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## World trade, 1800-1938: a new data-set

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World trade, 1800-1938: a new data-set

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Abstract

This paper presents our data-base on world trade from 1800 to 1938. We have collected or estimated series of imports and exports, at current and constant (1913) prices and at current and at constant (1913) borders, for 149 polities. After a short review of the available series, we describe the methods for the construction of the data-base. We then deal with the criteria for the inclusion of polities, the representativeness of our series, the main types of sources, the procedures of deflation and, when necessary, of adjustments to 1913 borders. We discuss the details of the estimation of our polity series in Appendix B. Following Feinstein and Thomas (2001), we assess the reliability of our polity estimates. In the last two sections we present our trade series at current and 1913 borders and compare them with other available series. All data are available in a World Trade 1800-1938 Appendix Excel File.

JEL classification: F14, N10

Keywords: World Trade, new series, 19<sup>th</sup> and 20<sup>th</sup> century

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## **World trade, 1800-1938: a new data-set**

**(Giovanni Federico & Antonio-Tena Junguito)**

### **Abstract**

This paper presents our data-base on world trade from 1800 to 1938. We have collected or estimated series of imports and exports, at current and constant (1913) prices and at current and at constant (1913) borders, for 149 polities. After a short review of the available series, we describe the methods for the construction of the data-base. We then deal with the criteria for the inclusion of polities, the representativeness of our series, the main types of sources, the procedures of deflation and, when necessary, of adjustments to 1913 borders. We discuss the details of the estimation of our polity series in Appendix B. Following Feinstein and Thomas (2001), we assess the reliability of our polity estimates. In the last two sections we present our trade series at current and 1913 borders and compare them with other available series. All data are available in a World Trade 1800-1938 Appendix Excel File.

### **1) Introduction**

The growth of world trade before 1913 and its fall in the 1930s are regarded as essential components of the globalization before World War One, and its retreat during the Great Depression (Findlay and O'Rourke 2007, Meissner 2014). This conventional wisdom relies on series of world trade, which, as we argue in Section Two, are at best incomplete and at worst flawed. They date back to the 1960s-1970s and thus they cannot take recent estimates of trade by country into account. Last but surely not least, all the series start in 1850 or later, while a growing body of literature has singled out the first half of the 19<sup>th</sup> century as the key period of integration of the commodity markets in Europe (Jacks 2005, Federico 2011, Federico 2012) and outside Europe (Uebele 2011, Sharp and Weisdorf 2013 Chilosì and Federico 2015). Thus, the existing series cannot properly address several key historical questions. When did the rise of trade start? Was the growth steady and widespread, or did rates differ across time and countries? How big was the impact of World War One? How much did trade recover in the 1920s? And so on.

We have decided to address these issues starting from a clean sheet. We have re-estimated import and export at current and constant prices by “trading polity” from 1800 to 1938. The data-set includes ten (very important) polities in 1800 but its coverage grows quickly and since 1850 it is complete –i.e. it includes (almost) all existing polities. From then on, the list of polities changes only whenever a new one is established or an old one disappears. We compute world trade as a simple sum of exports for all polities after 1850,

and we extrapolate backwards the 1850 level with indexes of three different time-invariant samples. We also estimate a series of trade at constant (1913) borders, which should not be affected by changes in the political map.

This working paper illustrates the nuts and bolts of the construction of this data-base. Section Three discusses our definition of trading polity, the criteria for inclusion in the data-set and the representativeness of the series of world trade. Section Four sketches out the general procedure of estimation, starting from the definition of trade, which follows as much as possible the criteria set by United Nations in the 1950s and provides some general information about our sources and their main shortcomings. Section Five describes the conversion from current to constant prices, and Section Six the adjustment from current to 1913 borders. These two adjustments are independent: we use the same deflation procedure for series at current and 1913 borders and the same boundary adjustment for series at current and 1913 prices. These three Sections deal only with general principles: we discuss the details of the reconstruction of series for each polity in Appendix B. In Section Seven we assess the reliability of our estimates, following Feinstein and Thomas (2001) and in Section Eight we give a flavour of our main results. We compare our series with the available ones in Section Nine and we conclude in Section Ten by sketching a research agenda to improve and extend in time the data-base.

## **2) The available series of world trade**

The series of foreign trade are the oldest and the most plentiful historical macroeconomic data-sets, with the possible exception of those for fiscal revenue. In fact, the balance of trade was a real obsession for rulers in the age of mercantilist policies. The United Kingdom started to publish foreign trade statistics in 1696, and it was joined by France and the United States in the 18<sup>th</sup> century. In the 19<sup>th</sup> century these pioneers were imitated by almost all independent states and also by colonial powers, which wanted to know the trade potential of their colonies. Towards the end of the century, the statistical offices of major countries started to collect polity series at current prices in handy comparative tables in their Statistical yearbooks (Germany. *Statistical Yearbook*, 1905; United States of America (1909). *Historical Statistics. Statistical Abstract of Foreign Countries*; France. *Statistical Yearbook. Annuaire Statistique della France* (1913, 1939). The League of Nations imitated them immediately after its establishment, publishing since 1919 series of trade by country.<sup>1</sup>

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<sup>1</sup> The League of Nations started to publish the foreign trade data in the *Memorandum of Balance of Payments and Foreign Trade Balnces* (1925, first issue 1910-1924), annually until 1932. Later change its

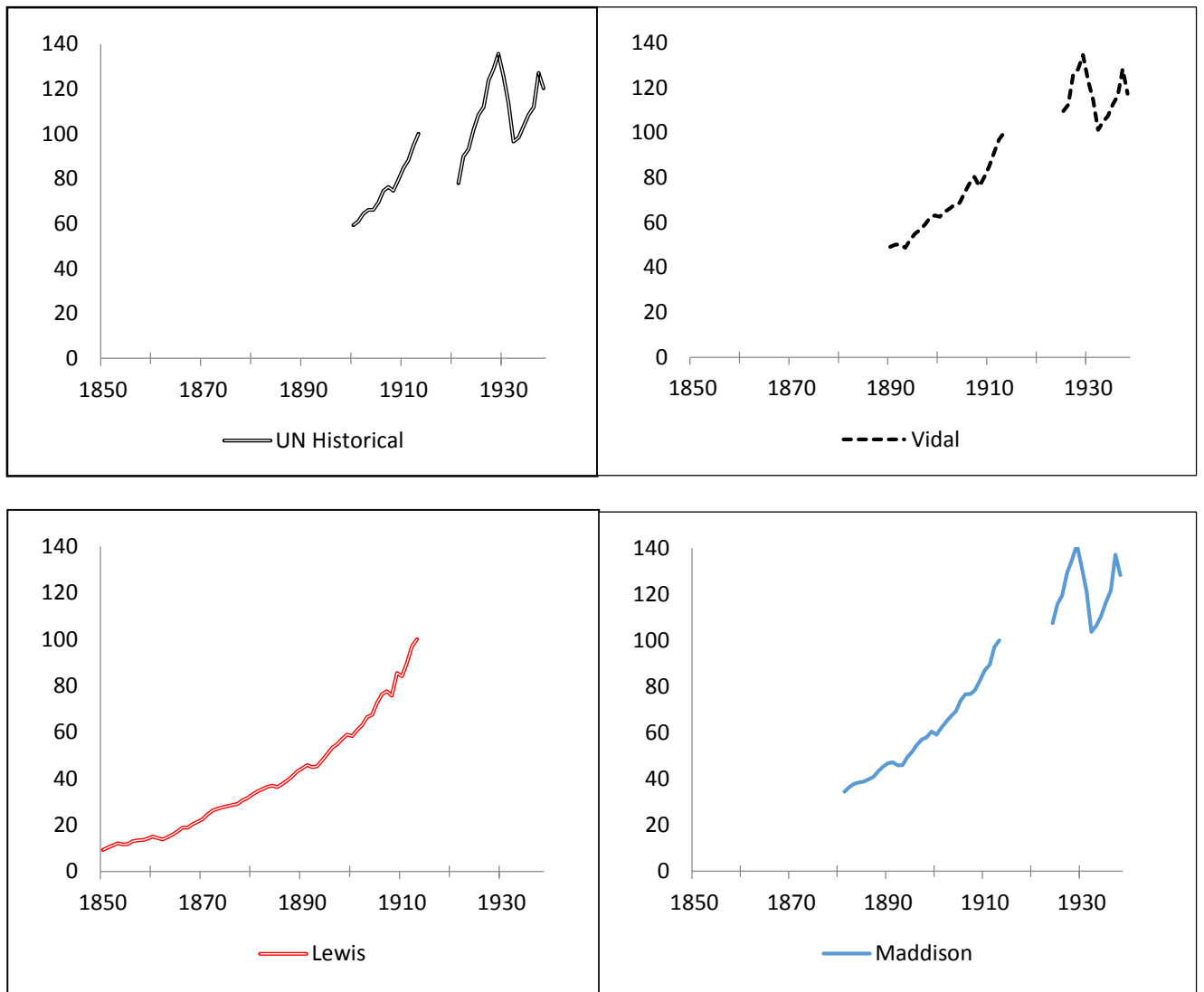
As early as 1852, Levi (1852) summed up the available data in the first ever estimate of world total, and he was later imitated by others, most notably Giffen (1882), Von Neumann-Spallart (1885-1895), and Mulhall (1892), who put forward tentative figures of world trade for benchmark years since 1720. Schou (1900) was the first to estimate a constant price series, by deflating Von Neumann-Spallart's series with the index of London prices by Sauerbeck (1886 and ff.). In the interwar years, the torch passed to official institutions. The Germany. Statistical Yearbook (1943) and the League of Nations *Review of World Trade* (1933-38) computed series of total trade (import plus exports) at constant prices, respectively since 1900 and 1913. This definition of trade counts twice the same flows and includes the costs of transportation, which are usually included in imports but not in exports (Section Four). Thus, world trade is more accurately measured by exports only. Series of world exports at constant prices were published after the war by the United Nations (1962), Maddison, A. (1962), W.A. Lewis (1981) and J.F. Vidal (1990).<sup>2</sup> They cover different periods (respectively 1900-1938, 1881-1938, 1850-1913 and 1890-1938) and they all have a gap, of different length, during World War One.

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name in *Review of World Trade* and since 1933 published also annually as *International Trade Statistics* 1933-1938.

<sup>2</sup> Hilgerdt (1945) and Svernilson (1954) are arguably intermediate products of the research effort by the League of Nations and then the United Nations. Rostow (1978) uses Mulhall's series, slightly adjusted and deflated with an index of domestic British prices, for the period to 1870, and the Svernilson-Hilgerdt data thereafter. The series by Bairoch (1976 tab.84) refers to Europe only.

**Figure 1**  
**World exports, constant prices (1913=100)**



Sources: Appendix D. Table D.1a

A visual inspection of these four series (Figure 1) shows strong similarities in their main movements: world exports increased steadily before World War One, during the so-called first globalization, recovered after the war-time shock, exceeding the pre-war peak sometimes in the 1920s and collapsed during the Great Depression.

**Table 1**  
**Rates of change, world exports, 1850-1938**

Estimate	1850-1913	1881-1913	1890-1913	1900-1913	1924-1938
<b>United Nations (1962)</b>				<i>4.14***</i>	<i>-0.22</i>
<b>Maddison (1962)</b>		3.26***	3.59***	3.91***	-0.52
<b>Lewis (1981)</b>	3.48***	3.45***	3.56***	4.01***	
<b>Vidal (1990)</b>			3.23***	3.75***	-0.81

Significant at \*\*\* 1% \*\* 5% \* 10%

Source: Appendix D. Table D.1a

Table 1 confirms this impression: the yearly rates of growth for comparable periods before 1913 are quite high and differences between estimates are never significant.<sup>3</sup> After the war, the rates are negative but not significant and the coefficients of correlation between series exceed 0.98. All series move in lockstep: the difference between maximum and minimum values (at current prices) is on average 6% before 1913 and falls to 2.6% after the war. It exceeds 10% only in eight years in the whole period.

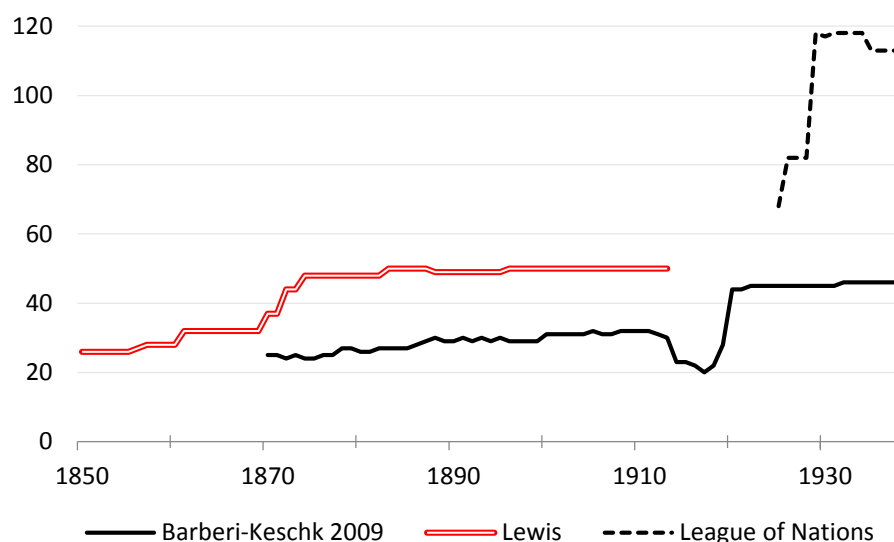
This agreement between series does not imply that they are correct. First, many of them are not independent: for instance, Maddison (1962) reproduces the series at current prices from the League of Nations after 1924, while before 1913 he uses an earlier work by Lewis (1952), which he traces back to Hilgerdt (1945) and ultimately to von Neumann-Spallart (1885-1895) and to the Germany. Statistical Yearbook (1909, 1943). Vidal follows the same approach, adding USA 1909 to sources. Second, all series share three major shortcomings:

- i) None of them adjust for the boundary changes, most notably for dissolution of the Austro-Hungarian and Ottoman empires after World War I. De Menil and Maurer (1994) argue that the fragmentation of Austria-Hungary increased trade, and Maddison (1962:146) hypothesizes, with very little evidence, that post-war boundary changes augmented world trade by 5% ceteris paribus. This is not a trivial amount, and, if confirmed, all series would give a too optimistic view of the post-war recovery in trade.
- ii) individual series for many polities are missing, especially before 1913. As Lewis refreshingly admits (1981 p.33), “it is hardly worthwhile to spend a day in the library

<sup>3</sup> Throughout the paper, we estimate the rates of changes in exports (X) as  $b = -\beta/\psi$  with coefficients from a regression (Razzaque et al 2007)  $\Delta \ln X_t = \alpha + \beta \text{ TIME} + \psi \ln X_{t-1} + \varphi \ln \Delta \ln X_{t-1} + u$ . However, this specification needs at least 30 observations and thus it is not suitable for short periods. In these cases, we use a standard log-linear specification  $\ln X_t = \alpha + \beta \text{ TIME}$ , with AR(1) correction if necessary. Rates obtained with this latter model are in italic.

discovering that a particular country's exports were valued at 5 million \$ in 1855 (0.2% of world trade)". Indeed, he published separate series for about fifty polities (Figure 2) plus five residual series of 'other countries' for as many groups ("North-Western Europe", "Other Europe", "Temperate Settlements", "Tropical" and "East Asia"), which he estimates assuming that their exports grew as much as those of the rest of the group.<sup>4</sup> From this point of view, the series of the League of Nations is clearly superior as the underlying data-base (League of Nations (1925), (1933, 1936, 1938), includes 61 polities in 1913, around eighty in the late 1920s and 118 since 1929.<sup>5</sup>

**Figure 2**  
**Number of series at current prices, available estimates**



Sources: Appendix D. Table D.2

iii) the deflation procedures are rather haphazard, especially before 1913. Some authors simply deflate the whole series with a 'world' price index. For instance the German Statistical Yearbook (1939-1940:156\*) used an average of British and American export price indexes, while Estevadeordal et al. (2003: 239) rely the implicit deflator of American (domestic) GDP. The United Nations (1962) built an index of prices of commodities in core country markets to deflate exports before 1913. This method is bound to yield biased results if prices are not adjusted for changes in transportation costs, the product coverage

<sup>4</sup> These 'other countries' account for 20% of world exports in 1850 but their share declines sharply in the 1860s and 1870s, down to about 2% in 1913, as new countries enter his data-base (see Figure 2).

<sup>5</sup> As Lewis, the source groups missing polities in a residual category 'other countries' (by continent rather than by group), whose share on world trade is anyway minimal.

of price series is not complete (a risk especially for manufactures) and the information on the composition of trade are not regularly updated. Furthermore, it yields only world-wide estimates and thus Maddison (1962) and Lewis (1981) prefer to deflate series for each polity with a separate index. This method is in principle sounder, but its application is constrained by the number of suitable polity-specific indexes - eleven for Maddison and twelve for Lewis.<sup>6</sup> Both authors resort indexes and resort to proxies for the missing countries. Maddison (1962) uses the implicit price index of the cumulated available European countries for Europe and a trade-weighted average of import price indexes of four major countries for the rest of the world. Lewis (1981) deflates exports of all Third World countries with his own index of prices of tropical products (Lewis 1969) and exports of “Other Europe”, a group which includes so widely different countries as Spain, Italy, Austria and Russia, with an index of French import prices (Levy-Leboyer 1970).

It would be unfair to belittle the work of these pioneers, who had to make do with limited evidence and scarce technical resources. Luckily, nowadays the technical resources have greatly improved and the available historical evidence is much more abundant. Mitchell (2007, 2013) reports series of trade at current prices and in local currency for 138 polities (26 in Europe, 44 in Africa, 24 in Asia, 7 in Oceania, 37 in the Americas). Barberi and Keshk (2009, 2012) extract a smaller sample of 30-45 polities (Figure 2) but they helpfully convert the series into US dollars. Also the number and the reliability of series at constant prices and/or of price indexes have increased a lot. Statistical offices and independent scholars have produced new sets of data of foreign trade for a number of countries, including Spain (Tena 2007), Italy (Federico et al. 2011) and the Ottoman empire (Pamuk 1987), and new or improved sets of national accounts for several others, such as Sweden (Krantz and Schon 2009), Venezuela (1997), Brazil (Absell and Tena-Junguito 2015) and Chile (Braun et al. 2000). In spite of this progress, price indexes are still missing for a large number of polities, including major ones such as Russia and Austria-Hungary before 1913.

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<sup>6</sup> Maddison (1962) gets series of unit values of imports and exports from Kindleberger (1956) for Belgium, Germany, Italy, Netherlands, Switzerland, Sweden and the United Kingdom, adding Canada, France, Norway and the United States from other sources. Lewis (1981) deflates separately the series for Argentina, Australia, Belgium, China, Canada, Denmark, France, Germany, Japan, Sweden, the United Kingdom and the United States. The coverage increases in the 20th century: the United Nations (1962) considers 19 polities (Australia, Austria, Brazil, Canada, Chile, Denmark, Finland, France, Germany, India, Italy, Japan, the Netherlands, Norway, South Africa, Sweden, Switzerland, the United Kingdom and the United States) since 1900. The League of Nations (1933-38) *Review of World Trade* reports series for twelve additional polities (Algeria, Argentina, British Malaya, China, Czechoslovakia, Indonesia, Estonia, French Indochina, Hungary, Ireland, Latvia, Uruguay, USSR and Yugoslavia) for interwar years.



### 3) The polities

Currently, ‘in order to be registered as a state member of the international system: “*the entity must be a member of the United Nations or League of Nations, or have population greater than 500,000 and receive diplomatic missions from two major powers*” (Lavalle and Vicard 2010 p.4). The first condition is not applicable before 1913 and it would exclude all colonies after World War One. Listing all the diplomatic missions of major powers for more than one hundred years would have been impractical. Furthermore, we are interested in trade rather than in the political status. We thus define as “trading polity” any political entity which can register its own trade and is registered as a separate entry in the trade statistics of other polities, including colonies (hence the use of the word polity rather than country in this paper). This definition implies a minimum organizational capability for collecting and processing the data and some sort of international recognition.

As a first step, we have compiled a list of polities which ought to have been included in our data-base, using as main source the Correlates of War Project (v.4), supplemented and corrected by standard reference sources when necessary.<sup>7</sup> Although in principle comprehensive, our list does exclude two broad categories of polities. First, we do not include some short-lived polities which emerged from the break-down of established ones during wars and periods and political turmoil, most notably after World War One. For instance, the former Austrian town of Rijeka, on the Adriatic Coast, was an independent polity from 1920 to 1924, before being annexed by Italy. We omit these temporary polities because they had no time to set up the organization capabilities to register trade nor they were usually recognized as trading partners in statistics of other polities. Second, and more important, we have excluded the native states which ruled Africa and large swathes of Asia before Western colonization. Listing all of them (53 in Burma alone according to the Correlates of war) would have been impractical and substantially useless, as they had shifting boundaries and rudimentary organization, if any. Thus, these areas appear under the name of Western colonies both in the data-base and in Figure 2. On the other hand, we have included in our list those native polities, such as Kuwait and most other emirates in the Arabian Peninsula, which managed to retain some independence throughout the whole period, often as protectorate of the United Kingdom or of other Western powers. We report the full list of polities in Table C1 of the Statistical Appendix, with the dates of existence

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<sup>7</sup> Most notably, the Correlates of war indicates 1816 as starting date for all polities, including France and the United Kingdom. We state as initial date the earliest official settlement of each colony, but many of these dates are only indicative.

and the essential information about relevant changes in boundaries during the period and, when necessary for the sake of inter-temporal comparability, after World War Two. We have conventionally assumed that all the war-related boundary changes happened in January 1<sup>st</sup> 1919 – so that, for instance, the series for Austria-Hungary ends in 1918, to be replaced by series of successor states in 1919. The full list includes a total of 241 polities, 36 in Africa, 52 in the Americas, 64 in Asia, 46 in Europe and 43 in Oceania, but some of them were established during the period and other disappeared before 1938. The number of polities existing in each year (Figure 2) rises slowly from 157 in 1800 to 183 on the eve of World War Two.

As a rule, we prefer to produce a very tentative estimate for a polity rather than being constrained by the available quantitative evidence. In many areas, including almost the whole Africa, trade data started to be collected after the European colonization. Omitting these polities from our data-base would have been tantamount to assume that they began to trade only after European colonization – in many cases several years later. This assumption contrasts with all the available evidence about the economy of pre-colonial Africa (Austen, 1987, Gray and Birmingham, 1970, Liesegang et al, 1983). We have nevertheless decided not to estimate trade for two specific categories, the major independent port cities, such as Aden, and the very small polities. We omit the former because most of them consisted of transit, and estimating the small part of their traffic which did meet the needs of local population would have been too difficult. We define “very small” any polity which accounted for less than 0.1% of world total population in 1913 (i.e. about 1.8 million).<sup>8</sup> Anyway, we include polities below this threshold, such as Iceland, if we have data. Last but not least, we estimate jointly series for several polities for the sake of expediency. For instance, we group the (very tiny) Pacific islands under the control of each colonial power in a single polity, labelled “British (French, German, American) settlement in Oceania.”<sup>9</sup> We also consider as a trading polity the German Zollverein before 1871, because it published aggregate trade statistics and appeared as a single unit in the trade statistics of other countries.

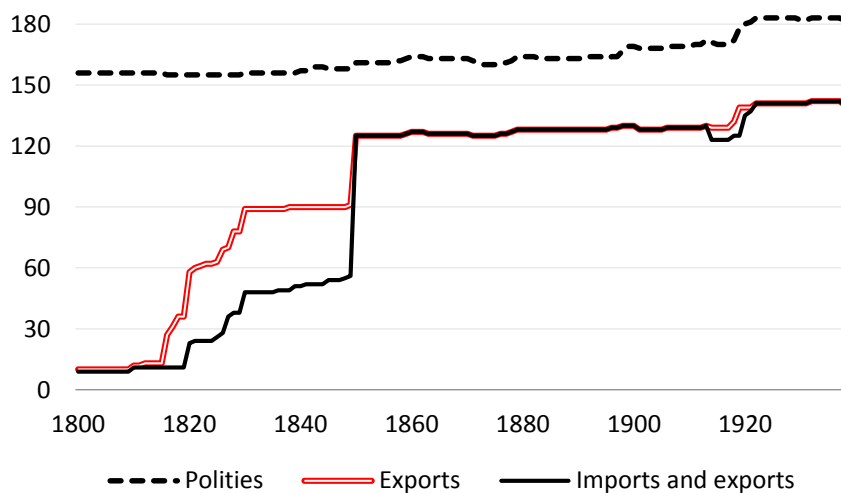
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<sup>8</sup> Cf the data Table A1 and Federico-Tena (2016a) for the sources. For polities not existing in 1913, we use the population at the closest date in time.

<sup>9</sup> In these cases, in table A1, we still list separately all polities and add “joint statement with..”. Polities transferred from one colonial power to another (most notably the German colonies after the defeat in 1918) are listed under the name of the power in charge in 1913.

The data-set includes data for 149 polities, with 13,060 yearly data for imports and 14,317 for exports (corresponding to an average length of 95.5 years for each series out of a maximum of 139), and a total of 106,994 observations. As Figure 3 shows, ten export series begin in 1800, and three more in 1813, but then the number jumps to 36 in 1818, rises to 61 in 1823 and to 89 in 1830. The number of import series grows as well, but remains lower until 1850 – 9 in 1800, 23 in 1823 and 50 in 1830.

**Figure 3**  
**Number of polities and of series in the data-base**

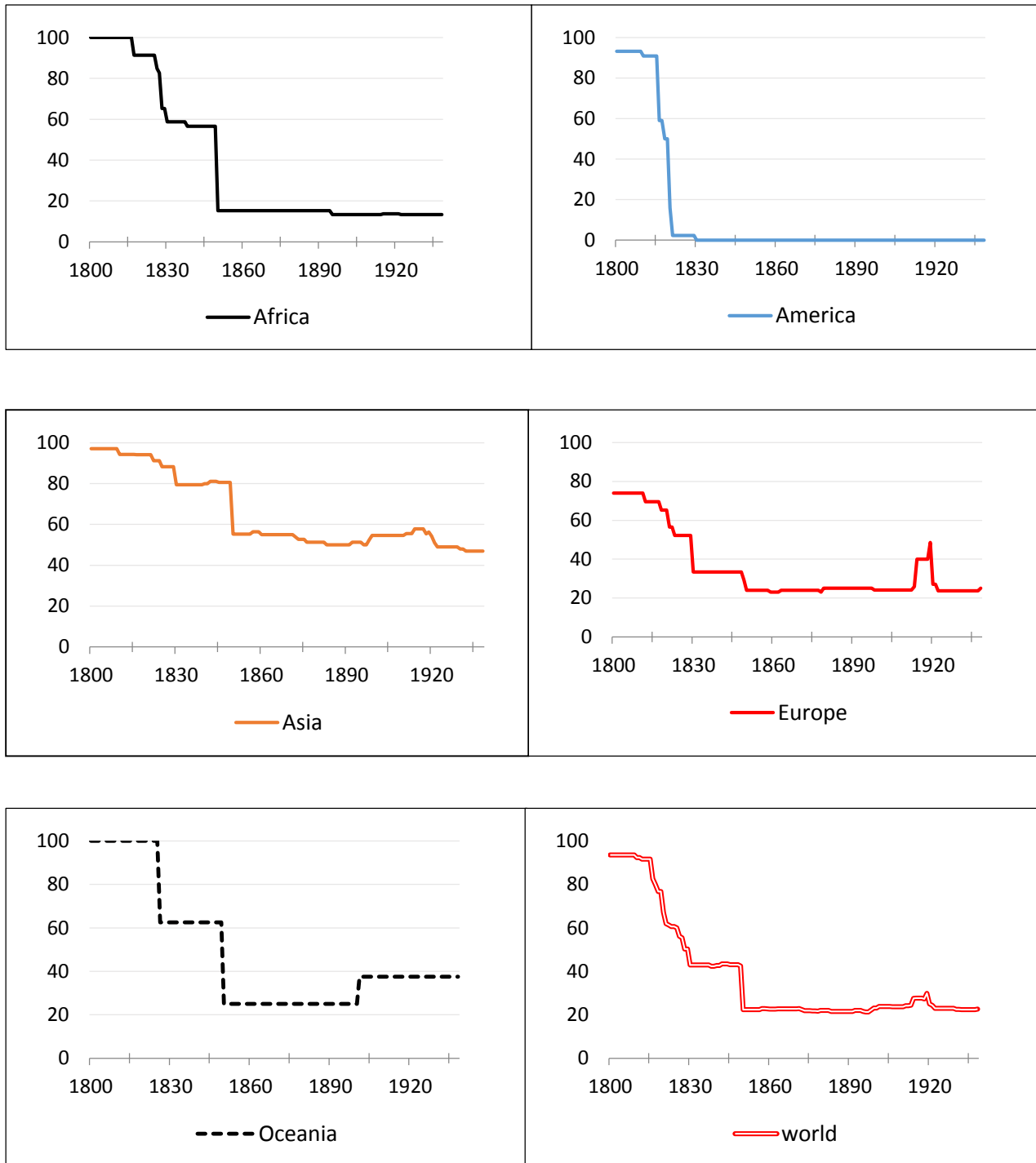


Sources: Appendix D. Table D.3

As said, since 1850, the data-base, labelled ‘full sample’, includes all series for all polities, with few exceptions during World War One. The number of polities varies only as a consequence of changes in political boundaries. It ranges between 125 and 130 (out of about 160 listed ones) until 1918 and then jumps to around 140 (out of about 180) after the war.

Figure 4 plots the share of missing polities (from the export side) by continent (Figure 4).

**Figure 4**  
**Share of missing polities, by continent, exports**



Sources: Appendix D. Table D.5

The coverage is complete in the Americas since 1820, fairly high (about two thirds) in Europe since 1830, while before 1850 it is low for Africa (about one third of polities) and very low for Asia (no more than a fifth). The coverage of Asia remains incomplete also

after 1850: in 1913, it features three fifths of the missing polities (25 out of 42) while accounting for only a quarter of world polities (45 out of 172). However, most of these missing polities were small traditional sheikdoms in the Arabian Peninsula and in Central Asia.

By definition, the omission of any polity is bound to bias downward our estimate, unless it did not trade at all. Of course, there are no data on trade of these polities before 1938 and thus we use as proxy the share on world population from Federico and Tena (2016a). We have data on 12 of the missing polities (out of 39) in 1870, 24 (out of 42) in 1913 and 24 (out of 41) in 1938 and they accounted respectively for 0.12%, 0.29% and 0.32% of the total. As a further check, we consider the share of world trade after the war, from United Nations.Trade Statistics. *Yearbook of International Trade Statistics (ad annum)*. It reports data on exports for 22 of the polities missing from our data-base, accounting accounted for a mere 0.75% of world trade. The other 23 missing polities, including the Faroe Islands, Monaco, St Helena, were too small to be relevant. We thus can conclude that omissions are extremely unlikely to have reduced trade after 1850 by more than 1%.

The number of missing polities, and thus the potential effect of omissions is the greater the farther back in time one moves from 1850 (Figure 2). Yet the bias is smaller than one might infer from the sheer number of series. In fact, the polities with series starting in 1800 account for 56% of world trade in 1850, and the other major polities join quite soon - Germany in 1821, Italy in 1823, China and Austria-Hungary in 1830. Summing up, we are pretty confident that our data-base is fairly representative already before 1823, and fully representative after 1830. Its comprehensive geographical coverage is, in our opinion, a substantial improvement of our series over previous ones, which relied heavily on few advanced countries.

#### **4) The series of trade at current prices**

For a quite a few polities, including major trading ones such as the United Kingdom and the United States, we have been able to rely on reconstructions of historical trade series or on estimates of national accounts. These latter sometimes provide data for all foreign transactions rather than for commodity trade only: in this case we extract series of trade by assuming that the ratio of commodity trade to other external transactions remained constant in the relevant years. However, modern series are not available for most polities and thus we have had to collect data on imports and exports at current prices. We have used both national sources (trade statistics or statistical yearbooks) and international collection of

trade data – most notably the United Kingdom (colonies). Statistical Yearbook and France (colonies) Statistical Yearbook, which report yearly data on total trade for all British and French colonies and many protectorates. We use the secondary literature such as Mitchell (2007) and von Neumann-Spallart (1885-1895) only as a last resort. The former is usually quite accurate, but it does slip the occasional mistake and, above all, he reproduces the data from original sources, without any effort to make the figures comparable.<sup>10</sup> Von Neumann-Spallart (1885-1895) reports many estimates for small territories in pre-statistical age which could have been very useful to fill gaps. Unfortunately, in quite a few cases his figures conflict with other evidence or imply implausible levels of trade per capita.

We have been unable to find data for many polities, mostly in Africa before Western colonization and in the Arabic peninsula after 1918. In these cases, we have guesstimated series of trade with (different combinations of) three main methods:

- a) we estimate trade from statistics of main commercial partners, following the method used by Pamuk (1987) for Ottoman Empire. For instance, we proxy total imports of China from 1850 to 1864 with the sum of exports of opium from India and total British exports to China and we extrapolate backwards export of West African polities before 1850 with the series of imports from the area into the United Kingdom by Iñikori (1983).
- b) we proxy the missing trade with data from a similar, usually neighbouring, polities. For instance, we use our series of trade of British Malaya and Dutch East Indies (Indonesia) to estimate, jointly with population growth, the trade of Sabah and Sarawak, on the Northern Coast of Borneo. We use this strategy for Africa. We assume that trade of coastal areas moved in parallel to trade of near-by coastal areas or islands (e.g. we use the series of trade of the Mauritius for several areas or polities of East Africa), while we assume no trade for inland areas (e.g. Rhodesia), hypothesising that trade flows were already included in the figures for coastal areas.
- c) as a last resort, we rely on population data, assuming that trade per capita at constant prices remained constant in the relevant period. For instance, we extrapolate backwards trade of French Indochina from the earliest available data, in 1876, to 1850. We convert the data into current prices with an index of prices, as described in the next Section.

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<sup>10</sup> The most egregious mistake refers to Germany during World War One. Mitchell reports the data from the German Statistical Yearbook without warning the reader they are at 1913 prices, unlike the other figures in the series.

The 19<sup>th</sup> and early 20<sup>th</sup> century trade statistics are not directly comparable across polities. Each country adopted its own set of criteria, which scholars have subsequently grouped in two systems, usually labelled “Anglo-Saxon” and “Continental” (Petruzzi 1946, Allen and Ely 1953). The former was adopted by the United States and by the United Kingdom, with all its colonies and the latter by European countries. According to League of Nations (1925), on the eve of World War One, 11 polities adopted the “Anglo-Saxon” system and 23 the “Continental” one, while Petruzzi (1946: 21) lists 35 and 43 polities adopting the two systems in 1938 (Petruzzi 1946 p. 21). These systems differed on many counts, including the allocation of trade by countries, but the most important one from our point of view is the definition of trade. The “Continental” system distinguished “special trade” from “general trade”. This latter included all goods, while “special” trade recorded only goods produced and processed in the country, but it excluded goods in transit and transshipment and, as a rule, goods imported, stored and later re-exported, without processing (entrepot trade).<sup>11</sup> In contrast, “Anglo-Saxon” trade statistics considered only ‘trade’, including the entrepot trade and possibly the transshipments, although not pure transit. Therefore, *ceteris paribus*, “Continental” trade statistics would report lower figures than “Anglo-Saxon” ones. Scholars were well aware of the problem, and throughout the 19<sup>th</sup> century they spent a huge amount of time in devising the ideal criteria for compiling trade statistics and in convincing governments to adopt them, with little success. A common set of criteria, largely inspired by the “Continental” ones, was adopted only in the 1950s under the guidance of the United Nations. *Yearbook of International Trade Statistics* (1975).

We adjust our series as much as possible to these criteria for the sake of comparability with the post war series.

i) We exclude smuggling and trade in unlawful goods, as well as slaves, which are omitted by definition from all trade statistics. Thus, arguably, our series undervalue trade relative to total transactions. The bias from smuggling is likely to have been small for exports, but this is not the case of the omission of slaves. Inikori (1983 p.54) estimates that they accounted for over a half of exports from West Africa in the 1830s. Slave exports declined

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<sup>11</sup> In some cases, the statistics excluded also the so-called improvement trade – i.e. the temporary import of goods and re-export of goods to be processed, without paying duties. The distinction between “general” and “special” trade, although clear on paper, was not always respected. The “special trade” of small free-trade countries such as Belgium included also a lot of disguised transit flows (Lampe 2009). However, we use the series by Horlings (2002) who corrects this overvaluation.

thereafter, to disappear in the second half of the century, and thus our series over-values the growth of (total) African exports.

ii) We exclude transit and entrepot trade. Thus, we subtract re-exports from both imports and exports in trade statistics compiled with “Anglo-Saxon” criteria, under the assumption that goods were imported and re-exported in the same calendar year.<sup>12</sup> Some statistics, including the British ones, provide series of re-exports, while in other cases we have to estimate them, usually as a time invariant share of exports.<sup>13</sup>

iii) We exclude trade in bullion (coins) and also in precious metals, except for exports of producing countries - South Africa, Gold Coast (nowadays Ghana), Canada Colombia, Australia, New Guinea and New Zealand (League of Nations (1933-38) *Review of World Trade*).

iv) We express all data in calendar year.<sup>14</sup> When necessary (e.g. for the United States before 1915), we convert data in fiscal years into calendar years by assuming that trade was distributed equally within the year.

v) We value trade at the national boundaries, measuring import c.i.f. (including freights and other costs of transportation) and exports f.o.b. (excluding these costs), adjusting when necessary the data of polities which adopted different criteria. For instance, we add costs of transportation to American imports, measured in the statistics as f.o.b. at the origin from 1883 to 1890, with the information from Simon (1960).

We convert all series from local currencies, which for colonies usually coincided with that of the colonial power, into US dollars.<sup>15</sup> Whenever possible we use polity-specific sources or general compilations such as Denzel (2010) for the period before 1914, the Germany. Statistical Yearbook, the League of Nations (1933-38) *Review of World Trade* for the interwar years and the OXLAD data-base for Latin American countries. We rely on the handy, but often flawed, data from Global Financial Data only as a last resort. We proxy the exchange rate of silver-based currencies, if no reliable series is available, with the series of gold price of silver (Jastram 1981). The US dollar floated from 1861 to 1879,

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<sup>12</sup> This assumption causes a time inconsistency for goods imported in one year and re-exported the following one. However, the error is negligible as this was a repeated pattern.

<sup>13</sup> For instance “throughout this Abstract the figures shown for imports include goods subsequently recorded as re-exporters” United Kindgom (colonies) Statistical Yearbook (1924 to 1930 p.ix). A similar problema arises also for some French colonies, as the Statistical Yearbook France reports general trade, including transit.

<sup>14</sup> We use a slash for fiscal years (e.g. 1876/77) and an hyphen (1876-1877) for two successive calendar years.

<sup>15</sup> We quote the sources in Appendix B and we reproduce the series in Appendix Table A.5.



and during the Civil War it devalued substantially relative to the gold-based currencies.<sup>16</sup> In those years we convert other currencies into dollars at the gold parity rather than at the market exchange rate, as Simon (1960: 629) in his estimate of the American balance of payments.

### 5) The series at constant prices

Almost all “modern” estimates of trade provide also series at constant prices, while additional price series can be had from other sources, most notably the League of Nations (1933-38) *Review of World Trade*, or the book by Birnberg and Resnick (1975). However, all these sources together supply only about a quarter of the observations by polity/year (Table 2, row ‘Other indexes’). In about as many cases, we use indexes from similar policies (Table 2, Row ‘Proxies’). For instance, we use the price indexes for Jamaica to deflate trade for many small Caribbean sugar islands. In the remaining cases, about a half of all observations, we use newly built ‘Federico-Tena’ indexes for prices, 122 for imports and 153 for exports (Table 2, rows ‘FT Fisher’ and ‘FT Laspeyres’).<sup>17</sup>

**Table 2**  
**The deflation procedures**

	<b>1800-1849</b>		<b>1850-1913</b>		<b>1914-1938</b>		<b>1800-1938</b>	
	number	%	Number	%	number	%	number	%
<b><u>Imports</u></b>								
<b>FT Fisher</b>	87	5.8	1727	21.2	1225	35.8	3039	23.3
<b>FT Laspeyres</b>	441	29.3	2619	32.2	443	13.0	3503	26.8
<b>Other indexes</b>	453	30.1	1811	22.2	993	29.1	3257	24.9
<b>Proxies</b>	522	34.7	1984	24.4	755	22.1	3261	25.0
<b>Total</b>	1503	100	8141	100	3416	100	13060	100
<b><u>Exports</u></b>								
<b>FT Fisher</b>	362	13.1	1795	22.0	1170	34.3	3327	23.2
<b>FT Laspeyres</b>	1081	39.2	2183	26.8	407	11.9	3671	25.6
<b>Other indexes</b>	600	21.7	2234	27.4	1127	33.0	3961	27.7
<b>Proxies</b>	717	26.0	1929	23.7	712	20.8	3358	23.5
<b>Total</b>	2760	100	8141	100	3416	100	14317	100

Source: Appendix H. Sources

<sup>16</sup> In 1862-1865, the dollar lost 27.4% relative to the pound sterling according to the GFD and by 56.2% according to the more reliable series by Officer (United States of America. *Historical Statistics of the United States* (2006) series Ee 618).

<sup>17</sup> Out of the 275 indexes, 70 refers to the period before 1850 (19 for imports, 51 for exports) and 205 to the period after 1850 (51 and 102, respectively).

In theory, price indexes for trade should be computed with prices at local borders but a suitable set of data is available only for Germany (Jacobs and Richter 1938). Thus we proxy them with British prices, following a tradition which harks back to the seminal work by Prebisch (1950,1959) and Singer (1950) on terms of trade of underdeveloped countries in 1950s. This method is bound to yield biased results if transaction costs change (Hadass and Williamson 2003). By definition, prices at borders of the  $i$ -th country equal “world prices” ( $P_L$ ) plus or minus total transportation costs, inclusive of port handling and insurance (TC)

$$P_{Mi}=P_L+TC_M \quad (1a)$$

$$P_{Xi}=P_L-TC_X \quad (1b)$$

where the letters M and X refer as usual to imports and exports. Note no iceberg assumption. Substituting 1a) and 1 b) in the definition of trade at current prices (quantity times prices at national borders) yields

$$V_{Mi}=Q_{Mi} * P_{Mi}=Q_{Mi} * (P_L+TC_M) \quad (2a)$$

and

$$V_{Xi}=Q_{Xi} * P_{Xi}= Q_{Xi} * (P_L-TC_X) \quad (2b)$$

Let's assume that traded quantity and London prices remain constant from  $t$  to  $t+1$ . In this case, deflating imports at current prices with London prices yields at time  $t+1$

$$Q_{ML}^{t+1}=Q_{Mi} * (P_L+TC_M^{t+1})/P_L \quad (3a)$$

And at time  $t$

$$Q_{ML}^t=Q_{Mi} * (P_L+TC_M^t)/P_L \quad (3b)$$

So that change in time is

$$Q_{ML}^{t+1} / Q_{ML}^t = (P_L+TC_M^{t+1}) / (P_L+TC_M^t) \quad (4)$$

Thus, even if underlying quantity remained constant, trade at constant prices deflated with British prices would decline if transaction costs fall ( $TC_M^{t+1} < TC_M^t$ ), and increase if they rise. The same reasoning yields for exports but the sign of the bias is opposite

$$Q_{XL}^{t+1} / Q_{XL}^t = (P_L-TC_X^{t+1}) / (P_L-TC_X^t) \quad (5)$$

In other words, if price converged, the deflation with unadjusted British prices would undervalue world imports and overvalue world exports relative to its “true” level. The opposite holds true when price diverged.

We avoid the bias, by adjusting British prices as

$$P_{Mi}= P_L(1+FF_{MLi})*\epsilon \quad (6a)$$

and

$$P_{Xi}= P_L(1-FF_{XLi})*\epsilon \quad (6b)$$

where

$$FF_{MLi} = TC_{Mi} / P_L \quad (7a) \quad \text{and} \quad FF_{XLi} = TC_{Xi} / P_L \quad (7b)$$

$\varepsilon$  is the exchange rate (unit of local currency per pound sterling) and  $TC_{Mi}$  and  $TC_{Xi}$  are product-and route specific British-based freight factors.<sup>18</sup>

Our data-base of British prices (Statistical Appendix Table C.2) features 54 series for the period 1800-1850, mostly from the Appendix to Gayer-Rostow-Schwartz (1953) and 122 for 1850-1938, from Sauerbeck (1886 ff) and the Trade Statistics United Kingdom (ad annum). This latter source provides unit values for British imports and exports, which we use as proxy of export ( $P_{Xi}$ ) and import ( $P_{Mi}$ ) prices. Unit values, especially for manufactures, may be biased by a composition effect but by definition they refer to the value of goods at the English border, net of duties. In contrast, the price series may include duties and possibly the cost of transportation from the coast to the final market (usually London). Gayer et al. (1953 p.975) does provide separate series for imported commodities “in bond” (without duties), but they report only one series of (domestic) prices for British products, including wheat, which was subject to prohibitive duties until 1828. Thus, for wheat we substitute their series with prices in wheat producing countries or, when not available, in Amsterdam (Federico 2011). The exact nature of Sauerbeck’s figures is somewhat uncertain. From one hand, he quotes as source, with few exceptions (e.g. flax or timber), “private firms” and “the ‘Economist’ and other publications” (1886: 632), which in all likelihood supplied domestic prices. On the other, Klovland (1993: 201) states, in his accurate revision of the Sauerbeck index, states that “early British wholesale price indices all relied on price quotations ex duty” and in Table A1 he presents a price index “using prices quoted ex duty (in bond) and an arithmetic average, corresponding to the original Sauerbeck index” (p.221). Anyway, most Sauerbeck prices refers to primary products, which were exempt from duty in the United Kingdom. The only exception is raw sugar, which was subject to very high and varying duties. In this case, the Sauerbeck prices might be biased upwards and thus as a precaution we prefer to use the unit price of raw sugar from the Trade Statistics United Kingdom.<sup>19</sup> Sauerbeck does not provide a price for rye, which we substitute with the price in Groningen from Tijms (2000).

<sup>18</sup> The freight factor is the ratio of total transaction costs to prices at the country borders (Hummels 2009) - i.e.  $FF_{Xi} = TC_{Xi} / P_{Xi}$ . Substituting  $TC_{Xi} = P_L * FF_{XLi}$  and  $P_{Xi} = P_L - TC_{Xi}$  in the definition of  $FF_{Xi}$  we obtain  $FF_{Xi} = P_L * FF_{XLi} / (P_L - P_L * FF_{XLi}) = FF_{XLi} / (1 - FF_{XLi})$ , which rearranging yields  $FF_{XLi} = FF_{Xi} / (1 + FF_{Xi})$ . With a parallel manipulation, it is possible to get  $FF_{MLi} = FF_{Mi} / (1 - FF_{Mi})$ .

<sup>19</sup> Actually the coefficient of correlation between this series and the comparable series of Sauerbeck for the Java sugar is quite high (0.96), but the Sauerbeck series is on average 10% higher.

The evidence on freights is quite abundant, especially since the start of the publication of “Fairplay” a specialized British journal, in 1869. It reported a very large number of quotations, which has been collected and used by Shah and Williamson (2003) and Jacks and Pendakur (2010).<sup>20</sup> We supplement this source with additional series from Scholler (1951), Harley (1989), Korthals Altes (1994) and Klovland (2006). These sources yield 32 route/specific series of inbound freights (i.e. for  $TC_{Xi}$ ) and 16 of outbound freights (for  $TC_{Mi}$ ), six of which cover the whole period (cf. for the list of sources and the actual data Statistical Appendix Table C.3). It covers a fairly large range of goods for inbound freights, while almost all outbound freights refer to coal. Unfortunately, these latter may not be fully representative of freights on manufactures. In fact, the few data for “general” outbound freights (mostly manufactures) exceed coal freight by 40-100% according to the destination.<sup>21</sup> Thus, we obtain the series of outbound freights for manufactures by increasing the figures for coal by a half. We also interpolate linearly the missing values and we smooth the resulting series with three year moving averages. We compute freights for missing polity by re-scaling the available data according to the distance between London and the main harbour of each polity (or main city in case of landlocked countries). The limited information about insurance and other costs suggest that they accounted for about 2% of price of the product in the first half of the 19<sup>th</sup> century (Schollers 1951). We let this figure to vary according to the ratio of freights to price (or freight factor) and we add the results to the freight in order to compute total costs and then prices at borders according to 6) and 7).

We compute the price indexes by weighting the price series with a new set of data on the composition of imports and exports by polity. We have collected them from national sources and international compilations, such as MacGregor (1849 and 1850) for the first half of the 19<sup>th</sup> century, United States of America (1909) *Statistical Abstract of Foreign Countries* for 1896-1906, the League of Nations *Review of World Trade* for the late 1930s and the United Kingdom (colonies) *Statistical Yearbook* for the whole period 1850-1938. When possible, we collect data at 5 years’ intervals, we interpolate them linearly to get

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<sup>20</sup> Shah and Williamson (2003) reports indexes of country freight factors ( $FFI_{Xit}$ ), with 1884=100. We obtain the London freight factor at time  $t$  ( $FF_{XLt}$ ) as  $FF_{XLt} = [FFI_{Xit} / (1 + FFI_{Xit})] / [FFI_{Xi1884} / (1 + FFI_{Xi1884})] = FFI_{Xit} * [(1 + FFI_{Xi1884}) / (1 + FFI_{Xit})] * FF_{XL1884}$ . The data-base of Jacks is available on-line at <http://www.sfu.ca/~djacks/data/publications/index.html>, (accessed 10 October 2010).

<sup>21</sup> The ratios are 1.39 for Bombay (1886-1890), 1.82 for Singapore (1885-1904), 1.95 for Rio de Janeiro (1886-1894), 1.54 for Buenos Aires (1887-1894) and 1.36 for Cape Town (1887-1892). In fact the unit freights depended on the so-called stowage factor – i.e. the ratio of weight to stowage space required for transport (Thomas (1930) p.230). Cf. on this point also Moneta (1959)

yearly shares and we compute Fisher price indexes (Table 2 row ‘FT, Fisher’) as the geometric average of Laspeyres and Paasche ones. Unfortunately, in many cases, we have only one set of data for imports or exports, and thus we have been forced to compute Laspeyres price indexes (Table 2, row ‘FT Laspeyres’). We report detailed information on the construction of each index in the Statistical Appendix Table C.4.<sup>22</sup>

Last but not least, we have to fill the gaps in the series of trade of 16 belligerents and newly established countries from 1914 to 1921.<sup>23</sup> We add a total of 51 observations for exports at constant prices, by assuming that trade moved as much as total trade of the continent. We multiply exports of the rest of the continent by a share of the missing polity, which we obtain in three different ways. We use the share in 1913 for the polities which disappeared after the war, such as the German Togo, the share in the earliest available date for polities which were created after the war, such as the Baltic States, and a linear interpolation between the two shares for polities straddling the war, such as Belgium. This adjustment increases the volume of world trade, relative to the sum of available series by 1-3% on average, with a maximum of 3.2% in 1918.

## 6) Adjusting to border changes

We estimate trade at 1913 borders by using data on bilateral trade from polity-specific sources under a strict *ceteris paribus* assumption. We assume that changes in border did not affect the actual flows of goods, but only its registration as domestic or foreign trade. This assumption is the less realistic the higher the barriers to trade. Just to quote an extreme example, the Baltic States would have traded much less if there had belonged to the Soviet Union after 1918. Unfortunately, there is no viable alternative: any attempt to correct for changes in trade policies would be totally arbitrary.

We start from a taxonomy of the possible differences between trade at 1913 and current borders at time  $t$ , distinguishing polities which existed in 1913 (unimaginatively defined 1913 polities) from polities which did not exist in 1913 (non-1913 polities).

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<sup>22</sup> For each index, we list the prices series and we compute the coverage in 1913, or in the closest available year, for the Fisher indexes and in the base years for the Laspeyres indexes. In some cases, we proxy the price of a missing, but very relevant item, with the series for a similar good. This latter is reported as well within brackets.

<sup>23</sup> The affected polities are Albania (1914-1919), Austria (1919), Belgium (1914-1918), Czechoslovakia (1919), Estonia (1919), Hungary (1919), Iraq (1919-1920), Latvia (1919), Lithuania (1919), Ottoman Empire/Turkey (1914-1921), Palestine (1919), Poland (1919-1921), Romania (1914-1919), Syria and Lebanon (1919-1920), Serbia (1914-1919) and German Togo (1914-1918).

