

# Standard error: Silver as commodity or money?

Alejandra Irigoien  
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# Standard Error

- Silver grains denominated prices & wages for int'l comparisons; measure market integration but silver was not worth the same everywhere, nor its relative price in goods/gold did converge
- Global monetary historians arbitrage between gold silver ratio
- Gold/silver ratios persisted or abated in Asia and imports continued however even when they balanced
- Implication for Sp America source of world silver until mid 19C

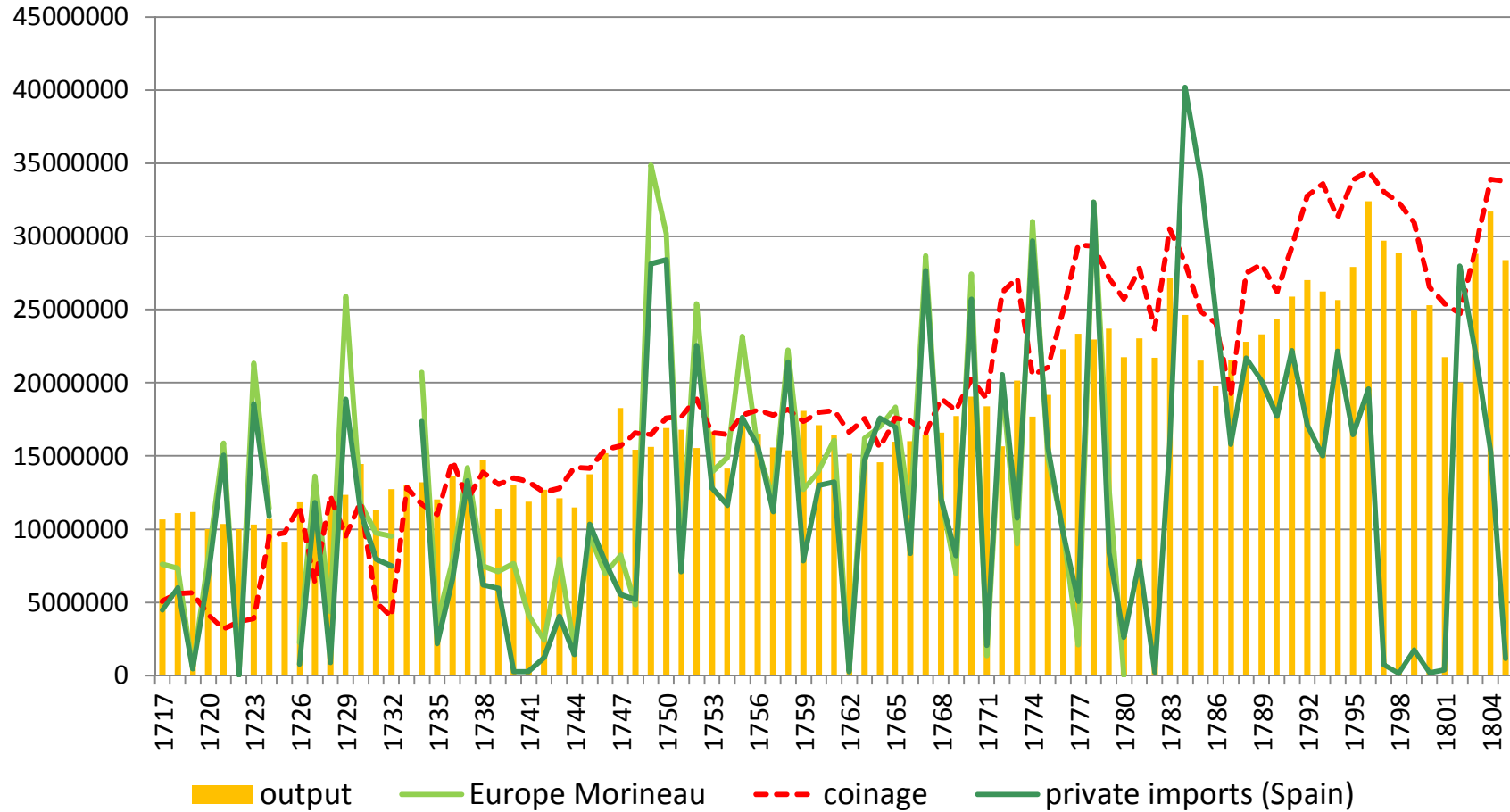


# Adam Smith

- Silver ‘was one of the principal commodities by which the commerce between the two extremities of the old (continent) is carried on, and by means of it, in great measure, that those distant parts of the world are connected with one another’ (book IV part III p 287).
- Moreover, **‘what has been said of the East India Trade might possibly be true of the French;** that though the greater part of the East India goods were bought with gold and silver, the re-exportation of a part of them to other countries brought back more gold and silver to that which carried on the trade that the prime cost of the whole amounted to’. (book 4 chap 3 p 621-25, 619).
- Europe had received ‘general advantages .. in the increase of its enjoyments and in the augmentation if its industry’ [ book iv ch iii p 780].
- It was the **‘gradual enlargement of the market for the produce of silver mines in America ...** which has not only kept up the value of silver in the European market, but perhaps even raised somewhat higher than it was about the middle of last century’ [ book iv ch iii p 780]
- **Private consumption in the New World >> Demand side factor in GD?**



