

Appendix 1**TABLE A1.1**

EXPORT VALUES: OFFICIAL DATA AND CORRECTED VALUES
PREVIOUSLY AVAILABLE, 1870-1913
(million pesos; current prices)

Year	Official	Finch (1980)	Baptista & Bértola (1999)
1870	12.8	-	12.6
1871	13.3	-	13.2
1872	15.5	-	16.0
1873	16.3	-	16.8
1874	15.2	-	15.7
1875	12.7	-	13.1
1876	13.7	-	14.4
1877	15.9	-	15.9
1878	17.5	-	17.3
1879	16.6	-	16.6
1880	19.8	-	19.8
1881	20.2	-	20.5
1882	22.1	-	22.4
1883	25.2	-	25.2
1884	24.8	-	25.1
1885	25.3	-	25.6
1886	23.9	-	24.0
1887	18.7	-	18.7
1888	28.0	-	27.9
1889	26.0	-	26.2
1890	29.2	-	29.4
1891	27.1	-	26.8
1892	26.0	-	26.0
1893	27.7	-	28.0
1894	33.5	-	33.7
1895	32.6	-	32.9
1896	30.4	-	30.7
1897	29.4	-	29.8
1898	30.3	-	30.4
1899	36.6	-	36.8
1900	29.4	32.1	29.5

1901	27.8	-	28.3
1902	33.7	-	33.9
1903	37.4	-	38.0
1904	38.5	-	39.0
1905	30.8	-	37.5
1906	33.4	-	43.8
1907	35.0	-	43.3
1908	40.3	-	43.1
1909	45.1	-	55.4
1910	40.9	46.7	53.4
1911	42.5	-	54.8
1912	48.8	-	65.0
1913	44.9	68.5	68.5

Sources: Statistical Yearbooks (several years); Finch (1980); Baptista & Bértola (1999).

TABLE A1.2

EXCHANGE RATE, 1870-1913
(pesos per 1 pound sterling)

Year	Exchange rate	Year	Exchange rate
1870	4.68	1892	4.69
1871	4.68	1893	4.70
1872	4.68	1894	4.65
1873	4.68	1895	4.66
1874	4.68	1896	4.67
1875	4.68	1897	4.68
1876	4.69	1898	4.67
1877	4.69	1899	4.63
1878	4.69	1900	4.66
1879	4.69	1901	4.64
1880	4.69	1902	4.65
1881	4.69	1903	4.64
1882	4.69	1904	4.64
1883	4.69	1905	4.64
1884	4.70	1906	4.64
1885	4.70	1907	4.63
1886	4.69	1908	4.64
1887	4.71	1909	4.65
1888	4.68	1910	4.65
1889	4.69	1911	4.65
1890	4.69	1912	4.64
1891	4.64	1913	4.64

Sources calculated with data from *Boletín de la Bolsa de Montevideo, Año I*, N° 1 (1873); Statistical Yearbooks (several years).

Appendix 2: Country Accuracy Index

We use official Uruguayan export data and the import records of Uruguay's main export trade partners (Argentina, Belgium, Brazil, France, Germany, Italy, Spain, the United Kingdom and the United States). We then compare official Uruguayan exports with the same flows as registered by its trade partners. The formulation of the index is the following:

$$CAI_t = \frac{\sum_{j=1}^n X_{jt}}{\sum_{j=1}^n M_{jt}} \quad [3]$$

where,

$X_{j,t}$ stands for Uruguayan exports to country j in year t according to official Uruguayan statistics

$M_{j,t}$ stands for imports of country j from Uruguay in year t according to its own official statistics.

All data are expressed in pounds sterling. Sources and references are detailed in Appendix 7.

Prior to the calculation of the index, we adjust data in response to several inadequacies in the registration of values, especially related to transit trade and smuggling.

In relation to transit trade, we adjust data taking into account two trade flows: Uruguayan exports traded through the port of Buenos Aires mainly to Europe and regional exports traded through Montevideo's port. Data are obtained from Statistical Yearbooks.

The first of these flows were indeed Uruguayan exports but were wrongly registered as exported to Argentina instead of their actual destination. We

geographically re-distribute these values to other countries in each year, according to the importance of each country in total non-regional Uruguayan exports (i.e. total Uruguayan exports that were sent neither to Argentina nor to Brazil).

