

Silver Influx and Prices - The Case of
Early Modern India

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India has traditionally been described as a sink for precious metals 'with thousand gates for their entry and none for their exit'. Indeed, over the centuries, a key element in India's maritime and overland trade has been the import on a regular basis of fairly significant quantities of precious metals - mainly silver but also gold. In the virtual absence of their domestic production, the consumption needs of these metals for purposes of coinage, for use in temples as well as for use as ornaments by women, were met overwhelmingly through such imports. Traditionally, by far the most important Asian source of these metals has been west Asia which, in turn, received its own supplies in a large measure through trade channels from southern and eastern Europe via the Levant. Both Yemen and Persia provided significant quantities of gold and silver to the west coast of India where the leading ports were Cambay (later Surat) and Calicut. The inflow through the land route via northwestern India was evidently quite large also, though in the present state of our knowledge, it is more difficult to quantify the latter than the former. South-east Asia was another important source of precious metals. Silver and some gold is known to have been mined in Pegu in eastern Burma and fair quantities of the former metal are known to have arrived through regular commercial channels into Bengal, and to a smaller extent, the Coromandel coast. Also, John Deyell has drawn our attention to the regular import into Bengal of silver from Yunnan from the thirteenth century onward both overland and by sea¹. The situation in respect of the global output and the flows of precious metals across the world underwent a dramatic transformation in the 16th century. This was the outcome essentially of two developments: (a) the discovery of the Americas and the intensive working under the Spanish auspices of the rich silver mines in Mexico and Bolivia and (b) the emergence of Japan as a major Asian producer of both silver and gold.

The substantial accretion in the sixteenth century to the stock of precious metals available to Europe constituted a key element in the rise of the early modern world

economy. The other major development facilitating this process was the discovery, in the same decade in which Columbus reached America, of the all-water route between Europe and Asia via the Cape of Good Hope. For the first time in history, the three constituents of the early modern world economy - Europe, Asia and the New World - had been brought together in an organic and interactive manner. What the discovery of the all-water route had achieved was the overcoming of the transport-technology barrier to the growth of the Euro-Asian trade. The volume of this trade was no longer subject to the capacity constraint imposed by the availability of pack animals and river boats in the Middle East. By the same token, the enhanced trading opportunities between Europe and Asia opened up by the Cape route would essentially have been frustrated but for the enormous quantities of American silver reaching Europe through the sixteenth century. Euro-Asian trade had traditionally been one involving the exchange of Asian luxury and other goods against European silver and, to a smaller extent, gold. This 'bullion for goods' pattern of trade was an outcome basically of the inability of Europe to supply goods that could be sold in Asia in reasonably large quantities at competitive terms. Europe at this time probably had an overall superiority over Asia in the field of scientific and technological knowledge, but not as yet the distinct cost advantage that came with the Industrial Revolution in the late eighteenth and nineteenth centuries. This put the Asian, and particularly the Indian producers, with their considerably lower labour costs and much longer history of sophisticated skills in handicrafts of various kinds, in a position of advantage over their European counterparts in the production of a variety of manufactured goods. As a result, Europe really had no option but to pay for the Asian goods overwhelmingly in terms of precious metals. Ever since the fourteenth century or so, the output of precious metals in Europe had by and large been stagnant raising fears of deflationary tendencies cropping up. This, coupled with the bullionist inhibitions regarding the export of precious metals, would almost certainly have created a situation where the non-availability of significant additional quantities of precious metals for export to the East would by and large have rendered the opportunities opened up by the availability of the Cape route quite redundant. It is in this context that one must appreciate the critical significance of the two great discoveries - that of the New World and of the Cape route to the East Indies - having taken place almost simultaneously.

The American silver reached India via one of three alternative routes: via the Cape of Good Hope, via the Levant and west Asia and, finally, via the Pacific and Manila. The quantities involved in the last mentioned of these three routes would seem to have been quite insignificant and can perhaps by and large be ignored. But each of the other two circuits was important. The agencies through which silver was transported along the Cape route were exclusively European - the Portuguese during the sixteenth and early part of the seventeenth century, and the Dutch, the English and the French during the seventeenth and the eighteenth centuries. As far as the Levant - west Asia route was concerned, it was mainly the Indian merchants who acted as the couriers of the silver into the subcontinent, although the Dutch East India Company also operated on this sector.