- a) At time  $t$ , a 1913 polity existed, but part of its territory belonged to one or more non-1913 polities or, equivalently, in 1913 a non-1913 polity fully belonged to a 1913 polity. This is the cases of Eire, which until 1921 was part of the United Kingdom. This boundary change unambiguously increases world trade at current borders relative to 1913 borders ('trade creation') by the amount of bilateral trade, which in 1913 was classified as domestic trade.
- b) At time  $t$ , the territory of a no longer existing 1913 polity was divided in two or more non-1913 polities. For instance, in 1919 most the territory of the former Austrian-Hungarian Empire was divided between three new (i.e. non-1913) polities, Austria, Hungary and Czechoslovakia. This is a variant of the previous case and thus the change increases total trade.
- c) At time  $t$  two 1913 polities were united – i.e. a 1913 polity belonged entirely to a different 1913 polity.<sup>24</sup> For instance, in 1850 the territory of the Ottoman Empire (1913 polity) included seven other 1913 polities - Romania (formally independent since 1859), Bulgaria (independent since 1879), Cyprus (British colony since 1879) Crete (British protectorate since 1898), Libya and Dodecanese (Italian colonies since 1912) and Albania (independent since 1913). This is the opposite of case a). The boundary change reduces world trade at current relative to 1913 borders ('trade destruction') because at time  $t$  the flows between (not existing) 1913 polities would be classified as domestic trade.
- d) A region belonged to different 1913 polities at time  $t$  and in 1913. For instance, Alsace-Lorraine, which belonged to Germany in 1913, had been part of France until 1871 and was to return French after the German defeat. The trade flows of the region with the other regions of the two polities switch side - domestic trade at 1913 borders becoming foreign trade at current borders and vice-versa. The effect on world trade is undetermined.
- e) A region belonged to a 1913 polity in 1913 and to a non-1913 polity at time  $t$ . For instance, until 1914, part of post-war Poland, the so called Granduchy of Warsaw, belonged to Imperial Russia. As in the previous case, the effect of border change on world trade is undetermined.

In order to formalize the different cases, we define  $NP_i$  the non-1913 polity,  $P_i$  the 1913 polity,  $T_i^t$  the total trade (imports or exports) of the  $i$ -th polity at current borders in any year  $t$  ( $t \neq 1913$ ),  $\Pi_i^t$  the corresponding trade at 1913 borders and  $TB^t$  the bilateral trade between polities or regions. The expression  $R_k^t$  refers to a specific region in year  $t$  (e.g. the

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<sup>24</sup> Note that there is no counterpart to case b), because by definition all involved polities existed in 1913.

Granduchy of Warsaw), while  $R_r^t$  indicates the remaining area of the 1913 polity to which that region belonged in 1913 (i.e. the rest of the Russian Empire). In both cases, we add, in brackets, the name of the polity to which it belonged at time t. Thus,  $R_{k[NP_i]}^t$  is the k-th region, belonging to the i-th non-1913 polity (i.e. for the former Granduchy of Warsaw in 1930 NP<sub>i</sub> is Poland), while  $R_{r[P_j]}^t$  is the rest of the 1913 polity P<sub>j</sub> to which R<sub>k</sub> belonged in 1913 (in this case Soviet Union). Last but not least, as usual, ROW is the rest of the world. Thus, in our notation,  $TB_{PiPj}^t$  refers to exports from the 1913 polity i to the 1913 polity j, which we assume equal to imports into j from i, while  $TB_{PjPi}^t$ , refers to exports from j to i (equal to imports into i from j). Likewise,  $TB_{Rk[P_i]Rl[P_j]}^t$  is the bilateral trade between regions k and l, which in 1913 belonged to 1913 polities i and j and or  $TB_{Rk[P_i]ROW}^t$  is the total trade of R<sub>k</sub> with the rest of the world

By definition, the series of world trade in year t is the sum of trade of all polities at current borders:

$$WT^t = \sum T_{Pi}^t + \sum T_{NPi}^t \quad (8)$$

Which in 1913 simplifies to

$$WT^{1913} = \sum T_{Pi}^{1913} \quad (9)$$

We express trade at 1913 borders as

$$WT_{1913}^t = \sum T_{Pi}^t * \varepsilon_{Pi} + \sum T_{NPi}^t * \varepsilon_{NPi} \quad (10)$$

where

$$\varepsilon_i^t = \Pi_i^t / T_i^t \quad (11)$$

is a coefficient which, as said, we use for both current and constant prices.

In case a), trade at 1913 borders can be computed by subtracting the bilateral trade flows between the 1913 and the non-1913 polity at time t from total trade in the same year – i.e.

$$\Pi_i^t = T_{Pi}^t - \sum TB_{PiNPj}^t \quad (12)$$

Thus, for instance, we compute the trade of the United Kingdom at 1913 borders in 1930 by subtracting the bilateral trade with the Republic of Ireland.

In case b), the formula becomes

$$\Pi_i^t = \sum T_{NPj}^t - \sum TB_{NPjNPi}^t \quad (13)$$

For instance, until 1861 the Italian peninsula was divided in six independent polities: we sum up their total trade at current borders to get an estimate of Italian trade at its 1913 borders and then we subtract bilateral trade between them.

The formula for case c) is symmetrical to 12), with the key difference that we sum rather than subtract bilateral trade –i.e.

$$\Pi_i^t = T_{Pi}^t + \sum TB_{PiPj}^t \quad (14)$$

For instance, we augment the trade of the Ottoman Empire by the amount of the (by then domestic) flows between the rest of the empire and the areas of the new 1913 polities before they became independent (e.g. Romania from 1850 to 1858, Bulgaria from 1850 to 1878 and so on).

We do not consider case d) because, under our, admittedly restrictive, hypothesis, a transfer of territories between 1913 polities would not change world trade, although of course it would change the trade of the two polities. Let's consider for instance the effects of the transfer of Alsace-Lorraine from France (Pi) to Germany (Pj) from 1870 to 1918. The total trade of Pi at current borders at time t (France in 1850) can be written distinguishing the trade of the relevant region Rk (Alsace-Lorraine) with Pj (Germany) at current borders and with the rest of the world, from the trade of the rest of France with Germany and with the rest of the world:

$$T_{Pi}^t = TB_{Rr[Pi] Rr[Pj]}^t + TB_{Rr[Pi] ROW}^t + TB_{Rk[Pi] Rr[Pj]}^t + TB_{Rk[Pi] ROW}^t \quad (15)$$

Trade at 1913 borders can be computed by subtracting the foreign trade of Rk (the two final terms of 15) and adding its commerce with the rest of France, which at time t was domestic trade:

$$\Pi_{Pi}^t = T_{Pi}^t - TB_{Rk[Pi] Rr[Pj]}^t - TB_{Rk[Pi] ROW}^t + TB_{Rk[Pi] Rr[Pi]}^t \quad (16)$$

Likewise we can convert the trade of Pj at time t (i.e. Germany in 1850) from current to 1913 borders by adding the trade of Alsace-Lorraine with France and the rest of the world and subtracting the trade between the region and the rest of Germany (which at 1913 borders would have been domestic trade).

$$\Pi_{Pj}^t = T_{Pj}^t + TB_{Rk[Pj] Rr[Pi]}^t + TB_{Rk[Pj] ROW}^t - TB_{Rk[Pj] Rr[Pj]}^t \quad (17)$$

Our hypothesis about invariance of trade flows implies that:<sup>25</sup>

$$TB_{Rk[Pi] Rr[Pj]}^t = TB_{Rk[Pj] Rr[Pi]}^t \quad (18a)$$

$$TB_{Rk[Pi] Rr[Pi]}^t = TB_{Rk[Pj] Rr[Pj]}^t \quad (18b)$$

$$TB_{Rk[Pi] ROW}^t = TB_{Rk[Pj] ROW}^t \quad (18c)$$

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<sup>25</sup> This statement assumes that all other boundaries of the two polities remained constant between 1913 and time t – i.e. that  $Rr^t = Rr^{1913}$ . This is not necessarily the case: for instance Germany after World War One lost some territories also on the East.



Summing up (16) and (17) we get:

$$\Pi_{P_i}^t + \Pi_{P_j}^t = T_{P_j}^t + T_{P_i}^t \quad (19)$$

In other words the combined trade of France and Germany with the rest of the world remain unchanged.

Last but not least, in the simplest version of case e), at time  $t$ , the non-1913 polity NP1 consisted of two regions, R1 and R2, belonging to polities P1 and P2 in 1913. The international trade of these two regions at time  $t$  can be written respectively as

$$T_{R1}^t = TB_{R1[NP1]Rf[P1]}^t + TB_{R1[NP1]Rf[P2]}^t + TB_{R1[NP1]ROW}^t \quad (20a)$$

and

$$T_{R2}^t = TB_{R2[NP1]Rf[P1]}^t + TB_{R2[NP1]Rf[P2]}^t + TB_{R2[NP1]ROW}^t \quad (20b)$$

By definition, the total trade of NP1 is the sum of the trade of these two regions:

$$T_{NP1}^t = TB_{R1[NP1]Rf[P1]}^t + TB_{R1[NP1]Rf[P2]}^t + TB_{R1[NP1]ROW}^t + TB_{R2[NP1]Rf[P1]}^t + TB_{R2[NP1]Rf[P2]}^t + TB_{R2[NP1]ROW}^t$$

The rest of each of the two 1913 polities trades with NP1 (here divided in its two constituting regions), with the other 1913 polity and with the rest of the world:

$$T_{P1}^t = TB_{Rf[P1]R1[NP1]}^t + TB_{Rf[P1]R2[NP1]}^t + TB_{Rf[P1]Rf[P2]}^t + TB_{Rf[P1]ROW}^t \quad (21a)$$

and

$$T_{P2}^t = TB_{Rf[P2]R1[NP1]}^t + TB_{Rf[P2]R2[NP1]}^t + TB_{Rf[P2]Rf[P1]}^t + TB_{Rf[P2]ROW}^t \quad (21b)$$

We thus estimate trade at 1913 borders for the two 1913 polities by subtracting the bilateral trade with the regions they owned in 1913 and adding the bilateral trade between regions R1 and R2, which at time  $t$  is domestic trade within NP1:

$$\Pi_{P1}^t = T_{P1}^t - TB_{Rf[P1]R1[NP1]}^t + TB_{R1[NP1]R2[NP1]}^t \quad (22a)$$

and

$$\Pi_{P2}^t = T_{P2}^t - TB_{Rf[P2]R2[NP1]}^t + TB_{R1[NP1]R2[NP1]}^t \quad (22b)$$

While trade of NP1 is equal at current and 1913 borders:

$$\Pi_{NP1}^t = T_{NP1}^t \quad (23)$$

Thus, the combined difference between trade at current and 1913 borders *ceteris paribus* would be:

$$\Sigma \Pi^t - \Sigma T^t = TB_{R1[NP1] R2[NP1]}^t + TB_{R1[NP1] R2[NP1]}^t - TB_{Rf[P1] R1[NP1]}^t - TB_{Rf[P2] R2[NP1]}^t \quad (24)$$

Of course, actual changes in borders could combine two or more of these cases: the dissolution of Austrian-Hungarian empire and the establishment of four new polities (Austria, Czechoslovakia, Hungary and Poland) is a particularly challenging example, which we will deal with in Appendix A.

The data on bilateral trade are sufficient to estimate only the first two cases. All other ones need information on the distribution of total trade by region and/or of flows between regions belonging to the same polity at time  $t$ . These data are simply unavailable, as far as we know, and thus we compute them by multiplying the (known) trade flows between polities at time  $t$  by a time-invariant share  $\alpha$ , equal for imports and exports. Exports at time  $t$  from the region  $R_i$ , belonging to a non-1913 polity, to  $P_j$ , to which it belonged in 1913 can be written as:

$$TB_{Ri[NP1] Rf[Pj]}^t = \alpha_i * TB_{NP1 Rf[Pj]}^t \quad (25a)$$

and likewise imports as

$$TB_{Rf[Pj] Ri[NP1]}^t = \alpha_i * TB_{Rf[Pj] NP1}^t \quad (25b)$$

Next, we have to estimate  $TB_{R1[NP1] R2[NP1]}^t$  i.e. the domestic flows at time  $t$  between regions of the non-1913 polity at time  $t$ , which at 1913 borders belonged to different polities – e.g. between the Granduchy of Warsaw and West Prussia (formerly German). We estimate these flows as a share  $\gamma$  of the bilateral trade between the non-1913 polity NP1 and the rest of the  $P_j$  polity, after subtracting the trade between this latter and the areas of NP1 which belonged to  $P_j$  at 1913 borders (from eq. 25 a or b). Thus, the formula becomes

$$\Sigma TB_{Ri[NP1] Rm[NP1]}^t = \gamma_i * [(1 - \alpha_i) * TB_{NP1 Rf[Pj]}^t] \quad (26a)$$

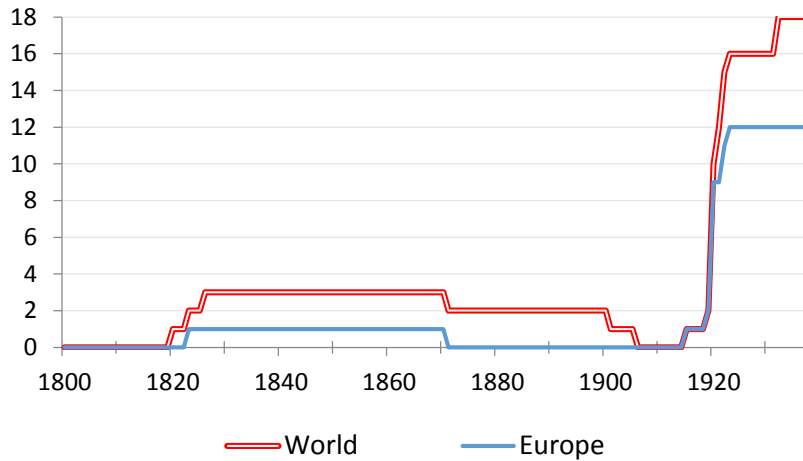
and

$$\Sigma TB_{Rn[NP1] Rm[NP1]}^t = \gamma_i * [(1 - \alpha_i) * TB_{Rf[Pj] NP1}^t] \quad (26b)$$

Where  $m$  refers to the region which belonged to the 1913 polity  $P_j$ . In this expression the term in square brackets measures the trade of Germany (or Russia) at its 1913 borders with the part of Poland which did not belong to it in 1913 (i.e. Galicia and the Granduchy of Warsaw). We assume that a proportion  $\gamma_i$  would have originated in West Prussia had it remained in Germany. In the case of Austria-Hungary, we have to add a further parameter  $\sigma$ , which measures the share of each successor state (Austria, Czechoslovakia and Hungary) on the estimated trade flows (see Appendix A for details). We proxy the parameters  $\gamma$ ,  $\alpha$

and  $\sigma$  with the share of the region on GDP or, when not available, on population. This is tantamount to assume that the trade/GDP ratio and the per capita GDP were equal in all regions of the non-1913 polity.

**Figure 5**  
**Number of polities with different current and 1913 borders**



Sources: Appendix D. Table D.6

As Figure 5 shows, we have had to perform few adjustments before 1913, mostly related to the slow dissolution of the Ottoman Empire. As expected, the number of relevant border changes shoots up after World War One. We have omitted to correct for small number of changes of borders of colonies in Africa, after 1850, as there are no data and the involved trade are likely to be very small.

## 7) The reliability of our series

As a rule, we trust our sources and we assume the data to be correct, unless we have independent and strong evidence that they are wrong. This approach is now standard in the literature on trade, but it contrasts with a scholarly tradition, which dates back to the seminal work by Morgestern (1965). He found huge differences in the registration of the same flows in the trade statistics of the two partners (e.g. exports from France to Germany according to the French statistics and imports in Germany from France according to German statistics), which he deemed too large to reflect differences in the criteria of compilation (Section 3). Few years later, Platt (1971) argued that the statistics of peripheral countries are plagued by widespread errors in prices and urged not to use them. This wholesale scepticism is probably excessive. Federico and Tena-Junguito (1991) argue that

Morgestern's test is too demanding because it infers the reliability of total trade from the accuracy of figures on bilateral trade.<sup>26</sup> These latter are much more difficult to collect, and the incentives for an accurate collection are usually not strong. Thus, total trade data, which we use in our work, may still be correct even if the figures of flows by country are not. This view is supported by tests by Carreras-Marin and Badia-Miro (2008) and Rubio and Folchi (2005) for Latin America and by Lampe (2009) for mid-19<sup>th</sup> century Europe. Furthermore, many recent estimates correct the original statistics whenever necessary. For instance, Tena-Junguito (2007), Tena-Junguito and Willebald (2013), Bonino et al. (2015) and Absell and Tena-Junguito (2015) deal with faulty pricing in statistics for Spain, Argentina, Uruguay and Brazil by re-computing the value of trade with international prices. Unfortunately, such corrections are very resource-intensive and sometimes are not possible altogether. The deflation may add further errors. As said in Section Five, in several cases we cannot use polity-specific price indexes and some of our policy-specific indexes rely on few or incomplete data on the composition of trade. For instance, the index for Swiss exports before 1850 uses data on composition from 1892, covering only 12% of exports in that year.

The quality of our series may differ a lot between polities and, for each polity, across time. We classify each yearly observation in five categories: i) high quality series at current prices, deflated with a "modern" price index (A); ii) good quality series deflated with high quality Federico-Tena price indexes (B); iii) average-quality series with some interpolation deflated with an average quality Federico-Tena price indexes (C); iv) poor current price series with low quality polity-specific Federico-Tena indexes or proxy (D); v) purely conjectural estimates (E). In this classification, we define 'high quality' the series at current prices produced by modern scholars or by established statistical offices, with very few or no gaps and consistent treatment of bullion and transit, 'good' the official series with small gaps and/or imperfect estimates of transit and bullion trade, 'average' the series at current price obtained with substantial interpolation from official data and/or with no

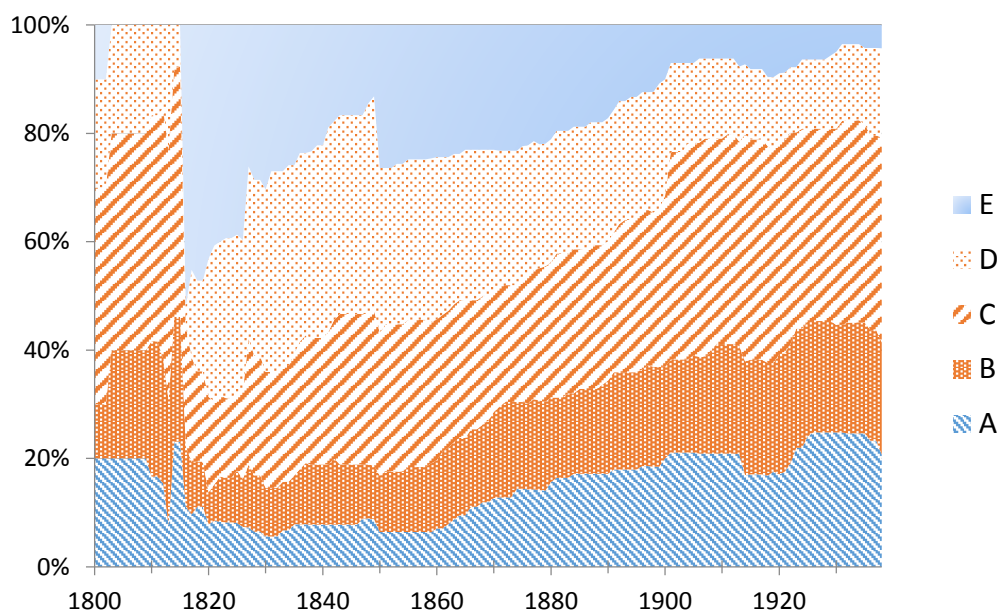
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<sup>26</sup> On top of this general statement, one should remind at least one major cause of spurious differences. Until 1904 the United Kingdom registered countries of origin and destination according to the "consignment" principle – i.e. imports (exports) as coming from the country where the goods had been embarked (where they were to be disembarked). Thus, Swiss goods exported to the United Kingdom via Le Havre were registered as French products by British statistics but as transit by French statistics. This difference biases the estimates of gravity equations, as it spuriously increases the (absolute value of the negative) coefficient for a dummy landlocked. The bias is the greater the higher the proportion of observations including Britain before 1904 is. The problem, or in general errors in the allocation of trade by country, would affect the present research to the extent that we use trade statistics of other countries to fill gaps in available data or to estimate trade at 1913 borders.

adjustment for transit and bullion and ‘poor’ the series pieced together from few observations, supplemented with additional evidence (e.g. trade with partners). In this classification, we classify as ‘high quality’ the Federico-Tena Fisher indexes with a high coverage (over two thirds of trade) and frequent benchmarks, as “average” the Fisher indexes with low coverage and/or few benchmarks and the Laspeyres indexes with high coverage and frequent benchmarks, and as “low” all the other Federico-Tena indexes. With these criteria, out of the 14317 yearly observations for export, 2171 (15.2%) can be classified as A, 2298 (16.1%) as B, 4263 (29.8%) as C, 3242 (22.6%) as D and 2343 (16.4%) as E (Figure 6).

**Figure 6**

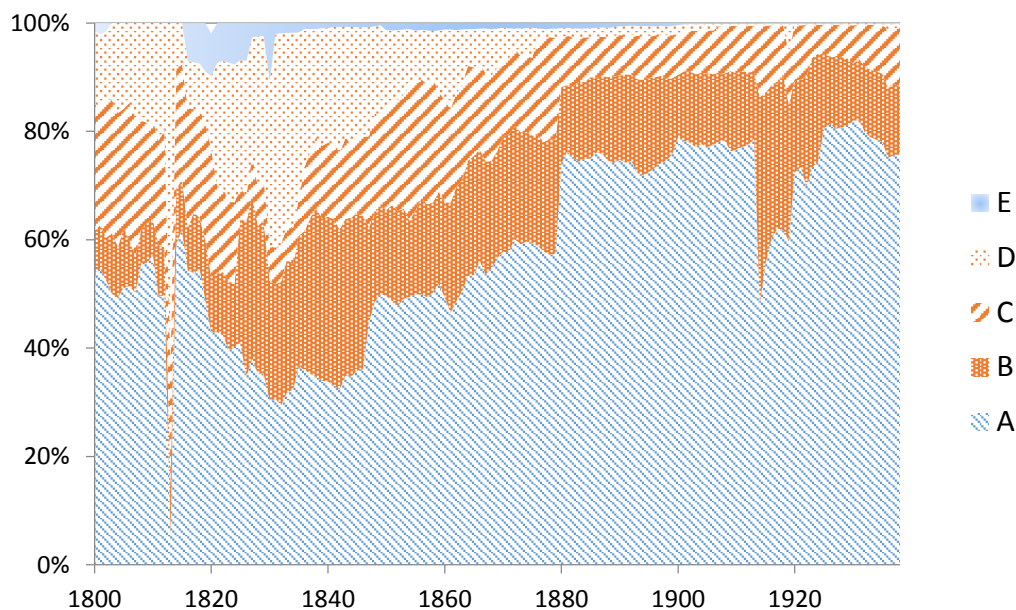
**Yearly distribution of estimates by classes of reliability: number of polities**



Sources: Appendix D. Table D.7 and Appendix E

The proportion of very good (As) or good (Bs) estimates has increased steadily over time, with few reversals, (e.g. in 1816, 1820, 1826, 1828-1830, 1843 and 1849-1850), which reflect the geographical extension of the data-base outside the core countries of Western Europe and the Western Settlement. In fact, very good (As) and good (Bs) estimates accounted only for one eighth of the observations in Asian, Latin American and African countries in 1850-1874 and for slightly above a quarter in 1900-1913 and 1930-1938. These countries, however, accounted for a small proportion of world trade. Thus, the percentage of very good or good series is substantially larger if each observation is weighted with the share of the polity on world exports at current prices at current boundaries (Figure 7).

**Figure 7**  
**Yearly distribution of estimates by classes of reliability: trade-weighted shares**



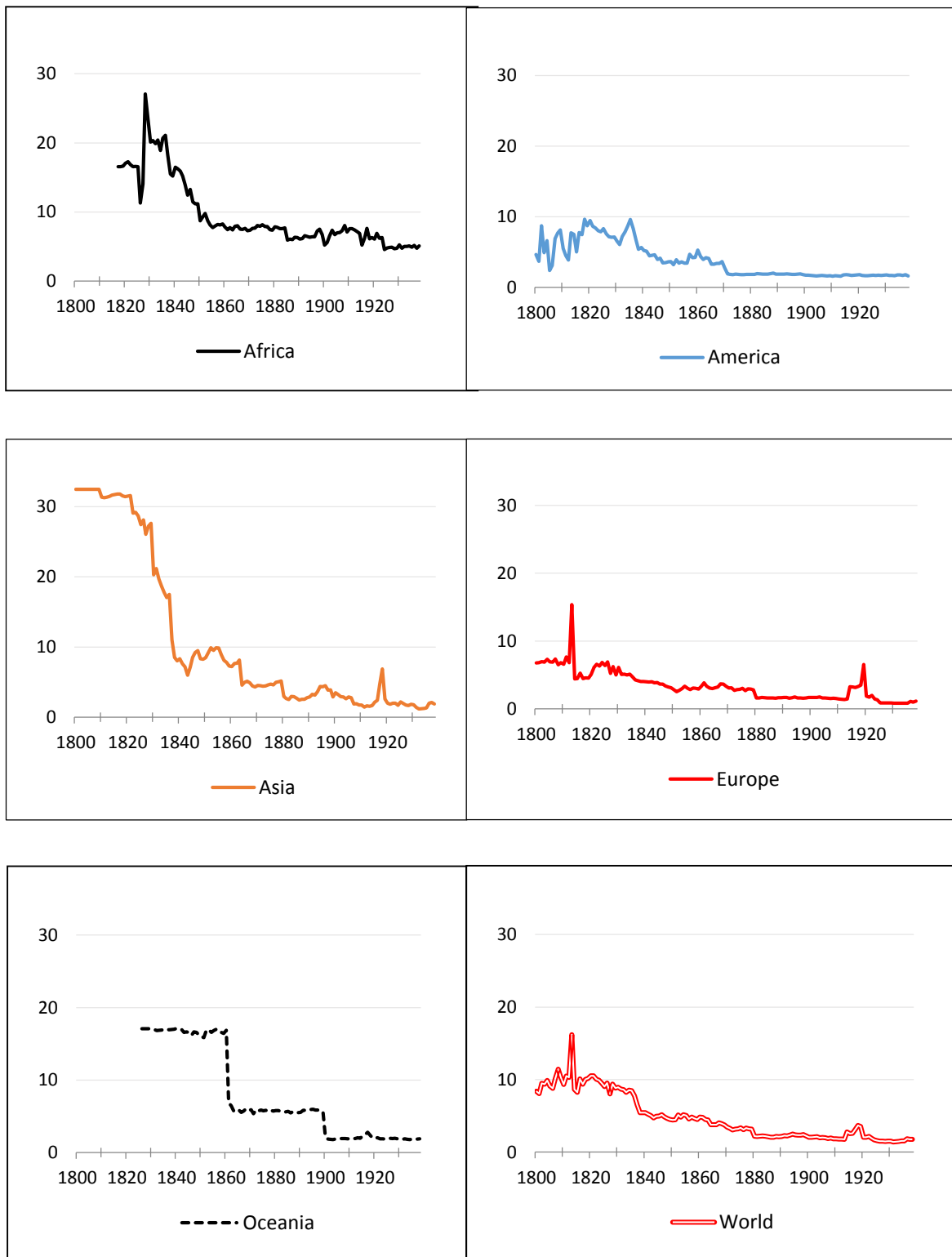
Sources: Appendix D. Table D.8 and Appendix E

The top-quality estimates (As) account for a half of world exports in 1850-1874, rising to over three quarters in 1900-1913, with an additional 12% of good estimates (Bs). The sharp fall during World War One reflects mostly the worsening in German statistics.

We express our assessment of the reliability of the data-base in a compact way by computing the standard error of our series following Feinstein and Thomas (2001). They show it to be equal to the square root of the sum of variances if errors are independent among series. In the case of our data-base, this hypothesis is plausible. There is no reason for errors to be correlated when series are collected independently, nor, in case of proxying missing series with data from another polity, for errors of the two series to be correlated. For instance, the series for British Malaya and Dutch East Indies may be accurate for these polities and add a substantial error when used to compute the trade of Sabah and Sarawak (and vice-versa). We attach to each category a likely margin of error – less than 5% for the As (i.e. the true value is in a  $\pm 2.5\%$  range around the observation), 5-10% for the Bs ( $\pm 5\%$ ), 10-25% for the Cs ( $\pm 12.5\%$ ), 25-40% for the Ds ( $\pm 20\%$ ) and over 40% for the Es (conventionally assumed  $\pm 25\%$ ).

Figure 8 reports the maximum range of error (twice the standard error) as proportion of our estimate of total trade.

**Figure 8**  
**Standard errors of estimates of foreign trade**



Sources: Appendix D. Table D.9

As expected the range of error initially is rather wide for Asia and Africa, but then it shrinks drastically. Reassuringly, the world-wide standard error remains almost constantly below 10%, because most exports came from A-rated polities in Europe and in the Americas. The potential error jumps to 16% in 1813 because we have replaced the missing exports from United Kingdom (custom records were destroyed by fire) with an average of the 1812 and 1814 figures. The narrow range of errors implies a correspondingly small bias in the rates of change. One can compute the maximum (minimum) possible increase in trade assuming that at the beginning of the period world trade was at the bottom (top) of the range and that at its end it moved to the top (bottom) of its range. Under these extreme, and thus rather implausible, hypotheses, the increase from the early 1830s to the eve of World War One would range from a minimum of 18.7 times to a maximum of 20.4, vs. 19.5 times for our series. Summing up, we deem our series quite robust to errors in polity data, unless our sanguine assessment of the quality of the series of the largest countries is spectacularly wrong.

### **8) World trade 1800-1938: the series**

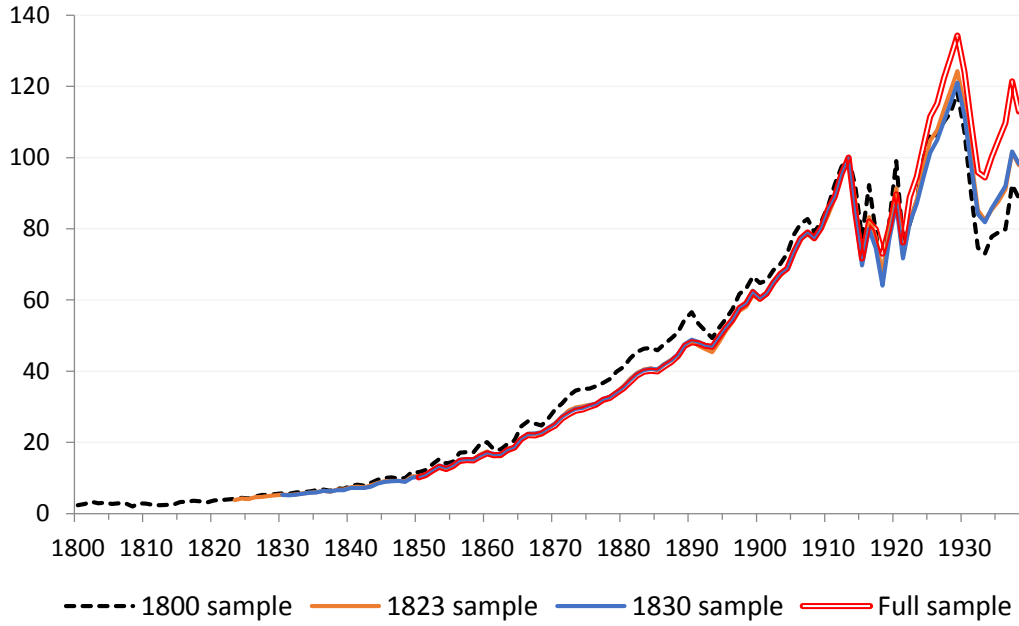
After 1850, we obtain our series of world trade as a sum of exports by polity, but before 1850, this procedure would bias results upward, as trade would spuriously increase any time a new series enters the data-base. Thus, as anticipated in the Introduction, we build three different indexes of world trade, with a time-invariant coverage, starting respectively in 1800 (ten polities), 1823 (62) and 1830 (89), accounting respectively for 55.9%, 81.0% and 95.1% of world exports in 1850 (Figure 9).<sup>27</sup>

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<sup>27</sup> See for the full list of polities in each of these samples and to the full (or 1850) sample Statistical Appendix Table C.1



**Figure 9**  
**Indexes of world trade, 1913=100, other samples**



Sources: Appendix D. Table D.16

Given these shares, one could claim that all three samples are representative, although the coverage of the 1800 sample is not so high. On the other hand, a  $\chi^2$  test reject the null hypothesis of independence of the distributions of trade by continent relative to the actual only for the 1830 sample. The 1800 sample is unbalanced towards Europe.<sup>28</sup> Thus, differences in coverage might cause trends of sample-based indexes to differ from true ones, as captured by the full sample after 1850. A visual inspection suggests that the 1800 sample grow faster than the others (and the full sample) until the 1880s. We test formally this hypothesis by comparing rates of growth between samples in 1850-1873.<sup>29</sup> By definition, in any year  $t$ , the (unknown) total trade  $W$  can be written as sum of exports of all polities ( $i = 1..n$ ), which can be distinguished between polities included in the on-going sample ( $j=1..m$ ) and all other polities ( $l=n-m$ ):

$$\sum X_i = \sum X_j + \sum X_l = W^S + W^{Mt} = W \quad (27).$$

<sup>28</sup> The sample includes six polities from Europe (France, Netherlands, Portugal, Russia, Sweden and the United Kingdom), one for Asia (India) and three from the Americas (Cuba, Mexico and the United States), but none from Oceania or Africa. The six European polities accounted for 70.2% of total exports of the sample in 1850 (vs. 60.6% of the whole Europe), India for 9.2% (vs. 13.8% of all Asia) and the three American polities for 20.6% (vs. 21.7%)

<sup>29</sup> Whenever possible (i.e. if the number of the observations exceed 25-30), we compute the rate of change of the  $i$ -th series as  $w = -\beta/\psi$ , where  $\beta$  and  $\psi$  are coefficients from a regression (Razzaque et al 2007)  $\Delta \ln W_i = \alpha + \beta \text{ TIME} + \psi \ln W_{i-1} + \phi \ln \Delta \ln W_{i-1} + u$ . Otherwise we use a log-linear specification. Null hypotheses about rates (equal to zero or equal to rates in other periods) are tested with a standard Wald restriction. We compute the cumulated change as  $\text{Total} = [\exp(w) * n] - 1$ .

In principle, one could test two different null hypotheses i) that the rates of growth of trade are equal between each sample and the missing polities (i.e.  $w^{St} = w^{Mt}$ ) or ii) that rates of growth are equal between each sample and world trade ( $w^{St} = w$ ). All tests reject the null hypothesis in its ‘strong’ version (i) but not in the ‘weak’ one (ii) (Table 3).

**Table 3**  
**The biases from missing polities**

	$w^{St}$	$w^{Mt}$	i)	ii)
1800 sample	3.02***	3.52***	R***	FR
1823 sample	3.24***	3.41***	R***	FR
1830 sample	3.21***	4.07***	R***	FR
Full sample	3.22***			

Sources: Appendix D. Table D.16

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%; R rejected FR failed to reject

After 1850, the missing polities grew faster than the available ones, but the difference is not large enough to bias significantly the aggregate long-term rates.<sup>30</sup> This test would not be sufficient if trends after 1850 differed from movements in the first half of the century. For instance, the rate  $w^{St}$  would overstate the increase in trade if exports of missing polities had been growing slowly before 1850 and fast after 1850 to catch up. In the extreme case that they had not grown at all (i.e.  $w^{Mt}=0$ ) our series would overestimate the growth of trade by one third in the whole period 1800-1850 and by a half in 1800-1823.<sup>31</sup> This hypothesis implies that i) the whole increase in exports of covered polities was absorbed by other polities in the sample and ii) the exports of the missing polities (including Italy, Germany and Austria-Hungary before 1823) started to grow as soon as they entered the data-base. Both conditions are highly implausible: if any there is evidence that omitted polities grew less than the included ones.<sup>32</sup>

Given the evidence, we are confident that biases from changing coverage were small enough and consequently we use all sample series to build our index of world trade. We

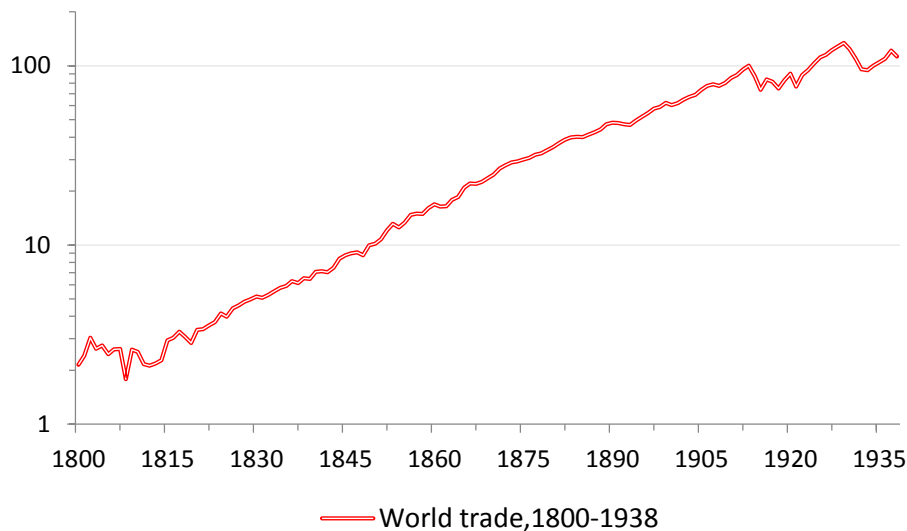
<sup>30</sup> The coefficients of correlation between each sample and the sum of the corresponding missing polities (i.e. between  $W^{St}$  and  $W^{Mt}$ ) in 1850-1913 are extremely high (0.988 for the 1800 sample, 0.995 for the 1823 sample, 0.990 for the 1830 sample).

<sup>31</sup> World trade would have grown only by 95% (rather than by 157%) and by 21% (rather than by 44%) respectively. We obtain these figures by splicing together series for 1800-1822, 1823-1829 and 1830-1850, which we compute as  $W^C = W_{t-n}^C * [\pi_j^{1850} * (1/\exp(w^{St}*(t-n)) + (1 - \pi_j^{1850})]$  where  $\pi_j^{1850}$  is the share of the j-th sample from table 1 in 1850 and time t refers to the final year of each period.

<sup>32</sup> In 1823-1850, the rates of growth are 3.68% and 3.04% respectively for the 1800 sample and for the 47 polities included in the 1823 sample but not in the 1800 one. The difference is significant at 1%.

extrapolate stepwise the total trade in 1850 first to 1830 with the ‘1830 sample’, then to 1823 with the ‘1823 sample’ and finally to 1800 with the ‘1800 sample’ (Figure 10).

**Figure 10**  
**World trade 1800-1938, log scale (1913=100)**



Sources: Appendix D. Table D.18

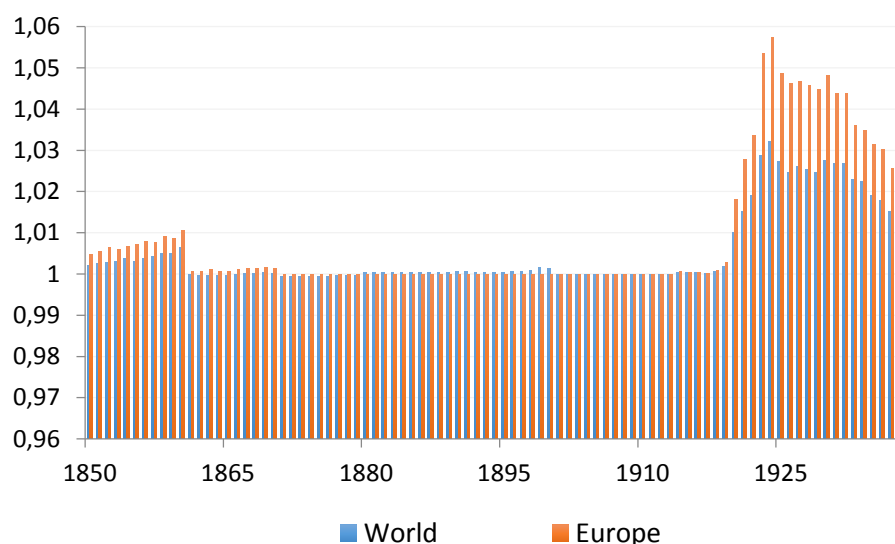
From 1817 to 1913, trade grew steadily and very fast. A formal statistical analysis (Federico and Tena 2015b) shows that the rate was faster in 1817-1866 (3.97% per annum) than in 1867-1913 (3.07%). Both rates and, above all, also their difference are significant at 1%. Although apparently small, the difference is quite substantial if cumulated over almost one hundred years: had trade continued to grow as fast as before 1867, exports in 1913 would have been 55% higher. Admittedly, the initial growth includes the recovery from the shock of the French wars, but this effect is by no means large enough to account for the difference between the two periods. In fact, the estimates by O’Rourke (2006) imply that the recovery accounted for less than 7% of the increase to 1867 and for less than 2% of the growth to World War One.<sup>33</sup> The difference between the two periods would be even starker if we considered export per capita or openness (Federico and Tena 2016b). In a nutshell, most of the action of the first globalization pre-dated 1870.

<sup>33</sup> According to, exports in 1815 were equal to the pre-war level in Sweden, a third lower in the United Kingdom and in the United States and half in France. If in 1815 exports of all other polities had been hit as badly as the French ones, world trade would have been about 42% lower than before the war. This is in all likelihood an upper bound

The outbreak of World War One caused trade to fall by about a quarter and it remained depressed until 1918, in spite of a small rebound in 1916 and 1917, confirming the estimate of the impact of the war by Glick and Taylor (2010). World exports returned to their 1913 level (at current borders) in 1924 and went on growing until 1929, when they were about a third higher than before the war. At the trough of the Great Depression, in 1933, trade was 5% below its 1913 level, and, in spite of the subsequent recovery, in 1937 world exports were still below their 1929 level by a tenth.

These data refer to trade at current borders: how much did border changes affect them? The ratio between series at current and 1913 boundaries highlight a substantial difference before and after World War One (Figure 11).

**Figure 11**  
**The effect of boundary changes on world trade**



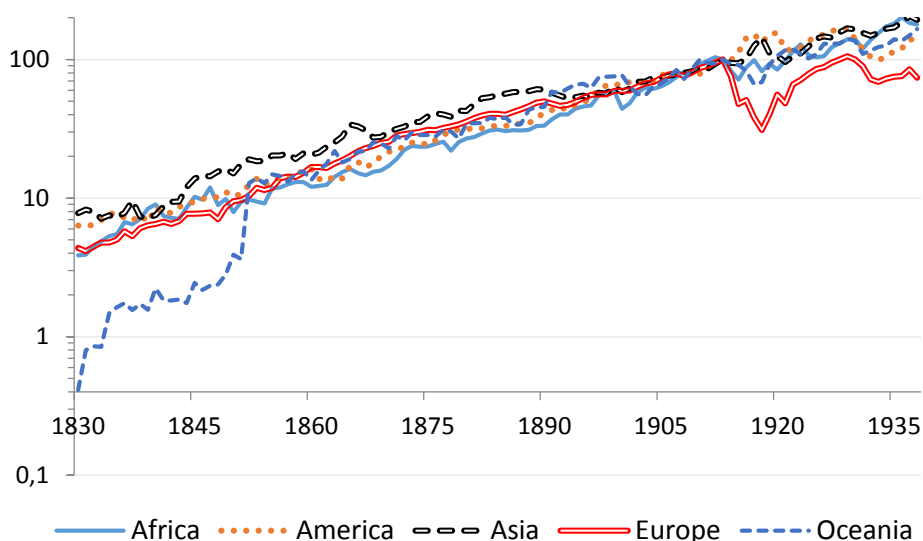
Sources: Appendix D. Table D.12

The German unification does not affect our series, which refers to the Zollverein throughout the period, while the impact of the political unification of Italy (1861) and of the unifications of Australia (1901), Canada (1867) and South Africa (1910) was very small to negligible. The series at current borders exceeds the estimate at 1913 ones by at most 0.57% in 1860 (0.97% for Europe only). After the war, the difference between the two series jumped, peaking in 1924 at 3.1% of trade at 1913 borders (6.8% for Europe only) and declined thereafter, down to 1.5% in 1938 (2.7% for Europe), as trade flows adjusted to the new borders. This decline implies that the baseline series underestimates the growth

of trade in interwar years: from 1924 to 1938 trade at constant prices increased by 9.7% if measured at current borders but by 11.1% if estimated at 1913 borders.

In principle, our data-base allows us to deal with trade of individual polities or any group we deem relevant. Just to give an example, Figure 12 compares rates of growth of exports by continent in log scale since 1830, when the underlying data-base is representative for all continents, with the possible exception of Africa.<sup>34</sup>

**Figure 12**  
**Exports by continent, constant prices, 1830-1913, log scale (1913=100)**



Sources: Appendix D. Table D.14

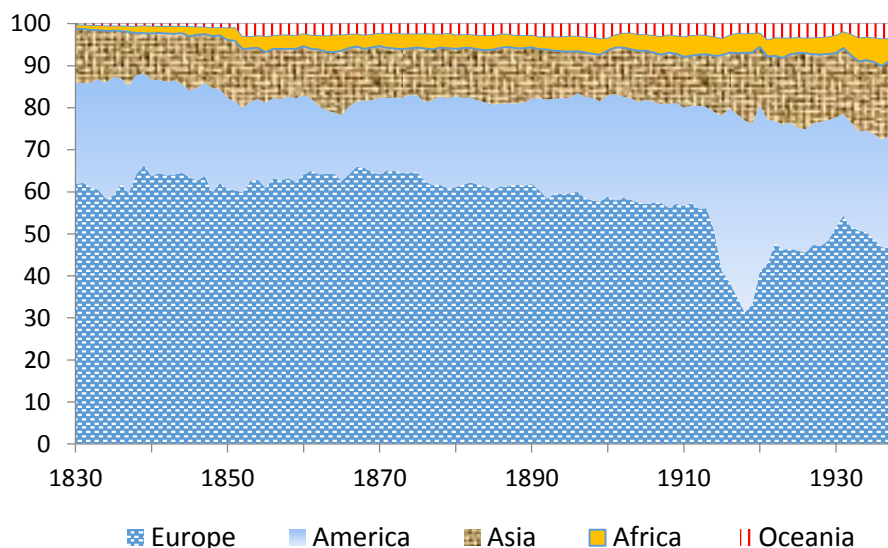
A visual inspection suggests that before 1913 exports of all continents grew in parallel, whilst in the interwar years trends diverged.<sup>35</sup> Exports from Africa, Asia and Oceania continued to grow throughout the period, with little or no effect from the Great Depression, exports from America grew in the 1920s well above the 1913 level but were hit severely by the depression and on the eve of World War Two they were back to the 1929 level. European exports lagged badly: in 1929, they had barely recovered from the war (and the Russian revolution) they fell by a third until 1933 and remained low until the

<sup>34</sup> Series are built, as the world one, by extrapolating backwards to 1830 the level of exports in 1850 with the series for the (continent-specific) 1830 sample.

<sup>35</sup> These statement are supported by the statistical evidence. The yearly rates of growth of exports in 1830-1913 were very similar, ranging from 3.08% for Asia to 3.86% for Oceania and differences with the world rate (3.55%) were never significant. In contrast, from 1922 to 1938, exports of Oceania grew faster than before 1913 (5.26%), those of Asia and Africa roughly as much as before the war (respectively at 3.50% and 3.52%), while exports of Europe and America were trendless, as world export as a whole.

war. These different patterns caused substantial changes in the distribution of world exports, which we compute in Figure 13 with current price data to reduce biases from deflation.<sup>36</sup>

**Figure 13**  
**Share of world exports by continent, current prices 1830-1938**



Sources: see text Appendix D. Table D.11

The share of Europe remained substantially stable around or above 60% until the turn of the century, then collapsed during the war and in 1929-1930 it was only around a half. American exports fluctuated between a sixth and a fourth of total, and the big winner was Asia or, to be more accurate, Japan. The Asian share increased from about 13.4% in 1913 to 18.1% in 1938, and Japan accounted for three quarters of the change.

## 9) A comparison with other series

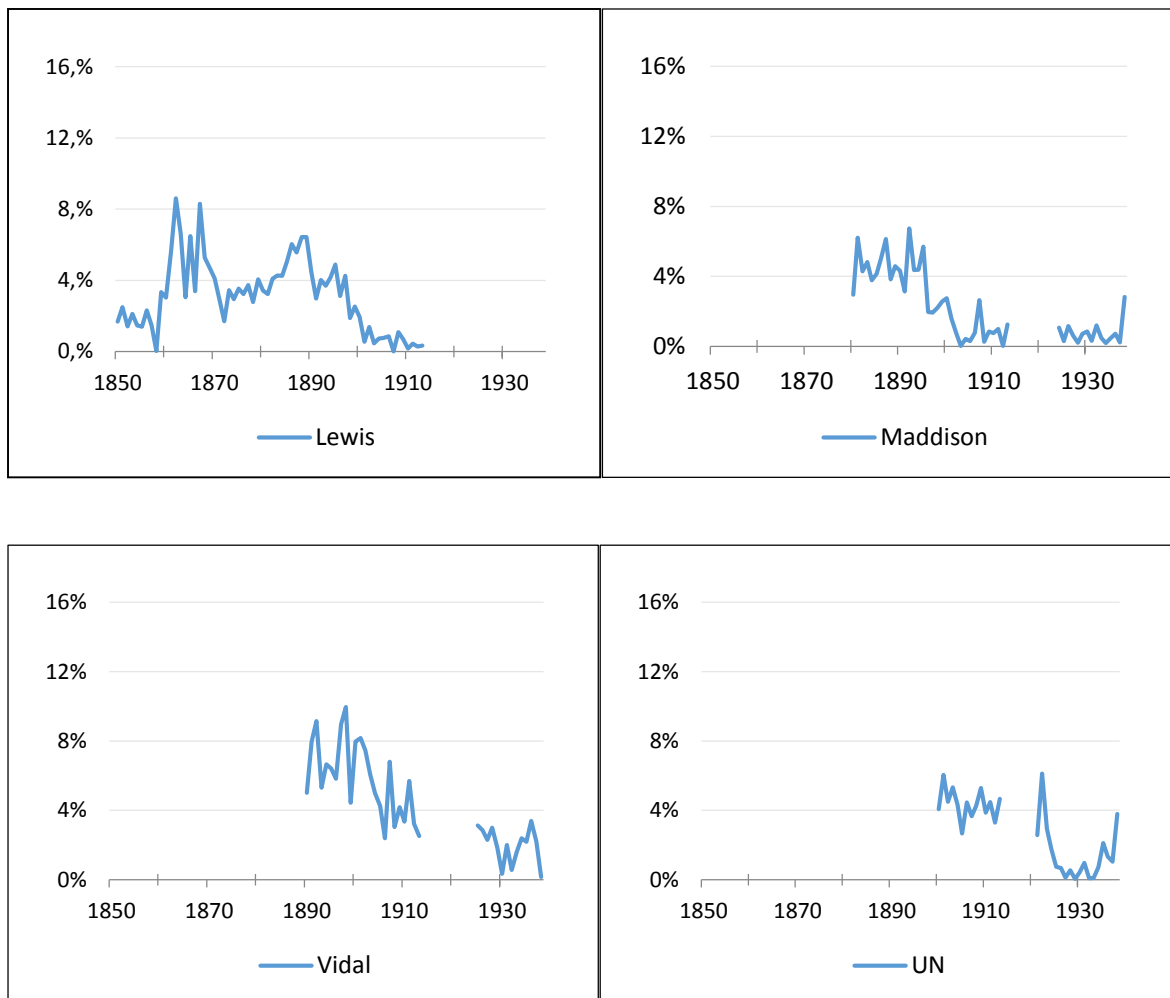
By definition, our series breaks new ground in covering the period before 1850, but the differences with the available series are relevant also after 1850. Their sign varies across time and series, and thus we prefer to plot the absolute differences at current (Figure 14 a) and constant prices (Figure 14 b).<sup>37</sup>

<sup>36</sup> The uptick in the share of Africa in 1850 reflects the increase in coverage.

<sup>37</sup> The ratios between the alternative series and our baseline one at current prices exceeds one (i.e. the alternative estimates is higher than our series) in one sixth of years for Maddison (1962), one quarter for Lewis (1981), two thirds for the United Nations (1962) and three quarters for Vidal (1990).