# Silver output & exports





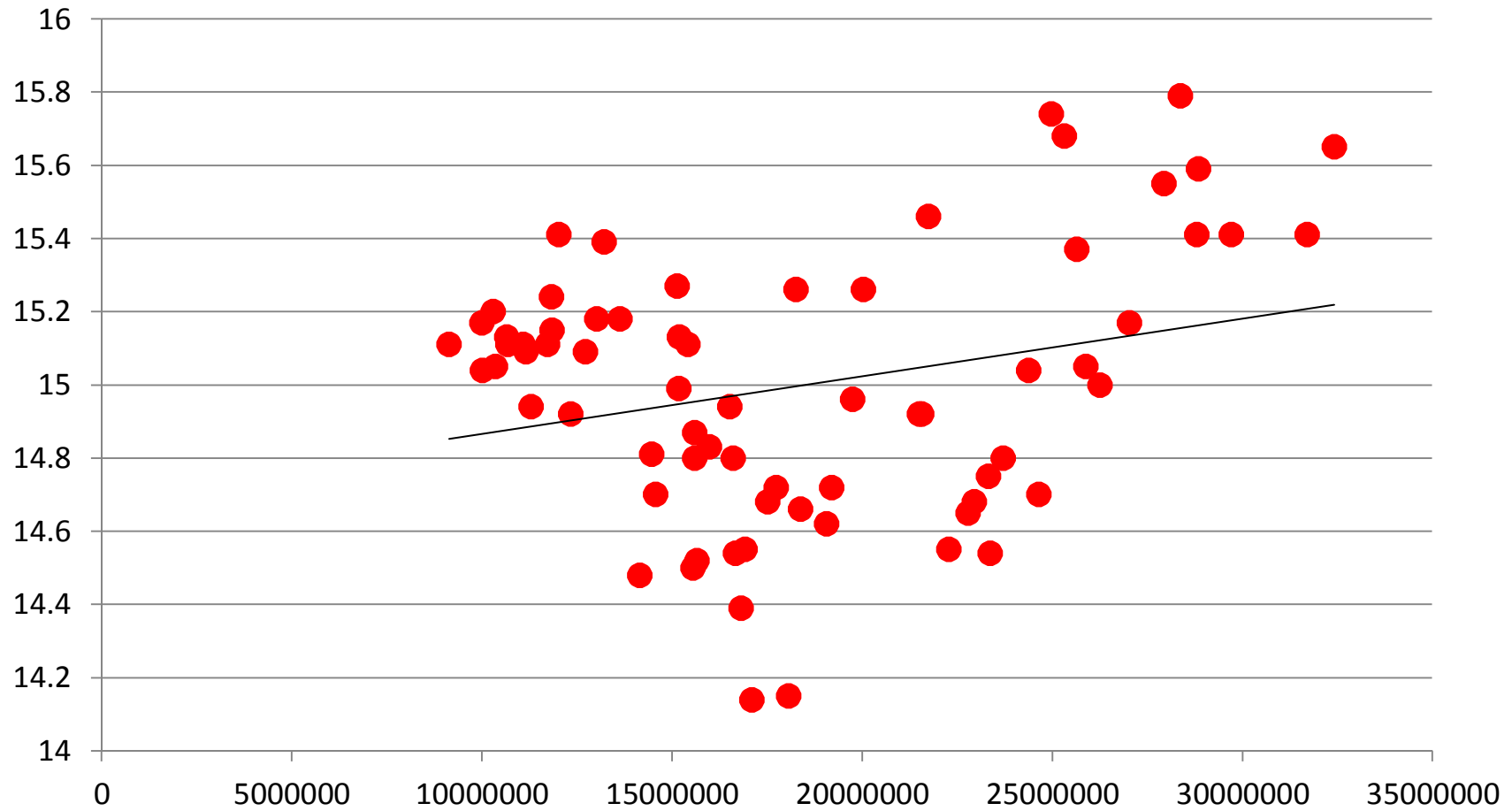
# Silver exports

- **Size, private & coined** (specie)
  - growth faster than UK trade
  - Consumption in Sp Am ?
- Europe intermediated silver in world trade
  - Arbitrage w Asia, (price takes in America?)
- No relation between exchange rate and silver / gold ratio (England)
  - different institutional set up to deal with foreign exchange and precious metals





# SpAm output / UK ratio





## Exchange rates i

- £/S Exchange rates: moved in favour of the peso in the 1780s in Cadiz, after 1797 in London
- *Assignats* crisis in France and return to metallic base BoF 1806
  - Flow of silver through Spain to France (Dermigny)
  - Bought 34 million francs of silver coins 1802-06
  - F/\$ 4.92 at Perpignan vs 5.30 in Paris