The second of these flows were not Uruguayan exports and therefore must be subtracted from the export figures. Considering again the importance of each country in total non-regional Uruguayan exports, we remove these figures from official Uruguayan values.

We also take into account the smuggling of cattle to Brazil, which was a significant activity during the period. Following Bértola *et al.* (1998) and Baptista & Bértola (1999) and considering initially official prices as good proxies for market prices, we add estimates of smuggling to official Uruguayan records of exports to Brazil.

To deal with the lack of data from several trade partners (Brazil, Germany and Italy) we compute estimates for their imports from Uruguay for the periods 1870-1901, 1880-1888 and 1880-1887, respectively. In the case of Brazil, we consider two official Brazilian values for 1866 and 1902 and then interpolate them following the evolution of Uruguayan exports to Brazil (we re-scale the series). For Germany and Italy, we consider values recorded as «Argentina, Paraguay and Uruguay» or «*Stati del Plata*» and estimate the portion corresponding to Uruguay, according to the importance of Uruguay in the same category for nearby years.

Finally, we notice that official Argentinian import figures present problems of valuation that complicate the comparison with Uruguayan export data. As the types of goods exported from Uruguay to Argentina are quite similar to the ones exported by Argentina, we adjust Argentinian import values from Uruguay with the Argentinian PAI, obtained from Tena-Junguito & Willebald (2013).

TABLE A2.1

DISTRIBUTION OF URUGUAYAN EXPORTS BY COUNTRY OF DESTINATION
(official values, in percentage, selected periods)

Country/ Years	1872-1880	1881-1890	1891-1900	1901-1913
Argentina	4	7	14	17
Belgium	10	14	15	16
Brazil	17	15	21	10
France	19	16	18	19
Germany	1	3	8	13
Italy	2	2	2	3
Spain	0	1	2	2
United Kingdom	28	19	11	8
United States	9	10	6	6
Other countries	10	13	3	6

Sources: calculated with official values from the Statistical Yearbooks (several years).

TABLE A2.2

DISTRIBUTION OF URUGUAYAN EXPORTS BY COUNTRY OF DESTINATION
(own corrected values, in percentage, selected periods)

Country/ Years	1872-1880	1881-1890	1891-1900	1901-1913
Argentina	1	3	2	4
Belgium	9	14	17	18
Brazil	24	21	24	13
France	18	16	20	21
Germany	1	3	9	15
Italy	2	2	2	3
Spain	0	1	2	2
United Kingdom	26	18	12	9
United States	9	10	7	7
Other countries	10	12	5	8

Sources: calculated with own corrected values.

TABLE A2.3

OFFICIAL AND ADJUSTED CAI, 1872-1913

Year	Official CAI	Adjusted CAI
1872	0.37	0.35
1873	0.46	0.46
1874	0.46	0.45
1875	0.44	0.46
1876	0.50	0.52
1877	0.56	0.57
1878	0.69	0.68
1879	0.72	0.72
1880	0.62	0.64
1881	0.73	0.71
1882	0.64	0.63
1883	0.93	0.85
1884	0.81	0.72
1885	0.84	0.79
1886	0.72	0.70
1887	0.72	0.73
1888	0.96	0.89
1889	0.78	0.77
1890	0.99	0.90
1891	1.33	1.11
1892	1.33	1.09
1893	1.71	1.18
1894	1.80	1.21
1895	1.33	1.08
1896	1.27	1.00
1897	1.43	1.12
1898	1.58	1.15
1899	2.00	1.31
1900	1.41	1.10
1901	1.50	1.15
1902	1.53	1.26
1903	1.41	1.20
1904	1.45	1.24
1905	0.98	0.85

1906	1.02	0.91
1907	0.97	0.85
1908	1.09	0.95
1909	0.96	0.86
1910	0.85	0.79
1911	1.00	0.93
1912	0.88	0.82
1913	0.75	0.70

Sources: Appendix 2.

Appendix 3: Commodities' freight rates

We estimate unit freight and insurance costs for the sample of commodities considered in the PAI and the export price indexes in order to transform c.i.f. prices in London to f.o.b. prices at the Uruguayan border.

