money held in banned currency was traded with organised money laundering groups at a high discount which then were deposited back to the system. The success of the demonetisation strategy is primarily linked to the success of 'operation clean money' launched by the tax authority under which the depositors with unaccounted wealth is traced back through data mining from disproportionate deposits during the transition period.

Keywords: black money, demonetisation, operation clean money, shadow economy, tax evasion

1. Indian Demonetisation November 2016 - Ethical, Fiscal and Economic Background

Government of India (GOI) announced demonetisation of ₹500 and ₹1000 notes on 8th November 2016 with an avowed objective of elimination of the accumulated black money, which could not be unearthed by traditional anti-black money measures, and seizure of counterfeit currency, which became a menacing source of terrorist funding, with a short 52-day transition period from 9 November to 30 December 2016 (Note 1) for deposit of specified bank notes (SBNs). Irrespective of source of wealth, holders could deposit SBNs in bank without any constraint. The legitimacy of the source of SBNs could only be assessed afterwards by the Governmental agencies whether the amount deposited is justifiable as per income reported by the depositors earlier to the tax authority. Any disproportionate deposit would then be treated as unaccounted wealth or black money. Demonetisation forces black money in currency to surface which various Governmental agencies could not expose applying relevant laws including Prevention of Corruption Act and Indian Penal Code (Note 2). There was a need for an extra-ordinary action to speed up cleansing of the black money ridden Indian economy that was ranked 76th (with score of 36/100) in the Corruption Perception Index 2015 (Note 3) to propel capital flow and growth. Once the black money surfaced out, various Governmental agencies like Income-tax, Central Bureau of Investigation and Enforcement Directorate

could trace it easily by matching deposit with declared income of the depositor. The Press Release of the Government of India (GOI, 2016) accompanying the demonetisation decision clarifies the reason for banning high denomination currency notes:

“Use of high denomination notes for storage of unaccounted wealth [black money] has been evident from cash recoveries made by law enforcement agencies from time to time. High denomination notes are known to facilitate generation of black money.”

However, currency in circulation in India was then skewed towards high denomination currency notes with banned ₹500 and ₹1000 notes constituted 86.4% of the value of currency in circulation but 24.4% in quantity as on March 31, 2016. Thus in cash dominated Indian economy with 68% of total transactions in cash, the obvious adverse impact of demonetisation would be slowdown in economic activities with reduction of GDP growth and severe difficulties to farmers, micro and small traders, low income households who used to primarily transact in cash. While very short notice of demonetisation was essential for maintaining secrecy, the pain of cash shortage raised economic and political debate over its efficacy. In a large country like India, remonetisation consisting of printing new currency notes, calibration of ATMs and supplying currency to points of delivery was challenging but successfully completed by the Reserve Bank of India (RBI) in record time. However, subversion of the currency delivery mechanism by money laundering groups in connivance with a section of unscrupulous bank officials, accounting and legal professionals disgraced the demonetisation process. Understandably, the prevailing corrupt culture would attempt to obfuscate every reform to change, and that resistance gets momentum from the political discourse.

1.1 Estimates of Black Money

Black money is assets or resources that have neither been reported to the public authorities at the time of their generation nor disclosed at any point of time during their possession (GOI, 2012). The term *black money* encompasses legal income that is concealed from public authorities:

- to evade payment of direct and indirect taxes;
- to evade payment of other statutory contributions;
- to evade compliance with other laws and administrative procedures.

Tax evasion and corruption are two major ill-framed sources of black money in India.

Black economy in India has been estimated by various authors, committees and institutions using monetary approach, currency demand approach and fiscal approach (Note 4). Indian black money has been estimated at different times applying different approaches by various individual experts and committees appointed by GOI from time to time. The National Institute of Public Finance and Policy (GOI, 2012) estimated black money in the range of ₹315.84 billion – ₹367.84 billion (19-21% of GDP) in 1983-84. The World Bank Development Research Group (World Bank, 2010) estimated weighted average size of the shadow economy (as a percentage of ‘official’ GDP) of 162 countries from 1999 to 2007 at 31 % as compared to 34 % in 1999, and for India the size of shadow economy was estimated at 20.7% of GDP in 2007. Applying the methodology of World Bank Research Group, three economic research institutes in India arrived at an estimate of black money of about 30 per cent of GDP in 2013 (GOI, 2012) (Note 5). Based on 2015 GDP estimate of ₹132976 billion (US\$ 2073.54 billion), the size of shadow economy of India is estimated at ₹39892.84 billion (US\$ 622 Billion at an average exchange rate of 2015).

1.2 Corruption and Black Money

Apart from petty corruption encountered in every sphere of life to get accessed to Governmental services, high profile corruption cases in India (Appendix 1) involving political leaders, highly ranked bureaucrats and private sector managers include defence deals and other public procurement cases, bank frauds (Note 6), stock market rigging and small savings scams intensified the ‘seizure of black money’ debate. Adopting demonetisation was concerted reaction of the new National Democratic Alliance (NDA) Government which came to power in May 2014 replacing United Progressive Front Government that ruled during 2004-2014. These corruption cases exemplify and perhaps justify low ranks of India in Corruption Perception Index (see Figure 1). Public procurement in India is a perilous source of bribery. The annual public sector procurement in India is estimated in the range of ₹15-16.6 trillion comprising of Union Government procurement in the range of ₹2.5 - 3 trillion and that of Central PSUs in the range of ₹10-10.6 trillion (CUTS, 2012). A survey by the UNDOC (2013) shows bribery in cash or kind is a prime concern in the public procurement.

India’s rank in Corruption Perception Index (Note 3) consistently worsen in the recent times from 70 in 2006 to 95 in 2011 amidst release of information relating to high profile corruption cases (see cases 1-16 in Table 6, Appendix 1).



