

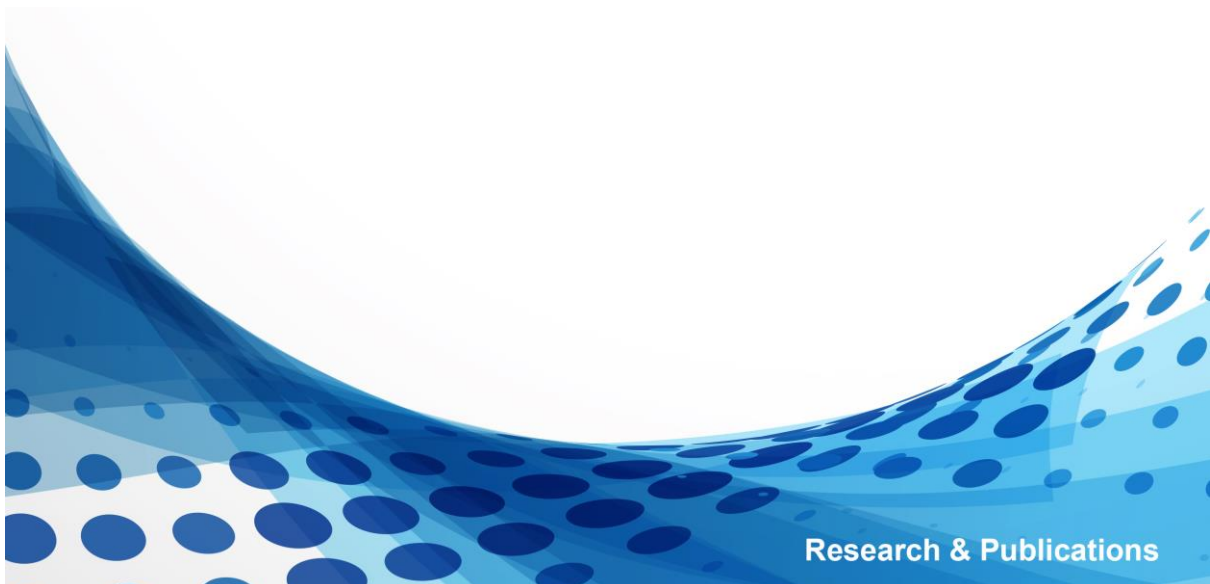


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**Gold is Old:  
Noble Metal in Indian Economy through Ages**

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Research & Publications

# **Gold is Old: Noble Metal in Indian Economy through Ages**

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**Gold is Old:  
Noble Metal in Indian Economy through Ages**

Satish Y. Deodhar<sup>1</sup>

**Abstract**

For millennia, gold is considered auspicious in India and consumers have a fascination for possessing gold, gold jewellery, and gold coins. In this paper I document the sacredness associated with gold, the ancient Indian references to gold jewellery, availability and technology of extracting gold in those times, minting of gold coins and its function as a medium of exchange and store of value, and accumulation of gold stock due to favourable trade with the Occident in the common era. I draw attention to Indian obsession with gold in modern times, when none is produced domestically and it contributing negatively to India's external account. The gargantuan stock of about 24,245 tonnes of gold in India has to be considered as accumulated hoardings and not accumulated savings. Along with increasing the propensity of flow of savings going into financial markets and not in physical gold; suggestions are made to popularize and improve implementation of gold monetization scheme (GMS). This will re-channel idle stock of gold into financial markets and reduce deficit on the external account.

**Key Words:** Money, Gold, Gold Hoardings, Gold Imports, Gold Jewellery, Gold Coins, Financial Savings, Investments, India, Gold Monetization Scheme (GMS), Vedas, Upanishads, Jataka, Mahabharata, Kautilya, Arthashastra, Sanskrit

**JEL Classification:** B11, B15, L61, L72

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## **Gold is Old: Noble Metal in Indian Economy through Ages**

### **1. Introduction**

Just a fortnight prior to the Diwali celebrations in November 2021, the Royal Mint of United Kingdom (UK) released a 20-gram gold bar for sale, intricately engraved with the image of Lakshmi, the goddess of wealth, prosperity and beauty. The gold bar retailing at £1,080 was described by the Royal Mint as a reflection of diverse cultural celebrations in the country (PTI, 2021). Of course, Indians all over the world in general and India in particular are fond of buying gold on auspicious occasions such as Diwali, Akshay Trutiya, Ugadi, Gudi Padwa, weddings, and quite a few other auspicious days round the year. As reported by the World Gold Council (WGC, 2017, pp. 7, 87) the total household stock of gold in India is about 23,500 tonnes and about 4000 tonnes of it is held by temples. Moreover, about 745 tonnes are held in country's official reserves. Compared to this, the largest official forex reserves in world are with the USA which holds about 8134 tonnes of gold (IFS, 2021).