Data for transatlantic freight rates from Montevideo are scarce, so we had to make a number of assumptions to obtain a complete estimated series. For some commodities in some periods data of freight cost from Montevideo to England could be obtained from the Statistical Yearbooks: salted beef (1900, 1915); hides and wool (1885-1900; 1911-1913); maize (1896-1900; 1911-1913); wheat (1898-1900; 1911-1913). To complete these series we proceeded in two ways. For the years in the 19th century we assume they followed the same variations as the East American Grain Index, offered in Mohamed-Williamson (2004, p. 182, Table 2). For the years in the 20th century we assume the freight costs evolved like those of Argentina. In the case of salted beef we assume that in the period 1885-1899 the freight cost varied like the freight cost of hides. Four commodities (frozen meat —bovine and sheep—, preserved meat and extract meat) deserve a special comment. We consider the freight rate for frozen meat in 1883 from Critchell & Raymond (1912, p. 144) and in 1910 from Vázquez-Presedo (1979). Then we interpolate geometrically the figures from 1884 to 1909; for 1911-1913 we assume the freight cost followed the evolution of that corresponding to hides. Moreover, for preserved meat we consider the freight cost in 1925 from the Statistical Yearbook and interpolate the figures for the previous period according to the evolution of the above-mentioned East American Grain Index from 1870 to 1884, and of hides' freight cost from 1885 onwards. Data for prices of extract meat considered were already valued f.o.b., so we did not consider any freight rate in this case.

For insurance we adopt a fixed 2 per cent insurance in 1900 and moved it backwards and forwards with the respective shipping freight rates. The 2 per cent insurance factor is based on Simon (1960, p. 659).

TABLE A3.1

TRANSATLANTIC FREIGHT RATES OF MAIN URUGUAYAN EXPORT
COMMODITIES, 1870-1913
(pounds sterling per long ton)

	Salted beef	Preserved meat	Frozen meat	Hides	Wool	Maize	Wheat
1870	1.84	1.05	-	1.70	0.89	0.80	0.78
1871	2.28	1.29	-	2.11	1.10	1.00	0.97
1872	2.39	1.35	-	2.21	1.15	1.04	1.01
1873	2.54	1.44	-	2.35	1.22	1.11	1.08
1874	2.39	1.35	-	2.21	1.15	1.04	1.01
1875	2.42	1.37	-	2.23	1.16	1.05	1.03
1876	2.24	1.27	-	2.07	1.08	0.98	0.95
1877	2.08	1.18	-	1.92	1.00	0.91	0.88
1878	1.91	1.08	-	1.76	0.92	0.83	0.81
1879	1.86	1.05	-	1.72	0.89	0.81	0.79
1880	2.11	1.20	-	1.95	1.02	0.92	0.90
1881	2.16	1.23	-	2.00	1.04	0.94	0.92
1882	2.16	1.23	-	2.00	1.04	0.94	0.92
1883	1.91	1.08	23.52	1.76	0.92	0.83	0.81
1884	1.96	1.11	21.92	1.81	0.94	0.86	0.83
1885	1.81	1.03	20.44	1.67	0.87	0.79	0.77
1886	1.69	0.96	19.05	1.57	0.90	0.70	0.68
1887	1.81	1.02	17.76	1.67	0.78	0.86	0.83
1888	1.72	0.98	16.55	1.59	0.74	0.84	0.82
1889	1.73	0.98	15.43	1.60	0.64	0.97	0.95
1890	1.71	0.97	14.38	1.58	0.92	1.07	1.05
1891	1.79	1.02	13.41	1.66	0.90	1.30	1.27
1892	1.78	1.01	12.50	1.65	0.93	1.06	1.03
1893	1.8	1.02	11.65	1.67	0.75	0.93	0.90
1894	1.76	1.00	10.86	1.63	0.88	0.97	0.95
1895	1.76	1.00	10.12	1.62	0.63	0.84	0.82

