

Long Waves Of Silk Price In Bengal During 17th –18th Centuries

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Abstract

This article sheds light on the standard of living in the early modern Bengal by analysing the trends of price and wages for raw silks, which generated substantial income in this province. The period of study is roughly from 1600 to 1820. Dividing this span into three sub-periods, 1600-1660, 1660-1757 and 1757-1820, it identifies the movement of silk price, and analyses them on the basis of contemporary data and information. Relevant statistics have been collected both from primary and secondary sources, and they are crosschecked as far as possible. Since the incidence of hired labour was scanty before 1757, the issue of wage rate is taken up only for the post-1757 period. This study shows that the silk price was cheap in Bengal during the first quarter of the seventeenth century, and became cheaper in the second quarter. From the mid-1700, however, it rose steadily through 1757 with an intermittent state of stability during 1708-1743. The rise in price continued during the colonial regime with an interception during 1783-1810. The wage rate also went up in this duration both for winders and spinners. This article argues that the inflow of silver in Bengal explained the movement of price during 1660-1757. Though the flow dried up in the post-Plassey days, the industry did not face any liquidity problem since the East India Company financed the silk trade by the revenue proceeds of Bengal.

Both cotton and silk textiles generated substantial income in early modern Bengal. Unable to work in field under sultry sun, her majority farmers carried out this industry involving family members to supplement the

subsistence income from agriculture.¹ There were also dominant castes specialising in this industry, who were ‘next to the scribe, and above all the mechanics.’² They together constituted almost the entirety of the contemporary village population. “[I]n the province of Bengal”, wrote Robert Orme in 1782, “it is difficult to find a village in which every man, woman, and child is not employed in making a piece of cloth.”³ The industry’s pre-eminence in finer products, however, ensured high value addition. In the domestic market, those finer fabrics received support from the social custom that distinguished dresses only in point of the fineness of linens, rather than any auxiliaries like ornaments. The supply-side factors were reportedly the state patronage,⁴ regional specialisation in fabrics, the family-based apprentice system, and above all, the exquisite finger-feelings of the Bengali artisans who could differentiate ‘twenty different degrees of fineness’⁵ in a single pod of raw silk. Because of these characteristics, the industry acquired a determining edge for living standard in Bengal during the early modern era. Recognising that an industry’s income generation is largely determined by its product price, the present study seeks to shed light on the contemporary standard of living by way of analysing the price movement of raw silk in Bengal during the seventeenth-eighteenth centuries. Since the incidence of hired labour was almost absent in this province prior to 1757,

¹ D.A.Farnie, *The English cotton industry and the world market, 1815-1896*, Oxford, 1979, p.102

² Robert Orme, *Historical fragments of the Mogul empire, of the Marattoes and of the English concerns in Indostan, from the year 1650*, New Delhi, 1974 (originally published in 1782), p.263

³ *ibid*, p.263

⁴ Orme wrote, “[C]loth being the staple of the trade of Indostan, and trade in general being better encouraged than it usually in a despotic State; such proceedings [coercion by the state machinery] would too much injure the public revenue... This manufacture is therefore less liable to outrages, than any other trade; and hence another cause of its improvements.” *Historical fragments of the Mogul empire*, p.264

⁵ *ibid*, p.265

the question of wage was not then much relevant. We, however, take up the issue for the post-1757 period when the employment of hired labour got momentum under the aegis of the English East India Company as well as private enterprises.

The organisation of this article is this. Section I seeks to identify the level of silk price in Bengal prior to 1660, and Section II examines its trend during 1660-1757. Section II also seeks to account for the general upsurge in the price that took place in that period. The period 1757-1820 is dealt in Section III, where trends of both price and wage are identified and analysed. Section IV concludes.

I

Writing on the prices of textile dresses in the royal wardrobe during the reign of Akbar, Abu-l Fazl noted, "Experienced people inquire continually into the prices of articles used both formerly and at present, as a knowledge of the exact prices is conducive to the increase of the stock. ... [T]he prices became generally lower. Thus a piece woven by the famous Ghiyas-i Naqshaband may now be obtained for fifty muhrs, whilst it had formerly been sold for twice that sum; and most other articles have got cheaper at the rate of thirty to ten, or even forty to ten."⁶ Textile prices thus fell by 66-75 per cent in Northern India during the reign of Akbar. For silk dresses, it reflected the scenario in contemporary Bengal since this province then dominated the silk market at Agra. John Kenn of English East India Company confirmed this in 1661. He observed, "According as this silk sells in Agra, so the price of silk in Kasimbazar riseth and falleth. The exchange of money from Kasimbazar

⁶ Abu-L Fazl Allami, *The Ain-I-Akbari*, v.1, Calcutta, 1939, p.94

to Patna and Agra riseth and falleth as the said silk findeth a vent in Patna and Agra.”⁷ Several documents of English Factories since 1618 underscore a high degree of correlation between silk-prices in Bengal and Agra.

English factory records themselves speak for low silk prices in Bengal. According to a factory letter of 1619, Bengal silk was priced at ‘about 15 or 16 pag[odes] per maen, and that about 26 lbs. English, will come to bee about 5sh [illing] per lbs.’⁸ Another document of 1622-23 quotes its price at ‘51/8 rupees gross seare of 34½ pices weight per seare.’⁹ For each *seer* equivalent to 34½ dam, a copper coin of about 324 grains each, 1 *seer* = 1.58 lbs¹⁰ so that the silk price was Rs3.24 per lb in 1622-23, or 7s 3d at Re1 = 2s 3d.¹¹ A price range of 5-7 shilling per lb is thus evident in the sources for the first quarter of the seventeenth century.

These prices were considered ‘wondrous cheap’ in the context of India’s up-country markets, and more so internationally. Buying at these prices the up-country traders reaped around 35 per cent profit margin, net of transportation and other incidental charges. A business communiqué from English Factories in 1635 notes, “The silk from Agra belonging to Jadu has made 25 per cent. profitt, and might have made 10 per cent. more had it not got wet during the voyage. ... On small quantities (about 100 maunds of this

⁷ Register of papers relating to the English and Dutch East Indies, 1632-1735, British Museum, Add. MSS,34, 123. Also available in C.R.Wilson, The early Annals of the English in Bengal, New Delhi, 1983 (reprint), v.1, p.376

⁸ Letter of W. Methwold, 7 Dec1619 in William Foster, The English factories in India, v.1, 1618-21, Oxford, 1906, p.153

⁹ William Foster, The English factories in India, v.2, 1622-23, p.193

¹⁰ During the period of Akbar, the *ser* was fixed at 30 dam, which gives 1 *ser* = 1.375 lbs. In 1619, Jahangir enforced a *ser* to weigh 36 dam so that each *ser* comes to 1.65 lbs. See W.H.Moreland, From Akbar to Aurangzeb: A study in Indian economic history, Delhi, 1993 reprint, pp.334-335