Used mostly for jewellery purposes, India's 22 karat gold stock is one of the purest in the world. With the current price of 22 carat gold hovering at about ₹4600/gm, the value of the total stock of gold in India amounts to a whopping sum of about ₹112 trillion or about \$1.49 trillion. Importantly, despite huge demand for gold, India does not produce any gold and all has to be imported. In the 2020-21 union budget the basic customs duty on gold imports was reduced to 7.5 per cent and the import value had surged to about ₹2.54 trillion since then (WGC, 2021). Accounting for about 9 per cent of India's total imports today, India has been the largest importer of gold after China. The huge demand for gold by India which has an annual per capita GDP of just about \$2000 seems intriguing.

In this context, the paper explores the various dimensions of gold in the Indian economy through the ages. I underscore the sacred dimension of gold in the Indian subcontinent in Section 2. Section 3 addresses the importance Indians have attached to gold jewellery since ancient times and gives a few examples of the types of jewellery used then. Availability of gold in various forms in ancient India and the technological knowhow to extract it are covered in Section 4. That the Indians had an understanding of the precious metal as a medium of exchange and store of value is shown Section 5, and, Section 6 gives a nuance of why India was referred to as the land of Golden Sparrow. Finally, Sections 7 and 8 describe modern

India's gargantuan stock of gold as accumulated hoardings rather than accumulated savings and discuss economic policy for re-channelling India's gold stock into financial markets.

## 2. Sacredness of Gold in Ancient Literature

The attributes of gold had caught the imagination of Indian seers many millennia ago. The innate understanding that gold was the most noble metal (corrosion resistant), it was malleable, and, of course, had a radiant yellow hue was not lost on them. These attributes bestowed sacred references to gold at several places in ancient Indian literature. In fact, the very creation of the universe is expressed in reference to gold. In Rig-Veda, the foremost of the sacred books of Hindus composed not later than the 2<sup>nd</sup> millennia BCE, one finds reference to gold in the Hiranyagarbha Sukta (Hymn 121) which appears in the 10<sup>th</sup> Mandala (Book) of the Rig-Veda (Griffiths, 1886). The word Hiranya-garbha (in Sanskrit, हिरण्यगर्भ) literally means a golden-seed, golden-egg or golden-womb. The seer who penned the hymn describes that the golden womb is the source of creation of the universe. The 'golden' part is supposed to represent primal radiant energy. In the Upanishad literature which followed the Vedas, Hiranya-garbha gets considered as the soul of the universe (Deussen, 2009; p. 198). Prior to the mention of Hiranyagarbha in Riv-Veda, there is also a supplementary hymn in praise of goddess Lakshmi titled Shri Sukta at the end of Book 5 of Rig-Veda. The Shri Sukta hymn describes goddess Lakshmi as one who shines with a golden hue wearing golden garlands.

In the Buddhist and Jain literature too one finds adoration for Lakshmi. Though Buddhism and Jainism are monastic orders, which turned away from Vedic rituals circa 6<sup>th</sup> century BCE, they did not abandon the delightful goddess of wealth and beauty. For example, in Jatakas, the Buddhist books of tales, folks request Goddess Lakshmi to drive away Kalakani, the goddess of misfortune. Images of Lakshmi started appearing around the third century BCE in sculptures found in Kausambi and other places in north India (Vishnu, 1993; pp 194-95), and she appears on gold coins issued during the reign of the Gupta dynasty around the third and fourth century CE. Almost all images of Lakshmi have multiple arms with one of the arms depicted in the Abhaya Mudra, i.e., a hand-gesture representing benevolence, protection and peace. Importantly, in this hand-gesture, gold coins are shown flowing down from her palm in a continuous stream. Moreover, there are eight forms of Lakshmi representing various aspects of life. One among them is called Dhana Lakshmi which represents wealth in the form of money or gold. Even today, during the most important Indian festival, Diwali, i.e., the festival of lights, a particular day called of Lakshmi Pujan is reserved for worshiping Lakshmi.

### 3. Gold Jewellery in Ancient India

While Vedas are sacred texts, a significant part of the texts is also dedicated to secular thoughts, arts, crafts, music and dance. Rock carved figures, metal statues, and temple sculptures that are available from circa 3<sup>rd</sup> century BCE show elaborate gold jewellery worn by men and women. Contrast this to Greek statues which focus on depicting bare bodies conspicuously devoid of jewellery. Even in West Asia, Babylonian and Sumerian statues are adorned with scanty jewellery (MGG, 2017a). The ornate ancient Indian sculptures did not evolve suddenly. The presence of gold jewellery is very much apparent in Vedic literature. Gift of gold ornaments like necklace (2.33.9-10) and headgear (10.85.8) are mentioned in Rig-Veda<sup>2</sup>. Women wearing gold chains and glittering ornaments on their breast are also mentioned (1.166.10). If god Indra wears golden bracelets, so do Maruts (5.60.4; 8.5.28; 8.68.3). The word *hiranya-mani* has been used to mean gem-studded gold ornaments.

