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CASH ECONOMY IN INDIA: AN ECONOMIC ANALYSIS

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ABSTRACT

Moving towards cash to a cashless economy is one of the major transformations in the Indian economy. In this view, the present paper examines the currency - GDP ratio and the burden of the cash economy in India. It is found that there is a high positive correlation between total expenditure and expenditure for the printing of notes by RBI. It is suggested that adopting a cashless economy is the best medicine to getting out from the burden of the cash economy in India. This paper is purely based on the Reserve Bank of India's data.

KEYWORDS: *Banking, Cash, Cashless Economy, Digital Payments, GDP.*

I. INTRODUCTION

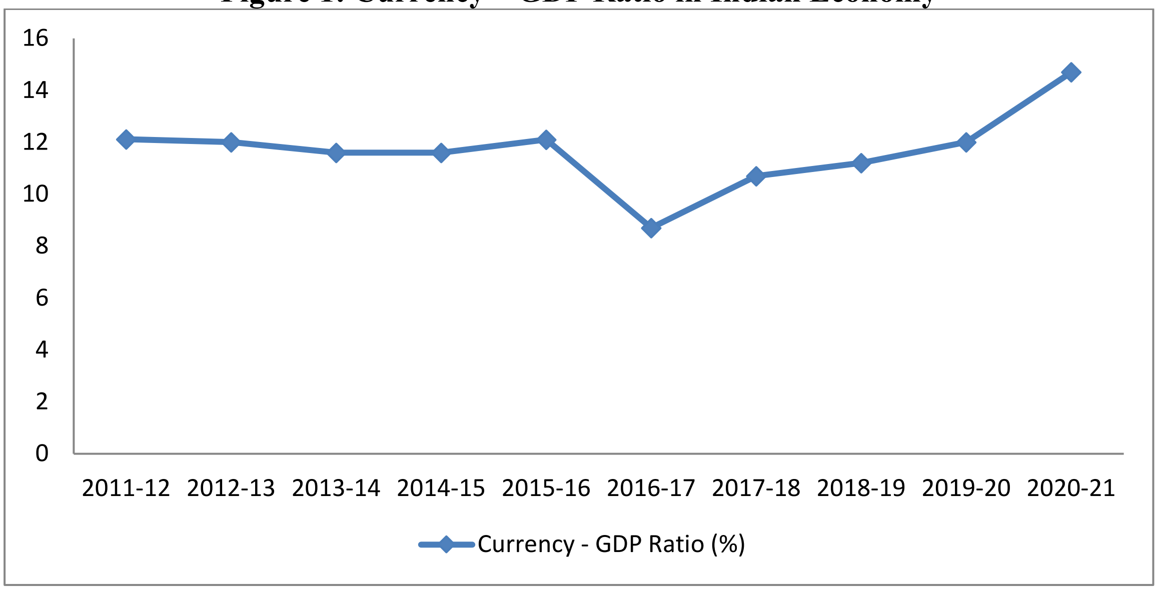
Money was not used in the early history of man. Exchanges were few since each family was self-sufficient. Whatever exchanges, there were, they took the form of barter, that is, exchange of goods for the other goods. Various difficulties were faced by the people in the barter economy. Later with the arrival of industrialization, size of the economy expanded which resulted in the invention of money. Throughout history, to the present day, there is no agreement on the most fundamental of questions – what is money? (Walters, 1973). In economics, the term 'money' is used in a much wider sense. Money is what money does (Hicks,1967). Conceptually, it can be defined as any commodity that is generally accepted as a medium of exchange and a measure of value. Historically, many commodities have performed these functions, and forms of money have been changing from cattle to cards and most recently digital currency.

A financial transaction is an agreement or communication, carried out between a buyer and a seller to exchange an asset for payment. It involves a change in the status of the finances of two or more businesses or individuals. The buyer and seller are separate entities or objects, often involving the exchange of items of value, such as information, goods, services, and money. Generally, financial transactions can be done through direct or indirect methods of cash payments. The direct method involves the physical existence of currency notes for payments and settlements where indirect methods involve cashless payment methods which are popularly known as digital currency.

