UNIVERSIDAD CARLOS III DE MADRID

Working Papers in Economic History

March 2006 WP 06-03

India's contribution to the British balance of payments, 1757-1812

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DE HISTORIA ECONÓMICA
Universidad Carlos III de Madrid

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October 2005

Forthcoming, Explorations in Economic History

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Acknowledgements

The author is indebted to an anonymous referee for helpful suggestions. Remaining errors and omissions are the author's own.

Abstract

The East India Company's "regulated" trade monopoly more effectively served Britain's national interest during the French wars than might be inferred from contemporary complaints and recent scholarship. The Board of Control's assessment of India's importance to the British balance of payments in the 1780s was well informed and was borne out by subsequent developments. British net inflows from India remained substantial through 1765-1812 and were arguably least dispensable. British trade with Asia most frequently outgrew the worldwide totals and retained some of the acquired gains to the end of the period. The real constraints faced by private traders should be weighed against the external economies and scale advantages rendered by the East India Company to a wider range of British interests.

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1. Introduction

Between 1765 and 1799, a seemingly overriding goal of British Asian policywas to promote the transfer of surplus Indian revenues to Britain through the East India Company's trade monopoly. This government policy was unambiguously communicated to the Company in 1769; it was subsequently enforced with growing empowerment of Governors-General in Bengal and with supervisory bodies in London under Crown control. In the new Charter Act of 1793 Henry Dundas, the influential first President of the London Board of Control between 1784 and 1801, made a landmark decision to perpetuate existing policy. In the face of growing complaints by Company critics, private competitors, and British manufacturers, Dundas chose to uphold the Company's monopoly of British direct trade with both India and China with only moderate concessions to private interests. Dundas's main argument was that the Company's "investment" in Indian goods, in the context of what he described as a "regulated monopoly", remained the safest channel of remittance to Britain. In the background of his decision was a novel perception, alreadyexpressed by Pitt the Younger in 1784, that the importance of India had "increased in proportion to the losses sustained by the dismemberment of other great possessions".[i] As late as 1799, Dundas was still writing of his hopes "for the payment of tribute to this country, through the medium of a beneficial and encreasing commerce".[ii]

How effectively did this policy serve British national interests to the end of the Company's monopoly of British trade with India (1813)? In 1968, Peter Marshall could confidently state that "few economic historians would now argue that [the Asian Empire's] contribution had been of major importance".[iii] Historians' views were naturally influenced by the Company's apparent failure to succeed as a viable corporation in its double role as territorial ruler and commercial operator.

Confronted as it was with corruption and patronage within its own ranks, with stepped-up competition from private traders since 1793, with massive diversion of bullion exports to India from commercial to military purposes since 1798, and with weakening European markets for Indian textiles in the 1800s, the Company saw its home and Indian debts soar to the edge of bankruptcy. The precise determinants of this growing indebtedness must remain obscure owing to an inextricable confusion, in the Company's accounts, between its various administrative, military, and commercial activities.[iv] Meanwhile, the ailing Corporation's image was not enhanced by its seemingly detrimental use of its monopoly privileges. It was argued at various times that the Company restricted supplies and charged extravagant prices; that the shipping services it contracted were unduly costly and inefficient; that its commercial operations in India were a "losing trade"; that its imports of Indian raw materials fell short of British requirements; that Indian textiles unfairly competed with British cotton fabrics; and that the Company's conservative practices stood in the way of British manufacturers' efforts to break into Indian and Chinese markets.[v]

Some of these claims have been challenged by recent work. One obvious testing ground for the Company's commercial operation is the conduct of its trade at Canton, where all foreigners competed on equal terms under the Hong merchants' tight control. It has been shown that the Company's rates of commission were no higher than those charged by private traders; that its profits appear to have been similar; and that the principal tea dealers at the public auctions in London had nothing but praise for the Company's conduct. Any Company advantage as a relatively large buyer in Canton should be weighed against the quantity and quality of the special services it rendered (Mui and Mui, 1984). A second line of enquiry has qualified the perception that the Company's seemingly insignificant exports to Asia made little contribution to British industry. It has been noted that the Company's ships could have been carrying some 16 percent of British exports of manufactures in the mid-1790s; and that the Company's purchases of traditional woollens and worsteds breathed new life into the ailing textile industries of East Anglia and the West Country (Bowen, 2002). To be sure, the more dynamic industrial sectors were not equally served by the Asian markets.But British cotton printers could profitably use Indian white calicos as inputs, and their finishedproducts had long been shielded from Asian competition in domestic markets. In any event, as late as 1812 British policy makers did not regard India primarily as a potential market for domestic manufactures, but as a temporary source of raw materials under the pressures of warfare (Webster, 1990).

Further re-assessment of traditional views should arguably focus on what was seemingly regarded by government policy makers as the Company's principalrole. The size of British unilateral transfers from India, and their course and fluctuations throughmore than 50 years,have been ignored in recent surveys (Bowen, 1998; Marshall, 1998; Ray, 1998). The sums "sent home" in 1757-1784, and the sterling value of various kinds of "drain" in 1783-1792, were estimated some decades ago with considerable sophistication; the figures were used to downplay their importance in terms of British national income and to underscore the offsetting burdens of Empire.[vi] It has since been suggested, with due caution, that the India transfers accumulated since 1757 may have played a vital role in the British balance of international payments during the French wars (Cuenca Esteban, 2001, 2004). Such an ex-post argument, even if fully substantiated, by itself could hardly validate the wisdom of evolving government policy in the context of conflicting contemporaryperceptions of the British national interest.

This article takes a wider tack by focussing on a number of issues that lend themselves to quantitative analysis. A useful point of reference is Dundas's decision to promote a steady flow of India transfers to Britain by retaining the substance of the Company's trade monopoly in the new Charter Act of 1793. There are indications that Dundas's perception of India's importance to Britain was not anchored on vulgar bullionism. Company officials had stressed that re-exports of Indian goods to European markets played a strategic role in the British balance of trade. Dundas appears to have concurred when he stated that "the Legislature will not be disposed rashly to change a current which is turning the greatest wheel of British commerce".[vii] In this context we may fruitfully ask four related questions. How accurate were these assessments of the place of India within the British commercial system in the 1780s? To what extent was Dundas's decision borne out by the subsequent course and continuing importance of India transfers? Did the East India Company's "regulated monopoly" effectively serve British commercial and industrial interests while allowing reasonable room to private initiative? Were contemporaries unfairly one-sided in decrying the Company's detrimental use of its privileges?

Partial answers to these questions are organized as follows. Section 2 draws on new annual estimates of British net transfers from India to document the East India Company's continued ability to fulfil Dundas's principal goal beyond 1793. The largest transfers appear to have been made on Company account -- at first directly from India but increasingly in the form of China goods sent to London; but the new figures also point to a significant surge in private transfers in 1803-07 and to growing interaction among the Asian transfer channels involved. Section 3 further suggests that British total inflows from re-exports of Indian commodities alone most frequently doubled, and at times tripled, those arising from net India transfers including government flows. Section 4 builds on these and other findings to examine the place of India within the British commercial system; it will be suggested that British net inflows from India were relatively substantial and arguably the least dispensable. Section 5 draws on import and export values at constant prices of 1784 to show that British overall trade with Asia was more dynamicthan might appear from cursoryexamination of the available figures. It will be further suggested that the real constraints faced by private traders should be weighed against the scale advantages and external economies rendered by the Company to a wider range of British interests.

2. British net transfers from India, 1757-1812

How large were British transfers from India between the battle of Plassey (1757) and the end of the East India Company's monopoly of Britain's direct trade with India (1813)? Partial answers to this question can be found in the extensive literature on the India "drain". Unfortunately the best available estimates are variously specified and cover different periods. Marshall's calculations were limited to private remittances to Britain from Bengal alone up to 1784.[viii] Furber focused on commodity and bullion flows, carefully distinguishing between the "drain" to Europe and British overall returns from involvement in India; but his detailed calculations were confined to the period 1783-92.[ix] As noted in the Appendix, other "drain" estimates are far less specified and seemingly overlook a wealth of annual figures in the extant records. The analysis that follows rests on new annual series of British net transfers from India through five separate channels, on a consistent basis through 1762-1812.

The mechanisms of transfer to Britain were well known to contemporaries and have been exhaustively studied. One such mechanism involved funds accumulated in Calcutta and elsewhere from the "country trade" between India, the Eastern Archipelago, and China: the English Company drew on these funds, against bills payable in London, to cover its own deficits in the Canton trade.[x] Victory at Plassey in 1757 opened an era of corruption and plunder by Companyofficials and British administrators that did not begin to be checked until the late 1780s.[xi] Some of the local fortunes were remitted to Britain in bullion and diamonds, but most unilateral transfers involved since 1765 are thought to have been made in the form of Indian commodities purchased with Indian revenue. In the 1760s, the Company's trade was explicitly organized to secure large surpluses of commodity imports into London over total exports of goods and bullion to India. To this end the Company remained free to benefit from coercion over Indian weavers, from barriers to entry of potential competitors in India,[xii] from local judicial control, and from monopoly or taxing powers in saltpetre, rice, salt, cotton, raw silk, and opium.[xiii] The Company's ships also carried small "privilege" cargoes on the account of commanders and officers. Additional tonnage allotments in Company ships were granted in 1793 to independent private traders. Since 1798, British private interests were at times allowed to use Indian teak vessels.[xiv] Other local surpluses were channeled to Britain, at times with British encouragement, through foreign companies and neutral shipping also trading in India and China.

The closest approximation to the concept of net India transfers in the balance of payments sense was succinctly formulated by Furber: "the only true drain resulting from contact with the West was the excess of exports from India for which there was no equivalent import".[xv] Furber's use of the term "drain" in this context is debatable, but his unusually well specified calculations of commodity and bullion flows in 1783-92 can be replicated and arguably improved upon.

Objections to Furber's procedure pivot around his reliance on <u>invoice values</u> of British exports and imports.[xvi] Such invoice valuations are not strictly comparable with one another because they were made in distant locations under different market conditions. Whereas British exports were invoiced in England, presumably at fair competitive cost, valuations of outward cargoes in India incorporate unfathomable bias owing to the English East India Company's ability to retain a degree of monopoly and monopsony power. Nor is it clear that Furber's approach for 1783-92 can be safely applied to the inflationary period 1793-1812, because the invoice values of British imports exclude substantial carrying costs to Britain at widely fluctuating rates of freight and insurance. Most ominously, after 1790 the prime-cost data from which the invoice values were calculated were said to incorporate arbitrary adjustments by the Company's account Inspectors.[xvii] Other concerns over Furber's procedure turn out to be less worrisome. To be sure, the invoice values of British outward cargoes also exclude freight and insurance, merchants' profits, and the Company's "charges on merchandise" -- thus understating receipts from non-British subjects in India. Judging from the present calculations, however, British carrying costs on exports remained relatively small and the Company's export profits were most often negative.[xviii]

[Table 1]

A plausible account of net transfers to Britain through various channels, excluding government flows, is outlined in Table 1. The net commoditytransfers on Company,"privilege",and private account in panels A, B, and C are here defined, following Furber and others, as British imports from India minus British exports of goods and bullion to India. To avoid reliance on the questionable invoice values and rates of exchange used by Furber, and on the British official trade statistics for "Asia", the adopted figures of imports and exports are those given in the Company's records. Since the Company's figures were valued in Britain at British market prices, they meet the conventional definitions of CIF import values (including cost, freight, and insurance) and FOB export values (free on board). For Table 1 the given trade figures at British ports have been adjusted to approximate the value of the goods in India, at the points of exchange with non-British residents. Thus the estimated British import values "FOB India" are meant to exclude, and the British export values "CIF India" to include, all payments by British nationals to the British Treasury, to British shippers and insurers, and to the English East India Company on account of "charges".The resulting net import values in panels A, B, and C should thus approximate net commodity transfers to Britain for balance of payments accounting. The same can be said of the additional returns from the inter-

Asian "country trade" in panel D, which are uncertainly proxied here with the value in Canton of those British imports of China goods that were not covered with British commodities and bullion. The rationale for this approach is that these British trade deficits were financed with surpluses accumulated by "country" merchants in India and with Indian goods directly exported to Canton by the Company. The additional transfers to Britain through foreign East India companies and neutral ships will be examined with some detail in connection with Table 2.