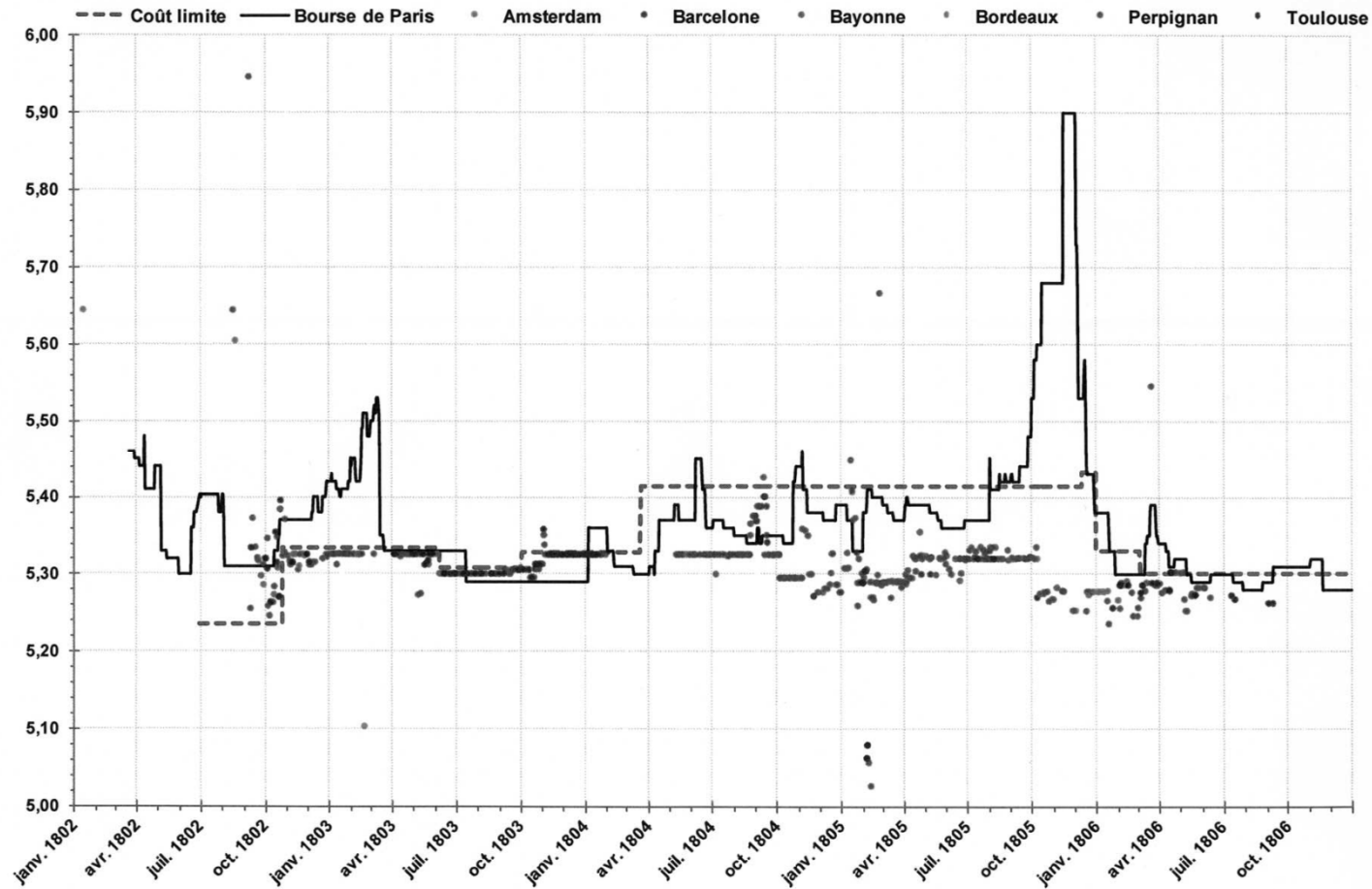




## Exchange rates ii

- 1790s England exported silver coins to Asia, sent remittances to allies in Napoleonic wars in specie – pressure on the exchange rate of silver peso
  - Nearly coined no silver in the 18C
- ‘Restriction Period’: £ sterling depreciated more to silver peso than to gold (after 1799)

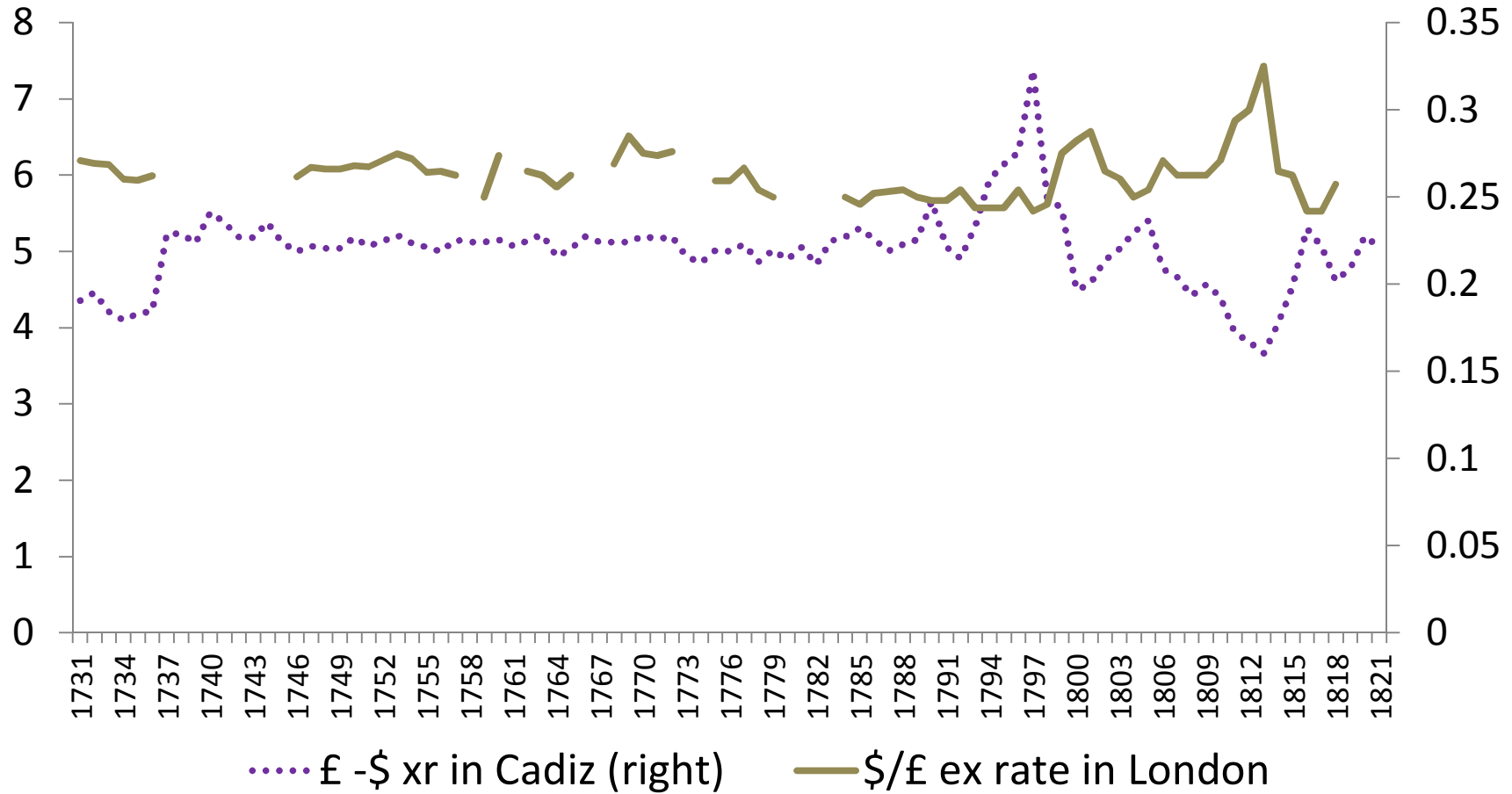
# Exchange rate Paris, 1802-06



E. Prunaux (2012)



# Exchange rates Cadiz & London





# SpAm trade boomed

- Boom in non precious metals exports, flood of imports (British textiles), acceleration of silver exports
- Explained by trade liberalization, more trade + freer trade – eg. by institutions!
  - Bourbon Reforms
- Affected *all* colonies alike, regardless export commodity, factor endowments and distance from/ to Europe