1896	1.77	1.00	9.43	1.64	0.57	0.75	0.73
1897	1.92	1.09	8.79	1.78	0.52	0.55	0.68
1898	1.85	1.05	8.20	1.71	0.65	0.83	0.87
1899	1.89	1.07	7.64	1.74	0.72	0.93	0.85
1900	2.03	1.15	7.12	1.88	0.79	0.88	0.88
1901	1.99	1.09	6.64	1.77	0.72	0.93	0.85
1902	2.11	1.26	6.19	2.06	0.31	0.75	0.70
1903	1.90	0.95	5.77	1.56	0.69	1.07	0.98
1904	1.84	0.86	5.38	1.41	0.74	1.19	1.08
1905	1.84	0.87	5.01	1.43	0.95	1.13	1.03
1906	1.79	0.80	4.67	1.30	0.74	0.77	0.72
1907	1.79	0.80	4.36	1.30	0.57	0.71	0.66
1908	1.75	0.74	4.06	1.20	0.76	0.62	0.59
1909	1.75	0.74	3.78	1.20	0.53	0.59	0.56
1910	1.76	0.74	3.53	1.22	0.45	0.47	0.46
1911	1.83	0.86	4.06	1.40	0.39	0.39	0.39
1912	1.86	0.89	4.22	1.46	0.86	1.15	1.15
1913	1.84	0.88	4.14	1.43	0.85	1.15	1.15

Sources: Appendix 7.

Note: in general, we consider the route Montevideo-Liverpool.

Appendix 4: Price Accuracy Index

We analyse the accuracy of the official prices used to value Uruguayan exports until 1913. In order to do so we revalue at international prices the quantities of the different products exported by the country and compare them with the value of the same quantities at official prices.

It is important to explain that we consider that the correct procedure is to value Uruguayan exported goods at international prices. This stems from price demand theory, as we consider that the quality of Uruguayan commodities exported to high-income markets tended to be superior to that corresponding to local market goods and, therefore, we assume that Uruguayan export prices were more related with international prices than with domestic ones¹.

We compute official Uruguayan implicit prices from the records of values and quantities in the Statistical Yearbooks. Furthermore, we take import unit values from Uruguay recorded by the Annual Statement of United Kingdom as a proxy for the international c.i.f. prices effectively obtained by Uruguayan exporters. In the case of salted beef we considered the unit value of salted beef exported by Rio Grande do Sul, in Brazil, as a reference for international price. Moreover, for meat extract we use data for the Australian unit value of this product exported from Rockhampton to the United Kingdom, as well as data for the unit value of meat extract in London (see Appendix 7 for sources).

We adjust c.i.f. prices discounting freight cost from them, in order to be able to compare international prices with official Uruguayan f.o.b. prices.

¹ The model that predicts that products of better quality will be exported is presented in «Shipping the good apples out: the Alchian and Allen theorem reconsidered» (Borcharding, T.E. and Silberberg, E., 1978). Assuming shipping cost is equal in good and bad quality products, high quality products will become relatively cheaper in foreign markets. For a recent discussion, see «Shipping the good apples out? An empirical confirmation of the Alchian-Allen conjecture» (Hummels, D. and Skiba, A., 2004).

TABLE A4.1

COMMODITY EXPORT F.O.B. PRICES, 1870-1913
(freight adjusted; expressed in pounds sterling per long ton)

	Salted Beef	Preserved Meat	Meat Extract	Hides	Skins - Furs (sheep)	Wool	Maize	Wheat
1870	19.38	60.40	811.96	52.33	20.77	48.52	5.87	9.30
1871	35.65	39.81	1,014.35	56.66	38.88	77.83	6.39	11.42
1872	16.95	24.97	973.87	61.93	57.81	86.89	5.49	12.01
1873	17.39	110.92	1,135.78	63.84	36.97	88.42	5.66	12.79
1874	21.64	85.57	933.39	69.07	48.93	77.99	7.46	11.61
1875	23.78	143.11	1,095.30	67.84	65.50	86.98	6.72	9.83
1876	26.61	69.98	973.87	60.57	65.01	101.11	7.01	7.59
1877	27.87	40.66	852.44	62.91	62.45	81.16	6.08	9.81
1878	27.45	130.67	852.44	58.88	68.21	80.37	5.20	10.17
1879	27.63	211.77	690.53	61.11	49.83	91.11	4.70	7.88
1880	30.05	108.41	852.44	61.66	53.99	112.24	6.50	8.89
1881	28.37	79.94	811.96	57.79	63.94	82.42	5.63	8.44
1882	22.38	92.16	933.39	57.75	82.70	84.52	7.13	10.92
1883	22.12	74.52	933.39	59.44	92.01	83.15	6.51	7.87
1884	19.39	68.66	852.44	59.06	82.71	90.94	5.31	6.84
1885	15.05	71.05	650.06	43.58	62.80	79.61	4.59	5.94
1886	33.24	55.42	488.15	48.79	41.00	64.92	4.23	5.41
1887	21.08	27.96	326.24	44.94	55.68	74.39	4.52	5.95
1888	19.27	29.33	447.67	40.16	60.80	64.06	4.29	7.81
1889	20.81	22.42	447.67	43.84	64.46	69.84	3.30	6.56
1890	14.68	43.65	235.27	45.03	61.81	54.56	3.57	5.51
1891	12.86	38.94	285.24	44.06	45.25	84.70	3.63	7.32
1892	18.00	49.97	252.01	37.93	53.58	63.16	3.68	6.90
1893	15.85	27.96	562.19	42.51	53.79	63.21	3.74	5.08
1894	17.53	49.35	277.60	37.13	42.00	64.97	3.79	4.31
1895	14.75	38.91	330.12	56.24	38.32	59.97	3.85	4.67
1896	14.79	41.47	238.09	48.59	41.62	63.73	2.94	5.12
1897	13.84	45.15	369.78	44.05	51.77	61.48	2.99	6.32
1898	19.93	54.68	299.41	48.89	41.26	62.12	2.83	7.35
1899	20.00	66.64	315.24	55.87	44.19	82.35	3.07	5.67
1900	30.34	42.59	540.16	48.03	36.08	92.34	3.88	5.94
1901	28.27	44.36	746.63	54.83	37.47	62.51	4.28	5.92