American/European silver reaching India via the Cape of Good Hope or through west Asia, however, was not the only important stream of foreign silver arriving into the subcontinent through the agency either of the Indian merchants or the European trading companies. An Asian source of silver and gold that assumed extremely important proportions around the middle of the seventeenth century, and indeed almost came to rival Europe in terms of the quantities of precious metals provided to the Indian subcontinent, was Japan. The factors behind the emergence of Japan as the largest Asian provider of precious metals was the discovery there in the sixteenth century of new major deposits of both gold and silver and the use of the mercury amalgamation method in refining these metals. In the early stages of the rise of Japan to this position of preeminence, the key role in promoting the trade in Japanese silver was played by the Chinese merchants, who exchanged increasing quantities of Chinese raw silk and other goods in Japan mainly against the locally produced silver. They were soon joined by the Portuguese. The total quantities of silver carried out of Japan by the Chinese and the Portuguese merchants together was obviously quite substantial in value: a figure of an average annual outflow of 33,750 to 48,750 kilograms has been suggested for the period 1560 to 1600².

Following the expulsion of the Portuguese and the promulgation of the closed country era in 1639, the only two foreign trading groups allowed to operate in Japan were the Chinese and the Dutch. The Dutch used this differential privilege to its maximum and procured large quantities of precious metals in Japan in exchange for commodities such as raw silk. I have argued elsewhere that together with the spice monopoly in the Indonesian archipelago, the exclusive access among the Europeans to the Japanese precious metals was the principal factor behind the Dutch domination of both Euro-Asian and Intra-Asian trade during the seventeenth century³.

What impact did the growing import of precious metals into India have on her economy and society? The large-scale import of American silver into Europe in the sixteenth century has widely been regarded as of utmost importance for Europe. Without this bullion, Immanuel Wallerstein argues, 'Europe would have lacked the collective confidence to develop a capitalist system, wherein profit is based on various deferrals of realized value. This is a fortiori true given the system of a non-imperial world-economy which, for other reasons, was essential. Given this phenomenon of collective psychology, an integral element of the social structure of the time, bullion must be seen as an essential crop for a prospering world-economy'⁴. But when imported into Asia, Wallerstein suggests, the same commodity becomes an item of luxury consumption used 'to decorate the temples, palaces, and clothing of Asian aristocratic classes'. In the case of Europe, the essential character of the import derived from its use as money: in Asia, this valuable asset was frittered away by being used 'for hoarding or jewelry'⁵. Wallerstein is in very respectable company here. This is what the American scholar, Rudolf Blitz, has to say, 'In the Orient much of the specie went promptly into hoards or was demonetized and became a commodity satisfying the oriental penchant for ornaments'⁶.

I believe that such a clear-cut dichotomy is indeed quite untenable and does not conform to a wide body of evidence available to us. Asia certainly was different from Europe but not necessarily in the matter of the role of imported precious metals in the long-term functioning of her constituent economies. And indeed whatever differences

might have existed in this regard might not all have simply been a reflection of some mystic and implicitly irrational "oriental penchant for ornaments". It would seem to me that in its essentials, the situation in Asia was not very different from that in Europe. There is first of all the question of the supply of money responding to a rise in the stock of precious metals in the system. I would like to suggest that the money supply in an Asian economy such as Mughal India was fully reflective of changes in her stock of gold and silver. The treasure imported by Indian merchants into the country was against goods they had sent out the previous season, and which they ostensibly would need to invest in the procurement of goods to be sent out in the next round. Similarly, the treasure brought in by the foreign merchants, including the European trading companies, was intended for investment in Indian silks, textiles and other goods. In so far as foreign coins were not allowed to circulate in India, the very first step that would need to be taken by these merchants in the matter of raising the necessary purchasing power would be the conversion of the imported bullion and coins into Mughal Indian rupees. This could be done either through professional dealers in money known as *sarrafs* or by recourse to one of the imperial mints in the empire. In either event, there would be an automatic and corresponding increase in the supply of money in the economy. It is, of course, perfectly possible that a part of the increased money supply might eventually have been hoarded or withdrawn from active circulation. But in the present state of our knowledge, it would probably be futile to surmise on how significant or marginal this phenomenon might have been. Some observations could nevertheless be made in this behalf. In any society, hoarding of precious metals in the form of bullion or coins would be a function of the structure of asset preferences. Given the virtual absence of deposit banking facilities in Mughal India, hoarding on a reasonable scale can very well be interpreted as a perfectly legitimate and rational form of holding liquidity. The point is that the implied irrationality in the 'oriental penchant' kind of story might in fact never have been there except perhaps at the margin.

