

# Numismatic Journey of Indian Currency System During Ancient India: An Overview

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## ABSTRACT

Numismatics is the study of coinage system. It highlights physical structure and contents of the coins. But study of coins also brings the knowledge about the extent of monetary dimension of an economy and technological, commercial and economic ability of the country for the period during which coins are minted. The paper brings an overview of the numismatic dimension of the ancient India starting from 6<sup>th</sup> BC and upto 8<sup>th</sup> AD. It covers almost 1400 years of India's monetary past. The paper highlights that the ancient India was quite a capable economy with well-developed monetary system. There was vibrant international trading with other empires of the world. The periods of Magadha Janapada and Guptas, which were characterised by not only geographical expansion but also substantially longer regime, had very well designed monetary system and currencies. The currencies which prevailed were mostly silver coins during the Mauryan period and mostly gold coins during the Gupta period. The Gupta period also witnessed foreign influence in the design of its gold coins after advent of the Kusanas during the pre-Gupta period. There have been some periods when the influence and existence of these empires have been weakened and foreign powers and local smaller powers have taken the control of the ancient India and it has led to disarray in the economic and administrative functioning of the ancient India and so is the monetary system. The economic prosperity of ancient India at the global level is reflected by this numismatic study of the coinage system of ancient India.

**Keywords-** Ancient India, Commodity Money, Monetary System, Numismatics.

## I. INTRODUCTION

The single most economic element which defines the modern economic system is the money. Money is anything in an economy that fulfills the functions of medium of exchange, unit of measurement, standard of deferred payment and store of labour value. In the absence of money the economy experiences frictions in transactions which hampers the progress of economic activities and therefore general well-being of the members of the society. Ambedkar (1923) in his doctoral thesis says, "Money is not only necessary to facilitate trade by obviating the difficulties of barter, but

is also necessary to sustain production by permitting specialization". Money evolved from commodity money to fiat money world historically depending upon what ideas and consensus existed in the society to conduct smooth economic transactions. There is ample theoretical and empirical studies which highlight that real money balances in an economy has positive outcome for the aggregate output keeping other conventional inputs constant (Charles, Herbert and Ronald, 1995). Historical evolution of societies have been characterized by the evolution of money in the different forms starting from the commodity money to metallic money and from metallic money to

representative money and in recent past from representative money to fiat money. The strong faith in the fiat money today cannot be devoid of what happened in the past to instil the faith of the people in the concept of money.

In a system of political democracy the legal institutions work for the people and people build such institutions to make the common will prevail over every one and every member is legally bound to accept the orders of such institutions. The underlying factor to make members of the society to abide by legal institutions' order is collective good as defined in the constitution of politically democratic country. However, prior to the French Revolution - 1789, obtaining the political power to govern the society in the history of the world have been decided by dynastic setup where the emperor used to be from a specific family or lineage. In such a setup having faith in the fiat money remained shaky due to the doubt about the institutions if they would always work for their collective well-being and not for the family of individual emperor. Such dynastic ruling system demanded the form of money that had intrinsic as well as face value similar to strengthen the economic activities in the economy. It could be possible only in commodity money world or metallic money world.

Numismatics is the science of coins and other currency units in a society. Numismatics is the study of coins and of coin like objects which fulfill the objective of money or near money. The word Numismatics has been derived from the Latin word "Nomisma" meaning coins. Numismatics studies the physical properties, production technology and historical context of specific coins or currency of its time. Since historically the money has been systematically expressed by coins and currency in a formal economic structure, the study of evolution of coins and currency historically brings the concerns of the rulers with stability of monetary system and its role in smooth conduct of economic activities. It also reflects that to what extent the rulers were concerned with the stability of economic well being of the members of their kingdom. It has been seen that India accounted for 32 percent of the world GDP during the period of Maurya dynasty (Sen, 2022). Sen says, "At the peak in 250 BCE the Maurya Empire was the wealthiest and largest empire in the world, extending across much of modern India except a small area in the far south, Pakistan and parts of Afghanistan up to the Iranian border". Definitely such remarkable ancient economic history of India would not have been possible without the evolved form of monetary system based on coins and currency. But the pattern of coins and currency has not been stable and has gone through transformation since the Maurya's time. We have also witnessed the economic decline of India in terms its share in global GDP. Currently India constitutes around 3.54 percent of global GDP with global rank of 5<sup>th</sup> position while the top two positions are occupied by USA and China with share

of 25.43 percent and 18.34 percent, respectively at current price (IMF, 2023).

The paper will be addressing the evolution and pattern of Indian coinage and currency system through five different phases of the ancient India. There are total four sections in the paper including the current (first) section. The second section talks about different dimensions of numismatics and its relevance for economic history. The third section deals with ancient India's numismatics between 6<sup>th</sup> BC and 8<sup>th</sup> AD. It is the period which have been characterized by different dynasties – local and global both. The fourth section concludes. The current study will be of the nature of exploratory research based upon available secondary sources and historical documents.