II. CURRENCY - GDP RATIO IN INDIAN ECONOMY

Cash-to-GDP Ratio or Currency in Circulation (CIC) to GDP Ratio or simply currency-to-GDP ratio shows the value of cash in circulation as a ratio of GDP. The ratio of currency in circulation to Gross Domestic Product (GDP) takes into account the size of the Indian economy. As an economy grows, the total amount of currency being used in it also grows in absolute terms. Hence, it is important to take the size of the economy into account.

Figure 1: Currency – GDP Ratio in Indian Economy



Source: RBI Annual Report: 2020-21. Page No. 53 & 319.

The Currency-to-GDP ratio as of March 2020 was 14.7 %, which is the highest in all the previous years. The currency-to-GDP ratio as of March 2018 and March 2019 was 11.2 % and 12.00%, respectively. However, the currency-GDP ratio increased to its pre-demonetization level of 12.0 percent in 2019-20 from 11.2 percent a year ago, indicating the rise in cash intensity in the economy in response to the pandemic (figure 1). The higher currency in circulation (CiC) growth at 17.2 percent in 2020-21 resulted in the currency-GDP ratio increasing to 14.7 percent as cash intensity in the economy increased in the wake of the pandemic (RBI Annual Report, 2020-21).

Despite the increased efforts of authorities to push for a less-cash economy, the currency in circulation has increased steadily in the Indian economy with every one percent increase in GDP. The total currency in circulation, adjusting for the size of the Indian economy, reached a two-decade high in March 2021. Despite the emergence of various alternatives to cash transactions, the public still has a strong affiliation for currency as evident from the currency to GDP ratio. In the process, India's currency-GDP ratio increased to 14.7 percent in 2020-21 from 8.7 percent in 2016-17 with the expansion matched by liquidity injection through Liquidity Adjustment Facility (LAF) operations as well as outright open market purchases among the sources of reserve money and reflected in net domestic assets in the form of net RBI credit to the Government. Considering the presence of a huge informal sector in the Indian economy, a higher currency-to-GDP ratio suggests that economic transactions in the informal sector are picking up**.**

III. BURDEN OF THE CASH ECONOMY

Cash remains the most readily available and widely used form of payment in India. In 2012, for instance, 87% of all transactions in India were cash-based (Mazzotta et al, 2014) . Cash also fuels India's huge informal economy, which constitutes 23% of official GDP. (Schnieder, et al, 2010). Even Indians with access to formal banking tend to carry a lot of cash with them—typically in high denomination bills. The circulation of cash provides a good home for disease-causing bacteria, according to a study on the bacterial composition in banknotes (Heshikiet, Y & et al, 2017). Cashless payments eliminate several risks, including counterfeit money[1], theft of cash by employees, and burglary or robbery of cash (Srinivasan, S, 2017). The costs of physical security, physically processing cash (withdrawing from the bank, transporting, counting) are also reduced once a business goes completely cashless, as is the risk that the business will not have enough cash on hand to make a change. Moreover, paper money fuels corruption, terrorism, tax evasion, and illegal immigration. One significant societal advantage cited by proponents is the difficulty of money laundering, tax evasion, performing illegal transactions, and funding illegal activity in a cashless society.

One of the major financial burdens of the Reserve Bank of India (RBI) is the printing cost of the various denominations of currency notes in circulation. In addition to this, RBI incurs expenditure in the course of performing its statutory functions by way of agency charges/commission, the printing of notes, expenditure on remittance of currency besides staff-related and other expenses. The total expenditure of the Bank decreased by 39.72 percent from Rs. 282.77 billion in 2017-18 to Rs. 170.45 billion in 2018-19 (table 1).

TABLE 1: EXPENDITURE FOR PRINTING OF CURRENCY NOTES BY RBI (RS. IN BILLION)

Year	Expenditure for Printing of Notes	Total Expenditure
2014-15	37.62 (28.17)	133.56
2015-16	34.21 (22.82)	149.9
2016-17	79.65 (25.57)	311.55
2017-18	49.12 (17.37)	282.77
2018-19	48.11 (28.23)	170.45
Correlation Coefficient Value : 0.840285		
Correlation Probability: 0.0748		

Note: Figures in parentheses represent the value in percentage

Source: RBI annual Report 2018-19, page no. 226.