¹¹ *ibid*, p.329

place), yearly brought from Bengala, good profitt might arise..”¹² As the cheapness manifested more in the global market, the English Company used to purchase it at the upper end of the ruling price 5-7s a pound, noted above. This is evident in one of the letters of 1619. It notes, “[T]he Company desired great store [of Bengal silk], soe that it might be had in longe skeins, and at or below 7s. the pound.”¹³ In contrast, Britain’s procurement from other sources, especially from Persia, shows a range of 26-32s per pound during 1614-28 (vide Table 1)

Table 1: Import price of silk (other than Bengal) in Great Britain

Year	Price		Year	Price	
	s	d		s	d
1614	25	1	1629	24	0
1615	31	5	1636	21	3
1619	26	10	1637	23	0
1622	27	0	1639	18	0
					to
				18	4
1626	26	8	1640	17	0
					to
				17	2
1628	28	8	1641	15	0
					to
				18	6
			1650	20	2

Source: Bal Krishna, Commercial relations , pp.99-100

Table 1 underscores a falling global trend in silk prices during the second quarter of the century. From 28s 8d per pound in 1628, the price of

¹² Letter of W.Fremlen and J.Spiller dated 12 Dec. 1635, in William Foster, The English factories in India, 1634-36, p.131

¹³ Letter of F.Fettiplace, R.Hughes and J.Parker dated 15 Dec 1619 in William Foster, The English factories in India, 1618-21, p.161

Britain's import consignments fell almost steadily to 15s-18s 6d per pound in 1641. It was 20s 2d in 1650. Following this global trend, the silk price moved downwards in Bengal. According to a document of 1634-36, "Silk may there [in Bengal] be bought likewise yearly, to a great summe, at 4 in 5 [anam]s the English pound."¹⁴ It comes to 2¼ s a pound. The low price evidently continued through the 1650s. Two independent secondary sources reveal the price at Rs85-90 per man in 1650,¹⁵ Rs200 per bale in 1658¹⁶ and Rs90-100 per man in 1659.¹⁷ These are equivalent to about 3s-3s 3d per pound, 3s 2d per pound and 3s 3d-3s 7d per pound respectively at 1 bale = 143 lbs.¹⁸ Bal Krishna, however, reports the price at 7s per lb for 1657.¹⁹ Given the contemporary prices in Bengal and also the international price trend, it does not seem to be a representative price. It reflected perhaps the purchase in an inopportune market condition.

Both demand and supply factors caused the silk price to be low in Bengal. The most prominent supply-side factor was perhaps the low cost of provisions. Around the mid-seventeenth century, Bengal could evidently afford rice, butter, oil and wheat 'all at half the price or little more that they are in other parts [of India]'²⁰. The hypothesis of cheaper provisions was also corroborated by Bengal's regular export of those commodities to other provinces as well as 'Sumatra, the Moluccas, and all the islands of Sunada'. "[T]o all" these countries, F.Pyrard (1607-10) describes, "Bengal is a very

¹⁴ William Foster, *The English factories in India, 1634-36*, p.42

¹⁵ Bal Krishna, *Commercial relations between India and England*, London, 1924, p.99

¹⁶ W.H.Moreland, *From Akbar to Aurangzeb*, p.139

¹⁷ *ibid*, p.75

¹⁸ *ibid*, p.340

¹⁹ Bal Krishna, *Commercial relations*, p.99

²⁰ William Foster, *The English factories in India*, v.10, pp.196 and 306, quoted in W.H.Moreland, *From Akbar to Aurangzeb*, p.179

nursing mother who supplieth them with their entire subsistence and food.”²¹ F.Bernier (1656-68) notes that Bengal supplied rice to Patna, Masulipatam, Ceylon and the Maldives.²² To explain Ceylon’s import of rice from Bengal, rather than the nearby port of Masulipatam, Moreland explains, “The only reasonable answer seems to be that the prime cost of provisions in Bengal must have been so much lower as to cover the increased charge for transit...”²³ Because of cheaper provisions, however, Bengal artisans, especially those totally dependent on this craft, could supply their produce at lower prices.

Another explanation might have been the employment of family labour in the industry - the engagement of artisans’ wives in winding and spinning,²⁴ and their children in sundry affairs. Apart from low cost implication of family labour vis-à-vis hired ones, this custom enhanced the family income, and enabled artisans to subsist at lower personal incomes. This follows from Adam Smith’s analysis of subsistence income. He believes, “A man must always live by his work, and his wages must at least be sufficient to maintain him. They must even upon most occasions be somewhat more; otherwise it would be impossible for him to bring up a family.”²⁵ The employment of family labour thus reduced the subsistence income in the industry. Lastly, the industry’s low investment requirement also contributed to a low supply price. Silk manufacturing in Bengal involved very rudimentary equipment which village artisans could themselves manufactured and repaired. Orme notes, “[I]t is a matter of fact, that the tools which they use are as simple and plain as they can be imagined to be.

²¹ F.Pyrard, *The voyage of Francois Pyrard of Laval to the East Indies, the Maldives, the Moluccas and Brazil (1607-1610)*, London, 1887-90, p.327

²² W.H.Moreland, *From Akbar to Aurangzeb*, p.180

²³ *ibid*

²⁴ Robert Orme, *Historical fragments of the Mogul empire*, p.265

The rigid, clumsy fingers of an European would scarcely be able to make a piece of canvas, with the instruments which are all that an Indian employs in making a piece of cambric.”²⁶

Market also remained dull for the industry during the first half of the seventeenth century as it was yet to receive the patronage of foreign buyers. The global market was then dominated by Persian silk under the Dutch Company in the main, who introduced Bengal silk in Japan only at the fag-end of this period.²⁷ European trading houses were virtually ignorant of Bengal’s silk districts. A letter of English Factories in 1622-23 notes, “Wee are glad Wee are acquaint of further search after Beng[ala] silke, whereunto wee weare somewhat ingaged, for beinge [m]islead through a veyne promyse of an unable merchante to write of some large hopes of good quantetyes procurable in these parts, which after soe longe expectacion vanisheth into smoke, for here seldome comes anye eyther in itt’s quantety or condicion worth the surveigh...”²⁸ Prior to 1650 the Dutch Company traded Bengal silk annually within 15,000-20,000 the Dutch pound involving no more than ten thousands of rupees.²⁹ Performance of the English Company was still worse with only one-sixth of their small capital in this trade in 1651.³⁰ There were, indeed, up-country traders like Gujratis who traded Bengal silks in Agra, Delhi, Lahore, Surat etc. But competition was lacking because of handful traders and ignorance of silk artisans about the ruling price in distant markets. Moreover, India’s domestic market was restricted during the Mogul period because of a ban on indiscriminate uses

²⁵ *ibid*

²⁶ Adam Smith, *The wealth of nations*, E.Cannan (ed), New York, pp.67-68

²⁷ Om Prakash, *The Dutch East India Company and the economy of Bengal, 1630-1720*, Bombay etc, 1988, pp.184-185

²⁸ Letter of W.Methwold and F.Futter at Masulipatam to Surat, in William Foster, *The English factories in India*, v.2, 1622-23, c.2

²⁹ Om Prakash, *The Dutch East India Company*, p.185

of silk dresses. Abu-I Fazl notes, “His Majesty also ordered that people of certain ranks should wear certain articles; and this was done in order to regulate demand.”³¹ Although silk dresses were customary to wear in religious festivals among the cross-section of the Hindoos, they were regular dresses only among the upper classes of the society.