It is argued in the Appendix that the new estimates of net commodity transfers to Britain in Company ships may be regarded as minimum estimates on the given sources. It is pertinent to add here that the British debits on Company bullion transfers to India in 1798-1805 are likely to be overstated. The average for 1803-07 in Table 1 incorporates, as a debit item, ,832 thousandper year (,4.16 million) recorded as "bullion" exports to India in the official source adopted here.[xix] But we also know that bullion worth ,4.2 million, sent to India by the Company Directors in 1803-05, was diverted by Wellesley for war purposes.[xx] We cannot discard the hypothesis that these sizeable remittances are not included in the officially recorded totals; but the presumption remains that little or no British bullion was used in this period for Company purchases of Indian commodities. Similar considerations apply to the period 1798-1800, when more than ,2.5 million worth of Company bullion exports were also spent on warfare.[xxi] In one of several efforts to underestimate total net transfers to Britain, the ,6.7 million in question have been debited twice: as Company bullion exports to India in Table 1, and as bullion transfers to India on government account in Table 3.

With these qualifications, by far the largest transfers to Britain in Table 1 appear to have been made on Company account -- at first directly from India but increasingly in the form of China goods sent to London. The British private trade also turned positive transfers from India at various times since 1793, but the one significant surge in 1803-07 was short lived. One limiting factor here stemmed from the tonnage allotments granted to "privilege" and private traders in Company ships. These allotments were larger for exports than for imports and thus biased non-Company commodity flows against net imports from Asia. A second factor favoring higher export values and lower transfers to Britain is that "privilege" and private traders were keen to secure the largest possible returns for their British cargoes to finance their growing involvement in the prosperous inter-Asian "country trade". Certainly the Company's commanders and officers, who alone enjoyed a share of the silver-hungry China trade in Company ships, had a known preference for low-volume, high-value goods including bullion in their export cargoes.[xxii]

The new estimates in Table 1 also point to growing interaction among the Asian transfer channels involved. Through 1793-1807 private imports and net transfers from India into London grew by leaps and bounds, eventually at the Company's expense. This pattern was reversed in 1808-12 with the contraction of European markets for Indian commodities at the height of Napoleon's Continental System. At this time the Company regained its role as the principal transfer agent, and the inter-Asian "country" trade appears to have become the most profitable outlet for private capital. It will be noted in Section 5 that private traders may also have secured growing shares of China goods with the complicity of Company "servants". By reference to Table 1, it is perhaps significant that the first positive net transfers from China to London on "privilege" account in 1808-12 coincided with a sharp rise in British private exports to India.

[Table 2]

Foreigners participated in the carrying trade to Britain by taking advantage of untapped opportunities, conflicts among British decision makers, and lower transport costs. Estimates of transfers to Britain through various foreign channels are specified in Table 2. French and Dutch inroads had a long standing and prospered in the 1760s through private agreement with British subjects in India, often at French initiative.[xxiii] The French and Dutch Companies, and the Spanish Philippine Company, received British official encouragement in the late 1780s through the joint efforts of the English Company's London interest and of Henry Dundas -- then the most influential senior Commissioner for India affairs.[xxiv] No data have been found on French and Dutch participation since 1791, but the relevant Asian territories fell under British control in the 1790s and were not returned until 1815-16. Feldbaeck's figures of net transfers to Britain under the Danish flag through 1772-1808 are said to be minimum estimates since 1787. Since 1795, the neutral trade between the United States and British India was predominantly engaged in remitting fortunes of the English Company' "servants" to Europe, despite provisions to the contrary in the looselyworded Jay Treaty of 1794. This "clandestine" or "illicit" trade at times exceeded the English Company's by taking advantage of cheaper ships, lower freight and insurance costs, and the ability to sail without convoy protection; it also was encouraged by British agency houses and by British private traders in India. Despite a setback in 1804, a complete stoppage during Jefferson's embargo of 1808, and renewed British attempts to encroach upon the rights of neutrals since the spring of 1806, transfersto Britain under the United States flag appear to have remained substantial until 1810.[xxv]

3. <u>Total net inflows into Britain on India account, 1765-1812</u>

The net transfers from India in Table 1 represent positive contributions to the British balance of payments in so far as they gave rise to net inflows of foreign exchange or to other claims on foreigners. New estimates of such net inflows are given in Table 3. It will be recalled that, for the purpose of calculating unilateral transfers, British imports of Indiancommodities have been adjusted to approximate their current value in India, at the points of exchange with non-British residents.The costs of transport to London in Company ships do not belong in Britain'sexternal balancebecause all the payments involved were settled among British nationals. One relevant component of British inflows is the CIF value of re-exported Indian goods beyond the public auctions in London, inclusive of transport and profits at the points of delivery to foreign merchants in British or foreign ports (total of lines 1-6). Some of the imported Indian commodities were re-exported as such to Continental Europe and elsewhere; others were embodied as raw materials in British domestic exports; most such re-exports afforded British residents additional foreign exchange in the form of carrying earnings and mercantile profits. A second component of British inflows is the savings of foreign exchange on account of Indian goods for home consumption that would otherwise have been imported from elsewhere (lines 7-9). On the debit or cost side, British outflows should include the total "CIF India" value of British exports and re-exports to India on Company, private, and government account (lines 10, 12-13). The totals in line 14 suggest that the British net inflows involved most frequently doubled, and at times tripled, those reckoned in the preceding Section as net transfers directly from India.

[Table 3]

Some of the re-export values of Indian commodities in Table 3, lines 1-6 are minimum estimates or are arguably understated. The values of non-textiles in line 2 are calculated at "in-bond" import prices and thus exclude mercantile charges within British territory and customs duties not returned as drawbacks upon re-export. The value of Indian commodities embodied in British domestic exports must remain uncertain. Around 1750, close to 60 per cent of the calicos printed in London were most likely Indian.[xxvi] The Indian share in the total supply of calicos in Britain decreased in 1775-83;[xxvii] but retained imports of the Indian fabrics sharply rose from the late 1780s up to 1803. The calculations for "Indian calicos embodied in domestic exports" (line 4) rest on the assumption that the physical share of Indian calicos in the exported yards of cotton textiles printed in

Britain successively fell from 35 per cent in 1764-73 to 5 per cent in 1794-1803 -- and to zero thereafter. There is an uncontrolled margin for error here, but not all the cotton fabrics finished for export in Britain from Indian calicos may have been entered as printed goods in the customs records. British textile exports also incorporated Indian dyes and fibers. India supplied 79 per cent of the indigo used in Britain in 1791-1811 and 45 per cent at least of the raw silk in 1764-1812; nearly 8 per cent of British cotton imports in 1793-1812 came from India.[xxviii] Perhaps conservatively, the values of "other Indian goods embodied in domestic exports" (line 5) are reckoned at 20 and 10 per cent of retained imports of Indian indigo and raw silk respectively.

Conceivable overstatement in the uncertain estimates of British carrying earnings and profits would not substantially alter the overall picture. The mercantile profits in line 6 have been calculated at a constant rate throughout 1765-1812, on the assumption that falling returns on re-exports of Indian muslins and calicos since the 1790s were offset by higher margins on the substantial shipments of non-textiles during the French wars. The constant profit rate has been set at one half the 10 per cent allowed by Nash for English re-exports in 1770.[xxix] Imlah placed the re-export rate in 1816-18 at 5.5 per cent, but he appears to have suspected that profits had been higher during the French wars.[xxx] In any event, there are some grounds for believing that profits on Indian textiles were larger than average. In economists' parlance, profit levels are directly related to the degree of market imperfection. The bewildering variety of Indian calicos, muslins, and coloured piece goods allowed for product differentiation in recipient markets. It will be noted in Table 5 that the product composition and the geographical destination of British textile cargoes varied significantly -- presumably to maximize returns by catering to the particular needs, tastes, and purchasing power of different consumers. The competitive edge afforded to British merchants by the Company's ability to impose lower prices on some Indian weavers should have been enhanced when French and Dutch

Asian territories fell under British control in the 1790s.[xxxi] Seemingly unavailable data on individual textile fabrics by geographical destination might also point to the presence of price discrimination, in the sense that higher prices would have been charged in those sub-markets where demand was relatively inelastic.

The imputed values in lines 7-9 are proxies for British savings of foreign exchange on account of Indian and Chinese goods for home consumption that would otherwise have been imported from elsewhere. To be sure, had the means of obtaining large quantities of Indian calicos not existed through the exercise of Imperial power import substitution by British producers might have proceeded at a faster pace. But the bulk of Indian commodities retained in Britain was made up of cotton, Bengal raw silk, coffee, rice, saltpeter, white pepper,and cinnamon.The imputed values of "net transfers of China goods" in line 9 are meant to include only those Chinese commodities that were financed with surpluses accumulated by "country" merchants in India and with Indian goods directly exported to China by the Company. Most such commoditieswould have been importedfrom less distant locations in America or in the Mediterranean, but those brought in foreign ships would have involved a net loss in British foreign exchange on account of transport cost differentials. Moreover, some of the Indian and Chinese commodities in question were cheaper than their American and European counterparts. Perhaps conservatively, the British savings of foreign exchange on all three counts are imputed in lines 7-9 at four-fifths of the Asian goods' CIF value at British ports of arrival excluding customs duties.

The costs of procuring those Indian goods that were not purchased with Indian revenue represent debit items in the British balance of payments. The private component of these British outflows is proxied in line 10 with the total "CIF India" value of British exports of goods, stores, and bullion on Company, "privilege", and private account.Further entries on British government account recognize the indirect contribution of those war expenses in India that were not financed with Indian revenue. As noted in Section 2, the bullion exports charged in Table 1 to the Company's transfers to Britain seemingly include the ,6.7 million that were diverted to Indian warfare in 1798-1800 and in 1803-05. At the risk of duplication, the full ,6.7 million have again been debited in line 12 of Table 3 ("Bullion transfers to India on government account"). Still there is no guarantee that all bullion shipments to India are covered under "Exports 'CIF India' to India" and "Bullion transfers to India on government account" (Table 3, lines 10 and 12), but no reason has been found to question the officially recorded totals adopted for Table 1.[xxxii] The "Bullion transfers to India on government account" debited in line 12 also include a credit of nearly , 1.9 million in bullion said to have been shipped from India to Britain in 1812.[xxxiii] The allocation of "stores" to Company or government account is a matter of guesswork, but the "exports of 'naval & garrison stores'" debited in line 13 include only those "stores not for sale" that are not debited to the Company's transfers to Britain in Table 1.

4. Contributions to the British balance of payments

What did Henry Dundas have in mind when he described the Company's regulated monopoly as "a current which is turning the greatest wheel of British commerce"? In the early 1790s Britain's direct trade with India cannot have appeared substantial: the British tonnage employed in the India route, and the market value of the import and export cargoes, had seldom surpassed 3 percent of the respective worldwide totals. But Company officials had stressed that re-exports of Indian goods played a strategic role in the British balance of trade. Dundas's preoccupation with securing a steady flow of Indian transfers beyond 1793 suggests that he regarded Indian commodities as a major link of a clearing mechanism to balance external payments. It will be argued here that such a perception would have been justified at the time and was borne out by the subsequentcourse of events during the French wars.