## II. NUMISMATICS AND ITS RELEVANCE FOR ECONOMIC HISTORY

Since we know that numismatics studies the coins system of any civilization and therefore it carries the systematic understanding of economic dimensions of that civilization. Bhandarkar (1921) says that numismatics only confirms the history and does not modify and such remarks about numismatics is valid in case of western countries but once it comes to India then numismatics works like epigraphy and becomes an important source of construction of history and not merely corroborating the same. According to Bhandarkar (1921) the writings by Justin and Strabo suggest only four to five princess of Indo-Bactrian Greek rule ranging over half a century while on the other hand study of the coins of Indo-Bactrian Greek Rule highlights almost thirty seven Greek princes and two and a half century of their rule. Similarly Indo-Scythian rulers could be traced of their existence in sequence on account of coins found from their time as there was no other account of history which enumerates their existence. Even the rulers of 'Kshatrapa' have come to the knowledge on the basis of their coins. The term 'Kshatrapa' is a little similar to governor or protector of the land. It is not only the number of rulers but also the administrative hierarchy, geographical locations, and wealth and prosperity of the rulers in the history that numismatics helps to discover. It is due to different dimensions of numismatics that we find people of different disciplines study the numismatics. Historians study numismatics to study certain historical events. Archaeologists study numismatics to confirm the sites or layers of different places. Artists study numismatics to understand the art forms of that time. Scientists study numismatics to understand the rarity of the metals as well as science of metals in historical perspective. And similarly economists too study numismatics to understand the past economic values and economic activities including administrative design of money supply as well as national and international economic integration.

Numismatics has been quite a significant aspect to highlight the trading across different regions of the world. Many foreign origin coins of ancient India has been found in some hoards highlighting the prevailing trade relation between ancient India and the rest of the world. Roman coins were found in large number in the south and few in north. These coins were brought into India by the Roman traders for the purpose of purchasing commodities of Indian origin. Flourishing businesses during ancient India specially during the strong dynasties have been witnessed and it has been possible due to very strong and well-regulated currency system with adequate purity. Today we can witness the varying differences in the purchasing power of Indian rupees and any currency of the developed world but during ancient period specially during the Maurya empire or Gupta empire the purity of coins were as good as Greek coins showing the reason for the success of ancient India economically. Numismatics also captures the prevalence of the global economic integration coins technology as the design of the coins of India and the West carried similarities. Minting techniques specially icons and legends on the coins of the Greco-Roman civilization have been adopted by Indian dynasties to provide Indian coins as better characteristics to the ancient monetary system comparable to any developed civilization of that time (Mukherjee and Lee, 1988).

Since numismatics is the study of coins therefore it is essential to define coin. Coin is often a metallic item of fixed weight which is minted by the issuing authority with stamps to validate it as a legal token for transaction. The stamp of the official authority is the sole prerogative of the authority which usually imprints the coin with its official emblem or portrait of a ruler or presiding deity or even totem symbols of the tribe or clan. The authority also plays role in deciding the legend on the coin which can be titles of the king/religious invocations/name of clan or kingdom or tribe. As far as metallic content and weight are concerned they are decided by traditions and business beliefs of the concerned region where coin functions primarily as money. Given the fact that authority had prerogative to decide the legend on the coins as mentioned above therefore the coins also served as a tool of propagating religious, cultural and political ideas for a ruling dynasty and therefore it helps us understand the ethos of the issuing authority in the such contexts. Coins are characterized by certain physical features which consist of the following:

- A. Flan: the surface of the coin is called flan. It carries the legends which appear on the coin on account of the size of the die. If a flan is smaller than the coin may have some part of legend being left and if the flan is larger than the coin may have whole of the legends leaving some blank space around.
- B. Obverse: It is the main side of a coin mostly bearing the royal portrait or royal information (see Picture 1).

- C. Reverse: It is the opposite of obverse and the symbol on the reverse is considered to be of less significance than obverse (see Picture 1).
- D. Motif: the figures or symbol designed on the coins.
- E. Device: a symbol with motto or legends on a coin is known as device.
- F. Legend: it is the written part on the coin. It came into practice when any king wants name of his father or any message to the public to be impressed on the coins. This is very important as Mughal rulers did not want symbol of any being so they wanted some written part on the coins reflecting their fathers and forefathers and also they wanted to spread some messages from the religion's point of view.



**Picture 1: Obverse and Reverse of a coin**

Source:

[https://en.wikipedia.org/wiki/Obverse\\_and\\_reverse#/media/File:Antoninianus-Tranquillina-Gordian\\_III-s2539.jpg](https://en.wikipedia.org/wiki/Obverse_and_reverse#/media/File:Antoninianus-Tranquillina-Gordian_III-s2539.jpg)

Note: Roman imperial coin, struck in 241 AD, with the head of Tranquillina on the obverse, or front of the coin, and her marriage to Gordian III depicted on the reverse, or back side of the coin, in smaller scale; the coin exhibits the obverse.