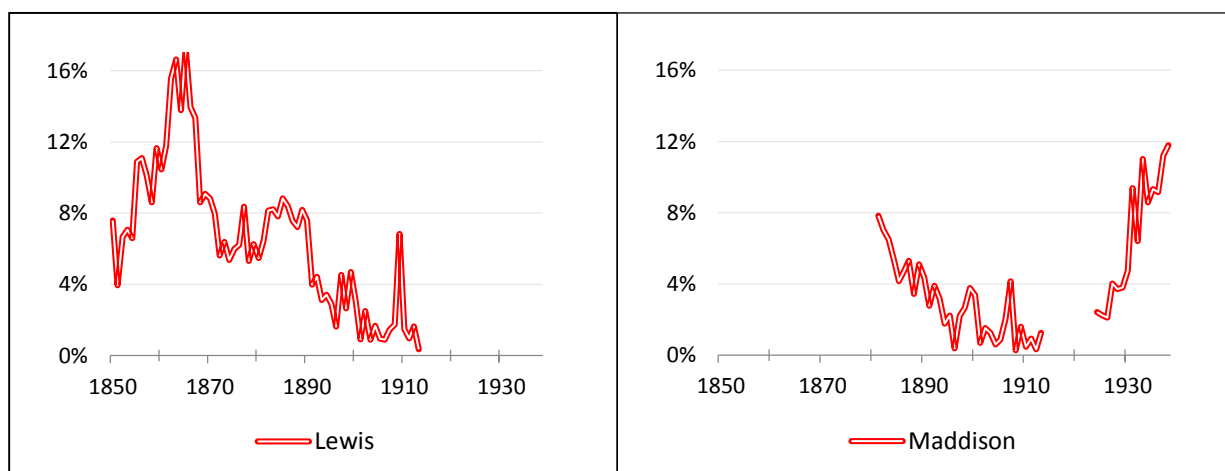
**Figure 14**  
**Pairwise comparison of estimates**

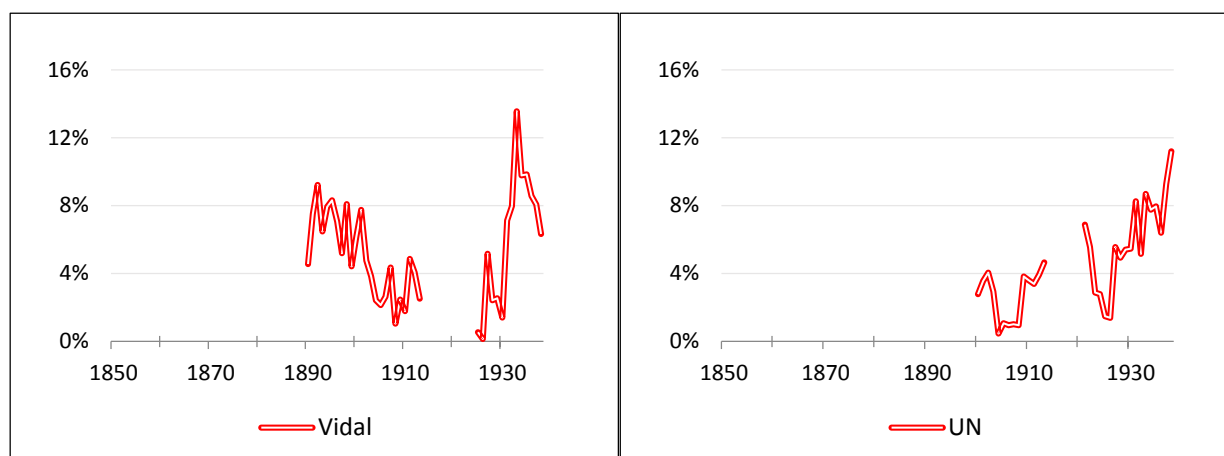
**a) current prices**



Sources: Appendix D. Table D.1b and Table D.11

**b) constant prices**





Source: Appendix D. Table D.1a and Table D.14

The bias in the series at current prices is quite small and declining in time, almost disappearing after the war. This is not so surprising, because all data-bases include broadly similar series for the largest exporters. For instance, in 1850 the Lewis' data-set features separate series for 26 polities, but they accounted for four fifths of world trade according to our estimate.<sup>38</sup>

The differences between series at constant prices (Figure 14 b) are somewhat larger and indeed long-run rates are significantly different, at least in the 19<sup>th</sup> century (Table 4).

**Table 4**  
**Difference between series of trade: long-run rates**

Estimate	1850-1913	1881-1913	1890-1913	1900-1913	1924-1938
<b>Federico-Tena</b>	3.24***	3.00***	3.52***	3.91***	-1.23
<b>United Nations (1962)</b>				FR	FR
<b>Maddison (1962)</b>		R*	FR	FR	FR
<b>Lewis (1981)</b>	R*	R***	FR	FR	
<b>Vidal (1990)</b>			FR	FR	FR

FR failed to reject; R rejected at \*\*\* 1% \*\* 5% \* 10%  
Sources: Appendix D. Table D.1a and Table D.14

<sup>38</sup> In 1913, the number doubled to 50 – still only 38% of the total, accounting for 97% of world trade. Likewise, the Barbieri-Keschik (2009) data-base reports series for 20% of the polities, accounting for 86.7% of trade, in 1870. Interestingly, its coverage increases in terms of countries (to 23% in 1913 and 32% in 1932), but not in terms of trade (86.1% in 1913 and 87.2% in 1938).



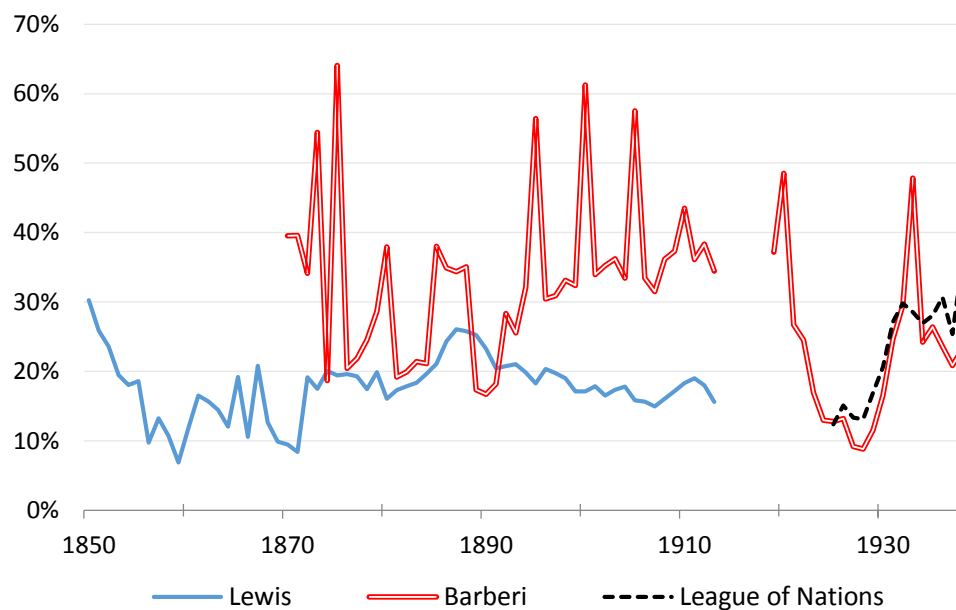
These aggregate comparisons might not capture the real amount of divergence between our estimate and the alternative series if upward and downward differences compensate across polities. In this case, a small total difference may be consistent with huge discrepancies for individual polities, which, as said, are more likely for small ones. A simple measure of the size of bias by polity is the *root-mean-square error* RMSE

$$\text{RMSE} = [\sum (X_A - X_{FT})^2 / n]^{0.5} \quad (28)$$

Where  $X_A$  and  $X_{FT}$  are exports of the  $i$ -th polity at time  $t$ , according to our data-base and to a generic alternative estimate and  $n$  is the number of polities. We compute (28) for each year and express it as a ratio to the average value of exports by polity, from our data-base.

As Figure 15 shows, the difference between our series and the three other data-base at current prices are quite substantial.<sup>39</sup>

**Figure 15**  
**RMSE of other estimates of exports, current prices**



Sources. Appendix D. Table D.21

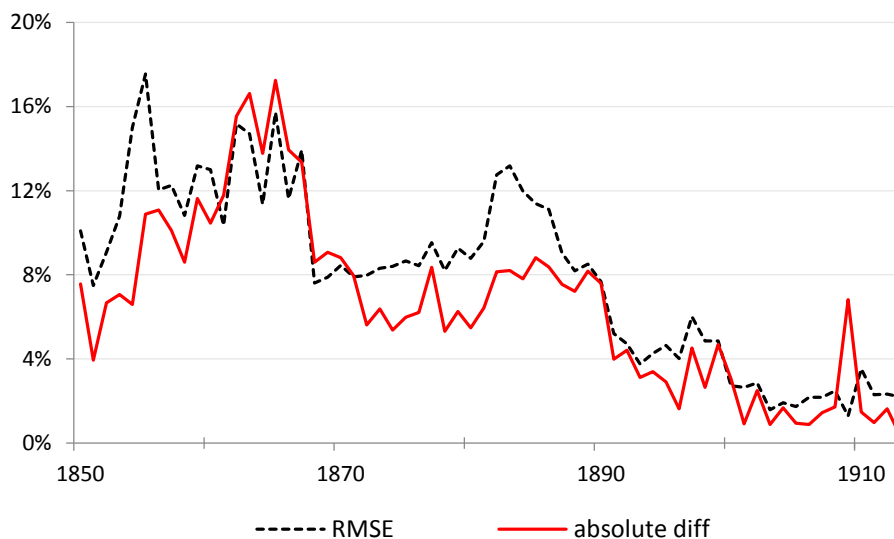
On average, the RMSEs equal 17.8% of exports for Lewis (1981), 22.7% for the League of Nations (1933-38) *Review of World Trade*, and 37.5% for Barbieri and Keshk (2009) if

<sup>39</sup> For the sake of readability, we omit the war years, when the difference between our estimate and those by Barbieri and Keshk (2009) are huge.

we include war years and 30.5% excluding them. This latter series features spikes which coincide with outlandish figures for British exports.<sup>40</sup> A look at individual polity series highlights some surprisingly large differences: the data from the League of Nations exceed our estimates on average by almost 200% in South Africa, by 62% for British Malaya and 31% for Brazil, while they are lower for Japan (by 24%) and China (by 14%).

A similar polity-by-polity comparison is not possible for the any of the series at constant prices<sup>41</sup>. It is only possible to compute the RSME of the series by Lewis (1981), which refer to two countries (the United States and the United Kingdom) and five groups of polities.<sup>42</sup> Predictably, given this high level of aggregation, the RMSE does not differ much from the absolute difference between series and indeed the coefficient of correlation between the two series is as high as 0.87 (Figure 16).

**Figure 16**  
**RMSE and absolute differences, constant price, Lewis (1981)**



Sources. Appendix D. Table D.20

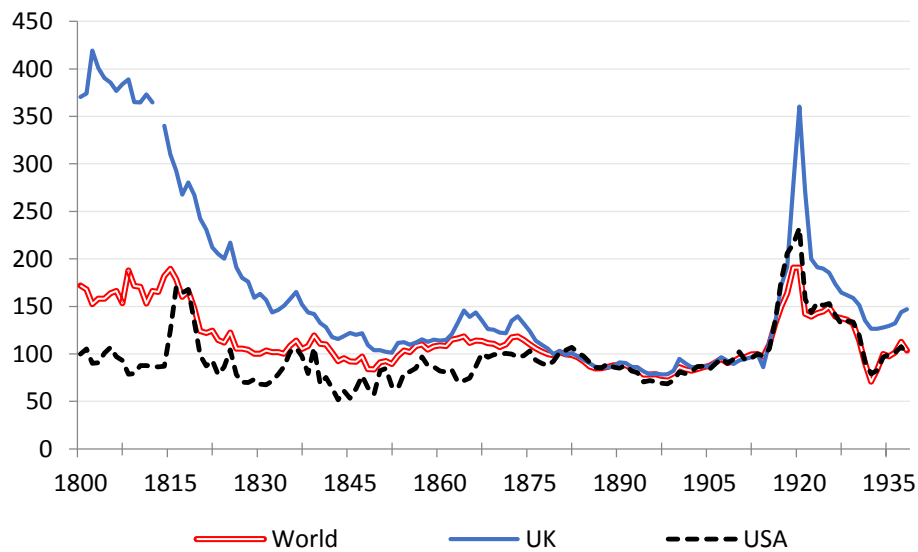
<sup>40</sup> According to Barbieri-Keshk (2009), British exports were 24% lower than the average of the two adjoining years (i.e. 1872 and 1874) in 1873, 31% lower in 1875, 35% higher in 1880, 32% lower in 1895, 27% lower in 1900, 10% lower in 1910, 105% higher in 1920 and 25% lower in 1933. Anyway, the RMSE without these spikes (but including war years) would be 34.5% - i.e. the difference with our series would still be the largest.

<sup>41</sup> Maddison (1962) reports indexes of exports for main countries but not absolute values.

<sup>42</sup> We re-arrange our data-base into comparable groups by summing up the polity series according to the list by Lewis. We add the difference between total European exports and the series of the United Kingdom, Northwestern Europe and Other Europe (including Turkey) to this latter. We compute exports of tropical countries as a residual

On the other hand, the difference between the small gaps at current prices and the substantial ones at constant prices (Figure 14) points out to the procedures of deflation as a major cause of biases. Indeed, trends in prices differed quite markedly between polities, especially before 1880, as Figure 17 shows. It compares the indexes for indexes for the two largest countries, the United Kingdom and the United States with two series of implicit export prices (the ratio of current to constant prices series at current borders) for the world for ‘poor’ (not advanced) countries since 1850.<sup>43</sup>

**Figure 17**  
**Indexes of export prices, 1913=100**



Sources: Appendix D. Table D.19

The coefficient of correlation between the two polity indexes before 1880 is a mere 0.17, while the coefficients of each series with the world index barely exceed 0.50. Even the correlation between indexes for the world and for ‘poor’ countries, which accounted for about half of world exports, is only 0.80. The correlations are higher after 1881 and for the whole period 1881-1938 – respectively 0.91 and 0.77 for the two country series, 0.82 and 0.79 between the United Kingdom and the world, 0.97 and 0.80 between the United States and the world and 0.88 and 0.86 between the ‘poor’ and the world.

<sup>43</sup> The ‘poor’ country index includes all polities but ten, the United Kingdom and the nine others which in 1870 had a GDP per capita over a half of the British one-Australia Belgium, Denmark, France, Germany, Netherlands, New Zealand, Switzerland and the United States.

Predictably, the differences are even larger if we consider individual polities rather than aggregate series. The average of coefficients of correlation between export price indexes for the United States (the United Kingdom) and indexes for all other polities is 0.22 (0.20 for Britain) before 1880 and 0.56 (0.52) afterwards. The coefficients are hardly higher between aggregate polity-level indexes and aggregate ones (Table 5)

**Table 5**

**Average coefficient of correlation between polity-specific and aggregate price indexes**

	All polities	Africa	America	Asia	Europe	Oceania
<b>World</b>						
<b>1830-1880</b>	0.26	0.21	0.25	0.33	0.33	0.13
<b>1881-1938</b>	0.55	0.39	0.37	0.69	0.85	0.73
<b>1830-1938</b>	0.48	0.33	0.29	0.65	0.77	0.60
<b>Poor</b>						
<b>1830-1880</b>	0.31	0.21	0.35	0.40	0.33	0.31
<b>1881-1938</b>	0.57	0.42	0.43	0.74	0.78	0.79
<b>1830-1938</b>	0.50	0.35	0.35	0.70	0.70	0.70

Sources: Paendix D. Table D.19

This simple analysis has a relevant implication for research: using British or American prices, or even aggregate indexes, to deflate exports at current prices or imports (as common in the literature on terms of trade) rather polity-specific ones is bound to bias results.

## **10) Conclusion: an agenda for research**

Summing up, we can confidently state that our data-base improves over the existing series on several grounds. First, and foremost, we extend the analysis back in time to 1800 and we fill the gap for the war-time years. Second, we widen the geographical coverage, covering very representative samples of polities before 1850 and the whole world thereafter. Third, we produce also series of imports, and thus terms of trade and we produce the first consistent estimate of the effects of changes in borders. Last but not least, although the quality of the data varied a lot across polities, we are confident that our polity series are more accurate than the available ones. We have corrected the data at current prices for differences in criteria of compilation and we have deflated (most of) them with polity-specific indexes.

This overall assessment does not mean that our data-base is perfect. The polity series could surely be improved. We have heavily relied on international statistical sources and on the literature in English. Local scholars may know better sources in their own languages. All major countries published very detailed trade statistics but we have modern series for few of them and even these latter can be improved upon. For instance it is possible to improve the indexes of prices for France or Germany and it would be very useful to have modern series for Austria-Hungary and Russia, which in 1913 accounted for 3% and 4% of world exports, being respectively the sixth and eight largest exporter. Furthermore, it would be important to increase the number of polities before 1830 and perhaps also to extend the coverage, at least for the major countries, before 1800, even if in both cases we cannot expect to produce more than guesstimates. Interestingly, a very preliminary work, limited to the main sources from international organizations such the United Nations and the International Monetary Fund, shows that the data after 1950 badly need a revision (Federico and Tena 2016b). Continuous series at constant prices are available only for a minority of advanced countries before 1980. The series for most Third World countries are full of gaps, especially in the 1960s. These gaps do not affect much the total estimate of world trade, which, as said, is obtained by deflating total trade at current prices. However, they affect seriously our understanding of the history of Third World during a key period of its history. This research agenda can usefully supplement the gravity approach which is dominating the current research in the field.

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## Appendix A

### Border changes: the case of Austria-Hungary and Poland after World War One

The re-drawing of boundaries in Central and Eastern Europe after World War One was a huge historical shock. It involved the dissolution of one 1913 polity, Austria-Hungary, the creation of three new polities from its territories, Austria (hitherto NP2), Hungary (NP3) and Czechoslovakia (NP4), and of a fourth, Poland (NP1), joining former Austrian Galicia (R2) the Granduchy of Warsaw (R1) from Russia (P1) and West Prussia (R3) from Germany (P2). In our taxonomy, it is a mix of case a) and e). In this Appendix we analyze in detail this case, spelling out all the steps for estimation. We start from trade at current borders of all polities, we continue by presenting the formulas to adjust to 1913 borders and we explain the estimation of missing data

#### Trade at current borders

The Soviet Union (i.e. the rest of 1913 Russia) trades with Poland (now divided in three regions R1,R2 and R3), with Germany at its current borders (i.e. the rest of 1913 Germany without West Prussia), with the three successor states, Austria, Hungary and Czechoslovakia and with the rest of the world

$$T_{P1}^t = TB_{Rf[P1] R1[NP1]}^t + TB_{Rf[P1] R2[NP1]}^t + TB_{Rf[P1] R3[NP1]}^t + TB_{Rf[P1] NP2}^t + TB_{Rf[P1] NP3}^t + TB_{Rf[P1] NP4}^t + TB_{Rf[P1] Rf[P2]}^t + TB_{Rf[P1] ROW}^t \quad A.1.1)$$

Similarly Germany

$$T_{P2}^t = TB_{Rf[P2] R1[NP1]}^t + TB_{Rf[P2] R2[NP1]}^t + TB_{Rf[P2] R3[NP1]}^t + TB_{Rf[P2] NP2}^t + TB_{Rf[P2] NP3}^t + TB_{Rf[P2] NP4}^t + TB_{Rf[P2] Rf[P1]}^t + TB_{Rf[P2] ROW}^t \quad A.1.2)$$

Similarly, the trade of each successor state includes trade with Poland (here divided by region), with (the rest of) Germany and Russia, with the two other successor states and with the rest of the world

Austria

$$T_{NP2}^t = [TB_{NP2 R1[NP1]}^t + TB_{NP2 R2[NP1]}^t + TB_{NP2 R3[NP1]}^t] + TB_{NP2 Rf[P1]}^t + TB_{NP2 Rf[P2]}^t + TB_{NP2 NP3}^t + TB_{NP2 NP4}^t + TB_{NP2 ROW}^t \quad A.2.1)$$

Hungary

$$T_{NP3}^t = [TB_{NP3 R1[NP1]}^t + TB_{NP3 R2[NP1]}^t + TB_{NP3 R3[NP1]}^t] + TB_{NP3 Rf[P1]}^t + TB_{NP3 Rf[P2]}^t + TB_{NP3 NP2}^t + TB_{NP3 NP4}^t + TB_{NP3 ROW}^t \quad A.2.2)$$

Czechoslovakia

$$T_{NP4}^t = [TB_{NP4 R1[NP1]}^t + TB_{NP4 R2[NP1]}^t + TB_{NP4 R3[NP1]}^t] + TB_{NP4 Rf[P1]}^t + TB_{NP4 Rf[P2]}^t + TB_{NP4 NP2}^t + TB_{NP4 NP3}^t + TB_{NP4 ROW}^t \quad A.2.3)$$

We estimate total trade of Poland as the sum of trade of its three regions. Each of them traded with Russia and Germany, with the three successor states and with the rest of the world –i.e.

$$T_{R1}^t = TB_{R1[NP1]Rf[P1]}^t + TB_{R1[NP1]Rf[P2]}^t + TB_{R1[NP1]NP2}^t + TB_{R1[NP1]NP3}^t + TB_{R1[NP1]NP4}^t + TB_{R1[NP1]ROW}^t \quad A.3.1)$$

$$T_{R2}^t = TB_{R2[NP1]Rf[P1]}^t + TB_{R2[NP1]Rf[P2]}^t + TB_{R2[NP1]NP2}^t + TB_{R2[NP1]NP3}^t + TB_{R2[NP1]NP4}^t + TB_{R2[NP1]ROW}^t \quad A.3.2)$$

$$T_{R3}^t = TB_{R3[NP1]Rf[P1]}^t + TB_{R3[NP1]Rf[P2]}^t + TB_{R3[NP1]NP2}^t + TB_{R3[NP1]NP3}^t + TB_{R3[NP1]NP4}^t + TB_{R3[NP1]ROW}^t \quad A.3.3)$$

And the total trade of Poland was

$$T_{NP1}^t = TB_{R1[NP1]Rf[P1]}^t + TB_{R1[NP1]Rf[P2]}^t + TB_{R1[NP1]NP2}^t + TB_{R1[NP1]NP3}^t + TB_{R1[NP1]NP4}^t + TB_{R1[NP1]ROW}^t + TB_{R2[NP1]Rf[P1]}^t + TB_{R2[NP1]Rf[P2]}^t + TB_{R2[NP1]NP2}^t + TB_{R2[NP1]NP3}^t + TB_{R2[NP1]NP4}^t + TB_{R2[NP1]ROW}^t + TB_{R3[NP1]Rf[P1]}^t + TB_{R3[NP1]Rf[P2]}^t + TB_{R3[NP1]NP2}^t + TB_{R3[NP1]NP3}^t + TB_{R3[NP1]NP4}^t + TB_{R3[NP1]ROW}^t \quad A.4.1)$$

Rearranging by country of destination yields

$$T_{NP1}^t = [TB_{R1[NP1]Rf[P1]}^t + TB_{R2[NP1]Rf[P1]}^t + TB_{R3[NP1]Rf[P1]}^t] + [TB_{R1[NP1]Rf[P2]}^t + TB_{R2[NP1]Rf[P2]}^t + TB_{R3[NP1]Rf[P2]}^t] + [TB_{R1[NP1]NP2}^t + TB_{R1[NP1]NP3}^t + TB_{R1[NP1]NP4}^t + TB_{R2[NP1]NP2}^t + TB_{R2[NP1]NP3}^t + TB_{R2[NP1]NP4}^t + TB_{R3[NP1]NP2}^t + TB_{R3[NP1]NP3}^t + TB_{R3[NP1]NP4}^t] + [TB_{R1[NP1]ROW}^t + TB_{R2[NP1]ROW}^t + TB_{R3[NP1]ROW}^t] \quad A.4.2)$$

Where the first bracket refers to Soviet Union, the second to Germany, the third to successor states and the fourth to the rest of the world.

We estimate trade at 1913 borders of two survived 1913 polities, by subtracting the trade with the regions they owned in 1913 and adding the flows with the two other Polish regions, which after the war were domestic trade within Poland. For the Soviet Union:

$$\Pi_{P1}^t = T_{P1}^t - TB_{Rf[P1]R1[NP1]}^t + TB_{R1[NP1]R2[NP1]}^t + TB_{R1[NP1]R3[NP1]}^t \quad A.5.1)$$

the second term is the bilateral trade between the Granduchy of Warsaw and the rest of the country, while the third and the fourth refer to the trade of the Granduchy with Galicia and West Prussia.

Likewise, for Germany we have

$$\Pi_{P2}^t = T_{P2}^t - TB_{Rf[P2]R3[NP1]}^t + TB_{R3[NP1]R1[NP1]}^t + TB_{R3[NP1]R2[NP1]}^t \quad A.5.2)$$

The trade of each successor state must exclude trade with Galicia and the whole bilateral trade with the other successors states – as all belonged to Austria-Hungary- while it should include, pro-quota,



the bilateral trade flows between Galicia and the rest of Poland, which was international trade in 1913.

$$\Pi^t_{NP2} = T^t_{NP2} - TB^t_{NP2 R2[NP1]} - TB^t_{NP2NP3} - TB^t_{NP2NP4} + \sigma^t_{NP2} TB^t_{R2[NP1] R1[NP1]} + \sigma^t_{NP2} TB^t_{R2[NP1] R3[NP1]} \quad A.6.1)$$

$$\Pi^t_{NP3} = T^t_{NP3} - TB^t_{NP3 R2[NP1]} - TB^t_{NP3NP2} - TB^t_{NP3NP4} + \sigma^t_{NP3} TB^t_{R2[NP1] R1[NP1]} + \sigma^t_{NP3} TB^t_{R2[NP1] R3[NP1]} \quad A.6.2)$$

$$\Pi^t_{NP4} = T^t_{NP4} - TB^t_{NP4 R2[NP1]} - TB^t_{NP4NP2} - TB^t_{NP4NP3} + \sigma^t_{NP4} TB^t_{R2[NP1] R1[NP1]} + \sigma^t_{NP4} TB^t_{R2[NP1] R3[NP1]} \quad A.6.3)$$

where the coefficient  $\sigma^t$  allocates total trade of Galicia among the three successor states (and  $\Sigma \sigma^t = 1$ ).

*Last but not least, we compute the trade of Poland at 1913 borders by subtracting the trade of its three regions with the polities they belonged in 1913 – i.e. Granduchy of Warsaw with Russia, Galicia with Austria-Hungary (here further divided in its three successor states) and West Prussia with Germany*

$$\Pi^t_{NP1} = T^t_{NP1} - TB^t_{R1[NP1] Rr[P1]} - TB^t_{R3[NP1] Rr[P2]} - TB^t_{R2[NP1] NP2} - TB^t_{R2[NP1] NP3} - TB^t_{R2[NP1] NP4} \quad A.7)$$

Summing up all flows we obtain the difference between trade at current and 1913 borders, *ceteris paribus*

$$\begin{aligned} \Sigma \Pi^t - \Sigma T^t = & - TB^t_{Rr[P1] R1[NP1]} + TB^t_{R1[NP1] R2[NP1]} + TB^t_{R1[NP1] R3[NP1]} - TB^t_{Rr[P2] R3[NP1]} - TB^t_{R1[NP1] Rr[P1]} - \\ & TB^t_{R3[NP1] Rr[P2]} - TB^t_{R2[NP1] NP2} - TB^t_{R2[NP1] NP3} - TB^t_{R2[NP1] NP4} - TB^t_{NP2 R2[NP1]} - TB^t_{NP2NP3} - TB^t_{NP2NP4} - \\ & TB^t_{NP3 R2[NP1]} - TB^t_{NP3NP2} - TB^t_{NP3NP4} - TB^t_{NP4 R2[NP1]} - TB^t_{NP4NP2} - TB^t_{NP4NP3} + TB^t_{R2[NP1] R1[NP1]} + TB^t_{R2[NP1] R3[NP1]} \end{aligned} \quad A.8.1)$$

Which re-arranging becomes

$$\begin{aligned} \Sigma \Pi^t - \Sigma T^t = & [TB^t_{R1[NP1] R2[NP1]} + TB^t_{R1[NP1] R3[NP1]} + TB^t_{R3[NP1] R1[NP1]} + TB^t_{R3[NP1] R2[NP1]} + TB^t_{R2[NP1] R1[NP1]} + \\ & TB^t_{R2[NP1] R3[NP1]}] - [TB^t_{Rr[P1] R1[NP1]} + TB^t_{Rr[P2] R3[NP1]} + TB^t_{R1[NP1] Rr[P1]} + TB^t_{R3[NP1] Rr[P2]}] - [TB^t_{R2[NP1] NP2} \\ & + TB^t_{R2[NP1] NP3} + TB^t_{R2[NP1] NP4} + TB^t_{NP2 R2[NP1]} + TB^t_{NP3 R2[NP1]} + TB^t_{NP4 R2[NP1]}] - [TB^t_{NP2NP3} + TB^t_{NP2NP4} \\ & + TB^t_{NP3NP2} + TB^t_{NP3NP4} + TB^t_{NP4NP2} + TB^t_{NP4NP3}] \end{aligned} \quad A.8.2)$$

Trade at 1913 borders is higher than trade at current borders by the amount of trade between regions of Poland, which in 1913 belonged to different polities (first bracket), but it is lower by the

amount of bilateral trade between the regions of Poland belonging to Russia and Germany (second bracket) and Austria-Hungary (third bracket) and by the amount of bilateral trade between successor states (fourth bracket).

As said in the text, we estimate yearly series of trade flows involving a region as origin or destination as a proportion of the total flow of the polity that region belonged to. For lack of evidence, we assume these proportions to have been equal for imports and exports, and across time. Thus,  $\alpha$  the share of each region on total trade of Poland and  $\gamma$  the share of former Austrian, German and Russian regions on total trade of these polities at 1913 borders

With this notation

$$TB_{Ri[NP1]Rr[Pj]}^t = \alpha_i * TB_{NP1Rr[Pj]}^t \quad A.9.1)$$

and

$$TB_{Rr[Pj]Ri[NP1]}^t = \alpha_i * TB_{Rr[Pj]NP1}^t \quad A.9.1)$$

or, in the case of the three successor states

$$TB_{Ri[NP1]NPj}^t = \alpha_i * TB_{NP1NPj}^t \quad A.10.1)$$

And

$$TB_{NPjRi[NP1]}^t = \alpha_i * TB_{NPjNP1}^t \quad A.10.2)$$

where  $i$  refers to one of the three Polish regions and  $j$  to Germany, Soviet Union or the three successor states as appropriate.

In general, we estimate “international” trade of a Polish region and the rest of the country as the share  $\gamma$  of the trade between Poland and other polities at their 1913 borders - this latter being bilateral trade between each polity and Poland net of the flows with the region that belonged to the polity in 1913. The formula for Germany and Soviet Union is

$$\Sigma TB_{Ri[NP1]Rm[NP1]}^t = \gamma_i * [(1 - \alpha_i) * TB_{NP1Rr[Pj]}^t] \quad A.11.1)$$

Or

$$\Sigma TB_{Rm[NP1]Rm[NP1]}^t = \gamma_i * [(1 - \alpha_i) * TB_{Rr[Pj]NP1}^t] \quad A.11.2)$$

Where  $m$  is the region of post-war Poland which had belonged to  $j$  in 1913. In this expression the term in square brackets measures the trade of Germany (or Russia) at its 1913 borders with the part of Poland which did not belong to it in 1913 (i.e. Galicia and the Granduchy of Warsaw). We

assume that a proportion  $\gamma_i$  would have originated in West Prussia had it remained in Germany.

Thus, our estimate is the sum of  $TB_{R3[NP1] R1[NP1]}^t + TB_{R3[NP1] R2[NP1]}^t$ . The logic for trade of Galicia (R2) with the successor states is the same, but the formula becomes

$$\Sigma TB_{R2[NP1] Rj[NP1]}^t = \sigma_i * \gamma_2 * [(1 - \alpha_2) * TB_{NP1 NP_i}^t] \quad A.12.1)$$

Or

$$\Sigma TB_{Rj[NP1] Rm[NP1]}^t = \sigma_i * \gamma_2 * [(1 - \alpha_2) * TB_{NP_i NP1}^t] \quad A.12.2)$$

In fact the term coefficient  $\gamma_2$  measures the proportion of Galicia on the whole Austria-Hungary at its 1913 borders, and the coefficient  $\sigma_i$  allocates this total among the three successor states. As in the previous case, the result refers to the whole commerce with non-Austrian Poland – i.e.

$$\Sigma TB_{R2[NP1] Rj[NP1]}^t = TB_{R2[NP1] R1[NP1]}^t + TB_{R2[NP1] R3[NP1]}^t.$$

## **Appendix B.**

### **World Country series: historical reference and estimation procedures**

#### **AFRICA**

##### **Algeria**

French invaded and settled in Algiers in 1830. From 1848 until independence, France administered the whole Mediterranean region of Algeria as an integral part and département of the nation.

We use the series from Mitchell (2007), where there is no information on bullion or re-exports. We deflate with Federico-Tena price indexes.

##### **Angola**

The Portuguese were present in some – mostly coastal – points of the territory of what is now Angola, from the 16th to the 19th century, interacting in diverse ways with the peoples who lived there. In the 19th century, they slowly and hesitantly began to establish themselves in the interior. Angola as a Portuguese colony encompassing the present territory was not established before the end of the 19th century, and "effective occupation".

We use data for current imports and exports for the years 1901-1936 in sterling pounds from Salgado (1939; "Mapa nº3" and "Mapa nº6") which excludes bullion. We extend these series backwards to 1848, with the series of 'National and nationalized Portuguese Exports and Imports from African colonies' by Clarence-Smith (1983, p.404) and exports only to 1828 with the series of current exports from Ghana. We deflate with the Federico-Tena price indexes for British Gambia until 1850, and with Federico-Tena price indexes for Angola and Mozambique thereafter.

##### **Belgian Congo (Zaire)**

The Kingdom of Kongo was a powerful kingdom that existed from the 14th to the 18th century. It was the dominant force in the region until the arrival of the Portuguese. The Congo Free State (1885–1908) was a corporate state privately controlled by Leopold II of Belgium through the Association Internationale Africaine, a non-governmental organization. Leopold was the sole shareholder and chairman. The state included the entire area of the present Democratic Republic of the Congo and Roger Casement's famous 1904 report estimated in ten million people. On 15 November 1908 King Léopold II of Belgium formally relinquished personal control of the Congo Free State. The renamed Belgian Congo came under the administration of the Belgian parliament, which lasted until independence was granted in 1960.

We obtain a series of exports and imports in current Belgian francs from the Belgium Statistical Yearbook with some additional from Mitchell (2007). Before 1887, we assume that trade was registered in trade statistics of neighboring polities. We deflate with Federico-Tena export and import price indexes since 1887.

##### **British Cameroons**

It was a British Mandate territory in West Africa from 1922 to 1938. The area of present-day Cameroon was claimed by Germany as a protectorate during the "Scramble for Africa" at the end of the 19th century. During World War I, it was occupied by British, French and Belgian troops, and later mandated to Great Britain and France by the League of Nations in 1922. Northern Cameroons became a region of Nigeria on 31 May 1961, while Southern Cameroons became part of Cameroon later that year on 1 October 1961. In the meantime, the area was administered as a United Kingdom Trust Territory (UKTT). Britain's territory, a strip bordering Nigeria from the sea to Lake Chad, with an equal population was ruled from Lagos as Cameroons (British Cameroons).

The trade of British Cameroons is included in trade of Nigeria (see United Kingdom (Colonies). Trade Statistics 1937 p.209).

##### **British East Africa (Kenya and Uganda)**

The British East Africa "sphere of influence", agreed at the Berlin Conference of 1885, extended up the coast and inland across the future Kenya and after 1890 included Uganda as well. Mombasa

was the administrative center at this time. Exports and imports current data in pounds from 1895-1938 are the sum of Kenia and Uganda protectorate trade data.

We use the series from United Kingdom (colonies). Statistical Yearbook for Uganda 1895-1913 and for both colonies since 1914, while for Kenya 1895-1914 we resort to data from Mitchell (2007). We extrapolate backwards trade to 1828 with the series for Mauritius. We subtract re-exports according to the data from the same Statistical yearbook since 1913, using the 1913 figure (ca 10% - i.e. about a half of the percentage in interwar years) for the previous years. We deflate with Federico-Tena export and import price indexes for Mauritius for 1828-1850 and for British East Africa thereafter.

### **British Somaliland**

In 1888, after signing successive treaties with the then ruling Somali Sultans, the British established a protectorate in the region referred to as British Somaliland.

Exports and imports current data in pounds from 1891-1938 came from United Kingdom (colonies). Statistical Yearbook. We extrapolate backwards to 1850 with the series for the Mauritius. We subtract re-exports according to the data from the same Statistical yearbook since 1913, using the 1913 figure (ca 10% - i.e. about a half of the percentage in interwar years) for the previous years. We deflate with Federico-Tena British Somaliland export and import price indexes.

### **Cabo Verde (Cape Verde)**

Positioned on the great trade routes between Africa, Europe, and the New World, the archipelago under Portuguese rule prospered from the transatlantic slave trade, in the 16th century. The 19th-century decline of the lucrative slave trade was only overcome because the British used Cape Verde as a storage depot for coal which was bound for the Americas.

We use data for current imports and exports for the years 1901-1936 in sterling pounds from Salgado (1939; "Mapa nº3" and "Mapa nº6") which excludes bullion. We extrapolate the series at current prices to 1850 and in 1937-1938 with the trade data of Mauritius. We deflate with Federico-Tena price indexes for Angola and Mozambique.

### **Cameroon (Kamerun)**

Beginning on July 5, 1884, all of present-day Cameroon and parts of several of its neighbors became a German colony. In World War I the British invaded Cameroon from Nigeria in 1914. After the war this colony was partitioned between the United Kingdom and France under a June 28, 1919 League of Nations mandates (Class B). France gained the larger geographical share, transferred Neukamerun back to neighboring French colonies, and ruled the rest from Yaoundé as Cameroun (French Cameroons). Britain's territory, a strip bordering Nigeria from the sea to Lake Chad, with an equal population was ruled from Lagos as Cameroons (British Cameroons). So we assume that it is German colony to 1914, and French since 1919. Current exports and imports data came from Mitchell (2007) since 1891 (until 1914 in marks and in French Francs thereafter). We extrapolate to 1850 and in 1915-1918 with the series of trade of Ghana-Gold Coast respective exports and imports series. We deflate with Federico-Tena export and import price indexes.

### **Canary Islands**

Gran Canaria, a colony of Castile since March 6, 1480 and Tenerife, a Spanish colony since 1495, had separate governors. Canary Island was an independent trade policy unit before 1953, when it was incorporated to the Spanish trade statistical territory.

Current prices for exports and imports are obtained from different sources - Quintana Navarro 1992 (reporting data from British Consular Reports) for 1826, 1853-56, 1861-69, 1872-73, 1884-1893, Martin-Hernandez (1992, p.97) for 1877-1881, both in pounds, and Spain. Statistical yearbook 1935 (in gold pesetas, without bullion) for 1931-1934. We have filled the gaps according to the Spanish exports and imports. We use for deflation the Federico-Tena Guatemala export and import price index, as the Canary had a similar export bundle.

### **Ceuta y Melilla**

In 1415, during the Battle of Ceuta, the city was captured by the Portuguese during the reign of John I of Portugal. During this time, Ceuta attracted many residents of Spanish origin. Ceuta became the only city of the Portuguese Empire that sided with Spain when Portugal regained its independence in 1640, and war broke out between the two countries. Melilla was conquered virtually without a fight in 1497, a few years after Castile had taken control of the Kingdom of Granada. Ceuta y Melilla as the Canary Island are independent trade policies units before 1953 when both were incorporated to the Spanish trade statistical territory.

We start from the data on total trade (in gold pesetas without bullion) for 1931-1934 in Spain. Statistical yearbook 1935, and we extrapolate them backwards to 1826 (for exports) and to 1850 (for imports) and forward to 1938 with the Canary trade series. We use for deflation the Federico-Tena Morocco price indexes.

### **Egypt**

Muhammad Ali emerged as a dominant figure and in 1805 was acknowledged by the Sultan in Istanbul as his viceroy in Egypt; the title implied subordination to the Sultan but this was in fact a polite fiction. Egypt annexed Northern Sudan (1820–1824), Syria (1833), and parts of Arabia and Anatolia; but in 1841 the European powers forced to return most of this conquests to the Ottomans, with the exception of Sudan. The Suez Canal, built in 1869 with the French and British partnership. British rule lasted from 1882 when the British succeeded in defeating the Egyptian Army and took control of the country, to 1952.

Current export and import series came from Mitchell (2007) in Egyptian Pounds, which we convert in dollars with the exchange rate from Appendix. We deflate these current price series with Federico-Tena price indexes for 1850-1885 and with the Hansen-Lucas (1978) indexes from 1885 to 1938.

### **Eritrea :**

In the period following the opening of the Suez Canal in 1869, when European powers scrambled for territory in Africa and tried to establish coaling stations for their ships, Italy invaded Ethiopia and occupied Eritrea. On 1 January 1890, Eritrea officially became a colony of Italy. In 1936, it became a province of Italian East Africa (Africa Orientale Italiana), along with Ethiopia and Italian Somaliland.

We use the current exports and imports data from the League of Nations. Trade Statistics. *Review* in 1929-1938 and we extrapolate backwards to 1850 with the series for British Somalia. We also use the Federico-Tena British Somalia export and import price index for deflation.

### **Ethiopia**

Ethiopia was the only African country to defeat a European colonial power and retain its sovereignty as an independent country before 1936 became an Italian colony for a few years. It was the first independent African member of the League of Nations.

We start from current exports from the League of Nations. Trade Statistics. *Review* for 1931-1934, we assume imports in the same proportion as British Somaliland and we extrapolate with the series of British Somaliland exports and imports backwards to 1850 and forward to 1938. We deflate with the Federico-Tena export and import price indexes for British Somaliland.

### **French Equatorial Africa**

France first established its presence in 1841 but the French consolidated their legal claim to the area through an 1887 convention with Congo Free State. However, the French did not consolidate their control over the area until 1903 after established colonial administration throughout the territory before in 1910, it became one of the four territories of the Federation of French Equatorial Africa (A.E.F.). From the economic point of view, the French Equatorial Africa is divided in two regions. On one side, the territories of the Atlantic border that are part administratively of the Gabón Colonie as the ports of Libreville, Cap Lopez, Sette Cama and Loango. On the other side, the territories close to the river Congo of the High Congo formed by the colonies of du Moyen Congo and l'Oubangui, Chari Tchad. Most the foreign trade pass across the port of Brazzaville and the

Congo Belga border. Includes present-day Central African Republic (colony 1906-1910), Chad (1891-1910), Gabon (protectorate 1839-1885, colony 1885-1910), French Congo (1882-1910).

We obtain data of exports and imports since 1865 onwards from Mitchell (2007) and we extrapolate them backwards to 1850 assuming trade being nil in that year as landlocked territory. From 1884 onwards, we piece together an annual series from French sources - France (colonies-Gulf de Guinee et Congo). Trade statistics for 1884-1891, Gouvernement AEF (1913) for 1892 to 1912, and France. Statistical Yearbook (1939 p.223) from 1913 to 1921 (labeled Congo A.E.F.) and 1938 (Afrique Équatoriale Française).<sup>44</sup> The data are deflated with Federico-Tena price indexes for French Equatorial Africa from 1850 to 1924 and with the indexes by Poquin (1957 Appendix) from 1924 to 1938.

### **French Somalia**

French colony in the Horn of Africa. It was established between 1883 and 1887, after the ruling Somali and Afar Sultans signed various treaties with the French. This arrangement lasted until 1946, when the polity became an overseas territory of France. In 1977, it became the independent country of Djibouti.

We use current exports and imports series for Côte des Somalies France. Statistical Yearbook (1939 p.220). We move that level backwards to 1828 according to British Somaliland trade. For constant prices we deflate using the Federico-Tena British Somaliland export and import price index.

### **French West Africa**

The Four Communes of Senegal were entitled to elect a Deputy to represent them in the French Parliament in the years 1848–1852, 1871–1876, and 1879–1940. As the French pursued their part in the scramble for Africa in the 1880s and 1890s, they conquered large inland areas, and at first ruled them as either a part of the Senegal colony, or as independent entities. In the late 1890s, the French government began to rein in the territorial expansion of its "officers on the ground", and transferred all the territories west of Gabon to a single Governor based in Senegal. The first Governor General of Senegal was named in 1895, and in 1904, the territories he oversaw were formally named French West Africa (AOF). Gabon would later become the seat of its own federation French Equatorial Africa (AEF). Administratively the colonial territory is formed on one side by five maritime territories: Mauritania (port Etienne), Senegal (Port Saint Louis and the big port of Dakar), French Guiney (Conakry), Ivory Coast (Port Bouet) and The Dahomey (Cotonou). We assume that trade of the landlocked territories (French Sudan, High Volta and the Niger) are included in the series of French West Africa.

From 1839 to 1891 we proxy total trade with the series for French Senegal, inclusive of Saint Louis and Coree, from France (colonies) Statistical Yearbook for 1839-1881 and France. Trade Statistics (1892) for 1881-1891. Since 1892 we use the data from France. Statistical Yearbook (1939) referring to Dahomey, Cote de Ivory, French Niguer, High Senegal and Niguer until 1920 and to the French West Africa thereafter. Since 1922 we sum the trade of French Togoland, formerly part of German West Africa, even if formally it did not belong to the colony. We have extended backwards the export series from 1838 to 1830 following the series of Algerie. We deflate the current imports from 1850 with a Federico-Tena price index for French West Africa, exports with a Federico-Tena price index from 1850 to 1924, and with the price index from Poquin (1957, Appendix) from 1924 onwards.

### **Gambia**

The British established the military post of Bathurst (now Banjul) in 1816. In the ensuing years, Banjul was at times under the jurisdiction of the British Governor General in Sierra Leone. In 1888 Gambia became a separate colony. An agreement with the French Republic in 1889 established the present boundaries. The Gambia became a British Crown colony called British Gambia.

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<sup>44</sup> The source states that statistics since 1892, although less precise than the French one, are rather good, with a clear distinction of special from general trade (p.5).

We get data of exports and imports from United Kingdom (colonies) Statistical Yearbook (ad annum) from 1828 to 1914 and from 1922 to 1938 and from Mitchell (2007) for 1915-1921. We subtract re-exports according to the data from the same Statistical yearbook since 1913, using the 1913 figure (ca 1% - i.e. less than a third of the percentage in interwar years) for the previous years. We extrapolate the export series to 1817 by reflatting the series of British commodity imports from West Africa at constant prices from Inikori (1983) with the Liverpool Palm oil price index (Latham 1973 p.292-293). We deflate the series with Federico-Tena price indexes from 1817 onwards.

#### **German South West Africa (Namibia)**

German South-West Africa (German: Deutsch-Südwestafrika, DSWA) was a colony of the German Empire from 1884 until 1915, when it was taken over by the Union of South Africa (as part of the British Empire) and administered as South-West Africa, finally becoming Namibia in 1990.

Data on trade at current prices are reported by two British sources, United Kingdom (foreign countries). Statistical yearbook for 1901-1912 (pp.304-305) and the United Kingdom (colonies) Statistical yearbook from 1919 to 1938. Since 1922, the data refer to exports of domestic products. In that year, re-exports accounted for about 7% of total exports: we use this figure to subtract re-exports in 1901-1921. We extrapolate backward trade to 1850 according to the series for Ghana-Gold Coast. Finally, we deflate with Federico-Tena German South West Africa export and import price indexes.

#### **Gold Coast-Ghana**

The Gold Coast was the region of West Africa that is now the nation of Ghana. Early uses of the term refer literally to the coast and not the interior. It was not until the 19th century that the term came to refer to areas that are far from the coast. In 1850 all of the settlements became part of the British Gold Coast.

We get data of exports and imports from United Kingdom (colonies) Statistical Yearbook (ad annum) from 1828 to 1914 and from 1922 to 1938 and from Mitchell (2007) for 1915-1921. We subtract re-exports according to the data from the same Statistical yearbook since 1913, using the 1913 figure (ca 0.2% - i.e. almost one fourth of the percentage in interwar years) for the previous years. We extrapolate the export series to 1817 by reflatting the series of British commodity imports from West Africa at constant prices from Inikori (1983) with the Liverpool Palm oil price index (Latham 1973 p.292-293). The series after 1850 are deflated with Federico-Tena Gold Coast price indexes, while for exports 1817-1850 we use the Federico-Tena Gambia price index.

#### **Guinea Bissau**

It then became the Portuguese colony of Portuguese Guinea in the early 19th century. Upon independence, declared in 1973. We used data for current imports and exports for the years 1901-1936 in sterling pounds from Salgado (1939; "Mapa n°3" and " Mapa n°6") which excludes bullion. We extend these series backwards to 1850 with the Gambia import and export series and we use Federico –Tena price indexes for Gambia to deflate.

#### **Italian Libia Cyrenaica**

Italian Cyrenaica was an Italian colony, located in present-day eastern Libya, that existed from 1927 to 1934. It was part of the Italian North African territory conquered from the Ottoman Empire in 1911. Current exports and imports have been estimated in 1913 assuming a population in around 1 million in that year, and a similar per capita exports than British Somaliland in the same year. We use export and imports current data from League of Nations. Trade Statisics. We move the respective levels according the same bilateral trade series with Italy from 1910 to 1925 and backwards following the respective series of Tunisia. We obtain constant price series by deflating with the Federico-Tena British Somaliland export and import price indexes.

#### **Italian Somalia**



Italian Somalia, was a colony of the Kingdom of Italy from the 1880s until 1936 in the region of modern-day Somalia. In 1936, the region was integrated into Africa Orientale Italiana as part of the Italian Empire.

Data on trade of the area are available only after 1929, from League of Nations. Trade statistics. *Review*. We project the level of exports and imports in 1929 backwards to 1913 with a simple average of indexes of imports from Somalia into Italy (Italy. Trade statistics) and from Italian East Africa into Aden from United Kingdom (colonies) Statistical Yearbook. We extrapolate the 1913 level back to 1850 with the series of British Somalia respective trade and we use the Federico-Tena British Somaliland export and import price indexes to deflate.

### **Liberia:**

Liberia is the only country in Africa founded by United States colonization while occupied by native Africans. Beginning in 1820, the region was colonized by black people from the United States, most of whom were freed slaves.

The only available series of Liberian trade, from Mitchell (2007) starts in 1930. We extrapolate imports and exports in that year to 1850 with the series for the French Equatorial Africa and we deflate the resulting series with the price indexes for French Equatorial Africa.

### **Madagascar**

The policy unit comprises the island of Madagascar, as well as numerous smaller peripheral islands. Beginning in the early 19th century, most of the island was united and ruled as the Kingdom of Madagascar by a series of Native nobles but under western different political and commercial alliance. The monarchy collapsed in 1897 when the island was absorbed into the French colonial empire.

We get series of imports and exports at current prices from France. Statistical yearbook (1939) since 1881. We extrapolate the level of exports to 1850 by interpolating and extrapolating the scattered data 1864-1880 for the port of Toamasina, the main harbor of the island, from Campbell (1983 p.581) and the level of imports with the series for the Mauritius. We deflate the series with Federico-Tena price indexes.

### **Malawi (Nyasaland)**

In 1889, a British protectorate was proclaimed over the Shire Highlands, which was extended in 1891 to include the whole of present day Malawi as the British Central Africa Protectorate. In 1907, the protectorate was renamed Nyasaland, a name it retained for the remainder of its time under British rule.

We use export and import current data from Mitchell (2007) for 1894-1921 United Kingdom (colonies) Statistical Yearbook from 1922 onwards. From 1850-1894 we follow Mauritius exports and imports. United Kingdom (colonies) Statistical Yearbook provides data on re-exports and we assume the share to have remained constant at 6% before 1913. We deflate export and import from 1850 to 1938 with Federico-Tena exports and imports price indexes, and exports from 1828 to 1850 with the Mauritius export price index.

### **Mauritius**

The British took control of Mauritius in 1810 during the Napoleonic Wars. This polity unit remained under British rule until it became an independent Commonwealth realm on 12 March 1968 and a republic within the Commonwealth on 12 March 1992.

We use current exports and imports from United Kingdom (colonies). Statistical Yearbook from 1828 to 1938, filling the gap in 1915-1921 with the data from Mitchell (2007). We subtract re-exports with the data from the Yearbook in 1913 and after 1922, while before 1913 we assume the share to have remained constant at 2% (about a half of the percentage after 1922). We deflate with Federico-Tena price indexes.

### **Morocco**

The United Kingdom (Foreign Countries). Statistical Yearbook reports data on sea-borne import and export trade of the Empire of Morocco in pound sterling (excluding bullion) in 1835, 1839,

1852-1857 and 1862-64, and the France. Statistical Yearbook (1939) a continuous series since 1904. We extrapolate exports and imports to 1827 and 1850 respectively, and fill the gaps either by linear interpolation between close-by years or by assuming that total exports moved in parallel to imports in France from Morocco, and total imports in parallel to imports in Algeria. We deflate with Federico-Tena price indexes.