[Table 4]

A conjectural context for this argument is laid out in Table 4. Despite massive expenses abroad at the height of the Napoleonic wars, Britain's external position is thought to have improved from a net foreign indebtedness of some ,13 million in 1775 to a net credit of ,10 million excluding Ireland by 1815.[xxxiv] For the sake of consistence we may further infer, admittedly from scant evidence, that British claims over Ireland are included in the 1775 benchmark and stood at ,20 million in 1815.[xxxv] The course of Britain's external position after 1775 may be reckoned by combining the net balance of total payments in each subsequent year with the worldwide debt or credit accumulated so far. The annual figures underlying the period averages in Table 4 represent a particular set of payments that yield a net British credit of ,30 million by 1815; additional estimates for 1764-74 have been generated through backward extrapolation from the 1775 benchmark (-,13 million). In the absence of firm evidence on many of the entries involved, let alone on the particularly weak benchmark for Britain's net credit in 1815, we can take little comfort from the fact that the long-term pattern is consistent with a range of alternative assumptions.[xxxvi]

The broad picture conveyed by Table 4 must remain conjectural, but only the relatively sounder figures bear directly on the central argument proposed here. The partial net balances excluding India in lines 1 to 5 are calculated at British ports with reasonable allowance for carrying earnings and mercantile profits, always including net British inflows on legal and illegal trade with each area and British re-exports of the respective commodities to the rest of the world. The most uncertain figures of total contraband trade are grounded in Cole's independent estimate for 1776-83; any conceivable resurgence after the sharp reduction in tea smugglingin 1784 could hardlyhave kept pace with the massive growth in British legal trade. In so far as the total value of contraband trade remained relatively small, we may safely ignore the inevitable errors in the regional allocation of illegal imports. Nor is the argument sensitive to reasonable variation in the given orders of magnitude for net inflows from the slave trade (line 6) and for British war expenses abroad through 1775-1812 (line 8).

With these qualifications, Table 4 highlights the relative size of net inflows from India by reference to the better documented components of the British balance of payments as specified in the preceding paragraph. The net balances on trade and services in lines 1-6 underscore the importance of Britain's colonial involvement excluding Indian and Irish transfers: whereas the largest British deficits through 1776-1812 were incurred in Continental Europe and in Ireland, the bulk of the offsetting credits on re-exports of American commodities, on freight and insurance, and on mercantile profits, most frequently originated in the West Indian trades.[xxxvii] Despite major additional inflows from the United States in the neutrality period 1793-1807, the total net credits on "trade and services excluding India" could not have sustained Britain's war expenses in Continental Europe since 1793. The net inflows from India in line 11 by themselves might have paid for almost all such expenses through 1793-1807, and for nearly one third of the massive sums not covered by other trade balances in 1808-12. Net transfers from Ireland may also have been substantial, but the conjectural estimates of rental payments to absentee landlords residing in Britain (line 13) must be regarded with extreme caution.

Of these contributions to the British balance of payments, those from India were arguably the least dispensable. Unlike other British imports, those purchased with Indian revenue came home as unilateral transfers at little or no cost in domestic goods or bullion. It should be recalled here that the total net inflows from India in line 11 are meant to include those on government account, after subtracting all outflows to India for both commercial and military purposes. The transfer component of net inflows from India resembles the Irish rental payments to absentee landlords residing in Britain in that both types of gains arose from the direct exercise of military and political power. But the Indian sums involved appear to have been larger, and India's contribution to other branches of British trade possibly exceeded the British profits on Irish exports to British America in line 12. The net inflows from the slave trade in line 6 arguably owed much to the cargoes of Indian textiles that only British merchants could supply to West African middlemen at cut-throat prices. Britain's privileged Indian connection would thus have extended its beneficial influence, throughits likely impact on the growth of the British slave trade, to the profitable triangular trades across the Atlantic.[xxxviii] Here again, Ireland also contributed vital food supplies to the slave plantations and to Britain itself. While the British tonnage employed in the India route seldom surpassed three per cent of the worldwide total, however, the import and re-export values of Indian goods during the French wars often rivaled, and at times exceeded, those of West Indian commodities. As an added bonus, Britain's trade deficits with China, and the related tasks of aggression and defence in the Far East, were defrayed largely with Indian territorial revenue and with Indian commodities. A broad counterfactual analysis predicated on free western access to Indian wealth, or on fair market exchange in India for British commodities and bullion, would have to account for a consequent strengthening of Britain's European and North-American competitors. For all these reasons, a substantial reduction in India transfers in particularcould not so readilyhave been offset by diversion of resources within Britain's military and commercial ventures.

The changing importance of India's contributions through 1762-1812 would be further specified if we could lend some credence to the remaining figures in Table 4. As noted, the postulated course of Britain's external position through 1764-1812 must remain conjectural despite its consistence with the proposed benchmarks for 1775 and 1815. For the sake of argument, however, it is worth recalling that Britain is thought to have been heavily indebted to foreigners in the 1770s and to have enjoyed an external surplus of , 10 million in 1800.[xxxix] Ralph Davis was bold enough to add that Indian wealth probably "supplied the funds that brought [the] national debt back from the Dutch and others".[xl] The annual figures underlying Table 4 support Davis's statement and place the decisive turning point in the late 1790s. In subsequent years, mounting British net gains on trade and services alone would have been compounded, for the first time, with positive returns on foreign investment. This turn of events would help to explain the apparent decline of contemporary concern for Indian remittances. In 1799, Henry Dundas was still writing of his hopes "for the payment of tribute to this country, through the medium of a beneficial and encreasing commerce".[xli] Soon thereafter, his successors' attention would be drawn from the East India Company's role as the safest channel of remittance to the potentially wider benefits of the Indian connection under free trade.

5. Company and private trade with Asia

Did the East India Company's "regulated monopoly" effectively serve British commercial and industrial interests while allowing reasonable room to private initiative? Were contemporaries unfairly one-sided in decrying the Company's detrimental use of its privileges? Any fresh grounds for positive answers to these questions would help to reinforce incipient challenges to long-standing wisdom. As noted, recent work has revindicated the Company's conduct of its China trade; it has also qualified the perception that the Company's seemingly insignificant exports to Asia made little contribution to British industry in the late eighteenth century. It will be added here that British overall trade with Asia was more dynamic than might appear from cursory examination of the available figures. It will be further suggested that the real constraints faced by private traders should be weighed against the external economies and scale advantages rendered by the Company to a wider range of British interests.

Consideration of these issues requires a closer look at the trade record than that undertaken so far. No single periodization of the annual figures can identify the key points of inflection in the often conflicting cycles of imports and exports. The choice of period averages in Table 1 was meant to highlight the close interaction that eventually developed between the various transfer channels involved. In what follows the focus is placed on relative trade performance over the long run.

[Figure 1]

For this purpose it is worth noting that the trade values at current prices in Table 1 understate the physical volume of British imports and overstate export volumes from the late 1780s to the mid 1800s. The three series in Figure 1 are Fisher "ideal" indices of import and export prices at British ports. The prices of most import goods, notably those of Indian textiles and Bengal and Chinese raw silk, fell in the late 1780s and remained below 1784 levels to the end of the period. On the export side woollens prices remained relatively stable, but those of ferrous and non-ferrous metals seemingly soared to the mid-1800s and fell thereafter. As a result the net barter terms of trade with Asia, and those with India in particular, would have risen strongly in Britain's favor from 1783 to 1805. This picture contrasts with Britain's worldwide terms of trade, where soaring exports of cotton textiles at falling prices, and growing shortages of European raw materials, appear to have made for a far milder upward trend until the mid 1800s.

[Table 5]

The distortion caused by the use of trade values at market prices is illustrated in Table 5 with reference to British re-exports of Indian textiles. The unit values by geographical areas have been calculated as total export values at current prices over total "pieces" at British ports of departure. The current values of white and colored calicos gradually fell from 1790-92 to 1807-12, to a total of 18 percent. In real terms, however, the number of exported calicos more than doubled in 1801-03 and remained 25 percent above the 1790-92 levels at the end of the period. Similar considerations could have applied to muslin exports, but here the Company's fabrics did not withstand competition from their British-made counterparts. The re-export totals also conceal major shifts in the geographical destination of white and coloured calicos, most notably from Northern and Western Europe to Southern Europe and Levant. These trends suggest that the main branch of the Company's trade with India remained viable to the end of the period.

[Figure 2]

More generally, when reckoned at British ports in constant prices of 1784 the volumes of British trade with Asia convey a rosier picture than might be inferred from the claims of contemporary critics. The import and export volumes with India and China withstand a severe test when they are expressed as percentages of the British worldwide totals as in Figure2. To be sure, the pattern of faster than average growth in import volumes from India breaks down in the 1800s; but the share of these imports in the worldwide totals stands at 21 percent in both 1784 and 1806-12. On the export side the relevant point of reference is Britain's worldwide domestic exports, because foreign goods were worth less than 5 percent of the total shipped to Asia. Out of worldwide domestic exports, the Asian share shows an upward trend through 1764-81 and 1784-1812. British direct trade with China grew at a faster pace than average until the mid-1780s and retained some of the acquired gains to the end of the period.

[Figures 3 and 4]

The private component of British direct trade with Asia was far from stagnant. Figures 3 and

4 trace the real values of British imports and exports on Company and private account. The private imports in Figure 3 include those from India under the 1793 Act, "privilege" cargoes in Company ships from both India and China, and estimates of Asian goods brought to Britain in foreign vessels. Since the 1793 Act did not allow private trade between Britain and China, this total is most closely comparable with the Company's imports from India.Here again the long-term pattern is one of rise and decline, but total private imports soared at the turn of the century and remained well above those on Company account from India through much of 1802-12. The export volumes on private account in Figure 4 indicate strong overall growth since 1797 despite a prolonged setback in 1803-07.

The apparently mixed fortunes of private trade with Britain during the 1800s should be weighed against the widening opportunities afforded by Asian markets within the Company's formal trade monopoly. Since the late 1790s, British private initiative had increasingly turned to the inter-Asian "country" trade. This prosperous business appears to have become the most profitable outlet for private capital at the height of Napoleon's Continental System. The contraction of European markets at first detracted from direct private shipments to Britain; but it also fostered a triangular Asian trade increasingly centered on China. Direct exports from Canton to Britain should have been less vulnerable than those from India to the consequences of European blockade: Chinese tea was more easily smuggled than Indian textiles and was largely consumed in Britain. In these circumstances private interests had a strong incentive to despatch their growing Asian surpluses to Europe, either in neutral vessels or in Company ships with the complicityof Company"servants". To be sure, Company employees were barred from direct involvement in private trade as well as from receiving "presents" from Indians;[xlii] but some of them had been known to overcharge their employer for supplies purchased on its behalf, to lend the proceeds of secret commissions to the increasingly indebted Company, and to enter into collusive contracts with British and foreign private merchants.[xliii] The officially recorded "privilege" exports from China to Britain certainly soared from still modest levels during the 1800s to an average of ,1.3 million in 1810-12. The required purchasing power to sustain expanding business would have been provided, in part, by the profits of the inter-Asian trade, and in part by the unsteady but substantial growth in private shipments to India at a time of stagnant or shrinking return cargoes along this route.