- G. Fabric: Based on techniques and artistic skills of designer, the fabric represents the external physical shape and appearance of the coin. As we will witness that how the fabric has gone under changes with the evolution of human society. Dies were made of mostly bronze and iron.
- H. Die: It is metallic piece which has negative engravures to design the appearance of coins on obverse and reverse side. There happened to be two dies to mint a coin.
- I. Die Striking: When the new design of a coin is struck on the existing coin then it is called die striking.
- J. Edge: The perpendicular surface to the obverse of a coin is known as edge. Some coins carry some pictures/design/letters etc engraved on that to prevent or reduce the counterfeiting of the coins.
- K. Hoard: It is the collection of coins which have been found in different places through archaeological initiatives in the different part of the world. It highlights the hidden or stored wealth from the past.

L. Punch Marked Coins: It consists of coins which were in circulation during the initial period of ancient India. They were made by punching the piece of metals such as silver, gold, copper etc.

### III. NUMISMATICS AND MONETARY SYSTEM DURING ANCIENT INDIA

The Indus Valley civilization dates back to approximately 2700 BC and no other country had such a rich legacy in the world. It grew across the Gangetic valley and further southwards to Malwa. The towns of this civilization were larger than any settlement of this period in other countries. Mud bricks in the houses were used and most of the houses were characterized by courtyard at the front door, kitchen and bedrooms. The sewer and drainage system of the towns were more advance than what existed in Rome at that time. Varieties of ornaments, dresses, kitchenware, furniture, lamps and many more day to day items the life of human beings which are common today were available in societies of the Indus Valley civilization (Majumdar, 1952). As far as evidences related to this civilization is concerned it occurred only in 19<sup>th</sup> century with the excavation of ruins at Mohenjo-daro, a big mound located in the district – Larkana of the Sindh area. During the Indus Valley civilization the inscribed seals discovered with pictographic scripts may have been used as money (Jain, 2017). During the later period, which includes the Vedic period, the evidences in the Vedic literature suggest that golden pieces such as Niskas, Suvarnas, Satamanas and Padas existed to execute the gift transactions. However, there is no physical evidence of the same which a scientific history requires.

The evidences of coins, which can be considered as a real evidence of money in the ancient India, have been found 6<sup>th</sup> BC onwards. Such coins were primarily in the form of punch-marked coins. Punch-marked coins are those which are made from metals by melting them in melting pots with alkali and then beating the metal into sheet and finally sheet is cut into pieces as per size of the coins and then stamped with different marks where each mark has its own separate punch. The careful study of such coins reveal that no coin had similarity in the appearance of these marks completely uniform with other coins (Kosambi, 1981). These punch-marked coins were made of silver and carried mostly five marks/symbols on the obverse of the coins while the reverse was mostly blank or carrying one to sixteen marks (see Picture 2). Based on such evidence of coins gathered from different hoards from the different places in India we can establish the presence of monetary system during the ancient India during the period starting since 6<sup>th</sup> BC. The historical period of ancient India since 6<sup>th</sup> BC can be divided into following sub-periods:

A. Janapada Period (600 BC - 320 BC)

- B. Mauryan Period (319 BC - 187 BC)
- C. Post-Mauryan Period (186 BC - 300 AD)
- D. Gupta Period (301 AD - 500 AD)
- E. Post-Gupta Period (501 AD - 800 AD)

Given the time expansion and geographical expansion of ancient India we describe the numismatics of each period with details across above-mentioned periods.



**Picture 2: Punch-marked coins from Vidarbha Janapada belonging to 5<sup>th</sup> BC.**

Source: <https://coinindia.com/home.html>

Note: Silver 1/3 Karshapana, weight: 1.21 gm, Four marks on obverse and reverse blank.



**Picture 3: Punch-marked coins from Saurashtra Janapada belonging to 4<sup>th</sup> -3<sup>rd</sup> BC.**

Source: <https://coinindia.com/home.html>

Note: Silver 1/4 Karshapana, weight: 0.86 gm, Goddess Seated facing and bull mark is not complete.

#### 3.1 Numismatics during Janapada Period (600 BC – 320 BC)

Towards the end of Vedic period the loyalty of the people started getting transformed from tribal organization to politico-geographical units (Sarao, 2014). This led to emergence of a system in which a relationship based on reciprocity developed between king and others. This system of organisation of power distribution led to arrival of political Janapadas by the middle of 6<sup>th</sup> century BC. These Janapadas had well-defined boundaries with the centre of Janapadas being characterized by city attributes. Some Janapadas grew to become Mahajanapadas where existed more than one