# Institutional reform?

- Without changes in transport costs and sudden improvements in productivity how to explain the growth and (im)balance of trade?
  - End of Spanish mercantilism, greater openness
  - (gains from trade in long run ?? ..... Prejudiced by political instability, eg institutions!)
  - Favourable TT from productivity gains in European manufacturing
- Outflow of silver to England/ Europe?
  - Balance of trade in UK improved? Bank reserves did by 1816



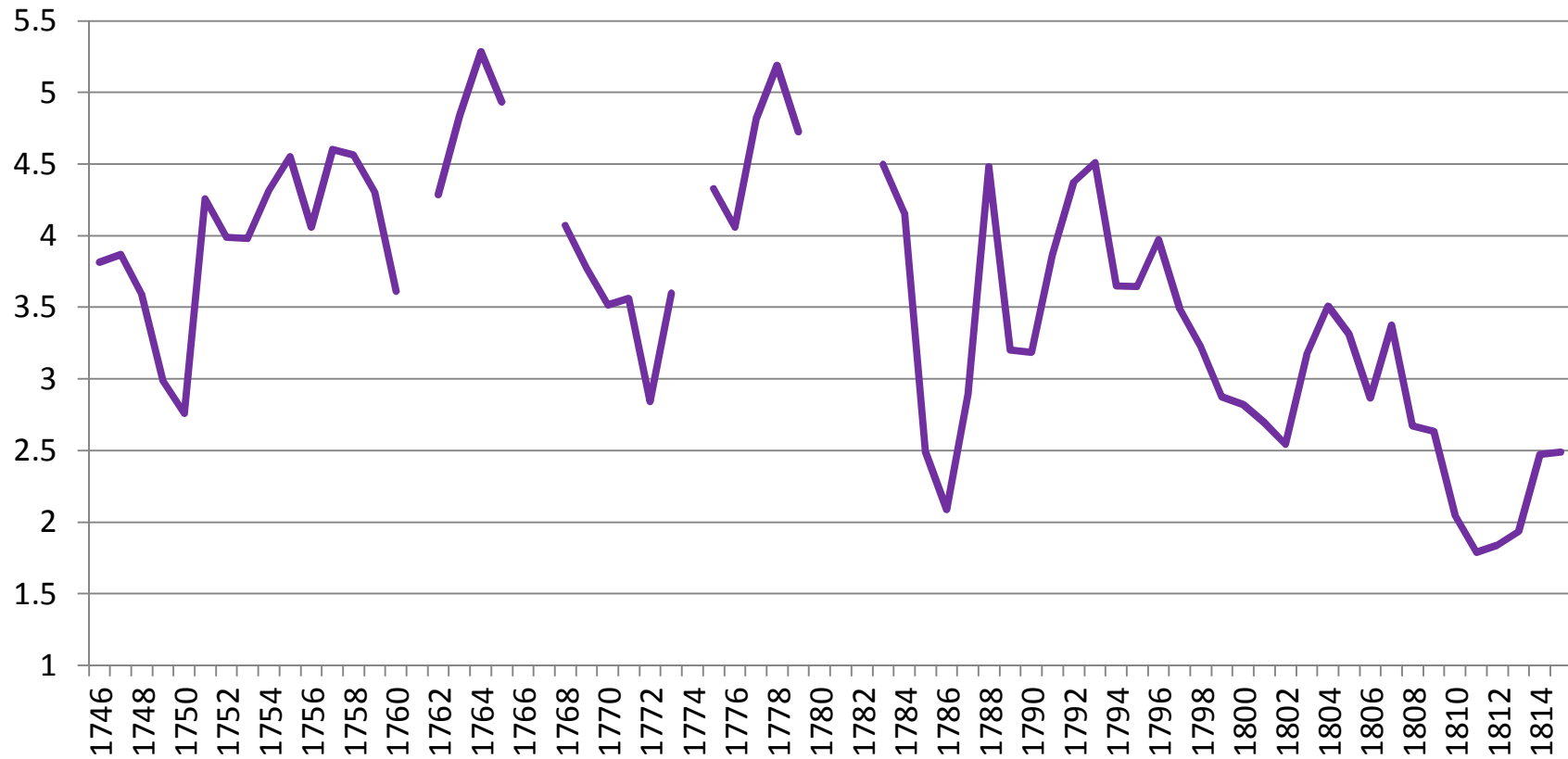
## Overvaluation of exchange rate

- Real exchange rate eroded by inflation in Sp  
Am more than by terms of trade
  - (did not improve as price of cotton rose in Britain in the short run), prices of commodities (exports) rose in Britain during war
  - When they fell however commodity exports continued very much the same – more production with lower prices : extensive growth
  - Commodity trade boomed