Figure 1. Corruption rank of India

Data Source: Corruption Perception Indices, Transparency International

Several empirical studies on the relationship between corruption and growth, reported a negative overall effect of corruption on output growth (Bardhan, 1997; Tanzi & Hamid, 1997; Tanzi & Hamid, 2000; Mo, 2001; Johann Graf Lambsdorff, 2003; Pellegrini & Gerlagh, 2004; Ugur & Dasgupta, 2011) except a few empirical studies (Rock & Bonnett, 2004; Andrew Wedeman, 2012) which have theorised East Asian paradox'. Using data drawn from the early 1980s through the mid-1990s, Rock and Bonnett (2004) noted that although perceived corruption has a negative relationship with growth and investment in most countries (especially small developing countries), this relationship becomes positive in a sub-sample consisting of five large, newly-industrialising Asian countries (China, Indonesia, South Korea, Thailand, and Japan). A recent IMF staff paper (IMF, 2012) emphasized that fighting corruption is critical for growth and macro-economic stability. World Bank (2017) emphasizes that reducing corruption is at the heart of the 'sustainable development goals' and achieving the ambitious targets set for 'financing development'. Eliminating corruption is set as top priority for the World Bank Group and many of its partners.

Demonetisation was applied to strike at the unaccounted wealth stored in the form of currency which escaped anti-corruption measures and therefore the ill-earned money could not be disgorged. Demonetisation helps to trace the owners of black money and discourages corrupts and tax evaders and thereby improving tax collection. Of course, in the political discourse the efficacy of demonetisation has been negated on the ground of hardship to millions of legitimate currency holders (Manmohan Singh, 2016 (Note 7); Amratya Sen 2016 (Note 8)). And therefore the alternative belief is that traditional methods like search and seizure or voluntary disclosure schemes should be pursued to unearth black money and law enforcement including Lokpal and Lokayukta mechanism should be strengthened to prevent generation of new black money. Of course, a contrary view was expressed by Jagdish Bhagwati *et al* (2016) describing demonetisation as a courageous reform which will bring multiple benefits in future.

1.3 Linking Tax Evasion to Low Tax GDP Ratio

Tax GDP ratio of India although registered an upward movement during 1990-91 to 2014-15 in the range of 12.92-17.45%, it remains at a significantly lower level than the Organization for Economic Cooperation and Development (OECD) average (Figure 2). Also comparative tax GDP ratio of India is lower than the average of emerging economies (Figure 3). Even some middle income countries reported Tax GDP ratio of 18%. The comparatively low Tax GDP ratio of India is often linked to low per capita income. Low average income and a high poverty rate result in a very small portion of the labor force being eligible to pay personal income taxes. In other words, low tax GDP ratio is argued to be the outcome of low eligible tax base.

However, the theoretical basis for such an assertion is debatable, and empirical evidence to support this hypothesis is also lacking. In the 25-year period from 1965 to 1990 (period prior to economic reform), India's Tax GDP ratio increased steadily from 10% to 16% while GDP increased 2.8 times. In the subsequent 25-year period (post economic reform period) from 1991 to 2014, India's Tax GDP ratio stayed roughly constant between 16% and 17%

while GDP increased 4.5 times. Although India broke away from low GDP growth rate, tax revenue has not increased.

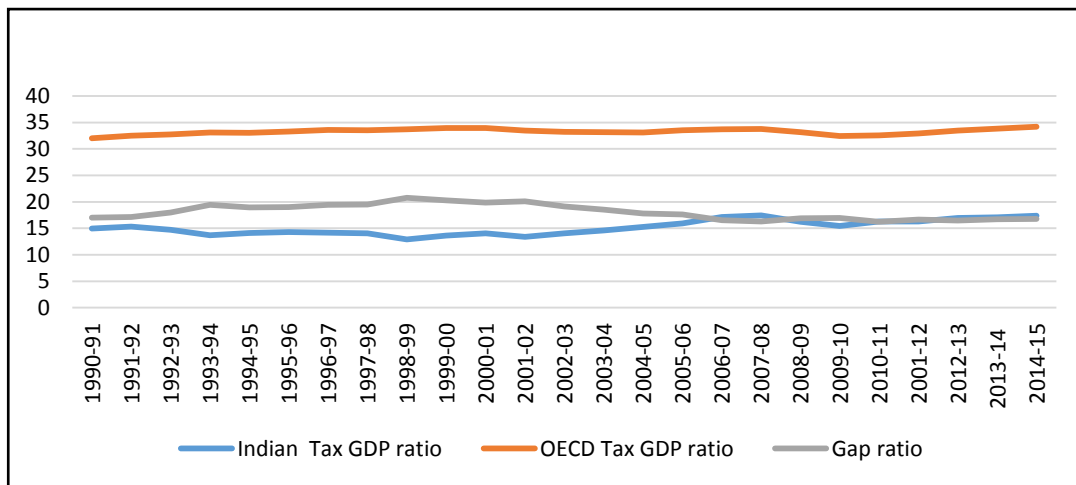


Figure 2. Tax GDP ratio of India 1991-92 to 2014-15

Data Sources: OECD & Ministry of Finance, Government of India

Analysis of data sourced from OECD and Ministry of Finance, Government of India spanning nearly 50 years from 1965 to 2014 across 35 countries, reveals that India is indeed an outlier. Tax GDP ratio of India increased from 10.4% in 1965 to 17.38% in 2014. This includes both central and state tax revenues. The corresponding Tax GDP ratio for OECD countries (weighted by GDP) increased from 24.8% in 1965 to 34.2% in 2014. Tax GDP ratio of India was always substantially lower than the average of OECD economies, over a 50-year period. India's overall tax to GDP is about 5.4 percentage points less than that of comparable countries. Although in economic theory there is no optimal Tax GDP ratio, benchmarking Tax GDP ratio of similar GDP countries could be one alternative to estimate the level of tax evasion.