II

Bengal silks got a wider market during 1660-1757 thanks to the Dutch and English East India Companies who set up their permanent factories in Bengal around the mid-seventeenth century. The Dutch introduced it first in Japan, and subsequently in Europe, giving the article an important space in their trade.³² The English Company, however, ventured it to the European market from the beginning. Europe accepted Bengal silks quickly because of the indifferent quality and higher costs of Persian silk that resulted from the state monopoly and ‘internal revolutions, disorder and anarchy’³³ during the second half of the seventeenth century. Silks from Italy, France and China, the other competitors of repute, were superior to Bengal silks, but received only marginally higher prices in the market.³⁴ On account of its substantially lower cost price, traders earned a higher profit margin in Bengal silk, and therefore gave it a place of prominence.

K.N.Chaudhuri³⁵ has constructed a time series of price for Bengal silk during 1669-1760 by deflating the in-voice values of British silk import from

³⁰ Bal Krishna, Commercial relations, p.99

³¹ Abu-L Fazl Allami, The Ain-I-Akbari, Ain 31, p.94

³² Om Prakash, The Dutch East India Company, pp.20-21

³³ Bal Krishna, Commercial relations, p142

³⁴ Om Prakash, The Dutch East India Company, pp. 54-55

³⁵ K.N.Chaudhuri, The trading world of Asia and the English East India Company, 1660-1760, New Delhi, 1978, pp.533-534

Bengal. They thus represent the average c.i.f. prices of Bengal silks in England. Susil Chaudhuri, however, criticises the series for ignoring the product variety, the fineness of the product and their recolta. He believes, "If all these factors are not taken into consideration in minute details while working out the cost price, the results are bound to be misleading."³⁶ The product variety was, however, determined by the place of manufacture and the recolta by the season of manufacture. Since the proportions between the seasonal and annual productions and between the district-level and province-level productions remained fairly stable in the long run,³⁷ we may reasonably assume a stable composition of total output in respect of product variety and recolta. It was also stable from the viewpoint of fineness since the proportion of 'head' or 'belly' in green cocoons that determined the fineness of the final output, was constant. Hence, there should exist one-to-one relation between the average price and the quantity of output so that the concept of average price holds theoretically sound. Again, Britain's import composition of raw silks in terms of these variants seems fairly stable as it was determined by consumer demand and the state of technology, both of which were constant over the long-run period. Thus, for example, England imported 'head' and 'belly' by 4:5 for a long time.³⁸ Regarding the product variety, the only significant change that has been reported was the more import of *Gujrati* silk (a finer variety manufactured in Kasimbazar) in 1735 when the taste was altered and the technology became supportive.³⁹ Under these conditions, the average prices, as worked out by K.N.Chaudhuri, bear a unique relation with the quantities of export, and are fairly representative of

³⁶ Sushil Chaudhury, *From prosperity to decline: Eighteenth century Bengal*, New Delhi, 1995, p.284

³⁷ The output of November and March band silk constituted about two-thirds of the total output in a year. See Sushil Chaudhury, *From prosperity to decline*, p.224

³⁸ Bal Krishna, *Commercial relations*, p143

the ruling prices in Bengal. In contrast, a randomly chosen price at any given point of time in a year may be biased in any direction depending upon the specific demand and supply configurations at that point of time. We, therefore, rely here primarily on K.N.Chaudhuri's price statistics, and corroborate them, wherever possible, by data from other sources. The question of identifying relevant market forces behind the change in price is settled here on the basis of the quantity of export. A rise in price associated with higher volume of export is considered an outcome of higher market demand whereas the supply factors are held responsible when a rise in price is associated with a lower export volume.

From a range of 3-4 shilling a pound in the 1650s, as revealed in the previous section, K.N.Chaudhuri's estimate shows that the average price of Bengal silk rose to 5s a pound in 1669 and 6s 2d in 1670. For the quinquennium 1669-73 as a whole, the average price stood at 6s 7d per pound (vide Table 2), almost double the figure a decade ago. K. Glamann also notices this rise in price. According to him, the price for each pound increased from 2.82fl in 1649 to 4.11fl in 1669 and 4.09fl in 1670.⁴⁰ Table 2 highlights a continuous rise in price over the following decade, 1674-83, which stabilised above 7s a pound during 1684-93. Data provided by Sushil Chaudhury show that the rise was from Rs155 per maund in 1663-64 to Rs217 per maund in 1676-77 and culminated at Rs298 per maund in 1682-83.⁴¹ This steep rise is explained partly by the failure of Persian silks in the European market, which Bengal swiftly grabbed.⁴² The other part of the explanation is that this period was characterised with 'an almost

³⁹ Sushil Chaudhury, *From prosperity to decline*, pp.225-226

⁴⁰ K.Glamann, 'Bengal and the world trade about 1700', *Bengal Past and Present*, v.76, pt.1, 1957

⁴¹ Sushil Chaudhury, *Trade and commercial organisation in Bengal, 1650-1720*, Calcutta, 1975, p.251

revolutionary change⁴³ in the European fashion whereby silk got increasing preference to traditional woollen stuffs. By virtue of its cheapness, Bengal silk mopped up the major stake. This was true both for Holland and England. In 1691, Bengal raw silk accounted for 95 per cent of total silks sold by the Dutch Company in Amsterdam.⁴⁴ Regarding the British trade Bal Krishna remarked, "This trade was, in fact, so vigorously pushed up that during the next five years [1680-81 to 1684-85] an unparalleled advance was made in the quantities to be procured in Bengal. In the earlier or subsequent history of the Company up to the Battle of Plassey, such extensive amounts were never ordered."⁴⁵ The contemporary rise of silk price in Bengal was the reflection of these events.

Table 2: Quinquennial average of silk price in Bengal, 1669-1759

Period	Average price		Period	Average price	
	s	d		s	d
1669-73	6	9	1714-18	9	6
1674-78	7	8	1719-23	8	2
1679-83	7	11	1724-28	8	1
1684-88	7	3	1729-33	10	4
1689-93	7	7	1734-38	9	3
1694-98*	6	8	1739-43	9	5
1699-1703	10	5	1744-48	12	3
1704-08	11	10	1749-53	14	3
1709-13	9	2	1754-59 [§]	16	5