1902	17.90	37.20	662.56	51.64	40.37	58.33	4.76	5.91
1903	17.73	35.46	587.95	63.79	46.03	74.30	3.69	5.44
1904	20.87	61.80	521.75	72.75	52.49	73.06	3.49	5.59
1905	30.61	79.41	463.00	55.02	39.70	82.80	3.57	6.04
1906	27.97	93.93	410.86	66.60	48.06	91.41	4.28	6.37
1907	29.77	126.31	364.60	69.48	50.13	98.76	5.13	6.73
1908	31.53	73.13	323.54	50.91	36.73	87.49	6.17	7.64
1909	32.03	71.97	287.11	67.68	48.83	87.14	5.93	8.38
1910	30.47	62.69	254.78	67.93	49.01	99.45	5.70	8.20
1911	31.24	63.89	226.09	65.57	47.31	87.40	4.95	7.38
1912	31.78	85.25	301.66	72.84	52.55	87.41	4.30	6.64
1913	34.89	115.15	407.46	89.09	64.28	89.68	4.61	6.00

Sources: *Annual Statement of United Kingdom* and Appendix 7.

We define the Price Accuracy Index (PAI) in year t as:

$$PAI_t = \frac{\sum_i P_{it,UY} * Q_{it,UY}}{\sum_i P_{it,UK} * Q_{it,UY}} \quad [4]$$

where,

PAI is the ratio between the volume of exported goods valued at the Uruguayan border (f.o.b. value of commodity exports) and the volume of the same products valued with the corresponding prices on international markets discounting freight and insurance costs. The commodities considered are: salted beef, preserved meat, meat extract, frozen meat (sheep and bovine), hides (not tanned), skins and furs (sheep and lamb), wool, maize and wheat.

$P_{it,UY}$ is the price of good i exported in year t according to official Uruguayan statistics (expressed in pounds sterling)

$P_{it,UK}$ is the price of good i imported from Uruguay in year t according to statistics from the United Kingdom (freight adjusted; expressed in pounds sterling)

$Q_{it,UY}$ is the quantity exported of good i in year t according to official Uruguayan statistics

$Q_{it,UY}$ and (implicit) $P_{it,UY}$ were derived from official statistics of the Statistical Yearbooks (*Anuarios Estadísticos*). Information is not available for some commodities in some years and we complete the series in different ways. For preserved meat (1870-1874), salted beef, hides, skins and furs, wool, maize and wheat (1870-1871) we assume the series had the same evolution as the corresponding Argentinian price.

(Implicit) $P_{it,UK}$ were derived from unit value of the UK import quantities and values from Uruguay which are taken from several volumes of the Annual Statement of the Trade. $P_{it,UK}$ is freight adjusted to get f.o.b. prices in the Uruguayan border. Data are not available for some commodities for the whole period and we complete the series in several manners. For frozen bovine meat (1904-1906), frozen ovine meat (1905-1906) and meat extract (1870-1888; 1902-1910) we complete the series with the movement in Sauerbeck's prices. For sheep furs and skins (1904-1913), we assume that the price followed the same evolution as the price of hides. For maize and wheat (1870-1886) we complete the series with the movement in the corresponding Argentinian price.