city settlement. Such Mahajanapadas were characterized by legal and ideological outfit with well defined caste system, economic obligations and social disabilities. This kind of arrangement functioned through the establishment of a professional army as well as an administrative setup to collect taxes and punish verity of crimes. Initially this administrative design evolved around the middle of Ganga Zone but it encompassed whole of India. The king of Janapadas or Mahajanapadas had obligation to maintain law and order and for that there was need to collect revenue and he was granted to collect one-sixth of total produce of the people. Jatakas in Pali texts belonged to Mahajanapadas period. There are many terms such as Vetana (wages), Donamapaka (official for measuring revenue), Rasika (revenue) etc. have been used in Jatakas indicating the economic organization of the Janapadas. There were approximately sixteen Mahajanapadas. Amongst all these sixteen Mahajanapadas, the Magadh was the most prominent one Mahajanapada and it was vibrant commercial and political centre of its time which attracted many international visitors. The capital of Magadha was initially Rajagriha (currently Rajgir), which was shifted to Pataliputra (currently Patna). It was Magadha which was ruled later on by the Maurya and Gupta dynasties. The main kings of Magadha Mahajanapadas were Bimbisara (540 - 492 BC) and Ajatashatru (492 - 462 BC). Following them it was Sisunaga, another prominent king of this era, who ruled between 440 BC to 400 BC and expanding the area of Magadha by annexing Avanti Mahajanapada. After Sisunaga and his successors there came the Nanda dynasty since 364 BC and ruled upto 321 BC. The leading Mahajanapada Magadha witnessed the rise of production of commodities leading to local trade and international trade with the West. It is the trading which became a very important reason for the origin of money. The coins in Magadha were made of silver. They were of uniform weight and fabric and prevalent across all the Mahajanapadas. They were of various denominations and therefore served the purpose of ordinary transaction as well (Jain, 2017).



**Picture 4: Punch-marked coins (pre-Karshapana) of Magadha Mahajanapada belonging to 5<sup>th</sup> Century BC**

Source: <https://coinindia.com/home.html>

Note: Silver 25 Mashakas, weight: 5.35 gm, five marks on obverse and one mark on reverse



**Picture 5: Punch-marked coins (Karshapana) of Magadha Mahajanapada belonging to 5<sup>th</sup> Century BC**

Source: <https://coinindia.com/home.html>

Note: Silver Karshapana, weight: 3.25 gm, five marks on obverse and no mark on reverse



**Picture 6: Punch-marked coins (Karshapana) of Magadha Mahajanapada belonging to 5<sup>th</sup> to 4<sup>th</sup> Century BC**

Source: <https://coinindia.com/home.html>

Note: Silver Karshapana, weight: 3.09 gm, five marks on obverse and one mark on reverse

The coins of Magadha specially Karshapana used to weigh around 3.4 gm to 3.5 gm highlighting uniformity of silver coins in terms weights. They had five punch marks amongst which sun and six armed shape were constant and remaining three had variable presence (See pictures 4, 5 and 6). As we know from modern monetary theories that money should have the following physical characteristics:

- a) Portability
- b) Divisibility
- c) Durability
- d) Recognizable value

Based on these physical attributes of money, the coins of Magadha Mahajanapada fulfilled all these aspects. The trend of ensuring five marks makes the currency easily recognizable and also the state's authority behind each coin. The silver form of currency fulfills the criteria of durability of money. Such parameters ensure that the coins of Magadha must have fulfilled medium of transactions function of money very smoothly contributing to the rising economic activities.

The period and the vast area for which Magadha dynasty under Bimbisara, Ajatsatru and Sisunaga ruled; they ensured the perfect sovereignty of issued coins during this period and also its uses in the transactions beyond the boundary of Magadha.

and weight. Picture 8 in the company of Picture 7 clearly reflects that coins of Janapada era were not only in the form of valuable metal-silver, recognizable with punch marks but also divisible to make transactions of lower magnitude possible and smooth.



**Picture 7: Punch-marked coins (Shatamana) of Gandhara Mahajanapada belonging to 6<sup>th</sup> to 3<sup>rd</sup> Century BC**

Source: <https://coinindia.com/home.html>

Another Mahajanapada of the ancient India was Gandhara located in the North-Western India stretching from Kabul to Indian Punjab. Its capital was Taxila, known for the great university of its time Taxila University. It was ruled by king Pikkusati, who happened to be contemporary of Buddha. There was constant exchange of goods and valuable between Magadha Mahajanapada and Gandhara Janapada without any tariff (Sarao, 2014). However, at some time during 6<sup>th</sup> BC, Gandhara was conquered by a Persian emperor Darius. Darius refers this Mahajanapada as one of the richest Mahajanapada in the inscription dated to 520 BC. The coins of this period were bent-bar type made of silver and were of pre-Karshapana series. As shown in Picture 7 (a and b), the obverse carries two punch marks of petaled flowers while no mark on the reverse side. This sample of silver coins again shows that Janapada period was monetized with quite a remarkable presence of well structured coins with uniformity in shape, size



**Picture 8: Punch-marked coins (Shatamana) of Gandhara Mahajanapada belonging to 6<sup>th</sup> to 3<sup>rd</sup> Century BC**

Source: <https://coinindia.com/home.html>

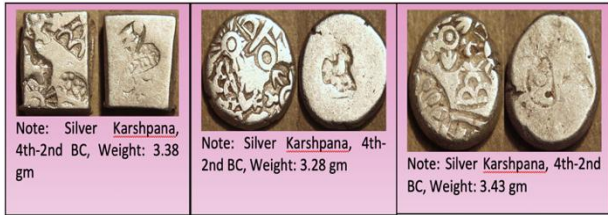
As it has been discussed in this segment about the available historical evidence about the presence of money in the form of silver coins taking examples of two Mahajanapada, similar trends have been found in other Mahajanapadas during the 600 BC to 320 BC. The presence of money with most of its physical attributes, we can say that ancient India was quite an economically prosperous region and supported its economic activities with money.