A growing supply of money in response to a continuing import of precious metals would presumably have had implications for the functioning of an Asian economy along lines not necessarily very different from those in Europe. William Atwell has described

Japanese and Spanish - American silver pouring into late Ming China as possibly 'the most significant factor in the vigorous economic expansion' which occurred in that country. The economic growth and business confidence associated with a rising stock of precious metals that Atwell talks of in relation to China would certainly not seem to have been confined to that country. In the case of Mughal India, for example, it would seem that the rising supply of money was leading to a significant acceleration in the process of monetization in the economy so characteristic of the period. The well-known growing monetization of the land-revenue demand during the period was clearly a part of this larger process. Another significant feature of the Mughal Indian economy was the rise of banking firms all over the empire dealing in extremely sophisticated instruments of credit. Many of these firms had enormous resources at their command. Probably the best known of these was the house of the Jagat Seths, operating from its headquarters at Murshidabad in Bengal. Along with its other activities, the firm organized the transfer of Delhi's share in the land revenues collected in the province. I need hardly stress that there was an important organic link between the rise in the money supply and the growth of the banking firms in the Mughal Indian economy.

What about the relationship between a rise in the money supply and the notional general price level in the economy? In other words, was there a counterpart in Mughal India to the European price revolution of the sixteenth century? This question has been handled in the literature at various levels. One of these has been to examine movements in the bimetallic ratios between silver and gold and that between silver and copper and to treat such movements as indicative of movements in the general price level., Thus a movement from 1:10 to 1:12 in the gold silver ratio is considered as evidence of a fall in the value of silver indicative of a general inflationary trend. There are, however, some conceptual and other problems in this kind of analysis which might not always be easy to overcome. Both gold and silver were monetary media fully convertible into each other at a ratio determined by the market. Changes in this ratio could be brought about by changes in the demand and supply positions of either of the two metals. A sudden increase in the inflow of gold or a significant dehoarding of it would produce a sudden drop in the number of units of silver needed to buy a unit of gold. It would, however, be

totally wrong to construe this as evidence of a general deflationary trend in the economy. The point is that given the kind of information base that we possess on the value and particularly the composition of the inward flows of precious metals into the country and of the timing of any possible large scale dehoarding of any or both of the metals makes the use of the bimetallic ratio as an index of movements in the general price level a rather risky business. And then, of course, there is the question of the availability of reliable and comparable information on the movements in the gold silver ratio itself. Some of these issues might become clearer if we looked at the work of K.N. Chaudhuri and I. Habib on this question. Table 1 presents a comparative statement of the information from the two sources.

According to Habib, the 'silver value of gold in India rose by over 50 percent between 1595 and 1650, it exceeded the 1595 rate by over 75 percent before 1675; and finally it found a level around 50 percent higher than that of 1595 near the end of the century"⁷. Thus between 1650 and 1675, the silver value of gold would have risen by 16.66 percent. But K.N. Chaudhuri's data for the years 1661 to 1675, while suggesting violent fluctuations in the number of units of silver commanded by a unit of gold between a low of 15.722 in 1670 and a high of 21.078 three years earlier, do not indicate any trend at all. As for the years 1675 to 1680, there is a distinct decline in the silver value of gold in both Chaudhuri's as well as Habib's series. But this cannot be treated as an index of movements in the general price level either for the simple reason that both agree that this was the result of a sudden acceleration in the supply of gold, though they differ on the causes behind the increase in supply. While Chaudhuri has suggested that this was probably the result of a large scale dispersion of the ancestral gold hoards by Emperor Aurangzeb⁸, Habib attributes it to the increase in the import of gold from Japan⁹. And finally, if one looked at Chaudhuri's figures for the first nineteen years of the eighteenth century and applied to them the logic of the movements in prices being reflected in the movements in the gold silver bimetallic ratio, one gets an inflationary trend until 1709 and then a distinctly deflationary trend until 1719. I do not really know what kind of inference to draw from this kind of evidence.