# Real Exchange Rate

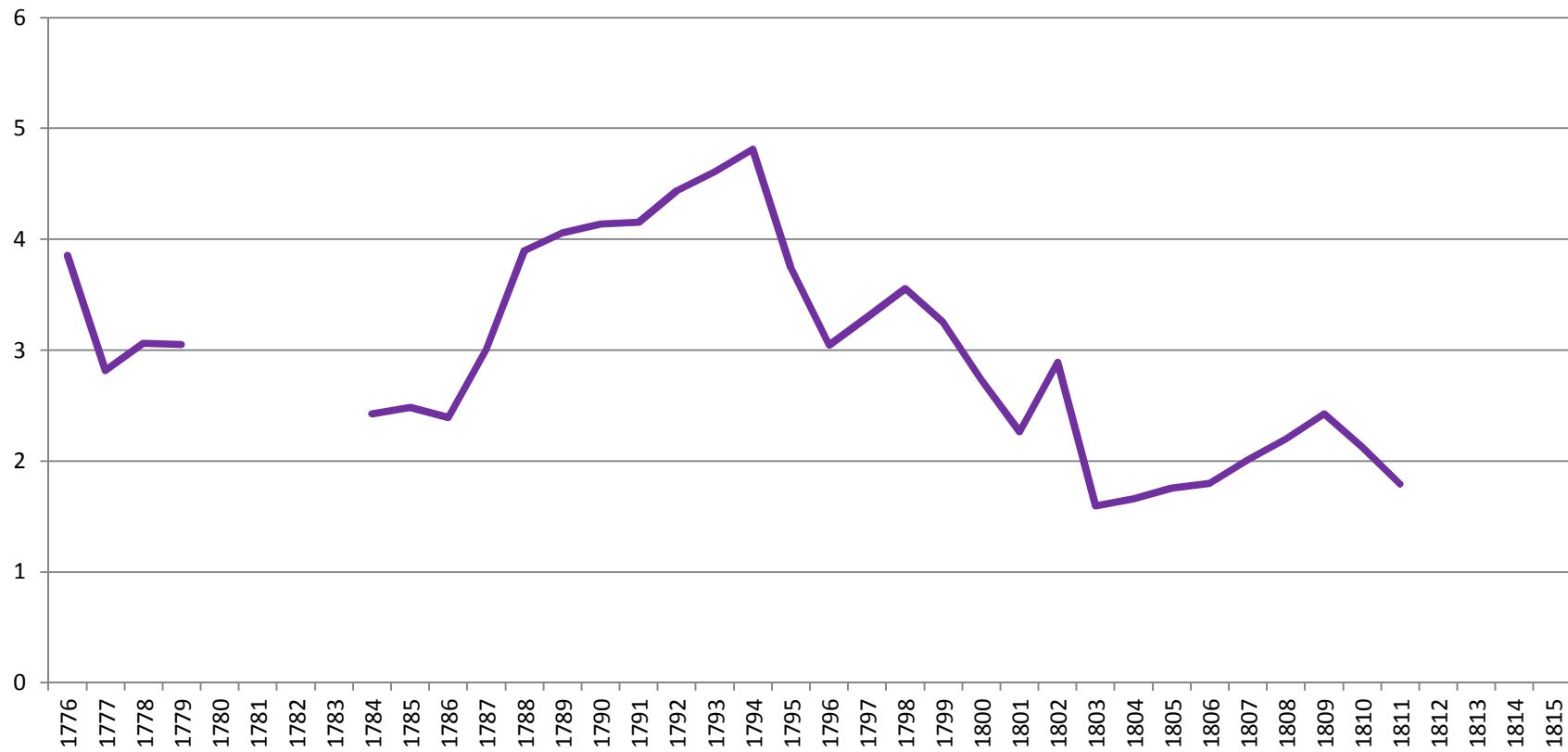
## RER Mexico





# Real Exchange rate

## RER £ BsAs cost of living

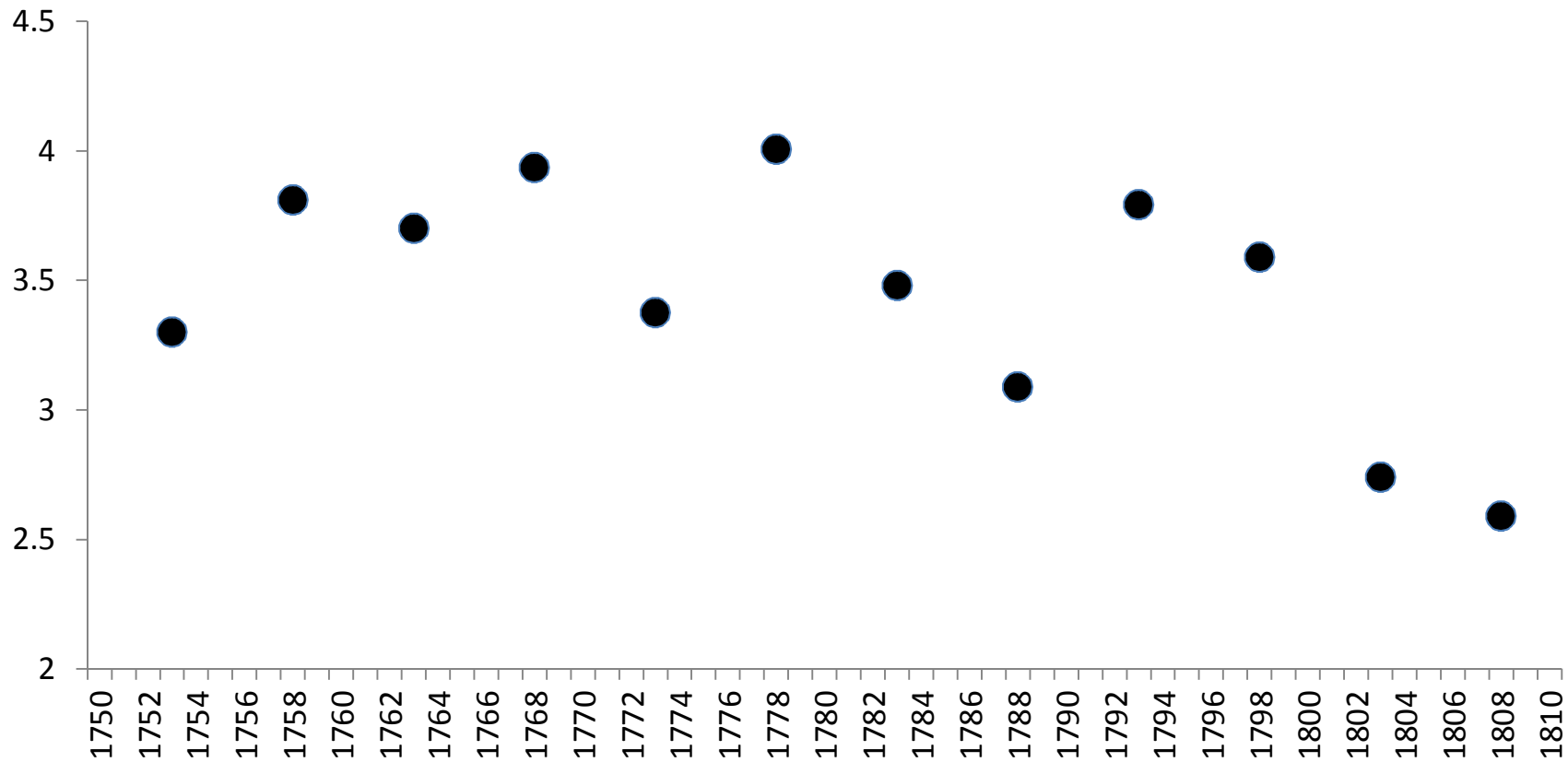






# Real Exchange Rate

RER £ Santiago (five years index)



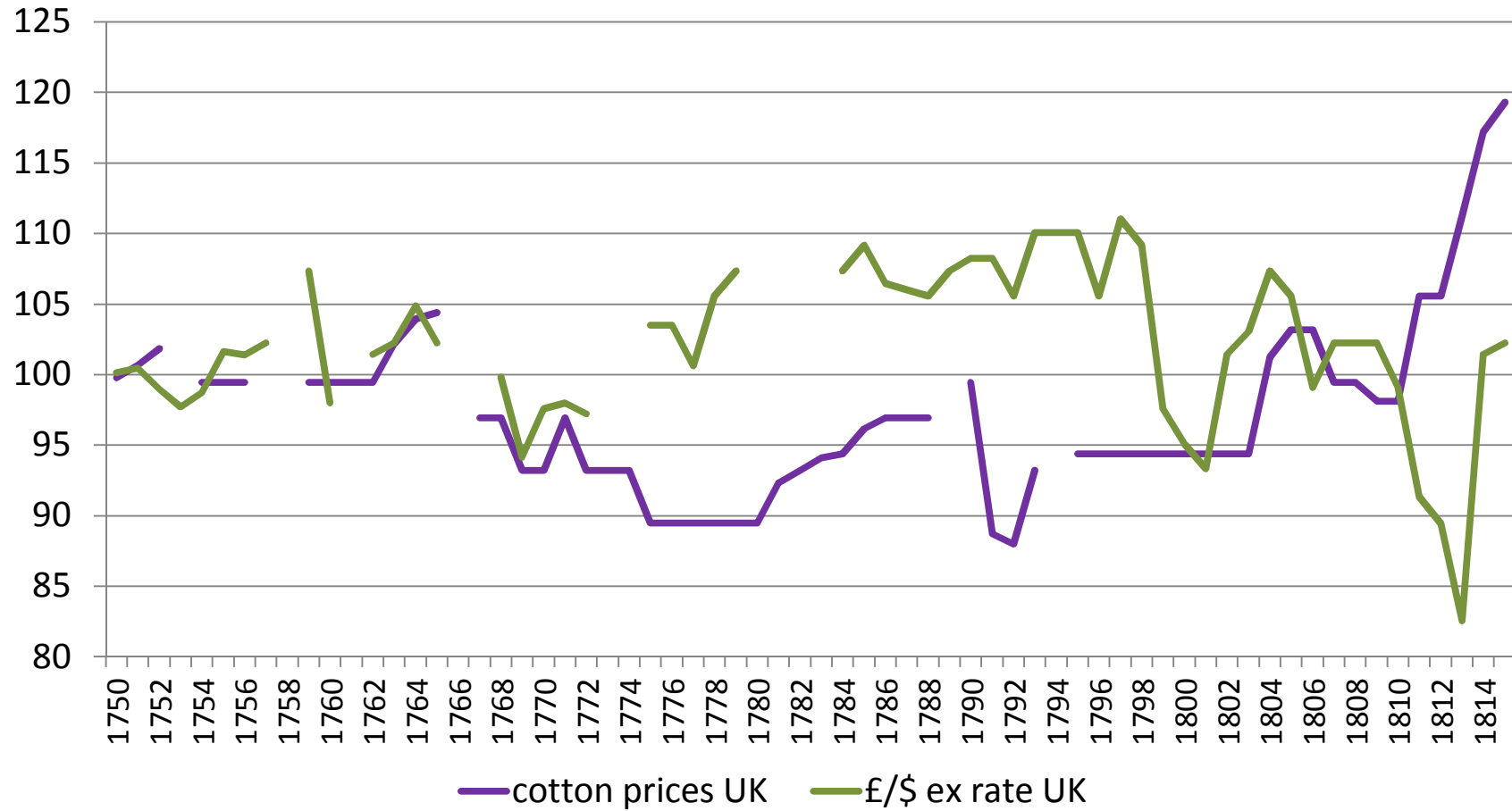


# Implications for SpAm 1

- Overvalued exchange rates > imports inflow
- Glutted markets everywhere
  - even deep inland
- Stagnation/ decline of local textile manufacturing
- Fostered extensive production of land abundant export commodities (sugar, hides, copper ...)