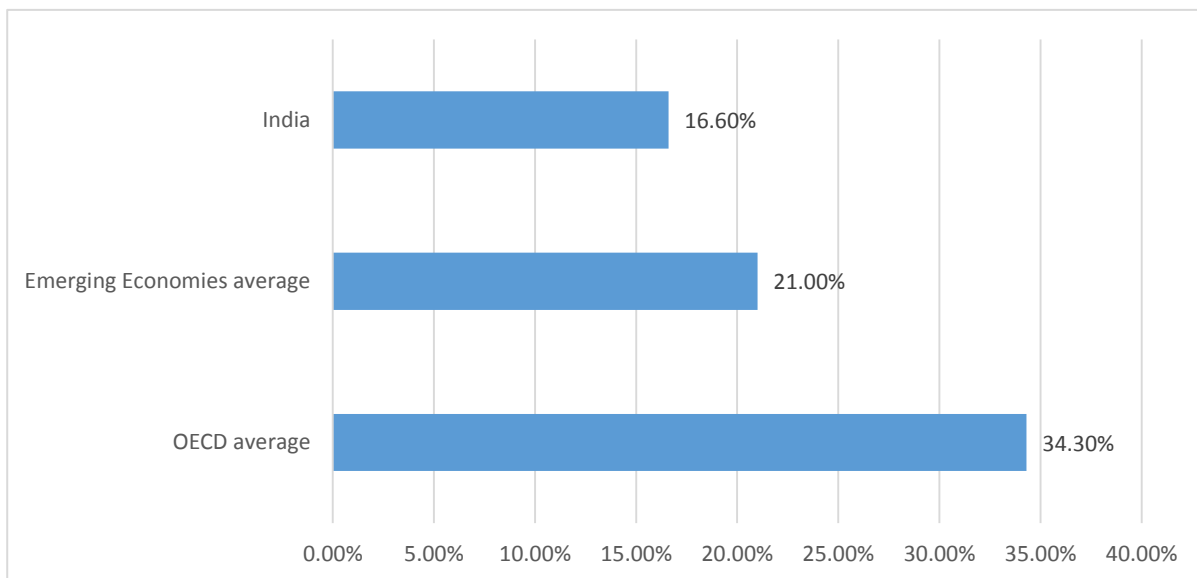


Figure 3. Comparative tax GDP ratio of India

Data Sources: OECD & Ministry of Finance, Government of India

Alternative argument is that the low tax base of India and resulting low tax GDP ratio are partly because of tax evasion. A large proportion of economic activity is generated by small and medium enterprises (SMEs). Although these enterprises have enjoyed strong profitability growth over the past decade, the government could not capture their earnings in tax revenues due to a variety of exemptions and compliance issues. Cash dominated Indian economy is another important factor responsible for tax evasion. The TARC Report (GOI, 2014) explains that out of estimated 13 million unorganized small trader outlets in India (which accounts for about 95% of the retail sector), many of the outlets transact mostly in cash with per capita transactions of about ₹ 0.2 million per month. Many of these unorganized retailers do not pay tax and not even registered for state level VAT or income tax and service tax at the central level (which is now replaced by Goods and Service Tax). Low Tax GDP ratio distinctly signifies aversion to pay tax.

1.4 Excess Currency Supply

Currency circulation in India was in the range 11.07-11.7% of GDP in the financial year 2012-13 to 2015-16. A global comparison shows the currency in circulation in many countries is lesser than in India – Australia, Canada and the U.K. have Currency GDP ratio in the range of 3.52%-3.80% while the US has little higher currency circulation ratio of 8.26% since US\$ is global currency. Also Currency GDP ratio of India is much higher than other BRICS nations except China (Figure 4). Demonetisation is a tool for rebalancing currency circulation including mix of higher and lower denomination notes.

Apart from tracing the black money, demonetisation can serve two purposes:

- (1) Reduction of Currency GDP ratio by changing composition of higher denomination notes at the remonetisation phase; and
- (2) Increasing digital transactions which can curb tax evasions through unrecorded transactions in the unorganized sector. Tax incentives could be designed to promote digital transactions.

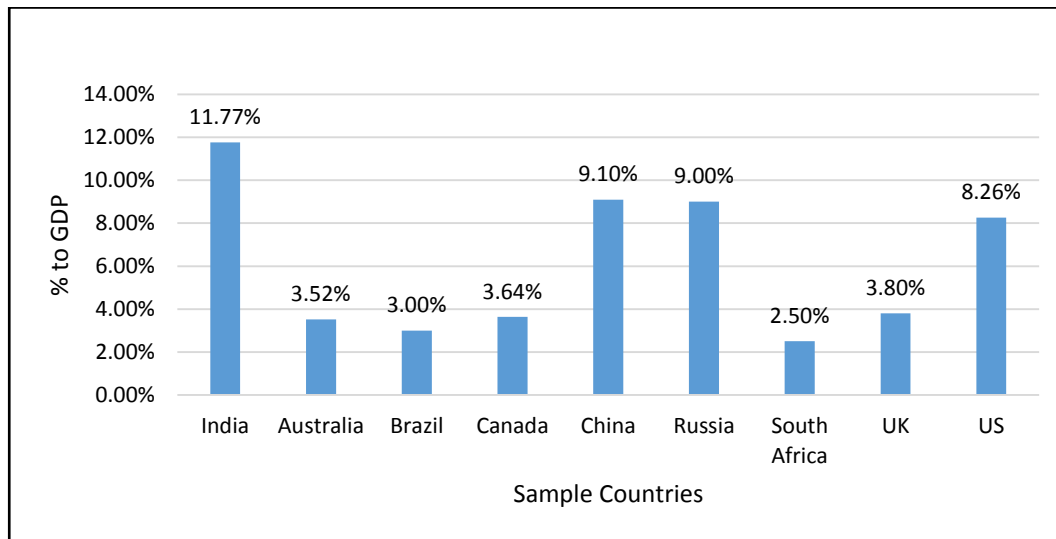


Figure 4. Comparative currency GDP ratio

Data Source: RBI, IMF

Table 1. Shadow economy in currency

		US\$ Billion At average of 2015 US\$1= INR 64.13	₹ Billion
GDP 2015	(1)	2073.54	132976.12
Size of shadow economy (30% of GDP)	(2)= 30% ×(1)	622.06	39892.84
Black money stashed away from India as per	(3)= 19.77% of (2)	122.98	7888.00

Global Financial Integrity Report (2012) during 2001-2010			
Black money in India	(4)=(2)-(3)	499.06	32006.02
Currency in circulation (High denomination notes) [10.67%]	(5)	221.25	14188.95
Shadow economy in Indian currency	(6) =30% of (5)	66.37	4256.57
Declaration under compliance window of the Black Money (Undisclosed Foreign Income and Assets) and Imposition of Tax Act, 2015	(7)	0.58	37.70
Declarations under Income Declaration Scheme, 2016	(8)	10.17	652.50
Balance	(9)=(6) –(7)-(8)		
Assumed to be held in high denomination currency		55.62	3566.37

Data Source: Reserve Bank of India, Estimation by author

Applying Black money - GDP ratio of 30% and currency in circulation to GDP ratio of 10.67%, size of black money held in currency is estimated at ₹3566.37 billion (Table 1).