*3 years' average \$ Excluding 1757

Source : Calculated from K.N.Chaudhuri, The trading world, pp.533-34

⁴² Bal Krishna, Commercial relations, pp.96-98, 141-2

⁴³ Om Prakash, The Dutch East India Company, pp. 201-203

⁴⁴ ibid, pp.210-211

⁴⁵ Bal Krishna, Commercial relations, p142

After a lull during 1694-98, the price of Bengal silk surged again, reaching at 10s 5d a pound during 1699-1703 and 11s 5d during 1704-08.⁴⁶ This phenomenon was perhaps due to supply bottlenecks as the rise in price was associated with a fall in business volume. Whereas Great Britain imported annually 88,984 great lbs. during 1679-83, her import was 85,924 great lbs per annum during 1698-1703 and 32,973 great lbs. during 1704-08. When the price was at the peak of £1 1s 7d per pound in 1700, the quantity of her import was as low as 2,601 great lbs. The Dutch Company documents also confirm a shortage. In 1701, their Directors communicated, "The small amount [of Bengal *mochta* silk] received has inconvenienced the producers so much that a number of manufacturing units had to stop production. The price of this variety has gone even beyond that of the best grade *tanny* silk."⁴⁷ These bottlenecks seem to have been the outcome of the revolt by Sobha Singh, the *Zaminder*, who kept the province at bay during 1695-97. In fact, the English Company could not import a single ounce of Bengal silk in 1696 since both Kasimbazar and Radhanagar were in grave disorder. Subsequent events were equally unpleasant. The new *Subahdhar* Prince Azim-us-Shan who controlled the revolt involved substantially in personal trade. He extorted goods from merchants and artisans, destroying the business of both English and Dutch Companies. The English Company failed to undertake silk business in 1699 also. The disorder came to an end only after the intervention of the Emperor who reprimanded the *Subahdar* and reduced his rank by 1000 horses.⁴⁸

The price scenario in Bengal stagnated for the next 35 years. It gravitated around 9s 5d during 1709-43 with slight downward tilts during

⁴⁶ K.N.Chaudhari, *The trading world*, pp.533-534

⁴⁷ Quoted in Om Prakash, *The Dutch East India Company*, p.217

⁴⁸ Abdul Karim, *Murshid Quli Khan and his times*, Dacca, 1963, p.3

1719-28 and upward deviations during 1729-33. Table 2 shows that the average price rose from 8s 1d during 1724-28 to 10s 4d during 1729-33. The rise in price during this period is confirmed in other sources also. A British correspondence of 1733 reveals, for example, that the price of November *band* silk was so high that both *Gujrati* merchants and the Dutch Company withheld their procurements till the release of March *band* output.⁴⁹ Again in 1731, the Kasimbazar Council wrote, “[It was] not in their power to command the [silk] market which will rise according to demand there is.”⁵⁰ The stagnation of silk price during 1733-45 is, however, confirmed by the price statistics provided by Susil Chaudhury (vide Table 3).

A steady rise in price since 1744-48 is evident in Table 2. From 9s 5d during 1739-43, the price per pound increased to 12s 3d during 1744-48, 14s 3d during 1749-53 and 16s 5d during 1753-59. Table 3 corroborates this upward trend for 1733-47. In that table, the percentage increase is 37.84 for November *band*, 54.27 for the *Gujrat* variety and 66.96 for the Kumarkhali variety. It, however, shows a downward drift in price since June 1748 ; but, for the reasons stated above, we rely on Table 2.

⁴⁹ Bengal Public Consultations, v.8, ff.381-81vo, 22 March 1731; quoted in Sushil Chaudhury, *From prosperity to decline*, p.235

⁵⁰ Quoted in Sushil Chaudhury, *From prosperity to decline*, p.228

Table 3: Price statistics for Bengal Silk, 1733-53

Date	Variety of silk	Price per seer (Rs.As)		Date	Variety of silk	Price per seer (Rs.As)	
March 1733	November <i>band</i>	5	12	Oct. 1749	November <i>band</i>	7	-
	Gujarat	6	6		Gujarat	8	9
	Kumarkhali	5	12		Kumarkhali	6	13
Jan. 1745	November <i>band</i>	5	14	Feb. 1751	November <i>band</i>	8	-
	Gujarat	6	7		Gujarat	8	9
	Kumarkhali	5	11		Kumarkhali	7	13
April 1747	November <i>band</i>		4	March 1752	November <i>band</i>	7	14
	Gujarat	9	13		Gujarat	8	7
	Kumarkhali	9	1		Kumarkhali		-
Jan. 1748	November <i>band</i>		4	April 1753	November <i>band</i>	7	12
	Gujarat	9	13		Gujarat	8	5
	Kumarkhali	9	1		Kumarkhali		-
June 1748	November <i>band</i>	9	1				
	Gujarat	10	1				
	Kumarkhali	7	5				

Source: Susil Chaudhury, From prosperity to decline, p.294

Supply rigidities perhaps led to this unprecedented price rise as a reduced volume of supply accompanied it. British annual import of this commodity is on record to decline from 161,565 great lbs. during 1734-38 to 12,478 great lbs. during 1739-43. It was 96,927 great lbs. during 1744-48 and 51,167 great lbs. during 1749-53.⁵¹ The Dutch import also suffered in this period. From 67,064 ponds per annum during 1730/31-1734/35, it fell to 61,689 ponds per annum during 1740/41-44/45.⁵² Apart from the factors like Anglo-French war and the hostile attitude of the local government, which Bal

⁵¹ K.N.Chaudhari, The trading world, pp.533-534

⁵² Sushil Chaudhury, From prosperity to decline, p.252

Krishna has identified,⁵³ the repeated Maratha invasions in the 1740s must have contributed to this event. Contemporary business correspondences abounded in the reports of the Marathas' annual plundering of Bengal's silk *aurungs* that forced their inhabitants to desert. In 1746, for example, the silk merchants informed Kasimbazar Council, "The Marattoes having entered this province and plundered three of the principal places (out of four) where putney is produced has occasioned so great a scarcity..."⁵⁴ In another occasion, an English factor in Kasimbazar wrote to the Fort William Council, "[The rise in silk price] was owing to the Marathas constantly entering Bengal, plundering and burning the people's houses and destroying the chief *aurungs* from whence the workmen have fled to distant parts."⁵⁵ Devastating the production centres this annual event marked the 1740s as a period of skyrocketing price.

For accommodating this period of unprecedented price rise, K.N.Chaudhuri's estimate of the price trend is often criticised to suffer from an upward bias. Recognising this criticism, we divide the period 1669-1760 into three sub-periods, i) 1669-1708, ii) 1709-1742 and iii) 1743-60. Linear trend values for silk price in these periods, estimated by the ordinary least square method, are shown below.

⁵³ Bal Krishna, Commercial relations, p.198

⁵⁴ Quoted in Sushil Chaudhury, From prosperity to decline, p.231

⁵⁵ Quoted in Sushil Chaudhury, From prosperity to decline, p.231-232

Table 4: Linear trend values for silk prices in Bengal, 1669-1760

Period	Beta coefficient	Standard error	t- statistic (sig. level)	Mean price (in s./lb)	Annual growth rate at the mean price (in%)
1669-1708	0.1120	0.037	3.027 (0.005)	8.39	1.33
1708-1743	0.0181	0.020	0.921 (0.364)	9.11	0.20
1743-1760	0.7920	0.197	4.030 (0.001)	15.39	5.15
1669-1760	0.0919	0.014	6.497 (0.001)	10.79	0.85

With the mean price at £0.5065, K.N.Chaudhury's trend coefficient, viz. 0.0043,⁵⁶ indicates an annual growth rate of 0.849 per cent for 1669-1760 as a whole, similar to our estimate in Row 4 in Table 4. The annual rate of price rise is worked out at 1.33 per cent for 1669-1708 and 5.15 per cent for 1743-60, both at their respective means. The rate of increase is thus higher at both ends of the period compared to the average rate. For 1709-43, however, the price grows at as low as 0.20 per cent and that too is also statistically insignificant at 0.36 points. This signifies a stagnant state of the price.