Table 1

Silver Value of One Unit of Gold in India

Year	K.N. Chaudhuri	Irfan Habib
1661	16.161	14.63
1667	21.078	-
1670	15.722	15.13; 15.25
1671	16.025	-
1674	15.948	-
1675	17.224	15
1677	14.131	13.75; 13.88
1679	14.656	12.88
1680	13.184	12.25; 13
1681	13.822	-
1701	14.460	-
1702	14.247	-
1703	14.698	-
1705	15.157	-
1706	15.157	-
1707	15.157	-
1708	15.157	-
1709	15.157	-
1714	13.184	-
1715	13.397	-
1716	12.759	-
1717	12.121	-
1718	12.971	-
1719	12.759	-

Source: K.N. Chaudhuri figures are from his *The Trading World of Asia and the English East India Company*, Cambridge, 1978, pp.162-163, Table A.4, Col. 8. Irfan Habib's figures are available in T. Raychaudhuri and I. Habib (ed.), *The Cambridge Economic History of India*, Cambridge, 1982, vol. 1, p.367, Table 9. Only figures for years common to the set of K.N. Chaudhuri have been taken.

Some of the same kind of problems apply to the use of the movements in the bimetallic ratio between silver and copper, which was also a monetary medium, as an indicator of movements in the general price level. From the seventeenth century on, a good proportion of the total marketed supply of copper was of foreign origin, fluctuations in which could cause sharp movements in the bimetallic ratio between silver and copper. Then there was the added complication that in times of distress due to a famine or whatever, a large scale disposal of copper vessels¹⁰ could suddenly add significantly to the total supply in the market, again disturbing the bimetallic ratio for reasons not reflective of movements in the general price level in any sense. The point is that by themselves the movement in the silver price of gold or copper are grossly inadequate and potentially misleading measures of movements in the general price level. For a reliable measure, one must of necessity turn to movements in the prices of commodities.

For the period between the sixteenth and the eighteenth centuries, the principal source of information on commodity prices are the records of the European trading bodies, though some information is also available in Persian sources such as the *Ain-i-Akbari*. Since a considerable part of the price information in these sources is available on a random and scattered basis, it is important to ensure broad comparability across time and space before this information is put together in time series. It will thus be necessary to ensure that the quality as well as the size or the unit weight of the commodity in question had remained broadly unchanged over time. Considering that over the period under discussion, for reasons of high transport and transit duty costs and other factors, the degree of integration achieved across distant markets in the subcontinent was relatively limited and found expression in possibly large regional variations in the price of a given commodity, the construction of the time series will of necessity have to be done in most cases on a regional basis. Needless to add, a time series in order to be meaningful must have a certain minimum number of observations over a given period of time.

In considering the relationship between changes in the supply of money and those in prices, the information that one would need to look for would be in respect of commodities which would best capture the changes in the notional general price level. In

other words, the prices that one would look for would be those that could serve as a proxy for the equivalent of the modern consumer price index. It is important to emphasize this because the adoption of this criteria would render a large part of the price information available in the European documentation unsuitable for our purposes. Broadly speaking, the systematic price information available in these documents consists of prices of goods imported by the companies into India from Europe and other parts of Asia as well as of goods so exported. A preliminary evaluation of this information would reveal that in each of the two categories, prices of only some of the commodities for which information is available would be useful in measuring movements in the notional general price level. For example, if we were to consider in some detail the nature of price information available in the documents of the Dutch East India Company, the following picture emerges. As far as the prices of goods imported by the Company were concerned, it is useful to distinguish between goods such as non-precious metals (copper, tin, lead, spelter and zinc) and pepper on the one hand and spices such as cloves, nutmeg, mace and cinnamon on the other. In the case of the first set of goods, the Company was only one of the sellers in the market, though by far the most important one because of its special position in both Japan and the Indonesian archipelago, where these goods were procured. But in the case of spices other than pepper, the Company enjoyed almost exclusive monopsony and monopoly rights. The pricing policy followed for the two groups of commodities, therefore, differed in important respects.