1.5 Counterfeit Currency

Another objective of the demonetisation was elimination of counterfeit currency which is mostly used for terrorist funding. Involvement of Organised Criminal Groups (OCG) has been established on many occasions in the circulation of high quality counterfeit Indian currency. The size of counterfeit currency is estimated by observing the current flow of recoveries as a ratio of total notes in circulation. During 2007-08 to 2011-12, estimated 9.7-18.2 pieces high denomination counterfeit notes per million of Notes in Circulation were detected in the system with an average of 16.4 pieces per million. As per an estimate the size of counterfeit currency in India was ₹3.61 billion.

1.6 Historical Perspective of Demonetisation

While demonetisation is rarely used as an administrative tool, India experienced it earlier in 1978 in a smaller scale to check illicit transfer of money for financing transactions. A significant demonetisation was carried out by the USSR (1991) as part of its economic reform which resulted in significant increase in food, transport and utilities prices, and along with other financial reforms it influenced subsequent developments, including the August Coup of 1991 and the Belavezha Accords of 8 December 1991 that dissolved the USSR (James Leitzel, 1995). Ghana (1967, 1979, 1982, 2007) and Myanmar (1965, 1985, 1987) had undergone repeated demonetisation to combat inflation and to curb black marketing and smuggling respectively. Nigeria (1984), Zaire (1993), Zimbabwe (1995), North Korea (2010) and Philippines (2015) are other countries that adopted demonetisation either to curb inflation or check black marketing. Demonetisation is used infrequently perhaps because of the inherent difficulties to the legitimate currency holders. In 2016, Venezuela had to withdraw demonetisation because of public unrest.

1.7 Demonetisation Hardship

Apart from the hardship faced by millions in the remonetisation process as they stood in long queue to withdraw money, the unwanted pitfall of the demonetisation was seen in the various economic sectors (see Table 5). Short run negative economic performance has been observed in Quarter 3 of 2016-17. On the other hand, the recently released Annual Report 2016-17 of the Reserve Bank of India revealed that 98.6% of SBNs returned to the Central Bank (Note 9). This has re-ignited the 'failure of demonetisation' debate as 'cash seizure' was thought of as eventual fall out of demonetisation that would have demonstrated instant capture of black money.

2. Analysis of Efficacy of Indian Demonetisation

Based on the above –mentioned ethical, fiscal and economic background and infrequent historical evidence, this theoretical research paper intends to evaluate efficacy of Indian demonetisation from five different perspectives

1. *discovery of information of black money holders versus cash seizure*
2. *reverse causality and virtuous circle using improved tax filing statistics*

3. *balancing currency in circulation*
4. *short run impact versus long run economic benefit using improved capital flow theory*
5. *creating public perception*

These perspectives are evaluated based on post-demonetisation economic data and C-Voter (Note 10) survey of public perception during the transition period of demonetisation.

2.1 Discovery of Information of Black Money Holders versus Cash Seizure

In the economic political discourse, it is well propagated that a significant portion of the black money held in currency would not return to the banking system which was more of a media hype. Therefore, return of 98.96% of SBNs is rated as failure of demonetization (Note 11). It was suggested that as much as one-third of the SBNs would not return to the banking system as the wealthy would abandon or destroy it, rather than admitting their hoardings resulting in reducing central bank liabilities and creating a windfall gain to the government. As per media reports money-laundering networks helped black money holders to deposit previously undeclared currency without exposing themselves to tax authorities. Black money holders sold SBNs at a discount to brokers who then managed to deposit such currency using bank accounts of low-income group population. This includes involvement of bank officials, professional accountants, lawyers, travel agents, property dealers and misuse of Jan Dhan accounts opened for financial inclusion (Ghosh, 2017).

Post-demonetisation, 23.3 million new accounts were opened under the *Pradhan Mantri Jan Dhan Yojana* (PMJDY) (Note 12) and also deposits under PMJDY accounts increased significantly. The total balance in PMJDY deposit accounts peaked at ₹746 billion as on December 7, 2016 from ₹456 billion as on November 9, 2016 - an increase of 63.6 per cent (RBI 2017). However, it explains only 8.13% of the estimated black money held in cash. This indicates that black money has been deposited primarily in Non-PMJDY accounts.

Table 2. Number of suspicious transaction reports filed

Reporting Entities	2014-15	2015-16	2016-17
Banks	45,858	61,361	361,214
Financial Institutions ^a	10,649	40,333	94,836
Intermediaries ^b	2,139	4,579	16,953
Total	58,646	106,273	473,003
% increase		81.21%	345.08%

Notes: a. Includes RBI- regulated eight All India Financial Institutions (AIFIs), insurance companies housing finance institutions, non-banking financial companies, chit funds, etc.

b. Includes intermediaries registered with SEBI, viz. stock brokers, merchant bankers, portfolio managers, foreign institutional investors, venture capital funds, etc.

Source: RBI (2017a, p130)

Interestingly, the Government of India did not spell out 'cash seizure' as an objective of demonetisation although there are instances of seizure of truck load of SBNs and new currency in the exchange process. Demonetisation does not end in itself, rather it should be looked into as means to an end. Effectiveness of demonetisation should be judged based on 'discovery of information' about black money holders. For this purpose post-demonetisation data synchronization under the Operation Clean Money (Note 13) (OCM) launched by the Income- tax Department is used as the basis of analysis. Table 2 presents increased numbers of Suspicious Transaction Reports (STR) filed by banks and other financial reports during 2016-17 which is direct outcome of demonetisation.