TABLE A4.2

PRICE ACCURACY INDEX (PAI), 1870-1913

Year	PAI	Year	PAI
1870	0.77	1892	1.12
1871	0.58	1893	1.07
1872	0.73	1894	1.00
1873	0.72	1895	0.91
1874	0.65	1896	0.94
1875	0.64	1897	0.97
1876	0.60	1898	1.00
1877	0.62	1899	1.04
1878	0.63	1900	0.86
1879	0.61	1901	0.72
1880	0.57	1902	1.00
1881	0.70	1903	0.94
1882	0.68	1904	0.86
1883	0.69	1905	0.82
1884	0.71	1906	0.77
1885	0.84	1907	0.72
1886	0.72	1908	0.82
1887	0.74	1909	0.77
1888	0.85	1910	0.73
1889	0.74	1911	0.78
1890	1.26	1912	0.76
1891	1.08	1913	0.68

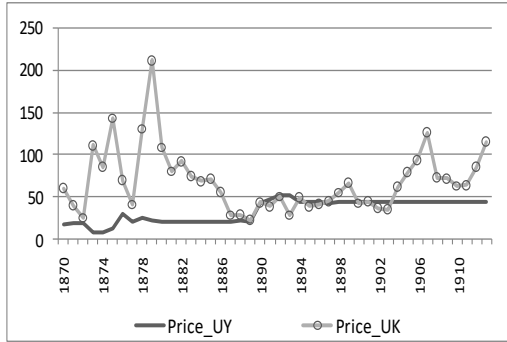
Source: calculated with data from the *Annual Statement of United Kingdom* and Appendix 7.

The inaccuracy of official Uruguayan prices varied greatly across the different exported goods, as can be seen in Figure A4.1. The most outstanding cases of separation between official and international market prices are preserved meat, meat extract, skins and furs, wool and wheat.

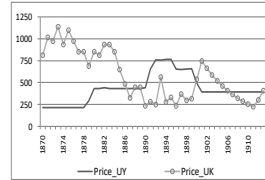
FIGURE A4.1

PRICES, 1870-1913
(pounds sterling per long ton)

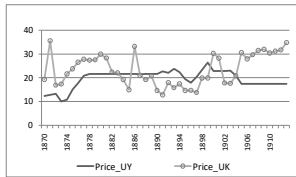
Panel a. Preserved meat



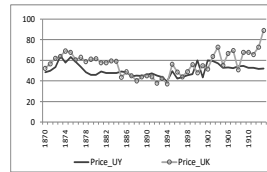
Panel b. Meat extract



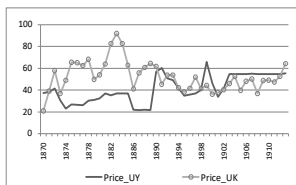
Panel c. Salted beef (*tasajo*)



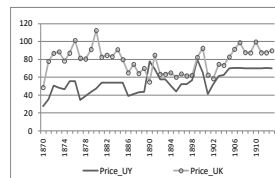
Panel d. Hides (not tanned)



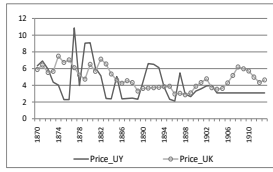
Panel e. Skins and furs



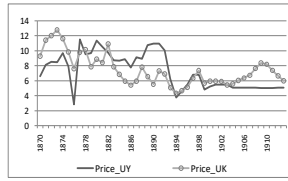
Panel f. Wool



Panel g. Maize



Panel h. Wheat



Sources: *Annual Statement of United Kingdom* and Appendix 7.

Appendix 5: Export Price Index

We propose an index of free on board (f.o.b) export prices for Uruguay for the period 1870-1913.

Our reference figure is the import unit value derived from the values and quantities of commodities imported by the United Kingdom from Uruguay registered in several volumes of the *Annual Statement of the Trade of the United Kingdom*. We converted all figures to pounds sterling per long ton from different measures. These figures were c.i.f. prices, which were then adjusted for freight and insurance costs to get f.o.b. prices at the Uruguayan border.