In the Sankyayana Gruhya Sutra text, a wife is expected to sing song wearing many gold ornaments. In Atharva-Veda also one finds many references to gold jewellery. For example, ear ornament (*pravarta*) is mentioned in (15.2.1), golden amulets in (1.35), necklace of *nishka* gold coins (*nishariya*) in (5.14.3) and head ornament (*kurira*) in (6.138.2). In the Tamil literature the word used for these *nishka* gold coins is *kasu maalai*. Similarly, Shatapatha Brahmana mentions golden chain (*rukma pasha*) in (6.7.1-7). There are quite a few such references to gold ornaments in Vedic literature. In fact, Vajasaneyi Samhita mentions jewellers (30.7) and goldsmiths (30.17) as well (MGG, 2017a). In the post-Vedic period, in the 4<sup>th</sup> century BCE Kautilya makes elaborate reference to goldsmith in his treatise Arthashastra (Kangle, 1965). In chapters (2.13) and (2.14) he states that manufacture of gold ornaments was under the supervision of superintendent of gold (*suvarnadyaksha*) and royal goldsmith (*sauvarnika*) would operate a shop in the market to make articles for the citizens.

Along with wearing and manufacture of gold jewellery, one also finds instances of positive connotations associated with gold and the jewellery. Some references are very practical and other faith based. For example, the poet-philosopher Bhartrihari pens a witty couplet in his Sanskrit treatise Nitishataka that all good qualities (being beautiful/handsome, connoisseur, good orator, master of scriptures, from a noble family) are attributed to a person who possesses gold (Joglekar, 1911)<sup>3</sup>. Bhartrihari drives home a real and practical truth that

<sup>2</sup> Here onwards, reference to any particular ancient text will be made in the form (book.hymn.verse).

<sup>3</sup> The Sanskrit tagline is, “सर्वे गुणाः काञ्चनम् आश्रयन्ते”, i.e., “All virtues of a person take shelter in gold.”

with the acquisition of gold and riches virtues get attached to a person irrespective of whether or not such qualities actually reside in that person. Similarly, the Atharva-Veda narrates a belief that one who dies of old age becomes what he wears – if it is gold, one will get the splendour, strength and brilliance of gold (MGG, 2017a).

#### **4. Gold Extraction in Ancient Times**

The sacredness associated with gold and the elaborate descriptions of the gold jewellery could not have materialized without the knowledge of extracting gold from natural resources. Ancient Indian literature specifies different ways of gold extraction. One was to extract gold by panning gold dust or particles from the alluvial placer gold deposits. Again, one of the earliest references to gold extraction occur in Rig-Veda. There are references to alluvial placer gold being extracted from the river beds, particularly from river Sindhu, Sarasvati, Jambu, and Ganga. Sindhu river was an important source of gold and in the Nadistuti Sukta of Rig-Veda, Sindhu river is called Hiranyayi (10.75.8), i.e., giver of gold. Since the path of Sindhu river contained alluvial gold it was also referred to as Hiranyavartanih (8.26.18). One of the seers Sayana mentions that both banks of Sindhu contained gold. Similarly, gold obtained from the river Jambu was called jambunada and that from the river Ganga was called gangeya. In fact, there are modern references to the source of Sindhu (Indus) river, where gold mines existed in the region of Manasarovar and Thokjalyug (IGNCA, 2021).

Moreover, in the epic Mahabharata there are references to pipilika gold (ants' gold). At the Rajasuya Yagna (coronation) ceremony we are told that this type of gold was heaped upon king Yudhishtira. Pipilika gold was of high quality and came in powdery form. This gold was called ant's gold because it was extracted by panning the auriferous soil of the ant and termite hills containing placer gold deposits. Buddhist treatise Anguttara Nikaya written in Pali language also refers to the process of extracting gold dust and particles from the alluvial placer gold deposits. Furthermore, Kautilya refers to a naturally occurring liquid with dissolved-gold which was found in rock crevices. One unit (pala) of such gold could be used to transmute 100 palas of copper or silver by way of gold coating. Later, circa 4<sup>th</sup> century CE playwright Kalidasa also refers to such dissolved-gold which he calls as kanaka-rasa. Yet another reference to it is found in Gandavyuha Sutra where it is referred to as hatakprabhasa (IGNCA, 2021).