The OCM is targeted to 'discovery of information of black money holders and initiating action (ITD, 2017).

- In Phase I of OCM 1.79 million suspect cases were identified through use of data analytics where cash transactions did not appear to be in line with the tax profile of depositors and summary of the outcome is as follows:

- More than 972 thousand persons in respect of 1333 thousand accounts involving cash deposits of around ₹2.89 trillion, as per pre-defined parameters on sources of the cash deposits;

This is 81% of estimated volume of black money held in cash.

- Search actions were conducted on nearly 900 groups in which undisclosed income of ₹163.98 billion was admitted. Assets valued at ₹9.00 billion (including ₹ 6.36 billion in Cash) were seized. The data of undisclosed income have been updated to ₹175.26 billion and asset seizure of asset has been updated to ₹10.03 billion.

This works out to be 4.77% of estimated volume of black money held in cash.

- Survey actions were conducted in 8,239 cases in which undisclosed income of ₹67.46 billion was detected.

This works out to be 1.89% of estimated volume of black money held in cash.

- More than 400 cases were referred to ED/CBI and 56 persons were arrested.

- In the Phase II of OCM, 371 thousand relating to 158 thousand Phase I cases are identified as improper response. In addition, 568 thousand new cases are identified for verification.

- The Government of India cancelled registration of 210 thousand companies and frozen their accounts because of suspected transactions. Also 106 thousand directors of these shell companies (Note 14) have been disqualified to break the network of shell companies engaged in money laundering activities. Out of which Bank STRs reveals suspicious transaction by 5800 companies involving 13140 accounts.

- The Income-Tax Directorates of Investigation have identified more than 400 dummy account transactions (benami transactions) and the market value of properties under attachment is more than ₹ 6 billion.

- The Securities and Exchange Board of India initiated action against 331 suspected shell companies including imposition of trading restriction and ordering forensic audit.

It shows that although demonetisation failed to achieve 'cash seizure' but it was successful in generation of information about the black money.

2.2 Virtuous Circle Using Improved Tax Filing Statistics

Virtuous circle of demonetisation has been identified through growth in direct and indirect tax collection. Despite temporary adverse impact of demonetisation on various economic sectors buoyancy in tax collection has been observed during the financial year 2016-17. Rise in 5.6 million tax payers has been noticed during 2016-17 by the Income Tax Depart (ITD) based on tax return filed. The Central Board of Direct Taxes (CBDT) attributed this growth to demonetisation as this is outcome of OCM and crack down on tax evader. This helps to marginally improve otherwise low tax GDP ratio. Growth in tax revenue is highest in last 6 years (see Table 3).

Table 3. Increase in tax collection

	2016-17		2015-16	
	In ₹trillion	Year on Year Growth	In ₹trillion	Year on Year Growth
Direct Tax Collection	8.49	14.54%	7.42	6.63%
Corporate tax		6.07%		
Personal Income tax		21.00%		
Indirect Tax collection (Central Excise, Service Tax and Custom Duty)	8.64	21.86%	7.09	8.60%
Central Excise	3.83	33.9%		
Service Tax	2.54	20.2%		
Custom Duty	2.26	7.4%		
Total	17.11	18.0%	14.51	16.83%

Data Source: ITD ,2017a and Press Releases by Ministry of Finance, Government of India

Note 1. Ratio of total of direct and indirect tax comprising of central excise, service tax and custom duty to GDP at 2011-12 prices.

Increase in tax collection works out to be 72.91% of estimated volume of black money held in cash.

2.3 Balancing Currency in Circulation

Demonetisation has been successfully used to balance high currency GDP ratio. The value of currency in circulation declined by 20.2% over the year to ₹13,102 billion as at end-March 2017 from ₹16,415 billion. Also the proportion of high denomination currency notes has been reduced both in volume and value.

Table 4 shows that high denomination banknotes are significantly reduced from 24.41% in March 2016 to only 9.23% in March 2017 (post-demonetisation) by volume and from 86.38% in March 2016 to 73.28% in March 2017 in value. This will facilitate currency usage by households as well as adverse impact on black money as high denomination currency notes are used to store black money. Although post-demonetisation currency in circulation has been increased by volume but it has been reduced by 20.18% in value which has the impact in reducing currency GDP ratio from 11.77% (Figure 4) to 8.59% in March 2017.

Table 4. Reduction high denomination notes in the currency basket

Currency denominations	Volume in million pieces		Value in Billion	
	Mar-16	Mar-17	Mar-16	Mar-17
₹500	15707	5882	7854	2941
₹1000	6326	89	6326	89
₹2000	0	3285	0	6571
Total of high denomination notes	22033 (24.41%)	9256 (9.23%)	14180 (86.38%)	9601 (73.28%)
Total of all bank notes	90266	100293	16415	13102

2.4 Short Run Impact versus Long Run Economic Benefit

Revenue and profit of various sectors of India economy showed negative impact in the third quarter of 2016 due to demonetisation (Table 5). In eighteen important sectors either sales or profit after tax (PAT) was impacted – in eight out of these eighteen sectors (computer hardware, consumer durables, FMCG, hotels, media, real estate, telecom and textiles) both revenue and PAT declined, in another six sectors (airlines, automobiles, ceramics, software, steel and tyres) although revenue increased but profit declined and in balance four sectors (diversified, fertilizer, retail and telecom cables) sales declined but change in PAT was positive. Primarily, the first set of eight sectors and revenue impacted four sectors were directly impacted by demonetisation as reduction in PAT might not be solely for demonetisation.

Efficacy of demonetisation has been questioned citing decline in sales and PAT of certain sectors as well as its overall impact to GDP. India's GDP growth had been slowed down to 6.1% in the fiscal year 2016-17 as compared to 7.6% of 2015-16. The India Update of World Bank (May 29, 2017) viewed that while the macro-economic impact of demonetisation has been relatively limited, the distribution of costs is uneven as the informal economy is likely to have been hit especially hard. Informal economy may account for only 40% of GDP, it employs 90% workers, and the disproportionate impact of demonetisation on the informal sectors such as farming, small retail and construction suggests that it would have affected those workers the most.