### **Mozambique**

Colonized by Portugal from 1505, after over four centuries of Portuguese rule, Mozambique gained independence in 1975. During the 19th century other European powers, particularly the British (British South Africa Company) and the French (Madagascar), became increasingly involved in the trade and politics of the region around the Portuguese East African territories.

We use data for current imports and exports for the years 1901-1936 in sterling pounds from Salgado (1939; “Mapa nº3” and “Mapa nº6”) which excludes bullion. We extend this series backwards to 1848, with the series of ‘National and nationalized Portuguese Exports and Imports from African colonies’ by Clarence-Smith (1983, p.404) and exports to 1828 with the Mauritius export series. We deflate exports from 1828 to 1850 with the Mauritius price index, while after 1850 we use the Federico-Tena Angola-Mozambique price indexes for both imports and exports.

### **Nigeria**

First organized settlements of British people, in what later became Nigeria, was in Lagos Colony centered on the port of Lagos in what is now southern Nigeria. Lagos was annexed on 6 August 1861 and declared a colony on 5 March 1862. In 1885, British claims to a West African sphere of influence received recognition from other European nations, but only on 1 January 1901, Nigeria became a British protectorate, part of the British Empire. The independent kingdoms of what later became Nigeria fought many wars against the British Empire in the late 19th and early 20th centuries trying to regain independence. By war, the British conquered Benin in 1897, and in the Anglo-Aro War from 1901—1902 defeated other opponents. The restraint or complete destruction of these states opened up the Niger area to British rule. In 1914, the British formally united the Niger area as the Colony and Protectorate of Nigeria.

We get data of exports and imports from United Kingdom (colonies) Statistical Yearbook (ad annum) from 1828 to 1914 and from 1922 to 1938 and from Mitchell (2007) for 1915-1921. We subtract re-exports according to the data from the same Statistical yearbook in 1913 and since 1922, using the 1913 figure (ca 9% - a bit higher than in interwar years) for the previous years. We extrapolate the export series to 1817 by reflatting the series of British commodity imports from West Africa at constant prices from Inikori (1983) with the Liverpool Palm oil price index (Latham 1973 p.292-293). We deflate the export series before 1850 with the Federico-Tena price index for Sierra Leone, both series from 1850 to 1900 with Federico-Tena price indexes and since 1902 with the Fisher price indexes by Birnberg and Resnick (1975 tab. A34).

### **Reunion**

East of Madagascar, and southwest of Mauritius, Administratively, Reunion is even today one of the overseas departments of France. Colonization started in 1665, when the French East India Company sent the first 20 settlers. It was under French rule except for a few years after Napoleonic defeat.

We use the Mitchell (2007) series for exports since 1838 and for imports since 1850 and we deflate them with the Federico-Tena Mauritius respective price indexes.

### **Rhodesia**

Rhodesia comprised the region now known as Zimbabwe (Southern Rhodesia) and Zambia (Northern Rhodesia). We know that, de facto, in the interwar years existed only the former British colony of Southern Rhodesia (which had achieved responsible government in 1923).

We have not estimated a series for this colony before 1906 because the United Kingdom (colonies) Statistical Yearbook (1916 p.60) states that the trade of Bechuanaland Protectorate, Southern Rhodesia and Northern Rhodesia was included in the figures for the Cape of Good Hope. This source reports separate series for Southern and Northern Rhodesia, apparently excluding transit,

since 1906. We thus sum them and we compute series at constant prices with Federico-Tena price indexes.

### **Rwanda-Burundi**

Until 1918 part of the German East Africa. The Treaty of Versailles broke up the colony, giving the north-western area to Belgium as Rwanda-Burundi.

We have obtained data for exports and imports 1929, 1932, 1935, 1936, 1937 and 1938 from League of Nations. Trade statistics. *Review* (1938). We interpolate the missing years and we extrapolate the series to 1922 to 1929 with the Tanganica series. We deflate with the exports and imports price indexes for Tanganica.

### **São Tomé and Príncipe**

The islands of São Tomé and Príncipe were uninhabited before the arrival of the Portuguese sometime around 1470. By the mid-16th century the Portuguese settlers had turned the islands into Africa's foremost exporter of sugar. In the early 19th century, two new cash crops, coffee and cocoa, were introduced. By 1908, São Tomé had become the world's largest producer of cocoa, which remains the country's most important crop.

We use data for current imports and exports for the years 1901-1936 in sterling pounds from Salgado (1939; "Mapa nº3" and "Mapa nº6") which excludes bullion. We extend the series to 1850 and to 1938 with import and export series for Gambia. We deflate exports with the adjusted London price of cocoa and imports with the Federico-Tena index for Angola and Mozambique.

### **Seychelles**

A transit point for trade between Africa and Asia, the 115 islands northeast of the island of Madagascar, were occasionally used by pirates until the French began to take control starting in 1756. The British contested control over the islands between 1794 and 1810. Britain eventually assumed full control upon the surrender of Mauritius in 1810, formalized in 1814 at the Treaty of Paris. Seychelles became a crown colony separate from Mauritius in 1903 but it apparently enjoy from the beginning an autonomous administration.

We get series of exports and imports for 1890-1938 from the United Kingdom (colonies). Statistical Yearbook (ad annum). We extrapolate exports to 1828 and imports to 1850 with the Mauritius series and we deflate the results with the Federico-Tena price indexes for Mauritius.

### **Sierra Leone**

In 1787 a settlement was founded in Sierra Leone in what was called the "Province of Freedom". In 1800 Sierra Leone was still only a small colony extending a few miles up the peninsula from Freetown. Over the course of the 19th century that gradually changed: the British and Creoles in the Freetown area increased their involvement in—and their control over—the surrounding territory. Although formally a Protectorate, Sierra Leone was more in the nature of a unilateral acquisition of territory by Britain.

The United Kingdom (colonies) Statistical Yearbook (ad annum) reports data of imports and exports at current prices 1828 to 1914 and from 1922 to 1938, which we supplement with data from Mitchell (2007) for 1915-1921. We subtract re-exports according to the data from the same Statistical yearbook in 1913 and since 1922, using the 1913 figure (ca 1% - very close to the share after 1922) for the previous years. We extrapolate the export series to 1817 by reflatting the series of British commodity imports from West Africa at constant prices from Inikori (1983) with the Liverpool Palm oil price index (Latham 1973 p.292-293). We deflate the series with Federico-Tena price indexes.

### **South Africa**

In 1652, a century and a half after the discovery of the Cape Sea Route, Jan van Riebeeck established a refreshment station at the Cape of Good Hope, at what would become Cape Town, on behalf of the Dutch East India Company. The British fought for the control of the South African mineral wealth. Cape Town became a British colony in 1806. During the 1830s, approximately 12,000 Boers (later known as Voortrekkers), departed from the Cape Colony, where they had been

subjected to British control. They migrated to the future Natal, Orange Free State, and Transvaal regions. The Boers founded the Boer Republics: the South African Republic (now Gauteng, Limpopo, Mpumalanga and North West provinces) and the Orange Free State (Free State). The discovery of diamonds in 1867 and gold in 1884 in the interior started the Mineral Revolution and increased economic growth and immigration. This intensified the European-South African subjugation of the indigenous people. The struggle to control these important economic resources was a factor in relations between Europeans and the indigenous population and also between the Boers and the British. Eight years after the end of the Second Boer War and after four years of negotiation, an act of the British Parliament (South Africa Act 1909) created the Union of South Africa on 31 May 1910. The Union was a British dominion that included the former territories of the Cape and Natal colonies, as well as the republics of Orange Free State and Transvaal. All our data are from United Kingdom (colonies) Statistical Yearbooks several years series for the Cape of Good Hope from 1828 to 1849, and a sum of the Cape of Good Hope and Natal from 1850 to 1888. From 1889 to 1909, following United Kingdom (colonies) Statistical Yearbooks it is possible to sum Natal + Cape of Good Hope + Basutoland + Bechuonaland + Swaziland + Orange River Colonie + Transval total foreign trade for these regions that will constitute the Union of South Africa in 1910. The Board of Trade offer two series for exports and imports of the respective regions. The first that include the interstate trade between the mentioned regions, the second that exclude “as far as possible” that trade. Dimension of interstate trade records is very tiny between 1890-1900 but difference between series with or without interregional trade arrive to be very significant (the first, in some years, threefold the levels of the second) from 1901 to 1909. Our assumption is that land locked interstate trade regions double counting trade already record in the main ports of the open sea regions. That is the classical fail to distinguish “transit trade”. So we have used the second series that exclude interstate trade (“as far as possible”) that are also much more consistent with the official Union of South Africa data in 1910. Since 1910, the United Kingdom (colonies) Statistical Yearbook (ad annum) report data for the whole South Africa. We subtract re-exports according to the data from the same Statistical yearbook in 1913 and since 1922, using the 1913 figure (ca 2% about half the share after 1922) for the previous years. We deflate with Federico-Tena price indexes.

### **Sudan**

With the opening of the Suez Canal in 1869, Egypt and Sudan's economic and strategic importance increased enormously, attracting the imperial attentions of the Great Powers, particularly the United Kingdom. In 1882, the British bombarded Alexandria, Egypt's and Sudan's primary seaport, and subsequently invaded the country. British forces overthrew the government in Cairo and proceeded to occupy the rest of Egypt and Sudan in 1882. From 1885 to 1898 the population of Sudan collapsed from eight to three million due to war, famine and disease. Whereas British influence in Egypt was officially advisory (though in reality it was far more direct), the British insisted that their role in Sudan be formalized. Thus, an agreement was reached in 1899 establishing Anglo-Egyptian rule, under which Sudan was to be administered by a governor-general appointed by Egypt with British consent. We use current export and import series from United Kingdom (colonies). Statistical Yearbook (ad annum) from 1907 to 1938, subtracting re-exports and bullion. The source reports data after 1911, while for 1907-1910 we assume the share to have remained constant at its 1911 level. We extrapolate backwards imports and exports to 1850 with the series of British Somaliland and we deflate with Federico –Tena price indexes.

### **Tanganica (German East Africa)**

German East Africa (German: Deutsch-Ostafrika) was a German colony in East Africa established on March 1885, which included what are now Burundi, Rwanda and Tanganyika (the mainland part of present Tanzania). The Treaty of Versailles broke up the colony, giving the north-western area to Belgium as Ruanda-Urundi, the small Kionga Triangle south of the Rovuma River to Portugal to become part of Mozambique, and the remainder to Britain, which named it Tanganika. We piece together a series after 1891 with data from Mitchell (2007) for 1891-1900, United Kingdom (foreign countries). Statistical Yearbook (1901-1912 pp.304-305) for 1901-1912 and United Kingdom (colonies) Statistical Yearbook from 1922 onwards. We extrapolate backwards imports

to 1850 and exports to 1828 with the Mauritius trade. We deflate exports before 1850 with the Mauritius price index and imports and export thereafter with Federico-Tena Tanganica indexes.

### **Togo (German West Africa)**

Togoland was a German protectorate in West Africa from 1884 to 1914, encompassing what is now the nation of Togo and most of what is now the Volta Region of Ghana. At the outbreak of the First World War in 1914 the colony was drawn into the conflict. It was invaded and quickly overrun by British and French forces and divided into separate British and French administrative zones, and this was formalized in 1922 with the creation of British Togoland and French Togoland. From 1922 we have included French Togoland with French West Africa and British Togoland with Gold Coast, because from that year it was administered from the British neighboring colony. We use current exports and imports from United Kingdom (colonies) Statistical Yearbook from 1914-1921 and data from Mitchell (2007) for the years 1892-1913. We extrapolate the level of trade in 1892 to 1850 with the series of Ghana-Gold Coast and we deflate with the Federico-Tena indexes for Ghana.

### **Tunisia**

The first Ottoman conquest of Tunis took place in 1534 retaining it until the French occupation of Tunisia in 1881. We get series of special trade from Mitchell (2007) for 1876 to 1891 and from France Statistical Yearbook 1939 thereafter. We extrapolate backwards to 1830 with the average of the Algeria and Egypt exports and imports series. We deflate the series with a Federico-Tena price indexes.

### **Zanzibar:**

Is a semi-autonomous part of Tanzania, in East Africa and consists of numerous small islands and two large ones: Unguja (the main island, referred to informally as Zanzibar), and Pemba. The relationship between Britain and the German Empire, at that time the nearest relevant colonial power, was formalized by the 1890 Heligoland-Zanzibar Treaty, in which Germany agreed to "recognize the British protectorate over the islands of Zanzibar and Pemba. That year, Zanzibar became a protectorate (not a colony) of Britain.

We use current exports and imports from United Kingdom (colonies) Statistical Yearbook from 1900 to 1938, filling the gaps for 1892-1899 and 1915-1921 with Mitchell (2007). We subtract re-exports according to the data from United Kingdom (colonies) Statistical yearbook in 1913 and since 1922, using the 1913 figure (ca 37% - very similar to the share after the war) for the previous years. We deflate trade after 1850 with Federico-Tena price indexes and exports 1828-1849 with the Federico-Tena Mauritius price index.

## **AMERICA**

### **Argentina**

Buenos Aires became the capital of the Viceroyalty of the Río de la Plata in 1776, with territories from the Viceroyalty of Peru. What today is commonly referred as the Independence of Argentina was declared on July 9, 1816 by the Congress of Tucumán. The congress continued its work in Buenos Aires in 1817, but it dissolved in 1820 after the Battle of Cepeda. Argentine current export and constant series from 1870-1914 are taken from Tena-Willebald (2013). We extrapolate the series at current prices backward to 1820 and forward to 1938 with data from Ferreres (2005).<sup>45</sup> Imports series are deflated for 1820-1938 with Federico-Tena price indexes and exports series with the exception of 1870-1914 too.

### **Bahamas**

The Bahamas became a British Crown colony in 1718. After the American War of Independence, Americans and British set up a plantation slave economy until slavery in the Bahamas was

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<sup>45</sup> Ferreres export series are from Newland (1998)

abolished in 1834. Turks and Caicos Islands remained a part of Bahamas until the 1840s. We piece together a series of trade at current prices with data from Danson (1849) for 1827-1846, USA Statistical Abstract (1909) for 1850-1852 and from United Kingdom (colonies) Statistical Yearbook from 1853 to 1940.<sup>46</sup> We extrapolate exports to 1816 with British imports from the West Indies 1816 to 1826, from United Kingdom Yearbook 1830. We subtract re-exports according to the data from United Kingdom (colonies) Statistical yearbook in 1913 and since 1922, using the 1913 figure (ca 1% - decidedly lower than the share after the war) for the years before 1913. We deflate exports 1816-1850 with the Federico-Tena index for Barbados, imports 1827-1850 with the Federico-Tena import price index for Jamaica, and imports and exports with Federico-Tena specific Bahamas price indexes after 1850.

### **Barbados**

In 1627 the first permanent settlers arrived from England, and it became an English and later British colony. Sugar quickly replaced tobacco plantations as the main export commodity.

We piece together a series of trade at current prices from Danson (1849) for 1827-1846, Mitchell (2007) for 1846-1852 and United Kingdom (colonies) Statistical Yearbook for 1853-1938.<sup>47</sup> We extrapolate exports to 1816 with British imports from the West Indies 1816 to 1826, from United Kingdom Yearbooks 1830. We subtract re-exports according to the data from United Kingdom (colonies) Statistical yearbook in 1913 and since 1922, using the 1913 figure (ca 26%- a bit higher than the share after the war) for the years before 1913. We deflate exports and with Federico-Tena price index throughout the whole period, except for imports 1827-1849 that we use Federico-Tena price index for Jamaica.

### **Bermuda**

Bermuda spent much of the 18th century in a protracted legal battle with the Bahamas (which had itself been colonized by Bermudians in 1647) over the Turks Islands. The British government eventually assigned political control to the Bahamas, which the Turks and Caicos remained a part of until the 1840s. The United Kingdom (colonies) Statistical Yearbook reports series since 1853, which we extrapolate to 1820 using the Bahamas series<sup>48</sup>. We subtract re-exports according to the data from United Kingdom (colonies) Statistical yearbook in 1913 and since 1922, using the 1913 figure (ca 4% - decidedly lower than the share after the war) for the years before 1913. We deflate trade after 1850 with Federico-Tena price indexes, and exports 1820-1850 with the Federico-Tena export price index for Barbados.

### **Bolivia**

During most of the Spanish colonial period, this territory was called "Upper Peru" or "Charcas" and was under the authority of the Viceroy of Lima. Bolivian historiography dates the proclamation of independence to 1809, but 16 years of struggle followed before the establishment of a republic, named for Simón Bolívar. Going through a vicious economic and political crisis, Bolivia's military weakness was demonstrated during the War of the Pacific (1879–83), when it lost its seacoast and the adjoining nitrate rich fields to Chile and later when a large portion of Gran Chaco was surrendered to Paraguay in the Chaco War (1932–1936).

We obtain exports and imports in current US dollars since 1900 MOXLAD, and we extrapolate the data backwards, respectively to 1820 and 1850, following the series for Chile. We deflate with Federico-Tena price indexes.

### **Brazil**

Portugal colonization of Brazilian territory was promoted by the Treaty of Tordesillas (7 June 1494) which had divided the New World into two parts between Portugal and Spain. Africans became a substantial section of Brazilian population, and long before the end of slavery (1888). In 1821, Pedro, the elder son of the Portuguese king, stayed in his stead as regent of Brazil. One year later,

<sup>46</sup> The source does not report data on trade in bullion, which we assume negligible

<sup>47</sup> The source does not report data on trade in bullion, which we assume negligible

<sup>48</sup> The source does not report data on trade in bullion, which we assume negligible

Pedro stated the reasons for the secession of Brazil from Portugal and led the Independence War, instituted a constitutional monarchy in Brazil. For imports and exports 1914-1938, we use the series from IPEA DATA (2009), while for exports 1820-1913 we rely on the revised current estimates by Absell and Tena (2015).<sup>49</sup> Exports are deflated with price indexes from Absell-Tena (2015) 1820-1913 and by IBGE (2003) from 1914 to 1938. We deflate imports with a Federico-Tena price index from 1820 to 1900 and with the price index from Historical Statistics. IBGE (2003) from 1901 to 1938.

### **British Guiana:**

The Dutch were the first Europeans to settle there, starting in the early 17th century, when they founded the colonies of Essequibo and Berbice, adding Demerara in the mid-eighteenth century. In 1796, Great Britain took over these three colonies during hostilities with the French, who occupied the Netherlands. The colonies were officially ceded to the United Kingdom in 1814, and consolidated into a single colony in 1831. We piece together a series of trade at current prices with data from Danson (1849) for 1827-1846, Mitchell (2007) for 1846-1852 and from United Kingdom (colonies) Statistical Yearbook from 1853 to 1940.<sup>50</sup> We extrapolate exports to 1816 with British imports from the West Indies 1816 to 1826, from United Kingdom Yearbooks 1830. We subtract re-exports according to the data from United Kingdom (colonies) Statistical yearbook in 1913 and since 1922, using the 1913 figure (ca 3% - similar to interwar years). Before 1913 we deflate exports 1820-1938 and imports 1850-1938 with Federico-Tena price indexes, and imports 1820-1850 with the Federico-Tena import price index for Jamaica.

### **British Honduras (Belize)**

The Treaty of Versailles (1783) between Britain and Spain, gave the British rights to cut logwood between the Hondo and Belize rivers. In 1862, the Settlement of Belize in the Bay of Honduras was declared a British colony, called British Honduras, and the crown's representative was elevated to a lieutenant governor, subordinate to the governor of Jamaica.

We get data of trade at current prices from Danson (1849) for 1827-1846 and from United Kingdom (colonies) Statistical Yearbook from 1853 to 1940.<sup>51</sup> We interpolate the series from 1847 to 1852 and we extrapolate exports to 1816 with British imports from the West Indies 1816 to 1826, from United Kingdom Yearbooks 1830. We subtract re-exports according to the data from United Kingdom (colonies) Statistical yearbook in 1913 and since 1922, using the 1913 figure (about a half – a bit higher than in interwar years) before 1913. We deflate exports 1820-1938 and imports 1850-1938 with Federico-Tena price indexes, and imports 1820-1849 with the Federico-Tena import price index for Jamaica.

### **British Virgin Island**

The prefix "British" is often used to distinguish it from the neighboring American territory which changed its name from the "Danish West Indies" to "Virgin Islands of the United States" in 1917. The British Virgin Islands consist of the main islands of Tortola, Virgin Gorda, Anegada, and Jost Van Dyke, along with over fifty other smaller islands and cays. The British Virgin Islands were administered variously as part of the British Leeward Islands or with St. Kitts and Nevis, with an administrator representing the British Government on the Islands. The British introduced sugar cane which was to become the main crop and source of foreign trade, and slaves were brought from Africa to work on the sugar cane plantations.

We use the estimates by Bulmer-Thomas (2012) – Tables A.11 and C.6 for domestic exports at current prices, A.25 and C.20 for retained imports at current prices, A.14 and A.26 for exports and imports at 1860 prices (interpolating between benchmark years) and C.9 and C.21 for exports and imports at 1930 prices.

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<sup>49</sup> We adjust the data to the calendar year and we re-scale the level when necessary. Statistics of imports are on a 'general' trade basis to 1957 and those of exports are on a 'general' trade basis to 1930. Bullion is apparently included until 1930.

<sup>50</sup> The source does not report data on trade in bullion, which we assume negligible

<sup>51</sup> The source does not report data on trade in bullion, which we assume negligible

### **Canada**

Beginning in the late 15th century French and British expeditions explored, and later settled, along the Atlantic coast. France ceded nearly all of its colonies in North America to Britain in 1763 after the Seven Years' War. The rebellions of 1837 against the British colonial government took place in both Upper and Lower Canada that impulse the amalgamation of Upper and Lower Canada for the deliberate assimilation of the French-speaking population. The Canadas were merged into a single colony, the United Province of Canada, by the 1840 Act of Union, and responsible government was achieved in 1848, but real formation of modern Canada arrived only with the formation of the Dominion of Canada on July 1, 1867. In 1866, the Colony of British Columbia and the Colony of Vancouver Island merged into a single Colony of British Columbia, until their incorporation into the Canadian Confederation in 1871. In 1873, Prince Edward Island, the Maritime colony that had opted not to join Confederation in 1867, was admitted into the country union of three British North American colonies through Confederation, Canada was formed as a federal dominion of four provinces. We get data on trade at current prices from Danson (1849) for 1827-1846, and from United Kingdom (colonies) Statistical Yearbook as sum of Canada (Ports of Quebec and Montreal), Nova Scotia and Cape Breton, New Brunswick and Prince Edward Island 1847-1867, and from Historical Statistics Canada after 1868. We extrapolate exports backwards to 1816 with British imports from from Northern British colonies 1816 to 1826, from United Kingdom Yearbooks 1830. We deflate with Federico-Tena price indexes until 1868 and with indexes from Historical Statistics Canada (series G.386 and G387) from 1869 to 1938.

### **Chile**

By the 16th century, Spanish conquistadors began to subdue and colonize the region of present-day Chile, and the territory became a colony between 1540 and 1818, when it gained independence from Spain. A declaration of independence was officially issued by Chile on February 12, 1818 and formally recognized by Spain in 1840, when full diplomatic relations were established. Presidents and constitutions rose and fell quickly in the 1820s. The civil struggle's harmful effects on the economy, and particularly on exports, prompted conservatives to seize national control in 1830. As a result of the War of the Pacific with Peru and Bolivia (1879–1883), Chile expanded its territory northward by almost one-third and acquired valuable nitrate deposits, the exploitation of which led to an era of national affluence. We use the series by Braun et al. (2000) in current dollars from 1810 to 1938. We use constant prices and implicit export prices for export offered too in Braun et al (2000) Table 4.8 pp.127-129. In contrast, we deflate imports with Federico-Tena price index because it is more accurate than that used by Braun et al.

### **Colombia**

In 1549, the institution of the Spanish Royal Audiencia in Bogotá gave that city the status of capital of New Granada, which comprised in large part what is now territory of Colombia. This Viceroyalty included some other provinces of northwestern South America which had previously been under the jurisdiction of the Viceroyalties of New Spain or Peru and correspond mainly to today's Venezuela, Ecuador and Panama. So, Bogotá became one of the principal administrative centers of the Spanish possessions in the New World, along with Lima and Mexico City. Political independence from Spain was got after a quick military campaign led by Simón Bolívar that ended at the Battle of Boyacá, on August 7, 1819. That year, the Congress of Angostura established the Republic of Gran Colombia, which included all territories under jurisdiction of the former Viceroyalty of New Granada. The Federation of Gran Colombia was dissolved in 1830, and became a new country, the Republic of New Granada (re-named Colombia since 1863). We obtain export and import current series extrapolating several years from 1832 for imports and 1835 for exports to 1904 in pesos oro (equivalent to one US dollar), converting from fiscal to calendar years from the data offered by Ocampo (1983). For previous years we estimate current exports 1818-1835 as sum of recorded imports from Colombia in the official statistics of United Kingdom, France and United States. From 1905 for exports and imports we use GRECO (2002) series in US \$. We deflate exports with a Federico-Tena price index 1818-1845 and imports with the Federico-Tena Peru



import price index 1830 to 1845. For the years 1845-1904 we use the respective export and import price indexes offered by Ocampo (1983) (for exports Table 3.4, p. 96 and for imports Table 2.5 p.95, except for the years 1869-1880, with no data in Ocampo, that we linked Ocampo with the weighted export price index share of UK, France and USA according Colombia country import geographical distribution). Later, for 1905-1938, we use export and import price indexes from GRECO (2002).

We estimate trade at 1913 borders, excluding Panama bilateral trade from Colombia from the Special trade series from 1906 (year of the Panama Independence) to 1818 in exports and 1830 on imports. We use a fix percentage respectively for exports (0.6%) and imports (0.14%) along the series, that is the result of the average of the respective exports and imports Colombian-Panama bilateral trade average from 1922-1933 (from Colombia Yearlybook (1933, p.324).

### **Costa Rica**

During most of the colonial period, Costa Rica was the southernmost province of the Captaincy General of Guatemala, which was nominally part of the Viceroyalty of New Spain (i.e., Mexico), but which in practice operated as a largely autonomous entity within the Spanish Empire. In New Spain, all of the fighting by those seeking independence was done in the center of that area from 1810 to 1821, what today is central Mexico. Once the Viceroy was defeated in the capital city – today Mexico City- in 1821, the news of independence was sent to all the territories of New Spain including the Intendancies of the former Captaincy of Guatemala; accepting this as a fact, Costa Rica joined the other Central American Intendancies in a joint declaration of independence from Spain. Following independence, Costa Ricans found themselves with no regular trade routes to get their coffee to European markets until it was reestablished in 1843.

We piece together a series of trade at current prices in million gold pesos from León Saenz, Jorje (1997 Cuadro 1, pp.323-324) for 1820-1900 and MOXLAD 1901-1938 in dollars. We deflate imports 1850-1938 and exports 1820-1939 with Federico-Tena price indexes, while for imports 1820-1849 we use the Federico-Tena Cuba import price index.

### **Cuba**

Spanish trade laws made it difficult for Cubans to keep up with the 17th and 18th century advances in processing sugar cane pioneered in British Barbados and French Saint Domingue (Haiti). Spain also restricted Cuba's access to the slave trade, which was dominated by the British, French, and Dutch. As a result of the political upheavals caused by the Iberian Peninsula War and the removal of Ferdinand VII from the Spanish throne, a separatist rebellion emerged among the Cuban Creole aristocracy in 1809 and 1810. The main reason for the lack of support for these efforts was that the vast majority of Creoles, especially the plantation owners, rejected any kind of separatism, considering Spain's power essential to the maintenance of slavery. Following the 1868–1878 rebellion of the Ten Years' War, all slavery was abolished by 1886, making Cuba the second-to-last country in the Western Hemisphere to abolish slavery, with Brazil being the last. By 1860, Cuba was devoted to growing sugar, having to import all other necessary goods. Cuba was particularly dependent on the United States, which bought 80 percent of its sugar. The Cuban struggle for independence was long but it was decisive the US Congress declaration of war to Spain on 19 April 1898 to liberate Cuba after the battleship US Maine exploded in the Havana. After losing the Philippines and Puerto Rico, which had also been invaded by the United States, and with no hope of holding on to Cuba, Spain surrendered on 17 July 1898.

We estimate trade at current prices before 1902 in two steps. First, we use Schroeder (1982 Table XIV) for 1803-1816 and 1826-1862 and 1899-1901 and in million pesos Fuertes and Neumann-Spallart (1887) for 1876-1882, in Deutsche marks. We fill gaps in the resulting series with the sum of the bilateral imports trends of France, United Kingdom and the United States with Cuba. Since 1902, as Zanetti (1975), we use the series from Ministerio de Estado (1949 p. 289) in millions pesos. We assume the 'peso fuerte' to be equivalent to one dollar before 1900, and the marks exchange rate and the pesos/US dollar from Appendix F. We deflate with Federico-Tena price indexes before 1901 and with price indexes from MOXLAD after 1902.

### **Danish Virgin Island**

Also spelled Danish Antilles was a Danish colony in the Caribbean, first under the United Kingdoms of Denmark-Norway and later, after the 1814 Treaty of Kiel, Denmark alone. The islands were sold to the United States in 1916 under the terms of the Treaty of the Danish West Indies and were organized as the United States Virgin Islands in 1917.

We get all data from Bulmer-Thomas (2012) – Tables A.11 and C.6 for domestic exports at current prices, A.25 and C.20 for retained imports at current prices, A.14 and A.26 for exports and imports at 1860 prices (interpolating between benchmark years) and C.9 and C.21 for exports and imports at 1930 prices.

### **Dominican Republic**

After three centuries of Spanish rule, with French and Haitian interludes, the country became independent in 1821. The ruler, José Núñez de Cáceres, intended that the Dominican Republic be part of the nation of Gran Colombia, but he was quickly removed by the Haitian government occupation and "Dominican" slave revolts. Victorious in the Dominican War of Independence from Haiti in 1844, Dominicans experienced mostly internal strife, and also a brief return to Spanish rule in 1861-65.

Our main sources for trade at current prices are the United Kingdom (foreign countries). Statistical Yearbook, which reports data of exports and imports for 1846-1856 in pounds, and Mitchell (2007) which provides data for 1868-1872 (imports only), 1872, 1880-85, 1887, 1889-94, 1896-98 and 1905-1938 in gold pesos. We extrapolate backwards to 1820 the 1846 data with the sum of imports from the Dominican Republic in the United Kingdom, France, United States and Belgium, while we fill the gaps in the Mitchell series with linear interpolation. We deflate with Federico-Tena price indexes.

### **Dutch Antilles**

The Netherlands Antilles consisted of two island groups, both in the Lesser Antilles. The ABC islands of Aruba, Bonaire, and Curaçao are in the Leeward Antilles just off the Venezuelan coast, and the SSS islands of Saint Maarten (actually a territory covering approximately half an island), Saba, and Saint Eustatius are in the Leeward Islands southeast of the Virgin Islands. The total of six islands were colonized by the Dutch in the 17th century and from 1815 onwards, Curaçao and Dependencies formed a colony of the Kingdom of the Netherlands. Slavery was abolished in 1863, and in 1865 a government regulation for Curaçao was enacted that allowed for some very limited autonomy for the colony.

We get all data from Bulmer-Thomas (2012) – Tables A.11 and C.6 for domestic exports at current prices, A.25 and C.20 for retained imports at current prices, A.14 and A.26 for exports and imports at 1860 prices (interpolating between benchmark years) and C.9 and C.21 for exports and imports at 1930 prices.

### **Ecuador**

Between 1544 and 1563, Ecuador was an integral Spain's colonies in the New World under the Viceroyalty of Peru, having no administrative status independent of Lima. It remained a part of the Viceroyalty of Peru until 1720, when it joined the newly created Viceroyalty of New Granada. Ecuador's struggle for emancipation from Spain began in Guayaquil, where independence of the city from Spanish rule was proclaimed in October 1820. Ecuador joined Simón Bolívar's Republic of Gran Colombia – joining with modern-day Colombia and Venezuela. In 1830 it separated from those nations and became an independent republic.

We build our series at current prices with data from United Kingdom (foreign countries). Statistical Yearbook for 1848-1849, and 1855-1865. We interpolate from 1865 to 1882 for exports and 1884 for import. Finally, and we use Mitchell (2007) for 1883-1893, 1896-1938 for exports and: 1884, 1889-1893 and 1897-1938 for imports, in million Sucres, with interpolation between years.<sup>52</sup> We have extrapolated exports backwards from 1848 to 1820 with general current imports average

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<sup>52</sup> Mitchell suggests that data refer to general trade, exclusive of bullion and specie and that imports are valued f.o.b. before 1935. Without further confirmation and with no evidence, we have preferred not to correct.

of United Kingdom, France, United States and Spain. We deflate exports 1820-1938 with Federico-Tena price indexes and imports 1848-1938 with the Federico-Tena import price index for Peru.

### **El Salvador**

During the colonial period, El Salvador was part of the Captaincy General of Guatemala, also known as the Kingdom of Guatemala (Spanish: Reino de Guatemala), created in 1609 as an administrative division of New Spain. On September 15, 1821, in light of unrest in Guatemala, Spanish authorities capitulated and signed the Acta de Independencia (Deed of Independence) which released all of the Captaincy of Guatemala (comprising current territories of Guatemala, El Salvador, Honduras, Nicaragua and Costa Rica and the Mexican state of Chiapas) from Spanish rule and declared its independence. In 1821, El Salvador joined Costa Rica, Guatemala, Honduras and Nicaragua in a union named the Federal Republic of Central America. When the Federal Republic of Central America dissolved in 1841, El Salvador maintained its own government.

We get series in current pesos from Schoonover (1989, Tables 19-20, pp.114-117) for 1818-1900 for exports (interpolating from 1835 to 1845 and from 1894 onwards) and for 1845-1900 for imports (interpolating to 1901) and from Mitchell (2007) for 1901-1938<sup>53</sup>. Until 1900, one peso exchanged for one dollar (Schoonover 1989), while afterwards we get exchange rates from MOXLAD. We deflate exports with Federico-Tena price indexes, proxying import prices 1845-1850 with the index for Cuba.

### **Falkland Island**

At various times, the islands have had French, British, Spanish, and Argentine settlements. Britain re-established its rule in 1833, though the islands continue to be claimed by Argentina but in 1840 the Falklands officially became a Crown British Colony until today.

The source of data is the United Kingdom (colonies) Statistical Yearbook, which report yearly data since 1853 to 1938. We use 1913 re-exports data percentage (0.12%) as a fix percentage to be deducted along both series. From 1853 to 1820 we move exports and imports following Argentine respective series. We deflate also using Argentine exports and import price index.

### **French Guiana**

Following the Treaty of Breda on 31 July 1667 the area was given back to France. Later on, slaves were brought out from Africa and plantations were established along the more disease-free rivers. Exports of sugar, hardwood, Cayenne pepper and other spices brought a certain prosperity to the colony for the first time. In 1848 France abolished slavery and in 1853, gold was discovered in the interior, precipitating border disputes with Brazil and Suriname (these were later settled in 1891, 1899 and 1915, though a small region of the border with Suriname remains in dispute).

We get series of trade at current prices in French francs from France. Statistical Yearbook (1939) since 1881 and Statistical Yearbook. France (colonies) Tableau, for the years 1821-1880. This source before 1841 reports only bilateral trade trends export and imports with France that we use to move the serie backwards to 1821 from 1841 bases. We deflate imports and exports from 1820-1938 with Federico-Tena exports and imports price index, with the exception of imports 1850-1820 that we use Federico-Tena Jamaica imports price indexes.

### **Granada (Windward Island)**

Control of the island was disputed by Great Britain and France in the 18th century, with the British ultimately prevailing. Slavery was abolished in the 1830s. In 1885, the island became the capital of the British Windward Islands.

We piece together a series of trade at current prices from Danson (1849) for 1827-1846, United Kingdom (colonies) Statistical Yearbook for 1853-1938.<sup>54</sup> We interpolate linearly the figures in 1847-1852 and we extrapolate exports to 1816 with British imports from the West Indies 1816

<sup>53</sup> Since 1925, the peso was replaced by the quetzal at the rate of sixty pesos for one quetzal. Exchange rate from Appendix F.

<sup>54</sup> The source does not report data on trade in bullion, which we assume negligible

to 1826, from United Kingdom Yearbooks 1830. We subtract re-exports according to the data from United Kingdom (colonies) Statistical yearbook in 1913 and since 1922, using the 1913 figure (ca 0.5% - a bit lower than the share after the war) for the years before 1913. We deflate imports 1827-1849 with the Federico-Tena Jamaica price index and all other figures with the Federico-Tena indexes for Trinidad and Tobago.

### **Guadeloupe**

Guadeloupe was royally annexed into the Kingdom of France in 1674. In 1714, the French general government of the American islands divided in two, and Guadeloupe was placed under the control of the governor on Martinique. The British again held the island for three years beginning in 1810. It was ceded to Sweden in 1813 before French control of the island was recognized in the Treaty of Vienna in 1815. In 1848, slavery was abolished completely. In place of the slaves, indentured servants were hired to work in the sugar cane fields. A worldwide sugar slump began in 1870, hurting Guadeloupe's economy. Sugar was bolstered during the First World War and only just after the war, in 1923, it exported its first bananas.

We get series of trade at current prices in French francs from France. Statistical Yearbook (1939) since 1881 and Statistical Yearbook. France (colonies) Tableau, for the years 1821-1880. This source before 1841 reports only bilateral trade trends export and imports with France that we use to move the serie backwards to 1821 from 1841 bases. We deflate imports before 1850 with the Federico-Tena price index for Jamaica, and imports and exports since 1850 with Federico-Tena price indexes for Guadeloupe.

### **Guatemala**

Conquered Guatemala was part of the Spanish Empire for nearly 300 years until it became independent in 1821. It was first part of the First Mexican Empire (1821–23), for a period it belonged to a federation called the United Provinces of Central America, until becoming fully independent in the 1840s. We use the series by Schoonover (1989, Tables 19-20, pp.114-117) in current pesos for 1835-1900 for exports and for 1839-1900 for imports and by Mitchell (2007) for 1901-1938.<sup>55</sup> We extrapolate exports in 1831-1835 with the series for British Honduras and imports to 1818 with the imports from Guatemala to United Kingdom offered in Trade Statistics United Kingdom. Until 1900, one peso exchanged for one dollar (Schoonover 1989), while afterwards we get exchange rates from MOXLAD. We deflate exports with Federico-Tena price indexes, proxying the import price 1839-1850 with the Federico-Tena index for Cuba.

### **Haiti**

In 1664, the newly established French West India Company took control of the new colony, and France formally claimed control of the western portion of the island of Hispaniola. In 1665 they established a French settlement on the mainland of Hispaniola opposite Tortuga at Port-de-Paix. Under the 1697 Treaty of Ryswick, Spain officially ceded the western third of Hispaniola to France which renamed the colony Saint-Domingue. By that time, planters outnumbered buccaneers and, with the encouragement of Louis XIV, they had begun to grow tobacco, indigo, cotton, and cacao on the fertile northern plain, thus prompting the importation of African slaves. The labor for these plantations was provided by an estimated 790,000 African slaves (accounting in 1783–91 for a third of the entire Atlantic slave trade). When it gained independence in 1804, it was the first independent nation of Latin America and the Caribbean, the first black-led republic in the world, the second republic and the only predominantly Francophone independent nation in the Americas.

We get all series from Bulmer-Thomas (2012), who estimates exports since 1817 and imports since 1820 at current and constant prices.

### **Honduras**

Honduras was organized as a province of the "Kingdom of Guatemala" and the capital was fixed, first at Trujillo on the Atlantic coast. Honduras became independent from Spain in 1821 and was

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<sup>55</sup> Since 1925, the peso was replaced by the quetzal at the rate of sixty pesos for one quetzal.

for a time part of the First Mexican Empire until 1823 when it became part of the United Provinces of Central America federation. After 1838 it was an independent republic.

We use the series by Schoonover (1989, Tables 19-20, pp.114-117) in current pesos for 1835-1900 for exports and for 1839-1900 for imports and by Mitchell (2007) for 1901-1938<sup>56</sup>. We extrapolate exports in 1831-1835 with the series for British Honduras and to 1818 with United Kingdom imports from Guatemala. Exchange rate Until 1900, is (Schoonover 1989) asumption of one peso exchanged for one dollar, while afterwards we get exchange rates from MOXLAD. We deflate exports with Federico-Tena price indexes, proxying the import price 1839-1850 with the Federico-Tena index for Cuba.

### **Jamaica**

The Spanish settled in Jamaica in 1509, the third largest Caribbean island, and held the island against many privateer raids before Jamaica was conquered by the English, in 1655, although the Spanish did not relinquish their claim to the island until 1670. By the eighteenth century, sugarcane became the most important export of the island. Until slavery was abolished by Parliament in 1833, the island sugar plantations were highly dependent on slave labor. The British also used Jamaica's free people of color, 10,000 strong by 1800, to keep the enslaved population in check. The Jamaican slaves were bound (indentured) to their former owners' service, albeit with a guarantee of rights, until 1838 under what was called the Apprenticeship System. The freed population faced significant hardships.

We piece together a series of trade at current prices from Danson (1849) for 1827-1846, United Kingdom (colonies) Statistical Yearbook for 1853-1938.<sup>57</sup> We interpolate the series from 1847 to 1852 and we extrapolate exports to 1816 with British imports from the West Indies 1816 to 1826, from United Kingdom Yearbooks 1830. We subtract re-exports according to the data from United Kingdom (colonies) Statistical yearbook in 1913 and since 1922, using the 1913 figure (ca 1.4% - a bit lower than the share after the war) for the years before 1913. We deflate imports and exports before 1885 with Federico-Tena indexes and thereafter with Fisher price indexes from Birnberg and Resnick (1975 tab A 26).

### **Leeward Islands (Antigua, Dominica, St.Christopher, Montserrat, Nevis, Virgin Island)**

The British Leeward Islands was a British colony existing between 1833 and 1960, and consisting of Antigua, Barbuda, the British Virgin Islands, Montserrat, Saint Kitts, Nevis, Anguilla and (to 1940) Dominica. The previous colony of the Leeward Islands had existed since 1671, but in 1816 it was divided in two, with Antigua, Barbuda and Montserrat in one colony, and Saint Christopher, Nevis, Anguilla, and the Virgin Islands in another.

We piece together a series of trade at current prices from Danson (1849) for 1827-1846, United Kingdom (colonies) Statistical Yearbook for 1853-1938<sup>58</sup>. We interpolate linearly the figures in 1847-1852 and we extrapolate exports to 1816 with British imports from the West Indies 1816 to 1826, from United Kingdom Yearbooks 1830. We subtract re-exports according to the data from United Kingdom (colonies) Statistical yearbook in 1913 and since 1922, using the 1913 figure (ca 9% - a bit higher than the share after the war) for the years before 1913. We deflate imports 1827-1849 with the Federico-Tena Jamaica price index and all other figures with the Federico-Tena indexes for Trinidad and Tobago.

### **Martinique (French Colonies)**

Martinique was charted by Columbus in 1493, but Spain had little interest in the territory. Martinique was occupied several times by the British, including once during the Seven Years' War and twice during the Napoleonic Wars at the conclusion it was traded back to France. Martinique has remained a French possession since then. As sugar prices declined in the early 1800s the planter class lost political influence, and in 1848 Victor Schoelcher persuaded the French government to end slavery in the French West Indies.

<sup>56</sup> Since 1925, the peso was replaced by the quetzal at the rate of sixty pesos for one quetzal.

<sup>57</sup> The source does not report data on trade in bullion, which we assume negligible

<sup>58</sup> The source does not report data on trade in bullion, which we assume negligible

We get series of trade at current prices in French francs from France. Statistical Yearbook (1939) since 1881 and and Statistical Yearbook. France (colonies) Tableau, for the years 1821-1880. This source before 1841 reports only bilateral trade trends export and imports with France that we use to move the serie backwards to 1821 from 1841 bases. We deflate imports before 1850 with the Federico-Tena price index for Jamaica, and since 1850 to 1938 imports and exports with Federico-Tena price indexes for Martinique.

### **Mexico**

From 1519, the Spaniards absorbed the Mexican native peoples into Spain's vast colonial empire for three centuries. During this period, Mexico was part of the much larger Viceroyalty of New Spain, which included Cuba, Puerto Rico, Central America as far south as Costa Rica, the southwestern United States including Florida, and the Philippines. After a protracted struggle Mexico declared its independence from Spain on Sept. 27, 1821, after independence, Mexican politics was chaotic, with the presidency changing hands 75 times in the next 55 years (1821–76), the Mexican American War of 1846, with Mexico ceding almost half of its territory to the United States or later in the 19th century France invasion of Mexico (1861) setting Maximilian I on the Mexican throne until 1867.

We get data at current prices from three different sources: first, for the years 1800-1828 from the Historical Statistics. Mexico (Table 19.2. pp.810-811), which we adjust from fiscal to calendar year; second, for 1870- 1929 from Kuntz (2007 Cuadro A.3 and A.5 pp. 470 and 475) and third, from 1930-1938 from League of Nations (1925). Memorandum on International Trade and Balance of Payments 1910-1924, Volume II (edt.1925): and 1913-1927, Volume II (edt. 1929): Trade Statistics of sixty-four countries. Economic and Financial Section, Geneva.

League of Nations (1933,1936, 1938). International Trade Statistics. (ad annum). Economic Intelligence Service, Geneva.

League of Nations (1933-38). Trade statistics League of Nations (1925). (1933,1936, 1938). (1933-38). Mexico was a relevant exporter of gold and silver, so we have included bullion and spice in the especial trade coverage along the serie. For the period 1828-1870 we have interpolated following trade statistics of Mexico's partners. We interpolate exports with the sum of imports records from Mexico in Belgium, France, Spain, United Kingdom and the United States <sup>59</sup>. For imports we interpolate lineary from 1828 to 1850<sup>60</sup> and from 1850 to 1870 we use also the sum of exports to Mexico from France, the United Kingdom and the United States. We get exchange rates of pesos in dollars for 1800-1870 from Mexico. Historical Statistics (pp.810-11) and for 1870-1938 from Global Financial Data. We deflate imports 1800-1850 with the Federico-Tena Chile import price index and for imports 1850-1870 and exports 1800-1850 with Federico-Tena indexes for Mexico; imports and exports 1870-1929 with the respective indexes offered by Kuntz (2007, Cuadro B.1, pp.495-96) and imports and exports 1929-1938 with unit values from MOXLAD.

### **New Foundland**

Is now the Canadian province of Newfoundland and Labrador. In the Treaty of Utrecht (1713), France acknowledged British ownership of the island but French fishermen were given the right to land and cure fish on the "French Shore" on the western coast. Newfoundland received a colonial

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<sup>59</sup> By instance, For 1820-1870, we use USA imports data from Mexico that includes silver and gold following Salvucci (1991), Table 2, D column. Difference between nominal and bracket data in that table is reduced of the official imports of US from Mexico for the Civil War years 1862-1865. This difference is assumed by Salvucci (1991) as transit imports of USA produced raw cotton coming from Mexican ports because the Union Blockade ports during the War. The estimation is for imports f.o.b. and exports f.o.b. and as mention is in current dollars and include gold and argent bullion and spice (apparently fiscal years' adjustment until 1917 but it is not estimated because it is not completely clear in the official sources). F.o.b. series has been adjusted by the Latin American import freight factor offered in the Federico-Tena Price Index Appendix I.

<sup>60</sup> For 1825-1849 we have not used Berneker (2006) Table 3 p.127, because it is incomplete for Great Britain) and we prefer to interpolate imports levels from 1828 to 1850.

assembly in 1832, which was and still is referred to as the House of Assembly. Canada and Nova Scotia obtained "responsible" government in 1848 (whereby the assembly had the final word, not the royal governor), and Newfoundland followed in 1855 when self-government was a reality. Newfoundland remained a colony until acquiring dominion status on 26 September 1907, along with New Zealand.

We piece together a series of trade at current prices from Danson (1849) for 1827-1846, United Kingdom (colonies) Statistical Yearbook for 1853-1938.<sup>61</sup> We interpolate linearly the figures in 1847-1852 and we extrapolate exports backwards to 1816 with British imports from Northern British colonies 1816 to 1826, from United Kingdom Yearbooks 1830. We deflate imports with Federico-Tena price indexes for 1850-1938 and exports with Federico-Tena price indexes for 1800-1938.

### **Nicaragua**

Nicaragua was first discovered by Europeans when Christopher Columbus arrived from Honduras and explored the eastern coast on his fourth voyage in 1502. In 1538, the Viceroyalty of New Spain was established, encompassing all of Mexico and Central America, except Panama. Nicaragua became a part of the First Mexican Empire and then gained its independence as a part of the United Provinces of Central America in 1821, then as an independent republic in its own right in 1838.

We join the series at current prices for 1841 to 1899 by Schoonover (1989 Tables 19-20, pp114-117) and from 1899 to 1938 by Mitchell (2007). Both sources report data in pesos, which we assume to be equivalent to dollars. We extrapolate backwards exports to 1820 following the series for Guatemala. We deflate imports 1841 -1849 with Federico-Tena price indexes for Cuba and all other data with Federico-Tena price indexes for Nicaragua.

### **Panama**

Panama was part of the the Viceroyalty of New Granada (northern South America. In 1819 the liberation of New Granada (Colombia) was achieved, finally gaining its freedom from Spain. Panama and the other regions of former New Granada were therefore technically free. The union between Panama and the Republic of New Granada (Colombia) was made possible by the active participation of U.S.A. under the 1846 Bidlack Mallarino treaty until 1903. The extensive list of interventions by the U.S. armed forces had made in Panama since 1850 and the final Panama Canal construction by the U.S. Army Corps of Engineers between 1904 and 1914 helps to explain Panama political independence of Colombia came in 1906.

We use current price trade data from 1906 to 1938 from Mitchell (2007) that is the same data than that offered by MOXLAD in balboas. We get the exchange rate between balboas and dollars from Global Financial Data (that assume 1/1 exchange rate for the whole period very close to that offered by MOXLAD). We deflate with Federico-Tena export and import price indexes.

### **Paraguay**

In 1542, Paraguay became part of the newly established Viceroyalty of Peru, with its seat in Lima. Beginning in 1559, the Audiencia of Charcas (present-day Sucre) controlled the province's legal affairs. Buenos Aires, is made in 1776 the capital of the new viceroyalty of La Plata. Resentment of the pretensions of the new capital is no doubt part of the reason why the citizens of Asunción refuse to join Buenos Aires in 1810 in its declaration of independence from Spain. Far from bolstering the cabildo's position, this move instantly ignited an uprising and the overthrow of Spanish authority in Paraguay on May 14 and 15, 1811.

We use current price trade data for imports and exports from Mitchell (2007) in thousand gold pesos from 1879 to 1938 and we extrapolate backwards them to 1820 with the series of Brazil. We deflate with the Federico-Tena price indexes for Brazil from 1820 to 1850 and with Federico -Tena price indexes for Paraguay from 1850 to 1938.

### **Peru**

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<sup>61</sup> The source does not report data on trade in bullion, which we assume negligible

It was conquered by the Spanish Empire in the 16th century, which established a Viceroyalty with jurisdiction over most of its South American domains. The nation declared independence from Spain in 1821 but consolidated only after the Battle of Ayacucho, three years later. Spain made futile attempts to regain its former colonies, such as at the Battle of Callao, and only in 1879 finally recognized Peruvian independence.

Mitchell (2007) reports scattered data on imports and exports at current prices in millions pesos (soles since 1863) for some years from 1821 to 1878 and a continuous series from 1883 to 1938.<sup>62</sup> We interpolate the missing values and we convert from local currency into dollars with the series from Global Financial data. We deflate imports and exports from 1821 to 1831 with Federico-Tena price indexes, while for exports after 1832 we use the index by Hunt (1973, Table 9, p.28).

### **Puerto Rico**

Throughout most of the 19th century, and until the conclusion of the Spanish–American War in 1898, Porto Rico and Cuba were the last two Spanish colonies in the Americas.

We get all data from Bulmer-Thomas (2012) – Tables A.11 for domestic exports at current prices, A.25 for retained imports at current prices, A.14 and A.26 for exports and imports at 1860 prices (interpolating between benchmark years).<sup>63</sup> Our series ends in 1900 because since 1901 trade of Porto Rico is included in the American statistics

### **St. Barthelemy (Norwegian Colonies)**

The island was given to Sweden in 1784 in exchange for trade rights in Gothenburg. Following a referendum in 1877, Sweden gave the island back to France in 1878, after which it was administered as part of Guadeloupe. We offer data only for 1820 to 1870.