Shatapatha Brahmana refers to gold being obtained by smelting from ore (IGNCA, 2021). Kautilya too had identified various kinds of gold ores (suvarna-dhatav) and the way to process them in chapters (2.12) and (2.13). He had clearly stated in chapter (2.12) that the director of mines (aakaradhyaksha) had to be an expert in science of (metal) veins in the earth, metallurgy, and the art of smelting. He had also given various tests for assaying of gold. He alludes to touchstones from the regions of Kalinga and Tapi to be the best ones to test gold. The details with which Kautilya has given information on gold ores, processing, testing, and manufacturing of articles is indicative of high level of metallurgical advances already made by 4<sup>th</sup> century BCE in India.

## 5. Minting of Gold Currency

If the ancient Indians had cast gold into a sacred mould, if the artisans had expressed their creativity through gold jewellery, and, if the geologists and metallurgists had mastered the science of extracting gold, ancient Indians had also understood the importance of minting of gold coins as a medium of exchange and store of value. Del Mar (1885, p. 68) asserts that the stamping and casting of coins had occurred in India prior to the advent of Greeks. According to Bhandarkar (1921, pp. 46-47) beginning of the art of coin making must be placed much before 7<sup>th</sup> century BCE. He also adds that gold was the earliest of the metals used for making coins during the Vedic period. In fact, Buddhaghosha, a Buddhist commentator had alluded to a treatise on the science of minting coins titled Rupa-sutra; however, like many other treatises this text is lost in history.

Through the many anecdotes found in the Vedic treatises, namely Rig-Veda, Atharva-Veda, and the Brahmanas, one can identify quite a few types of gold coins. There are references to kings doing charity in the form of gold coins and people purchasing goods using gold coins. In the Vedic literature, unstamped bullion or button-gold was called as Hiranya-pinda. Stamped or punch-marked gold coins were variously called as Nishka, Satamana, Suvarna, and Krishnala in the descending order of their value at different points in time<sup>4</sup>. Jataka stories also corroborate the use of gold coins. Jatakas are the loan-stories from the pre-Buddhist literature reflecting on the socio-political life in India around 7<sup>th</sup> century BCE (Davids, 1903; 207-208). Jataka stories refer to three types of gold coins in the descending order of their value – Nishka,

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<sup>4</sup> For example, a gold Satamana would equal 100 gold Krishnalas as mentioned in Shatapatha Brahmana (MGG, 2017a). In Tamil, Krishnala was termed as Kunthumani. A Suvarna was later called as a Dinara in the common era.



Suvarna, and Mashaka. Another coins that gets mentioned is Karshapana, which was minted predominantly in silver.

By the post-Vedic period, however, easily panned deposits of alluvial placer gold had dried up (Del Mar, p. 70) and Karshapana coins made of silver and/or copper had become more prevalent<sup>5</sup>. In this period, we find references to minting of coins in Arthashastra. Kautilya makes references to Superintendent of the Mint (Lakshanadhyaksha) and next in the hierarchy was Coin Examiner (Rupadarshaka) under him. They oversaw the circulation of coins in the economy and replenishing of the treasury. Circulating counterfeit coins was to be punished heavily with 1000 Krshapanas and those who deposit such counterfeits in the government treasury would attract death penalty (4.1.48). Post-Kautilya and after the death of Ashoka in the 3<sup>rd</sup> century BCE, kingdom of Kalinga had regained independence under the leadership of King Kharavela. The Hathigumpha inscriptions near Bhubaneswar, Odisha tell us that between the age of 16 to 24, among other things Kharavela had learned, was the science of minting coins (Rupa Sutra). Buddhaghosha describes a goldsmith having coins of different shapes such as rectangular (chaturasra), circular (parimandalala), elongated (dirgha), and of irregular form (Chitra-vichitra).

That gold was getting scarce had become obvious from the fact that not even once Kautilya made any reference in Arthashastra regarding production of gold coins. Though cheaper than gold, however, even silver was getting relatively scarce. As a result, while both gold and silver were a good store of value, rulers had to pay attention to the more immediate function of money – medium of exchange. Samples collected by Cunningham had showed 20 per cent copper and other alloys in the silver Karshapanas (Bhandarkar, 1921, p. 162). However, one notices that Kautilya had allowed 31.25 per cent of copper and other hardening alloys being used to produce a silver karshapana (2.12.24). This goes to show that as silver continued to become expensive, Kautilya had allowed increased proportion of copper in the silver Karshapana. Muller (1859, p. 289) also alludes to an anecdote where Kautilya had re-minted a crore of Karshapanas into 8 crore Karshapanas to finance war against the Magadha king Dhanananda. He perhaps increased the alloy content of the coins or gave a silver coating