In the case of the non-precious metals and pepper, with a view to maximizing sales and reducing the dependence as far as possible on the export of precious metals to India for the purchase of return cargo, the authorities at Batavia only insisted that under normal circumstances, at least the cost should be recovered. In order to facilitate the implementation of this rule, a minimum sale price was often prescribed for these goods. This was often done for the monopoly spices as well, but for a different reason. The Company was concerned that the Asian prices of these spices should not be allowed to fall to a level that would make it worth their while for the English and others to buy spices in India or elsewhere in Asia and take them to Europe thus compromising the critical European monopoly of the Company in these spices. While the minimum sale

price was being fixed, the Company might as well bear in mind the inelastic demand for these spices and maximize the monopoly revenue by keeping the price at a relatively high level¹¹. It should be obvious that an analysis of the movements in the prices of the imported spices other than pepper will not contribute anything at all to an understanding of the movements in the general price level that we are looking for. This would also apply, though with lesser force, to the prices of goods such as non-precious metals where the Dutch Company accounted for a large proportion of the total marketed output. What the movements in the prices of these goods would capture would in good measure be the fluctuations in the Company's imports rather than any changes in the general price level.

Problems of a somewhat different nature emerge in relation to the information on prices of export goods available in the Company's papers. The principal commodities procured by the Company in India were textiles, raw silk, opium, indigo and saltpetre and extensive information on the movements in the prices of these goods is available. In the case of textiles, for example, fairly extensive information is available in respect of particular varieties of cotton and other textiles that the Company procured in Bengal and other parts of India. An analysis of some of this information pertaining to by far the most important area where these were procured, namely Bengal, suggested that over the second half of the seventeenth and the first few years of the eighteenth centuries, the prices of many of the major varieties procured by the Company did in fact go up. But the point is, can this evidence be construed to suggest a rise in the general price level? In my view, the answer would be a firm no. This is because the varieties of textiles for which information is available were highly specific to the Company in the matter of size, texture and colour combination etc. The implication was that of these particular versions of the relevant varieties of the textiles, the Company would account for the overwhelming bulk, if not the whole, of the market. As a result, the continuous price rise would reflect simply the growing imbalance between the growth of the Company's demand for these varieties and of their supply. This problem will, of course, not arise in the case of commodities which were homogenous in quality and in respect of which the demand by the Company did not constitute a significant proportion of the total marketed output.

Fortunately, there is one specific category of prices available in the European company documentation - particularly the Dutch East India Company documentation - which is wholly appropriate for being used as an index to movements in the consumer price index or the notional general price level. This category relates to the prices of wage goods of mass consumption. These would cover basic foodgrains such as *jowar*, *bajra*, rice, wheat and other items of food consumption such as clarified butter and sugar. Unfortunately, prices of cloth of mass consumption are generally not available, so one would have to do basically with the prices of provisions. What is the picture that a study of the movements in these prices suggests? As we pointed out earlier, the analysis of these prices is best attempted on a regional basis and in what follows we would attempt a brief review of some of this work relating to Mughal India.

Probably the first major attempt in this direction was made by W.H. Moreland way back in the 1920s. When talking of prices in Bengal, he maintained that 'there is definite evidence of a large and sudden rise in food prices between the years 1650 and 1660'¹². The argument put forward by Moreland was that the establishment of trade relations with Bengal by the English and the Dutch East India companies had led to a greater inflow of silver into the region which had helped in pushing the prices of provisions up. This had partly corrected the imbalance that had traditionally existed between the prices of provisions in Hugli and elsewhere on the Indian sea-board. But quite uncharacteristically for Moreland, the 'definite' evidence he cited in support of this assertion was far too fragile¹³. More recent work on the history of prices in Bengal suggests that over the latter half of the seventeenth and the first quarter of the eighteenth century, there was no clear cut trend in the prices of provisions. This work includes that by the present author which is based on evidence in the records of the Dutch East India Company. The provisions for which information is available in these records are rice, wheat, sugar and clarified butter. Of these, only sugar was a trade good for the Company. Price information on the other provisions is available in the Company's records because these were procured in large quantities in Bengal mainly for consumption by the Dutch establishments in places such as Batavia and Sri Lanka. From our point of view, this circumstance in fact becomes an advantage because the quality of the provisions bought