The trend analysis thus establishes that the silk price in Bengal grew steadily for 39 years during 1669-1708, and then stagnating over 1708-43 with a slight upward tilt, accelerated its momentum during 1743-60. We argue here that this underlying secular trend was due to rising effective demand that resulted from increasing flow of specie, mainly silver, into this province. This line of argument is based on two premises, both of which are

⁵⁶ K.N.Chaudhari, The trading world, p.104

studied at length in the recent literature.⁵⁷ One is related to the question of inflow of specie during the seventeenth-eighteenth centuries, and the other involves the hypothesis of a rise in price as an outcome of increased precious metal.

While analysing the impact of the discoveries of American mines and the passage round the Cape on the money supply in Bengal, the English Company's financial expert James Grant estimated in 1784 that during the century succeeding 1582 Bengal received 'twenty lacs [of rupees] out of the Manila treasure, and surely thirty more may be thought rather a scanty allowance for the direct commerce with Europe...'⁵⁸ Much of these added specie perhaps came after 1650 with the advent of European houses in Bengal trade. F.S.Gaastra⁵⁹ has added another dimension to this flow by studying the inflow of Japanese silver that the Dutch Company increasingly poured in Bengal in exchange of silk from the mid-seventeenth century onwards. It stood, according to Om Prakash, at the equivalent of 12.8 tonnes each year during the 1660s, 20 tonnes during the 1690s and 28.7 tonnes during the 1710s.⁶⁰ He has found that during 1660-1720 the Dutch import consisted of 87.5 per cent bullion and the rest in goods. Using K.N.Chaudhuri's data, he has estimated the share of bullion at 79.4 per cent in the English Company's trade during the same period. Table 5 presents

⁵⁷ For a review of literature on this topic, see M.N.Pearson, 'Asia and world precious metal flows in the early modern period', in John McGuire et.al. (eds), *Evolution of the world economy, precious metals and India*, Oxford etc. 2001, pp.21-57

⁵⁸ James Grant, 'Political survey of the Northern Circars', Fifth Report of the select committee of the House of Commons, App.13, in W.K.Firminger (ed) *Affairs of the East India Company*, Delhi, 1984 (reprint), p.50

⁵⁹ F.S.Gaastra, 'The Dutch East India Company and its intra-Asiatic trade in precious metals', in W.Fischer et.al.(eds), *The emergence of a world economy, 1500-1914*, Wiesbaden, 1986

⁶⁰ Referred in M.N.Pearson, 'Asia and world precious metal flows', p.44

the actual amount of bullion import in Bengal by the English Company between 1708 and 1756.

The table shows that there was a steady spurt of bullion import in Bengal by the English Company. It rose from £71,252 during 1708-17 to £133,153 during 1718-27 and culminated at £203,959 during 1748-56. Harry Verelst, the Governor, estimated in 1772 that the annual inflow of specie in Bengal prior to 1757 amounted to eight million sterling pound.⁶¹ The Dutch Company annually imported £300,000, the English Company £250,000, the French Company £200,000 and the Danes £30,000. Bengal's trade with Persia and the Red Sea brought in addition £180,000 per annum in that period.

Table 5: Import of bullion in Bengal by the English Company during 1708-56 (in Sterling pound)

Year	Import	Year	Import	Year	Import	Year	Import
1708	70,133	1721	128,658	1733	127,529	1745	112,342
1709	41,856	1722	162,215	1734	-	1746	89,140
1710	47,745	1723	132,253	1735	141,918	1747	488,362
1711	47,044	1724	152,890	1736	156,270	1748	133,016
1712	42,704	1725	126,113	1737	84,038	1749	273,732
1713	65,044	1726	183,629	1738	103,314	1750	368,528
1714	57,116	1727	94,569	1739	109,472	1751	331,269
1715	120,917	1728	225,772	1740	156,669	1752	201,809
1716	139,520	1729	131,944	1741	143,328	1753	171,384
1717	140,441	1730	109,621	1742	107,475	1754	157,656
1718	212,359	1731	-	1743	92,796	1755	40,820
1719	77,319	1732	86,355	1744	-	1756	157,415
1720	61,524						

Source: Bullion & Merchandise exported by the Company to India & China, Paper no. 8, PP.HC.1812-12, V.8

⁶¹ Harry Varelst, A view of the rise, progress, and present state of the English government, including a reply to the misrepresentation of Mr. Bolts, and other writers, London, 1772

While maintaining that the flow of specie augmented in India during 1650-1750, Om Prakash believes that it had no perceivable impact on the ruling price.⁶² But three contemporary events should be noted in favour of the hypothesis of rising price. First, as Grant noted, the revenue assessment in India was increased by 25-50 per cent during the second half of the seventeenth century, reflecting a rise in the price level. He observed, "This sum [Rs50 lacs, noted above], if it had entirely been thrown into the general circulation, must certainly have more than tripled the existing stock of gold and silver currency, but a considerable portion was undoubtedly secreted, in conformity to the usage of the Hindoo inhabitants. Still, however, the necessaries and luxuries of life acquired a high nominal value; ancient revenue, paid in money by a fixed disproportionate standard, became insufficient, and should have been increasing, agreeably to the change of actual circumstances. Accordingly in the year 1687, in the reign of Alemgeer, we find a large addition had been made to the original assessment of Akbar..."⁶³ Secondly, the price of silver, the standard of Bengal's currency, relative to gold was reduced in this period. The source indicates that the proportion of gold to silver was one to ten in the time of Akbar and one to fifteen in the reign of Alemgeer.⁶⁴ Thirdly, the sicca rupee that had been rated at 40 dams of copper during the period of Akbar 'was reduced by legal valuation to 48 daums'⁶⁵ towards the close of the seventeenth century. The fall in the price of silver 'through most of the seventeenth century'⁶⁶ confirms the hypothesis of rising price in an economy using silver as the metallic standard of money.

⁶² Om Prakash, 'Global precious metal flows and India, 1500-1750', in John McGuire et.al. (eds), *Evolution of the world economy, precious metals and India*, p.73

⁶³ James Grant, 'Political survey of the Northern Circars', p.50

⁶⁴ *ibid*

⁶⁵ *ibid*

An increased flow of specie might increase the price of a commodity in two ways. It might raise the prices of wage-goods, thus causing higher cost price of the commodity. Even if we do not recognise this way of causation, the higher effective demand that follows from added flow of specie is expected to boost up the demand price of the product. This line of causation assumes significance here since much of the specie that flew into Bengal during this period was meant for raw silk. K.N.Chaudhuri's data show that this article accounted for almost a quarter of the English Company's aggregate import from this province. It was also a principal article in the contemporary Dutch merchandise. These companies together raised the effective demand for Bengal silk from the mid-seventeenth century. This is not to deny the role of Indian traders in this business.⁶⁷ From the period much earlier to this, Indian traders from Gujrat, Delhi, Agra, Lahore etc. exchanged precious metal for Bengal silk. Added bullion from European houses, however, enhanced competition among buyers, converting it into a sellers' market.