### 3.2 Numismatics during Mauryan Period (319 BC - 187 BC)

The Mauryan empire grew out of Magadha Mahajanapada therefore it carried the economic and political legacy of the Magadha empire. However, monetary system made considerable progress during the Mauryan period. Silver punch-marked coins of the Magadha Mahajanapada continued and many more came into existence this led to emergence of silver coins with all types of shapes such as square, round, oval and elliptical (see Picture 9). The coins of this period remained of punch-marked nature.

Mauryan dynasty came with ascendancy of Chandragupta Maurya on throne of Magadha and

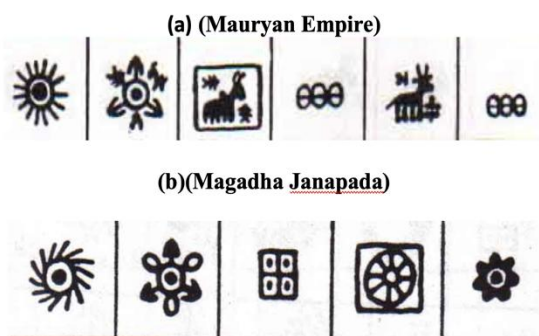
expanded its boundary further across India. When Seleucos-I ceded to him then all the Greek land south of the Hindukush mountains came under the control of Mauryan empire and it extended to modern Afghanistan through currently Pakistan. After Chandragupta, the Mauryan empire witnessed the ascendancy of Bindusara, Ashoka, Dasaratha, Samprati, Salisuka, Devavarman, Satadhanvan and lastly Brihadratha. The Mauryan empire ended in 185 BC.



**Picture 9: Punch-marked coins (Karshpana) of Mauryan Dynasty**

Source: <https://coinindia.com/home.html>

Ashoka was the longest ruling emperor of the Mauryan empire almost for forty years. It was the period of Mauryan when India's GDP exceeded 30 percent of global GDP. *Arthashastra* was compiled by Kautilya during the period of Chandragupta Maurya. The existing literature suggest that during the Mauryan period there was existence of not only Karshpana but also Dvikarshpana, Ardharshpana and quarter Karshpana also known as Pada. It is to be mentioned here that during this period there was introduction of copper coin known as Pana. However, some literature such as *Arthashastra* denotes this Pana as silver coin and copper coin was denoted as a unit of weight called Masa which was 1/16<sup>th</sup> of a Pana.



**Picture 10: An illustration of marks punched on the coins during Magadha Janapada and Mauryan Empire**

Source: <https://coinindia.com/home.html>

Techniques of minting coins remain almost the same as it existed during the Janapada era, which is punch-mark techniques. The symbols of the coins remained around five to six with at least sun being common during both the periods. Even the copper coins have been punch-marked coins specially those recovered

from Madhya Pradesh hoards, Bhagalpur hoard and Rajasthan hoard with one to five marks on obverse (see Picture 10 (a and b)). It highlights that copper coins were also used widely across the Mauryan Empire. Currency issuing during the Mauryan empire was well regulated. Silver was obtained from some internal locations such as Kullu Valley and Manbhum in West Bengal and remainder from Persia and Afghanistan (Jain, 2017). With greater expansion of army and bureaucracy the need for raising expenditure was fulfilled by debasement of silver coins as it has been mentioned in the writing of Kautilya. Also in evidences it has been found that in the early Mauryan period the share of silver in a coin was around 80 percent and remaining was copper while in the later period the share has come down to 67 percent silver and rest copper and lead. These evidences support that monetary system during the Mauryan period was of quite advanced of its time and made economic activities and trading smooth leading to economic betterment of the ancient India. In the light of limited supply of silver, the precious metal, the rising expenditure was met by the process of debasement, with an understanding that people would not discard the currency as medium of payment. It could be possible only when people have faith that the coin in circulation would be universally acceptable due to the stability of the issuing authority even in a situation of debasement.

**3.3 Numismatics during Post-Mauryan Period (186 BC - 300 AD)**

The Post-Mauryan period refers to a phase after the decline of the Mauryan dynasty, who controlled over a large part of the Indian subcontinent from Afghanistan in the North-West to Karnataka in the south. The Mauryan emperors introduced a common coinage system with five symbols punch-marked coins and this brought about almost a uniform currency pattern all over the Indian subcontinent. However, after the decline of this largest empire in the Indian subcontinent, the numismatic scenario underwent many changes with far reaching consequence. During the post-Mauryan period specially starting from 2nd BC there was a fragmentation of the political authority in the Indian subcontinent. Many states (big and small) and chiefdom emerged and re-emerged specially in the north India. Some of these states were in existence since much earlier times while some were new states. The existence of these multiple states during this period is revealed by their coins which display a multiplicity in their types and characteristics. Some of these states were monarchical and some were tribal/republics. Such distinction is based upon the nature and types of coins issued across these states. The coins which had the names of rulers were belonging to monarchical states while the tribal/republican states issued coins carrying the name of the people or tribe, which reflects the egalitarian aspect of tribal states. Apart from these, there were some coins which bore the name of cities/localities and such coins are called city-state coins. The fragmentation of the