mainly for use in the Dutch establishments was unlikely to vary a great deal between one year and another. This makes the prices of these provisions much more comparable over time than would have been the case if these had been purely trade goods when there could conceivably be vast differences in quality exported between one year and another. Also, unlike in the case of the export goods such as textiles, the amount of each of the provisions purchased by the Company would have been absolutely insignificant in relation to the total marketed output making their prices completely insensitive to variations in the Company's own purchases. These price data are presented in Table 2. What clearly stands out from this table is the extremely erratic behaviour of the prices of all provisions. As a result, a statistically significant upward or downward trend did not emerge for any of the four provisions.

How does the Bengal evidence compare with that from other regions in Mughal India? For the Agra region, I. Habib has argued that between 1595 and 1670, there was a rise of 130 percent in the prices of foodgrains¹⁴. These included wheat flour, gram and clarified butter. Over the entire period between 1595 and 1670, there are a total of three observations available. Two of these relate to the two terminal years while the third pertains to the year 1637. Habib rightly does not use the evidence for 1638 because that was an abnormal crop year. The evidence for 1595 is from the *Ain-i-Akbari*, that for 1637 from a published Dutch source while the one for 1670 is from the work of a chronicler. For eastern Rajasthan, Habib bases himself on the work of S.P. Gupta and suggests that 'agricultural prices showed little increase between 1660s and 1690s, but registered a sharp rise during the second decade of the eighteenth century, and from then on they maintained a level more than twice that of the last quarter of the seventeenth century'¹⁵.

Table 2

Prices of Provisions in Bengal, 1657-1714

(rupees per 100 maunds)

Year	Rice	Wheat	Clarified butter	Sugar
1657-1658				444
1658-1659	49		693	
1661-1662	48	111	750	457
1662-1663	71	113	674	463
1663-1664				500
1664-1665		63	543	
1665-1666	27	51	395	433
1666-1667	33	90	690	356
1667-1668		76	841	
1668-1669		82	725	
1669-1670	39	65	650	400
1670-1671	66	63	571	310
1671-1672		133		
1673-1674	48		886	350
1674-1675	42	77	835	377
1675-1676	42	69	534	398
1683-1684	42	59	616	
1684-1685		77	616	461
1685-1686	44	99	668	481
1686-1687	53	73	600	422
1687-1688	49	114	460	377
1688-1689	43	71	522	
1689-1690	33		462	
1690-1691			470	
1691-1692	72	56	571	443
1692-1693			550	
1693-1694	39	56	538	
1694-1695			579	
1695-1696		59	671	
1700-1701	160			
1701-1702		134		949
1702-1703		100	870	
1706-1707			659	
1707-1708	48			454
1713-1714		85		

Source: Export Invoices in the Dutch Records.

As for the Agra figures, apart from the question of the number of observations over a period of three quarters of a century being no more than three, there is the problem of the reliability as well as the comparability with each other of the three observations. According to H. van Santen, there are reasons to believe that the *Ain-i-Akbari* information on food prices is heavily biased in the downward direction. 'The placement of the price lists in the book after a chapter on the organization of the royal kitchen suggests that these prices related to the provisions purchased for the Court. When we read in this connection that the "Mir Bakawal (head of the kitchen) and the writer determine the price of every eatable which becomes of a fixed value [...]"', one can assume that Abul Fazal was referring not to the prices in the market but to the much lower "Court prices" - the prices at which goods must be sold to the Court¹⁶. If Van Santen is right, very little would remain of Habib's Agra price series. This is because the *Ain* prices are critical to his conclusion: the price movement between 1637 and 1670 was inconclusive. It was in one direction in the case of two of the provisions and in the other in that of the third.