The index proposed is a Paasche Index number, which uses exported quantities, year by year, to weight the respective prices. Therefore, changes in the structure of exports would be incorporated to the index. The formulation of the index is the following:

$$EPI_{t,1909-1911} = \frac{\sum_{i=1}^N P_{it} * Q_{it}}{\sum_{i=1}^N P_{i,1909-1911} * Q_{it}} \quad [5]$$

where,

$EPI_{t,1909-1911}$ is the Export Price Index of Uruguay in the period t considering 1909-1911 average as the base period

P_{it} is the international price of commodity i in period t

$P_{i,1909-1911}$ is the average international price of commodity i in the period 1909-1911

Q_{it} is the exported volume of commodity i in period t (according to official Uruguayan statistics)

We compare our EPI with other export price indexes for Uruguay available in the literature, one from Blattman *et al.* (2004) and the two others from Baptista & Bértola (1999). To make this comparison possible we change the base period of our index to 1913.

TABLE A5.1
EXPORT PRICE INDEXES, 1870-1913

Year	Export Price Index (own)	Blattman <i>et al.</i>	Baptista & Bértola (Paasche)	Baptista & Bértola (Divisia)
1870	57.20	83.97	43	61
1871	82.52	96.49	43	61
1872	76.52	110.13	42	61
1873	78.25	113.58	42	63
1874	81.00	108.1	40	60
1875	100.06	104.63	45	60
1876	96.97	93.48	43	59
1877	87.42	95.76	39	57
1878	87.84	92.67	40	55
1879	91.64	87.88	42	58
1880	101.74	99.52	43	60
1881	87.11	93.34	46	64
1882	89.72	94.96	47	63
1883	87.28	94.23	47	63
1884	85.10	91.68	46	63
1885	72.95	83.21	47	63
1886	74.25	76.71	47	56
1887	70.25	76.19	45	55
1888	63.37	72.68	51	56
1889	70.24	75.44	49	56
1890	57.87	72.91	54	73
1891	67.53	69.99	54	73
1892	58.53	65.09	50	67
1893	61.68	65.82	53	69
1894	57.58	62.84	47	59
1895	60.23	69.48	47	57
1896	59.61	68.27	47	56
1897	59.39	67.49	48	58

1898	64.43	71.38	55	62
1899	74.08	82.18	68	72
1900	83.66	81.55	61	69
1901	72.74	73.39	53	56
1902	65.24	81.13	58	61
1903	74.67	82.02	62	65
1904	78.94	82.45	64	63
1905	82.86	85.07	75	78
1906	90.03	88.66	79	81
1907	95.08	90.61	76	77
1908	83.31	82.68	63	65
1909	89.15	90.09	75	76
1910	93.88	94.37	80	83
1911	87.40	89.55	80	81
1912	90.28	95.22	85	86
1913	100.00	100.00	100	100

Sources: EPI (own) calculated with data from the Statistical Yearbooks of Uruguay, the *Annual Statement of the Trade of the United Kingdom* and data detailed in Appendix 7; Blattman *et al.* (2004); Baptista & Bértola (1999).

Appendix 6: New series

TABLE A6.1

CORRECTED EXPORT SERIES, 1870-1913
(million pesos; current and constant prices)

Year	Exports (current prices)	Exports (constant prices)
1870	15.32	26.78
1871	21.29	25.80
1872	20.03	26.17
1873	22.49	28.75
1874	22.20	27.41
1875	19.24	19.23
1876	22.79	23.51
1877	26.41	30.21
1878	28.99	33.00
1879	28.71	31.33
1880	36.07	35.45
1881	29.23	33.55
1882	32.75	36.50
1883	37.00	42.39
1884	34.93	41.04
1885	30.02	41.15
1886	33.33	44.89
1887	25.60	36.45
1888	33.16	52.33
1889	35.37	50.36
1890	23.34	40.33
1891	25.35	37.53
1892	23.04	39.36
1893	25.57	41.46
1894	32.86	57.07
1895	35.14	58.35
1896	31.58	52.98
1897	29.80	50.18
1898	29.01	45.02
1899	33.68	45.46
1900	32.69	39.07

1901	37.47	51.51
1902	32.98	50.55
1903	38.90	52.10
1904	43.08	54.57
1905	35.94	43.38
1906	41.93	46.57
1907	47.08	49.52
1908	47.32	56.80
1909	57.08	64.03
1910	54.36	57.90
1911	52.84	60.47
1912	61.77	68.42
1913	64.09	64.09

Source: Appendix 7.