Despite demonetisation total FDI equity inflow received during 2016-17 increased by 9% to \$43.48 billion compared to 2015-16 (\$40.00 billion). This is the highest ever for a particular financial year. FDI equity inflow is an indicator of future business development and growth prospect. Accordingly, long run economic benefit has been assessed in terms of FDI in improved equity flow.

Table 5. Comparative performance of selected sectors of Indian economy

Sector	Sample size	Aggregate sales in ₹ million: Quarter ended on		Aggregate profit after tax in ₹ million: Quarter ended on		Change in Sales %	Change in Profit %
		Dec 2015	Dec.2016	Dec 2015	Dec.2016		
1	2	3	4	5	6	7	8

1.Airlines	2 (2,0)	69,040	71,205	7,055	3,235	3.14%	-54.15%
2.Automobiles	15(8,6)	1,251,882	1,253,394	77,422	55,833	0.12%	-27.88%
3.Ceramics	4 (3,1)	14,070	15,052	1,010	919	6.98%	-9.01%
4.Computer Hardware	2 (0,0)	12,874	8,847	-1,669	-7,061	-31.28%	-323.07%
5.Consumer Durables	15(7,9)	88,677	82,635	1,719	-2,017	-6.81%	-217.34%
6.Diversified	12 (7,3)	159,301	106,552	112	984	-33.11%	778.57%
7.Fertilizer	33(3,3)	157,932	134,880	2,740	7,182	-14.60%	162.12%
8.FMCG	17 (7,6)	203,484	201,587	25,830	25,600	-0.93%	-0.89%
9.Hotels	10 (4,6)	25,362	23,128	3,441	1,697	-8.81%	-50.68%
10.Media	22 (10,6)	85,024	80,777	10,139	8,825	-5.00%	-12.96%
11.Real Estate & Cons	44 (16,19)	226,428	199,473	-8,425	-19,644	-11.90%	-133.16%
12.Retail	8 (5,5)	110,749	93,480	4,096	4,609	-15.59%	12.52%
13.Software	41(27,23)	825,194	962,795	143,335	119,963	16.67%	-16.31%
14.Steel	24 (20,8)	611,330	762,921	-51,348	-19,685	24.80%	-61.66%
15.Telecom	8 (0,1)	486,880	440,925	-675,216	-10,245	-9.44%	-98.48%
16.Telecom Cables	5 (4,2)	14,082	10,597	216	383	-24.75%	77.31%
17.Textiles	27 (14,12)	255,101	253,711	-5,575	4,638	-0.54%	-183.19%
18.Tyres	6 (6,3)	103,167	120,817	10,632	9,727	17.11%	-8.51%

Data Source Equitymaster.com, computation by author

Notes: In column (2), figures in bracket indicate no of companies with positive sales growth and no. of companies with positive PAT growth respectively.

India has witnessed improved foreign direct investment (FDI) in the form of equity inflow:

- FDI equity inflow during 2016-17 was US\$ 5.90 billion in approval route which is 65% higher than 2015-16 (\$ 3.57 billion). FDI equity inflow during April-October 2016 was only \$ 2.78 billion (47%) and post-demonetisation flow during November 2016-March 2017 was \$ 3.12billion (53%). This supports the traditional theory that anti-corruption measures boost FDI inflow.
- Manufacturing sectors witnessed 52% growth FDI equity inflow in comparison to 2015-16 (i.e. from \$ 13.35 billion to \$ 20.26 billion).
- Total FDI inflow grew by 8% to \$60.08 billion in 2016-17 in comparison to \$55.56billion in 2015-16.

This is highest ever FDI inflow for a particular financial year (PIB, 2017). Demonetisation instills a moral booster while the direct cause might be FDI policy reforms and improving 'ease of doing business'.

2.5 Creating Public Perception

What has been viewed as pain of millions due to demonetisation in the economic and political discourse that was accepted by the public at large as the cost of cleansing the Indian economy. Long queue at the ATMs is viewed by many as 'suffering for good cause'. General public took pride in standing in the long queue to withdraw cash from ATM during the demonetisation transition period as symbolic participation in fight against corruption and black money.



Figure 5. Long queue in bank ATM: A view of Indian demonetisation 2016

Source: <http://www.india.com/news/india/80-86-per-cent-people-support-demonetisation-c-voter-survey-1659589/>

C-Voter (Note 15) poll was conducted in at least half the total Parliamentary constituencies of India. At least, 86% of the respondents in rural and urban areas have said that the inconvenience was worth in fighting black money. The maximum support of 90.6% favouring demonetisation is from higher income group. Nearly 86% of the respondents in urban and rural areas said that the inconvenience is worth as demonetisation would lead to eradication of black money. In semi-urban areas, 80.6 per cent respondents felt that the inconvenience caused would be worthy in the longer run. Contrary to the economic and political debates over ‘inconvenience theory’ (Note 7, Note 8), 71% of respondents in urban areas, 65.1% in semi-rural areas and 59.4% in rural areas felt that demonetisation was implemented in an efficient manner. The general economic conclusion is that informal sector and its workers are badly affected by demonetisation but the C-voter perception survey shows that 66.2% of the respondents belonging to low income group observed demonetisation is a good step and well implemented.