Mauryan empire took away the economic power of the sub-continent as variation in the nomenclature of coins affected the trading as well as economic activities of these regions. It highlights how significant it is to have uniform monetary system to promote economic transactions smoothly. The main dynasties which came into existence are Sunga, Kanva, Satvahana along with foreign attack leading to creation of Indo-Greek kingdom known as Yavana kingdom, Indo-Scythian or Saka kingdom, Indo-Parthian kingdom, Kushan Kingdom and Indo-Sassanian or Kushano-Sassanian kingdom. Many Kshatrapas came up during this period. Politically the Post-Mauryan period has witnessed lots of uncertainty and variation in dynasties and their ruling area and administrative setup. The reflection of the same has been witnessed in the numismatics characteristics during this period across areas and time.

The Post-Mauryan coinage in India can be broadly divided into two groups: indigenous and foreign. Indigenous coins have been divided on the lines of monarchical, tribal/republic and city states as mentioned earlier. One of the distinct characteristics of coins during this period was the introduction of legend on the coins. The examples of monarchical coins are coins of Kausambi, Mathura, Ayodhya etc. which bear the names of rulers who belonged to the dynasties that ruled in these regions. The coins from Ayodhya bear the names of rulers like Kumudasena, Ajavarman, Samghamitra, Vijayamita, Satyamitra etc. Panchala coins bear the names of rulers like Agnimitra, Bhumimitra and Phalgunimitra. Later we also witness that coins started getting names of ruling dynasties for example some coins bear the names of the cities like Mahishmati, Tripuri, Vidisha, Ujjayini etc. Such coins were local in character as they were minted for circulation within the boundaries of the city. Such issues were mostly in base metal and were used for day to day transactions. Coins issued by the Gana Sanghas bearing the identity of the Gana Sanghas have been found in mostly Northern India. Sometimes they also bore the identity of the city from which they were issued like the Yaudheya coin from Bahudhanyaka. There was great influence of Indo-Greek coinage system on the coins issued by the Gana Sanghas. The coins of Gana Sanghas were minted in silver apart from copper and legends were inscribed in both Kharoshti and Brahmi on either sides. Such characteristics have been found on the punch-marked coins from this region also. Vidarbha continued the punching tradition and issued its own local punch marked coin bearing five punches strictly for local transactions.

The Satavahana rulers in the south have imitated what the pre-Satavahana local rulers followed in the coins tradition. The Satavahana coins had region-specific character, where each region had its own type coins and the coins of the region circulated within them. The examples of such coins are Nasik type, Nevasa type, Junnar type, Kotlingala type etc. Apart from these region

specific issues the Satavahanas also issued a universal imperial coin type that circulated throughout their empire with elephant and legend in Brahmi on the obverse and Ujjain symbol on the reverse. Satavahana rulers of the later times from Vasishthiputra Pulumavi onwards issued silver portrait type coins which bore their bust on the obverse with legend and on the reverse it is the royal Satavahana symbol along with multiple arches and an undulating line below encircled by legend and dotted border. Satavahanas issued coins mostly in base metal like copper, lead and potin (potin is base metal alloy used in coins). They also issued coins in silver but the quantity of silver coins is much lesser than their base metal coins. Coins were also issued in the geographical territory of far south such as the south of Deccan. In this area too local powers were issuing coins. Initially we find the presence of punch-marked coins but later we have the coins issued by the Chola, Chera, Pandya and Malayaman chiefs. The Chola coins had tiger as their royal emblem on the reverse. The Pandya coins had a stylized fish and the Chera coins had a bow and arrow. The Malayaman chiefs who were a branch of the Cheras issued coins separately and had horse as their reverse motif and on the obverse of the Malayaman coins we find the depiction of three hills and a river originating from this hill which gives the impression of a landscape being portrayed.

The Sakas were ruling in the western India parallel to Satvahana in the south India. Coins of three Saka rulers of the Ksharata family branch have been found namely Abhiraka, Bhumaka and Nahapana. The first two rulers issued coins in copper but Nahapana issued silver currency imitating the coins of the Indo-Greek ruler Pollodotus II. Nahapanas coins bear the bust of the ruler on the obverse and legend in Greek characters and thunderbolt and arrow on the reverse and legend in Brahmi and Kharoshti.