All data are taken from Bulmer Thomas (2012) Tables A.11 for domestic exports at current prices, A.25 for retained imports at current prices, A.14 and A.26 for exports and imports at 1860 prices (interpolating between benchmark years).

### **St. Vincent (Winward Island)**

While the English were the first to lay claim to St. Vincent in 1627, the French centered on the island of Martinique would be the first European settlers on the island in 1719 and finally regained by the British under the Treaty of Versailles (1783). St. Vincent passed through various stages of colonial status under the British before a Crown Colony government was installed in 1877. Decades after the success of the Haitian Revolution, the British abolished slavery in 1834. The resulting labour shortages on the plantations attracted Portuguese immigrants in the 1840s and East Indians in the 1860s as laborers.

We get data of trade at current prices from Danson (1849) for 1827-1846, United Kingdom (colonies) Statistical Yearbook for 1853-1938. We interpolate linearly the figures in 1847-1852 and we extrapolate exports to 1816 with British imports from the West Indies 1816 to 1826, from United Kingdom Yearbooks 1830 and from United Kingdom (colonies) Statistical Yearbook from 1853 to 1938.<sup>64</sup> We subtract re-exports according to the data from United Kingdom (colonies) Statistical yearbook in 1913 and since 1922, using the 1913 figure (only 0.6% - as much as in the interwar years) before 1913. We deflate imports 1827-1849 with the Federico-Tena import price index for Jamaica, and all other figures with the indexes for Trinidad and Tobago.

### **St.Lucia (Winward Island)**

Saint Lucia was named after Saint Lucy of Syracuse by the French, Britain took control of the island from 1663 to 1667; in ensuing years, it was at war with France 14 times and rule of the island changed frequently before British took definitive control of the island in 1814 considering St Lucia part of the British Windward Islands colony.

<sup>62</sup> Apparently data includes bullion and specie until 1910 but there is no break in the series in that year.

<sup>63</sup> As an alternative we could have used the data from Dietz (1986 p.18), for 1841-1870 and von Neumann-Spallart (1897), for 1876-1885 and 1890-93.

<sup>64</sup> The source does not report data on trade in bullion, which we assume negligible



We get data of trade at current prices from Danson (1849) for 1827-1846 and from United Kingdom (colonies) Statistical Yearbook from 1853 to 1940<sup>65</sup>. We interpolate the series from 1847 to 1852 and we extrapolate exports to 1816 with British imports from the West Indies 1816 to 1826, from United Kingdom Yearbooks 1830 and from United Kingdom (colonies) Statistical Yearbook from 1853 to 1938.<sup>66</sup> We subtract re-exports according to the data from United Kingdom (colonies) Statistical yearbook in 1913 and since 1922, using the 1913 figure (only 3.4% - a bit less than after 1922) before 1913. We deflate imports 1827-1849 with the Federico-Tena import price index for Jamaica, and all other figures with the indexes for Trinidad and Tobago.

### **St.Pierre and Miquelon**

Is one of early settlement by Europeans taking advantage of the rich fishing grounds near Saint-Pierre and Miquelon, and is characterized by periods of conflict between the French and British. France finally reclaimed the islands after Napoleon's second abdication in 1815, and there followed 70 years of prosperity for the French fishing industry and residents.

We get series of trade at current prices in French francs from France. Statistical Yearbook (1939) since 1881 and Statistical Yearbook. France (colonies) Tableau, for the years 1841-1880. We extrapolate backwards exports from 1841 to 1820 with the series of American exports. We deflate with Federico-Tena price indexes for New Foundland.

### **Surinam (Duch Guyana):**

The first attempts to settle the area by Europeans was in 1630. By the Treaty of Breda, the Dutch could keep occupying Suriname and the British the formerly Dutch Colony, New Amsterdam, (modern-day New York). The slave plantations were producing sugar, coffee, cocoa, cotton which were exported for the Amsterdam market. The Dutch abolished slavery only in 1863, but the slaves were, however, not released until 1873; up to that date they conducted obligatory but paid work at the plantations.

Mitchell (2007) reports data of exports and imports in million guildens since 1850. We extrapolate exports with the series for British Guyana to 1820. We deflate exports before 1850 with the Federico-Tena price index for Martinique, exports after 1850 and imports 1850-1938 with Federico-Tena price indexes.

### **Trinidad & Tobago (Winward Island)**

The island of Trinidad was a Spanish colony until the arrival of a British fleet on 18 February 1797. Trinidad and Tobago (remaining separate until 1889) were ceded to Britain in 1802 under the Treaty of Amiens. The Abolitionist movement and/or the decreased economic viability of slavery as a means of procuring labour, both resulted in the abolition of slavery in 1833.

We get data of trade at current prices from Danson (1849) for 1827-1846 and from United Kingdom (colonies) Statistical Yearbook from 1853 to 1940.<sup>67</sup> We interpolate the series from 1847 to 1852 and we extrapolate exports to 1816 with British imports from the West Indies 1816 to 1826, from United Kingdom Yearbooks. We subtract re-exports according to the data from United Kingdom (colonies) Statistical yearbook in 1913 and since 1922, using the 1913 figure (about 25% - a bit above the interwar level) before 1913. We deflate imports 1827-1849 with the Federico-Tena import price index for Jamaica, and all other figures with the indexes for Trinidad and Tobago.

### **Turks and Caicos Islands**

The islands were claimed by several European powers with the British Empire eventually gaining control. The islands were governed by the British indirectly through Bermuda, the Bahamas, and Jamaica. Bermuda spent much of the 18th Century in a protracted legal battle with the Bahamas (which had itself been colonized by Bermudian Puritans in 1647) over the Turks Islands. Under British law, no colony could hold colonies of its own. Under Bermudian control along the eighteen

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<sup>65</sup> The source does not report data on trade in bullion, which we assume negligible

<sup>66</sup> The source does not report data on trade in bullion, which we assume negligible

<sup>67</sup> The source does not report data on trade in bullion, which we assume negligible

century the islands remained part of the Bahamas from the end of Napoleonic wars to 1848, when the islands remained a dependency of Jamaica until 1959.

The United Kingdom (colonies). Statistical Yearbook (ad annum) provides series of trade after 1855, which we extrapolate to 1816 with the series for the Bahamas.<sup>68</sup> We subtract re-exports according to the data from United Kingdom (colonies) Statistical yearbook in 1913 and since 1922, using the 1913 figure (around 6% - similar to the level in interwar years). We deflate with the Federico-Tena prices indexes for the Barbados before 1850 and for the Bahamas after 1950.

### **United States**

Trade statistics for the United States are available since 1799. The data to 1900 have been re-estimated by North (1960) and Simon (1960), while since 1901 it is possible to rely on the official series as reported by the Historical Statistics (2006). All these data need some reworking, as they include transit trade (imports and re-exports), are valued f.o.b. at the port of embark rather than c.i.f., and are for fiscal years ending September 30th to 1842 and June 30th 1843 to 1915. It is thus necessary: a) to subtract re-exports from both imports and exports; b) to add freights on the import side and c) to convert the data in calendar years. The series for 1799-1860 are estimated by using the data provided by North (1960). For the period to 1819, imports are based on his series of “actual consumption” (tab A.1), which, unlike his own estimate (“accepted”) exclude re-exports. From 1805 to 1819, the series omits duty-free goods, which are added (net of re-exports of the same goods) according to North’s own estimate (tab A.2). The resulting series is then augmented by 4%, to take into account the partial omission of freights. Exports for 1799-1819 are the “accepted” series by North (tab. A.1) less re-exports (i.e. the difference between “actual consumption” and North’s “accepted” series). Imports for 1820-1860 are obtained by multiplying the “accepted” series by North (tab B.1), which include re-exports, by the ratio of imports for domestic consumption to total imports (Historical Statistics 2006 series Ee369/Ee368). Freights are added by multiplying North’s estimate of freights (tab B.2). Exports for 1820-1860 are obtained by multiplying North’s series (tab. B1) by the ratio of US goods to total exports (Historical Statistics 2006 series Ee366/Ee365). Imports 1861-1900 are based on “adjusted” series by Simon (1960), which includes corrections for smuggling and for the different base of value assessment for the period 1883 to 1890 (production place rather than port of embarkment). The data are in gold dollars (Simon 1960 p.631). Transit trade is estimated as the ratio of imports for domestic consumption to total imports (Historical Statistics 2006 series Ee369/Ee368), while the percentage of freights on imports is taken from Simon (1960 p.546). Likewise, the series for exports are computed by multiplying the series by Simon (1960), who corrects for the omission of overland exports before 1892, by the ratio of exports of American products to total exports (Historical Statistics 2006 series Ee366/Ee365). After 1900, the data are taken from Historical Statistics 2006. The series are labelled imports for consumption (Ee 369) and exports of US goods (Ee366) and thus they are net of transit. The freights on imports are estimated by as the ratio of import and export of transportation services (“receipts and payments on account of ocean freight” to 1919 and “international freight fares” afterwards, Historical Statistics 1975 series U3 and U10) to total trade (import and exports). All the series are then converted into calendar years. Puerto Rico, Hawaii and Alaska, were incorporated in the trade statistical territory of the US from 1900 and are part of the current border series from that year on. Current prices are then deflated with a price index for imports and exports obtained chaining indexes from North (1960), Simon (1960), Lipsey (1973) and official sources, all from Historical Statistics 2006 series Ee 431-444.

### **Uruguay**

The first permanent settlement on the territory of present-day Uruguay was founded by the Spanish in 1624, but Motevideo was not funded until the early 18th century as a Spanish military stronghold. Uruguay's early 19th century history was shaped by ongoing fights between the British, Spanish, Portuguese, and colonial forces for dominance in the La Plata. Independence from Spanish rule arrived early in 1814, when José Gervasio Artigas, formed the Liga Federal (Federal League) of which he was declared Protector. In 1821, the Eastern Province of the Río de la Plata (present-day

<sup>68</sup> The source does not report data on trade in bullion, which we assume negligible

Uruguay), was annexed by Brazil. But the answer was an insurrection for the independence of Oriental Province, that open a long conflict that finished with the Treaty of Montevideo, fostered by Britain, that gave birth to Uruguay as an independent state. The nation's first constitution was adopted on July 18, 1830. In the second half of 19th century Montevideo became a major economic center of the region, thanks to its natural harbor that became an entrepot for goods from Argentina, Brazil and Paraguay.

We piece together a series of trade for Uruguay at current prices from different sources - Macgregor (1850 Vol. II, p.406) for 1835-1836, United Kingdom (Foreign countries) Statistical Yearbook for 1861-1866, the Uruguay Statistical Yearbook (1937, pp.6-7) for 1867-1869 and 1914-1937 and Bonino et al (2015) for 1870-1913. We extrapolate exports backwards to 1820 with the sum of the imports from 'Buenos Aires and Montevideo ports' into the United Kingdom, France and United States. We convert the data in pesos from Uruguay Statistical Yearbook (1937) into dollars assuming a unit exchange rate (see Bonino et al. (2015)). We deflate imports and exports before 1870 with Federico-Tena price indexes, while for exports after 1870 we rely on Bonino et al (2015) until 1914 and on Bertola (1991) for the period 1914-1938.

### **Venezuela**

The Province of Venezuela always under the Spanish rule during the 16th and 17th centuries administered by the Viceroyalties of New Spain until in the early 18th century came under the jurisdiction of the Viceroyalty of New Granada (established in 1717). Like no other Spanish American dependency, Venezuela had more contacts with Europe through the British and French islands in the Caribbean. It became one of the first Spanish American colonies to declare independence (in 1811) but did not securely establish independence until 1821 (as a department of the federal republic of Gran Colombia, gaining full independence in 1830).

We prefer to use the exports and imports series in current dollars from Historical Statistics. United States of America (1909): *Statistical Abstract of Foreign Countries* for 1831-1900 and MOXLAD for 1900 to 1938 rather than the data from Baptista (1997) or Mitchell (2007) in bolivares, because no exchange rate with dollar is available before 1900. We deflate with the export and import price indexes by Baptista (1997 Cuadro F2, F3 y F4, pp. 310-315).

## **ASIA**

### **Afghanistan**

As far as we know, there are no trade statistics for Afghanistan. Only Von Neumann-Spallart (1885-1895) and the Statesman Yearbook (1913) venture to put forward very tentative figures, respectively for 1890-1894 and 1910-1912.<sup>69</sup> Unfortunately they are not consistent. On the eve of World War One, imports at current prices would be 20% lower, and exports 40% lower than twenty years before. In the same years, Afghan population increased by 15% and world-wide prices by 20%. Thus, the two estimates jointly imply a fall by 45% in imports and by 60% in exports per capita at constant prices and this is hardly plausible. Rather than trying to reconcile these figures, we prefer to trust the estimate from the Statesman Yearbook, which seems more plausible for a very poor, land-locked country. It corresponds to about 1.1 \$ per capita for imports and 0.9 for exports - i.e. 40% more than China in the same years. We extrapolate these figures over the whole period 1850-1938 with a geometric averages of three indexes – the population of Afghanistan, the total trade of Iran and the land trade between India and Afghanistan – in both cases at constant

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<sup>69</sup> Von Neumann-Spallart (1880-1895) does not supply any detail on his method, while the Statesman Yearbook quotes trade with India and Bukhara – i.e. Russian Central Asia. Imports from India in Afghanistan according to the Statistical Yearbook British empire (1900-1914) on the eve of World War One amounted to 0.97 \$ per capita and exports to 0.60. Needless to say, this estimate is exceedingly tentative.

prices, using imports (exports) of the trading partner as proxy for Afghan exports (imports) <sup>70</sup>. We thus obtain a series at constant price, which we convert in current prices with a geometric mean of the implicit price indexes for India and from Iran.

### **British Malaya**

The Malayan peninsula became a British crown colony in 1922, re-uniting several polities, which had fallen under (different levels) of British control in a complex historical process: i) the Straits Settlement (the three main ports, Malacca, Penang and Singapore), which had been managed by the East India Company since 1826 and had become a British colony in 1867; ii) the isle of Labuan, on the Borneo coast, which had been a separate colony from 1848 to 1890 and a part of British North Borneo (Sabah) from 1890 to 1905; <sup>71</sup> iii) four native states (Selangor, Perak, Negeri Sembilan, Panang), which had accepted an early protectorate in 1874 and had united in a Federation since 1895; iv) the state of Johore, which had accepted a protectorate in 1885 without entering the federation; v) four other native states (Kedat, Kelantan, Terengganu, Perlis), formerly under the Siamese king, which had become British protectorates in 1909. These latter states and Johore were known as Unfederated Malay states. Thus, in 1913 there were three formally independent polities - the Strait Settlements, the Federate Malay States and the Unfederated Malay states - and we should compute three different sets of series. However, this solution has proven to be impractical. In fact, separate data on trade by polity are simply not available after 1922. Furthermore, the rationale of treating the native states as independent polities is not really compelling, as their foreign and trade policy was under British control. We thus consider British Malaya as a single polity since 1850 – and correspondingly we assume trade at 1913 and current borders to coincide.

The United Kingdom (colonies). Statistical Yearbook (ad annum) provides a series of trade of the whole British Malaya, net of intra-Malayan trade, in 1913 and since 1915. We fill the gap for 1914 with the sum of trade of the Strait Settlements and “other Malaya” – as in 1912 and earlier years. From 1915 to 1922, the data include flows of bullion, which we subtract by assuming that they accounted for the same percentage of total trade as in the Strait Settlement. The series include transit trade, which of course was very substantial in Singapore, one of the busiest ports in Asia. Unfortunately, the Yearbook does not report data on re-exports for Malaya (and for few other minor polities) after 1913 as it does for all colonies. On the other hand, it is possible to obtain a crude estimate of the missing re-exports from the summary tables of the same Yearbook.<sup>72</sup> Furthermore, it is possible to estimate directly re-exports from data on commerce by product, available since 1890, under the fairly plausible assumption that intra-industry trade was minimal.<sup>73</sup> We thus divide the estimate by total trade, assuming no re-exports for other goods (Table A.1, Federico-Tena col a), or by trade in covered goods (col b) – the former being a lower and the latter an upper bound

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<sup>70</sup> The United Kingdom (colonies) *British Statistical Abstract from Colonies* reports data from 1891/92 to 1924/25. We reduce by a third the figures from 1891/1892 to 1899/1900, because a comparison between the 1890-1904 and later issues of the Yearbook suggest an overvaluation by the same amount. We assume that trade with Afghanistan accounted for 13% of land imports and for 15% of land exports before 1891/92 and for 10% of both flows after 1924/1925.

<sup>71</sup> We neglect this change and we treat Labuan as part of Malaya.

<sup>72</sup> In fact the Board of Trade states that “an approximate distribution of total export trade between exports of domestic produce and re-exports has been made for the purpose of the grand totals shown in the summary tables” for Malaya, Brunei, Sabah, Sarawak and Tongan Island (Yearbook 1931 p.ix). This estimate is clearly the difference between total re-exports and the cumulated re-exports from all other polities. We allocate this difference entirely to re-exports from Malaya, because the trade of the four other polities was very small.

<sup>73</sup> We estimate transit trade by summing imports of exportables (defined as products with a positive trade balance) and exports of importables (the goods with negative trade balance). The collection of data is limited to products exceeding 5% of imports and exports. Before 1923 the data (Statistical Yearbook of British Empire) refer to Strait Settlements only.

**Table B.1**  
**Shares of re-exports on trade of Malaya**

	Board of trade		Federico-Tena			
	Import	export	Import		Exports	
			a)	b)	a)	b)
1890			35.1	62.0	40.4	79.8
1894			35.4	70.9	42.6	78.8
1898			27.2	52.9	31.8	65.5
1901			32.7	56.6	38.1	63.2
1904			29.1	50.0	49.5	64.7
1909			36.9	52.8	41.1	63.5
1913	44.4	47.4	28.7	40.6	35.4	50.9
1917			26.2	34.0	27.2	34.3
1921			29.5	41.1	34.6	50.6
1923	38.8	33.4	23.3	30.1	25.5	32.6
1924	36.3	33.1	30.0	41.1	27.3	32.1
1927	35.1	33.1	35.9	49.0	33.8	39.9
1929	31.6	30.2	24.7	35.8	23.6	27.0
1933	31.9	30.1	30.1	43.4	28.4	40.7
1936	39.8	32.1	24.7	34.4	19.9	25.0

Source: see text

The two sets of series are remarkably and reassuringly similar. We thus feel confident to use the implicit estimate from the United Kingdom (colonies). Statistical Yearbook (ad annum) after 1922, while before 1913 we simply assume re-exports to have been equivalent to 30% of imports.

Before 1913, we estimate trade for British Malaya as the sum of three different series, for Strait Settlement and Labuan, for the Federated States and the Un-Federated States, net of intra-Malayan trade. We rely massively on the United Kingdom (colonies). Statistical Yearbook (ad annum), which reports series of trade of Labuan since 1852/1853, of Strait Settlements since 1858/59, of the Federates States since 1883 and of the Un-federated states since 1909.<sup>74</sup>

We start by estimating the series for the Strait Settlements and Labuan. First, we produce a continuous series in calendar years, by interpolating the missing figures with a TRAMO routine, adjusting to calendar years before 1867, and subtracting bullion and species as a fixed proportion of total trade (20% for the Straits and 10% for Labuan).<sup>75</sup> Second, we subtract the intra-Malayan trade. After 1867 we use the data (inclusive of bullion) from the Statistical Yearbook, reducing by the proportion of bullion on total trade. Before 1867, we assume intra-Malayan to have accounted for as 8% of total trade (net of bullion), as it was on average in 1867-1872. Finally, we have to subtract re-exports. We have only the figures from Table A.1, which are not too precise. We thus assume conservatively that re-exports accounted for 30% of imports in the Strait Settlement, net of

<sup>74</sup> All series in fiscal years ending April 30<sup>th</sup> until 1866/67 and in calendar years thereafter. Imports in the Strait Settlement are missing in 1859/1860 and 1860/61 and exports in 1859/1860. The data include bullion, which is reported in a separate table, with gaps from 1859/60 to 1862/63 and in 1865/66 and 1866/67. The series for Federate States before 1909 are expressed until 1908 in Strait dollars, a silver-based currency which remained legal tender until 1906. They are converted into sterling with data from United Kingdom (colonies) Statistical Yearbook.

<sup>75</sup> These shares, even if apparently too high, are slightly inferior to the actual percentage of bullion trade whenever computable with the available data.

imports from the Malayan states, and we subtract them from both imports and exports in the same year.

As said, the series for Federated States start in 1883, while data for the rest of the peninsula are available only since 1909.<sup>76</sup> By then, trade of the Unfederated states was very small – equivalent to 6% of imports and 1.5% of exports of the Federated states (and less than 1% of imports and exports of the Strait Settlements). The ratios were to rise quite fast in the next decades, up to over 90% for imports and to about 20% of exports in the early 1920s. We obtain a series for Unfederated states from 1883 by assuming the ratios to trade of the Federated ones to have remained constant at their level of the early 1910s. The Statistical Yearbook supplies data on intra-Malayan trade only for Federated States and only after 1905. We thus simply use our estimate for the Strait Settlements – i.e. we subtract export from the Strait Settlement from imports of the rest of Malaya and vice-versa.<sup>77</sup> In theory, this procedure omits flows between Federated and Un-federated states which did involve any of the Strait Settlements. However, these flows were in all likelihood negligible. For the same reason, we do not adjust for re-exports, which were surely negligible. This procedure yields a series since 1883, which we extrapolate backwards to 1850 with the series of trade of the Strait Settlements.

Our final series of trade for Malaya is thus the sum of the series for the Strait Settlement and “other Malaya” (the Federated and Unfederated states net of intra-Malayan trade) from 1850 to 1912 and in 1914 and the series for unified British Malaya in 1913 and 1915-1938.<sup>78</sup> We deflate it with a Federico-Tena index.<sup>79</sup>

### **Brunei**

The polity was a British protectorate after 1888. United Kingdom (colonies) Statistical Yearbook from 1909 to 1923 reports series of import and exports at current prices for 1911-1913 (in Strait dollars) and then since 1915 in pounds.<sup>80</sup> We convert the data in Strait dollars in pounds with the rate from GlobalFinancialData, we fill the gap for 1914 and we deflate the series with a geometric mean of our indexes for Indonesia and British Malaya. We extrapolate the series at constant prices from 1911 to 1850 with a geometric mean of three indexes (1911=1) – population growth, trade of British Malaya, and trade of Indonesia. Finally, we obtain a series at current prices 1850-1911 by reflatting with a geometric average of price indexes for Indonesia and British Malaya.

### **China**

The Imperial Maritime Customs started to collect and publish trade statistics for China in 1864. Hsiao (1974) has carefully re-worked the original data at (domestic) market values (Tab 1) to obtain series at cif/fob basis (Table 11).<sup>81</sup> The figures refer to current boundaries of China and thus they

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<sup>76</sup> All these series are net of bullion.

<sup>77</sup> This procedure yields implausibly low or even negative figures for imports in the early 1880s. We correct crudely by increasing them to the level of the late 1880s.

<sup>78</sup> The two methods can be used in 1913-1921. The results are fairly close: the average difference in 5% for imports and 5% for exports and the coefficients of correlation 0.998 and 0.971.

<sup>79</sup> The League of Nations (Review) reports a quantum series of exports for British Malaya, 1927-1937. The coefficient of correlation with our estimate is 0.61.

<sup>80</sup> The yearbook does not report data on re-exports in any year before 1938 and thus we omit the adjustment.

<sup>81</sup> Unfortunately, the author does not specify whether his revised series are net or gross of re-exports. On balance, the former hypothesis seems more plausible. The Imperial Maritime Customs, following the Anglo-Saxon system, included re-exports in trade, but reported them also separately - and indeed Hsiao (1974 tab 1) publishes series for “imports”, “re-exports”, “net imports” and “exports”, as well as columns for total trade (“net imports and exports”) and balance of trade. These two columns are net of re-exports. On this basis, we infer that the author deemed figures net of re-exports to be more representative of Chinese trade – and thus we hypothesise that he adjusted them in Table 11.

omit Manchukuo after 1932 (Hsiao 1974 pp.8-9) and are expressed in an unit of account, the so-called Haikwan tael. We convert them in dollars with the exchange rates tael-pound until 1879 and tael-dollar thereafter (Hsiao 1974 tab 9a). We deflate the data at current prices for 1867-1936 with the series by Hou (1965 table 52), which we extrapolate to 1938 with an indexes got from Germany (Statistical yearbook), 1939/40.<sup>82</sup> Finally, we adjust the series to 1913 boundaries by subtracting trade with Manchukuo (or Kwantung Lease territories, as they were called in Chinese statistics), since 1932 (Hsiao 1974 tab 6).

We extrapolate backwards these series at current prices to 1850 (for imports) and to 1830 (for exports) with two different procedures. From 1850 to 1864, we build an index of imports at current prices by summing up exports of opium from India (United Kingdom (colonies) Statistical Yearbook. and the total British exports to China (United Kingdom. Statistical Yearbook, while we proxy exports with the sum of imports from China to the United Kingdom, United States and France.<sup>83</sup> We extrapolate exports at current prices back from 1850 to 1830 with an estimate of the value of exports of tea and silk.<sup>84</sup> We deflate the export series with a Federico-Tena price index, while for imports 1850-1864 we estimate a Fisher price index with British export prices (Imlah 1958) and an index of Indian opium prices. We compute this latter by piecing together the unit value of exports from 1850 to 1855 (United Kingdom (colonies) Statistical Yearbook and the price in Bombay (Richards 2002 tab 5) for 1856-1867.

### **Dutch East Indies (Indonesia)**

Korthals Altes (1991 tab 1A, 1B, 2A and 2B) provides series of trade at current prices since 1822. They include transit (until 1914 for imports and until 1879 for exports) and, before 1874, refer to Java and Madura only. The source does not report any information about transit, while it does reports estimates of trade of the so-called “other islands” in 1849 and 1873 (Korthals Altes 1991 p.24). We interpolate and extrapolate them to obtain a series of the ratio of the share of Other Islands to trade of Java, which we use to compute the trade of the Other Islands. Deflation is an issue. There are three indexes at local prices for exports, by Korthals Altes (1991 Appendix A) for 1820-1938, Van Ark (1988 tab 4) for 1825-1938 and Federico and Chilosì (2013) for 1849-1913. The pairwise coefficients of correlation between these indexes are quite high, ranging, over the whole period, from 0.74 to 0.95. From the import side, however, we have only the index by Korthals Altes from 1925, and its movements are quite odd. In fact, import prices fell by two thirds from the 1820s to the early 1870s and by (almost) two thirds from the 1870s to World War One – i.e. a 90% collapse in a century. No other country features such a fast, steady and prolonged decline. One might explain the fall in the first period as a consequence of the abolition of the Dutch monopoly under the Cultivation System, but this explanation does not hold for the second half of the 19<sup>th</sup> century. Furthermore, the combination of stable albeit fluctuating, export prices and fast falling import price would yield a spectacular improvements in terms of trade. For these reasons, we have decided to use the index by Korthals Altes for exports, while for imports before 1913 we substitute it with a Federico-Tena index. This latter declines from the 1820s to the eve of World War One only by a quarter – i.e. slightly less than the index for India.

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<sup>82</sup> Hou revises the Nankai import and export prices to adjust them to import cif/export fob basis. The correlation with the index by Blattman et al 2007 for export only in 1860-1939 is negative (-0.12).

<sup>83</sup> All these data, including the American ones, are in gold currencies and thus they do not need a currency conversion. In 1864-1870, the United Kingdom officially accounted for 30% of imports (plus 42.5% via Hong Kong) and 63% of exports, the United States for 2% and 12% while France was included in a category “Continental Europe”, absorbing 4.5% of Chinese exports.

<sup>84</sup> We compute the value of exports of silk and tea by multiplying the quantities from Morse (1910, I p.366) by the British prices from Gayer et al. (1953), adjusted for freights. Morse reports five-years averages before 1842, which we convert into yearly data, for silk only, with the figures of British imports from Noel 1906 p.669. Silk and tea accounted for 83% of total exports in the late 1860s, the earliest available data (Hsiao 1974 tab. 3).

### **Formosa (Taiwan)**

Until 1896, Taiwan was a Chinese province. It became a Japanese colony in 1896, and thus, in our definition, a trading polity, after the treaty of Shimonoseki. We use the figures from Birnberg-Resnick (1975 tab A41)<sup>85</sup>. We deflate the series with the indexes by Mizoguchi (1974). We prefer it to the index by Birnberg-Resnick (1975 tab. A41) as this latter takes into account fewer goods and covers a shorter period – 1906-1936 for imports and 1900-1936 for exports. Anyway, these two indexes are almost identical, with coefficients of correlation 0.96 (imports) and 0.94 (exports) in levels and 0.93 and 0.89 in first differences. In theory, we should estimate trade at 1913 borders by adding the commerce between China and Taiwan before 1896, which would have been international trade after 1896. We omit this correction because we have no data on this flow.

### **French India**

[polity 1800 1938]

The series is based on French sources, France (Colonies). Statistical Yearbook (several years) for 1835-1881 and France. Statistical Yearbook (ad annum) thereafter, supplemented for few years with data from the United Kingdom (foreign countries) Statistical Yearbook (ad annum) and Von Neumann-Spallart.<sup>86</sup> The series is then extrapolated backwards to 1830 with the series of trade of British India.<sup>87</sup> We deflate the series with the price index for British India, adjusting for the movement of the exchange rate between French Franc and British pound.

### **French Indochina**

The French colonial authorities started to collect data on foreign trade of Indochina in 1877 publishing them in the France (Colonies). Statistical Yearbook and, since 1884, in France. Statistical Yearbook.<sup>88</sup> Before 1907, the figures, which are reproduced also by Mitchell (2007), exclude bullion but include transit. We compute this latter before 1907 by multiplying total trade by the ratio special/general – a simple linear interpolation between the share in the late 1870s (less than 2%) and in 1907 (about 20% of general imports and 13% of exports) in the mid-1900s. The League of Nation, Review (1938) publishes an index of prices for 1925- 1937: we extrapolate it forwards to 1938 and backwards to 1877 with Federico-Tena indexes. Finally we assume that from 1850 to 1876 per capita trade at constant prices remained constant and we obtain the corresponding series at current prices by reflatting the series with Federico-Tena price indexes.

### **India**

The East India Company started to register trade of its Indian domains very early. Chaudhuri (1982) reports data on trade for Bengal, from 1795/96 to 1803/04 (imports) or to 1805/06 (exports) and from 1812/13 to 1827/28 (tab. 10.3A), for Bengal, Madras and Bombay from 1828/29 to 1833/34

<sup>85</sup> These figures exclude bullion but in all likelihood they refer to general trade, as stated by the League of Nations, Yearbook (1942/44). There are no data on transit to correct this bias, which anyway is unlikely to be large. Mitchell (2007) reports different, and at times substantially higher figures, from 1896 to 1919. In some years, his data are rather implausible, as a simple comparison with trade of Japan, its colonial master and main trading partner can show. Total exports and imports of Taiwan (including trade with other countries) amounted to about 10% of Japanese trade before the war and in the 1920s but, according to Mitchell, they zoomed to 34% of Japanese imports and 28% of Japanese exports in 1915. One might argue that the war caused an exceptional rise in trade between Japan and its colony, but no such rise is evident in the trade of Korea.

<sup>86</sup> We use the British Abstract for 1859-1861, 1863-1865 and 1867 and Von Neumann-Spallart for 1875 and 1879-1880. In some years, the Statistique Coloniale reports only trade with France. We estimate the trade with countries other than France assuming that their share on total trade of the French India (including the trade with France) had remained constant.

<sup>87</sup> The coefficient(s) of correlation between trade of French and British India in 1882-1913 are 0.75 for imports and 0.86 for exports.

<sup>88</sup> We have preferred not to use the series by Bassino and Lan Huong (2000) because it is almost identical in most years and in the others it shows some implausibly large movements.



(tab. 10.5) and for the whole British India since 1834/35 (tab. 10.7). All these series are in rupees, a silver currency, but the United Kingdom (colonies). Statistical Yearbook (ad annum) conveniently reports the same series in pounds since 1850/51. Thus, sources are abundant, but they need some adjustments. In fact, all data refer to fiscal years, ending March 30<sup>th</sup>, and, while they exclude bullion, they exclude also trade via land frontiers (e.g. with Afghanistan and Iran), trade of native states (not formally part of British India) and, after 1937/38, trade of Burma.<sup>89</sup> On the other hand, according to the Anglo-Saxon definition of trade, they include transit. In particular:

i) we add land trade, which the Indian customs recorded from 1876/77 to 1924/1925<sup>90</sup>. We estimate land trade in the other years as fixed shares of sea trade – 10% for imports and 6% for exports until 1875/76 (as in the late 1870s) and 6% and 5% since 1925/26 (as in the early 1920s).

ii) we add an estimate of the trade of native states. The United Kingdom (colonies). Statistical Yearbook reports that in 1937/38 and 1938/39, it amounted to about 2.5% of commerce of British India. The percentage may seem too low, as the native states accounted for between a fifth and a quarter of the population of British India (Sivasubramanian 2000 tab.1.2). However, the data refer explicitly to the two only native maritime states, Travancore and Kathiawar. We infer that all the sea-borne trade of the other states flowed through ports of British (or Portuguese, or French) India, and thus was captured by trade statistics of other Indian polities. We thus increase trade of British India by 3% from 1850/51 onwards all over the period.

iii) We add the (sea-borne) trade of Burma, net of trade with British India, in 1937/38 and 1938/39, with data from Statistic Yearbook India.

iv) Finally, we subtract re-exports from both imports and exports (in the same year). The United Kingdom (colonies) Statistical Yearbooks. reports them separately in 1913/1914 and since 1922/1923, while in the missing years we compute them as exports times the share of re-exports. We obtain this latter from 1914/15 to 1921/22 by linear interpolation, while we assume it to have remained stable at 2% of exports until 1912/1913. Then we extend our series to 1799/1800 with the data for EIC territories from Chaudhuri (1982), implicitly assuming that these latter shared trends in trade with the rest of India. We convert Chaudhuri's figures from rupees to pounds with the series pieced together from different sources by Chilosì and Federico (2013). We fill the gap in the early 1800s with a TRAMO interpolation. Last but not least, we convert the whole series from 1799/1800 onwards from fiscal to calendar years by assuming trade to have been equally distributed in the year. As a last step, we have to deflate the series at current prices. As far as we know, there are five (sets of) prices indexes, by Williamson (2003) for 1800-1850, Chaudhuri (1982 tab 11.A1) from 1861 to 1947, Birnberg-Resnick (1975 Tab A 25) for 1880-1936, Blattman et al (2007) for 1861-1939, exports only, and by the Indian statistical office from 1923/24 onwards (League of Nations, Review 1938). Williamson (2003) and Blattman et al (2007) build a Laspeyres price index with British prices. Both Chaudhuri and Birnberg and Resnick use Indian prices, but we prefer the latter. In fact, it is a Fisher index for 48 products on the import side and 50 on the export side, while Chaudhuri is a simple un-weighted average of indexes for 28 imported goods and 11 exported ones. We extrapolate the series to 1938 with the index of the Indian Statistical office and to 1800 with Federico-Tena indexes.<sup>91</sup>

## **Iraq**

Our main source is the Trade statistics Iraq, which report data, in dinar, for 1921-1927 and 1932-1938. We convert the data in calendar years, subtract re-exports and compute the shares of trade with other former Ottoman territories.<sup>92</sup> We fill the gap for the period 1928-1931 with data from

<sup>89</sup> We neglect the acquisition of Danish Indies (the Andaman islands and the trading posts of Serampore and Tranquebar) in 1845.

<sup>90</sup> The source reports also data for 1937/1938 and 1938/1939, but they refer to trade with Afghanistan only

<sup>91</sup> We use data of composition of trade from Chaudhuri (1982). The correlation with an alternative index with composition from the Statistical Abstract British colonies (ad annum) is very high – 0.92 for imports and 0.95 for exports.

<sup>92</sup> The source reports only general trade, inclusive of transit, from 1921/22 to 1924/1925. Special trade is estimated by assuming that the share of transit was constant at its 1925-26 level. Data on trade with other

Mitchell (2007). We convert from dinar in dollar with data from the GlobalFinancialData until 1929, and from the League of Nations (1933-38), thereafter. We deflate with Federico-Tena price indexes.

### **Korea**

We use the series, at current and constant prices by Park and Kim (2009).<sup>93</sup> Their baseline estimate, which relies on official trade statistics, starts in 1884. Korea had opened to world trade few years earlier, in 1876, by signing a trade treaty with Japan. We extend the series to 1877 by extrapolating the baseline estimate with the “alternative” one by the same authors, based on a number of different sources, and we assume that trade in 1876 was half its 1877 level.

### **Japan**

Japan (1979) *The Historical statistics of Japan* reports series of trade at current prices since 1868 and at constant prices since 1874 (Vol III, tab 10.3 and 10.1), as well as series of exchange rate yen/dollar since 1874 ((vol III tab.10-11-a)).<sup>94</sup> We extrapolate the series of trade at current prices to 1860, the year after the opening of Japan, with the series from Mitchell (2007), which refer to Yokohama, Nagasaki and Hakodate only, and we extrapolate the exchange rate with the price of silver in dollar from Jastram (1981).<sup>95</sup> Finally, we deflate the series at current prices in 1860-1873 with Federico-Tena price indexes.

### **Manchukuo**

[polity 1932-1938]

League of Nations (1933-38), reports data of trade for Japanese-controlled Manchuria onwards, in yuan, separately for trade with (mainland) China and with all other polities, as well as data for re-exports until 1935.<sup>96</sup> We estimate these latter in 1936-1938 assuming the share on total exports to have remained constant at their 1932-1935 average. We convert in dollars with the exchange rates from League of Nations (1933-38) *Review of World Trade*, using the gold content of the yuan relative to the dollar as proxy for the exchange rate in 1913, which we need in order to estimate trade at constant (1913) prices. We deflate import with the index for (mainland) China, and exports with a Federico-Tena index.

### **Nepal**

The Kingdom of Nepal remained formally independent throughout the period, but there is no data whatsoever on its trade before 1938. We thus assume that in 1936-1938 per capita imports and exports was about a third of imports and exports of Afghanistan (as in the 1950s and 1960s) and we let them move as import per capita of Afghanistan. We obtain the series at constant prices by multiplying by the population and we reflate it with the price index for Afghanistan.

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areas of the former Ottoman Empire from Trade statistics Iraq are available from 1921/22 to 1927/1928 and for 1935-1938 – the gap is filled by linear interpolation.

<sup>93</sup> The coefficient of correlation between this new price indexes and the previous indexes by Mizoguchi (1974) is very high on the import side (0.96) but fairly low for exports (only 0.37).

<sup>94</sup> Until 1903, the Japanese trade statistics, reproduced by Mitchell (2007) and by Historical Statistics of Japan (1979 vol III, tab.10-3) registered imports at the port of shipment rather than cif in Japan, and omitted packing charges from exports. The coefficient of correlation between implicit price indexes from Historical Statistics of Japan (1979) and the index by Blattman et al (2007), when overlapping, is 0.762.

<sup>95</sup> The coefficient of correlation between this series and the exchange rate before 1893, when the yen was pegged to gold, is 0.995.

<sup>96</sup> The area was conquered by Japanese in 1932, and the Chinese trade statistics consider it as a separate polity (re-named Kwantung Lease Territory) in the second half of the year. Curiously, the League of Nations reports data since 1929. Anyway, we compute trade for Manchukuo in 1932 as half the League figure for the same year.

### **Ottoman Empire/Turkey**

Given the poor quality of the Ottoman trade statistics, Pamuk (1987 tab A.1.1) estimates trade at current prices from 1830 to 1913 by summing up the trade with the Empire from the statistics of neighbouring countries (Bulgaria, Romania etc.), of major Western countries (United Kingdom, France etc.) and the USA. After the war, we use the series from the Turkey *Statistics yearbook Turkey*, equal to Mitchell (2007). They start in 1923: we assume arbitrarily that trade in 1922, a year of war and political turmoil, was 80% of the commerce in the following year. The Pamuk series are in pound, while we convert the post-war figures from Turkish liras to dollar with the rates from the Germany *Statistical Yearbook* (1924-25, 1926 and 1930) for 1922-1929 and League of Nations (1933-38) *Review of World Trade* from 1930 to 1938. We deflate the figures for 1854-1913 with the Fisher price indexes by Pamuk (1987 tab. A.2.1). We extrapolate this index to 1850 for imports and to 1830 for exports with Federico-Tena indexes and we deflate with (different) Federico-Tena indexes also the post-war series. The Ottoman Empire has been spawning new polities throughout the period – Greece in 1832, Romania in 1859, Bulgaria, Cyprus and perhaps Montenegro in 1879, Crete in 1898, Libya and the Dodecanese (islands in the Aegean sea), seized by Italy, in 1912, Albania in 1913 and Syria/Lebanon, Palestine/Jordan, Iraq and the states of Arabian peninsula in 1918.<sup>97</sup> These changes have to be handled differently to estimate trade at 1913 boundaries before and after World War One. Before 1913, our series of trade at current borders include trade between the Empire and the new polities after they became independent, but it exclude the same flows while the new polities still belonged to the Empire. Vice-versa, the total (Turkish) trade statistics after 1918 include the commerce with the lost territories, which was still domestic trade before the war. Therefore, we could get series at 1913 borders before the war by adding (an estimate of) the bilateral trade with the new polities before their independence, while after the war we must subtract the bilateral commerce. Unfortunately, we have no data on bilateral trade between the Empire and the new polities in any pre-war year. We thus crudely estimate these flows before the independence as the population of the new polities times a tenth of the trade per capita of the Empire in the same years.<sup>98</sup> The coefficient implies that domestic trade equivalent to 10% of total Ottoman trade (scaled by population): of course totally arbitrary, but results not implausible and anyway the difference is small. From 1830 to 1858, when the Empire at its full extension (after the loss of Greece), our estimate of trade at 1913 borders is 6% higher than the estimate at current borders. The adjustment to 1913 boundaries after 1918 is comparatively straightforward. We simply subtract the trade with the lost territories from total trade of Turkey (*Statistical yearbook Turkey*).<sup>99</sup>

### **Palestine and Jordan (Transjordan)**

The Palestine. Statistical Yearbook (1928 and 1938) provides data at current prices, in Palestinian pounds (equal to British sterling), net of re-exports and of bullion, since 1923. It also provides data on trade with other new polities created in the territories of the former Ottoman Empire – Turkey, Syria, Iraq and the Arabian Peninsula. We obtain data for 1920-1922 from the United Kingdom

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<sup>97</sup> Both Romania and Montenegro are border cases. Moldavia and Wallachia, which were to constitute Romania, and some areas of Montenegro enjoyed a quasi-independent status although the Ottoman Empire did not formally relinquish its suzerainty until 1859 and 1879 respectively. We implicitly assume that the statistical offices of the Western states, which Pamuk has used to build his series, considered the official status of these areas rather than the situation on the ground and registered trade with them in the total trade of the Empire. We have decided to not to adjust for the (formal) loss of Montenegro because it does not feature in our data-base given its small size and the total lack of data. For the same reason, we ignore the Ottoman annexation of Qatar in 1871 and the loss of the Aegean Islands to Italy in 1912.

<sup>98</sup> We neglect the adjustment for Greece, whose independence had already been sanctioned by the Western powers and Russia in 1830, when our series for the Ottoman start.

<sup>99</sup> We ignore the trade with the new states of the Arabic peninsula (Yemen, Saudi Arabia, Qatar Sharjah) as the Yearbook does not quote it probably because the value of the flows was negligible. We use the 1923 shares for 1922.

(colonies) Statistical Yearbooks. For those years, we convert the data from fiscal to calendar year and we estimate re-exports and trade with former Ottoman areas as constant shares, at their 1923-1925 level. Finally, we deflate the resulting series with Federico-Tena price indexes.

### **Persia (Iran)**

The Persian statistics series start, as far as it is possible to ascertain from Western sources, in 1901<sup>100</sup>. We get the data at current prices (for years ending March 30<sup>th</sup>) from United Kingdom (foreign countries) Statistical Yearbooks. 1900-1912 and Mitchell (2007). However, the United Kingdom *Annual Statement of Trade* registered trade between Persia and the United Kingdom and Entner (1965) estimates a series of trade with Russia in gold roubles. We build an index of Persian trade as sum of these two flows and we use it to extrapolate trade backwards to 1850. We convert the data are in local currency, kran (renamed rial after 1930s). We build a series of exchange rates from two different sources, United Kingdom (foreign countries) Statistical Yearbooks (1900-1912 p.67) for 1901-1912 and the League of Nations (1933-38) *Review of World Trade* for 1922-1938. We interpolate linearly the rates in 1913-1921. Finally, we deflate the series with Federico-Tena indexes.

### **Philippines**

We use two different sources for our series of foreign trade of the Philippine at current prices – the book by Legarda (1997 tab. 1) who reports data from 1810 to 1895 and a working paper by Nagano (1997) for the period after 1898. We adjust the Legarda series by subtracting re-exports from imports in 1810-1820 and by interpolate the missing years (1811-1817, 1819-1824, 1826, 1832-1834, 1842, 1868-1869 ad 1871) with a TRAMO routine. We fill the gap 1896-98 with data from Mitchell.<sup>101</sup> The main source is a working paper by Nagano (1997), which reports series at current prices in pesos since 1855, with few gaps. We fill these gaps and we extend the series to 1850 with a TRAMO routine. The Philippines peso was a silver currency until 1903 and pegged to dollar at a fixed rate thereafter. We piece together a series of exchange rates using the data from Legarda (1997 tab 16 and 17), with interpolations and extrapolations, until 1903, the official parity with the dollar from 1904 to 1921 and the rates from the League of Nations (1933-38) after 1922.<sup>102</sup> We deflate the export and import series with a Federico-Tena index before 1901 and with the Fisher price index by Birnberg-Resnick (1975 tab A.37) from 1902 to 1938.

### **Portuguese India**

Ribero-Salgado (1939) provides series of current prices, in pound sterling net of bullion, but including re-export, after 1901, while Von Neumann Spallart (1880-1895) estimates trade in 1890-1893. However, we discard this figures as implausibly low – a mere 10% of the Ribero-Salgado ones. Thus we extrapolate the Ribeiro-Salgado series backwards to 1850 with the series for British India and we deflate the resulting series with the price indexes for British India.<sup>103</sup>

<sup>100</sup> Von Neumann Spallart (1880-1895) reports some estimates in the 1870s and 1880s, using different sources (including foreign trade statistics). We have decided to ignore them as they are about 2-2.5 higher than other estimates

<sup>101</sup> The figures for 1898, reported also by Nagano, refer to August-December period.

<sup>102</sup> Legarda reports series of exchange rate of the peso in pounds 1818-1898, with gaps in 1819-1828, 1830, 1832, 1885, 1891 and 1893-1896. The series feature a massive devaluation of the Philippine. currency in 1897, which coincides with a monetary reform, the final act of Spain as colonial power before the revolution. We thus interpolate the series by Legarda with a TRAMO routine, using the price of silver as auxiliary regressor, only until 1896. We extrapolate the series from 1810 to 1818 and from 1898 to June 1903 with the movements of price of silver (Jastram 1981). The gold peso was introduced in June 1903 at 2 pesos per dollar.

<sup>103</sup> The simple coefficients of correlation between the two series, when overlapping, are 0.65 for imports and 0.87 for exports.

### **Sabah (British North Borneo)**

The area, on the Northern coast of Borneo, became a British protectorate in 1888, but the United Kingdom (colonies). Statistical Yearbook (ad annum) publishes series of its imports and exports since 1884. They include bullion and re-exports and are denominated in Strait dollars until 1906. We subtract bullion and we convert the figures in pound with the official exchange rate from the Statistical Yearbook, while we do not adjust for re-exports.<sup>104</sup> We deflate the series with Federico-Tena indexes. We extrapolate the level of trade at constant prices in 1884 to 1850 with a geometric mean of three index (all with 1884=1) – the trade (imports and exports) of British Malaya, the trade of Indonesia and for the growth of local population. Then, we obtain the series at current prices by reflatting the data at constant prices with Federico-Tena price indexes

### **Sarawak**

Sarawak was an independent kingdom, ruled by a British dynasty, on the Northern coast of Borneo. United Kingdom (colonies) Statistical Yearbooks (ad annum) and later British Empire provides series of trade at current prices since 1883, in Strait dollars to 1906 and in pounds thereafter. We convert the data into sterling with the exchange rates from the same source and we deflate the series with Federico-Tena indexes. We obtain a series of trade at constant prices 1850-1884 by extrapolating trade in 1884 with a geometric mean of three index (all with 1884=1) – the trade (imports and exports) of British Malaya, the trade of Indonesia and for the growth of local population. We reflate the series to get series at current prices with the same set of Federico-Tena price indexes.

### **Saudi Arabia**

There are no data whatsoever on trade of Arabian peninsula, which, after the collapse of the Ottoman Empire, was divided in several tribal states (Hejaz etc.), to be formally unified only in 1932. We simply reproduce the series for North Yemen, which in 1951 had a comparable population of about 3.5 millions (Maddison 2010) and was similarly poor (the production of oil in Saudi Arabia started in 1949).

### **Siam (Thailand)**

Manarungsan (1989 tab A7) reports data of trade at current prices, in baht, from 1850 onwards. We subtract 3% for exports of bullion, included in 1885-1895, and we interpolate missing data (1851-1858, 1860-1861 and 1868-1869 for imports, 1851-1863 and 1868-1869 for exports) with a TRAMO routine. The baht was a silver currency, although until 1882 it was officially pegged to sterling at 8 baht per pound. We thus compute the exchange rate with dollar according to the silver content of the currency, valued at the US price of silver (Jastram 1980). The official peg was abandoned in 1883 and since 1902, the baht was slowly re-valued until 1908 when it was pegged again to the pound at 13 baht/pound. In those years, we use the official exchange rate (Manarungsan 1989 tab A 12), while after 1922 we prefer to use the series of the League of Nations (1933-38) *Review of World Trade*. We deflate the series at current prices with the price indexes by Birnberg and Resnick (1975 tab A. 50), which cover the period 1896-1938 for exports and 1905-1938 for imports. For imports, we extrapolate the series for imports backwards to 1865 with price series from Manarungsam (1989 tab A7) and then to 1850 with a Federico-Tena index. In contrast, from export side we use only the Federico-Tena index, as the series by Manarungsam remains suspiciously constant from 1865 to 1888.<sup>105</sup>

### **Sri Lanka (Ceylon)**

<sup>104</sup> The Statistical Yearbook does not report data on bullion trade in 1885-1890 and we assume it to have accounted for 15% of imports and for 5% of exports, as in the early 1890s.

<sup>105</sup> The coefficient(s) of correlation between the series of Manarungsan (1987) and Birnberg and Resnick (1975) when overlapping are very high (0.971 for imports and 0.981 for exports).

The series of trade at current prices, in pounds, are taken from the United Kingdom (colonies) Statistical Yearbooks (ad annum) and later British, Empire with few adjustments and additions. As for India, we subtract re-exports from both imports and exports with the data from the same source for 1913 and 1922-1938, while before 1912 we assume them to have accounted for 3.5% of exports (vs 3.76% in 1913). We subtract bullion from 1828 to 1850 by assuming its share to have been constant at its 1851 level. After 1891, we deflate the series with the Fisher price indexes for imports and exports from Birnberg-Resnick (1975 tab A 5), which we extrapolate to 1850 for imports and exports and to 1825 for imports only with Federico-Tena price index.<sup>106</sup>

### **Syria and Lebanon**

The series from France, Statistical Yearbook 1939, reproduced by Mitchell (2007), refer to general trade from 1920 to 1935, and to special trade in 1936-1938. In those three years, special trade accounted for 72% of imports and 62% of exports and we reduce by the same percentage the data on trade. The same source provides data on the percentage of trade with other former Ottoman territories after 1931. We assume that their shares in 1920-1929 were equal to their average in 1931-1933. We convert the data in dollar with the exchange rate of the French Franc and we deflate with Federico-Tena indexes

### **Yemen (North)**

North Yemen became an independent kingdom in 1918, after the collapse of the Ottoman Empire, while the South Yemen (the area around Aden) had been a British protectorate since the 1830s. The North Yemen did not publish any record of its international trade, but the Statistical Yearbook of the British Empire reports data of trade by land of Aden. We use imports (exports) via land as proxy for total exports (imports) of North Yemen, which was likely to use the port of Aden for most of its trade. This is clearly a very tentative assumption as Aden may have traded by land with Saudi Arabia, or North Yemen may have traded also by sea from its own ports or by land with Saudi Arabia. However, without any further information, we refrain from correcting the data. We deflate the series with the Federico-Tena index for Somaliland, which seems to have been pretty similar country to North Yemen in terms of resource endowment and level of income.