For the explanation of the price stability during 1708-43, we borrow the thesis of Om Prakash that the rising supply of money in this period was associated with rising output so that the possibility of price escalation was negated. In that case, imported precious metal 'really becomes an instrument of growth with the savings, investment and production in the economy registering an increase.'⁶⁸

⁶⁶ M.N.Pearson, 'Asia and world precious metal flows', p.42

⁶⁷ For a detailed discussion on the role of Indian traders, see Sushil Chaudhury, From prosperity to decline, pp.233-236

III

K.N.Chaudhuri's price series is concerned with the best quality raw silks that were exported from Bengal, and that also at the c.i.f. rate, so that they must score above the ruling rates in Bengal. The average price of raw silks that non-European traders exported from Bengal was, according to W.Aldersay of Kasimbazar factory,⁶⁹ 9s. per pound in 1749-53. From his figures for the value of raw silk and its volume, it appears that the price remained stagnant during 1754-68 at 8s. 7d a pound. Perhaps either of the series was estimated based on the average price prevailing in 1767, viz. 8s 8½d.⁷⁰ Price statistics for five varieties of Bengal raw silks during 1765-71 are presented in Table 6.

Two major conclusions follow from this table. First, an upward trend is distinct in the data. From 7s 6½ d in 1765, the average price per pound rose to 9s. 6d in 1768 and further to 12s. 4½d in 1771. Secondly, the series started with a yawning gap among product varieties with Jangipur silks being priced almost double the prices of silks coming from Rungpur and Comercooly. But by 1771, their prices were almost equalised. The price equalisation perhaps stemmed from standardisation of production techniques thanks to the efforts of the English Company to spread the Italian technology in Bengal. Sources indicate that the Italian method of winding and reeling spread very quickly across this province.⁷¹

⁶⁸ Om Prakash, 'Global precious metal flows', pp.73-74

⁶⁹ Bengal Public Consultations, v.44, 19 June 1769, in K.M.Mohosin, A Bengal district in transition: Murshidabad, 1765-1793, Dacca, 1973, p.33

⁷⁰ Vide Table 2

⁷¹ East India Company, Reports and Documents connecting with the proceedings of the East India Company in regard to the culture and manufacture of cotton-wool, raw silk and indigo in India, 136, p.xii

Table 6: Prices of raw silks in Bengal, 1765-71 (per pound)

Variety	1765		1766		1767		1768		1769		1770		1771	
	s	d	s	d	s	d	s	d	s	d	s	d	s	d
Tanna (factory-wound)	--		--		--		9	4	11	6	12	6	12	6
Paddarpur (Rajshahi)	8	6	8	8	8	4	9	3	9	4 ½	12	4	12	6
Commercolly	7	2	8	2	7	3	7	2	8	0	12	1	12	3
Rungpur	7	3	11	½	6	4	9	4	10	½	11	8	12	2
Jangipur	--		--		13	5	13	0	13	6	12	4	12	6
Average	7	6 ½	9	3 ½	8	8 ½	9	6	10	5	12	3	12	4 ½

Source: Letters to the Court, 11 April 1785

The rise in price continued unabated through 1775, and climbed above 14s. a pound both in 1774 and 1775. This is evident in Table 7, which distinguishes between country silks, i.e. silks wound after the traditional method, and filature silks.

Table 7: Prices of country and filature silks in Bengal, 1774-88 (per pound)

Year	Country-wound					Filature-wound					Grand Average	
	Range		Average			Range		Average			s	d
	s	d	--s	s	d	s	d	--s	s	d		
1774	--			11	4 ½	--			17	6 ½	14	5 ½
1775	10	6	-- 13	12	1	15	7	-- 17	16	4	14	2 ½
1776	10	6	-- 13	12	0	--			--		--	
1777	10	6	-- 13	11	9	13	7	-- 17	15	4	13	6 ½
1778	10	1	-- 13	11	7	14	4	-- 15	15	4	13	5 ½
						16	4	(white)				
1779	--			10	1	14	6	-- 15	14	10	12	5 ½
1780	10	5	-- 14	12	3	14	6	-- 15	14	10	13	6 ½
1781	11	1	-- 14	12	6	14	6	-- 15	14	10	13	8
1783	--			9	6 ½	--			11	2	10	3 ½
1788*	--			8	7	--			10	2 ½	9	5

Source: Letter to the Court dated 11 April 1785 * Proceedings of Board of Trade, Commercial, 14 Oct. 1788

Filature silks in these years had higher prices than the best silk in the pre-Plassey days. Their average price was 17s 6½d per pound in 1774, 16s 4d in 1775, and hovered around 15s during 1777-81 whereas the c.i.f. price in K.N.Chaudhuri's series that represent the best silks of Bengal was 14s 6d per pound during 1750-56. Country silks also became costlier. Their average price moved around 12s a pound during 1774-81 in contrast to 9s a pound during 1749-53, as Aldersay revealed. The post-Plassey period thus witnessed a steady upsurge in the silk price of Bengal.

Several authorities on the late eighteenth century Bengal economy, indeed, notice this phenomenon. Based on the Court's information, P.J.Marshall thus comments that the price of Bengal raw silk 'was said to have risen by 40 per cent between 1765 and 1780'.⁷² K.N.Chaudhuri's series also indicates a higher price of 19s 2d per pound in 1759 and 36s in 1760. Yet another evidence is the government's restriction on the private silk trade from 1766 onwards⁷³ that followed from the Court's apprehension that private traders had been responsible for the price escalation. Regarding the relative price of country silks and filature silks the table indicates that their prices diverged by 25 per cent in 1774. Country silks reportedly got lower prices for their defects like unevenness and multiple ends in skeins,⁷⁴ which European weavers could not smoothly weave. The gap was, however, narrowed down to some extent over the years.

Both the series in Table 7 are seen depressed during 1783-88. The average price for each pound fell from 12s 2d in 1781 to 8s 7d in 1788 for the country silk, and from 14s 10d to 10s 2½d for the filature silk. N.K.Sinha

⁷² P.J.Marshall, *East India fortunes, The British in Bengal in the eighteenth century*, Oxford, 1976, pp.149-50

⁷³ N.K.Sinha, *The economic history of Bengal: From Plassey to the permanent settlement*, Calcutta, 1961, v.1, p.20

⁷⁴ *East India Company, Reports and Documents*, p.iv

has also noted this fall in price. While explaining its implication he points out, “[T]he price of silk fell so low during the years from 1783 to 1787 and the consequent fall in the value of leaf hit the cultivators of mulberry trees so hard that many threw up mulberry cultivation altogether.”⁷⁵ Table 8, however, establishes that the price remained depressed during 1792-1808. The price of *putney* silk, a country-wound assortment of fine and coarse threads that were woven domestically, stagnated in this duration within 8s 4d- 10s 6d a pound. These prices were lower than the level of 1774-81, viz. 11½ s-12½ s a pound for country silks.