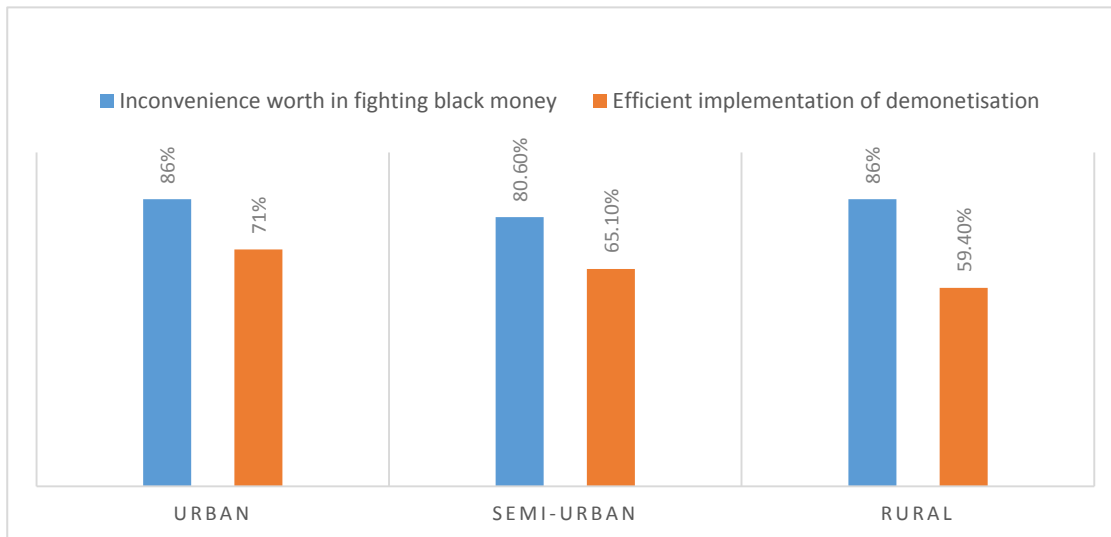


Figure 6. C-Voter survey on public perception of demonetization

Over 80% don't mind inconvenience of demonetisation: C-Voter Survey, 21 November 2016

Figure 6 can be interpreted as suppressed ‘sentiment against black money’. The Prime Minister Narendra Modi appropriately described demonetisation as more than a government initiative, rather a collective nation-building

exercise, a “*movement for purifying [the] country*” (Modi, 2016).

3. Summary and Conclusions

Based on the analysis of five research strands, it is found that

- (1) Indian demonetisation 2016 did not result in direct ‘cash seizure’ i.e. the holders of black money did not deposit in bank the unaccounted wealth in the form of cash. But data of SBN deposit left trails for identifying suspect accounts and indeed the success of OCM should be the measure of success of demonetisation. Identification of black money in post-demonetisation OCM process is significant. It also helped in identifying shell companies and their directors.
- (2) Demonetisation and follow up OCM have contributed to improve tax collection at the background of low tax GDP ratio.
- (3) Demonetisation has helped in restructuring composition of currency in circulation by reducing high denomination currency notes. An essential fall out of the demonetisation is reduction of currency GDP ratio. But to achieve drastic change, it is necessary to improve digital transaction.
- (4) Although demonetisation affected at least twelve sectors of Indian economy either by reduction in revenue or by reduction of both revenue and profit, the FDI equity inflow has increased in the second half of 2016 within which demonetisation transition period had fallen, as compared to the first half. The FDI equity inflow during 2016-17 was 65% higher than that of 2015-16.
- (5) Despite severe impact of demonetisation on informal sectors, the C-Voter Survey shows general public across all income groups and locations rated demonetisation as a good step and well implemented strategy. Thus it was successful in involving people in fight against corruption, tax evasion and black money.

However, ultimate success of demonetisation should be seen in the data discovery about the disproportionate deposits through OCM, and demonstration of action against the black money holders. It would help bringing down corruption perception, better capital flow and improving tax -GDP ratio in the long run. Demonetisation has reduced currency supply but achieving OECD average Cash GDP ratio depends on sustained effort to increase digital transactions. Of course, the resultant banking liquidity is the windfall gain to the banks which the Central Bank absorbed and so the excess liquidity of banks arising out of demonetisation did not translate into reduction of lending rates. Although India’s score has not improved significantly in the recent Corruption Perception Index 2016, perhaps the impact of demonetisation and subsequent action against black money is yet to be captured.

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Notes

Note 1. As per the demonetisation notification dated 8 November 2016, the Government of India withdrew the legal tender status of ₹ 500 and ₹ 1,000 notes of the Mahatma Gandhi Series issued by the Reserve Bank (which are termed as specified bank notes –SBNs) with effect from 9 November 2016 except for certain permissible transactions. SBNs were allowed to be deposited for value at Reserve Bank of India (RBI) offices till December 30, 2016 and till November 25, 2016 at bank branches/Post Offices and deposited at any of the bank branches of commercial banks/Regional Rural Banks/Co-operative banks (only Urban Co-operative Banks and State Co-operative Banks) or at any Head Post Office or Sub-Post Office during the period from November 10, 2016 to December 30, 2016. The facility for exchange / deposit of SBNs was closed thereafter. The Specified Bank Notes (Cessation of Liabilities) Ordinance 2016 offered a grace period for depositing SBNs to Indian citizens who were outside India between November 9 and December 30, 2016. The facility was kept open for residents from January 2, 2017 to March 31, 2017 and for non-resident Indians from January 2, 2017 to June 30, 2017 at selected five Reserve Bank of India offices.

Note 2. Various laws to check corruption and bribery, tax evasion, fraud, forgery, extortion, illicit trafficking of

stolen goods, terrorism including terrorist funding, illicit arm trafficking, illicit trafficking of narcotics, drugs and psychotropic substances and human trafficking include Indian Penal Code, Prevention of Corruption Act, Lokpal and Lokayuktas Act, Various direct and indirect tax laws, Arms Act, Unlawful Activities (Prevention) Act, Narcotic Drugs and Psychotropic Act, Immoral Traffic (Prevention) Act, Benami Transactions (Prohibition) Act, and Prevention of Money Laundering Act. Despite the large list of laws and law enforcement agencies, black money grew over the years.

Note 3. The Berlin-based corruption watchdog Transparency International (TI) has ranked India at 76 out of 168 countries in its latest Corruption Perception Index. India's 2015 corruption perception score is 38/100 as against 91/100 of Denmark which is in top of the table.

Note 4. Feige, Edgar L. (1980) methodology of estimating black money is an example of monetary approach. He derived black money estimates using currency deposit ratio. Cagan (1958) and Tanzi and Hamid (1980, 1983) used currency demand approach to estimate black money. This approach assumes that shadow transactions are undertaken in the form of cash payments to hide observable traces, and therefore increase in black money is estimated from increase in the demand for currency. Different variants of fiscal approach were also applied to arrive at an estimate of taxable income and compare the estimate with assessed income. Kaldor (1956) was the first to assess Indian black money applying fiscal approach. This was followed by Wanchoo Committee (1972) and Chopra (1982) among various notable works.