## **EUROPE**

### **Albania**

Albania became independent in 1913, but foreign trade statistics are available only since 1920, from the League of Nations (1925), and Mitchell (2007). We estimate trade in 1913 by assuming it to have been equal in constant value to its level in 1920-1922 (population was 4% lower according to Maddison). The sources quote data in “gold Francs”, which we convert in dollars before 1933 at the pre-war parity (5.18 Francs per dollar)<sup>107</sup>. After 1933 we adjust for the devaluation of the dollar with the series of the League of Nations (1933-38). We deflate the data at current prices with Federico-Tena price indexes, adjusting for changes in the gold price of pound in the 1930s (from E-net).

### **Austria**

We obtain a series at current prices, net of bullion (“gold and silver”), for 1920 and 1922-1937 from Statistics Yearbook Austria and we interpolate it in 1921 with the figure from Mitchell

<sup>106</sup> The coefficient of correlation with the Blattman et al (2007) series for exports is 0.529

<sup>107</sup> Although the source do not specify whether it was pre or post-war parity (25.51 FF/\$), we have opted for the former solution and the post-war parity yields an implausibly low level of trade

(2007)<sup>108</sup>. The data are expressed until 1923 in gold kronen (i.e. at the pre-war gold parity with dollar) and then in shilling, which we convert in dollars with rates from Statistical Yearbook Germany (1924-5, 1926 and 1930) until 1929 and from the League of Nations (1933-38) *Review of World Trade* after 1929. We deflate this series at current prices with the unit values series from the United Nations (1962) for 1922-1937, which we extrapolate backwards to 1920 with a Federico-Tena price index, adjusting for the devaluation of pound sterling relative to dollar before 1925.<sup>109</sup> As explained in more detail in Appendix B, the adjustment of trade of successor states to their 1913 borders (i.e. to the boundaries of the defunct Austrian-Hungarian Empire) involves two distinct operations. First, we subtract trade with areas which belonged to the dual monarchy in 1913 – i.e. the total bilateral commerce with Czechoslovakia and Hungary and an estimate of trade with the former Austrian territories of Poland. This latter is assumed to account for a third of total trade between post-war Austria and Poland (coefficient  $\alpha$  in Appendix B), according to the share of former Austrian territories on total Polish population after the war.<sup>110</sup> Then we add an estimate of the trade between former Austrian territories and the rest of post-war Poland, which would have been international trade at 1913 borders. Unfortunately, we do not have any data on domestic trade within Poland after the war. Thus, we augment the estimated bilateral trade between the rest of post war Poland and Austria by 10% - i.e. the share of Galicia (the former Austrian territories transferred to Poland) on total Austrian GDP before the war (Schulze 2007 tab 4). However, this figure refers to the whole trade between Galicia and the three successor states: we assume that the share of Austria was equal to its percentage on the combined GDP of Austria, Hungary and Czechoslovakia (Maddison 2010).<sup>111</sup> The data for 1920-1921 are missing and so we use the estimated coefficient for 1922.

### **Austria-Hungary**

The series of Austro-Hungarian trade from Mitchell (2003) cannot be used as such for two reasons. First and foremost, before 1875, the statistical office updated prices only occasionally (e.g. in 1852, 1858, 1863) and for some items only (Lampe 2005), so that the figures are an unknown mix of current and constant prices. Second, the geographical coverage does not coincide with the territory of the Empire. The series data omit Dalmatia before 1880 and Bosnia-Herzegovina before 1908, although the former had belonged to the empire since the late 18<sup>th</sup> century (but for a spell of French rule under Napoleon) and the latter had been an Austrian protectorate since 1879.<sup>112</sup> Therefore: i) we estimate new series of trade at constant prices from 1831 to 1913 by multiplying 1913 prices by yearly series of quantities of major commodities (Statistical yearbook Austria and Statistical Yearbook Hungary). The set of products differs in time, accounting for 30.2% of imports and 22.8% of exports in 1831-1840, for 39.2% and 29.4% in 1841-1850, for 42.4% and 39.2% in 1851-1872 and for 47.1% and 44.5% in 1873-1917.

ii) we use the official series of trade at current prices from Mitchell for the period 1875-1913 and we extrapolate them backward to 1831 with a new index, which we obtain by multiplying the quantities times the British prices, adjusted for changes in freights.

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<sup>108</sup> Figures from Mitchell and Statistics Yearbook Austria, gross of bullion, are equal in all years but 1925. The series of the League of Nations is slightly different.

<sup>109</sup> This adjustment is necessary as all figures are expressed in gold-based currency, (pre-war) gold crowns from 1920 to 1923 and (gold) shilling after 1924. Ivanov-Morys have estimated an index of prices for Austria with British prices: the coefficient of correlation, 1920-1937, is 0.96 with our unadjusted series and 0.89 with the adjusted.

<sup>110</sup> Cf. for references the discussion under Poland above.

<sup>111</sup> Thus, with the notation of Appendix B, the coefficient  $\alpha$  is 33%, the coefficient  $\gamma$  is 10% and the coefficient  $\sigma$  varies yearly.

<sup>112</sup> We do not add Bosnia-Herzegovina before the congress of Berlin, as it still belonged to the Ottoman Empire. Likewise, we do not correct for the transfer of Lombardia (1859) and Venetia to Italy (1866).

- iii) We extend the series to 1830 by assuming that in that year trade was 2% lower than in 1831 and from 1913 to 1918 with the data from Schulze (2005 tab.3.21).<sup>113</sup>
- iv) We add trade of Dalmatia from 1830 to 1879, and of Bosnia-Herzegovina from 1880 to 1907, respectively as 2% and as 1.5% of total trade.<sup>114</sup>
- v) We convert the series into dollars, using before 1914 the cross-rate between sterling and (differently denominated) Austrian currency (Denzel 2010 tab 5.1) and for 1914-1918 the exchange rates from GlobalFinancialData.

### **Belgium**

Belgium became officially independent in 1830 and it started to publish trade statistics the next year. However, they overstated the amount of trade by including some transit trade. Horlings (2002) has recently published series at current and constant prices, correcting for this overvaluation, since 1835 (with a break for 1914-1918). We extrapolate his series at current prices backwards to 1831 with data from Trade Statistics Belgium (1914). We deflate the resulting series in 1831-1835 with a linear interpolation of the implicit price indexes for import and export in 1831 and 1837 by Capelle (1938). We assume that trade in 1830 was 5% lower than in 1831.<sup>115</sup> We obtain the series of exchange rates from three different sources, the GlobalFinancialData for 1831-1919 (substituting the gold parity to market exchange rates from 1861 to 1878), the German Statistic yearbook (1924-25, 1926) for 1920-1926 and the League of Nations (1933-38) *Review of World Trade* (ad annum) since 1927.

### **Bulgaria**

Bulgaria became independent after the Berlin conference in 1878. We build our series of its trade at current prices from three different sources, Mitchell (2007) for 1870-1886, the data-base by Morys and Ivanov for 1887-1919 and the League of Nations (1933-38), and League of Nations (1925). This latter is the only series which explicitly excludes bullion. We convert the figures in leva into dollars with the series by Dimitrieva and Ivanov (forthcoming). It starts in 1886 and thus we extrapolate it backwards to 1879 assuming that the agio increased from zero in 1879 to 6.5% in 1886. We deflate the resulting series at current prices with a Federico-Tena index.<sup>116</sup>

### **Crete**

We consider Crete as an independent polity as it was an international protectorate from 1898 to December 1913, after having been a Turkish province and before being annexed to Greece. Indeed, the United Kingdom (foreign countries) Yearbook (1912) publishes series of trade for 1901-1911 in pound sterling. We extend them back to 1898 and forward to 1913 assuming trade to have been constant at the level of 1901 and 1911. We deflate imports with an average of the indexes for Greece and Cyprus, and exports with the price of olive oil, the sole staple of the island.

### **Cyprus**

Cyprus became a British protectorate after the treaty of Berlin (1878), but the Statistic Yearbook British Empire (ad annum) publishes trade data only since 1883-1884. We extrapolate the series to 1880-1881 with the figures by Mitchell (2007), inclusive of bullion, and then to 1878-1879, assuming arbitrarily that trade was growing at 10% per year, as in the early 1880s. We subtract re-exports, with data from the United Kingdom (foreign countries) Yearbook: we estimate the missing years (1879-1912 and 1914-1921) as 4% of exports in the same year. Finally, we deflate the series with Federico-Tena price indexes

<sup>113</sup> We compute the total trade of 1918 as 12/10 of the figure in the table, which refers only to the first ten months of the year.

<sup>114</sup> The figure for Dalmatia is the share on GDP of the Austro-Hungarian empire in 1870 and 1880 (Schulze 2007 tab.4), while for Bosnia we halve its share on total population of the empire (data from Mitchell 2007, linearly interpolated).

<sup>115</sup> Note that the series for the Netherlands 1800-1815 do not include the Southern Low Countries – i.e. the future area of Belgium.

<sup>116</sup> The coefficient of correlation with the Ivanov-Morys index of export prices is 0.666 with our currency-adjusted series and 0.833 with the un-adjusted one



### **Czechoslovakia**

We obtain data at current prices (excluding bullion and precious metals, but including improvement) from 1922 to 1936 from Statistics Yearbook Czechoslovakia 1936, while the figures for 1937 are from Mitchell (2007). We estimate trade at 1913 borders with the procedure outlined for Austria, with data on trade with Austria, Hungary and Poland from Statistics Yearbook Czechoslovakia (1936). Then we convert the Koruna into dollars with the series from the Statistical yearbook Germany (1924-1925, 1926, 1930) until 1929 and with the League of Nations (1933-38) from 1930 to 1939. The League of Nations (1938) publishes official indexes of prices of imports, 1923-1937, and exports, 1923-1932. We extrapolate forward this latter to 1937 and both indexes backwards to 1913 with Federico-Tena price indexes.

### **Denmark**

Johansen, in his well-known collection of Danish historical statistics (1985, pp.186-189), reports series of trade at current prices, in kroner, since 1818 for exports and since 1841 for imports.<sup>117</sup> We piece together a series of exchange rate of the Danish currency (called rigsdaler until 1874) with dollar from 1848 onwards by joining a cross rate with sterling from Denzel (2010 tab.9.1) until 1913, and the direct rates from GlobalFinancialdata, for 1914-1919, Statistical Yearbook Germany (1924-1925, 1930) for 1920-1929 and League of Nations, Review (ad annum) for 1930-1938. We extrapolate the series from 1848 to 1818 with the exchange rate with the Hamburg Banko, a silver-based currency (Denzel 2010 tab. 9.1) times the price of silver in the United States (Jastram 1981 tab.15). The series are then deflated with the price indexes for import and export from Johansen (1985 pp.216).

### **Estonia**

We take the series of trade at current prices, in millions kroon, from League of Nations (1925), *Memorandum on International Trade and Balance of Payments* for 1920-1922 and from Trade statistics. Estonia (1938) for 1923-1938. We convert into dollars with exchange rates from Statistic Yearbook Germany (1924-1925, 1926 and 1940) for 1921-1929 and then to 1938 from the League of Nations (1935 and 1938).<sup>118</sup>

As Estonia before 1913 was entirely within the borders of the Russian Empire, we compute its trade at 1913 borders by subtracting trade with Latvia, Lithuania, the Soviet Union and the former Russian territories of Poland according to Trade Statistics. Estonia (1938).<sup>119</sup> We deflate the series with official indexes of import and export prices, 1925-1938 (the League of Nations (1933-38), which we extrapolate backwards to 1913 with Federico-Tena indexes

### **Finland**

Since 1809, Finland was a Grand-duchy, with the Russian Emperor as Grand duke. Indeed, Mitchell (2007) reports series of trade at current prices in markka since 1812, which after 1859 coincides with the series available in the standard estimate of Finnish national accounts (Hjerrpe 1996 pp.141-143). Since 1864 we convert the markka into dollar with rates from Autio (1992). The markka had replaced the rouble as currency in Finland four years earlier, at a fixed ratio. We hypothesize that Mitchell's series were originally in roubles and thus we extrapolate backwards our exchange rate from 1864 to 1812 with the gold content of paper rouble by Mironov.<sup>120</sup> We deflate

<sup>117</sup> We use the nominal (rigsdaler) series. The series for exports is highly correlated with the price index by Blattman et al (2007) from period 1860 to 1939 (coefficient 0.956).

<sup>118</sup> The German Statistic Yearbook does not quote the rate for 1920, which is computed by extrapolating the rate for 1921 with the change of the inverse of the exchange rates from GlobalFinancialData. This latter is expressed as US cents per kroon rather than as currency per US dollars, as it should be the rule in that source.

<sup>119</sup> We assume shares in 1920-1922 to have been equal to those in 1923 and that former Russian Poland accounted for 55% of post-war Polish trade (cf. the discussion about Poland)

<sup>120</sup> We adjust for the sudden change in 1840. The series is available at Global Price and income history group, <http://ghip.ucdavis.edu>, accessed 10 June 2010.

the resulting series with the price indexes from Hjerppe (1996). The series starts in 1860 for exports and in 1865 for imports: we extrapolate backwards exports to 1812 and imports to 1850 with Federico-Tena price indexes.

### **France**

France started to collect trade statistics well before 1800, but the retrospective section of the Statistical Yearbooks (1951 pp.189\*-190\*) publishes a complete series only since 1827. We extend it to 1800 with the series from Levasseur (1911 vol.II pp.100 and 148), which are identical to the figures in Mitchell (2007). From 1827 to 1846, trade was evaluated on the basis of 1826 prices ("valeurs officielles"), as stated by an "ordonnance royale de 1826" (Trade Statistics. France 1827-1836 and 1847-1856 p.XIV). The data exclude bullion throughout the period, but they include transit before 1824 and exclude improvement trade from 1857 to 1929 (White 1933 p. 36, Trade Statistics France 1930 fn 1 p.18).<sup>121</sup>

Thus, in order to obtain consistent series of French trade at current and constant prices:

- i) we estimate transit before 1824 as a fifth of general trade, according to the ratio special/general trade in 1825-1830 (0.76 for imports and 0.83 for exports) and we subtract this estimate from the available figures
- ii) we add improvement trade from 1857 to 1929, with data from Trade Statistics France (1857-1866, 1867-1876 and 1877-1886 and 1914-1929) and White (1933 p.36).
- iii) we deflate data 1800-1826 and we reflate before 1847, with Federico-Tena indexes.<sup>122</sup>
- iv) we deflate the official series at current prices from 1847 onwards. To this aim, we could use the price indexes by Levy-Leboyer (1970) for 1809-1925, Flux (1900) for 1847-1898, de Foville (1912) for 1881-1910, White (1933 pp. 232-233) for 1880-1913, Villa (1993 p.445) for 1896-1938 and the official French trade statistics from 1923 to 1938 (League of Nations (1933-38). Table 1 reports the pairwise coefficients of correlation between these series, when they overlap (coefficients for imports in italics).

Table 1

Coefficients of correlation, indexes of prices of French imports and exports

	Flux	De Foville	White	Levy-L	Villa
Flux		0.999	0.984	0.998	-0.090
De Foville	<i>0.987</i>		0.961	0.966	0.794
White	<i>0.947</i>	<i>0.743</i>		0.976	0.794
Levy-Leboyer	<i>0.994</i>	<i>0.904</i>	<i>0.946</i>		0.974
Villa	<i>-0.340</i>	<i>0.037</i>	<i>-0.580</i>	<i>0.938</i>	

The coefficients are quite high between all pairs, which do not include the series by Villa (1993).<sup>123</sup> This latter is also poorly correlated with the official series in 1923-1938 (0.22 for imports and 0.21

<sup>121</sup> White (1933 pp.36-39) states that trade figures were biased downward, because unit values in trade statistics were lower than market prices for the same goods and mail parcels were assessed at a uniform, very low, rate. He suggests to increase imports by 3% and exports by 5-15%. He does not bring much quantitative evidence for this claim, which seems less plausible for France than for other countries. In fact, unit values were set by a committee of experts rather than declared by traders, who might have some incentive to hide part of their turnover. We prefer not to follow his advice, consistently with our overall policy not to correct official data unless there is very strong evidence for such a move.

<sup>122</sup> We prefer this solution to the alternative of using the series by Levy-Leboyer (1970) because this latter starts only in 1809 and his sources in 1827- 1847 are unclear. As Toutain (1997) somewhat unhelpfully reminds, no prices were collected (or otherwise estimated) and thus Levy-Leboyer is likely to have used domestic rather than border prices. The coefficient of correlation between the two estimates from 1809 to 1847 is anyway quite high (0.86 for imports and 0.81 for exports).

<sup>123</sup> The high correlation between indexes by Villa and Levy-Leboyer is only apparently an exception, as it depends on trends during the war. In fact, the coefficients for 1896-1913 are 0.20 for imports and 0.84 for exports

for exports). Thus we use the series by Levy-Leboyer (1970), the longest one, from 1847 to 1925 and we extrapolate them to 1938 with the official series.

vi) we convert the data in Francs into dollars with a new series of exchange rates, which we piece together with data from Denzel (2010), tab 6 for 1800-1913 (using the cross-rate with the pound in 1800-1878, and interpolating some years with a TRAMO routine), GlobalFinancialData for 1914-1919, Statistical Yearbook. Germany (1924-1925, 1926 and 1930) for 1920-1929 and from the League of Nations (1933-38) from 1930 to 1938.

### **Germany**

The main source for German trade data is the reconstruction of national accounts by Hoffman et al (1965 tabs. 125 and 129). It publishes series of imports and export at constant prices for 1836-1913 and 1925-1938 and at current prices for 1881-1914 and 1923-1938. However, as pointed out by Lewis (1981 pp.29-30), Hoffmann et al (1965) have taken the official data at their face value without trying to correct two major shortcomings, the addition of transit in 1872-1879 (which causes a spurious boom in trade and a similarly spurious collapse in 1879) and the failure to adjust for changes in borders, which causes a spurious increase in commerce every time a polity joined the Zollverein. Thus, we use the Hoffmann (1965) series data without further change since 1923 (current prices) or 1925 (constant prices), while we re-estimate the series for the previous periods.

i) We compute series of imports and exports at 1913 prices by extrapolating the 1913 level from Hoffmann et al (1965) with a series of yearly changes. We obtain this latter for 1836-37 to 1855-56 from the estimates by Borries (1970 tab.11), while for the period 1856-57 to 1912-13 we use different sources. For export, we can rely on the estimates by Lewis (1981), while for imports there we have no alternative but to use the series by Hoffmann et al. (1965). We correct this latter for the spurious inclusion of transit by arbitrarily assuming that imports increased by 3% both in 1871-1872 (rather than growing by 22%) and in 1879-1880 (rather than falling by 26%).

ii) We compute trade at current prices by reflating the series at constant prices with indexes for imports and exports. For the sake of consistency with the estimate at constant prices, we use the implicit prices from Hoffmann et al (1965) for imports and Lewis (1981) for exports. The former series starts in 1880, the latter in 1847: we extrapolate both series to 1836 with a Federico-Tena price index computed, unlike other ones, with domestic prices from Jacobs-Richter (1935).<sup>124</sup>

iii) As far as we know, no German source is available for trade before 1836. We estimate exports at current prices since 1821 with an index of imports from Prussia into France, United States and (since 1831) Belgium. We deflate this series with a Federico-Tena price index based on German prices from Jacobs-Richter (1935).<sup>125</sup>

iv) The German Statistical Office ceased to publish trade data in 1913, but for the five war years we can rely on the estimate at current and constant (gold) marks by Hardach, as reported by Ritschl (2005 tab. 2.7). As far as we know, there are no data for 1919, while the German Statistical Yearbook (1924-1925) estimates trade at 1913 prices for 1920-1924 and the United Nations (1962) report series (allegedly) in gold dollars at current prices since 1921. However, we suspect that the United Nations have simply converted in gold dollars the data in pre-1913 (gold) marks because the implicit price index barely changes (except for exports in 1922). Thus, we prefer not to use these data. We obtain a series at current prices for 1920-1923 by reflating the data from German Statistical Yearbook with Federico-Tena price indexes. We crudely estimate trade in 1919 with linear interpolation.

Our method of estimation yields a series at 1913 borders, under the assumption that all territories of 1913 Germany shared the same percentage change in total trade. Thus the series undervalue trade, relative to an ideal series at current borders, by the amount of the trade between German polities before their accession to the Zollverein, which we treat as a single trading policy.<sup>126</sup> Unfortunately, there are no data on these flows, as the Zollverein statistics do not report data on value of trade before 1881. We thus omit this correction. In contrast, we do estimate trade at 1913 borders for Germany after World War One. To this aim, we subtract 15% of trade with Poland (the share of former German territories on post-war Poland) and the whole trade with Danzig and the

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<sup>124</sup> We have also computed a standard Federico-Tena index with British prices: for the same period, if adjusted to local currency, the coefficient of correlation with the Jacobs-Richter price index is 0.63 for imports and 0.66 for exports. We cannot use Borries (1970) as he reports data at current prices only for three-year averages.

<sup>125</sup> We have also computed a standard Federico-Tena index with British prices. If adjusted to local currency, with the silver Thaler/gold ratio, the results are quite similar (coefficient of correlation 0.76) but for an anomalous spike in 1826-1827.

<sup>126</sup> Hamburg and Bremen entered the German trade border only in 1888 – and thus we should also include the trade between them and the rest of the empire.

Saar, and we add 5% of the trade of the rest of Poland with Germany – the share of lost territories on pre-war Germany population<sup>127</sup>. The sources report data for 1920 and since 1922: we interpolate linearly the figures for 1921 and 1922 and we use the 1920 shares for 1919.

Last but not least, we convert the data in dollars. We use the exchange rates between the US dollar and the Reichsmark, 1874-1913 from Denzel (2010 tab. 4.4) and 1924-1938 from League of Nations,. For 1913-1923, we use the gold parity of the Reichsmark. We extrapolate backward the 1873 rate to 1836 with the exchange rate between Prussian Thaler and pound sterling (Denzel 2010 tab 4.4), correcting for the movements in the dollar/sterling rate. We use the 1836 rate for 1821-1836 as the underlying series are already in dollars.

### **Greece**

We get series of trade at current prices from 1849 to 1919, linearly interpolating the figure for 1850, from Mitchell (2007). These data are expressed in gold drachmas, equivalent to 1.12 French Francs until 1882 and to 1 Franc until 1913 (Petmezas 2011 p. 450 fn. 8). After 1920, we prefer to use the series of the League of Nations (1933-38) and League of Nations (1925), which explicitly excludes bullion. We convert the series in dollars with the rates for GlobalFinancialData for 1914-1919, Statistical Yearbook. Germany (1924-25 and 1930) for 1920-1929 and the League of Nations (1933-38) for 1929-1938.<sup>128</sup> We estimate trade at constant prices with Federico-Tena price indexes.<sup>129</sup>

Greece increased hugely its territory and population from its independency to the 1920s. However, almost all these gains were obtained at the expense of the Ottoman Empire and thus do not fall in our definition of boundary changes (Appendix B). The two exceptions are the annexations of the Ionian Islands in 1862, formerly a British colony, and of Crete, which had seceded from the Ottoman Empire in 1897, becoming officially an independent polity, in 1914. However, in order to compute Greek trade at 1913 borders we have to treat them differently, as their political status in 1913 was different. The islands were already a Greek province and thus we have to add their total trade, less after having subtracted 10% to take into account the trade with mainland.<sup>130</sup> In contrast, we have to reduce Greek trade after 1913 by the amount of trade originating in the island of Crete. We have no data on this latter, and thus we assume it to have accounted for 10% of total Greek trade, roughly the share of the Cretan population on Greek total.

### **Hungary**

The Statistics Hungary (ad annum) provides series of trade at current prices, in million gold kronen from 1920 to 1925 and then in pengos. Thus, we convert the data in dollars with the gold parity before 1925 and with the market exchange rate from the League of Nations (1933-38) from 1926 to 1938. We adjust trade at 1913 borders with the same procedure outlined for Austria. Finally, we deflate with the price indexes from League of Nations (1933-38). They cover the period 1923-1938 and we extend them back to 1920 with a Federico-Tena index.

### **Iceland**

The series of trade at current prices (Iceland Historical Statistics 1997 tab.10.23) start in 1849. We interpolate the gaps in 1850-1855 and 1856-1861 with a TRAMO routine. Iceland issued its own currency, the Icelandic Krona, only since 1874 and it remained pegged to the Danish one until 1918. We thus use the exchange rate for the Danish Krona until 1918 and the rates for Iceland from

<sup>127</sup> We estimate this share (the coefficient  $\gamma$  in Appendix B) with the population of these provinces on the total of the Empire in 1913 – about 5.5 millions out of 65 (German Statistical Yearbook 1915 p.3).

<sup>128</sup> The series of GFD starts only in 1901 and before the war is deeply flawed. In 1901, the exchange rate would be about twice its gold parity (2.8 drachmas per dollar vs. 5.2 francs per dollar).

<sup>129</sup> The coefficients of correlation of our index for exports with the indexes by Blattman et al 2007 and by Ivanov and Morys are high although not very high (0.87 and 0.79 respectively).

<sup>130</sup> The figure is crudely estimated from the shares of trade with Greece in 1858-1859 (Statistical Yearbook British Empire).

the GlobalFinancialData from 1919 to 1938. The same source reports series at constant prices since 1862 for exports and 1864 for imports: we compute the implicit price series, which we extrapolate to 1850 using the series of exports from Denmark for imports and vice-versa.

### **Ionian Islands**

These islands were a British colony from 1832 to 1862 and then they were ceded to Greece. United Kingdom (colonies) Statistical Yearbooks (ad annum) reports data of trade at current prices in pounds for 1850-1862, with a gap in 1860, which we interpolate linearly. As all statistics from that source, the data include transit trade, which must have very substantial. In fact, the figure corresponds, on average, to 21\$ imports and 13\$ exports per capita vs. 1.8 and 1 for Greece in the same years. Thus, we arbitrarily assume that re-exports accounted for two thirds of total imports and we reduce imports and exports by the same amount.<sup>131</sup> We deflate the series with the Federico-Tena indexes for Greece.

### **Ireland**

The Statistical Yearbook. Ireland (1938) reports series of imports for domestic consumption and exports of domestic products from 1924 to 1938. We extrapolate Irish imports and exports to 1923 with British exports and imports to Eire, augmenting by a quarter as the original figures (Mitchell 1988 p.511) refer to April-December only. Without any information, we simply assume that trade in 1922 was half the trade in 1923. We adjust to 1913 boundaries by subtracting trade with the United Kingdom from Statistical Yearbook. Ireland (1938). The series start in 1924 and we assume the shares to have remained constant since 1922. We convert in dollars with the exchange rate of sterling, to which the Irish punt was pegged. We compute trade at 1913 prices with the price indexes from Statistical Yearbook. Ireland (1938), extrapolated to 1913 with Federico-Tena price index.

### **Italy**

After the congress of Vienna, the Italian peninsula was divided in six independent polities, the Kingdom of Sardinia (which, in contrast with the official name, consisted mainly of Piedmont and Liguria), the Granduchy of Tuscany, the Duchy of Parma, the Duchy of Modena and Reggio, the Papal States and the Kingdom of Two Sicilies (including the Continental South and Sicily). Lombardy and Venetia, formally an independent kingdom, belonged to the Austrian empire and their trade was registered in Austrian statistics. We have estimated series of exports, 1823-1858, and of imports, 1850-1858 for these six polities. We discuss the work in detail in Federico-Tena (2013, Appendix). Here suffice to remind some key points.

i) We rely on available historical works for Sardinia (Romeo 1975), Tuscany after 1850 (Parenti 1959), the Papal States (Bonelli 1961), the Continental South (Graziani 1960) and Sicily (Battaglia 1983) and we estimate crudely the trade of the Duchies and Tuscany before 1850. These sources yield a series of trade at constant (1851) prices in local currency, which we convert in (1851) dollars with exchange rates from Giusti (1957)

ii) we build price indexes by extrapolating the series by Federico-Vasta (2010) for 1862-1913 backwards to 1823 for exports and to 1850 for imports with an average of price indexes of Italy's main trading partners. We use these series to convert the figures from 1851 to 1913 dollars and to compute series at current prices

iii) we estimate trade among Italian polities in 1850-1858 with a mix of direct information (for Continental South and the kingdom of Sardinia) and guesstimates and we subtract it from trade at current borders to get trade at 1913 borders

iv) there is no information on interregional trade before 1850: we simply assume its share on total exports to have remained constant at its 1850-1852 level.

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<sup>131</sup> The result corresponds to 3 \$ and 1.15 \$ per capita for imports and exports – still higher than in Greece but the gaps seems plausible.

The Italian wars started in April 1859, and all states but Sardinia ceased to register trade. However, the Sardinian figures for 1859 show a highly suspicious export boom.<sup>132</sup> On the other hand, Sardinian territory was not directly affected by war operations and thus we assume its trade to have remained constant in 1859 at its 1858 level and to have decreased by 10% in 1860. We also assume that trade declined by a similar amount in other polities if not directly affected by the war and by political turmoil (i.e. South and Papal States in 1859, Lombardo-Veneto, Tuscany and the Duchies in 1860) and by 20% in war-stricken polities (Tuscany and the Duchies in 1859, the Papal States and the South in 1860). Italy was re-unified in March 1861. The new kingdom included all the six independent polities, but for a rump Papal States (Latium), which remained independent until 1870, and the whole Lombardy. Venetia remained under Austria until 1866.<sup>133</sup>

The new Kingdom started to issue its trade statistics Italy already by 1861, but in that year records from Sicilian custom offices were incomplete and prices are not updated in the early years. We use the revised estimates by Federico and Vasta (2010) for 1861-1865 and the series by Federico et al. (2011) thereafter. We convert in US dollars with the exchange rates from Ciocca-Ulizzi 1990 tab.1.<sup>134</sup>

The resulting series omit Latium before 1870. The Trade Statistics Italy (ad annum) report data on the trade between the Kingdom and the Papal States (i.e. Latium) until 1870, while we estimate trade of the Papal States with the rest of the world by assuming that trade per capita had remained constant at its 1858 level.<sup>135</sup> We add all trade of Latium to the series of the Kingdom of Italy to get the series of Italy at current borders 1862-1870 while we compute the series trade at 1913 borders by adding only the commerce between Latium and the rest of world.

### **Latvia**

The Trade Statistics Latvia (1938) reports a series of foreign trade of Latvia at current prices from 1920. All the figures are in lat, the Latvian currency which had been introduced in 1922 and made convertible in gold in 1924. The source does not explain how the Latvian statistical office converted the original figures for 1920-1921 from Latvian roubles in lat. However, the 1922 parity (and thus the 1922 exchange rate with dollar) yields implausibly high estimates of trade. We thus assume that the figures before 1924 are in gold lat, while for 1924-1929 we use the exchange rates from Statistical Yearbook. Germany (1924-25, 1930) and thereafter the rates from League of Nations, Review (ad annum) for 1930-1939.<sup>136</sup> We adjust at 1913 borders by subtracting trade with Lithuania, Estonia, the Soviet Union and 55% of trade with Poland, the share of former Russian territories on post-war Poland, from the Trade Statistics Latvia (1938). This source does not report the distribution by country for imports after 1936 and for exports after 1935 and thus we use the latest available shares to estimate the missing years. Finally, we deflate the series with the price indexes from League of Nations (1933-38). They cover the period 1923-1938 and we extrapolate them backwards to 1920 with Federico-Tena price indexes.

### **Lithuania**

We take data at current prices in litas from the League of Nations, Yearbook (ad annum) for 1920-1922 and from Statistical Yearbook Lithuania (1938) thereafter. The source quotes data also for 1920-1922, when the lita had not yet been created. As for Latvia, we assume that the League of Nations used the gold parity of the lita to convert the original data. We use for conversion the

<sup>132</sup> In fact, exports allegedly increased by 68%, while imports only by 3%. The boom in exports reflects a whopping increase of exports of silk by 282%. In all likelihood, this was Lombard silk which was exported via Piedmont to avoid the war-related disruptions to trade.

<sup>133</sup> We ignore the impact on trade of transfer of Venetia, as it involved existing polities (Italy and Austria-Hungary). Likewise, we ignore the effect of the further transfers of territories from the dissolved empire to Italy after World War.

<sup>134</sup> We use the cross rate with sterling until 1878 and we fill a gap in 1919 with the rate from Global Financial Data.

<sup>135</sup> We estimate the population of Latium as a linear interpolation of data for 1861 and 1870 from SVIMEZ (1961 pp.12-13)

<sup>136</sup> The GlobalFinancialData data refer to US dollars per lat rather than to lat per US dollars, as for other countries, and diverge slightly from the League of Nations figures in the late 1930s.

exchange rates from Germany Statistical yearbook (1924-25, 1930) for 1923-1929 and League of Nations (1933-38) for 1930-1938.<sup>137</sup> We adjust at 1913 borders as for Latvia, assuming that the distribution by country remained constant from 1920 to 1924, and we deflate the data at current prices with Federico-Tena price indexes.

### **Modena**

See Italy

### **Netherlands**

The Netherlands started to publish its trade statistics as early as 1846, but until 1916 prices were updated haphazardly and the data included transit (Lindblad and Van Zanden (1989)). Thus the series were massively overvalued, by up to 2.3 times. Thus, for the period 1800-1913, we use the series of trade published by Smits et al (2000 tab H.1) as part of their estimates of Dutch national accounts. Thus, the figures refer to the Netherlands in its 1913 borders, excluding the present-day Belgium, which belonged to the Kingdom from 1815 to 1830. We interpolate 1800-1 and 1810-13 with a TRAMO routine and we extend to 1916 the series with a personal communication by the author. After 1917, and a thorough revision of the procedures, the series are considered reliable. We piece together series of exchange rates of gulden with the US dollar with cross-rates with the pound from Denzel (2010 tab.2.1) for 1800-1807 and 1813-1913, Globalfinancialdata for 1808-1812 and 1914-1919, Germany Statistical yearbook (1924-1925, 1926 and 1930) 1919-1929 and the League of Nations (1933-38) for 1930-1938. Similarly, we piece together series of import and export prices with the data by Horlings (2002) for 1800-1850 (interpolating the same years as current prices), Smits (1995) for 1850-1913, Federico and Tena for 1914-1920 and the Netherlands. Yearbook (1951) for 1921-1938.

### **Norway**

Trade Statistics. Norway (2010) and Mitchell (2003) publish series of Norwegian general trade since 1851, but Mitchell warns that until 1865 the data “are calculated on the basis of fixed estimated prices”. As an alternative, one could use the series from the recent estimate of national accounts by Grytten (2003 tab. 5 and 6). However, they include at transit and trade in services, which was quite substantial.<sup>138</sup> Therefore we use the series by Grytten to extrapolate backwards the series at current prices from 1866 to 1830, reducing the figures by 5% in order to take transit into account. We deflate the data with the series by Klovland (2013 tab A3) until 1920, extrapolated to 1938 with the series of unit values from Historical Statistics Norway.<sup>139</sup> Finally, we convert the Norwegian Krona in dollars with the exchange rates from Klovland (2004 tab A.1).

### **Papal States**

See Italy

### **Parma**

See Italy

### **Poland**

Poland. Statistical Yearbooks (1924, 1927, 1929, 1930) and the Trade statistics Poland (1933, 1935 and 1938) publish series of trade in zloty from 1922 to 1938, which are then reproduced by Mitchell

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<sup>137</sup> According to the League of Nations, the litas remained at its gold parity throughout the period, re-valuating relative to the dollar. The GFD data are expressed US dollars per litas rather than as currency per US dollars, as for other countries, but if corrected, are almost identical (the coefficient of correlation is 0.998).

<sup>138</sup> When overlapping, in 1866-1875, the Grytten (2003) series exceed the Trade Statistics Norway by 30% for imports and by 90% for exports.

<sup>139</sup> The coefficient of correlation with the price index for Norwegian exports by Blattman et al (2007) is 0.63 1870-1939



(2007). The zloty was introduced only in 1924 and was stabilized only three years later (Feinstein-Temin and Toniolo 1997). As for Baltic countries, we hypothesize that figures for 1920-1922 were converted in zloty at its 1924 parity and we convert the figures into dollar in 1924-1929 with exchange rates from Statistical yearbook Germany (1924-25, 1926, 1930) and for 1930-1938 from League of Nations, Review (ad annum) for 1930-1938. Finally, we deflate the series with Federico-Tena price indexes for imports and exports. We estimate trade of “Poland” after the war at 1913 borders according to the procedure outlined in Appendix B. First, we subtract trade between former German, Russian and Austrian territories in post-war Poland and Germany, Russia or successor states of the Austro-Hungarian Empire, which would have been domestic trade at 1913 boundaries. We lack any data on foreign trade by (post-war) Polish regions and thus we assume that foreign trade distributed among them according to their population. German, Russian and Austrian territories accounted for respectively 14.5%, 57.1% and 28.4% of Polish population according to the 1921 Census (Statistical Yearbook Poland 1924 tab III) and for 13.5%, 59.2% and 27.3% according to the 1931 one (Statistics Poland 1937 tab 5). We round these figures, increasing slightly the share of the more advanced areas in the West (the coefficients  $\alpha$  in Appendix). Thus, we reduce the trade of post-war Poland with Germany by 15%, the trade between Poland and URSS by 55% and the trade between Poland and the successor states of the Dual Monarchy (i.e. Austria, Hungary and Czechoslovakia) by 30%. On the other hand, we add the trade between regions of Poland which in 1913 belonged to different polities. We assume this trade to have been 5% of the trade between Germany and former Austrian and Russian Poland (i.e. of 85% of the trade between Germany and Poland – the rest being trade between Germany and former German Poland) and 10% of the trade between successor states and former German and Russian Poland. We estimate the trade between URSS and former Austrian and German Poland with different shares for imports (10%) and exports (5%).<sup>140</sup>

### **Portugal**

Series of trade at current prices, from official trade statistics, are available from three sources, Valerio (2001 tab. 10.1), from 1776 onwards, from Lains (2006) from 1842 to 1938 and Batista et al (1997) from 1910 to 1938.<sup>141</sup> These figures are net of transit and movements of bullion. We interpolate the missing years (1842-1851, 1852-1854, 1856-1861 and 1861-1865) with an improved TRAMO routine.<sup>142</sup> We convert the figures in escudos with the exchange rates from Denzel 2010 tab 1.1.3 (cross rate with sterling) until 1890 and Valerio (2001 tab. 10.6) thereafter. We compute series of imports and export prices for 1865-1913 from Lains (2006) and we extend them first to 1842 interpolated the scattered years from Lains (2007), interpolated with a TRAMO routine and then to 1800 with Federico-Tena price indexes.

### **Romania**

Romania was created in 1859, joining the Principality of Moldovia and Wallachia, which since the beginning of the 19<sup>th</sup> century had been ruled by local princes under the formal Ottoman suzerainty. Axenciuc (2000 tab. 129) reports a series of Romanian trade at current prices, in millions leu since the beginning.<sup>143</sup> The leu was created in 1867, and, as in other cases, we assume that earlier data in

<sup>140</sup> We derive these shares with data on regional distribution of GDP for Austria-Hungary, of population for Germany and of trade and population for Russia. See for the sources the discussion in the respective polities

<sup>141</sup> In principle, the boundaries included also the Azores and Madeira and thus the Portuguese statistics should cover also the trade of these islands, although the actual coverage of these flows changed over time (personal communication by P. Lains, 17 June 2013). We have decided not to use the revision by Lains (2007) for the period before 1913 because it implies a major discontinuity with the (uncorrected) series after 1914.

<sup>142</sup> We improve the precision of the interpolation of the export series by taking into account combined imports from Portugal into France, Belgium and the United States.

<sup>143</sup> The series have a gap in 1870-1871. We compute the missing value for 1870 with the change from 1860 to 1870 of the series (in piasters) from Mitchell (2007), while the data for 1871 has been kindly provided by M. Ivanov.

piasters have been converted into the new currency at its official (gold) parity. We assume that the leu remained at its gold parity from 1867 to 1879, while from 1880 to 1891 we add the agio from Stoenescu et al (2011). We convert the leu in dollars with the exchange rate pound/leu from Axenciuc (2000 vol III tab.5) for 1892-1913, the series from the Statistical Yearbook Germany (1926 and 1930) for 1920-1929 and of the the the League of Nations (1933-38 (ad annum) from 1930 onwards.<sup>144</sup> We deflate the series with Federico-Tena price indexes.<sup>145</sup>

### **Russia/USSR**

We piece together a series of Russian, and later Soviet, trade in gold roubles, from 1800 to 1938 with data kindly provided by prof. Boris Mironov (St Petersburg) for the period to 1917 and from Dohan (1969 tab XIV.3) for the Soviet period.<sup>146</sup> We fill the gap from 1918 to 1922 by reflatting with Federico-Tena price indexes the series at 1913 prices in gold roubles by Dohan (1919 tab. III.19). We deflate the series at current prices with Federico-Tena indexes, for exports only from 1800 to 1850 and for both imports and exports from 1850 to 1913. For the period 1913-1922 we use the quoted series by Dohan at 1913 prices, which we extrapolate to 1938 with a geometric average of his indexes of volume with weights, 1913, 1932 and 1937 (tabs XIV.4 and XIV.5). The resulting series are highly correlated with the official indexes of quantity published by the the League of Nations (1933-38) - 0.97 for imports (1924-1929) and 0.98 for exports (1924-1938) -. We estimate series at 1913 borders after 1918 with data from Trade Statistics USSR and Yanson 1934.<sup>147</sup> We subtract the trade with Baltic States and 55% of the trade with Poland (our estimate of the share of Granduchy of Warsaw, the former Russian territories, on total trade of post-war Poland) and we add the trade within Poland which would have been international trade at 1913 borders. This latter is obtained as 45% of the trade with Poland (i.e. the share of former German and Austrian territories) times the share of former Russian Poland on total trade of the Russian empire in 1913 (i.e. the coefficient  $\gamma$  of Appendix B). According to an official Soviet estimate (Dohan 1969 tab. III.24) the territories lost after the war accounted for 14.2% for exports and 26.7% for imports of Russia in its 1913 borders. We assume that the Granduchy of Warsaw accounted for about a third of this trade, according to its share on the population of lost territories, 11.9 million out of 32 (Markevitich-Harrison 2011 Appendix tab A7). We use the coefficients for 1922 to estimate also 1920-1921.

### **Serbia /Yugoslavia**

We get the series at current prices from two different sources, Sundhaussen (1989) for the period 1835-1912 and the League of Nations (1925), and League of Nations (1933-38) for 1920 onwards.<sup>148</sup> When overlapping, the two series are equal. The resulting series has some gaps (1876-1878 and 1913 for both series and 1830-1834 and 1839-1842 for exports only), which we interpolate with a TRAMO routine. All these data are expressed in dinars, although this currency was first issued only in 1875. It was pegged to the French franc, but Sundhaussen (1989 tab. 93)

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<sup>144</sup> In this case, the GFD series is badly mistaken, as it features a ten-fold jump (i.e. a de-valuation) in 1929.

<sup>145</sup> The coefficient of correlation with the series of exports prices by Ivanov-Morys for the period 1870-1938 is 0.98.

<sup>146</sup> We interpolate the missing figures for 1801 with a simple average of the data for 1800 and 1802, we convert the Mironov data, originally gold roubles of 1.1614 grams and we have converted it into gold roubles at the 1913 parity (0.77423 grams) and we estimate a series at calendar years after with the auschange data from 1922/23 to 1928/29 from fiscal to calendar years with the standard assumption about the distribution of trade by month.

<sup>147</sup> We neglect the effects of the annexation of the Central Asian polities (the Emirate of Bokhara, the Khanates of Khiva and Kokand) for lack of data, even on their population, at the time of the annexation. The bias is likely to be very small, as most of the commerce of these polities was transit trade.

<sup>148</sup> This series, unlike Mitchell (200?) excludes bullion, but only after 1927. Import of bullion were substantial in the mid-1930s, but negligible in the late 1920s (less than 0.1%) and thus we do not correct.

reports a series of the premium of gold for 1887-1894, while the exchange rates from the GlobalFinancialData remain higher than the parity until 1901. Without any information, we assume that the dinar remained at the gold parity until 1887, and then we add the agio. From 1894 to 1919 we convert the dinar in dollars with the series from GlobalFinancialData, while for the post-war years we rely on Statistical Yearbook. Germany (1924-1925, 1926 and 1930) and League of Nations, Review (ad annum), although in this case differences with the series of Globalfinancialdata are really small. Then we extrapolate backward the price indexes estimate by the Yugoslavian National Bank since 1926 (the League of Nations (1933-38)) with Federico-Tena indexes to 1850 for imports and to 1830 for exports.<sup>149</sup>

### **Sardinia**

See Italy

### **Spain**

We get series of Spanish trade at current and constant prices since 1821 from Tena (2007). The series at constant prices stops in 1935 and thus for 1936-1938, civil war years, we deflate the series to 1938 at current prices with a weighted average of price index for main trading partners (Belgium, France, Germany, Italy, United Kingdom and United States), with shares around 90% of total trade. We convert the series in dollars with the exchange rate from Carreras-Tafunell 2005 tab 9.19 (before 1900 with a cross-rate with British pound).

### **Sweden**

The Historical Statistics Sweden (1972 tab 4.2) reports series of Swedish trade at current prices and net of bullion since 1871. Mitchell (200?) publishes the same data, but his series starts in 1832. We extrapolate the series backwards to 1800 with an index of total trade (including services) from the estimate of of Swedish national accounts by Krantz and Schon (2012 tab III). All these data are in Krona, even if this currency was created only in 1872 when Sweden adopted the gold standard. We convert the data in dollars before 1873 with dollar/Krona ratio at its gold parity.<sup>150</sup> We piece together a series of Krona/dollar exchange rates with data from Denzel (2010 tab.10.1) for 1874-1913 (cross rate with pound until 1908), GlobalFinancialData for 1914-1919, German Statistical Yearbook (1924-1925, 1926, 1930) for 1920-1929 and the League of Nations (1933-38) for 1930-1938. Finally, we deflate the series at current prices with implicit indexes of import and export prices computed from Krantz and Schon (2012).

### **Switzerland**

The continuous Swiss series at current prices start in 1886, although there are scattered data for 1840, 1845 (exports only), 1851, 1854, 1861, 1875, 1879 and 1885 (Historical Statistics Switzerland, on-line, tab L03 and L54).<sup>151</sup> However, Bernegger (Historical Statistics. Switzerland, on-line, tab L01 and L02) has estimated a volume index of imports and exports from 1851 to 1913. We use his work to estimate a series at constant (1913) prices by extrapolating backwards the level of trade in 1913 and also to produce a series of trade at current prices for the missing years in the period 1851-1885. To this aim we compute the series of implicit prices for all available years, we interpolate them with a TRAMO routine and we use the results to reflate the series at constant prices. After 1913, we deflate the series at current prices with new indexes for imports and exports, obtained by linking indexes by Federico-Tena for 1913-1922, the League of Nations (1933-38)

<sup>149</sup> Our series for exports is highly correlated with two alternative ones by Blattman et al 2007 (0.89) and by Ivanov and Morys (0.86).

<sup>150</sup> The Krona replaced the rixdaler mynt, a silver currency, which in turn had replaced in 1858 the rixdaler specie, a paper currency (Denzel 2010 p.540). Converting the series at current prices at the gold parity of the Krona reproduces the levels and movements of the implicit price indexes, a conversion with the market exchange rates of the Rixdaler (Denzel 2010 tab. 9.1 and Edvinsson et al 2010), yields implausibly high levels of implicit prices in the early 19<sup>th</sup> century.

<sup>151</sup> The data include gold movements before 1926, but we have no data to correct the bias. We do not use the estimates by Von Neumann-Spallart (1885-1895) for the five-year period 1880-1885 because they are only three quarters of the registered trade in 1885.

1923-1937 and Bairoch (1978 p.48) for 1938.<sup>152</sup> This work yields a series of trade 1851-1938, which we extrapolate to 1850 for imports and to 1830 for exports. For imports, we simply assume that trade in 1850 was 95% of trade in the next year. In contrast, we extrapolate the series of exports back from 1851 to 1830 at current prices, with an index based on statistics of France (Trade Statistics France, ad annum) and from 1830 to 1851 and Belgium (Trade statistics Belgium, ad annum) from 1841 to 1830 and we deflate the resulting series with Federico-Tena price indexes. Last but not least, we convert the series from Swiss Francs to dollars. We piece together a series of exchange rates with data from Denzel (2010 tab 8.1) for 1852-1913, using until 1897 the cross rate with pound, and the Historical Statistics. Switzerland (tab O22a) from 1914 to 1938. Before 1850, each canton had its own (silver) currency, but the underlying data for exports are mostly from French trade statistics and thus we extrapolate the 1851 exchange rate with the rate for French Franc to dollar.

### **Tuscany**

See Italy

### **Two Sicilies**

See Italy

### **United Kingdom**

We get the basic series at current prices from 1800 to 1913 from Imlah (1958 tab. 8), and from 1914 onwards from Mitchell (1988 p.453). Both sources report separately exports and re-exports, which we subtract from imports as well. After 1854 we add the net exports of ships and we interpolate linearly the missing value for 1813.<sup>153</sup> We convert the data in dollars with the exchange rate from Historical Statistics. United States of America (2006) series Ee618 (keeping the gold parity from 1861 to 1878). We piece together an index of British import and export prices by joining the series by Imlah (1958 tab 8) for 1800-1913, Federico-Tena for 1914-1919 and the Board of trade since 1920 (Mitchell 1988 p.527). We obtain the trade at 1913 borders by subtracting the trade with the Republic of Ireland from the United Kingdom. Statistical Yearbook (1924-1938).<sup>154</sup>

## **OCEANIA**

### **OCEANIA CONTINENT**

#### **Australia**

Officially the Commonwealth of Australia is a country comprising the mainland of the Australian continent, the island of Tasmania, and numerous smaller islands. A British settlement was established in Van Diemen's Land, now known as Tasmania, in 1803 and it became a separate colony in 1825. The United Kingdom formally claimed the western part of Western Australia (the Swan River Colony) in 1828. Separate colonies were carved from parts of New South Wales: South Australia in 1836, Victoria in 1851, and Queensland in 1859. Between 1855 and 1890, the six colonies individually gained responsible government, managing most of their own affairs while remaining part of the British Empire. On 1 January 1901, federation of the colonies was achieved after a decade of planning, consultation and voting. The Commonwealth of Australia was established and it became a dominion of the British Empire in 1907.

We use the series from Mitchell (2007) from 1826 to 1860 and from Australia. Historical Statistics from 1861 to 1938.<sup>155</sup> We deflate with Federico-Tena price indexes imports from 1826 to 1870

<sup>152</sup> Bairoch (1978 p.48) estimates only index for exports, and we assume the same variation for imports as well – i.e. that terms of trade remained constant from 1937 to 1938. The coefficient of correlation between our series and his series of export in volume (1978) from 1921 to 1938 is 0.96

<sup>153</sup> Mitchell 2003 has ships only since 1900

<sup>154</sup> The trade with Ireland was excluded since April 1<sup>st</sup> 1923 and thus the coefficient of adjustment for that year is 9/12 of the coefficient for 1924.

<sup>155</sup> Both source use the adjustment by Butlin (1961).

and exports from 1826 to 1859, and exports from 1826 to 1859, and with indexes from Australia. Historical Statistics thereafter.

### **British Settlements Oceania**

The British Western Pacific Territories was the name of a British colonial entity, created in 1877, of a series of relatively minor Pacific islands in and around Oceania. We follow as much as possible that territory division. Using United Kingdom (colonies) Statistical Yearbooks (ad annum) and later British Empire. Composed by: Fiji (1877 to 1952) - now independent; Gilbert and Ellice Islands (1916 to 1971) - now independent as Kiribati and Tuvalu; Cook Islands (1893 to 1901) - now a self-governing state in free association with New Zealand; Nauru (1914 to 1921) - now independent; New Hebrides (1906 to 1971) - now independent as Vanuatu; Pitcairn Islands (1898 to 1952) - still a British overseas territory; Solomon Islands (1893 to 1971) - now independent; Tonga (1900 to 1952) - now independent; Tuvalu (1892 to 1916) - now independent; Savage Island (1900 to 1901) - now Niue, a self-governing state in free association with New Zealand; Union Islands (1877 to 1926) - now Tokelau, a dependent territory of New Zealand.

The United Kingdom (colonies) Statistical Yearbooks (ad annum) provide data for Fiji for 1875-1914 and 1922-1938, Gilbert and Ellice Islands for 1900-1914 and 1922-1938; British New Guinea for 1890-1904 and 1922-1938; Solomon Islands for 1922-1938 and Tonga for 1922-1938. We use the series for the Fiji to fill gaps in data for other islands, while we interpolate all series from 1915 to 1921 with the series for French Settlements and we extrapolate them to 1850 with the series for the Hawaii. We deflate with Federico-Tena price indexes.

### **French Settlements in Oceania (French Polynesia)**

Having declared a protectorate over Tahuata in 1842, the French regarded the entire Marquesas Islands as French. In the 1880s, France claimed the Tuamotu Archipelago, which formerly belonged to the Pōmare Dynasty, without formally annexing it. The first official name for the colony was *Établissements de l'Océanie* (Settlements in Oceania); in 1903 the general council was changed to an advisory council and the colony's name was changed to *Établissements Français de l'Océanie* (French Settlements in Oceania). We have added to the French Polynesia the other relevant French territory in Oceania that is New Caledonia (*Nouvelle Calédonie*).