Van Santen's own work on food prices relates to movements in the prices of rice, wheat, clarified butter, *jowar* and sugar in Surat and Broach, though in the case of some of the provisions, he also has some observations for places such as Ahmedabad, Agra and Lahore. The period covered is by and large the first half of the seventeenth century, though again occasional observations are available for the second half of the century as well. His broad conclusion for rice is that between 1615 and 1657, the Gujarat price of this provision did not undergo any substantial increase. The position was not very different in respect of wheat, clarified butter, *jowar* and sugar either. As a broad conclusion Van Santen suggests that although there were occasional violent fluctuations, the overall level of the prices of provisions did not undergo any substantial change between 1610 and 1645¹⁷.

It would thus seem to be the case that the fairly substantial import of silver and gold into the subcontinent during the seventeenth and the early part of the eighteenth century notwithstanding, there is no particular evidence to suggest that the notional

general price level as reflected in the prices of provisions in the regions that received this treasure registered a clear cut upward trend. How does one account for this? Although it is very difficult to provide a definite answer, a number of possibilities, which are not mutually exclusive, might be considered. In terms of the elementary equation of the quantity theory of money $MV=PT$, a rise in the quantity of money (M) will result in a rise in prices (P) only if the other variables in the equation, the velocity of circulation (V) and the number of transactions (T) remained unchanged. The velocity of circulation of money in any economy depends on a variety of circumstances and changes in it are not always easy to predict. The position, however, would seem to be much clearer with regard to the volume of transactions (T). The precious metals imported by the European trading companies and others into the subcontinent were intended for investment in goods such as textiles and raw silk whose total output in the economy can be expected to have gone up to accommodate this rising demand. The increase in the value of output in the economy would ordinarily have been accompanied by an increase in the number of transactions. It is also important to remember that in so far as the companies and other traders would have conducted all their business in the monetized sector, a growing foreign trade is likely to have been accompanied by an expansion of the monetized sector at the expense of the barter sector. This would imply that the monetized transactions as a proportion of total transactions in the economy would have gone up. Since the equation $MV=PT$ captures only monetized transactions, the effect of this would be similar to that of a rise in T itself. Finally, over the fairly long period that we are concerned with, natural increases in population would also have necessitated a secular rise in output and transactions if the per capita output and availability were not to go down. All these factors would tend to check a general rise in prices consequent upon an increase in the supply of money caused by an increased inflow of precious metals¹⁸.

In this paper, we have argued that historically India had been a major net absorber of precious metals from the rest of the world, including several countries in Asia. She had come to acquire the reputation of a bottomless sink for these metals, and the phenomenon has sometimes been sought to be rationalized in the literature as a response to the 'Oriental penchant to hoard gold and silver'. We have argued that while the fact of

hoarding cannot be disputed - although its scale remains quite uncertain -, the decision to hoard need not be an irrational one. We have also examined some evidence pertaining to the relationship between an increase in the supply of money consequent to an increase in the inflow of precious metals in the seventeenth and the early eighteenth centuries and the general price level in the economy. Although the evidence is far from adequate and the quality of some of the available evidence is not entirely satisfactory, the consensus in the literature would seem to be that the increase in money supply was not accompanied by a similar rise in the general price level. The reason why this happened would seem to be that an increase in trade was accompanied by an increase in real output and in the volume of transactions in the economy. The growing monetization in the system would also seem to have been a factor working in the same direction.

¹ John Deyell, "The China Connection: Problems of Silver Supply in Medieval Bengal" in John F. Richards (ed.), *Precious Metals in the Later Medieval and Early Modern Worlds*, Durham, 1983, pp.207-230.

² Kozo Yamamura and Tetsuo Kamiki, "Silver Mines and Sung Coins - A Monetary History of Medieval and Modern Japan in International Perspective", in J.F. Richards (ed.), *Precious Metals*, pp.329-362. In the present state of our knowledge, the tentativeness of such estimates should perhaps be recognized. For example, in this particular estimate, the component carried by the Chinese and Japanese ships (the latter were continuing a limited scale of trade during this period) is of the order of 11,250 kilograms. As against this, William Atwell has suggested a figure of a mere 883 kilograms as the annual average of the silver carried out of Japan by the Chinese merchants (who clearly accounted for the bulk of the total of Chinese and Japanese merchants together) during the opening years of the seventeenth century. (William S. Atwell, "International Bullion Flows and the Chinese Economy Circa 1530-1650, *Past and Present*, Number 95, May 1982, p.70).