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<sup>5</sup> From Vedic times to post-Kautilyan period, while names of coins and their content may have changed, there was standardization of coin weights (Bhandarkar, 1921, pp. 173-174; Kangle, 1965, pp. 124, 153). For example, a base weight was called Raktika or Rati (red seed) and Krishnala (black seed) of the gunja creeper (*abrus precatorius*). Five Ratis equalled 1 Masha (black & gray pulse-seed called *phaseolis radiatus*). Sixteen Mashas equalled 1 Karshapana. As per modern system, a Rati equalled 1.825 troy grains (118.26 milligrams). Therefore, a Karshapana coin weighed 9.46 grams. A gold Karshapana would be called Suvarna. Coins of smaller denominations also existed.

to the copper coins to increase money supply. This anecdote may be one of the very first recorded instances of quantitative easing of money. Similar increase in money supply was carried out by the Bactrian kings, rulers of Hindu Shahi of Kabul, and the subsequent rulers (Bhandarkar, p. 164).

## 6. The Golden Sparrow

Though gold was getting more scarce in the post-Vedic times, in the Indian cultural ethos it maintained its sacredness as also the usefulness in jewellery making. While the accumulated stock of gold in India was huge and it continued to be used as a store of value, gold ceased to function as a medium of exchange in the ordinary business of life. Relative to silver, gold was getting expensive over the millennia. For example, during the Vedic period relative value of gold and silver was 1 silver = 1 gold. However, by the time Alexander's army had a tangential brush at the north western borders of India, the ratio had turned 2 silver = 1 gold. And it went down to 6 silver = 1 gold by the 5th century (Del Mar, 1885; P, 78)<sup>6</sup>. There was always some amount of trade with the Occident by the end of the Vedic period. However, after Alexander's departure and the subsequent establishment of the Mauryan empire by Kautilya and Chandragupta, there was a heightened activity of trade with Greece and Rome. By the turn of the common era, Romans were allegedly calling India the land of the Golden Sparrow (Soney ki Chidia). The newly found insatiable interest in Indian textiles, iron, spices, perfumes, silk, gems, and exotic birds and animals meant that Indian merchants would now receive volumes of precious metals like gold and silver in return.

In 1<sup>st</sup> century CE, Pliny the Elder, a writer, naturalist, commander of the Roman forces and a friend of Emperor Vespasian lamented that Romans were importing unproductive luxuries which were not worth the gold Rome was giving up and that their luxuries and women were costing them one million sesterces (Roman coins) per year. Tamil Sangam literature too mentions that Yavanas would return with pepper and Muziris (part of the Kerala coast) would resound with the noise of gold. Roman gold would land at various other Indian ports such as Barbaricum (Karachi) and Baruch as well (MGG, 2017b). The enormity of the precious coins received by Indians can be appreciated by the colonial era find in south India, where a cache of Roman gold and silver mintage was estimated to be 'eight coolie-loads' with 20,000 coins per porter (Dasgupta, 2017). Four centuries after Pliny the Elder lamented about the drain of

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<sup>6</sup> Relative value of gold against silver has continued to increase steadily over the ages. Based on the current rupee prices of silver and 22- carat gold, the ratio was 73 silver = 1 gold, on 1 November 2021.

gold from Rome, the Roman empire had come to an end. And, at about the same time, Gupta empire had emerged in the Indian subcontinent in the 4<sup>th</sup> and 5<sup>th</sup> century CE, representing the Golden Age of India.

In these times of prosperity, it should not come as a surprise that between 355 CE and 414 CE, successive emperors of the Gupta dynasty, Samudragupta, Chandragupta II, and Kumaraguta I minted gold coins in honour of goddess Lakshmi. The engravings on the gold coins Dinara (Suvarna) depicted goddess Lakshmi with the attendant pictures of a lotus and elephants (CoinIndia, 2021). If Gupta empire represented the Golden Age of India, Angus Maddison's (2003) work further showed that India's GDP had acquired more than a third to half of the total GDP of the world during the 1<sup>st</sup> millennium CE. If the epithet, land of the Golden Sparrow was justified, it also meant that invaders were attracted to India's wealth. Just to give a few examples, if Mahmud of Ghazni raided India 17 times to plunder her treasures (Anjum, 2007), Nadir Shah too had ransacked Delhi for many days looting the famous Golden Peacock throne (Singh, 1963; p. 237).