Note 5. The National Institute of Public Finance and Policy, National Institute of Financial Management and National Council of Applied Economic Research estimated that the size of the shadow economy in India is 30% of GDP.

Note 6. During the last five financial years, frauds have increased substantially both in volume and value terms. During this period, while the volume of frauds has increased by 19.6 per cent from 4235 to 5064, but the value (loss incurred) has increased by 72 per cent from ₹97.5 billion to ₹167.7 billion. (RBI, 2017b)

Note 7. The political debate was led by Dr. Manmohan Singh (2016), Prime Minister of India 2004-2014 and a notable economist. Dr. Singh argued that:

“More than 90 per cent of India's workforce still earn their wages in cash. These consist of hundreds of millions of agriculture workers, construction workers and so on. While the number of bank branches in rural areas have nearly doubled since 2001, there are still more than 600 million Indians who live in a town or village with no bank. Cash is the bedrock of the lives of these people. Their daily subsistence depends on their cash being accepted as a medium of valid currency. They save their money in cash which, as it grows, is stored in denominations of ₹500 and ₹1000 notes. To tarnish these as ‘black money’ and throw the lives of these hundreds of millions of poor people in disarray is a mammoth tragedy. The vast majority of Indians earn in cash, transact in cash and save in cash, all legitimately. It is the fundamental duty of a democratically elected government in any sovereign nation to protect the rights and livelihood of its citizens. The recent decision by the Prime Minister is a travesty of this fundamental duty...”

Note 8. Nobel laureate Dr. Amartya Sen (2016) termed the demonetisation as authoritarian approach: *“Only an authoritarian government can calmly cause such misery to the people — with millions of innocent people being deprived of their money and being subjected to suffering, inconvenience and indignity in trying to get their own money back.”*

Note 9. The Reserve Bank of India Annual Report 2016-17 discloses that subject to future corrections, based on the verification process when completed, the estimated value of SBNs received as on June 30, 2017, is ₹15.28 trillion out of ₹15.44 trillion of SBNs in circulation on the date announcement of demonetisation.

Note 10. Centre for Voting Opinion & Trends in Election Research, or C-Voter, is an international polling agency with headquarter in India. It conducted the survey on demonetisation experience in at least half the total Parliamentary constituencies in India on 21 November 2016 in the middle of demonetisation transition period. The C Voter found that demonetisation step has got wide range of support.

Note 11. Financial Times headlined “India demonetisation fails to purge black money” <https://www.ft.com/content/7dbe0e14-8d8a-11e7-a352-e46f43c5825d>

Note 12. Prime Minister Jan Dhan Yojana (PMJDY) is a National Mission on Financial Inclusion encompassing an integrated approach to bring about comprehensive financial inclusion of all the households in the country. The plan envisages universal access to banking facilities with at least one basic banking account for every household, financial literacy, access to credit, insurance and pension facility.

Note 13. The Income Tax Department launched ‘Operation Clean Money’ (OCM) on 31st January, 2017 to analyse

the data of the persons who deposited large sums of cash and whose returns of income were not in synchronization with such deposits. Income Tax Department (ITD) intends to leverage technology and data analytics for effective utilisation of demonetisation data i.e. transactions related to cash deposits during 9th Nov to 30th Dec 2016. Online verification has been enabled on e-filing portal (for taxpayers) which will be synchronised with the internal verification portal of ITD. Email and SMS are being sent to the taxpayers informing that information has been received in the case and response may be submitted on the e-filing portal. In cases where response is not received from taxpayers within reasonable time, other proceedings and enforcement actions shall be considered by department.

Note 14. The term 'shell company' is not defined in the Indian company law but are those which did not adhere to provisions of company law and are used as vehicle of tax avoidance and conversion of black money into white.

Note 15. Over 80 percent don't mind inconvenience of demonetisation, says C-Voter poll; Times of India, November 23, 2016; <https://timesofindia.indiatimes.com/india/Over-80-percent-dont-mind-inconvenience-of-demonetisation-says-C-Voter-poll/articleshow/55566700.cms>

Appendix 1

Table 6. Summary of 24 Major Scams of India

Name	Year	Amount involved in ₹ million	Nature of the Scam
1. Agusta Westland Chopper Deal	2013	37,269	Bribery in defence deal
2. Saradha Group Ponzi Scam	2013	24,000	Defrauding public Ponzi scheme
3. Railgate	2013	9	Bribery in Government office
4. Kerala Solar Scam	2013	19	Bribery in Government office
5. Coalgate	2012	1,856,000	Bribery in public office ; Notional loss
6. Tatra Truck Scam	2012	7,500	Bribery in defence deal
7. Uttar Pradesh NRHM Scam	2012	100,000	Manipulation of public health fund
8. 2G Spectrum Scam	2010	1,760,000	Bribery in public office ; Notional loss
9. CWG Scam	2010	700,000	Siphoning off game fund by over-invoicing
10. Adarsh Housing Society Scam	2010		Misallocation of facilities of defence personnel
11. Railway Procurement Scam	2010	50,000 p.a.	Misappropriation of railway fund through overpricing
12. Bellary Mining Scam	2006-2010	920,300	Misuse of natural resources
13. UP Food Grain Scam	2002-2010	350,000	Misuse of public food
14. Satyam Scam	2009	140,000	Company accounting fraud
15. Vyapam Scam	2009		Fraud in admission and employment
16. Cash for Votes	2008	10	Bribery for trust vote
17. Telgi Scam	2002	200,000	Fake stamp paper
18. Taj Corridor	2002-03	1,750	Bribery in public office
19. Stock Market Scam	2001		Manipulation of stock market
20. Haryana Teacher Recruitment Scam	2000		Bribery in recruitment
21. Fodder Scam	1996	9,500	Misappropriation of animal husbandry fund
22. Securities Scam	1991-92	35,000	Manipulation of stock market
23. Hawala Scam	1991		Terrorist funding
24. Bofors Scam	1986	3,670	Bribery in defence deal

Source: Compiled by Authors from various News Reports and Official documents. Blank amount indicates that no value could be assigned.