³ For the quantitative profile of the precious metal flows into India from Europe (both via the Cape route as well as via west Asia) as well as Japan, see Om Prakash, "Precious Metal Flows into India in the Early Modern Period" in Dennis O. Flynn and Richard Von Glahn (ed.), *Global Precious Metal Flows*, forthcoming.

⁴ Immanuel Wallerstein, *The Modern World-System, Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century*, New York, 1974, p.46.

⁵ J. Sperling, 'The International Payments Mechanism in the Seventeenth and Eighteenth Centuries', *Economic History Review*, 2nd series, Vol. XIV, No.3, 1962, p.450. Quoted in Immanuel Wallerstein, *The Modern World System II*, p.109.

⁶ Rudolf C. Blitz, 'Mercantilist Policies and the Pattern of World Trade, 1500-1750', *Journal of Economic History*, Vol. 27, No. 1, March 1967, p.40.

⁷ T. Raychaudhuri and I. Habib (ed.), *The Cambridge Economic History of India*, Cambridge, 1982, vol. 1, p.367.

⁸ K.N. Chaudhuri, *The Trading World of Asia and the English East India Company 1660-1760*, Cambridge, 1978, p.178.

⁹ T. Raychaudhuri and I. Habib (ed.), *The Cambridge Economic History of India*, p.369.

¹⁰ For example, the factors of the Dutch East India Company reported in 1671 that copper vessels which were widely used even by the relatively poorer sections of the community were disposed of on a large scale during the Bihar famine of that year. *Algemeen Rijksarchief* (ARA), Hugli to Batavia 3.8.1671, *Verenigde Oost Indische Compagnie* (VOC) 1284, f. 1857.

¹¹ For details, see Om Prakash, *The Dutch East India Company and the Economy of Bengal, 1630-1720*, Princeton, 1985, Chapter 8.

¹² W.H. Moreland, *From Akbar to Aurangzeb: A Study in Indian Economic History*, London, 1923, pp.178-179.

¹³ W.H. Moreland, *From Akbar to Aurangzeb*, pp.178-179. The evidence cited by Moreland was a petition in December 1658 by the English factors stationed at Hugli asking for an increase in the allowance for housekeeping charges on account of an alleged trebling in the prices of provisions over the preceding few years (W.H. Moreland, *From Akbar to Aurangzeb*, p.179). The desirability of refraining from accepting such casual and motivated pieces of evidence as conclusive is suggested by the following statement of an essentially similar variety. In November 1661, the English factors stationed at Madras wrote: 'Neither may you ever expect that the commodity (taffetas) can be made here to be afforded as reasonably as in Bengal, **for all provisions of victual, when at the cheapest is here three times dearer than in Kasimbazar and Hugli, where these taffetas are made**'. (spellings modernized and emphasis added) (W. Foster (ed.), *English Factories in India, 1661-1664*, p.65). This statement might, of course, be totally unreliable since it too might have been motivated by an attempt on the factors' part to conceal their inefficiency (or corruption) in not being able to procure textiles locally at reasonable prices. But taken at its face value in conjunction with the statement by the factors at Hugli, it suggests the highly unlikely situation of the prices of provisions in Bengal in, say, 1650 being on the average only one ninth of those in Madras, assuming, of course, that the Madras prices did not rise between 1650 and 1661. The purported rise in the Bengal prices in the 1650s may indeed never have taken place. One is then forced to conclude that in order to establish a

significant change in the prices of provisions in Bengal in the 1650s, one needs evidence more solid than that provided by Moreland.

¹⁴ T. Raychaudhuri and I. Habib (ed.), *Cambridge Economic History of India*, pp.372-374.

¹⁵ *Ibid.*, p.373.

¹⁶ H. Van Santen, *De Verenigde Oost Indische Compagnie in Gujarat en Hindustan, 1620-1660*, Leiden, 1982, p. 100.

¹⁷ H. Van Santen, *De VOC in Gujarat and Hindustan*, pp.90-98.

¹⁸ For a detailed analysis of this argument, see Om Prakash, *The Dutch East India Company*, ch. 8.