The tradition of minting gold coins continued for a while. In the 12<sup>th</sup> century, King Vigraharaja IV of the Chahamanas dynasty from the present day state of Rajasthan had minted gold coins called Rama-tankas. Similarly, mint-master of the Delhi Sultanate, Thakkar Pheru made a mention of gold coins known as Sita-Rami in his work *Dravya-Pariksha* written in 1318 CA (Gupta and Shastri, 1993; p. 201-202). Even during the Moghul period gold coins were being minted. The system of minting coins in gold (Mohur), silver (Rupiya), and copper (Dam) was initiated by Sher Shah Suri in the 16<sup>th</sup> century and carried forward by the Mughals. As has been said earlier, gold remained more of a store of value. It was being used more for minting commemorative coins. Silver coin named Rupiya, named after the Sanskrit name Raupya for silver, became the commonly used currency. This Rupiya coin became the precursor of the modern currency Indian rupee (RBI, 2021). It should not come as a surprise that in modern times, in the neighbourhood of the Indian subcontinent, countries from Mauritius to Maldives, Seychelles to Sri Lanka, India to Indonesia, and Nepal and Pakistan, all have the word Rupiya or Rupee in the name of their official currency.

From the recorded history starting with the Vedic period, we know that gold acquired the status of auspiciousness, a fine medium for jewellery, a medium of exchange, and a store

of value<sup>7</sup>. Therefore, gold has had more than 40 unique names in Sanskrit, quite a few derived as adjectives, depending upon the form in which it was found, the region or the river where it was found, its sensory attributes, its metallic properties, its end-use in jewellery, and its literary and sacred connotations (see Appendix 1). Gold seems to have been available in relative abundance during Vedic period to be used as medium of exchange. However, it became scarce over the millennia and it went out of circulation in ordinary matters of trade. It continued to be minted by rulers for commemorative purposes until the late medieval period. Importantly, however, it retained a strong affinity among Indians as an auspicious metal and a store of value even in modern times. Econometric studies show that the short-run price elasticity of demand for gold in India is -1.2 and the long-run price elasticity is -0.4 (WGC, 2021; p. 4). It is a stylized fact that consumer durables have a higher price elasticity of demand in the short-run but a much less elasticity in the long run. An elastic demand for gold in the short-run and an acutely inelastic demand in long-run is a clear a corroboration of the fact that gold is considered a highly prized consumer durable by Indians.

It is for this reason that come 2021 Diwali, Royal Mint of UK released a gold bar exquisitely engraved with the picture of goddess Lakshmi. This 20-gram gold bar retailing at £1,080 in faraway UK is an indicator of the high propensity of Indians across the world to possess gold, gold jewellery, and/or gold coins. It is this psyche of Indians, which is leveraged by corporates to market their products during festive season – Firms luring customers by offering a chance to win a gold coin hidden randomly in some of the FMCG packages.

## **7. Gold Hoardings to Savings**

The multi-millennia association of gold with sacredness, continued obsession of Indians with gold jewellery, and their perception of gold as a permanent store of value has come at a cost. For an emerging economy like India, despite having an accumulated stock of gold of about 24,245 tonnes valued at a whopping sum of about ₹112 trillion or \$1.49 trillion, gold imports continue to be more than ₹2.5 trillion a year. Gold imports being about 9 per cent of India's total value of imports, it is an important item contributing to the deficit on the external account. Augmenting supply of gold to counter imports is not an option as of now, at least in

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<sup>7</sup> Rare gold ornaments such as necklace, headbands, and beads are found in the archaeological excavations from Sarasvati-Sindhu civilization prior to the Vedic period (MGG, 2018a). However, no literary records are yet available from that period regarding sacredness, extraction, processing, exchange, and gift of gold, gold jewellery, and gold coins.

the foreseeable future. If Kolar gold mines in Karnataka had stopped producing gold many decades ago, yearly gold production at the Hutti Gold Mines, also in Karnataka is barely more than 1.5 tonnes. The 12th 5-year plan working group had outlined that with new investments, production could be augmented to about 70 tonnes by 2030 (GOI, 2018; pp. 34, 44-45). This is pittance compared to India's annual import of about 900 tonnes of gold.

Moreover, hitherto absent gold demand from the industrial sector is also likely to go up substantively. A mobile phones contain 0.034 gram of gold. As an efficient and corrosion-free conductor of tiny current, gold is used in all kinds of electronic goods, appliances, and components. It will be required in sustainable generation of power through photocell panels. In fact, gold has become an extremely dependable material in all space applications including making of satellites, rockets, and rovers (MEC Mining, 2020). So are its uses in medical field, be it dentistry, Ayurveda, or medical equipment. Currently, the worldwide use of gold for technology purposes accounts for 8 per cent of the yearly global demand (Statista, 2021). In comparison, India's annual demand for industrial use is barely 1.4 per cent (GOI, 2018; p. 34). With the government's focus on Aatmanirbhar Bharat, aiming to take contribution of technology and manufacturing to 25 per cent of GDP, there is huge potential for growth in gold demand from industrial sector.