Table 8: Price of *putney* silk in Bengal, 1792-1808

Year	Price (per seer of 76 sicca weight)		Price (per pound)		Year	Price (per seer of 76 sicca weight)		Price (per pound)	
	Rs	Ans	s.	d		Rs	Ans	s.	d
1792	7	2	9	0	1801	7	12	9	6½
1793	8	0	10	1	1802	8	8	10	6½
1794	7	10	9	5	1803	8	0	10	1
1795	8	8	10	6	1804	7	0	8	7
1796	7	8	9	4	1805	6	12	8	4
1797	7	8	9	4	1806	8	4	10	4
1798	7	0	8	7	1807	7	10	9	5
1799	6	3	7	6	1808	8	8	10	6
1800	6	6	8	½					

Source: Letter of the Resident, Cossimbazar factory, to the President, Board of Trade, dated 29 December 1809, Proceedings of Board of Trade, Commercial.

For this fall in price, especially from 1789 onwards, contemporary documents point to the French Revolution⁷⁶ and the Napoleon Wars,⁷⁷ which disintegrated the commercial world in the Continent. Besieged of export

⁷⁵ N.K.Sinha, *The economic history of Bengal*, v.1, p.195

⁷⁶ R.C.Rowley, *Report on an inquiry into the utilisation of Indian silk in Great Britain and France*, Calcutta, 1919, p.93

⁷⁷ N.K.Sinha, *The economic history of Bengal*, v.1, p.191

disarrangement and mounting stocks at the warehouse, Britain was compelled to throw Bengal silks into organzine from 1794 onwards. As much as 25,948 lbs. of Bengal silks were converted into organzine in 1796.⁷⁸ The staggering demand that these data reveal explains the depressed prices in Bengal during 1789-1808.

Bengal's export market for silk picked up in 1810, triggering a 7.64 per cent annual rate of growth during the following 15 years.⁷⁹ On the strength of thorough technical and organisational reforms during the second half of the eighteenth century, Bengal silks bid down in the international market the low-price silks from Aleppo, Valentia, Naples, Calabria and other places in the Mediterranean.⁸⁰ Bengal's silks became so convenient to British weavers that they minute in 1808, "RESOLVED UNANIMOUSLY, that the Bengal silk was became highly necessary in many branches of manufacture, and that from experiments lately made, it was found fit for purpose to which it had not before been thought suitable."⁸¹ This prosperous market environment left its impact on the price level. The Company's procurement price of filature silks in Bengal, as Table 9 shows, was 14s 3½d per pound in 1814, 17s 5½d per pound in 1820, and 19s 3d per pound in 1826. The rate of price rise was 22.61 during 1814-20 and 9.50 per cent during 1820-26.

⁷⁸ East India Company, Reports and Documents, App.B

⁷⁹ *ibid*, App.A and F

⁸⁰ East India Company, Reports and Documents, p.xxiv

Table 9: Price of filature silk in Bengal, 1814-26

Year	Price per maund (in Rs)	Price per lb s. d	Year	Price per maund (in Rs)	Price per lb s. d
1814	455	14 3½	1820	558	17 5½
1815	424	13 3½	1821	597	18 7
1816	425	13 3½	1822	590	18 6
1817	481	15 2	1823	591	18 6
1818	504	15 8	1824	612	19 3
1819	532	16 7	1825	594	18 7

Source: Evidence of W. Simon, S.C. on the Affairs of East India Co, PP,HC,1831-32, v 10, pt 1, Q.1085

To analyse the movement of silk wage in Bengal, we note that winders and spinners constituted the main workers in the industry. In 1788, the production of one maund country silk (*putney*) in Rajshahi involved Rs24-4 ans for winding, Rs4-8 ans for spinning, and Rs4 for supervising by *sardars*.⁸² Given that a winder wound 2 *chattaks* (i.e. 1/8 seer) of raw silk,⁸³ his earnings come to 1an 1 pie per day, or Rs2- 5ans per month. Assuming each *sadar* supervised 15 winders, the earning of a *sadar* comes to Rs5-4 ans per month.

A winder in the Company's filature earned less than his counterpart in the private business as his productivity was less because of his nature of job. In the Company's filature, only the finer assortments were selected from the pod whereas *putney* silks contained both fine and coarse threads. A winder's productivity was one seer in 10 days at the Company's filature⁸⁴ as against one seer in 8 days in private establishments. Moreover, a lower wage was paid to the Company's winder. According to the Resident of Rungpur, one seer of raw silk cost 6 ans 4½ pies involving 4 ans 1 pie for

⁸¹ *ibid.* App.C, no.3

⁸² Proceedings of Board of Trade, Commercial, 14 Oct 1788

⁸³ N.K.Sinha, *The economic history of Bengal*, v.1, p.192

⁸⁴ *ibid*

winders, 1 an 4½ pies for spinners and 11 pies for *sadar*.⁸⁵ A winder thus earned 12 ans 3 pies per month producing one *seer* in 10 days, and a *sardar* Rs2-9-3 at his previously stated capacity. With almost double the productivity of a winder, a spinner also earned 12 ans 3 pies per month. Because of lower earnings in the Company's filatures, there was resistance among winders against the emerging factory system during the second half of the eighteenth century.⁸⁶

The wage rates in the silk industry appear to have increased by 1815. We present in Table 10 the wage rates for different categories of workers at the Company's silk filatures in Rungpur and Rajshahi.

⁸⁵ Letter of the Resident, Rungpur factory, to the Secretary, Board of Trade, Proceedings of Board of Trade, Commercial, 10 March 1791

⁸⁶ Indrajit Ray, 'The silk industry in Bengal during the colonial rule: The 'de-industrialisation' thesis revisited', *Indian Social and Economic History Review*, v.42, no.3, 2005, pp.346-349, especially p.349

Table 10: Wage rates in Company's filatures in Rungpure and Rajshahi, 1815

<u>Filature</u>	<u>No of persons</u>				<u>Annual Wage (in Rs)</u>			
	<u>Winders</u>	<u>Spinners</u>	<u>Fireboys</u>	<u>Woodmen & others</u>	<u>Winders</u>	<u>Spinners</u>	<u>Fireboys</u>	<u>Woodmen & others</u>
Rungpur Head factory	340	305	50	90	5,000	6,500	340	1,160
Peergunj Rajshahi	250	250	35	65	3,700	5,300	200	820
Bogra	275	275	45	75	5,000	6,000	200	900
Garrodow	155	155	25	45	2,725	3,800	200	310

<u>Filature</u>	<u>Monthly wage rate (Rs-Ans-Pies)</u>			
	<u>Winders</u>	<u>Spinners</u>	<u>Fireboys</u>	<u>Woodmen & others</u>
Rungpur Head factory	1-3-2	1-12-2	0-9-0	1-0-2
Peergunj Rajshahi	1-3-3	1-12-1	0-7-2	1-0-3
Bogra	1-8-1	1-13-3	0-5-4	1-0-0
Garrodow	2-0-0	1-7-1	0-10-0	0-9-0
Average*	1-5-2	1-13-1	0-8-0	0-15-2

*Weighted average.