We get series for all islands since 1884 from the Statistical Yearbook. France (1938, p.220\*) and we extrapolate the data to 1850 following the Hawaii series. We deflate with Federico-Tena price indexes.

### **German Colonies in Oceania**

We have included here German New Guinea, Nauru and territory of Western Samoa. The first one was the biggest (German: Deutsch-Neuguinea) and was part of the German colonial empire. It was a protectorate from 1884 until 1914, later (in 1920) became Mandate Territory of New Guinea, under Australian administration. Nauru is an island country in Micronesia in the South Pacific. Nauru was annexed by Germany in 1888 and incorporated into Germany's Marshall Island Protectorate. The Germans ruled Nauru for almost three decades. In 1923, the League of Nations gave Australia a trustee mandate over Nauru, with the United Kingdom and New Zealand as co-trustees. The western part of the Samoan, by far the greater landmass, became known as German Samoa (Islands in the South Pacific Ocean). From the end of World War I until 1962, New Zealand controlled Samoa under trusteeship through the League of Nations.

The Germany. Statistical Yearbook (1913) provides data for the years 1901-1912 and the United Kingdom (colonies) Statistical Yearbooks (ad annum) for the years 1924-1938. We have extrapolated the series backwards to 1850 and from 1913 to 1923 with data for the French Settlements in Oceania. We deflate with Federico-Tema price indexes.

### **Hawaii:**

The Kingdom of Hawaii was sovereign from 1810 until 1893 when the monarchy was overthrown by resident American (and some European) businessmen. It was an independent republic from 1894 until 1898, when it was annexed by the United States as a territory, becoming a state in 1959.

We obtain series of trade at current prices in US dollars for 1834-1901 from Schmitt (1977) and we extrapolate backwards to 1826 with the Australian series. The series stops in 1900 because since 1901 trade of the islands was included in the United States statistics. We deflate with Federico-Tena price indexes.

#### **New Zealand:**

New Zealand, originally part of the colony of New South Wales, became a separate Colony of New Zealand on 1 July 1841. The colony gained a representative government in 1852 and the 1st New Zealand Parliament met in 1854. In 1907, at the request of the New Zealand Parliament, King Edward VII proclaimed New Zealand a dominion within the British Empire.

We get series of trade at current prices in british sterling pounds from 1842 onwards from Bloomfield (1984 tab VII.2) and we extrapolate exports to 1826 following the Australian series. We deflate exports with Federico-Tena price indexes before 1850, with the Australian index for 1851-1853 and from 1853 to 1938 with an index from Bloomfield (1984) table IX. 13 and IX.14. We deflate imports with Australian import price index from 1850-55 and the Federico-Tena import price index for New Zealand from 1856 to 1925 and Bloomfield (1984) table IX.14 1926-1938.

**Appendix C.**  
**List of trading polities**

**List of trading polities**

Series									
	<i>Trading polity</i>		<i>Imports</i>		<i>Exports</i>		<i>Population</i>	<i>Trade sample</i>	<i>Notes</i>
	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>1913 '(000)</i>	<i>Exports</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b><u>Africa</u></b>									
Algeria	1831	1938	1830	1938	1830	1938	5.579	1830	1800-1830 Ottoman Empire
Angola	1816	1938	1850	1938	1828	1938	2.676	1830	
Basutoland	1884	1938					362		present-day Lesotho
Bechuanaland Protectorate	1885	1938					204		present-day Botswana
Belgian Congo	1885	1938	1850	1938	1850	1938	8.396	1850	
British Bechuanaland	1885	1895							1896-1938 annexed to South Africa
British Cameroon	1914	1938					561		population in 1921; Before 1914 part of German Kameroun, then divided between Nigeria and Cameroon; estimate jointly with Nigeria
British East Africa	1895	1938	1850	1938	1828	1938	7.008	1830	Present day Kenya and Uganda
Canary Islands	1800	1938	1850	1938	1826	1938	448	1830	
Cameroon (Kamerun)	1884	1938	1850	1938	1850	1938	3.002	1850	German colony until 1914, French mandate thereafter
Capo Verde	1800	1938	1850	1938	1850	1938	144	1850	
Ceuta Y Melilla	1800	1938	1850	1938	1826	1938	71	1830	

	Trading polity		Imports		Exports		Population	Trade sample	Notes
	Starting	End	Starting	End	Starting	End	1913 '(000)	Exports	
Egypt	1800	1938	1850	1938	1850	1938	12.113	1850	
Eritrea	1882	1938	1850	1938	1850	1938	788	1850	
Ethiopia	1800	1938	1850	1938	1850	1938	18.434	1850	Since 1936 Italian colony
French Equatorial Africa	1910	1938	1850	1938	1850	1938	3.423	1850	Includes present-day Central African republic (colony 1906-1910), Chad (1891-1910), Gabon (protectorate 1839-1885, colony 1885-1910), French Congo (1882-1910)
French Somaliland	1887	1938	1850	1938	1850	1938	75	1850	
French West Africa	1895	1938	1850	1938	1830	1938	12.062	1830	Includes present-day Mauritania, Dahomey (or Benin), French Guinea, Ivory Coast (protectorate since mid 19th century, colony 1889), Mali, Niger, Senegal (colony since mid 19th century), French Sudan, Upper Volta (now Burkina Faso), Niger and Togo (independent polity as German West Africa until 1914)
Gambia	1800	1938	1850	1938	1817	1938	177	1823	



	<i>Trading polity</i>		<i>Imports</i>		<i>Exports</i>		<i>Population</i>	<i>Trade sample</i>	<i>Notes</i>
	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>1913 '000)</i>	<i>Exports</i>	
<b>German East Africa (Tanganika)</b>	1884	1938	1850	1938	1828	1938	4.799	1830	After 1919 British mandate; present-day Tanzania
<b>German South West Africa</b>	1884	1938	1850	1938	1850	1938	239	1850	After 1919 South African mandate; present day Namibia
<b>German West Africa</b>	1884	1914	1850	1914	1850	1914	788	1850	After 1919 part of French West Africa; present-day Togo
<b>Gold Coast</b>	1843	1938	1850	1938	1817	1938	3.125	1823	1821-1843 and 1866-1874 part of Sierra Leone; present-day Ghana
<b>Italian Libia Cyrenaica (Libya)</b>	1911	1938	1850	1938	1850	1938	571	1850	1800-1910 Ottoman Empire
<b>Italian Somaliland</b>	1908	1938	1850	1938	1850	1938	800	1850	
<b>Liberia</b>	1847	1938	1850	1938	1850	1938	496	1850	
<b>Madagascar</b>	1882	1938	1850	1938	1850	1938	2.694	1850	
<b>Mauritius</b>	1800	1938	1850	1938	1828	1938	380	1830	
<b>Mayotte and Noissi-be</b>	1843	1914							1914-1938 annexed to Madagascar; estimated jointly with Magadascar
<b>Morocco (French)</b>	1911	1938	1850	1938	1827	1938	5.596	1830	
<b>Mozambique</b>	1816	1938	1850	1938	1828	1938	4.080	1830	
<b>Nigeria</b>	1861	1938	1850	1938	1817	1938	19.614	1823	Includes Lagos (separate colony 1861-1906), Southern Nigeria (protectorate 1899-1914) and Northern Nigeria (protectorate 1900-1914)

	<i>Trading polity</i>		<i>Imports</i>		<i>Exports</i>		<i>Population</i>	<i>Trade sample</i>	<i>Notes</i>
	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>1913 '(000)</i>	<i>Exports</i>	
<b>Nyasaland Protectorate (Malawi)</b>	1891	1938	1850	1938	1828	1938	1.859	1830	present day Malawi
<b>Orange Free State</b>	1848	1900							After 1900 South Africa; jointly estimated South Africa
<b>Portuguese Guinea</b>	1879	1938	1850	1938	1850	1938	304	1850	present-day Guinea Bissau
<b>Reunion</b>	1816	1938	1850	1938	1838	1938	175	1850	
<b>Rhodesia</b>	1890	1938	1850	1938	1850	1938	2.913	1850	Includes Southern Rhodesia (colony 1901 - present-day Zimbabwe), North-Western Rhodesia (protectorate 1890-present-day Zambia) and North Eastern Rhodesia (protectorate ca 1900 - present-day Zambia)
<b>Rwanda and Burundi</b>	1919	1938	1850	1938	1850	1938	2.979	1850	Until 1918 part of German East Africa; thereafter of British East Africa
<b>Seychelles</b>	1903	1938	1850	1938	1828	1938	24	1830	1816-1903 belonged to Mauritius
<b>Sierra Leone</b>	1800	1938	1850	1938	1817	1938	1.169	1823	
<b>Somaliland Protectorate</b>	1884	1938	1850	1938	1850	1938	360	1850	
<b>South Africa</b>	1828	1938	1826	1938	1826	1938	6.128	1830	includes Cape Good Hope (since 1828), Natal (since 1897)
<b>Spanish Guinea</b>	1858	1938					119		present-day Equatorial Guinea
<b>St Tome Principe</b>	1800	1938	1850	1938	1850	1938	60	1850	
<b>St. Helena</b>	1800	1938					4		

	<i>Trading polity</i>		<i>Imports</i>		<i>Exports</i>		<i>Population</i>	<i>Trade sample</i>	<i>Notes</i>
	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>1913 '(000)</i>	<i>Exports</i>	
<b>Sudan (Anglo-Egyptian)</b>	1882	1938	1850	1938	1850	1938	7.760	1850	Until 1881 formally belonged to Egypt
<b>Swaziland</b>	1894	1938					135		
<b>Transvaal</b>	1856	1902							After 1900 South Africa; jointly estimated South Africa
<b>Tunisia</b>	1881	1938	1850	1938	1830	1938	2.187	1850	
<b>Zanzibar</b>	1800	1938	1850	1938	1828	1938	199	1830	British protectorate 1890; present-day Tanzania
<b><u>Americas</u></b>									
<b>Argentina</b>	1800	1938	1820	1938	1820	1938	7.615	1823	until 1811 Spanish colony (Viceroyalty Plata)
<b>Bahamas</b>	1800	1938	1827	1938	1816	1938	55	1823	
<b>Barbados</b>	1800	1938	1827	1938	1816	1938	168	1823	
<b>Bermuda</b>	1800	1938	1850	1938	1816	1938	19	1823	
<b>Bolivia</b>	1825	1938	1850	1938	1820	1938	1.802	1823	until 1825 Spanish colony (Viceroyalty de la Plata)
<b>Brazil</b>	1800	1938	1820	1938	1820	1938	26.158	1823	
<b>British Guiana</b>	1800	1938	1827	1938	1816	1938	309	1823	Including Berbice, Demerara and Essequibo (independent colonies 1802-1831); now Guyana
<b>British Honduras (Belize)</b>	1800	1938	1827	1938	1816	1938	41	1823	quasi independent until 1862, then British colony. Present-day Belize
<b>Jamaica</b>	1800	1938	1830	1938	1816	1938	837	1823	Including Cayman Islands

[illegible]

	<i>Trading polity</i>		<i>Imports</i>		<i>Exports</i>		<i>Population</i>	<i>Trade sample</i>	<i>Notes</i>
	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>1913 '000)</i>	<i>Exports</i>	
<b>Falkland Islands</b>	1833	1938	1830	1938	1820	1938	3	1823	1816-1833 Argentina
<b>French Guiana</b>	1800	1938	1820	1938	1820	1938	48	1823	
<b>Guadalupe</b>	1800	1938	1820	1938	1820	1938	170	1823	
<b>Martinique</b>	1800	1938	1820	1938	1820	1938	187	1823	
<b>St Martin and St Barthélemy</b>	1816	1878	1820	1870	1820	1870	2	1823	population 1870; 1878-1938 part of Guadaloupe
<b>Guatemala</b>	1821	1938	1839	1938	1818	1938	2.025	1823	until 1821 Spanish colony; 1821-1823(nominal) Mexico; 1823-1841 part of (very loose) Federal Republic Central America
<b>Haiti</b>	1800	1938	1820	1938	1820	1938	1.746	1823	
<b>Honduras</b>	1800	1938	1845	1938	1818	1938	631	1823	until 1821 Spanish colony; 1821-1823(nominal) Mexico; 1823-1841 part of (very loose) Federal Republic Central America
<b>Mexico</b>	1800	1938	1800	1938	1800	1938	16.125	1800	
<b>Nicaragua</b>	1800	1938	1839	1938	1818	1938	698	1823	until 1821 Spanish colony; 1821-1823(nominal) Mexico; 1823-1841 part of (very loose) Federal Republic Central America
<b>Panama</b>	1906	1938	1906	1938	1906	1938	348	1823	until 1821 Spanish colony; until 1905 part of Colombia
<b>Paraguay</b>	1811	1938	1820	1938	1820	1938	713	1823	
<b>Peru</b>	1825	1938	1820	1938	1820	1938	4.006	1823	until 1824 Spanish colony (vicerealty of Peru)
<b>St Pierre &amp; Miquelon</b>	1800	1938	1850	1938	1820	1938	4	1823	

[illegible]

	<i>Trading polity</i>		<i>Imports</i>		<i>Exports</i>		<i>Population</i>	<i>Trade sample</i>	<i>Notes</i>
	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>1913 '(000)</i>	<i>Exports</i>	
<b>Federated Malay States</b>	1895	1922							1922-1938 British Malaya; Joint estimate with British Malaya
<b>Formosa (Taiwan)</b>	1896	1938	1896	1938	1896	1938	3.477	1830	1800-1895 China
<b>French India</b>	1800	1938	1830	1938	1830	1938	280	1830	
<b>French Indochina</b>	1887	1938	1850	1938	1850	1938	17.400	1850	
<b>Fujairah</b>	1886	1938							1816-1886 Sharjah
<b>Herat</b>	1800	1862							1863-1938 Afghanistan; joint estimate with Afghanistan
<b>Hong-Kong</b>	1841	1938					500		1816-1839 China
<b>India</b>	1800	1938	1800	1938	1800	1938	315.876	1800	
<b>Iraq</b>	1921	1938	1921	1938	1921	1938	2.613	1830	1800-1918 Ottoman Empire
<b>Japan</b>	1800	1938	1860	1938	1860	1938	51.672	1850	
<b>Jordan</b>	1918	1938							1800-1918 Ottoman Empire; joint estimate with Palestine
<b>Khiva</b>	1800	1873							1873-1938 Russia and Soviet Union
<b>Kiautchau</b>	1898	1922					175		1800-1898 and 1922-1938 China; joint estimate with China
<b>Kokand</b>	1800	1883							1873-1938 Russia and Soviet Union
<b>Korea</b>	1800	1938	1876	1938	1876	1938	15.486	1850	
<b>Kuwait</b>	1800	1938					50		population in 1920
<b>Kwang-Chou-Wan</b>	1898	1938					206		population in 1926; 1800-1898 and 1922-1938 China; joint estimate with China
<b>Kwantung (Port Arthur)</b>	1898	1938					596		1800-1898 China, 1898-1905 Russia, 1905-1938 Japan.

	<i>Trading polity</i>		<i>Imports</i>		<i>Exports</i>		<i>Population</i>	<i>Trade sample</i>	<i>Notes</i>
	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>1913 '(000)</i>	<i>Exports</i>	
<b>Maldivé</b>	1800	1938					72		
<b>Manchukuo</b>	1932	1938	1932	1938	1932	1938	NA	1850	1800-1932 China
<b>Mongolia</b>	1911	1938					725		1800-1911 China
<b>Nepal</b>	1800	1938	1850	1938	1850	1938	5.639	1850	
<b>North Yemen</b>	1918	1938	1918	1938	1918	1938	3.236	1830	1871-1918 Ottoman Empire
<b>Oman</b>	1800	1938					444		
<b>Ottoman Empire/Turkey</b>	1800	1938	1850	1938	1830	1938	24.000	1830	
<b>Palestine/Jordan</b>	1918	1938	1920	1938	1920	1938	730	1830	population in 1920; 1800-1918 Ottoman Empire
<b>Persia (Iran)</b>	1800	1938	1850	1938	1850	1938	10.994	1850	
<b>Philippines</b>	1800	1938	1810	1938	1810	1938	9.384	1823	
<b>Portuguese India</b>	1800	1938	1850	1938	1850	1938	550	1850	
<b>Quatar</b>	1800	1938					13		1871-1916 Ottoman Empire
<b>Ras al Khaimah</b>	1919	1938							1900-1919 Sharjah
<b>Sabah (British Borneo)</b>	1888	1938	1850	1938	1850	1938	210	1850	1816-1888 Brunei
<b>Sarawak</b>	1841	1938	1850	1938	1850	1938	500	1850	
<b>Saudi Arabia</b>	1924	1938	1918	1938	1918	1938	2.676	1830	1800-1918 Ottoman Empire
<b>Sharjah</b>	1800	1938							
<b>Siam (Thailand)</b>	1800	1938	1850	1938	1850	1938	8.689	1850	
<b>Sikkim</b>	1800	1938							
<b>Straits Settlement</b>	1826	1922							1922-1938 British Malaya; joint estimate with British Malaya
<b>Syria and Lebanon</b>	1918	1938	1921	1938	1921	1938	2.104	1830	population 1919; 1800-1918 Ottoman Empire
<b>Tibet</b>	1800	1938							
<b>Timor</b>	1800	1938					345		
<b>Umm al Qawain</b>	1892	1938							



	<i>Trading polity</i>		<i>Imports</i>		<i>Exports</i>		<i>Population</i>	<i>Trade sample</i>	<i>Notes</i>
	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>1913 '000)</i>	<i>Exports</i>	
<b>Yunnan</b>	1856	1871							1800-1857 and 1872-1938 China; joint estimate with China
<b><u>Europe</u></b>									
<b>Albania</b>	1913	1938	1913	1938	1913	1938	800	1830	1800-1913 Ottoman Empire
<b>Andorra</b>	1800	1938					5		
<b>Austria</b>	1918	1938	1920	1937	1920	1937	6.767	1830	1800-1918 Austria-Hungary
<b>Austria-Hungary</b>	1800	1918	1830	1918	1830	1918	52.786	1830	
<b>Belgium</b>	1831	1938	1830	1938	1830	1938	7.605	1830	
<b>Bulgaria</b>	1878	1938	1879	1938	1879	1938	4.828	1830	1800-1878 Ottoman Empire
<b>Crete</b>	1898	1913	1898	1913	1898	1913	310	1830	1800-1897 Ottoman Empire; 1914-1938 Greece
<b>Cyprus</b>	1879	1938	1878	1938	1878	1938	286	1830	1800-1878 Ottoman Empire, then British colony
<b>Czechoslovakia</b>	1918	1937	1920	1937	1920	1937	13.245	1830	1800-1918 Austria-Hungary
<b>Denmark</b>	1800	1938	1841	1938	1818	1938	2.983	1823	
<b>Dodecanese Is.</b>	1912	1938							1800-1912 Ottoman Empire, then Italian colony
<b>Duchy Modena</b>	1800	1860							1861-1938 Italy; joint estimation with Italy
<b>Duchy Parma</b>	1800	1860							1861-1938 Italy; joint estimation with Italy
<b>Estonia</b>	1918	1938	1920	1938	1920	1938	986	1800	1800-1918 Russia
<b>Faroe Is</b>	1800	1938					18		
<b>Finland</b>	1917	1938	1850	1938	1812	1938	3.027	1800	1800-1812 Russia
<b>France</b>	1800	1938	1800	1938	1800	1938	39.771	1800	
<b>Germany/Zollverein</b>	1800	1938	1836	1938	1821	1938	66.978	1823	
<b>Gibraltar</b>	1800	1938					18		

	<i>Trading polity</i>		<i>Imports</i>		<i>Exports</i>		<i>Population</i>	<i>Trade sample</i>	<i>Notes</i>
	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>1913 '(000)</i>	<i>Exports</i>	
<b>Iceland</b>	1800	1938	1849	1938	1849	1938	88	1850	
<b>Ionian islands</b>	1815	1862	1850	1862	1850	1862		1850	1864-1938 Greece
<b>Ireland</b>	1921	1938	1922	1938	1922	1938	4.346	1800	1800-1921 United Kingdom
<b>Italy</b>	1861	1938	1850	1938	1823	1938	35.355	1823	
<b>Kingdom Two sicilies</b>	1800	1860							1861-1938 Italy; joint estimation with Italy
<b>Latvia</b>	1918	1938	1920	1938	1920	1938	2.552	1800	1800-1918 Russia
<b>Lithuania</b>	1918	1938	1920	1938	1920	1938	2.916	1800	1800-1918 Russia
<b>Luxembourg</b>	1800	1938					260		
<b>Malta</b>	1800	1938	1850	1938	1850	1938	212	1850	
<b>Monaco</b>	1800	1938					23		
<b>Montenegro</b>	1878	1918					516		1800-1878 Ottoman Empire; 1918-1938 Yugoslavia
<b>Netherlands</b>	1800	1938	1800	1938	1800	1938	6.164	1800	
<b>Norway</b>	1800	1938	1830	1938	1830	1938	2.447	1830	
<b>Papal States</b>	1800	1870							1871-1938 Italy; joint estimation with Italy
<b>Poland</b>	1918	1938	1922	1938	1922	1938	28.300	1800	1800-1918 divided between Russia, Austria-Hungary and Germany
<b>Portugal</b>	1800	1938	1800	1938	1800	1938	5.972	1800	
<b>Romania</b>	1859	1938	1859	1938	1859	1938	7.656	1850	1800-1858 Ottoman Empire
<b>Russia/USSR</b>	1800	1938	1850	1938	1800	1938	162.352	1800	
<b>Sardinia</b>	1800	1860							1861-1938 Italy; joint estimation with Italy
<b>Serbia/Yugoslavia</b>	1816	1938	1850	1938	1830	1938	4.796	1830	1800-1815 Ottoman Empire
<b>Spain</b>	1800	1938	1821	1938	1821	1938	20.263	1823	
<b>Sweden</b>	1800	1938	1800	1938	1800	1938	5.621	1800	
<b>Switzerland</b>	1800	1938	1850	1938	1830	1938	3.864	1830	

Trading polity		Imports		Exports		Population	Trade sample	Notes
Starting	End	Starting	End	Starting	End	1913 '(000)	Exports	
Oceania								
American Samoa	1900	1938						Joint estimate US settlement Oceania
Australia Commonwealth	1901	1940	1826	1938	1826	1938	4.821	1830
British New Guinea	1884	1938						Joint estimation british settlement Oceania; since 1905 administered by Australia; now Papua New Guinea
British settlement Oceania	1839	1938	1850	1938	1850	1938	358	1850
Caroline Island	1885	1938						Spanish colony 1885-1899; German 1899-1914; Japan mandate 1914-1938; joint estimation with German colonies Oceania
Cook Island	1893	1901						1901-1938 New Zealand; Joint estimation New Zealand
Dutch new Guinea	1898	1938						Present-day Indonesia
Fiji	1874	1938						Joint estimation British settlement Oceania
French Settlements in Oceania	1844	1938	1850	1938	1850	1938	31	1850
Gambier Island	1881	1903						Joint estimation French Settlements Oceania
German colonies Oceania	1884	1938	1850	1938	1850	1938	570	1850
Gilbert and Ellice Island	1892	1938						Joint estimation British settlement Oceania

	<i>Trading polity</i>		<i>Imports</i>		<i>Exports</i>		<i>Population</i>	<i>Trade sample</i>	<i>Notes</i>
	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>1913 '(000)</i>	<i>Exports</i>	
<b>Mariana Island</b>	1800	1938							Spanish colony 1800-1898; German colony 1898-1914 Japanese mandate 1914-1938; joint estimate with German colonies Oceania.
<b>Marquesas Island</b>	1844	1903							Joint estimation with French settlements Oceania
<b>Marshall Island</b>	1874	1938							Spanish colony 1870-1898; German colony 1898-1914; Japanese mandate 1914-1938; joint estimate with German colonies Oceania
<b>Midway Island</b>	1859	1938							Joint estimation with US Settlement Oceania
<b>Nauru</b>	1888	1938							British-Australian mandate 1914-1938; Joint estimation with German colonies Oceania
<b>New Caledonia</b>	1853	1938							Joint estimation with French settlements Oceania
<b>New Guinea</b>	1884	1938							German colony 1884; Australian mandate 1914-1938; Joint estimation with German colonies Oceania
<b>New Hebrides</b>	1906	1938							British-French condominium; joint estimates British settlement Oceania; present-day Vanuatu

	<i>Trading polity</i>		<i>Imports</i>		<i>Exports</i>		<i>Population</i>	<i>Trade sample</i>	<i>Notes</i>
	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>1913 '(000)</i>	<i>Exports</i>	
<b>Niue Island</b>	1900	1901							annexed to New Zealand 1901-1938; Joint estimation New Zealand
<b>Norfolk Island</b>	1800	1901							annexed to Australia; joint estimate with Australia
<b>Palmyra Island</b>	1889	1912							1862-1898 Hawaii then USA; joint estimate with Hawaii
<b>Pitcairn Island</b>	1839	1938							UK colony; joint estimation British settlement Oceania
<b>Queensland</b>	1859	1900							Joint estimation with Australia; 1800-1858 part of New South Wales
<b>Society Islands (Tahiti)</b>	1844	1903							independent Kingdom to 1844; French protectorate 1844-1881; then French colony joint estimate with French settlement Oceania
<b>Solomon Islands</b>	1885	1938							German colony 1885-1900; British 1900-1938; Joint estimation with British settlement Oceania
<b>South Australia</b>	1838	1900							Joint estimation with Australia
<b>Tokelau Island</b>	1877	1938							British colony; administered New Zealand after 1926 Joint estimation with British Settlement Oceania
<b>Tongan Islands</b>	1800	1938							Quasi independent kingdom; joint estimate with British settlement Oceania

	<i>Trading polity</i>		<i>Imports</i>		<i>Exports</i>		<i>Population</i>	<i>Trade sample</i>	<i>Notes</i>
	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>Starting</i>	<i>End</i>	<i>1913 '(000)</i>	<i>Exports</i>	
<b>US settlement Oceania</b>	1859	1938							
<b>Van Diemen's Land (Tasmania)</b>	1828	1900							Joint estimation with Australia; 1800-1825 New South Wales;
<b>Victoria</b>	1853	1900							Joint estimation with Australia; 1800-1852 New South Wales;
<b>Wake Island</b>	1898	1938							Joint estimation with US settlement Oceania
<b>Wallis and Futuna Island</b>	1842	1938							Joint estimation with French Polinesia
<b>Western Australia</b>	1838	1900							Joint estimation with Australia
<b>Western Samoa</b>	1900	1938							German colony 1899-1915; New Zealand mandate; joint estimate with German colonies Oceania

**Appendix D: Trade series** (*World Trade 1800-1938 Appendix Excel File*)

**Appendix E: - Quality estimates of export series** (*World Trade 1800-1938 Appendix Excel File*)

**Appendix F: - Exchange rate series** (*World Trade 1800-1938 Appendix Excel File*)

#### **Appendix F. World Exchange Rates Sources**

Appendix F. World Exchange Rates Sources			
Countries	Unit value	Years	Source
<i>AMERICA</i>			
<b>Canada</b>	Pounds 1800-67; Canadian \$ 1868-1938	1868-1938	1868-1938 Global Financial Data
<b>Chile</b>	Current Pesos	1810-1938	Braun et al. (2000) Table 4.6
<b>Costa Rica</b>	Gold Pesos	1830-1938	1830-1899 León Saenz (1997); from 1900-1940 from MOXLAD
<b>Cuba</b>	Pesos	1900-1938	1900-1938 MOXLAD
<b>Ecuador</b>	Pounds 1820-1881; Sucres 1882-1938	1882-1938	1882-1938 Global Financial Data
<b>El Salvador</b>	Colones	1901-1938	1901-1938 MOXLAD
<b>Mexico</b>	1800-69 Pesos, 1870-1938 \$	1800-1869	1800-1819 Estadísticas Historicas de Mexico; 1820-1869 Global Financial Data
<b>Panama</b>	Balboas	1906-1938	MOXLAD
<b>Peru</b>	Sol	1863-1938	Global Financial Data

<b>Venezuela</b>	Bolibar	1899-1938	MOXLAD
<i>ASIA</i>			
<b>China</b>	Haikwan tael	1800-1938	Hsiao 1974 tab 9a)
<b>Dutch East Indies (Indonesia)</b>	Gulden	1800-1938	Van Laanen (1980)
<b>French India</b>	Francs		
<b>India</b>	Rupee	1823-1938	Chilosi and Federico (2013)
<b>Iraq</b>	Dinar	1921-1938	Global Financial Data until 1929; League of Nations (1933-38) Review of World Trade, thereafter
<b>Japan</b>	Yen	1874-1938	Historical statistics of Japan since 1874
<b>Manchukuo</b>	Yuan	1932-1938	League of Nations (1933-38) Review of World Trade
<b>Persia (Iran)</b>	Kran	1901-1938	United Kingdom (foreign countries) Statistical Yearbook (1900-1912 p.67) for 1901-1912; League of Nations (1933-38) Review of World Trade for 1922-1938.
<b>Philippines</b>	Philippines pesos	1818-1938	Legarda (1997 tab 16 and 17) until 1903; League of Nations (1933-38) Review of World Trade after 1922
<b>Siam (Thailand)</b>	Baht	1883-1938	1883-1922 Manarungsan 1989 tab A 12; after 1922 League of Nations (1933-38) Review of World Trade
<b>Turkey</b>	Turkish lira	1922-1938	Germany Statistical Yearbook (1924-25, 1926 and 1930) for 1922-1929; League of Nations (1933-38) Review of World Trade from 1930 to 1938
<i>EUROPE</i>			
<b>Austria</b>	Shilling	1924-1937	Statistical Yearbook Germany (1924-5, 1926 and 1930) 1924-29; League of Nations (1933-38) Review of World Trade after 1929



<b>Austria-Hungary</b>	Austrian crown	1800-1918	before 1914 Denzel 2010 tab 5.1; 1914-1918 Global Financial Data
<b>Belgium</b>	Belgian francs	1831-1938	Global Financial Data for 1831-1919; German Statistic yearbook (1924-25, 1926) 1920-26; League of Nations (1933-38) <i>Review of World Trade</i> (ad annum) since 1927
<b>Bulgaria</b>	Leva	1886-1938	Dimitrieva and Ivanov (forthcoming)
<b>Czechoslovakia</b>	Koruna	1920-1938	Statistical yearbook Germany (1924-1925, 1926, 1930) until 1929; League of Nations (1933-38) <i>Review of World Trade</i> (ad annum) from 1930 to 1938
<b>Denmark</b>	Krone	1848-1938	Denzel (2010 tab.9.1) 1848-1913; Global Financial Data for 1914-1919; Statistical Yearbook Germany (1924-1925, 1930) for 1920-1929; League of Nations, <i>Review</i> (ad annum) for 1930-1938
<b>Estonia</b>	Kroon	1921-1938	Statistic Yearbook Germany (1924-1925, 1926 and 1940) for 1921-1929; 1930-1938 League of Nations, <i>Review</i> (1935 and 1938)
<b>Finland</b>	Markka	1864-1938	Autio (1992)
<b>France</b>	Francs	1800-1938	Denzel (2010), tab 6 for 1800-1913; Global Financial Data for 1914-19; Statistical Yearbook Germany (1924-1925, 1926 and 1930) for 1920-29; League of Nations (1933-38) <i>Review of World Trade</i> (ad annum) 1930-38
<b>Germany/Zollverein</b>	Marks	1874-1938	1874-1913 from Denzel (2010 tab. 4.4); 1924-1938 from League of Nations, <i>Review</i> (ad annum)
<b>Greece</b>	Gold drachma	1914-1938	Global Financial Data for 1914-1919; Statistical yearbook Germany (1924-25 and 1930) for 1920-1929; League of Nations (1933-38) <i>Review of World Trade</i> (ad annum) for 1929-1938

<b>Hungary</b>	Pengos	1926-1938	League of Nations (1933-38) Review of World Trade (ad annum) from 1926 to 1938
<b>Iceland</b>	Icelandic Krona	1919-1938	Global Financial Data from 1919 to 1938
<b>Italy</b>	Lire	1861-1938	Ciocca-Ulizzi 1990 tab.1
<b>Latvia</b>	Lat	1924-1938	1924-1929 Statistical yearbook Germany (1924-25, 1930); League of Nations, Review (ad annum) for 1930-1939
<b>Lithuania</b>	Litas	1923-1938	Germany Statistical yearbook (1924-25, 1930) for 1923-1929; League of Nations (1933-38) Review of World Trade) for 1930-1938
<b>Netherlands</b>	Gulden	1800-1938	Denzel (2010 tab.2.1) for 1800-1807 and 1813-1913; Global Financial Data for 1808-1812 and 1914-1919; Germany Statistical yearbook (1924-1925, 1926 and 1930) 1919-1929 and League of Nations (1933-38) Review of World Trade (ad annum) 1930-1938
<b>Norway</b>	Norwegian Krona	1819-1938	Klovland (2004 tab A.1)
<b>Poland</b>	Zloty	1924-1938	1924-1929 Statistical yearbook Germany (1924-25, 1926, 1930); 1930-1938 from League of Nations, Review (ad annum) for 1930-1938
<b>Portugal</b>	Escudo	1800-1938	Denzel 2010 tab 1.1.3 until 1890; Valerio (2001 tab. 10.6) thereafter
<b>Romania</b>	Leu	1892-1938	Axenciuc (2000 vol III tab.5) for 1892-1913; Statistical Yearbook Germany (1926 and 1930) for 1920-1929; League of Nations (1933-38) Review of World Trade (ad annum) from 1930 onwards
<b>Serbia/Yugoslavia</b>	Dinars	1894-1938	1894-1919 Global Financial Data; for the post-war years Statistical Yearbook Germany (1924-1925, 1926 and 1930) and League of Nations, Review (ad annum)
<b>Spain</b>	Spain Pesetas	1821-1938	Carreras-Tafunell 2005 tab 9.19

<b>Sweden</b>	Krona	1874-1938	Denzel (2010 tab.10.1) for 1874-1913; Global Financial Data for 1914-1919; German Statistical Yearbook (1924-1925, 1926, 1930) for 1920-1929; League of Nations (1933-38) Review of World Trade (ad annum) for 1930-1938
<b>Switzerland</b>	Swiss Francs	1852-1938	Denzel (2010 tab 8.1) for 1852-1913; Historical Statistics Switzerland (tab O22a) from 1914 to 1938
<b>United Kingdom</b>	Pounds	1800-1938	United States of America. <i>Historical Statistics of the United States</i> (2006)
<i><b>OCEANIA</b></i>			
<b>Australia</b>	Aus £	1822-1938	Global Financial Data

## Appendix G. Price sources

Product	Years 1800-1850	Source	Years 1846-1938	Source	Notes
<b>Almonds</b>			1850-1938	AnSt	1850-53 interpolated with Seeds and nuts [AnSt]; 1921-38 with Nuts and kernels [AnSt]
<b>Annato</b>	1800-1850	GRS	1854-1870	AnSt	
<b>Ashes Pearl</b>	1800-1850	GRS	1854-1870	AnSt	
<b>Bacon</b>			1846-1938	Sauerbeck	
<b>Barley</b>			1846-1938	Sauerbeck	
<b>Beans</b>			1850-1938	Clark	1915-38 interpolated with Maize [Sauerbeck]
<b>Beef</b>	1800-1850	GRS	1846-1938	Sauerbeck	2 series [Sauerbeck]: Beef (prime) and Beef (middling)
<b>Beer and ale</b>			1850-1938	AnSt	1850-53 interpolated with Beer-strong [Clark]
<b>Boots and shoes of leather</b>			1846-1938	AnSt	
<b>Brimstone</b>	1800-1850	GRS			
<b>Bristles</b>	1800-1850	GRS	1850-1938	AnSt	1850-53, 1910-11, 1914-38 interpolated with Hides (River plate dry) [Sauerbeck]
<b>Butter</b>	1800-1850	GRS	1846-1938	Sauerbeck	
<b>Caoutchouc manufactured</b>			1850-1938	AnSt	1850-53 and 1901-38 interpolated with Rubber crude [AnSt]
<b>Cattle</b>			1850-1938	AnSt	1850-53 interpolated with Beef (middling) [Sauerbeck]
<b>Cement</b>			1850-1938	AnSt	1850-53 interpolated with Earthenware [AnSt]
<b>Cheese</b>			1850-1938	AnSt	1850-54 interpolated with Cheese [Clark]
<b>Chemicals</b>			1846-1938	AnSt	average of the products: Bicarbonate Soda [AnSt], Alkali [AnSt], Bleaching powder [AnSt], Sodium Compunds [AnSt]
<b>Cinnamon</b>	1800-1850	GRS	1850-1938	AnSt	1850-53 and 1910-38 interpolated with Pepper [Korthals Altes 1994]
<b>Coal</b>	1800-1850	Mitchell	1846-1938	Sauerbeck	3 series [Sauerbeck]: Coal (Average Export price), Coal (Wallsend Hetton in London) and Coal (Newcastle Steam)
<b>Cocoa</b>	1800-1850	GRS	1850-1938	AnSt	1850-53 interpolated with Coffee (Rio good Channel) [Sauerbeck]

<b>Cochineal</b>	1800-1850	GRS	1850-1938	AnSt	1850-53, 1910-11, 1914-18 and 1921-38 interpolated with Indigo [Sauerbeck]
<b>Coconut Oil</b>			1850-1938	AnSt	1850-53; 1925-38 interpolated with Oil (palm) [Sauerbeck]
<b>Coffee</b>	1800-1850	GRS	1846-1938	Sauerbeck	2 series [Sauerbeck]: Coffee (Ceylon plantation, low middling) and Coffee (Rio good Channel)
<b>Copper</b>			1846-1938	Sauerbeck	2 series [Sauerbeck]: Copper (Chili Bars) and Copper (English Tough Cake)
<b>Copper lingots</b>	1800-1850	GRS	1846-1938	AnSt	
<b>Copper Ore</b>			1850-1938	AnSt	1850-56 interpolated with Copper lingots [AnSt], 1857-94 interpolated with Iron Ore [AnSt]
<b>Copra</b>			1850-1938	AnSt	1850-54 interpolated with Seeds (linseeds) [Sauerbeck]; 1854-1909 interpolated with Nuts and kernels [AnSt]; 1910-12 interpolated with Seeds for expressing Oil [AnSt]; 1925-38 interpolated using Seeds and nuts [AnSt]
<b>Cotton</b>	1800-1850	GRS	1846-1938	Sauerbeck	3 series [Sauerbeck]: Cotton (Fair Dhollerah (Surat)), Cotton (Middling american) and Cotton (Middling uplands)
<b>Cotton manufactures</b>			1846-1938	AnSt	average of the products: Cotton piece unbleached [AnSt], Cotton piece bleached [AnSt], Cotton piece printed [AnSt], Cotton piece dyed [AnSt]
<b>Cotton piece</b>			1846-1938	AnSt	4 series [AnSt]: Cotton piece bleached, Cotton piece printed, Cotton piece unbleached, Cotton piece dyed
<b>Cotton textiles</b>	1800-1850	GRS			1800-14 interpolated with Cotton Raw (Berbice or Demerara) [GRS]
<b>Cotton yarns</b>			1846-1938	AnSt	
<b>Crude petroleum</b>			1850-1938	AnSt	1850-1902 interpolated with Petroleum (refined) [Sauerbeck]
<b>Currants</b>			1850-1938	AnSt	1850-53 interpolated with Raisins/currants [Clark]
<b>Earthenware</b>			1850-1938	AnSt	1854-56 interpolated with Window glass [AnSt]
<b>Eggs</b>			1850-1938	AnSt	1850-53 interpolated with Eggs [Clark]
<b>Electrical machinery</b>			1850-1938	AnSt	1855-1923 interpolated with Plant & Machinery [Feldstein (1965)]
<b>Flax</b>	1800-1850	GRS	1846-1938	Sauerbeck	2 series [Sauerbeck]: Flax (Russian average import) and Flax (St. Petersburg)
<b>Fish</b>			1850-1938	AnSt	1850-53 interpolated with Herring [Clark]
<b>Flour</b>			1846-1938	Sauerbeck	

<b>Fresh fruit</b>			1850-1938	AnSt	1850-53 interpolated with Raisins/currants [Clark]; 1910-23 interpolated with Oranges [AnSt]
<b>Fustic</b>	1800-1850	GRS			
<b>Galvanised corrugated sheets</b>			1846-1938	AnSt	
<b>Ginger</b>	1800-1850	GRS			
<b>Guano</b>			1850-1938	AnSt	1850-1894 and 1910-38 interpolated with Chemicals [AnSt]
<b>Hats</b>			1850-1938	AnSt	1850-53 interpolated with media of Cotton manufactures [AnSt] and Linen manufactures [AnSt]
<b>Hemp</b>	1800-1850	GRS	1846-1938	Sauerbeck	2 series [Sauerbeck]: Hemp (Manila, Fair Roping) and Hemp (St. Petersburg, clean)
<b>Hides</b>	1800-1850	GRS	1846-1938	Sauerbeck	2 series [Sauerbeck]: Hides (River plate dry) and Hides (river plate salted)
<b>Indigo</b>	1800-1850	GRS	1846-1938	Sauerbeck	
<b>Iron and steel manufactures</b>			1846-1938	AnSt	average of the products: Pig iron [AnSt], Steel bars [AnSt], Rails [AnSt], Galvanised corrugated sheets [AnSt], Tinplates [AnSt], Black Iron Plates [AnSt]
<b>Iron Ore</b>			1850-1938	AnSt	1850-54 interpolated with Iron (Scotch pig) [Sauerbeck]
<b>Iron (Bars)</b>	1800-1850	GRS	1846-1938	Sauerbeck	
<b>Iron (Scotch pig)</b>	1800-1850	GRS	1846-1938	Sauerbeck	
<b>Iron (Tinplates)</b>			1846-1938	AnSt	
<b>Jute Canvas and Sacking</b>			1846-1938	AnSt	1884-1938 interpolated with Jute (Good medium) [Sauerbeck]
<b>Jute (Good medium)</b>			1846-1938	Sauerbeck	
<b>Lead (English pig)</b>	1800-1850	GRS	1846-1938	Sauerbeck	
<b>Leather and manufactures</b>			1846-1938	AnSt	average of the products: Calf Skins [AnSt], Boots and shoes of leather [AnSt]
<b>Leather</b>	1800-1850	GRS	1846-1938	Sauerbeck	3 series [Sauerbeck]: Leather Average Import, Leather Crop Hides and Leather Dressing Hides
<b>Linen manufactures</b>			1846-1938	AnSt	
<b>Linen yarns unbleached</b>			1846-1938	AnSt	
<b>Logwood</b>	1800-1850	GRS			
<b>Machinery hardware</b>			1850-1938	AnSt	Estimated from Feldstein (1965) and the price of Textile Machinery [AnSt] in 1913

<b>Madder Root</b>	1800-1850	GRS			
<b>Maize</b>			1846-1938	Sauerbeck	
<b>Manures: Other sorts</b>			1850-1938	AnSt	1850-1894 interpolated with Chemicals [AnSt]; 1908-38 interpolated with Manures: Sulphate of Ammonia [AnSt]
<b>Manures: Sulphate of Ammonia</b>			1850-1938	AnSt	1850-1894 interpolated with Chemicals [AnSt]
<b>Margarine</b>			1910-1938	AnSt	
<b>Milk</b>			1850-1938	AnSt	1850-94 interpolated with Milk [Gregory Clark]
<b>Molasses</b>			1850-1938	AnSt	1850-53 interpolated with Sugar (British west indian refining) [Sauerbeck]; 1854-1894 and 1910-38 interpolated with Sugar unrefined [AnSt]
<b>Mutton</b>			1846-1938	Sauerbeck	2 series [Sauerbeck]: Mutton Prime and Mutton Middling
<b>Nitrate (of soda)</b>			1846-1938	Sauerbeck	
<b>Non-Steam Engine: Agricultural</b>			1850-1938	AnSt	1850-54 interpolated with Electrical Machinery [AnSt]; 1855-1903 and 1914-38 interpolated with Plant & Machinery [Feldstein(1965)]
<b>Nuts and kernels</b>			1850-1938	AnSt	1850-53 and 1910-16 interpolated with Seeds (linseeds) [Sauerbeck]; 1925-38 with Seeds and Nuts [AnSt]
<b>Oats</b>	1800-1850	GRS	1846-1938	Sauerbeck	
<b>Oil (linseeds)</b>	1800-1850	GRS	1846-1938	Sauerbeck	
<b>Oil (olive)</b>	1800-1850	GRS	1846-1938	Sauerbeck	
<b>Oil (palm)</b>			1846-1938	Sauerbeck	
<b>Oil Petroleum illuminating</b>			1850-1938	AnSt	1850-94 and 1910-38 interpolated with Petroleum (refined) [Sauerbeck]
<b>Oil Petroleum lubricating</b>			1850-1938	AnSt	1850-94 and 1910-38 interpolated with Petroleum (refined) [Sauerbeck]
<b>Opium</b>	1800-1938	John F. Richards			1936-38 interpolated with Tobacco unmanufactured [AnSt]
<b>Oranges</b>			1850-1938	AnSt	1850-53 interpolated with Raisins/currants [Clark]
<b>Paper</b>			1846-1938	AnSt	average of the products: Paper Manufactures (Hangings) [AnSt], paper for writing [AnSt], paper for printing [AnSt], paper of other sorts (not hangings) [AnSt]
<b>Paraffin Wax</b>	1800-1850	GRS	1850-1938	AnSt	1850-94 interpolated with Tallow St. Petersburg [Sauerbeck]

<b>Pepper</b>	1800-1850	GRS	1850-1938	Korthals Altes W.L.	
<b>Petroleum (refined)</b>			1850-1938	Sauerbeck	
<b>Phosphate of Lime and Rock</b>			1850-1938	AnSt	1850-1894 interpolated with Nitrate (of soda) [Sauerbeck]
<b>Pork</b>	1800-1850	GRS	1846-1938	Sauerbeck	
<b>Pig iron</b>	1800-1850	GRS	1846-1938	AnSt	
<b>Potatoes</b>			1846-1938	Sauerbeck	
<b>Pulp of wood</b>			1850-1938	AnSt	1850-94 interpolated with Paper Manufactures (Hangings) [AnSt]
<b>Quicksilver</b>	1800-1850	GRS			
<b>Rails</b>			1846-1938	AnSt	
<b>Raisins</b>			1850-1938	AnSt	1850-53 interpolated with Raisins/currants [Clark]; 1854-94 interpolated with Currants [AnSt]
<b>Rape oil</b>	1800-1850	GRS			
<b>Rice</b>			1846-1938	Sauerbeck	
<b>Road Motor cars</b>			1850-1938	AnSt	1850-54 interpolated with Electrical Machinery [AnSt]; 1855-1907 and 1914-1923 interpolated with Plant & Machinery [Feldstein(1965)]
<b>Rubber crude</b>			1850-1938	AnSt	
<b>Saltpetre</b>	1800-1850	GRS			
<b>Salt</b>			1850-1938	AnSt	1850-53 and 1881-1938 interpolated with Pepper [Korthals Altes 1994]
<b>Seeds: cotton</b>			1850-1938	AnSt	1850-60 and 1925-38 interpolated with Seeds (linseeds) [Sauerbeck]
<b>Seeds and nuts</b>	1800-1850	GRS	1850-1938	AnSt	1850-1916 extrapolated back with average price of Nuts and Kernels [AnSt], Linseed [Sauerbeck] and Seeds: cotton [AnSt]
<b>Seeds for expressing Oil</b>			1910-1924	AnSt	
<b>Seeds (linseeds)</b>	1800-1850	GRS	1846-1938	Sauerbeck	
<b>Silk</b>			1846-1938	AnSt	average of the products: Silk thrown [AnSt], Silk Manufactures (Broad Piece Goods) [AnSt], Silk Manufactures (Broad stuffs) [AnSt]. Interpolated for 1914-26 using change in average price of cotton and wool manufactures [AnSt]
<b>Silk (tsatlee)</b>	1800-1850	GRS	1846-1938	Sauerbeck	
<b>Silver</b>	1800-1913	Jastram			



<b>Sesamum</b>			1850-1938	AnSt	1850-56 and 1871-1938 interpolated with Seeds (linseeds) [Sauerbeck]
<b>Sheep and lambs</b>			1850-1938	AnSt	1850-53 and 1910-38 interpolated with Mutton Middling [Sauerbeck]
<b>Soap</b>	1800-1850	GRS	1850-1938	AnSt	1850-54 interpolated with Soap [Clark]
<b>Spirits</b>	1800-1850	GRS	1850-1938	AnSt	1850-53 interpolated Wine-Port [Clark]
<b>Starch</b>	1800-1850	GRS			
<b>Steel bars</b>			1846-1938	AnSt	
<b>Sugar (British west indian refining)</b>			1846-1938	Sauerbeck	
<b>Sugar unrefined</b>	1800-1850	GRS	1850-1938	AnSt	1850-53 interpolated with Sugar (British west indian refining) [Sauerbeck]
<b>Tallow</b>	1800-1850	GRS	1846-1938	Sauerbeck	2 series [Sauerbeck]: Tallow St. Petersburg and Tallow Town
<b>Tea</b>	1800-1850	GRS	1846-1938	Sauerbeck	2 series [Sauerbeck]: Tea (Average import price) and Tea (Congou, common)
<b>Textil Machinery</b>			1850-1938	AnSt	1855-1902 textile machinery constructed by extrapolating the price for Textil Machinery using the index for Plant & Machinery [Feldstein (1965)]
<b>Timber</b>	1800-1850	GRS	1846-1938	Sauerbeck	2 series [Sauerbeck]: Timber (Hewn, average import) and Timber (sawn or split, average import)
<b>Tin Ore</b>	1800-1850	GRS	1850-1938	AnSt	1850-56 interpolated with Tin (Straits) [Sauerbeck]; 1857-1894 interpolated with Iron Ore [AnSt]
<b>Tin (Straits)</b>			1846-1938	Sauerbeck	
<b>Tobacco manufactures</b>			1850-1938	AnSt	1850-53 interpolated with Tobacco England [Gregory Clark]; 1854-79 interpolated with Tobacco all kinds [AnSt]
<b>Tobacco unmanufactured</b>	1800-1850	GRS	1850-1938	AnSt	1850-53 interpolated with Tobacco England [Gregory Clark]; 1854-79 interpolated with Tobacco all kinds [AnSt]
<b>Tomatoes</b>			1850-1938	AnSt	1850-1909 interpolated with Potatoes [Sauerbeck]

<b>Valonia</b>			1850-1938	AnSt	1850-53, 1910-11 and 1914-1938 interpolated with Indigo [Sauerbeck]
<b>Vegetables fresh</b>			1850-1938	AnSt	1850-1933 interpolated with Potatoes [Sauerbeck]
<b>Whale Oil</b>	1800-1850	GRS			
<b>Wheat (English Gazette)</b>			1846-1938	Sauerbeck	
<b>Wine</b>	1800-1850	GRS	1850-1938	AnSt	1850-53 interpolated Wine-Port [Clark]; 1854-94 interpolated with Spirits [AnSt]
<b>Wollen and worsted yarns</b>			1846-1938	AnSt	
<b>Wollen clothing – flannel</b>			1846-1938	AnSt	1910-38 interpolated with Wollen worsted manufactures [AnSt]
<b>Wollen pice light all wool</b>			1846-1938	AnSt	
<b>Wollen worsted manufactures</b>			1846-1938	AnSt	average of the products: Wollen pice light all wool [AnSt], Worsted stuffs all wool [AnSt], Worsted stuffs mixed [AnSt], Wollen clothing - flanel [AnSt], Woolem pice light mixed [AnSt]
<b>Wool</b>	1800-1850	GRS	1846-1938	Sauerbeck	3 series [Sauerbeck]: Wool (english lincoln half hogs, Wool (merino, adelaide, average grease), Wool (merino, port phillip, average fleece)
<b>Zinc Ore</b>			1850-1938	AnSt	1857-1894 interpolated with Iron Ore [AnSt]

Abbreviations

Sources:AnSt: United Kingdom *Annual Statement*..

Clark: Clark (2004)

GRS: Gayer Rostow and Schwartz (1953),

Sauerbeck: Sauerbeck 1846-1938.