Appendix 7: Statistical sources and references for the construction of indicators

Concept	Sources and comments
Uruguay	<ul style="list-style-type: none"> • Barrán, J. P.; Nahum, B. (1967), <i>Historia Rural del Uruguay Moderno 1851-1885</i>. Apéndice Documental (pp. 338-342). Montevideo: Ediciones Banda Oriental. Sources quoted: Mesa de Estadística General, Cuadernos N° 4, 8, 10, 11, 12, 13 y 14. • Dirección General de Estadística (several years), <i>Anuario Estadístico de la República Oriental del Uruguay</i>.
Argentina	<ul style="list-style-type: none"> • Board of Trade, <i>Statistical abstract for the Principal and other foreign countries in each year from 1871 to 1880-81 (as far as can be stated)</i>. Ninth number. • Dirección General de Estadística (several years), <i>Anuario del Departamento Nacional de Estadística</i>. Buenos Aires. • Ministerio de Hacienda de la Nación (several years), <i>Estadística del Comercio Exterior y de la Navegación de la República Argentina</i>. Buenos Aires.
Belgium	<ul style="list-style-type: none"> • Ministère del' Intérieur et del' Instruction Publique (several years), <i>Statistique General de la Belgique</i>. Bruxelles: T. Lesigne.
Brazil	<ul style="list-style-type: none"> • Sector Externo, Estadísticas Económicas, Estadísticas del Siglo XX, IBGE URL: http://seculoxx.ibge.gov.br/en/economicas/setor-externo/tabelas (accessed September 7, 2012) • <i>Anuario estadístico de Brasil</i> (several years). • Ministerio de Fazenda, <i>Comercio Exterior de Brasil, Años 1933-1937</i>.
France	<ul style="list-style-type: none"> • Tableau Général du Commerce de la France (several years), <i>Annuaire Statistique de la France</i>. Paris.
Germany	<ul style="list-style-type: none"> • Statistisches Reichsamts (several years), <i>Statistisches Jahrbuchfür Deutsche Reich</i>. Berlin: R. Hobbing.
Italy	<ul style="list-style-type: none"> • Ministero delle Finanze, <i>Movimento commerciale del Regno d' Italia</i>.
Spain	<ul style="list-style-type: none"> • <i>Comercio de importación entre España y sus colonias y las naciones extranjeras. Comercio total, por países de procedencia y destino</i>. Anuarios. Fondo Documental del Instituto Nacional de Estadística.

United States	<ul style="list-style-type: none"> • Bureau of Statistics (several years), <i>Statistical Abstract of the United States</i>. Washington: Government Printing Office.
United Kingdom	<ul style="list-style-type: none"> • Board of trade (several years), <i>Statistical Abstract for the United Kingdom</i>. London.
Freight and insurance	<ul style="list-style-type: none"> • Mohamed, S. I. and Williamson, J. G. (2004), “Freight rates and productivity gains in British tramp shipping 1869-1950”, <i>Explorations in Economic History</i>, 41, no. 2: 172-203. • Dirección General de Estadística (several years), <i>Anuario Estadístico de la República Oriental del Uruguay</i>. • Vázquez-Presedo, V. (1979), <i>El caso argentino: migración de factores, comercio exterior y desarrollo 1875-1914</i>. Buenos Aires: Eudeba.
Exchange rates	<ul style="list-style-type: none"> • Officer, L. (2008), "Gold Standard". EH.Net Encyclopedia, edited by Robert Whaples. March 26, 2008. URL: http://eh.net/encyclopedia/article/officer.gold.standard (accessed August 6, 2012) • Bolsa de Montevideo, <i>Boletín</i>, Año I, N° 1, 1873. • Dirección General de Estadística (several years), <i>Anuario Estadístico de la República Oriental del Uruguay</i>.
Price-Salted beef (<i>tasajo</i>)	<ul style="list-style-type: none"> • Dalmazo, R. A.; Caravantes, R. R. (2004), “As relações de comercio de Rio Grande do Sul — do século XIX a 1930”, Documentos FEE n. 60, Fundação de Economia e Estatística Siegfried Emanuel Heuser.
Price – Meat extract	<ul style="list-style-type: none"> • Australian newspapers. URL: http://trove.nla.gov.au/ (accessed January 10, 2014)