To be sure, British private traders did much better once the Company's privileges in trade with India were abolished in 1813.[xliv] It is thus reasonable to wonder whether a similar measure in 1793 might have been of greater benefit to British interests as a whole. Here again, however, any conclusions from trade figures alone must be tempered with wider considerations. One central requirement of counterfactual analysis is that the alternative scenariosto be considered should be the most plausible. We may reasonably assume that Dundas's perception of Britain's national interest would have remained focussed on maximizing those imports of Indian commodities -- largely textiles -- that were defrayed with Indian territorial revenue. If so, the alternative Charter Act of 1793 would not have included the punitive tariffs on Indian textiles enteringBritain, and the lower duty on British manufactures into Bengal, that precipitated the demise of the Indian industry after 1813. We may further assume that such Crown interest in India transfers as remained by the late 1800s would have been met by the Company's local purchases, by its effective monopoly of the China trade, and by the enhanced activity of British private merchants.[xlv] The shipping quotas granted to private traders in the Charter Act of 1793 certainly left room for additional imports -- witness the substantial cargoes carried to Britain by neutral shipping until the late 1800s; Dundas himself later recognized that some of this foreign business might have been captured by British private traders.[xlvi] And ample opportunity to purchase additional textiles in India remained open in some areas by weavers' resistance to the Company's strict requirements and lower prices.[xlvii]

There is reason to doubt, however, that private traders would have brought to Britain a much larger volume of Indian commodities at much lower cost while shouldering additional burdens. The Company's commanders and officers, and those private traders whose wares were also carried in Company ships since 1793, enjoyed extensive warehousing facilities, brokerage services ensuring minimum prices of Indian commodities in London,and the relative safetyof heavilyarmed Indiamen and convoy protection against French privateers in the Eastern seas. On the latter count it has been argued that had the Asian trade been widely open to British private shipping there would have been heavy losses in the 1800s.[xlviii] Evidence on actual developments also suggests that comparable vessels might not have been readily forthcoming; that conflicting British interestsmight have sought similar monopoly rights to those imposed by the Company's shipping contractors; and that freight rates on India-built ships might not always have been lower.[xlix] Nor is it clear that British private merchants would have successfully competed with highly efficient neutral shipping that paid lower insurance rates and did not require convoy protection.

The potential benefits of additional private trade should also be weighed against the external economies and scale advantages rendered by the Company to a wider range of British interests. We may reasonably expect that the Company would have retained its rights of sovereignty in exchange for military containment of French-backed inroads and for continued assistance in the transfer to London of surplus funds and commodities. It seems less likely that it would have been able to sustain the full range of additional services that spilled over to all participants. As early as the 1780s, debt levels had grown to the point that the Company's purchases in India, and even its day to day operations, could not be carried out without the assistance of a tangled web of private interests centered in the Indian agency houses.[l] Meanwhile, as noted in Section 2 foreign traders in India and in China took advantage of untapped opportunities, conflicts among British decisionmakers, and lower transport costs. The Charter Act of 1793 and the French wars compounded the ailing Company's burdens with new dents to its formal trade monopoly and with non-commercial costs. The Company regularly supplied the Navy with East Indiamenand trained sailors at its own expense; it also devoted cargo space to troops and military "stores".[li] The "stores not for sale" entered in Tables 1 and 3 together amount to 41 per cent of commodity exports to India on Companyaccount in 1762-97 -- and to 86 per cent in 1798-1812. Not all these burdens were borne out of commercial profits, but the efficiency loss involved in a substantial reduction of the Company's trading volume would have raised the overall costs of long-distance commerce under prolonged warfare.[lii] On the benefit side some British consumers and manufacturers might have enjoyed larger and cheaper supplies, but the development of new Indian staples did not become a national priority until the late 1800s (Webster, 1990). In the likely absence of the stern fiscal measures adopted in 1813, the Indian share of British industrial exports would have remained insignificant. There is thus reason to believe that conceivable relaxation of the Company's privileges well before 1813 would have fallen short of expectations with no clear net benefit to Great Britain as a whole.

6. Conclusion

This article has suggested that the Crown's Asian trade policy more effectively served Britain's national interest than might be inferred from contemporary complaints and recent scholarship. The size of British unilateral transfers from India, and their course and fluctuations through more than 50 years, have been ignored in recent surveys. Yet Henry Dundas's perception of the importance of these transfers to the British balance of trade was well grounded in the realities of the 1780s and was borne out by subsequent developments. British net inflows from India remained substantial through 1765-1812 and were arguably least dispensable; those from re-exports of Indian commodities alone most frequently doubled, and at times tripled, those arising from net India transfers including government flows. When reckoned at British ports in constantprices of 1784, the volumes of British trade with Asia on both Company and private account through 1765-1812 most frequently grow at a faster pace that the worldwide totals and retain some of the acquiredgains to the end of the period. Private traders enjoyed access to non-British channels of remittance and widening opportunities in the inter-Asian trade within the Company's formal trade monopoly. The real constraints they faced in direct trade with Britain should also be weighed against the external economies and scale advantages rendered by the Company to a wider range of British interests.

7. Appendix: British net transfers from India 1757-1812: sources and procedures

The new annual calculations of British import and export values through 1762-1812 rest for the most part on the East India Company records (British Library), on the British Parliamentary Papers, and on the Board of Trade accounts. Unlike the British official trade values in the Customs volumes of the Public Record Office (London), the adopted figures are given at current prices and often distinguish between India and China; many of the extant accounts, particularly those for 1793-1811, also provide vital information on "privilege" and private trade, on customs revenue,on freight costs, and on mercantile profits. Further precision and detail may still be gained from systematic work on ships' cargo manifests.

As a point of departure, annual data on British imports and exports at British market prices have been selected from the relevant sources. It is recognized that such import values incorporate, and such export values exclude, often substantial carrying costs, mercantile charges, customs payments, and mercantile profits. For balance of payments accounting, any such settlements among British residents must be subtracted from the sale values of British imports in London, and added to British exports at British prices, to approximate the value of the goods at the points of exchange, in India, between British and non-British residents.

[Appendix table 1]

The conversion of Company import values CIF in London into prime cost in India is specified in the upper section of Appendix Table 1. The import values CIF (cost +insurance +freight) include the Company's proceeds at the London sales and the estimated value of saltpetre that was annually delivered at fixed prices to the Board of Ordnance. The Company's "profit and loss" accounts specify payments for freight and demorage, customs duties, and charges in London, but they ignore other transport costs and separate charges incurred in India. The Company did not insure its cargoes,[liii] but ship losses and captures appear to be well documented;[liv] the British costs incurred on this account have been estimated as import values times market insurance rates. All the documented charges have been deducted from the sale proceeds of Indian goods in London to approximate their "free on board", "FOB India" value (line 9).

The middle section of Appendix Table 1 specifies the reverseprocedure to convert Company export values FOB in London into full "CIF India" costs. Here the point of departure is the prime cost of Company exports at British market prices, including goods and three descriptions of "stores" but excluding "naval and garrison stores". Furber correctly accounted for the larger items in his calculations for 1783-92, but his methodology led him to ignore customs payments and other relevant settlements among British merchants and shippers. The sum total of Company exports plus all these charges is described in line 17 as "Exports 'CIF India' at Indian ports".

[Appendix table 2]

Net transfers to Britain on direct trade with India are defined here as British net imports of goods and bullion at Indian ports, excluding government flows. In Appendix Table 1, bullion exports on Company account are subtracted from the difference between imports "FOB India" and commodity exports "CIF India". Similar transfer estimates on "privilege" and private account are given in Appendix Tables 2 and 3. The total of all three tables for 1782-93 (,587 thousand per year) is most closely comparable with Furber's partial estimate of "direct drain" to Britain in Company ships (,637 thousand per year). It will be shown in Appendix Table 4 that the new overall estimates, also including non-British transfer channels and net inflows from the "country" trade, amount to 77 per cent of Furber's total "drain" to Europe in 1783-92.

The new calculations incorporate a number of internal checks and conservative assumptions; in this sense they may be regarded as minimum estimates on the given sources. One general consideration is that most of the inevitable errors are likely to be small or to offset one another. By far the largest entries in Appendix Tables 1-3, those of imports CIF and exports FOB at British prices, are documented for every single year with the only exception of privilege and private imports in 1810-12. Elsewhere, seemingly major problemsarise when the sources do not distinguish between India and China. Since net India transfers as specified in Table 1 include British trade deficits with both areas, however, any errors at this level should cancel out. No such claim can be made on the allocation of total freight costs to imports and exports, but the estimates in question reasonably approximate the known proportions of inward and outward tonnage.Any substantial errors should be confined to the estimation of mercantile profits, which too often relies on documented but questionable data on invoice values or prime costs.

[Appendix table 3]

In any event, here as elsewhere efforts have been made to underestimate net India transfersto Britain wherever possible. In terms of the direct trade calculations in Appendix Tables 1-3, such efforts amount to understating British merchandise receipts and overstating British outflows. Thus the import figures CIF in all three Appendix Tables, and those used in Table 1 to calculate British deficits with China, exclude neutral and prize goods. Such goods amounted to ,224 thousand per year in 1793-1809 and seemingly stood, on average, at similar levels in 1771-83.[lv] Perhaps for this reason the given totals of Company, privilege, and private imports from India and China through 1772-1812 together fall short, by an average of five per cent, of independent calculations from the British official trade values.[lvi] On the side of British outflows there is less room for substantial error, and two of the relevant entries in Appendix Table 3 are probablyoverstated. As explainedin note 10, the export estimates at British ports incorporate the generous assumption that arriving Indian ships left for the return trip equally laden; and the British debits on bullion exports in line 18 may well be double counted in Appendix Table 1, line 19. Last but not least, as noted in the main text in connection with Table 1 the Company's bullion transfers to India in 1798-1805 are likely to be overstated.

Furber identified two other sources of India "drain" and gave tentative estimates. One such "drain" involved funds accumulated in Calcutta and elsewhere from the "country" trade between India, the Eastern Archipelago, and China; the other "drain" was channeled to Europe through non-British East India Companies and "other illicit traders". The estimation of alternative transfers on both counts has been explained in the main text, and all the new transfer figures for 1762-1812 are included in Table 1.

In Appendix Table 4, relevant period averages of the overall net transfers to Britain in Table 1 are compared with alternative figures. The "minimum estimates" for 1757-71 and 1772-82 were based on a conjectural allocation of Marshall's total private transfers from Bengal alone in 1757-84.[lvii] In the absence of adequate trade data for 1757-61, Marshall's figures for these five years have been retained here: they include bills drawn in Bengal on the English East India Company, British subjects' remittances to Britain through the Dutch and French East India companies, and relatively small shipments of diamonds.[lviii] Also included in 1760-61 is the value of Indian goods imported into Canton by the English Company.[lix]

The new overall transfers to Britain remain close enough to Marshall's private flows from Bengal alone in 1757-84, and sufficiently below Furber's total "drain" to Europe in 1783-92, to lend independent support to the new procedure. Griffiths's "provisional" total for 1780-1812 is consistent with the new annual calculations, but he gave no specific grounds for either of his two estimates.The remaining "drain" figures in Appendix Table 4 are all subject to question. Sinha specified a wide range of transfer channels, but his large estimate of "drain" through foreign East India companies in

1757-80 turns out to rely on backward extrapolation of data for the early 1780s.[lx] Hamilton was a severe critic of exaggerated claims, but his total of Company and private "drain" was a maximum estimate. Habib's "minimum" net imports values from India in 1789-90 and in c1801 rest on questionable calculations from the British official trade figures at constant prices of the early eighteenth century. One concern here is that the official export values he used were reckoned at British ports, with no account for British carrying costs to India. Another concern is that Habib converted official to "real" (current) import values with Deane and Cole's ratio for British imports as a whole, thus ignoring differential price trends in Indian commodities in general and significant price declines of Indian textiles in particular.