However, the expenditure incurred in the printing of banknotes was 37.62 billion in 2014-15 and it is substantially increased to 48.11 billion in 2018-19. The expenditure for printing notes was very high (79.65 billion) in 2016-17 due to the introduction of new currency notes in circulation and the announcement of demonetization. More interestingly, there is a high positive correlation (0.84) between total expenditure and expenditure for the printing of notes by RBI during 2014-2018 and it is significant at the 10 % level (0.0748) (table 1). The expenditure for the printing of currency notes is becoming a financial burden to RBI over a period. The introduction of digital currencies can be the best way to reduce this financial burden of the RBI. Accordingly, RBI has taken many initiatives regarding the cashless system for the past 5 years.

TABLE 2: DISPOSAL OF SOILED BANKNOTES (APRIL-MARCH) (PIECES IN LAKH)

Denomination	2018-19	%	2019-20	%	2020-21	%
2000	6	0.00	1768	1.21	4548	4.56
1000	22	0.02	0	0.00	0	0.00
500	154	0.12	1645	1.12	5909	5.93
200	1	0.00	318	0.22	1186	1.19
100	37945	30.62	44793	30.57	42433	42.56
50	8352	6.74	19070	13.01	12738	12.78
20	11626	9.38	21948	14.98	10325	10.36
10	65239	52.64	55744	38.04	21999	22.06
up to 5	591	0.48	1244	0.85	564	0.57
Total	123936	100.00	146530	100.00	99702	100.00

Source: RBI Annual Report: 2018-19, Page No. 180.

There is always the possibility of increasing soiled and mutilated currency notes[2] when an economy has a greater economic transaction in hard currencies. The disposable process and re-printing cost for replacing these currency notes bring additional costs to the government. The denominations of Rs. 10 and Rs. 100 together accounted for 65 percent of the total disposed soiled banknotes in 2020-21. The denominations of Rs. 2000, 500, 200, and 100 have recorded positive increases in their soiled forms and remaining recorded negative trends (table 2). The disposal of soiled banknotes was initially affected due to the COVID-19 pandemic and was expedited during the latter part of the year 2020-21. Despite efforts, the year as a whole still witnessed a 32 percent decline in the disposal of soiled banknotes as compared to the previous year.

Fake Indian Currency Note (FICN) is a term used by officials and media to refer counterfeit currency notes circulated in the Indian economy. Recent advances in printing technology have greatly aided the production of counterfeit notes. As a result, counterfeiting is posing increasing challenges to currencies all over the world, including India. In 2012, while responding to a question in parliament, then Finance Minister admitted that there is no confirmed estimate of counterfeit (fake) currency in India (Business Line 2012). The main motive of the announcement of demonetization on 8th November 2016 was to curb black money and widespread counterfeit currency in the country. Counterfeit Money (Fake currency) is like poison, it will vanish the whole economic system.

TABLE 3: NUMBER OF COUNTERFEIT NOTES DETECTED (NO. OF PIECES)

Year	Detection at Reserve Bank	Other Banks	Total
2016-17	32432 (4.3)	729640 (95.7)	762072 (100)
2017-18	188693 (36.1)	334090 (63.9)	522783 (100)
2018-19	17781(5.6)	299603 (94.4)	317384 (100)
2019-20	13530 (4.6)	283165 (95.4)	296695 (100.0)
2020-21	8107 (3.9)	200518 (96.1)	208625 (100.0)

Note: 1. Figures in parentheses represent the percentage share in total

2. Does not include counterfeit notes seized by the police and other enforcement agencies.

Source: RBI Annual Report: 2020-21, Page No. 180.

Although fake currency is being printed with precision, the Crime Investigation Department (CID) of India says that it can be detected with some effort. Currency printed by local racketeers can be detected easily as they use the photographic method, hand-engraved blocks, lithographic processes and computer colour scanning. During 2020-21, out of the total Fake Indian Currency Notes (FICNs) detected in the banking sector, 3.9 percent were detected at the Reserve Bank and 96.1 percent were detected by other banks. The detection of fake currencies from other Indian banks has been increased from 63.9 % (2017-18) to 96.1 % (2019-20). During 2020-21, out of the total Fake Indian Currency Notes (FICNs) detected in the banking sector, 3.9 percent were detected at the Reserve Bank and 96.1 percent by other banks (table 3). Theoretically and practically, it is proved that the higher level of fake currencies in circulation surely destroys the whole economic system and people will be losing their confidence in the monetary authorities of the country. However, it is opined that moving towards a cashless economy will reduce the FICNs in circulation.

