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Descriptive Statistics analysis of Money Supply in India

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INTRODUCTION

The monetary system in India is managed and controlled by the Reserve Bank of India. The current monetary system is based on irrevocable paper money and coins. Externally the Indian currency rupee is again converted to various world currencies. Money supply is the aggregate stock of money available for public at a particular point of time. Money supply in an economy works as a blood for its growth.(Verma, 2023)

Velocity of money in India is the average number of times a unit of money changes hands (transfers) during a specific period of time, based on which two types of velocity have been provided. 1. Income velocity 2. Exchange velocity. The definition given above is the velocity of exchange. The average number of times a unit of money is generated during a certain period of time is called the velocity of income. In India, in the year 1993-94, it was 4.18 in terms of M1, the narrow definition of money.

The velocity of money in India is the study of the supply side of money. Various approaches are used to measure the supply of money in India. In which mainly five approaches of money are used. In which the Reserve Bank tries to measure the liquidity of money through four measures. Out of these four measures, M1, M3 and M4 i.e. narrow money, broad money and reserve money have been used in this study. Along with this, the gross domestic product has been studied with constant market prices. Thus, in this study, we have studied the velocity of money by keeping in mind the supply side of money. We will try to understand it in more detail. Here, real numbers have been used throughout the study.

The biggest change or impactful period in the velocity of money in India came in the year 1990-91. When the changes in the flow of money after independence started increasing instead of decreasing.

- **Brief explanation of velocity of money in India**

1. Narrow money

Also called ordinary money, this money includes coins, currency notes and current deposits kept by people in banks, from which small withdrawals can be made or paid by cheques etc. In this study, the mean, median, multiple and standard deviation of the changes in the condition of narrow money have been studied. Narrow money is represented by M1.

2. Broad money

In which term deposits placed by people and institutions in banks are included along with narrow money. Broad money includes the amount counted in M1 + savings deposits in post office savings accounts, which are not easily withdrawn by the government. In terms of liquidity, M3 is less liquid than M1. Here, apart from M2, term deposits placed by the public in banks are also included in broad money. Long-term deposits placed in banks are included in broad money. Apart from broad money and narrow money, reserve money can also be considered an important factor affecting the velocity of money, which is known as highly leveraged money.

3. Reserve Money

Reserve money is also known as base money. It is also called government money because it is issued by the Reserve Bank of India. This money is the basis of the supply of other money. That is why it is also called base money. Currency affects the quantity of money by being continuously used in circulation and by creating credit through the reserve money of banks. Reserve money is a factor that greatly affects the velocity of money in India. Apart from the above three factors, gross domestic product has been used in the study.

The Reserve Bank has come up with the following four measures to measure the supply of money in descending order of liquidity.

It comprises of M0, M1, M2, M3, and M4.

1.1 Reserve Money (M0): It includes, Money in circulation + Bankers' deposits + Other deposits with RBI.

1.2 Narrow Money (M1):It includes currency in circulation, demand deposits and, deposits with Reserve Bank of India.

1.3 M2: It is addition of M1 and post office saving bank deposits.

1.4 Broad Money (M3):It includes M1 and time deposits with the banks.

1.5 M4:It comprises of M3 and deposits with post office saving bank account

2. Review of Related Studies

Raman (1957) can be considered the first to study money supply in India during the period 1914-50. Raman took the hard currency independently as the case was decided by the government officials and not by any rules. Later Bhatia (1961) Bhatt (1961) and Narvikar (1963) studied the relationship between money supply and reserves.

Lodha, S.L. (2012)found in the book “Determinants of Money Stock: With Special Reference to India” that the money multiplier had been found emerging less important money comparison to high-powered supply in India during 1980-81 to 2011-12. The conclusion increased the role of Reserve Bank of India in controlling the money supply in India.

3. **Objective of the study**

In the present research study, the study has been conducted to study the changes in the money supply velocity of India and to study the narrow money, broad money and reserve money by studying the descriptive method. The objectives of the study are presented as follows.

1. Study of descriptive statistical analysis of India's money supply

4. Data Collection:-

The present study is based on secondary data. This secondary data has been taken from “HANDBOOK OF STATISTICS ON INDIAN ECONOMY”. In which data has been taken from the year 1970-1971 to 2023-2024. The study has been carried out by keeping in mind four variables from the present data. In which narrow money, broad money, reserve money and gross domestic product have been brought into focus. In which median, median, multiple and standard deviation have been used in descriptive statistical analysis.

5. Limitations of the study

The present study is based only on secondary data. In which the study has been done by keeping in mind the data from the year 1970-71 to 2023-24, so there are limitations of the study.

6. Data Analysis

In the present study, the analysis of narrow money, broad money, reserve money and gross domestic product has been done using descriptive statistical analysis method using mean, median, mode and standard deviation as follows.

Table No. 6.1. The analysis of narrow money, broad money, reserve money and gross domestic product has been done to show descriptive statistical analysis.

Descriptive Statistics				
	GDP at Market Prices	**Reserve Money**	**Narrow Money**	**Broad Money**
Mean	4468380.37	842905.35	1087320.46	4377826.28
Median	1977842.50	213193.50	254229.50	758672.00
Mode	612787[a]	4822[a]	7374[a]	11020[a]
Std. Deviation	5006725.198	1236326.733	1621955.621	6664527.731

The above table shows the analysis of narrow money, broad money, reserve money and gross domestic product through descriptive statistical analysis, in which first gross domestic product is studied, then reserve money, narrow money and broad money are studied. An attempt has been made to understand all the variables in the above table in a comprehensive manner as follows.

1. Gross Domestic Product

Descriptive statistical analysis has been done on Gross Domestic Product, which shows in the above table that the median of Gross Domestic Product is 4468380.37, the median is 1977842.50, the Mode is 612787 and the standard deviation is 5006725.198.

2. Reserve Money

Descriptive statistical analysis has been done in reserve money, which in the above table shows that the median of reserve money is 842905.35, while the median is 213193.50, the Mode is 4822, and the standard deviation is 1236326.733.

3. **Narrow Money**

Descriptive statistical analysis has been done in Narrow Money, which in the above table shows that the median of Narrow Money is 1087320.46, while the median is 254229.50, the Mode is 7374, and the standard deviation is 1621955.621.

4. Broad Money

Descriptive statistical analysis has been done in broad money, which in the above table, the mean of broad money is 1087320.46, while the median is 254229.50, the standard deviation is 7374, and the standard deviation is 1621955.621.

Conclusion

The present study has done descriptive statistical analysis, in which it is seen from the table that the influence of broad money is more. The mean, median, standard deviation and standard deviation are more because it includes all types of deposits. While the proportion of narrow money and reserve money is less than broad money.

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