[Appendix table 4]

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Table 1:
British net transfers from India excluding government flows, 1762-1812 (period averages of annual values in ,'000 at market prices)

	1762-1775	1776-1782	1783-1792	1793-1802	1803-1807	1808-1812
A. English East India Company trade with India:						
Imports "FOB India" from India into London	747	1135	1021	1372	934	1096
-exports "CIF India" to India (goods)	323	314	272	378	547	610
-ibid, "stores" (1 description excluded)[1]	37	39	48	82	118	220
-exports to India (bullion)	16	11	87	213	832	40
=Net transfers on Company account	371	770	613	697	-564	225
B. "Privilege" trade with India by commanders & officers in Company ships:						
Imports "FOB India" from India into London	51	87	243	203	348	395
-exports "CIF India" to India (goods)	131	125	132	109	140	171
-exports to India (bullion)	139	135	139	124	152	172
=Net transfers on "privilege" account	-220	-174	-27	-30	55	52
C. Private trade with India under the 1793 Act, largely in Company ships[2]:						
Imports "FOB India" from India into London				576	1183	521
-exports "CIF India" to India (goods)				389	325	1086
-exports to India (bullion)				36	90	15
=Net transfers on private-trade account				151	768	-578
D. Inter-Asian "country trade" in Company ships[3]:						
Company imports "FOB China" from China into London	476	435	1268	1749	1861	1772
-Company exports "CIF China" to China (British goods)	115	126	363	748	1196	1097
-Company exports to China (bullion)	158	48	397	148	233	0
-Company exports of Indian goods to China	48	36	38	19	0	0
=Net transfers on Company account	155	225	470	834	432	675
+"privilege" imports from China into London	29	31	68	131	125	420
-"privilege" exports "CIF China" to China (goods)	35	37	98	136	178	177
-"privilege" exports to China (bullion)	35	37	98	136	178	177
=Total net transfers through "country trade"	114	181	341	694	200	740
E. Transfers to Britain through foreign East India Companies & the United States	280	271	318	282	315	105
TOTAL NET TRANSFERS TO BRITAIN (A+B+C+D+E)	546	1050	1246	1796	776	545

[1] "Stores not for sale" including "Stores for the factory", "Braziers' tin and ironmongers' wares", and "Pitch, tar, wines, deals, medicines". A fourth description is entered in Table 3, line 16.
[2] Confusingly referred to by contemporaries as "privilege trade".
[3] Transfers to Britain proxied here with British trade deficits with China (imports "FOB China" minus exports "CIF China" including bullion as indicated): see the text.
Sources and procedures: Panels A, B, and C as in Appendix Tables 1-3. British trade with China (panel D) calculated in much the same way as that with India; Company exports of Indian goods to China in 1762-99 from Pritchard, 1936, p. 393: talers converted at 6s 8d. Panel E as in Table 2 below. Slight errors due to rounding.

Table 2:
India transfers to Britain through foreign East India companies and neutral traders, 1757-1812 (period averages of annual values in , '000)

	1757-1771	1772-1778	1779-1784	1785-1790	1791-1794	1795-1801	1802-1812
1. Dutch and French Companies	212	259	37	156*	0	0	0
2. Danish Company	0	49	234	228	130	147	23
3. United States ships	0	0	0	0	0	168	198
4. Transfers to Britain	212	308	271	384	130	315	221

* All non-British transfer channels to Britain except the Danish East India Company.

Sources and procedures: **Line 1**: Marshall, 1976, pp. 241-43, 251-53: Bengal figures for 1757-84 times 1.3 to account for Madras and elsewhere (ratio in ibid, p. 253). Totals for 1785-90 in BL, OIOC, H/399, MSSpp. 1, 55: estimates of "English trade under foreign flags" with India, possibly for 1781-90 but more likely for 1785-90; given import and export figures adjusted here respectively to approximate "FOB India" and "CIF India" values at Indian ports, with similar procedures to those specified in Appendix Tables 1-3. **Line 2**: Feldbaeck, 1969, pp. 45, 72-73, 121, 150, 211, 229, 303, 310, 320-21, 327, 340, 345: given figures in current ruppees converted here to pounds sterling, and compounded with commissions of the Merchant Houses in Copenhagen with information supplied by Feldbaeck. **Line 3**: exports from Calcutta in United States ships as in Tripathi, 1979, pp. 70, 86, 89, 90, 109, 122: transfers to Britain placed here at half the given annual figures in 1797-1803, a third in 1804-07, and a fourth in 1808-12; missing data for 1795-96 and 1801 conservatively estimated from given average for 1795-02.

Table 3:
British net inflows from India including government flows, 1765-1812 (period averages of annual values in , '000 at marketprices)

	1765-1775	1776-1782	1783-1792	1793-1807	1808-1812
1. Re-exports of Indian textiles FOB as in Table 5	1788	2351	1550	2045	967
2. Re-exports of other Indian commodities FOB	5	16	136	1381	1384
3. Freight & insurance earnings on lines 1+2	40	82	29	140	166
4. Indian calicos embodied in domestic exports	25	47	47	87	0
5. Other Indian goods embodied in domestic exports	14	25	61	162	364
6. Mercantile profits (5% of lines 1+2+4+5)	92	121	90	183	135
7. Retained imports of Indian goods (imputed value)	332	52	919	980	789
8. Ibid in foreign ships (imputed value)	264	217	254	234	85
9. Net transfers of China goods (imputed value)	100	145	272	423	592
10. Exports "CIF India" to India (goods +stores +bullion)	-645	-626	-678	-1624	-2315
11. Net inflows from India excluding Government flows	2016	2432	2682	4015	2167
12. Bullion transfers to India on Government account	0	0	0	-453	371
13. Exports of "naval & garrison stores"	-47	-87	-70	-208	-271
14. Total net inflows from India	1969	2345	2612	3354	2268

Sources and procedures: **Line 1**: see Cuenca Esteban, 2001, p. 77. **Line 2**: Minimum estimates as indicated in the text from re-export quantities for 1791-1811 in MacGregor, 1843-50, vol. IV, pp. 416-19 (negligible values for earlier years roughly estimated from import data); in-bond prices (excluding customs duties) as in Cuenca Esteban, 2001, pp. 71-75 (prices of East India or Ceylon cinnamon in Gayer and Tooke, usual dates). **Line 3**: with some adjustments as in Cuenca Esteban, 2001, p. 79 (Indian commodities only; re-export quantities as in line 2; freight rates on longer routes divided by 5 here). **Line 4**: Export yards of British cotton prints in 1764-1803 only (compiled from PRO, Customs 3, 14, 17) times the re-export prices of Indian calicos used in line 1, with falling decadal weights as indicated in the text; yards converted to Indian "pieces" as in Baines, 1835, p. 324. **Line 5**: respectively 10 and 20 per cent of the retained imports of Indian indigo and Bengal raw silk (import minus re-export quantities as in line 2 and from PRO, Customs 3, 14, 17, 5, 10, 11: re-exports include unspecified quantities of raw silk from China, Italy, Turkey, and France; duty-added prices from the relevant sources given in Cuenca Esteban, 2001, pp. 72-73). **Line 7**: See the text and notes to lines 1 and 2 above. Four-fifths of Indian goods retained for home consumption (imports minus exports at British import prices). **Line 8**: See the text. Four-fifths of "Transfers to Britain through foreign East India Companies & the United States" in Table 1. **Line 9**: See the text. Four-fifths of "Total net transfers through 'country trade'" in Table 1. **Line 10**: Total of relevant entries in Table 1. The shares of British and foreign goods sent to India are hard to ascertain, but re-exports to India and China were worth less than 5 per cent of total exports to Asia. **Line 12**: Philips, 1940, pp. 106, 124, 179. **Line 13**: see Appendix Table 1, note 11. Slight errors due to rounding.

Table 4:
Selected components of the British balance of payments, 1764-1812

	1764	1775	1782	1792	1807	1812
Accumulated balance of Britain's net external position in million , [1]	-25	-13	-11	-6	+47	+44
		1765-1775	1776-1782	1783-1792	1793-1807	1808-1812
Period averages of annual values in , '000:						
1. Net balance of trade & services[2] with China		-380	-263	-233	-484	-1049
2. Ibid with Ireland excluding lines 12 and 13		-659	-1005	-1090	-929	-1232
3. Ibid with rest of Europe and Levant		163	-1556	-2139	-7499	-2879
4. Ibid with the United States		903	188	2728	6681	2012
5. Ibid with the rest of the world excluding India		312	1250	123	4074	7150
6. Net inflows from the slave trade to 1807[3]		504	183	471	661	0
7. Balance of trade & services excluding India		845	-1203	-140	2503	4001
8. British war expenses abroad excluding India		-14	-644	-96	-3513	-11657
9. Balance of debt service[4]		-548	-590	-513	475	2459
10. Current account balance excluding lines 11-13		282	-2438	-750	-534	-5195
11. Total net inflows from India as in Table 3		1969	2345	2612	3354	2268
12. Profits on Irish exports to British America		213	247	352	385	202
13. Irish rents (conjectural estimate)[5]		366	472	613	780	1000
14. Current account balance (total of above)		2831	626	2828	3986	-1725

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[1] Includes change in foreign reserves and capital outflows.
[2] The net balances in lines 1-5 include British domestic exports, legal and illegal imports (all imports subtracted), re-exports of goods imported from the respective areas, net earnings on freight and insurance, mercantile profits, net ship sales, and emigrants' funds.
[3] These balance of payments flows should not be confused with British profits on the slave trade. Detailed calculation in Cuenca Esteban, 2004, Table 2.4.
[4] Britain's total debt service (-) or foreigners' debt service (+). In the absence of the "Total net inflows from India" in line 11, Britain's debt service might have reached ,4 million by 1808-12: see Cuenca Esteban, 2001, pp. 64-68.
[5] One half of the Irish rents seemingly remitted to absentee landlords residing in Britain: annual series of total remittances constructed with contemporary estimates for 1779, 1783, 1797, and 1804 as in O'Brien, 1918, p. 62.
Sources and procedures: Line 1 estimated as in Table 3 but with data on China (see notes to Appendix Tables 1-3). Line 11 as indicated. All other estimates with minor improvements as in Cuenca Esteban, 2004. Underlying sources, procedures, and independent benchmarks for Britain's external position in Cuenca Esteban, 2001. Slight errors due to rounding.

Table 5:
British re-exports of Indian textiles, 1790-1812 (period averages from annual data by destination)

	1790-92		1801-1803		1807-12	
	Pieces (000)	Unit value d/piece	Pieces (000)	Unit value d/piece	Pieces (000)	Unit value d/piece
CALICOS + COLOURED OR "PROHIBITED" PIECE GOODS:						
Worldwide	788	335	1755	270	986	219
Northern & Western Europe	481	372	1347	269	157	193
Southern Europe & Levant[1]	15	404	46	324	466	228
of which Gibraltar	1	334	5	490	274	240
Africa	259	270	275	280	79	230
Foreign America except US	0.4	407	2	364	92	210
British West Indies	4	365	58	221	125	212
United States	14	396	7	331	34	233
British Canada	6	403	18	314	32	220
MUSLINS:						
Worldwide	247	516	211	486	24	367
Northern & Western Europe	186	529	189	479	5	377
Southern Europe & Levant[1]	34	503	19	584	15	404
of which Gibraltar	0.1	851	2	577	2	478
Africa	0.5	216	0.4	451	0.1	602
Foreign America except US	negl	981	negl	246	0.5	464
British West Indies	12	402	0.3	464	1.4	297
United States	11	572	1.5	510	3.4	236
British Canada	3	548	0.2	326	0.1	363

[1] Portugal, Spain, Gibraltar, Italy, Malta, and Turkey & Egypt.

Sources: Compiled and calculated from PRO, Customs 17, 10, 11. Slight errors due to rounding. An annual series of unit values of Indian calicos only is given in Cuenca Esteban, 1999, p. 755.