Given this context, most of the gargantuan stock of India's idle gold cannot be viewed as accumulated savings but hoardings. Possessing gold gets considered as an auspicious act and Indians seem to view gold as a 'permanent abode of purchasing power'<sup>8</sup>. Therefore, government will have to adopt an effective economic policy that recycles the stock of idle gold and channel it for productive purposes through financial markets. Re-channelling idle gold will also reduce annual gold imports significantly and save precious foreign exchange for the country. Importantly, the policies will have to convert not only the stock of hoardings into financial savings and investment but also increase the propensity of the flow of annual savings going into financial markets and not in physical gold. To give an example, for the year 2018-19 India's gross domestics savings rate was 30.1 per cent of GDP. Out of this 18.2 per cent was the annual household savings rate (GOI, 2021a). However, the annual household financial savings rate was only 7.2 per cent (RBI, 2020). Moreover, a study conducted by NCAER has

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<sup>8</sup> Milton Friedman (1961, p. 259) had qualified that money consists of “.. anything that serves the function of providing a temporary abode for general purchasing power”. Thus money was both a medium of exchange and a temporary store of value. Gold has turned into a store of value alone, although it has some liquidity.

indicated that nearly 11 per cent of Indian households' savings are in gold (GOI, 2018, p. 84). Clearly, there is scope for increasing India's gross savings rate in general and household financial savings rate in particular<sup>9</sup>.

## **8. Policies to Re-Channel Idle Gold**

The most critical part of the government policy would be to re-channel the existing stock of gold which remains idle in the private hands. Of course, householders, both men and women would keep a certain amount of gold jewellery with them for regular use and for festive purposes. However, most with additional idle stocks can make their gold/jewellery available to jewellers and industry through market. To this effect, Gold Monetization Scheme (GMS) was announced in the union budget of 2015-16, whereby individuals could deposit gold with banks and earn interest of about 2.5 per cent. However, by 2018 the scheme had attracted only 11 tonnes of gold. Clearly, the scheme has to be recalibrated to make it more efficient. By 2018 only about 10 banks were participating in the scheme and that too only a few branches would act as collection centres for GMS deposits. Both, the number of banks and their branch network for deposit collection needs to be substantially widened to access the household gold stocks.

Contrary to perceptions, disproportionately large gold holdings in smaller quantities are with the lower-wealth strata of the society. Rural India accounts for 60 per cent of the gold jewellery demand (GOI, 2018, p. 34). Therefore, bank branches in rural areas need to participate in GMS scheme with deposits as small as 1 gram. Just as government allowed Jan Dhan bank accounts to be opened even with zero bank balance, similar initiative could be taken for penetration of GMS. Moreover, banks could be incentivised for their effective participation by allowing their gold deposits to be counted in their mandatory cash reserve requirement (CRR). Furthermore, it would help to give behavioural nudges to customers to open GMS accounts. For example, in the case of LPG subsidy, initially government had appealed to the conscience of the people through print and electronic media to give up the subsidy. Many gave up their subsidy voluntarily before eventually the subsidy got removed.

Government and banks could give similar nudges to the individual customers, religious trusts, and temples through print and electronic media to deposit their idle gold/jewellery in

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<sup>9</sup> China's gross domestic savings rate has been quite high. It averaged much higher than 45 per cent in the last decade (WB, 2021).

GMS. The nudging could happen by providing information that the gold deposits are not only secure with banks but they earn interest of about 2.5 per cent; that there is no wealth tax, capital gains tax, and income tax on valuation, appreciation and interest, respectively (GOI, 2021b); and that customers have the flexibility either to take cash or gold at the end of the deposit tenure. In fact, customers also save the fee they would have paid otherwise when they keep their gold in banks' lockers. If the gold coins were a medium of exchange in Vedic times and eventually gave way to silver coins, copper coins, paper currency, and now electronic transactions, and, they still retained faith in the newer mediums of money; Indians could also retain the auspiciousness associated with their idle physical gold, jewellery, and coins; albeit in the form of modern gold deposit receipts.

Only when the GMS network infrastructure is widened sufficiently and banks generate substantive gold deposits, the complementary Gold (Metal) Loan (GML) scheme can be concurrently promoted widely. Under GML, banks will be able to use the gold deposits of the customers to provide gold inventory needs of jewellers at competitive interest rates. Similarly, the Indian Gold Coin (IGC) scheme which was introduced along with the GMS in 2015-16 can also be effectively used by banks. With the GMS gold deposits at their disposal, banks should be allowed to meet the demand of the fresh customers looking for purchasing minted gold coins through IGC. The process of hallmarking of gold has been standardized by Bureau of Indian Standards (BIS) by now and this can effectively complement both the GMS and GML. Recycling of gold through these mechanisms has a potential to reduce imports substantially. Temptation, however, to increase basic customs duty from the existing level of 7.5 per cent should be resisted. Decades of experience suggests that higher customs duty leads to circumvention of rules, smuggling, and black marketing; usually with active participation of anti-social elements of the society.