Among the foreign issues we find coins of the Bactrian-Greek and the Indo-Greek rulers from 2nd B.C onwards. These coins were issued in the Attic standard or drachm (4.2 grams) and its denominations were like tetra drachm, obol etc. Gold coins were called Stater and weighed around 7.4 grams. These coins mostly bear the portrait of the ruler on the obverse and Greek deity on the reverse. Only on the coins of Agathocles and Pantaleon we find Indian deities. For example, the coin of Agathocles bears the figure of Samkarshana or Balarama on the obverse of the coins and Vasudeva on the reverse. The Greeks introduced for the first time portrait type coins in the Indian subcontinent. The legend on the coins of the Indo-Greek issues were also bilingual bearing legend in both Greek script and Greek language on the obverse and Prakrit language and Brahmi or Kharoshti scripts on the reverse. Maues was the first Indo-Scythian ruler to issue coins in silver and copper amongst the Indo-Scythian rulers in the 1<sup>st</sup> B.C. Then followed Azes-I, Azilises and so on. These coins carried both Greek and Kharoshti scripts. The major difference



between the Indo-Greek and Indo-Scythian coinage was of the obverse device. The portrait was replaced by the figure of the king on horseback and a Greek deity on the reverse continued. On some copper coins we find the elephant on the obverse and bull on the reverse. In one of the coins of Azilises we also find the depiction of Gajalakshmi on the reverse. The Indo-Parthian coins were similar to the Indo-Scythian coinage. During the end of the Indo-Scythian coinage there began a debasement of metal which not only continued during the Indo-Parthians but became worse with the progression in time and almost the silver issues were reduced to the coin with 3/4<sup>th</sup> of copper and 1/4<sup>th</sup> silver. Kushanas who followed them issued coins mainly in gold and copper. Kushanas imitated the coins of the previous dynasties that were in circulation in the North and Northwestern India. However, Kushanas were the one who introduced gold coins on regular basis in the numismatic history of India.



**Picture 11: Round-shaped coins with pictures and legends**

Source: <https://coinindia.com/home.html>

**3.4 Numismatics during Gupta Period (301 AD - 500 AD)**

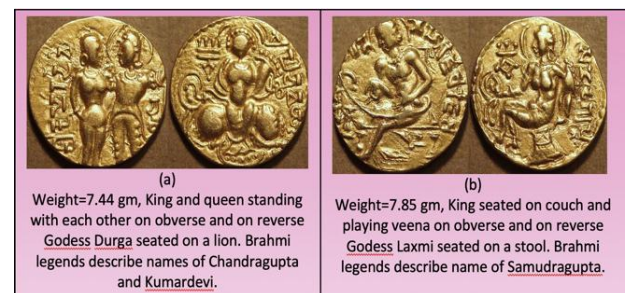
After Kusanas, the Gupta empire emerged which led to emergence of the Golden age of ancient history. Chandragupt-I took over from Kusanas and by the time of Chandragupta-II the empire stretched from the Northern India (the Indus) to the Southern India along the east coast of the Peninsula and to the Eastern India (the Brahmaputra). This was the time when Nalanda and Taxila emerged as centres of higher learning. During this period, Kalidasa contributed to Sanskrit literature and Aryabhata contributed to Mathematics and Astronomy during this period. The Gupta period is regarded as the high point of classical Indian art and Indian coinage system.

Chandragupta-I continued the legacy of coinage system of Kusanas. Kusanas issued gold coins called

double Dinara, Dinara and quarter Dinara. Though amongst Kusanas, it was Vima Kadphises who introduced gold coins but his successors like Kaniska and Huviska intensified the minting of gold coins at large scale. There have been observations by scholars that Kusanas had trading relation with Roman empire. The Alexandrian artisans who were experts in engraving coins visited the court of Kusanas and that's where the characteristics of gold coins issued of Kusanas carried the similarities of Indo-Greek gold coins (see picture 11 and 12). As Bactrian and Greek gold coins are round shaped and have king bust on obverse and some other symbols on reverse of coins with Greek and Kharosti legends, similarly Kusanas also had symbols of king bust and many more Greek and Indian deities on the coins with legends of Greek and Kharosti. This instance links the international influence on the coinage system in ancient India.

The Gupta Age produced India's finest coins in gold and probably exceeded the production of Kusana's gold coins by manifold times. Silver coins were re-introduced during the Gupta period, however, it started during Chandragupta-II for kshatrapas. Even for home provinces the silver coins were minted during Kumargupta-I period (see Picture 13). The obverse of the silver coins had had king himself and reverse had peacock who happened to mount of god Kumara/Kartikey. Copper coins were in prevalence during Gupta empire specially for the areas which were conquered from other kings where copper coins were already in prevalence (see Picture 13). It was done to ensure that economic activities are not hampered due to discontinuation of existing currency and bringing new currencies in circulation. There was further increase of copper coins during Chandragupta-II with an intention to replace the existing copper coins with Kusanas and Sakas' marks. The coins minted by Chandragupta-II had king picture on the obverse while Garuda, a representative of Vishnu, on the reverse.

The numismatics of Gupta period suggest that it led to development of monetary system to most advance level fulfilling all the monetary arrangements for smooth economic activities. The metals chosen for coins fulfilled all the possible function of a money as per modern macroeconomic theories.