Appendix Table 1:
British trade with India on East India Company account excluding government flows, 1762-1812 (period averages of annual values in ,'000)

	1762-1775	1776-1782	1783-1792	1793-1802	1803-1812
1. Imports CIF (sale value in London)	1754	1772	2092	3160	1977
2. +Saltpeter (not included above)	7	8	8	10	49
3. -Import charges in England	88	89	104	158	99
4. -Freight and demorage	179	242	270	469	438
5. -Marine insurance	30	105	48	83	53
6. -Customs duties included in sale price	520	401	431	510	39
7. -Import charges in India	60	91	105	169	143
8. -Mercantile profits	135	-285	119	407	236
9. =Imports "FOB India" at Indian ports	747	1135	1021	1372	1015
10. Exports FOB (goods for sale in India)	289	262	233	373	482
11. +Exports of three descriptions of stores	37	39	48	82	149
12. +Export charges	3	2	4	4	6
13. +Export customs	6	6	5	3	30
14. +Export freight	40	41	37	66	98
15. +Marine insurance	10	29	11	18	25
16. +Mercantile profits	-24	-27	-18	-87	-42
17. =Exports "CIF India" at Indian ports	360	354	319	461	748
18. Imports "FOB India" minus exports "CIF India" as above	387	781	701	911	267
19. -Exports of bullion	16	11	87	213	436
20. =Net India transfers to Britain	371	770	613	697	-169

Appendix Table 1: Sources and procedures as per numbered lines (see also Appendix text)

1. 1762-92: BL, OIOC, Board of Control, L/AG/10/2/2, MSSp. 234 (given for 1762-95). 1793-1811: PP 1812-13, VII, pp. 487-88 or MSSpp. 519-20; 1812: total from Asia (PP 1813-14, IX, "Account", p. 69, Appendix 25) minus China as in Pritchard, 1936, p. 397.
2. 1762-1771: Annual Accounts ("Salt Petre delivered"), in Third Report (1773), pp. 40-59. 1772-1812: annual data (1793-1809) and relevant information in PP 1812, VI, Fourth Report, p. 500, Appendix 30 (prime cost); compare total amounts receivable from Board of ordnance including freight etc: PP 1810-11, VII, "Annual Account", MSSp. 61; PP 1812, VI, "Annual Account", MSSp. 417; PP 1812-13, VIII, "Annual Account", MSSp. 405; PP 1813-14, IX, "Annual Account", MSSp. 1.
3. 5% of line 1 above as in BL, OIOC, H/449, MSSpp. 27-37: 1788-96, and in PP 1812-13, VII, pp. 487-88 or MSSpp. 519-20 (1793-1811).
4. Freight and demorage as follows minus line 14. 1793-1811: PP 1812-13, VII, pp. 487-88 or MSSpp. 519-20 ("Freight", verified to include demorage). 1776-92 and 1812: totals for Asia minus China breakdowns as in MacGregor, 1843-50, IV, p. 411 (Asia, 1776-92); PP 1812-13, VIII, "Annual Account", MSSp. 405 (Asia, 1812); and Pritchard, 1936, p. 397 (China, all years). 1762-75: totals for Asia in Third Report (1773), pp. 40-59 (1762-71), and in BL, OIOC, H/449, MSSp. 93, "extra wages bounty" included (1772-75); times the average India share in total import tonnage in 1772-75 (share calculated from a sample of relevant import quantities in PRO, Customs 17 and ton equivalents in Krishna, 1924, pp. 248-51).
5. One half of insurance rates as follows times the difference between imports CIF (line 1) and customs duties (line 6). Annual insurance rates calculated from London Price Current (1779-89, 1796-99) and in Danson, 1894 (1810-12: "East India risks"); other years estimated as in Cuenca Esteban, 2001, p. 79.
6. Customs revenue as follows minus line 13 below (the Company's customs figures include duties on tobacco exports: PP 1812, VI, Fourth Report, p. 438, note 12). 1793-1811: PP 1812-13, VII, pp. 487-88, MSSpp. 519-20. 1776-92 and 1812: totals for Asia minus China breakdowns in BL, OIOC, Miscellaneous Trade Statistics, L/AG/18/2/1, MSSp. 10 (1776-80); annual average from total for 1780-84 in Milburn, 1813, I, XCIII (1781-83); annual data in Milburn, ibid (1784-92 and 1812); Pritchard, 1936, p. 397 (China, all years). 1762-1775: line 1 times .30: the average share of customs revenue in import sales values in 1788-92 was 23.6% (calculated from BL, OIOC, H/449, MSSpp. 1-3); but customs rates on Indian textiles fell from 1757 (Krishna, 1924, p. 269) to 1783 (Baines, 1835, p. 324).
7. 1783-91: BL, OIOC, H/500, MSSp. 87, commercial charges in India, "not added to the cost of the goods". 1792-1808: PP 1810-11, VII, Third Report, p. 393, Appendix 12. Also note statements in PP 1812, VI, Fourth Report, p. 428 (referring to data in PP 1810-11, Third Report as above): "not added to the invoices", "should be deemed a charge upon the goods purchased in India". Other years calculated at 7.5% of prime cost data for 1771-79 (BL, OIOC, Miscellaneous Trade Statistics, L/AG/18/2/1, MSSp. 23: "Total profit..."), and for 1810-11 (MacGregor, 1843-50, IV, p. 411). Remaining years: 7.5% of extrapolated prime cost data as above.

8. Sale value in London (line 1) minus total cost. Total cost includes prime cost plus lines 3, 4, 5, and 6. Prime cost data (including charges in India) from BL, OIOC, Miscellaneous Trade Statistics, L/AG/18/2/1, MSSp. 23: 1771-79; and MacGregor, 1843-50, IV, p. 411: 1793-1811.

10. Prime cost in Britain of Company merchandise exports to India (PP 1812-13, VIII, "Bullion and Merchandise exported...", MSSp. 416: independently verified to include stores, re-exports, and export charges) <u>minus</u> line 11, "Naval & garrison stores" (see note 11), and line 12.

11. "Stores" defined in PP 1812, VI, Fourth Report, p. 504, Appendix 35 as "all exports except goods for sale" (exceptions comprising woollens, metals, and Madeira wine). <u>1772-91</u>: 96% of totals to Asia compiled from accounts in PRO, BT/6/227 & BT/6/43: "stores for the factory" + "Braziers' tin and ironmongers' wares" + "Pitch, tar, wines, deals, medicines" (given "Naval & garrison stores" entered elsewhere); <u>1792-1812</u>: 99.5% of totals to Asia as for 1772-91. <u>India shares above (96% and 99.5%)</u>: inferred from given breakdowns for India and China in proximate years in PRO, BT/6/42, MSSp. 34; BL, OIOC, H/500, MSSp. 83: prime cost in 1783-1800; BL, OIOC, Miscellaneous Trade Statistics, L/AG/18/2/1, MSSp. 12: "Naval & garrison stores & goods of foreign produce", 1770-71. <u>1762-69</u>: Prime cost of Company merchandise exports to India (see note 10) times .23 (as in breakdowns for 1772-75 in PRO, BT/6/227); results consistent with seven-year averages for 1763-70 and 1770-77 in PRO, BT/6/227, table in loose leaf: "The Particulars of the value..." (four stores-like entries plus re-exports).

12. Charges on exports to Asia (1772-1812 compiled from accounts in PRO, BT/6/227 and BT/6/43; 1762-71 extrapolated on the link year 1772 as 82% of Company's merchandise exports to India and China: see note 10) times the India shares in the export totals. The actual India shares for 1787-91 were calculated from China charges in PRO, BT/6/227: table in loose leaf. Note that the larger export charges on woollens and metals given in BL, OIOC, H/449, MSSpp. 3-5 and 10-11: 11.5% of prime cost in 1781-90) appear to involve annual mark-ups of 10% into invoice cost: see PP 1812, VI, Fourth Report, p. 437; PP 1810-11, VII, Third Report, p. 383, Appendix 5.

13. See note 6 above. Tobacco and war duties. Totals on <u>tobacco</u> exports to Asia in 1793-1810 in PP 1812, VI, Fourth Report, p. 505, Appendix 37 (Table note: no separate entries were made for India and China); other annual totals calculated at 2% of Company's merchandise exports to India and China (see note 10); India breakdowns from India shares in Company's merchandise exports to India and China. Total returns of <u>war duty</u> (1804-12) on Asian trade compiled from accounts for Asia in PRO, BT/6/227, and BT/6/43; all India breakdowns calculated at 82.33% of totals (given share for 1811).

14. Estimated as Company's merchandise exports to India (line 10) times .106 (annual average share calculated from BL, OIOC, H/449, MSSpp. 1-3: freight on woollens and metals, 1783-89).

15. Company's merchandise exports to India (see note 10) times one half of insurance rates (rates as in note 5 above).

16. Export cost (total of lines 10-15) times profit rates. Annual profit rates assumed equal to those implicit in Pritchard, 1936, p. 398 (on China trade); rates for 1762-74 guessed at -5 percent.

19. "Bullion" to India in PP 1812-13, VIII, "Bullion and Merchandise exported...", MSSp. 416.

Appendix Table 2:
"Privilege" trade with India by British commanders & officers in Company ships, 1762-1812 (period averages of annual values in , '000)

	1762-1775	1776-1782	1783-1792	1793-1802	1803-1812
1. Imports CIF (sale value in London)	94	117	498	393	554
2. -Import charges in England	5	6	25	20	28
3. -Freight and demorage	-1	6	56	24	47
4. -Marine insurance	2	8	8	10	15
5. -Customs duties included in sale price	26	24	112	70	6
6. -Import charges in India	3	6	19	14	24
7. -Mercantile profits	9	-19	33	51	62
8. =Imports "FOB India" at Indian ports	51	87	243	203	372
9. Exports FOB	120	112	120	108	138
10. +Export charges	1	1	1	1	1
11. +Export customs	2	2	2	0	5
12. +Export freight	13	12	13	11	15
13. +Marine insurance	3	9	4	3	4
14. +Mercantile profits	-8	-10	-7	-15	-7
15. =Exports "CIF India" at Indian ports	131	125	132	109	155
16. Imports "FOB India" minus exports "CIF India" as above	-81	-39	111	94	216
17. -Exports of bullion	139	135	139	124	162
18. =Net India transfers to Britain	-220	-174	-27	-30	54

Appendix Table 2: Sources and procedures as per numbered lines (see also Appendix text)

1. 1762-92: BL, OIOC, Board of Control, L/AG/10/2/2, MSSp. 234; 1793-1809: PP 1812, VI, Fourth Report, p. 514, Appendix 45: "private trade" [i.e., privilege trade]; 1810-12: one fourth of privilege plus private imports from Asia (MacGregor, 1843-50, IV, p. 413: 1810-11; PP 1813-14, IX, "Account", p. 69, Appendix 25: 1812).
2. 5% of line 1 (see Appendix Table 1, note 4).
3. Freight and demorage as follows minus line 12. 1762-92: freight and demorage on Company imports (Appendix Table 1, line 4) times the annual shares of privilege imports (line 1 above) in total imports (sum total of first lines in Appendix Tables 1, 2, 3); 1793-1809: freight on privilege trade with India and China (PP 1812, VI, Fourth Report, p. 488, Appendix 22: "private trade") times the annual shares of privilege imports from India in the privilege totals including China (PP 1812, VI, Fourth Report, p. 514, Appendix 45: "private"); 1810-12: 3% of line 1 (rate given in PP 1812, VI, Fourth Report, p. 443).
4. One half of insurance rates (see Appendix Table 1, note 5) times the difference between privilege imports CIF (line 1 above) and customs duties (line 5 below).
5. Customs revenue as follows minus line 11 below. 1762-71: 50% of total customs revenue on "privilege" trade with Asia as in Third Report (1773), pp. 40-59; 1772-92: Customs on Company trade (Appendix Table 1, line 6 plus line 13) times the annual ratios of privilege imports (line 1 above) over Company imports (Appendix Table 1, line 1); 1793-1812: Customs revenue on privilege trade with Asia (PP 1812, VI, Fourth Report, p. 488, Appendix 22, Customs on "private" trade: 1793-1809; annual accounts in PP 1810-11, VII, "Annual Account", MSSp. 61; PP 1812, VI, "Annual Account", p. 417; PP 1812-13, VIII, "Annual Account", MSSp. 405: 1810-12) minus China breakdowns in Pritchard, 1936, p. 398.
6. 7.5% of estimated import values in India: privilege imports CIF (line 1) over Company imports CIF (Appendix Table 1, line 1) times the prime cost of Company imports (BL, OIOC, Miscellaneous Trade Statistics, L/AG/18/2/1, MSSp. 23: 1771-79; MacGregor, 1843-50, IV, p. 411: 1793-1811).
7. Sale value in London (line 1) times the Company's profit rates implicit in Appendix Table 1, lines 1 and 8.
9. **1784-90**: BL, OIOC, European MSS. D281, MSSp. 21 overleaf: "estimated... on the tonnage and value exported"; compare almost

matching figures in BL, OIOC, H/449, MSSp. 7. 1762-71 and 1791-1810: Each Company ship sailing to Canton was said to carry ,5 to ,7 thousand worth of "privilege" goods (Milburn, 1813, II, p. 479); privilege exports to India and China are estimated here as ,6 thousand times the annual number of ships bound for Asia (MacGregor, 1843-50, IV, pp. 404-406); this product is then weighted with the annual India shares in the Company's merchandise exports to Asia (see Appendix Table 1, notes 10, 11, 12); the resulting estimates for India only closely approximate, on average, the documented figures for 1784-90 (see above). **1772-83**: "Privilege" exports to Asia (as in PRO, BT/6/227, no page number: uncertainly estimated from tonnage data), times 2 to allow for contraband (as suggested in PRO, BT/6/227, ibid, note overleaf), minus "privilege" exports to China (estimated with relevant weights from ship numbers times ,6 thousand as above); slightly different figures on "privilege" exports to Asia for 1780-89 are given in PRO, BT/6/42, no page number. 1811-12: assumed equal to the 1810 value.