# Cotton prices in UK / £/\$ ex rate index numbers 100= 1748-52





## Cuenca (2014)

South America, exc  
Of Mexico and inc  
Of Brazil made for  
**25% of British Exports**  
by 1815

TABLE VI  
BRITISH EXPORTS TO SPANISH AMERICA, 1790–1819: CONJECTURAL ESTIMATES  
(PERIOD AVERAGES OF MAJOR COMPONENTS AT MARKET PRICES IN  
THOUSANDS OF POUNDS STERLING)\*

	1790–91	1792–94	1795–1801	1802–4	1805–8	1809–14 <sup>a</sup>	1815–19
1. Direct to Cuba and Puerto Rico	–	–	–	–	10	73	200
2. + Direct to rest of Spanish America	–	–	–	–	851	567	581
3. + through the British West Indies (goods)	489	1,271	2,306	1,820	2,852	2,605	1,770
4. + through the British West Indies (slaves)	86	147	62	306	–	–	–
5. + through Spain	703	627	207	132	9	17	13
6. = Subtotal excluding U.S. ports	1,278	2,044	2,575	2,258	3,723	3,261	2,564
7. + through U.S. ports	.365 <sup>b</sup>	8	924	267	1,007	433	392
8. = Subtotal including U.S. ports	1,279 <sup>b</sup>	2,052	3,499	2,526	4,730	3,693	2,956
9. + 10% of “ghost” exports in Table 1, line 5 <sup>c</sup>	237 <sup>b</sup>		420	440	294	148	11
10. = Total of above <sup>d</sup>	1,516 <sup>b</sup>		3,919	2,966	5,024	3,841	2,966



## Implication for SpAm 2

- Favourable TT for local tradable/ non tradable goods
- Altered the trade and production in South America
- Cases: Mexico, Cuba, River Plate and Chile
- Production of exportable as long as factor of production expanded
  - Extensive growth (Cuba, River Plate)
  - By 1820: Destruction of commercial agriculture (grain importer Chile) & de-industrialization (Mexico)
- Customs: base of Republican taxation
  - Commodities source of revenues



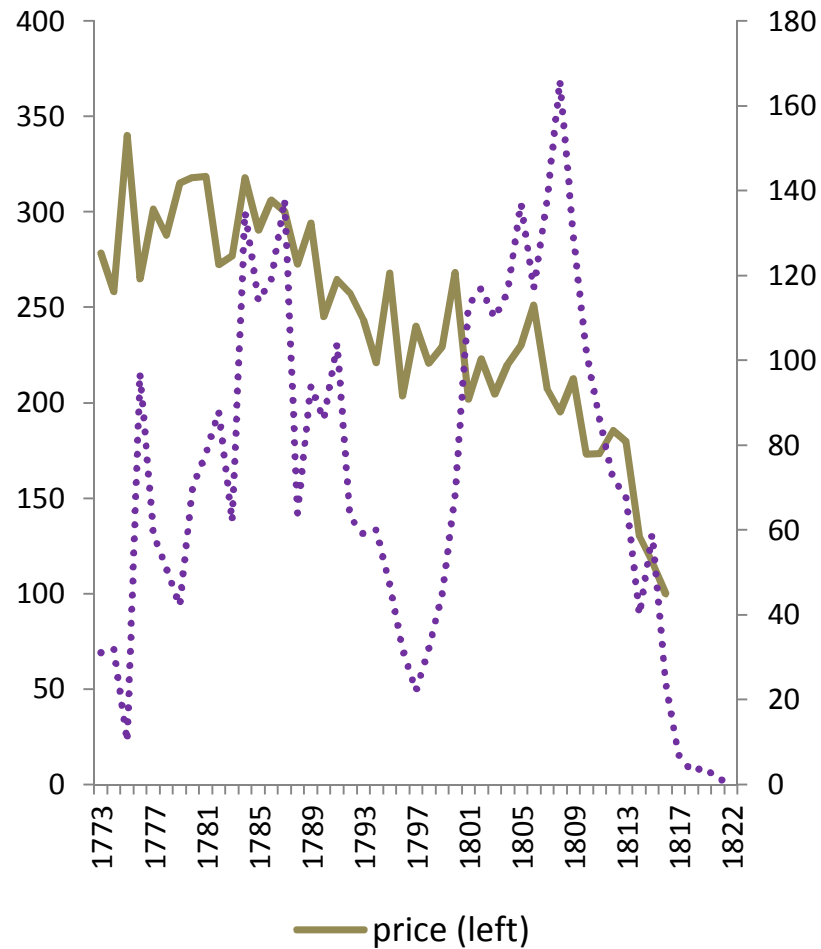
# Cuba' economic performance

	1774	1792	1817
Per capita imports (in pesos)	17.97	57.51	37.35
Per capita exports exc silver	9.41	38.80	23.63
Pc sugar exports lbs*		113.83	161.14
Pc coffee exports lbs*		0.18	1.24**
Population free (growth rate)	127,287	187,711 (2.18%)	353,883 (2.57%)
Slaves (growth rate)	44,333	84,590 (3.65%)	199,145 (3.48%)

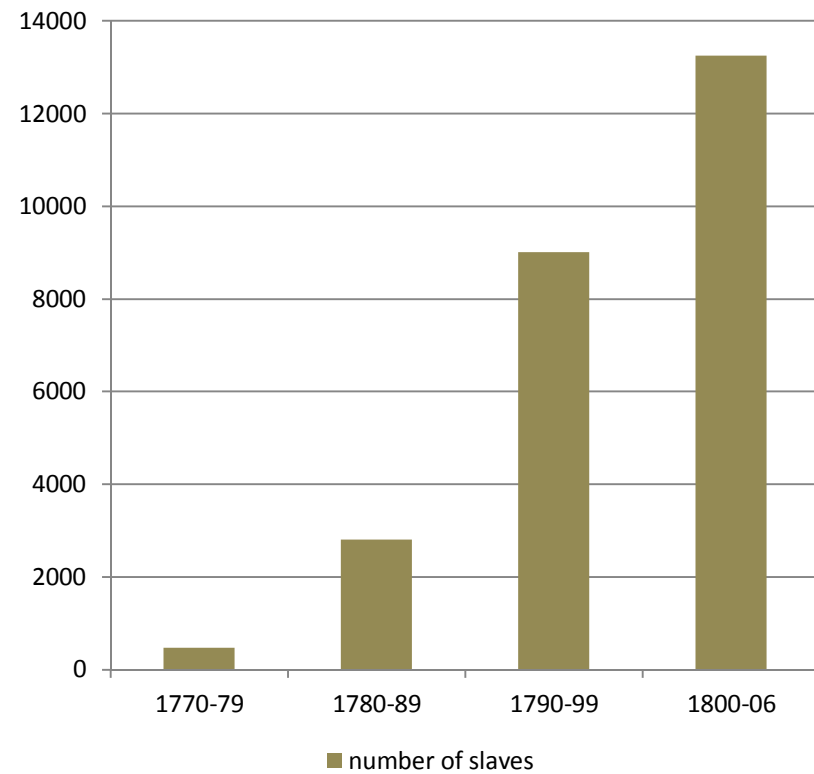
Note: \* volume data from 3 years period average; \*\* data for 1805-1820. Source Sagra (1831)