TABLE 4: DENOMINATION-WISE COUNTERFEIT NOTES DETECTED IN THE BANKING SYSTEM (APRIL-MARCH) (NUMBER OF PIECES)

Denomination (Rs.)	Number of Pieces				
	2016-17	2017-18	2018-19	2019-20	2020-21
2 & 5	80	1	0	22	9
10	523	287	345	844	304
20	324	437	818	510	267
50	9222	23447	36875	47454	24802
100	177195	239182	221218	168739	110736
200	0	79	12728	31969	24245
500 (MG series)	317567	127918	971	11	9
500 (New design)	199	9892	21865	30054	39453
1000	256324	103611	717	72	2
2000	638	17929	21847	17020	8798
Total	762072	522783	317384	296695	208625

Source: RBI Annual Report: 2020-21 Page No. 181

Fake currency has been a thorn in India's economic system even after the demonetization exercise back in 2016. Five years down the line, and after adding 'security features', the counterfeit currency still seems to be lurking in the shadows. During 2020-21, the highest denomination-wise fake currency detected in Rs. 100 and it is followed by Rs. 500 (New design), Rs. 50 and Rs. 200. Even though counterfeit notes were detected in the denomination of Rs. 100 declined annually when compared to the previous years, their percentage share was recorded highest in all the years. In the denomination of Rs. 200, which was introduced in August 2017, there were 12,728 counterfeit notes detected as against 79 during the previous year (2017-18). Counterfeit notes in the denomination of Rs. 500 (new design notes), increased to 39453 in 2020 from 30054 in 2019. Compared with the previous year (2019-20), there was an increase of 31.3 percent in counterfeit notes detected in the denomination of `500 [Mahatma Gandhi (New) Series – 2020-21] (table 4).

Despite the extent of counterfeiting being small, it poses serious threats to the currency and financial system. The Government and RBI have progressively responded to this threat by redesigning notes and most recently the demonetization process in 2016. The main aim of the demonetization process of the Indian Government was to reduce counterfeit currency in the economy. Along with the demonetization process, digital India programe, promoting people to use more cashless transactions through mobile-based apps, online transactions by using internet banking, etc has a strong goal of reducing fake Indian currencies.

IV. CONCLUDING REMARKS

This paper briefly examined the currency-GDP ratio and the burden of the cash economy in India. The burden of the cash economy is examined with expenditure for the printing of currency notes, detection of the soiled and mutilated, and also the problem of the counterfeit (fake) currency notes in the Indian economy.

It is found that the currency-to-GDP ratio continued to grow in the aftermath of demonetization towards the long-term Indian average of around 12% of gross domestic product. Considering the presence of a huge informal sector in the Indian economy, a higher currency-to-GDP ratio suggested that economic transactions in the informal sector are picking up pace again, even though they are still not back to the pre-demonetization levels. India is a cash-intensive economy where retail payments are majorly driven by cash. This affinity for cash is becoming a big burden on the economy. Additionally, the printing cost of cash and fake currencies also increasing day by day. With the huge amount of currency in circulation, the costs associated for handling the cash are tremendous. Low-value notes are replaced frequently because of the damage due to poor handling. Also, features are upgraded from time to time to push out fake notes in circulation. This whole exercise of pulling out old notes and replacing them with new ones incurs a huge cost.

At present, getting out from the huge burden of the cash economy is one of the challenges in the Indian Economy. In this regard, the policy-makers at RBI and the Central Government are suggesting adopting a cashless society. A cashless society describes an economic state whereby financial transactions are not conducted with money in the form of physical banknotes or coins, but rather through the transfer of digital information (usually an electronic representation of money) between the transacting parties. The growing shift towards digital payments is strongly debated among governments, central banks, and financial experts including India. Indeed, the proliferation of new electronic and mobile instruments has opened the door to a possible revolution of the payments landscape. Finally, it's time to say goodbye to paper currency and adopt a new way of making cashless payments. Let's help our nation to fight against black money and cash crunch problems by using digital currencies.

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