Source: Letter to the Board of Trade dated 12 June 1815, Proceedings of Board of Trade, Commercial, 16 June 1815

Against the monthly wage rate of 12 ans 3 pies for both winders and spinners in 1791, Table 10 shows that the winders earned on average Rs1-5-2 per month and the spinners Rs1-13-1 per month in 1815. These represent wage hikes by around 69 per cent and 130 per cent respectively. Two additional points should be noted from Table 10. First, there were variations in the wage rate across the filatures. The rate for the winder varied between Re1-3-2 to Rs2 and that for the spinner between Re1-7-1 to Re1-13. There were variations season-wise also (vide Table 11). Second, wood-men and other coolies, the unskilled workers, were paid near the wage rate of winders, especially in Rungpur. Perhaps the cost of firewoods (about 14ans per seer) was included in it as the wood-men were required to bring those from the forest, as in the case of salt manufacturing.⁸⁷

The steep rise in raw silk prices that Bengal witnessed during 1813-26 was not reflected in the wage rate for winders although the spinners' wage was almost doubled. These are evident in Table 11 that shows the wage rates of different workers at different seasons in the Hurripaul filature around 1830s. The monthly wage rates are estimated in Row 5 assuming, as before, that each winder wound one seer of raw silk in 10 days and that the productivity of a spinner was twice that of a winder.

⁸⁷ Indrajit Ray, 'Imperial policy and the decline of the Bengal salt industry under colonial rule: An episode of de-industrialisation', *Indian Social and Economic History Review*, v.37, no.2, 2001, pp.181-205

Table 11: Wages for 1 seer of raw silk at the Cottorah filature (Hurripaul) around 1830

(Rs-Ans-Pies)

Bund	Winders	Spinners	Water-carriers	Sweepers	Other sundry charges
March, large	0-6-4¼	0-9-7¾	0-1-1 1/3	0-0-2½	0-2-7 1/3
March, small, April, rainy season	0-5-3½	0-7-8¼	0-0-9	0-0-2 1/3	0-3- ¼
October, November	0-6-4¾	0-9-7½	0-1- ½	0-0-2¼	0-6-8½
Average	0-6-3	0-10-1	0-1-2	0-0-2 1/3	0-5-0
Monthly wage rate	1-4-1	2-8-2	0-4-2	0-2-2	0-15-0

Source: East India Company, Reports and documents, App. L, no.6

The winders' monthly wage rate thus remained stagnant at Rs1-4 to Rs1-5 during 1815-30 whereas the wage rate of spinners increased from Rs1-13-1 in 1815 to Rs2-8-2 per month in 1830.

The steady rise in price and wage during 1757-1825 could not be explained by the expansion of the base money as this was the period when the inflow of specie was dried up in Bengal. From the import statistics of the English East India Company, it appears that they did not import a single ounce of silver during 1757-97.⁸⁸ Though the import was resumed in 1798, it was infrequent through 1811. The other European trading houses also stopped import silver as 'they could borrow money [in Bengal] at a low interest and advantageous exchange, on respondentia bonds and bills.'⁸⁹ While the import of specie was thus dried up, the Company financed their China trade from the revenues in Bengal since 1765. In 1766, they exported

⁸⁸ Bullion and merchandise exported by the Company to India and China, the series of Bengal, 1708-1811, Parliamentary Papers, House of Commons, 1812-13, v.8, paper 152

⁸⁹ Harry Varelst, The English government, p.86

Rs2.40 million (i.e. £300,000) from this province.⁹⁰ During 1766-70, a total sum of £1,284,008 was exported 'from the circulating specie of Bengal'.⁹¹ An acute shortage of currency thus followed during the second half of the eighteenth century. In 1768, Bengal Council informed the Court of Directors, "This settlement, for some months past, has, in fact, been in a state of bankruptcy... Even the most respectable of your servants can with difficulty procure silver sufficient for the payment of their servant's wages... Permit us also to refer to the present state of your treasury. You will thereby perceive a total inability to discharge many sums, which you are indebted..."⁹²

The rise in silk price may, however, be explained by the fact that a large sum of money that the Company mopped up by way of revenue in Bengal was directed towards the procurement of silk. In 1776, for example, the Company's investment in raw silk was C.Rs7.40 million out of their total investment of C.Rs16.57 million.⁹³ When the Company's investment was reduced to C.Rs2.59 million (out of C.Rs10.96 million),⁹⁴ we see the price in depression. Again, the buoyancy in silk price during 1813-25 was associated with the Company's skyrocketing investment in its procurement. Their level of investment was, for example, C.Rs4.40 million in 1814, C.Rs6.03 million in 1820 and C.Rs6.68 million in 1822.⁹⁵ There was in addition investment in fixed capital.⁹⁶ These data point out that while other trades in Bengal were languishing for the want of capital in Bengal during the second half of the

⁹⁰ Letter to the Court of Directors dated 24 March 1766 in Harry Varelst, *The English government*, App.3

⁹¹ Harry Varelst, *The English government*, p.85

⁹² Letter to the Court of Directors dated 24 March 1766 in Harry Varelst, *The English government*, App.xvii

⁹³ Proceedings of Board of Trade, Commercial, 29 Oct 1776

⁹⁴ N.K.Sinha, *The economic history of Bengal*, v.1, p.18

⁹⁵ East India Company, Reports and Documents, App.I, no.6, p.95

⁹⁶ Indrajit Ray, 'The silk industry in Bengal', p.354

eighteenth century,⁹⁷ certain branches like silk were flushed with liquidity. That perhaps explains the contemporary movement of silk price and wage in Bengal.

IV

Long waves thus prevailed in the price of Bengal silk during the seventeenth-eighteenth centuries. It was a cheap commodity during the first quarter of the seventeenth century, and became cheaper in the second quarter with a fall in price from 5-7s per pound to 3-4s. The price soared up as silver was increasingly poured in since the mid-1700 at the behest of European companies. It became 6s 9d during 1669-73, 11s 10d during 1704-08 and 12s 3d during 1744-48. The price continued to advance through the colonial regime, although the inflow of species dried up. Since the East India Company purchased silk from revenue proceeds for the purpose of 'remittance', the silk price received due support of effective demand at a time when other trades in Bengal had severe liquidity crunch. Its average price became 14s 5d in 1774, 17s 5d in 1820 and 19s 3d in 1824. Beneath these long waves, however, shorter cycles were periodically formed for bottlenecks, or easiness, of supply (like that in the 1690s) or sluggish foreign demand (as in the course of the Napoleon war). The industry's wage rate also went up during the post-1757 period. The monthly wage for winders rose from 12 ans 3 pies in 1791 to Re1-5-2 in 1815, and that for spinners from 12 ans 3 pies to Re1-13-1. Although winders' wage stagnated thereafter, the wage rate for spinners became almost double by 1830.

⁹⁷ In this respect, Bengal Council once noted, 'Trade is totally put a stop to.' Vide Letter to the Court of Directors dated 24 March 1766 in Harry Varelst, *The English government*, App.xvii