# African imports

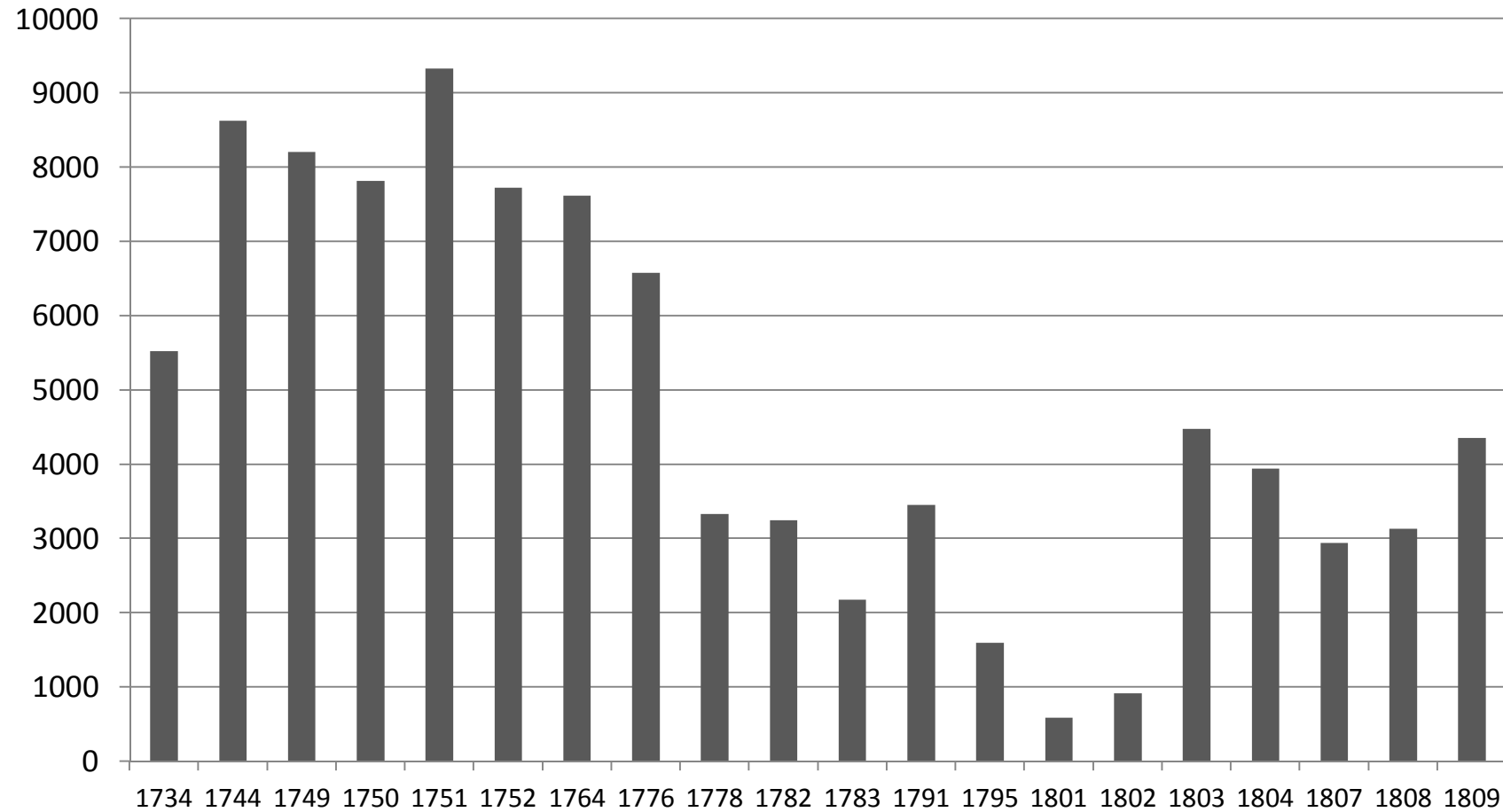
**Slaves secondary market  
Santiago Chile, 1773-1816**



**Number of Slaves introduced,  
Buenos Aires 1770-1806**



# Chile' wheat exports to Lima, tons





# Appendix

# EICo purchase of silver dollars in London

No. 14.

ACCOUNT of the Amount in Ounces of Sales of SILVER PIECES of EIGHT and SILVER INGOTS made by the Governor and Company of the BANK of ENGLAND ; from the 1st of January 1797, to the 1st of March 1810 inclusive.

	Ounces.
Silver Pieces of Eight - - - - -	58,916,937.
Silver Ingots - - - - -	12,954,291.

Bank of England, }  
12th March 1810. }

*Will<sup>m</sup> Dawes, Ch. Acc<sup>t</sup>.*

# price paid by EICo for silver dollars

No. 13.

AVERAGE PRICE paid by the Company for new DOLLARS, from 1791.

						Per Oz.								Per Oz.		
						s.	d.							s.	d.	
1791	-	-	-	-	-	5	1½	1802-3	-	-	-	-	-	-	5	5½
1792 to	}	None purchased.						1803-4	-	-	-	-	-	-	5	6
1796											1804-5	-	-	-	-	-
1797	-	-	-	-	-	5	1	1805-6	-	-	-	-	-	5	5½	
1798	-	-	-	-	-	5	1½	1806-7	-	-	-	-	-	5	5	
1799	-	-	-	-	-	5	3¼	1807-8	-	-	5/6 for standard Silver	-	-	5	4	
1800 1	-	-	-	-	-	5	7¼	1808-9	-	-	-	-	-	5	5	
1801-2	-	-	-	-	-	5	9	1809-10.	None purchased.							