**Picture 12: Gold coins called dinar issued by Samudragupta issued in 335 - 375 CE**

Source: <https://coinindia.com/home.html>



**Picture 13: Silver Drachma and Copper AE Fraction coins issued by Chandragupta-II**

Source: <https://coinindia.com/home.html>

### 3.5 Numismatics during Post-Gupta Period (501 AD - 800 AD)

The artistically superior gold and silver coinage system of Kusana and Gupta Period came to disarray existence and degeneration with the end of Gupta empire. The coinage system of Gupta period was replaced by a coinage system with silver, copper and mixed metal coins. However, Guptas' coins had considerable influence on the coins of this period. For the whole of North and North-west India, there were only four types of coins for the period between 6<sup>th</sup> century to 12<sup>th</sup> century. This period has been termed by many as declining period of well structured monetary system (Jain, 2017). The post-Gupta period witnessed the attack by Hunas of barbarian approach and whole of India was divided into multiple local dynasties. The main dynasties of this period are: Hunas, Maitrakas, Kalchuris, Gurjaras, Maukharis, Pushyabhutis, Later Guptas, Chalukyas, Pallavas, Kingdoms of Nepal, Assam, Kashmir, Thaneshwar and Kalinga. R.S Sharma (1965) terms this era as feudalistic era as major urban centres were destroyed as soon as long distance trade declined due to instability in administrative and monetary designs. Urban craftsmen moved to villages and took to agriculture. Royal ministers and officers were assigned land entitlement which became source of their salary.



**Picture 14: Silver Drachma (late 5<sup>th</sup> century) and Copper unit coin (early 6<sup>th</sup> century) issued by Toramana**

Source: <https://coinindia.com/home.html>



**Picture 15: Silver Drachma coin (late 6<sup>th</sup> century) issued by Pushyabhutis and Copper unit coin (early 7<sup>th</sup> century) issued by Pratapditya of Karkota dynasty of Kashmir**

Source: <https://coinindia.com/home.html>

Silver coins of the Gupta dynasty were adopted by few rulers (Maity, 1970). Hunas did not have their own machinery and skills to develop their own coins so they adopted Guptas' coins in north India, Kusana type in Kashmir and Sassanian type in Afghanistan. Toramana and Mihirakula issued silver coins with imitation of Guptas style (see picture 14). Copper coins were issued at large scale in eastern Punjab and Rajasthan by Toramana where the king's head of Sassanian type was there on obverse and sun wheel on the reverse (see picture 14). One type of the copper coins by Mihirakula was large size having king riding horse on obverse and goddess Laxmi on the reverse, which was exact copy of Gupta's coins. The Pusyabhutis of Thaneshvara and Maukharis of Kanyakubja issued silver coins of Kumargupta type. The silver coins found from the hoards of Bhitara in Faizabad district in Uttar Pradesh shows that silver coin was of 37 grains (2.4 gm). Head of the king on the obverse and numerical figures on the reverse of the coin. Indo-Sassanian coins were based on silver or copper with Sassanian bust and meaningless lines on the obverse and unclear lines and dots on the reverse. These coins were prevalent predominantly sixth century onwards across Rajasthan, Gujarat and Malwa with extension towards Bihar and Uttar Pradesh. These coins were known as Drammas and were of 60 grains (4.2 gm). In Kashmir, one of kings namely Pravarasena of 6<sup>th</sup> century minted mostly copper coins as situation were not favorable for gold and silver coins. Such coins were found in hoard of Banda district of UP, which proves that Pratapaditya of Kashmir defeated Yasovarman of Kanoj (see picture 15). However, during this period south India witnessed better coins arrangements by Kadambas of Banavasi, Gangas of Talkad, Chalukyas of Badami. They started the gold coins of different denominations for the wider circulation in south Indian regions.

## IV. CONCLUSION

The paper has defined what money is and what are its uses and what should be its physical properties.

The historical fact that once in ancient India, the GDP of India was close to 32.9 percent of global GDP. Given the role of money in economic activities, one can expect that the monetary system of the ancient India must be well established according to the needs of standard monetary system and comparable to any developed civilization of that time. Numismatics being the science of coinage system, provides the stage of development of monetary arrangement of any society or economic system. The paper explored the evidences and literature on numismatics in India and found that since the 6<sup>th</sup> BC there has been continuous progress of monetary system in India. Magadha Mahajanapada was the leading dynasty during 6<sup>th</sup> BC and 3<sup>rd</sup> BC and gave economic strength to India through its coinage system with indigenous idea of money. This was further strengthened by Mauryan empire between 3<sup>rd</sup> BC to 2<sup>nd</sup> BC. With some volatility between 2<sup>nd</sup> BC and 3<sup>rd</sup> century we witness again emergence of indigenous rulers of Gupta empire who brought India's golden age. However, with fall of the Gupta empire we witness disarray in governance of India on account of so many smaller dynasties coming up and they were unable to carry on the organized economic and administrative governance which led to the rise of feudalism and decline of urban centres. This must have caused the decline of India's GDP at international level. It has been identified by an estimate by economic historian Angus Maddison in his book - *The World Economy: Millennial Perspective*. Maddison writes that in the early 1<sup>st</sup> century share of India's GDP in the global GDP was 32.9 percent which to 28.9 percent in 1000 century. Stability of administrative regime is very important to stabilize the economic system with continuous progress. Money being very important tool of monetary stabilization and helping smooth economic transactions, one must learn from the ancient India's monetary management program in way that it gave stable medium of payment, unit of account, storage of value and standard of deferred payments that even the Post-Gupta period rulers in India never hesitated in accepting money of the Gupta period- a period of golden age in ancient India.

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