10. Charges on Company exports to India (Appendix Table 1, line 12) times the annual ratios of privilege exports (line 9 above) over Company exports (Appendix Table 1, lines 10, 11, 12).
11. See note 5 above. Customs on Company exports (Appendix Table 1, line 13) times the annual shares of privilege exports (line 9 above) in total merchandise exports (added up from Appendix Tables 1, 2, 4).
12. Estimated as privilege exports to India (line 9) times .106 (average annual share of freight costs as in Appendix Table 1, note 15).
13. Privilege exports to India (line 9) times one half of insurance rates (rates as in Appendix Table 1, note 5).
14. Export cost (total of lines 9-13) times the Company's profit rates implicit in Appendix Table 1, lines 10, 11, and 16.
17. As in line 9 above: Milburn (1813, II, p. 479) stated that the Spanish dollars sent on privilege probably equalled privilege commodity exports.

Appendix Table 3:
British private trade with India under the 1793 Act, 1793-1812 (period averages of annual values in ,'000)

	1793-1802	1803-1812
1. Imports CIF (sale value in London)	1089	1225
2. -Import charges in England	54	61
3. -Freight and demorage in Company ships	27	26
4. -Ibid on Indian ships	51	44
5. -Marine insurance	26	29
6. -Customs duties included in sale price	117	22
7. -Import charges in India	39	53
8. -Mercantile profits	196	136
9. =Imports "FOB India" at Indian ports	576	852
10. Exports FOB	393	616
11. +Export charges	3	4
12. +Customs on exports	2	18
13. +Freight	42	65
14. +Marine insurance	10	17
15. +Mercantile profits	-60	-16
16. =Exports "CIF India" at Indian ports	389	705
17. Imports "FOB India" minus exports "CIF India" as above	187	147
18. -Exports of bullion	36	52
19. =Net India transfers to Britain	151	95

Appendix Table 3: Sources and procedures as per numbered lines (see also Appendix text)

1. 1793-1809: PP 1812, VI, Fourth Report, p. 514, Appendix 45: "privilege" imports). 1810-1812: Estimated as one-fourth of non-Company imports from Asia (MacGregor, 1843-50, IV, p. 413: 1810-11; PP 1813-14, IX, "Account", p. 69, Appendix 25: 1812).
2. 5% of line 1 (see Appendix Table 1, note 3).
3. Freight and demorage as follows minus line 13. PP 1812, VI, Fourth Report, p. 515, Appendix 46: received by the Company on account of "privilege" goods, 1794-1809 (entered as zero in remaining years).
4. Tons times freight rates per ton. Annual "Tonnage of Privilege [i.e., private] Goods imported on India-built ships, and on which no Freight was either paid or received by the Company, having been laden by the Merchants on their own account" in PP 1812, VI, Fourth Report, p. 515, Appendix 46. Constructed series of freight rates paid by private traders from data in Tripathi, 1979, pp. 33, 39, 40-42, 48, 58, 69, 79, 94: 1793-1807. These rates were entered at two-thirds to allow for cheaper freight on Indian and "extra" shipping: see Tripathi, 1979, p. 41; PP 1812, VI, Fourth Report, p. 444. The rates for 1808-1812 were guessed at ,20 per ton.
5. One half of insurance rates (see Appendix Table 1, note 5) times the difference between private imports CIF (line 1 above) and customs duties (line 6 below).
6. Customs revenue as follows minus line 12 below. Customs on Company trade (Appendix Table 1, line 6 plus line 13) times the annual ratios of private imports (line 1 above) over Company imports (Appendix Table 1, line 1).
7. Estimated from private imports CIF (line 1), otherwise as in Appendix Table 2, note 6.
8. Sale value in London (line 1) times the Company's profit rates implicit in Appendix Table 1, lines 1 and 8.
10. Weak but arguably overstated estimates from tonnage and value data. The annual tonnage figures include the private exporters' cargoes in Company ships plus the entire tonnage of goods imported into England in Indian ships -- on the generous assumption that outgoing

Indian ships were equally laden: all tonnage figures to 1810 in PP 1812, VI, Fourth Report, p. 515, Appendix 46; tons for 1811-12 entered at the maximum allowed to private traders in Company ships: ibid, p. 444. In a first approximation, the total tons to India were converted into sterling values with the annual ratios of the Company's merchandise export values to Asia (see Appendix Table 1, notes 10, 11, 12) over the respective tons (MacGregor, 1843-50, IV, p. 406: 1793-1810). This conversion alone would understate export values because private traders are likely to have shared the commanders' and officers' preference for low-volume, high-value goods (Bowen, 1998, p. 467). In 1793-1809, the Company's average export values per chartered ton equalled 49: calculated from Milburn, 1813, I, xci. For the privilege export trade this ratio has been estimated at 109 as follows: export values to India and China (see Appendix Table 2, note 9) over 56.5 tons (allowed to Commanders on privilege: MacGregor, 1843-50, IV, p. 388) times 43 outgoing ships per year (calculated from Milburn, 1813, I, xci). Accordingly the values of private exports to India, as estimated above from tonnage data with the Company's export values per ton, were multiplied by 2.2 (= 109 /49).

11. Charges on Company exports to India (Appendix Table 1, line 12) times the annual ratios of private exports (line 10 above) over Company exports (Appendix Table 1, lines 10, 11, 12).
12. See note 6 above. Customs on Company exports (Appendix Table 1, line 13) times the annual shares of private exports (line 10 above) in total merchandise exports (added up from Appendix Tables 1, 2, 3).
13. See line 3. Estimated as private exports to India (line 10) times .106 (average annual share of freight costs as in Appendix Table 1, note 14).
14. Private exports to India (line 10 above) times one half of insurance rates (rates as in Appendix Table 1, note 5).
15. Export cost (total of lines 10-14) times the Company's profit rates implicit in Appendix Table 1, lines 10, 11, and 16.
18. Gold and silver on private account into Calcutta from England, 1796-1812: annual figures compiled from BL, OIOC, Proceedings, P/174/13-32.

Appendix Table 4:
British overall net transfers from India excluding government flows, 1757-1812 (period averages of annual values in ,'000)

	1757-1771	1772-1782	1783-1792	1793-1802	1803-1812
Minimum estimates (Cuenca Esteban, 2001)	628	408	1023	261	127
New estimates (totals in Table 1)	394	1011	1246	1796	660
Furber's "drain" to Europe			1562		

	1757-1784	1757-1780	1780-1812	1789-1790	1800
New estimates (totals in Table 1)	692	644	1198	1015	3039
Marshall (private transfers, Bengal only)	555				
Hamilton ("drain")		1500			
Sinha ("drain")		1670			
Griffiths ("drain")		1304			
Griffiths ("drain": provisional conjecture)			937		
Habib (minimum net imports: 1789-90 & c1801)				2000	4700

References: Minimum estimates: Cuenca Esteban, 2001, pp. 60, 66. Furber, 1948, pp. 305-10. Marshall, 1976, pp. 255-56. Hamilton, 1919, pp. 135-36, 146-48. Sinha, 1927, pp. 46-52. Griffiths, 1952, p. 400. Habib, 1974, p. 28.

Figure 1: Export & import prices in British trade with Asia, 1765-1812 (1784=100%)

Figure 2: Asian shares in British worldwide trade, 1765-1812
(percentages from trade values at constant prices of 1784)

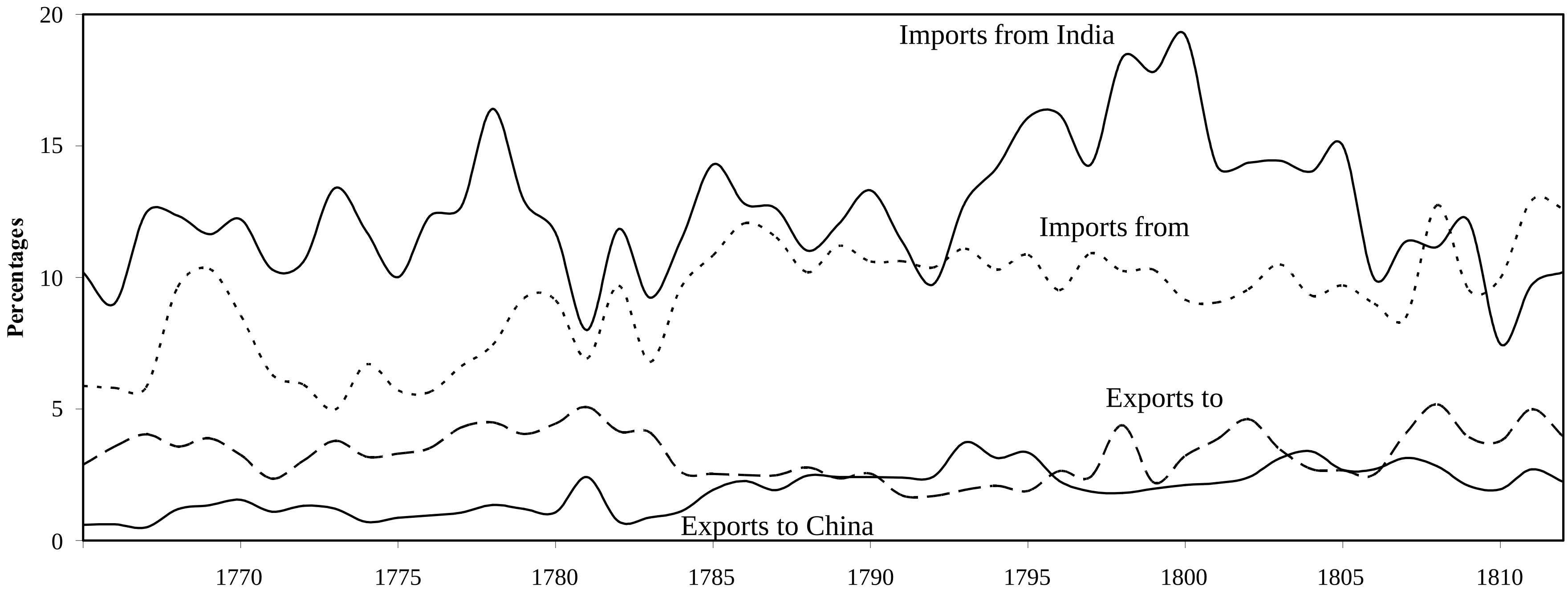


Figure 3: British imports from Asia, 1765-1812
(millions of pounds sterling at constant prices of 1784)