Once household idle gold holdings are channelled through the banks, other gold based financial instruments too will be useful to recycle those gold stocks for new gold customers. For example, gold-backed exchange traded fund (ETF) is listed on National Stock Exchange (NSE) and Bombay Stock Exchange (BSE). It is fully backed by gold of 99.5 per cent purity. This market will develop well when recycled gold deposits through GMS are available for onward loan or sale by banks. Development of such market will help household savings going into financial investments rather than going in physical gold hoardings. Sovereign Gold Bond (SGB) scheme was yet another instrument issued in 2015-16. However, it has not been backed

by gold. As pointed out by Reddy (2017, p. 22), efficacy of this instrument and its benefits are not that obvious both to government and the buyers. Niti Aayog Committee (GOI, 2018) had also proposed a Gold Saving Account (GSA) in addition to GMS. GSA would allow customers to save up in rupees but the accumulated amounts are translated into physical gold. This instrument is meant mostly for lower income new customers to buy gold. Further, Niti Aayog had also proposed setting up a Bullion Exchange that would provide a transparent ecosystem for trading gold, which will aid functioning of other gold schemes.

### **Postscript**

Museo del Oro, a gold museum in Bogota, Colombia claims to be the world's largest gold museum (MGG, 2018b). Established almost 8 decades ago, this museum showcases pre-Columbian gold artefacts as Colombia's national heritage. In the Indian context, as individuals, trusts, and temples take inventory of their idle gold stocks with a view to participate in GMS; it is hoped that precious coins, jewellery, artefacts, statues, sculptures, and perhaps related scientific treatises and sacred texts associated with gold will come to light. While voluminous generic gold materials can be deposited under GMS, priceless gold objects can be displayed in a magnificent state-of-the-art gold museum built at one of the important tourist destinations. Visitors would be happy to pay a price to watch India's multi-millennial gold heirlooms at a dedicated museum, potentially the largest in the world. That will be another practical extension of the gold monetization effort.

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### Appendix 1: Various Sanskrit Names for Gold\*

No	Sanskrit Names	Transliteration	No	Sanskrit Names	Transliteration
1	सुवर्णम्	Suvarṇam	25	कार्तस्वरम्	Kārttasvaram
2	स्वर्णम्	Svarṇam	26	अष्टापदः	Aṣṭāpadaḥ
3	कनकम्	Kanakam	27	अष्टापदम्	Aṣṭāpadam
4	काञ्चनम्	Kāñcanam	28	कर्बुरम्	Karburam
5	हिरण्यम्	Hiraṇyam	29	कर्बूरम्	Karbūram
6	हेम	Hema	30	गाङ्गेयम्	Gāṅgeyam
7	हेमम्	Hemam	31	गौरम्	Gauram
8	रुकाम्	Rukām	32	दीप्तम्	Dīptam
9	रुगमम्	Rugmam	33	भास्करम्	Bhāskaram
10	भर्म	Bharma	34	तेजस्	Tejas
11	भर्मम्	Bharmam	35	शतखाण्डम्	Śatkhāṇḍam
12	जातरूपम्	Jātarūpamam	36	महाधातुः	Mahādhātuḥ
13	जाम्बूनदम्	Jāmbūnadam	37	सौमेरुकम्	Saumerukam
14	शातकुम्भम्	Śātakumbham	38	लोहोत्तमम्	Lohottamam
15	शतकुम्भः	Śatkumbham	39	सुरार्हम्	Surārham
16	शातकौम्भम्	Śātakaumbham	40	दाक्षायणम्	Dākṣāyaṇam
17	चामीकरम्	Cāmīkaram	41	सानसिः	Sānasiḥ
18	निष्कम्	Niṣkam	42	पुरटम्	Puraṭam
19	हाटकम्	Hāṭakam	43	पुरुदम्	Purudam
20	हिरणम्	Hiraṇam	44	वह्निवीजम्	Vahnivījam
21	तपनीयम्	Tapanīyam	45	अकुप्पम्	Akuppam
22	महारजतम्	Mahārajatam	46	मृदुलकम्	Mṛdunakam
23	कलधौतम्	Kaladhautam	47	जाम्बवम्	Jāmbavam
24	कलधूतम्	Kaladhūtam	48	पिञ्जानम्	Piññānam

\*Source: 2indya (2021)