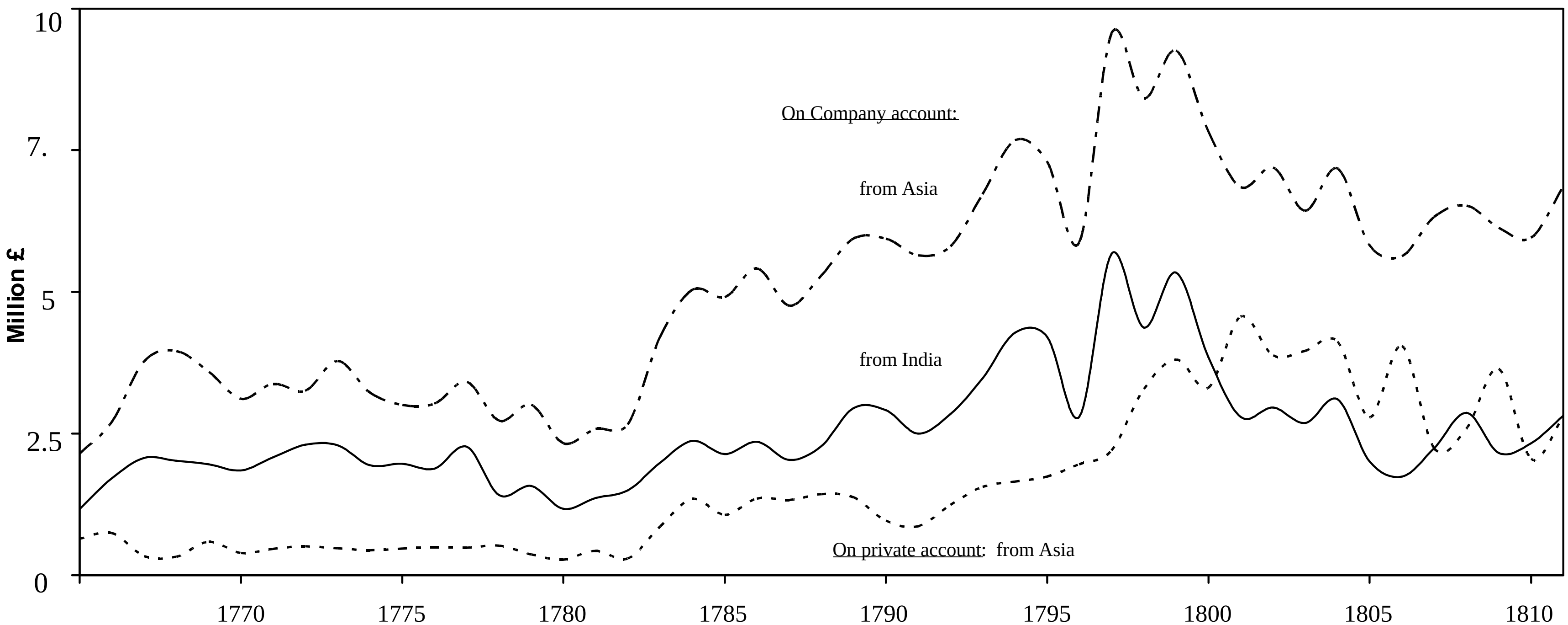
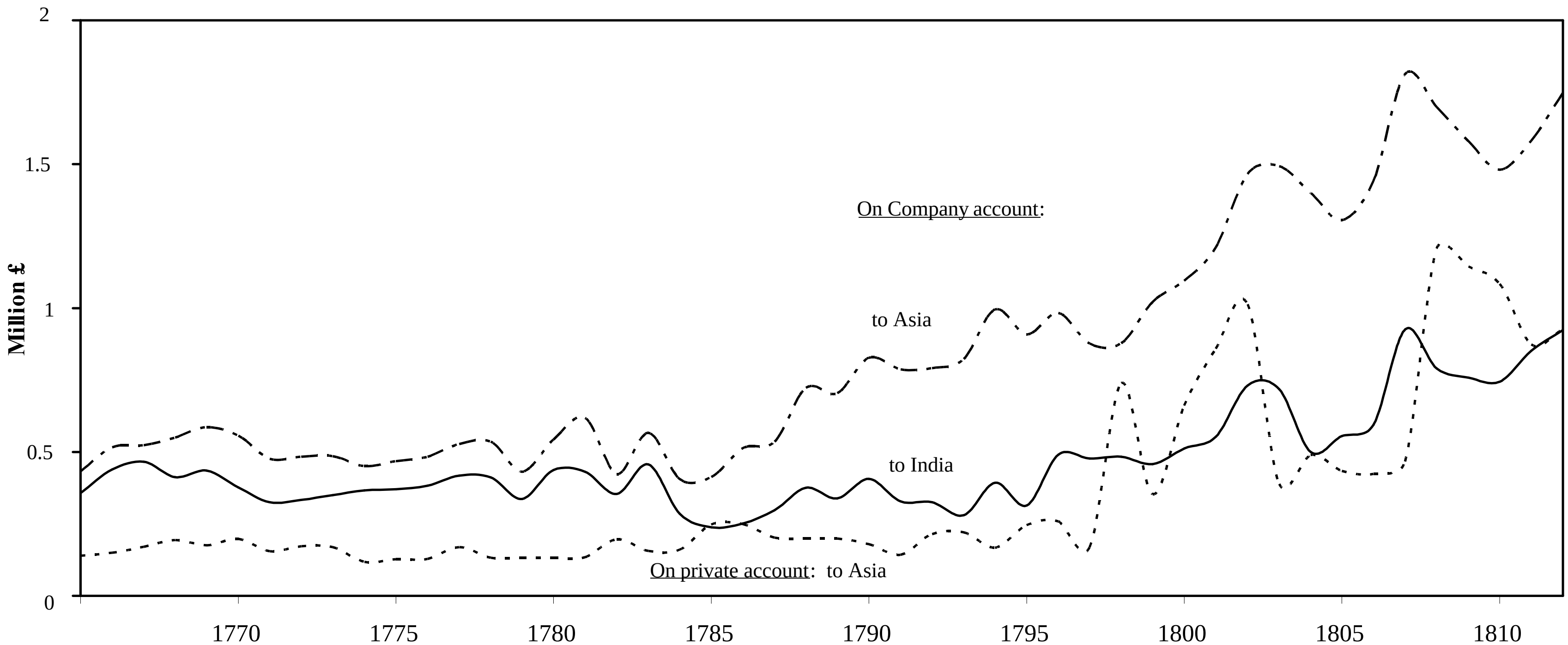


Figure 4: British exports to Asia, 1765-1812
(millions of pounds sterling at constant prices of 1784)



ENDNOTES:

1. Bowen, 1998, pp. 535-537, 541, 548; Marshall, 1968, pp. 91, 98.

2. Quoted in Marshall, 1968, p. 91.

3. Marshall, 1968, 92.

4. Furber, 1948, pp. 264-267. Philips, 1940, pp. 1-79, 106, 124, 153, 303. Bowen, 1998, p. 535.

5. For details see Tripathi, 1979, pp. 25-26; Webster, 1990, pp. 408-410.

6. Marshall, 1976, pp. 249-256; Furber, 1948, pp. 306-323.

7. Barber, 1975, pp. 104-105.

8. Marshall, 1976, pp. 241-256.

9. Furber, 1948, pp. 305-310.

10. See Greenberg, 1951, pp. 11-12, 156-159, and passim. Supporting analysis and figures in Pritchard, 1936, pp. 180-185.

11. Ray, 1998, pp. 513-514.

12. See Mitra, 1978, pp. 62-69, 96-97, 143-150; and 101-102.

13. Ray, 1998, p. 525. Marshall, 1998, p. 506. Parkinson, 1937, pp. 78-85.

14. Philips, 1940, pp. 107-109. Parkinson, 1937, pp. 320-21.

15. Furber, 1948, p. 304. Neither the notion nor the underlyingreasoning were new: compare,for example, Hamilton, 1919, pp. 135-136.

16. Furber, 1948, pp. 305-10.

17. BL, OIOC, H/449, MSSp. 36, note. Invoice cost was calculated as prime cost plus 10 percent: BL, OIOC, H/500, MSSp. 83; PP 1810-11, VII, Third Report, p. 383, Appendix 5.

18. The Company was often compelled to export British goods at a loss: Robinson, 1912, p. 165. For detailed estimates please refer to the Appendix.

19. PP 1812-13, VIII, MSSp. 416.

20. Philips, 1940, p. 124.

21. Philips, 1940, p. 106.

22. Bowen, 1998, p. 467.

23. Marshall, 1976, p. 242.

24. Philips, 1940, pp. 47-49, 66-67.

25. PP 1812, VI, Fourth Report, Supplement (Appendix 47), p. 35 or MSSp. 151. Philips, 1940, pp. 106-107, 156, 157. Tripathi, 1979, pp. 90-91, 101, 108, 110, 120-122.

26. Chapman and Chassagne, 1981, pp. 13-14.

27. Fitton, 1989, p. 38.

28. Sources and selected figures in Cuenca Esteban, 2001, 2004.

29. Nash, 1997, pp. 119-22. Compare Cuenca Esteban, 2001, pp. 80-82.

30. Imlah, 1958, pp. 47-48.

31. See Mitra, 1978, pp. 107-130, 144.

32. PP 1812-13, VIII, MSSp. 416.

33. Philips, 1940, p. 179.

34. Nash, 1997, pp. 125-6; Imlah, 1948, p. 67.

35. See Cuenca Esteban, 2001, p. 59, fn. 8. William Pitt stated in 1798 that British residents received , 1 million per year from their properties in Ireland: Pitt, Speeches, II, pp. 441-2.

36. See Cuenca Esteban, 2001, pp. 59-64.

37. See further detail in Cuenca Esteban, 2004, pp. 46-49.

38. See Cuenca Esteban, 2004, pp. 44-46.

39. Nash, 1997, pp. 125-26; Feinstein, 1978, p. 71.

40. Davis, 1979, p. 55.

41. Marshall, 1968, p. 91.

42. Bowen, 1998, p. 540.

43. Furber, 1948, pp. 21-23, 122-123, 195, 269. Tripathi, 1979, pp. 7, 11.

44. Data in Philips, 1940, p. 192.

45. "The idea of a tribute through imports still remained current at least until 1813": Marshall 1968, p. 91.

46. Philips, 1940, pp. 77, 108-109.

47. Mitra, 1978, pp. 109-143.

48. Philips, 1940, pp. 79, 116-117, 155.

49. See Parkinson, 1937, pp. 174-76, 185-86, 363-65; Philips, 1940, pp. 82-83, 107, 110-111.

50. Furber, 1948, pp. 22-23, 195, 225-226. Tripathi, 1979, pp. 4-5, 11.

51. Parkinson, 1937, pp. 150, 155-56; Philips, 1940, pp. 87-88, 156.

52. One quantifiable factor involved is the scale advantage of larger ships: see Parkinson, 1937, p. 149.

53. Furber, 1948, p. 38.

54. Annual data in BL, OIOC, H/500, MSSp. 83; and in MacGregor, 1843-50, IV, pp. 404-406.

55. Calculated from PP 1812, VI, Fourth Report, pp. 492-93, Appendix 24: 2.7 per cent of total imports in 1793-1809. The point of reference for 1771-83 is MacGregor's total imports from Asia: 1843-50, IV, pp. 407-409.

56. Current import values from "Asia" calculated from quantity and price data as in Cuenca Esteban, 2001.

57. Cuenca Esteban, 2001, p. 66.

58. Marshall, 1976, pp. 235, 241-43: Bengal figures adjustedwith Marshall's own ratio to account for Madras (ibid, p. 253).

59. Pritchard, 1936, p. 393: talers converted to sterling at 6s. 8d.

60. Compare Sinha, 1927, p. 47, and Ninth Report (1783), p. 55.