## Appendix H. Price Index Sources

Polity	Years	Index	Products	Coverage	Source for composition
		1) 1850-1919 Laspeyres	1) Wheat (English Gazette), Maize, Rice, Flour, Coffee (Ceylon plantation, low middling), Sugar unrefined, Hides (River plate dry), Salt, Petroleum (refined), Indigo, Chemicals, Leather and manufactures, Woollen worsted manufactures, Cotton yarns, Cotton manufactures, Timber (Hewn, average import), Paper, Cement, Earthenware, Iron and steel manufactures, Machinery hardware, Road Motor cars		1) League of Nations (1925)
<b>Albania IMP</b>	1850-1938	2) 1920-38 Fisher	2) as for 1)	1) 88,4% (1925)	League of Nations (1929)
					League of Nations (1933)
					League of Nations (1936)
					League of Nations (1938)
					2) as for 1)

		1) 1850-1919 Laspeyres	1) Cattle, Sheep and lambs, Butter, Cheese, Fish, Eggs, Wheat (English Gazette), Barley, Oats, Maize, Oil (olive), Hides (River plate dry), Timber (Hewn, average import), Coal (Wallsend Hetton in London), Crude petroleum, Petroleum (refined), Wool (english lincoln half hogs), Tobacco manufactures		1) League of Nations (1925)
<b>Albania EXP</b>	1850-1938	2) 1920-38 Fisher	2) as for 1)	1) 90,5% (1925)	League of Nations (1929)
					League of Nations (1933)
					League of Nations (1936)
					League of Nations (1938)
					2) as for 1)
<b>Algeria IMP</b>	1800-1938	1) 1800-60 Laspeyres	1) Sugar (British west indian refining), Wine, Cotton manufactures, Linen manufactures, Woollen worsted manufactures, Leather	1) 47,9% (1860)	1) France (Colonies). Statistical Yearbooks(several years).
			Crop Hides		

2) 1850-1938 Fisher	2) Barley, Beans, Butter, Cattle, Cheese, Chemicals, Coal (Wallsend Hetton in London), Coffee (Rio good Channel), Copper lingots, Cotton manufactures, Cotton yarns, Fish, Currants, Fresh fruit, Seeds and nuts, Earthenware, Leather Dressing Hides, Rubber crude, Iron and steel manufactures, Iron (Scotch pig), Linen manufactures, Lead, Leather and manufactures, Boots and shoes of leather, Machinery hardware, Paper, Petroleum (refined), Pork, Potatoes, Rice, Seeds (linseeds), Silk (tsatlee), Soap, Sugar (British west indian refining), Sugar unrefined, Timber (Hewn, average import), Tobacco manufactures, Tobacco unmanufactured, Oil (olive), Road Motor Cars, Wheat (English Gazette), Flour, Wine, Woollen worsted manufactures	2) 64,6% (1913)	2) United Kingdom(colonies) . Statistical Yearbooks (several years).
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and United Kingdom (foreign countries)  
Statistical Yearbooks 1901 to 1912.

League of Nations (1929)

League of Nations (1933)

League of Nations (1936)

League of Nations (1938)

Algeria EXP	1800-1938	1) 1800-50 Laspeyres	1) Hides For dressing, Wool Spanish, Beeswax, Wheat Amsterdam, Tobacco Brown, Olive oil	1) 66,8% (1849)	1) United Kingdom (foreign countries) Statistical Yearbooks (sveral years).
				2) 84,3% (1913)	
		2) 1850-1938 Fisher	2) Cotton manufactures, Barley, Tobacco manufactures, Copper Ore, Eggs, Fish, Flour, Currants, Fresh fruit, Hides (River Plate dry), Iron (Scotch pig), Lead, Leather and manufactures, Oats, Oil (olive), Cattle, Paper, Phosphate of Lime and Rock, Potatoes, Sheep and lambs, Spirits, Timber (Hewn, average import), Tobacco unmanufactured, Flax (Russian average import), Wheat (English Gazette), Wine, Wool (english lincoln half hogs)		2) United Kingdom (colonies). Statistical Yearbook
					United Kingdom (foreign countries) Statistical Yearbook (1901 to 1912). League of Nations (1929).
					League of Nations (1933)
					League of Nations (1936)
					League of Nations (1938)
Argentina IMP	1800-1938	1) 1800-63 Laspeyres	1) Coal (Wallsend Hetton in London), Cotton manufactures, Iron (Bars), Silk, Woollen worsted manufactures, Linen manufactures, Wheat (English Gazette), Rice, Oil (olive), Sugar (British west	1) 68,8% (1863)	1) Macgregor (1850)

		indian refining), Tobacco manufactures, Wine, Spirits			
	2) 1850-1938 Fisher	2) Wollen clothing, Coal (Average Export price), Cotton manufactures, Chemicals, Machinery hardware, Non-Steam Engine: Agricultural, Rails, Steel bars, Iron and steel manufactures, Silk, Woollen worsted manufactures, Linen manufactures, Paper, Jute Canvas and Sacking, Wheat (English Gazette), Rice, Oil (olive), Sugar (British west indian refining), Tobacco manufactures, Wine, Spirits, Timber (Hewn, average import)	2) 53,4% (1913)		
				2) United Kingdom (foreign countries). Statistical Yearbooks (several years)	
				League of Nations (1925)	
				League of Nations (1929)	
<b>Argentina EXP</b>	1) 1800-42 Laspeyres	1) Hides Buenos Aires, Tallow, Beef Irish, Wool Spanish	1) 90,3% (1843)	1) Macgregor (1850)	
	2) 1843-50 Fisher	2) as for 1)	3) 68,2% (1913)		
	3) 1850-1938 Fisher	3) Bristles, Seeds (linseed), Maize, Wheat (English Gazette), Hides (River plate dry), Beef (prime), Wool (merino, port phillip, average fleece)		2) Tena-Willebald (2012) and United Kingdom (foreign countries). Statistical Yearbooks ( <i>several years</i> )	

				3) as for 2)
				League of Nations (1925)
				League of Nations (1929)
Australia IMP	1800-1938	1) 1800-55 Laspeyres	1) Cotton manufactures, Wine, Wheat (English Gazette), Flour, Leather and manufactures, Linen manufactures, Sugar unrefined, Tea (Congou, common), Timber (Hewn, average import), Tobacco manufactures, Iron (Bars), Spirits, Paraffin Wax, Coal (Wallsend Hetton in London), Wool (english lincoln half hogs), Butter	1) 50,7% (1855) 1) United Kingdom (colonies) Statistical Yearbook for 1853 to 1867
		2) 1850-70 Fisher		2) 42,3% (1870) 2) as for 1 , in each year from 1855 to 1869.
		3) 1871-1938 Laspeyres	2) Wollen clothing, Beer and ale, Wheat (English Gazette), Flour, Iron and steel manufactures, Machinery hardware, Leather and manufactures, Cotton manufactures, Sugar unrefined, Tea (Congou, common), Timber (Hewn, average import), Tobacco manufactures, Wine, Iron (Bars), Paper, Spirits, Boots and shoes of leather, Coal (Wallsend Hetton in London), Woollen worsted manufactures, Wool (english lincoln half hogs), Butter,	3) as for 2)
			Potatoes	
				3) as for 2)



<b>Australia EXP</b>	1800-1938	1) 1800-35 Laspeyres	1) Wheat Amsterdam, Hides For dressing, Sugar Brown, Tea, Tobacco Brown, Wool Spanish	1) 60,5% (1836)	1) United Kingdom (colonies). Statistical Yearbooks 1836. 2) as for 1)
		2) 1836-50 Fisher	2) as for 1)	3) 59,5% (1870)	3) United Kingdom (colonies). Statistical Yearbook 1855 to 1869.
		3) 1850-70 Fisher	3) Coal (Wallsend Hetton in London), Cotton manufactures, Cotton (Fair Dhollerah (Surat)), Flour, Wheat (English Gazette), Gold, Maize, Iron and steel manufactures, Hides (River plate dry), Sugar (British west indian refining), Sugar unrefined, Tallow Town, Tea (Congou, common), Tobacco unmanufactured, Wool (english lincoln half hogs), Timber (Hewn, average import), Sheep and lambs, Cattle, Beef (middling), Copper (Chili Bars)		4) as for 3)
		4) 1871- 1938 Laspeyres	Copper Ore		
<b>Austria- Hungary IMP</b>	1800-1875	1) 1800-30 Laspeyres	1) Coal, Coffee, Cotton raw, Wheat Amsterdam, Beef [Horned cattles], Indigo, Iron Wrought, Hides Buenos Aires, Rum, Sugar Brown, Tea, Tobacco, Wool	1) 100% (1841)	1) Austria-Hungary. Trade Statistics 1843 and 1875
		2) 1831-50 Fisher	2) as for 1)		2) as for 1)
		3) 1850-75 Fisher	3) Cattle [Animals (except horses)], Coal (Wallsend Hetton in London), Coffee (Rio good Channel), Cotton (Fair Dhollerah (Surat)), Cotton yarns, Indigo, MEDIA: hemp and flax [flax, hemp and jute], Wheat, Hides (River plate dry), Pig Iron, Leather		3) United Kingdom (foreign countries). Statistical Yearbooks. (several years).

			Dressing Hides, Machinery hardware, Oil (linseeds), Silk (tsatlee), Silk, Tobacco unmanufactured, Wool (english lincoln half hogs), Woollen worsted manufactures, Wollen and worsted yarns	3) 66,4% (1875)	
<b>Austria-Hungary EXP</b>	1800-1875	1) 1800-30 Laspeyres	1) Beef, Coal, Wheat Amsterdam, Iron bars, Leather Butts, Sugar Brown, Brandy, Hides For dressing, Oats, Cotton textiles	1) 100% (1841)	1) Austria-Hungary (trade statistics) <i>1843 and 1875</i> .
		2) 1831-50 Fisher	2) as for 1)		2) as for 1)
			3) Cattle [Animals (except horses)], Coal (Wallsend Hetton in London), Flour, Wheat, Iron and steel manufactures, Leather and manufactures, Linen manufactures, Paper, Silk, Sugar unrefined, Timber (Hewn, average import), Wool (english lincoln half hogs), Woollen worsted manufactures	3) 51,9% (1875)	3) United Kingdom (foreign countries). Statistical Yearbooks. (several years).
		3)1850-75 Fisher			
<b>Austria IMP</b>	1913-1938		1) Cattle, Wheat (English Gazette), Flour, Sugar unrefined, Wine, Tobacco unmanufactured, Iron (Scotch pig), Iron (Bars), Coal (Wallsend Hetton in London), Wool (english lincoln half hogs), Cotton (Fair Dhollerah (Surat)), Chemicals,		1) League of Nations (1925)
		1) 1913-1938 Laspeyres	Leather Dressing Hides, Wollen and worsted yarns, Cotton yarns,	1) 71,8% (1922)	League of Nations (1929)
			Woollen worsted manufactures, Silk, Cotton manufactures, Timber (Hewn, average import), Paper,  Iron and steel manufactures,		

			Machinery hardware		
			1) Timber (Hewn, average import), Iron (Scotch pig), Iron (Bars), Cement, Indigo, Chemicals,		1) League of Nations (1925)
			Leather Dressing Hides,		League of Nations (1929)
<b>Austria EXP</b>	1913-1938	1) 1913-1938 Laspeyres	Leather and manufactures,	1) 79,4% (1922)	
			Woollen worsted manufactures, Silk, Cotton yarns, Cotton manufactures, Hats, Rubber crude, Timber (Hewn, average import), Paper, Iron and steel manufactures, Machinery hardware, Electrical Machinery		
		1) 1850-95 Laspeyres	1) Cattle, Maize, Flour, Coal (Wallsend Hetton in London),		1) ) U.S.A (1909). HISTORICAL STATISTICS <i>Statistical Abstract of Foreign Countries</i> Department of ..
		2) 1896-1938 Fisher	Coffee (Rio good Channel), Cotton manufactures, Earthenware, Machinery hardware, Butter, Bacon, Beef (middling), Rice, Beer and ale, Spirits, Sugar (British west indian refining), Sugar unrefined, Petroleum (refined), Jute, Tin (Straits), Boots and shoes of leather, Timber (Hewn, average import), Road Motor cars, Tobacco manufactures	1) 68,9% (1913)	
<b>Bahamas IMP</b>	1850-1938		2) as for 1)		And United Kingdom (colonies), Statistical Yearbooks..(1926) , (1931), (1937)

					2) as for 1)
		1) 1850-95 Laspeyres	1) Fresh fruit, Salt, Fish [Sponges], Timber (Hewn, average import), Hemp (Manila, Fair Roping), Tomatoes		1) United Kingdom (colonies) Statistical Yearbooks (1853 ) to (1905) and (1926), (1931), (1937)
<b>Bahamas EXP</b>	1850-1938	2) 1896- 1938 Fisher	2) as for 1)	1) 90,4% (1913)	
					2) as for 1)
<b>Barbados IMP</b>	1850-1938	1) 1850- 1938 Fisher	1) Butter, Oats, Maize, Flour, Fish, Machinery hardware, Guano, Manures: Sulphate of Ammonia, Cotton manufactures, Timber (Hewn, average import), Beef (middling), Rice	1) 52,6% (1913)	1) United Kingdom (colonies) Statistical Yearbooks <i>for 1853 to (1905) (1926)</i>  (1931) (1937)
		1) 1800-55 Laspeyres	1) Wheat (English Gazette), Molasses, Sugar unrefined	1) 78,6% (1855)	
<b>Barbados EXP</b>	1800-1938	2) 1850- 1938 Fisher		2) 63,7% (1913)	1) and 2) United Kingdom (colonies) Statistical Yearbooks <i>(1853 to 1867) (1870 to 1884) (1877 to 1891) for (1890 to 1904) , (1909 to 1923), (1923 to 1927), (1924 to 1929 ), (1926) ,(1931), (1937).</i>
			2) Flour, Molasses, Sugar unrefined		

<b>Belgian Congo IMP</b>	1850-1938	1) 1850-1938 Laspeyres	1) Cattle, Wine, Beer and ale, Chemicals, Coal (Wallsend Hetton in London), Cotton manufactures, Wheat (English Gazette), Flour, Rice, Fish, Salt, Sugar unrefined, Machinery hardware, Rails, Iron and steel manufactures, Galvanised corrugated sheets, Copper lingots, Petroleum (refined), Paper, Tobacco manufactures, Woollen worsted manufactures, Earthenware	1) 51,7% (1912)	1) ) United Kingdom (foreign countries): Statistical Yearbooks 1912
<b>Belgian Congo EXP</b>	1850-1938	1) 1850-1938 Laspeyres	1) Cocoa, Copper Ore, Oil (palm), Rubber crude, Hides (River plate dry)	1) 73,6% (1912)	1) United Kingdom (foreign countries). Statistical Yearbooks.
<b>Bermuda IMP</b>	1850-1938	1) 1850-1908 Laspeyres  2) 1909-38 Fisher	1) Beer and ale, Cotton manufactures, Beef (middling),  Butter, Coal (Wallsend Hetton in London), Boots and shoes of leather, Manures: Sulphate of Ammonia, Fish, Flour, Oats,  Machinery hardware, Petroleum (refined), Cattle, Paper, Potatoes  Fresh fruit, Spirits, Sugar unrefined, Earthenware,  Timber (Hewn, average import), Tobacco manufactures	1) 50,7% (1913)	1) United Kingdom (colonies). Statistical Yearbooks (1853 to 1867) (1870 to 1884) (1877 to 1891) for (1890 to 1904) , (1909 to 1923), (1923 to 1927), (1924 to 1929 ), (1926) ,(1931), (1937).  2) as for 1)

2) as for 1)					
<b>Bermuda EXP</b>	1850-1938	1) 1850-1908 Laspeyres 2) 1909-38 Fisher	1) Vegetables fresh, Potatoes  2) as for 1)	1) 71,9% (1913)	1) United Kingdom (colonies) Statistical Yearbooks (1909 to 1923), (1923 to 1927), (1924 to 1929 ), (1926) , (1931), (1937).  2) as for 1)
<b>Bolivia IMP</b>	1850-1938	1) 1850-1909 Laspeyres	1) Cattle, Rice, Wheat (English Gazette), Sugar unrefined, Petroleum (refined), Paraffin Wax,		1) United Kingdom (colonies) Statistical Yearbooks 1901 to 1920.
		2) 1910-38 Fisher	Coal (Wallsend Hetton in London), Cement, Indigo, Chemicals, Boots and shoes of leather, Cotton manufactures, Hats, Caoutchouc manufactured, Timber (Hewn, average import), Paper, Earthenware, Iron and steel manufactures, Machinery hardware, Road Motor cars		League of Nations (1925)
					League of Nations (1929)
			2) as for 1)	1) 50,8 (1913)	League of Nations (1933)
					League of Nations (1936)
<b>Bolivia EXP</b>	1800-1938	1) 1800-50 Laspeyres	1) Yellow soap, Tobacco Brown,	1) 95,5% (1840)	League of Nations (1938)
					2) as for 1)
<b>Bolivia EXP</b>	1800-1938	1) 1800-50 Laspeyres	1) Yellow soap, Tobacco Brown,	1) 95,5% (1840)	1) ) United Kingdom(foreign countries) Statistical

		2) 1850-1907 Laspeyres	Hides Buenos Aires, Starch Common, Beeswax, Black tin [Pewter], Coffee Ordinary, Indigo	2) 92,3% (1913)	2) <i>as for 1</i>
		3) 1908-38 Fisher			League of Nations (1925)
			2) Opium [Coca], Rubber crude, Copper Ore, Lead, Zinc Ore, Tin Ore		League of Nations (1929)
			3) as for 2)		League of Nations (1933)
					League of Nations (1936)
					League of Nations (1938)
<b>Brazil IMP</b>	1800-1901	1) 1800-1850 Laspeyres	1) Beef, Wheat Amsterdam, Cotton textiles, Wine	1) 42,04% (1848)	1) Brazil. IPEA data (2009)
		2) 1850-1901 Fisher	2) Beef (middling), Wheat (English Gazette), Machinery hardware, Cotton manufactures, Woollen worsted manufactures, Wine	2) 48,6% (1863)	2) U.S.A (1909). HISTORICAL STATISTICS <i>Statistical Abstract of Foreign Countries</i>
<b>Brazil EXP</b>	1800-1901	1) 1800-42 Laspeyres	1) Sugar Brown, Coffee Ordinary, Hides For dressing, Cotton Raw, Tobacco Brown	1) 80,9%	1) Absell-Tena (2015) and Brazil. IPEA data (2009)
		2) 1843-50 Fisher	2) as for 1)	-1843	2) as for 1)

		3) 1850-1901 Fisher	3) Sugar unrefined, Coffee (Rio good Channel), Hides (River plate dry), Cotton (Fair Dhollerah (Surat)), Tobacco unmanufactured, Rubber crude	3) 89,9%	3) U.S.A (1909). HISTORICAL STATISTICS <i>Statistical Abstract of Foreign Countries</i>
				-1863	
<b>British Guiana IMP</b>	1850-1938	1) 1850-1938 Fisher	1) Butter, Flour, Fish, Timber (Hewn, average import), Machinery hardware, Beer and ale, Manures: Sulphate of Ammonia, Petroleum (refined), Coal (Wallsend Hetton in London), Tobacco unmanufactured, Opium, Pork, Rice, Spirits	1) 40,1% (1913)	1) United Kingdom (colonies) Statistical Yearbooks (1850 -1901)  (1926) (1931) (1937)
<b>British Guiana EXP</b>	1800-1938	1) 1800-19 Laspeyres  2) 1820-50 Fisher  3) 1850-1938 Fisher	1) Rum, Sugar, Cotton Raw, Coffee  2) as for 1)  3) Sugar unrefined, Spirits	1) 88,4% (1850)  3) 72,5% (1913)	1) Bulmer-Thomas (2012)  2) as for 1)  3) as for 2)
<b>British Honduras IMP</b>	1850-1938	1) 1850-95 Laspeyres	1) Cattle, Maize, Flour, Cotton manufactures, Chemicals, Iron and steel manufactures, Machinery hardware, Leather and manufactures, Bacon, Butter, Beef (middling), Rice, Spirits, Wine, Tobacco manufactures, Timber (Hewn, average import), Woollen worsted manufactures	1) 61% (1906)	1) U.S.A (1909). HISTORICAL STATISTICS <i>Statistical Abstract of Foreign Countries</i>



			2) as for 1)	2) as for 1)	2) as for 1)
		2) 1896-1906 Fisher	3) as for 1)	3) as for 1)	3) as for 1)
		3) 1907-38 Laspeyres			
<b>British Honduras EXP</b>	1800-1938	1) 1800-50 Laspeyres	1) Logwood, Mahogany	1) 80,4% (1850)	1) U.S.A (1909). <i>HISTORICAL STATISTICS Statistical Abstract of Foreign Countries</i>
		2) 1850-95 Laspeyres		2) 56,5% (1906)	2) as for 1)
			2) Fresh fruit, Coconut Oil, Rubber crude, Timber (Hewn, average import)		3) as for 2)
		3) 1896-1906 Fisher	3) as for 2)		4) as for 3)
			4) as for 2)		
		4) 1907-38 Laspeyres			
<b>British Malaya IMP</b>	1850-1938	1) 1850-89 Laspeyres	1) Woollen clothing, Nuts and kernels, Cattle, Chemicals, Coal (Average Export price), Coffee (Ceylon plantation, low middling), Cotton manufactures, Cotton	1) 65,4% (1890)	1) United Kingdom (colonies) Statistical Yearbooks (1905), (1926), (1931), (1937)

			yarns, Fish, Flour (Town made White), Rubber crude, Hides (River plate dry), Iron and steel manufactures, Textil Machinery, Chemicals, Road Motor cars, Opium, Paper, Pepper, Crude petroleum, Pork, Rice, Silk, Spirits, Sugar unrefined, Tea (Congou, common), Tin (Straits), Tobacco unmanufactured, Coconut Oil, Timber (Hewn, average import)		
		2) 1890-1923 Fisher	2) as for 1)	2) as for 1)	2) as for 1)
		3) 1924-38 Laspeyres	3) as for 1)	3) as for 1)	3) as for 2)
<b>British Malaya EXP</b>	1850-1938	1) 1850-89 Laspeyres	1) Seeds and nuts, Fresh fruit, Cotton manufactures, Cotton yarns, Fish, Rubber crude, Hides (River plate dry), Crude petroleum, Opium, Rice, Sugar unrefined, Tin (Straits), Tobacco unmanufactured, Timber (Hewn, average import)	1) 74,8% (1890)	United Kingdom (colonies) Statistical Yearbooks (1905), (1926), (1931), (1937)
		2) 1890-1923 Fisher	2) as for 1)	2) as for 1)	2) as for 1)
		3) 1924-38 Laspeyres	3) as for 1)	3) as for 1)	3) as for 2)
<b>British North Borneo IMP</b>	1850-1938	1) 1850-1908 Laspeyres	1) Cotton manufactures, Rice, Iron and steel manufactures, Machinery hardware, Petroleum (refined), Opium, Spirits, Sugar unrefined, Tobacco manufactures	1) 64,1% (1913)	United Kingdom (colonies) Statistical Yearbooks (1905), (1926), (1931), (1937).
		2) 1909-38 Fisher	2) as for 1)		2) as for 1)

<b>British North Borneo EXP</b>	1850-1938	1) 1850-1908 Laspeyres	1) Coal (Average Export price), Indigo, Fish, Rubber crude, Timber (Hewn, average import),	United Kingdom (colonies) Statistical Yearbooks (1905), (1926), (1931), (1937)	
		2) 1909-38 Fisher	Tobacco unmanufactured, Cattle	1) 84,5% (1913)	2) as for 1)
			2) as for 1)		
<b>British Settlements of Oceania IMP</b>	1850-1938	1) 1850-1912 Laspeyres	1) Fish, Flour, Rice, Beef (middling), Tea (Congou, common), Spirits, Tobacco unmanufactured, Coal (Wallsend Hetton in London), Timber (Hewn, average import), Cotton manufactures, Machinery hardware, Galvanised corrugated sheets, Road Motor cars, Manures: Sulphate of Ammonia, Petroleum (refined)	United Kingdom (colonies) Statistical Yearbooks (1926), (1931), (1937)	
		2) 1913-38 Fisher		1) 55,8% (1913)	2) as for 1)
			2) as for 1)		
<b>British Settlements of Oceania EXP</b>	1850-1938	1) 1850-1912 Laspeyres	1) Fresh fruit, Sugar unrefined, Copra, Phosphate of Lime and Rock	United Kingdom (colonies) Statistical Yearbooks (1926), (1931), (1939)	
		2) 1913-38 Fisher		1) 95,2% (1913)	2) as for 1)
			2) as for 1)		

<b>Bulgaria IMP</b>	1863-1938	1) 1863-87 Laspeyres	1) Chemicals, Coal (Average Export price), Coffee (Ceylon plantation, low middling), Indigo, Linen manufactures, Cotton (Fair Dhollerah (Surat)), Cotton manufactures, Cotton yarns, Beef (prime), Fresh fruit, Earthenware, Leather Dressing Hides, Hides (River plate dry), Steel bars, Pig iron, Rails, Iron and steel manufactures, Leather Dressing Hides, Machinery hardware, Oil (olive), Paper, Petroleum (refined), Rice, Rubber crude, Salt, Seeds (linseeds), Soap, Spirits, Sugar (British west indian refining), Road Motor cars, Wheat (English Gazette), Timber (Hewn, average import), Wool (merino, port phillip, average fleece), Wollen worsted manufactures, Wollen and worsted yarns	1) 73,7% (1913)	1) United Kingdom (foreign countries) Statistical Yearboooks ( <i>several years</i> )
		2) 1888-1938 Fisher	2) as for 1)		League of Nations (1929)
					League of Nations (1933)
					League of Nations (1936)
					League of Nations (1938)
<b>Bulgaria EXP</b>	1863-1938	1) 1863-87 Laspeyres	1) Barley, Beans, Cheese, Seeds (linseeds), Eggs, Hides (River plate dry), Leather Dressing Hides, Maize, Oats, Rye, Tobacco unmanufactured, Wheat (English Gazette), Flour, Timber (Hewn, average import), Wollen worsted manufactures, Coal (Average Export price), Tobacco manufactures, Currants,	1) 90,1% (1913)	1) United Kingdom (foreign countries) Statistical Yearboooks ( <i>several years</i> ).

			Fresh fruit, Sheep and lambs, Silk (tsatlee), Cattle			
		2) 1888-1938 Fisher	2) as for 1)			League of Nations (1929)
						League of Nations (1933)
						League of Nations (1936)
						League of Nations (1938)
						2) as for 1)
<b>Cameroons IMP</b>	1850-1938	1) 1850-1926 Laspeyres 2) 1927-38 Fisher	1) Fish, Rice, Cotton manufactures, Cotton piece bleached, Iron and steel manufactures, Machinery hardware, Petroleum (refined) 2) as for 1)	1) 53,6%  -1913		1) United Kingdom (colonies) Statistical Yearbooks (1937) 2) as for 1)
<b>Cameroons EXP</b>	1850-1938	1) 1850-1926 Laspeyres 2) 1927-38 Fisher	1) Fresh fruit, Cocoa, Nuts and kernels, Oil (palm), Rubber crude 2) as for 1)	1) 97,5% (1913)		1) United Kingdom (colonies) Statistical Yearbooks (1937) 2) as for 1)
<b>Canada IMP</b>	1800-1870	1) 1800-53 Laspeyres	1) Coal (Wallsend Hetton in London), Iron (Bars), Hides (River plate dry), Cotton manufactures, Iron and steel manufactures, Pig, Boots and shoes of leather, Silk (tsatlee), Wool (english	1) 70,3% (1853)		1) United Kingdom (colonies) Statistical Yearbooks, 1853 to 1867.

			lincoln half hogs), Beef (middling), Spirits, Sugar unrefined, Tea (Average import price), Wine, Leather and manufactures, Tallow St. Petersburg		
	2) 1850-70 Fisher	2) Coal (Wallsend Hetton in London), Fish, Flour, Maize,  Wheat (English Gazette), Hides (River plate dry), Cotton manufactures, Iron and steel manufactures, Rails, Pig iron, Boots and shoes of leather, Machinery hardware, Silk (tsatlee), Wollen worsted manufactures, Mutton Middling, Spirits, Sugar unrefined, Tea (Average import price), Wine,  Leather and manufactures, Pork,  Butter, Tallow St. Petersburg	2) 52,4% (1869)	2) as 1) and 1855 to 1869 and 1864 to 1878.	
<b>Canada EXP</b>	1) 1800-35 Laspeyres	1) Ashes Pearl, Timber Pine,	1) 77,2% (1836)	1) United Kingdom (colonies) Statistical Yearboooks 1836. 2) as for 1)	
	2) 1836-50 Fisher	Wheat, Butter	3) 50,6% (1869)	3) United Kingdom (colonies) Statistical Yearboooks.1855 to 1869 and 1864 to 1878.	
	3) 1850-70 Fisher	2) as for 1)  3) Timber (Hewn, average import), Cattle, Oats, Wool (english lincoln half hogs), Barley, Wheat (English Gazette), Flour, Butter			
<b>Ceylon IMP</b>	1850-1890	1) 1850-90 Fisher	1) Coal (Wallsend Hetton in London), Cotton manufactures, Fish, Rice	1) 31,7% (1870)	1) United Kingdom (colonies) Statistical Yearboooks.1855 to 1869

Ceylon EXP	1800-1890	1) 1800-39 Laspeyres	1) Coffee Ordinary, Rape oil [oil, coconut]	1) 65% (1840)	1) Hanson, John R., II (1980),
		2) 1840-50 Fisher	2) as for 1)	3) 89,2% (1870)	and United Kingdom (colonies) Statistical Yearboooks (several years).
		3) 1850-90 Fisher	3) Seeds and nuts, Cinnamon, Coffee (Ceylon plantation, low middling), Cotton manufactures, Coconut oil		1853 to 1867.
		2) as for 1)			
				3) United Kingdom (colonies) Statistical Yearboooks (several years)	
				1853 to 1867.	
Chile IMP	1800-1938	1) 1800-59 Laspeyres	1) Cattle, Paraffin Wax, Coal (Wallsend Hetton in London), Coffee (Rio good Channel),	1) 42,2% (1859)	1) Macgregor (1850
		2) 1850-58 Laspeyres	Cotton manufactures, Iron (Bars), Rails, Sugar unrefined, Tea (Congou, common), Wine, Timber (Hewn, average import), Wollen worsted manufactures		
		3) 1859-1938 Fisher	2) Cattle, Paraffin Wax, Coal (Wallsend Hetton in London), Coffee (Rio good Channel),	2) 48,8% (1912)	2) United Kingdom (foreign countries) Statistical Yearboooks (sveral years) and Chile. Statistical Yearbook, (1934).
		3) as for 2)			

3) as for 2)					
<b>China EXP</b>	1800-1867	1) 1800-67 Laspeyres	1) Cotton (Middling uplands), Silk (tsatlee), Tea (Congou, common), Tobacco unmanufactured	1) 95,6% (1867)	1) China. Hsiao L. (1974)
<b>Colombia EXP</b>	1800-1850	1) 1800-50 Laspeyres	1) Sugar Brown, Hides Buenos Aires, Tobacco Brown, Quicksilver, Cocoa, Logwood, Cotton Raw, Fustic	1) 79,4% (1836)	1) United Kingdom (colonies). Statistical Yearbook. 1836.
<b>Costa Rica IMP</b>	1850-1938	1) 1850-1902 Laspeyres	1) Cattle, Bacon, Fish, Flour, Maize, Rice (Rangoon, cargoes to arrive), Wine, Timber (Hewn, average import), Petroleum (refined), Paraffin Wax, Earthenware, Hides (River plate dry), Tobacco unmanufactured, Zinc Ore, Coal (Wallsend Hetton in London),		1) U.S.A (1909). HISTORICAL STATISTICS
		2) 1903-38 Fisher	Cement, Chemicals, Tobacco manufactures, Leather and manufactures, Wollen worsted manufactures, Silk, Cotton piece bleached, Hats, Caoutchouc manufactured, Paper, Rails, Electrical machinery, Iron and steel manufactures, Machinery hardware, Road Motor cars, Timber (Hewn, average import)	1) 49,5% (1913)	League of Nations (1925)
			2) as for 1)		League of Nations (1929)
					League of Nations (1933)



					League of Nations (1936)
					League of Nations (1938)
					2) as for 1)
Costa Rica EXP	1800-1938	1) 1800-60 Laspeyres	1) Coffee (Rio good Channel)	1) 73,3%	1) Hanson, John R., II (1980)
		2) 1850-1902 Laspeyres		-1860	
		3) 1903-38 Fisher	2) Fresh fruit, Coffee (Rio good Channel), Cocoa, Sugar unrefined, Hides (River plate dry),	2) 88,7% (1913)	2) U.S.A (1909). HISTORICAL STATISTICS
			Timber (Hewn, average import)		League of Nations (1925)
			3) as for 2)		League of Nations (1929)
					League of Nations (1933)
					League of Nations (1936)
					League of Nations (1938)
					3) as for 2)

<b>Creta EXP</b>	1850-1913	1) 1850-1913 Laspeyres	1) Oil (olive)	1) 100% (1913)	1) we use olive oil prices only
		1) 1800-51 Laspeyres	1) Wine, Beef (middling), Rice, Wheat (English Gazette), Cotton manufactures, Linen manufactures, Timber (Hewn, average import)	1) 51,2% (1851)	1) Macgregor (1850)
		2) 1850-1902 Laspeyres	2) Beef (middling), Pork, Maize, Rice, Flour, Potatoes, Coffee (Rio good Channel), Wine, Coal (Wallsend Hetton in London), Boots and shoes of leather, Cotton yarns, Cotton manufactures, Linen manufactures, Timber (Hewn, average import), Paper, Iron and steel manufactures,	2) 65,4% (1851)	2) United Kingdom (foreign countries). Statistical Yearboooks (several years).
<b>Cuba IMP</b>	1800-1902				League of Nations (1925)
					League of Nations (1929)
					League of Nations (1933)
					League of Nations (1936)
<b>Cuba EXP</b>	1800-1902	1) 1800-19 Laspeyres	1) Sugar, Coffee, Copper Manufactured, Tobacco Brown, Rum	1) 96,2% (1839)	1) Bulmer-Thomas (2012)
		2) 1820-50 Fisher	2) as for 1)	3) 96,4% (1850)	2) as for 1)

		3) 1850-1902 Fisher	3) Fresh fruit, Sugar unrefined, Coffee (Rio good Channel), Spirits, Molasses, Tobacco unmanufactured, Tobacco manufactures, Copper Ore		3) as for 2	League of Nations (1925)
<b>Cyprus IMP</b>	1850-1938	1) 1850-90 Laspeyres 2) 1891-1938 Fisher	1) Butter, Coal (Average Export price), Coffee (Ceylon plantation, low middling), Cotton manufactures, Cotton yarns, Fish, Flour, Hides (River plate dry), Iron (Bars), Leather Dressing Hides, Machinery hardware, Road Motor cars, Oil (olive), Petroleum (refined), Rice, Silk, Sugar unrefined, Timber (Hewn, average import), Tobacco unmanufactured, Wheat (English Gazette), Wollen worsted manufactures 2) as for 1)	1) 54% (1913)	1) United Kingdom (colonies) Statistical Yearboooks (1905), (1926), (1931), (1937) 2) as for 1)	
<b>Cyprus EXP</b>	1850-1938	1) 1850-90 Laspeyres 2) 1891-1938 Fisher	1) Cocoa, Cotton (Fair Dhollerah (Surat)), Raisins, Barley, Wheat (English Gazette), Hides (River plate dry), Silk (tsatlee), Spirits, Tobacco unmanufactured, Wine, Wool (english lincoln half hogs), Cheese, Potatoes, Cattle 2) as for 1)	1) 70,7% (1913)	1) United Kingdom (colonies) Statistical Yearboooks (1905), (1926), (1931), (1937) 2) as for 1)	
<b>Czechoslovakia IMP</b>	1913-1937	1) 1913-1937 Laspeyres	1) Cattle, Bacon, Wheat (English Gazette), Rye, Maize, Flour, Fresh fruit,	1) 75,9% (1929)	1) League of Nations (1933)	

			Coffee (Rio good Channel), Hides (River plate dry)		
			Rubber crude, Tobacco unmanufactured, Timber (Hewn, average import), Iron Ore, Coal (Newcastle Steam), Wool (english lincoln half hogs), Silk (tsatlee), Cotton (Fair Dhollerah (Surat)), Hemp (St. Petersburg, clean), Chemicals, Leather Dressing Hides, Wollen and worsted yarns, Cotton yarns, Silk, Paper, Iron and steel manufactures, Electrical machinery, Non-Steam Engine: Agricultural, Road Motor cars		
<b>Czechoslovakia EXP</b>	1913-1937	1) 1913-1937 Laspeyres	1) Wheat (English Gazette), Fresh fruit, Sugar (British west indian refining), Timber (sawn or split, average import), Iron (Bars), Coal (Newcastle Steam), Chemicals, Leather Dressing Hides, Cotton yarns, Wollen pice light all wool, Silk, Cotton manufactures, Hemp (St. Petersburg, clean), Hats, Wollen clothing, Timber (sawn or split, average import), Paper, Earthenware, Galvanised corrugated sheets, Iron and steel manufactures, Road Motor cars	1) 73,5% (1929)	1) League of Nations (1933)
<b>Denmark EXP</b>	1800-1850	1) 1800-17 Laspeyres  2) 1818-50 Fisher	1) Beef, Pork, Butter, Wheat, Sugar Brown  2) as for 1)	1) 55% (1836)	1) Johansen Hans (1985)  2) as for 1)

Dominican Republic IMP	1850-1938	1) 1850-1912 Laspeyres	1) Fish, Spirits, Petroleum (refined), Chemicals, Leather and manufactures, Silk, Cotton manufactures, Timber (Hewn, average import), Paper, Iron and steel manufactures, Machinery hardware, Road Motor cars		1) League of Nations (1925)
		2) 1913-38 Fisher	2) as for 1)		League of Nations (1929)
				1) 58% (1913)	League of Nations (1933)
					League of Nations (1936)
					League of Nations (1938)
					2) as for 1)
Dominican Republic EXP	1800-1938	1) 1800-19 Laspeyres	1) Mahogany, Hides Buenos Aires, Tobacco Brown, Sugar, Cocoa, Coffee	1) 93,9% (1850)	1) Bulmer-Thomas (2012)
		2) 1820-50 Fisher	2) as for 1)	3) 89,8% (1913)	2) as for 1)
		3) 1850-1938 Fisher	3) Coffee (Rio good Channel), Cocoa, Sugar unrefined, Hides (River plate dry), Tobacco unmanufactured, Tobacco manufactures, Timber (Hewn, average import)		3) as for 2) and League of Nations (1925)
Dutch Guiana IMP	1850-1938	1) 1850-95 Laspeyres	1) Wheat (English Gazette), Fish,	1) 58,9% (1906)	1) U.S.A (1909). HISTORICAL STATISTICS

		2) 1896-1906 Fisher	Spirits, Beer and ale, Flour (Town made White), Butter, Machinery hardware, Cotton manufactures, Oil (linseeds), Rice, Bacon, Beef (middling)	2) as for 1)
			2) as for 1)	3) as for 1)
		3)1907-38 Laspeyres	3) as for 1)	
<b>Dutch Guiana EXP</b>	1850-1938	1) 1850-95 Laspeyres	1) Rubber crude, Cocoa, Sugar unrefined	1) U.S.A (1909). HISTORICAL STATISTICS.
		2) 1896-1906 Fisher	2) as for 1)	2) as for 1)
			1) 93,1% (1906)	
			3) as for 1)	3) as for 1)
		3)1907-38 Laspeyres		
<b>Ecuador IMP</b>	1850-1938		1) Butter, Bacon, Fish, Flour, Rice, Wine, Petroleum (refined), Cement, Indigo, Chemicals,	1) Macgregor (1850), Vol II and United Kingdom (foreign countries). Statistical Yearboooks.
		1) 1850-1938 Fisher	Leather and manufactures, Boots and shoes of leather, Cotton yarns, Woollen worsted manufactures, Cotton manufactures, Silk, Jute (Good medium), Hats, Earthenware, Machinery hardware, Road Motor cars, Timber (Hewn, average import), Iron and steel manufactures, Rails	1) 68,1% (1913)
				League of Nations (1925)

				League of Nations (1929)
				League of Nations (1933)
				League of Nations (1936)
				League of Nations (1938)
Ecuador EXP	1) 1800-58 Laspeyres	1) Cocoa, Hides Buenos Aires, Tobacco unmanufactured, Timber (Hewn, average import)	1) 56,6% (1852)	1) Macgregor (1850), Vol. II and United Kingdom (foreign countries). Statistical Yearboooks 1854.
	2) 1850-1938 Fisher		2) 93,4% (1913)	2) as for 1
		2) Rice, Fresh fruit, Coffee (Rio good Channel), Cocoa, Sugar unrefined, Hides (River plate dry)		Ecuador. Historical Statistics (2012)
	1800-1938	Rubber crude, Crude petroleum, Boots and shoes of leather, Cotton (Fair Dhollerah (Surat)), Seeds and nuts, Hats, Tobacco unmanufactured		League of Nations (1925)
				League of Nations (1929)
				League of Nations (1933)
				League of Nations (1936)
				League of Nations (1938)

<b>Egypt IMP</b>	1850-1897	1) 1850-97 Fisher	1) Timber (Hewn, average import), Cotton manufactures, Coal (Average Export price), Indigo, Iron and steel manufactures, Cotton manufactures, Wine, Woollen worsted manufactures, Cotton yarns, Silk (tsatlee), Currants, Tobacco manufactures	1) 55,7% (1855)	1) United Kingdom (colonies) Statistical Yearboooks (several years)
<b>Egypt EXP</b>	1850-1897	1) 1850-97 Fisher	1) Barley, Beans, Cotton (Fair Dhollerah (Surat)), Flax (Russian average import), Maize, Rice, Sesamum, Wheat (English Gazette), Wool (merino, port phillip, average fleece), Rubber crude	1) 85,1% (1855)	1) United Kingdom (colonies) Statistical Yearboooks 1836.
<b>El Salvador IMP</b>	1850-1938	1) 1850- 1900 Laspeyres	1) Fish, Flour, Fresh fruit, W, ine, Spirits, Manures: Sulphate of Ammonia, Timber (Hewn, average import), Petroleum (refined), Crude petroleum,		1) United Kingdom (foreign countries). Statistical Yearboooks 1901-1912.
		2) 1901-38 Fisher	Coal (Wallsend Hetton in London), Cement, Chemicals, Leather and manufactures, Cotton yarns, Woollen worsted manufactures, Silk, Cotton manufactures, Jute, Caoutchouc manufactured, Paper, Earthenware, Iron (Scotch pig), Iron and steel manufactures, Galvanised corrugated sheets, Electrical machinery, Machinery hardware, Rails, Road Motor cars	1) 66,7% (1901)	
			2) as for 1)		League of Nations (1925)
					League of Nations (1929)



					League of Nations (1933)	
					League of Nations (1936)	
					League of Nations (1938)	
					2) as for 1)	
El Salvador EXP	1800-1938	1) 1800-54 Laspeyres	1) Indigo, Tobacco unmanufactured, Hides Buenos Aires	1) 90,8% (1854)	1) United Kingdom (foreign countries). Statistical Yearboooks 1901-1912	
		2) 1850- 1938 Fisher		2) 89,5% (1901)		
			2) Rice, Coffee (Rio good Channel), Sugar unrefined, Hides (River plate dry), Rubber crude, Cotton (Fair Dhollerah (Surat)), Tobacco unmanufactured, Hemp (Manila, Fair Roping), Indigo		2) as for 1) and	
						League of Nations (1925)
						League of Nations (1929)
					League of Nations (1933)	
					League of Nations (1936)	
					League of Nations (1938)	

			1) Fish, Wheat (English Gazette), Rye, Oats, Flour , Sugar unrefined, Leather Dressing Hides, Manures: Sulphate of Ammonia, Tobacco unmanufactured, Pulp of wood, Petroleum (refined), Coal (Newcastle Steam), Chemicals, Wool (english lincoln half hogs), Cotton (Fair Dhollerah (Surat)),		
<b>Estonia IMP</b>	1913-1930	1) 1913-1930 Laspeyres	Hemp (St. Petersburg, clean),  Woollen worsted manufactures, Cotton manufactures, Paper, Earthenware, Rails, Galvanised corrugated sheets,  Steel bars, NON-Steam Engine: Agricultural, Textil machinary, Electrical machinary,  Road Motor cars	1) 77% (1930)	1) League of Nations (1933)
<b>Estonia EXP</b>	1913-1930	1) 1913-1930 Laspeyres	1) Beef (middling), Butter, Potatoes, Spirits, Leather Dressing Hides, Seeds (linseeds), Timber (sawn or split, average import), Pulp of wood, Cement, Flax (St. Petersburg), Cotton yarns, Cotton manufactures, Paper, NON-Steam Engine: Agricultural	1) 84,5% (1930)	1) League of Nations (1933)

<b>Finland IMP</b>	1850-1865	1) 1850-65 Laspeyres	1) Flour, Sugar unrefined, Coffee (Ceylon plantation, low middling), Tobacco unmanufactured, Cotton (Fair Dhollerah (Surat)), Cotton yarns, Hemp (St. Petersburg, clean), Hides (River plate dry), Chemicals, Iron and steel manufactures, Timber (Hewn, average import), Jute Canvas and Sacking, Coal (Average Export price), Fish, Fresh fruit, Spirits, Salt, Wollen piece light all wool, Cotton manufactures, Linen manufactures	1) 80,3% (1860)	1) Finland. Hjerrpe Riitta (1996)
					Finland. Vattula Kaarina (1983)
					Finland. Pihkala Erkki: (1970)
<b>Finland EXP</b>	1800-1865	1) 1800-60 Laspeyres	1) Oats, Wheat (English Gazette), Butter, Beef (middling), Timber (Hewn, average import), Iron (Bars)	1) 56,4% (1860)	1) Finland. Hjerrpe Riitta (1996)
		2) 1850-65 Laspeyres		2) 70,5% (1860)	Finland. Vattula Kaarina (1983)
			2) Oats, Wheat (English Gazette), Butter, Beef (middling), Cattle, Fish, Timber (Hewn, average import), Cotton manufactures, Iron and steel manufactures		Finland. Pihkala Erkki: Pihkala, Erkki (1970)
					2) as for 1)

<b>France IMP</b>	1800-1850	1) 1800-06 Laspeyres	1) Butter, Copper, Iron bars, Wheat Amsterdam, Ashes, Brimstone, Cocoa, Coffee Ordinary, Cotton Raw, Flax St. Petersburg, Hemp Clean, Hides Buenos Aires, Indigo, Olive oil, Pepper, Raw silk, Sugar Brown, Tea, Timber Pine, Tobacco Brown, Wine, Wool Spanish, Coal (Wallsend Hetton in London)	1) 73,2% (1850)	1) France (trade statistics Archives. 1807, 1814. France (Trade Statistics). (1850)
		2) 1807-50 Fisher	2) as for 1)		2) as for 1)
<b>France EXP</b>	1800-1850	1) 1800-06 Laspeyres	1) Butter, Copper, Iron bars, Lead, Linseed oil, Yellow soap, Wheat Amsterdam, Cocoa, Coffee Ordinary, Cotton Raw, Hides Buenos Aires, Olive oil, Raw silk, Sugar Brown, Timber Pine, Tobacco Brown, Wine, Cotton textiles	1) 40,1% (1850)	1) France (trade statistics) Archives. 1807, 1814. France (Trade Statistics). (1850)
		2) 1807-50 Fisher	2) as for 1)		2) as for 1)
<b>French Equatorial Africa</b>	1850-1938	1) 1850- 1895 Laspeyres	1) Flour, Sugar unrefined, Wine, Tobacco manufactures, Salt, Spirits, Cotton manufactures, Iron and steel manufactures	1) 94,6%	1) <i>Gouvernement general de l'Afrique Equatoriale Francaise</i> (1913)

<b>IMP</b>		2) 1896-1911 Fisher	2) as for 1)	-1911	2) as for 1)
		3) 1912-38 Laspeyres	3) as for 1)		3) as for 1)
<b>French Equatorial Africa</b>		1) 1850-1895 Laspeyres	1) Rubber crude, Oil (palm), Timber (Hewn, average import)		1) <i>Gouvernement general de l'Afrique Equatoriale Francaise</i> (1913)
<b>EXP</b>	1850-1938	2) 1896-1911 Fisher	2) as for 1)	1) 86,6% (1911)	2) as for 1)
		3) 1912-38 Laspeyres	3) as for 1)		3) as for 1)
		1) 1850-95 Laspeyres	1) Cattle, Flour, Chemicals, Coffee (Rio good Channel), Cotton manufactures, Earthenware, Fish, Iron and steel manufactures, Machinery hardware, Boots and shoes of leather, Leather and manufactures, Petroleum (refined), Oil (olive), Oil (linseeds), Paper, Beef (middling),		1) U.S.A (1909). HISTORICAL STATISTICS <i>Statistical Abstract of Foreign Countries</i>
<b>French Guyana IMP</b>	1850-1938	2) 1896-1906 Fisher	Bacon, Butter, Beer and ale, Spirits, Wine, Sugar unrefined, Tobacco manufactures, Timber (Hewn, average import), Woollen worsted manufactures	1) 70,5% (1906)	2) as for 1)
		3) 1907-38 Laspeyres	2) as for 1)		3) as for 1)
			3) as for 1)		

<b>French Guyana EXP</b>	1800-1938	1) 1800-38 Laspeyres	1) Sugar Brown, Annato, Logwood	1) 64,6% (1839)	1) France (colonies) Statistical Yearbooks (1939) (1949) (1954)
		2) 1839-50 Fisher	2) as for 1)	3) 75,0% (1906)	2) as for 1)
		3) 1850-95 Laspeyres	3) Manures: Sulphate of Ammonia, Rubber crude, Hides (River plate dry)		3) U.S.A (1909). HISTORICAL STATISTICS
		4) 1896-1906 Fisher	4) as for 2)		4) as for 2)
		5) 1907-38 Laspeyres	5) as for 2)		5) as for 2)
<b>French Polynesia IMP</b>	1850-1938	1) 1850-1938 Laspeyres	1) Cattle, Flour, Fresh fruit, Sugar unrefined, Coconut Oil, Timber (Hewn, average import), Iron (Bars), Chemicals, Indigo, Earthenware, Cotton yarns, Cotton manufactures, Paper, Hides (River plate dry), Iron and steel manufactures	1) 62,7% (1912)	1) France. Statistical Yearboooks (1913)
<b>French Polynesia EXP</b>	1850-1938	1) 1850-1938 Laspeyres	1) Cattle, Flour, Fresh fruit, Coffee (Rio good Channel), Timber (Hewn, average import), Cotton manufactures, Paper, Hides (River plate dry), Iron and steel manufactures	1) 77,3% (1912)	1) France. Statistical Yearboooks (1913)

		1) 1800-50 Laspeyres	1) Nuts and Kernels (to express oil), Oil (palm)	1) 100% (1925)	1) Poquin, J.J. (1957)
<b>French West Africa EXP</b>	1800-1938		2) as for 1)	2) as for 1)	2) as for 1)
		2) 1850-1938 Laspeyres			
		1) 1850-1908 Laspeyres	1) Coffee (Rio good Channel), Rice, Sugar unrefined, Cotton piece bleached, Iron and steel manufactures, Petroleum (refined), Spirits, Tobacco unmanufactured, Tobacco manufactures, Road Motor cars, Timber (Hewn, average import)	1) 72,9% (1913)	1) United Kingdom (colonies) Statistical Yearboooks (1926), (1931), (1937)
<b>Gambia IMP</b>	1850-1938		2) as for 1)		
		2) 1909-38 Fisher		2) as for 1)	2) as for 1)
		1) 1800-50 Laspeyres	1) Cotton Raw, Copper Manufactured, Wheat Amsterdam, Hides For dressing, Iron bars, Rum, Tobacco Brown, Wine, Beeswax, Timber, Indigo	1) 50,6% (1836)	1) United Kingdom (colonies) Statistical Yearboooks, 1836.
<b>Gambia EXP</b>	1800-1938				
		2) 1850-1908 Laspeyres	2) Seeds and nuts, Oil (palm), Hides (River plate dry)	2) 99,3% (1913)	2) United Kingdom (colonies) Statistical Yearboooks (1926), (1931), (1937)

		3) 1909-38	3) as for 2)		3) as for 2)
		Fisher			
<b>German Colonies in Oceania IMP</b>	1850-1938	1) 1850-1923 Laspeyres	1) Beer and ale, Spirits, Tobacco manufactures, Tobacco unmanufactured, Coal (Wallsend Hetton in London), Timber (Hewn, average import), Cotton manufactures, Machinery hardware, Road Motor cars, Petroleum (refined), Flour, Rice, Beef (middling), Sugar unrefined	1) 51,9% (1924)	1) United Kingdom (colonies) Statistical Yearboooks (1926), (1931), (1937)
		2) 1924-38 Fisher			
			2) as for 1)		2) as for 1)
<b>German Colonies in Oceania EXP</b>	1850-1938	1) 1850-1923 Laspeyres	1) Phosphate of Lime and Rock, Fresh fruit, Cocoa raw, Copra		1) United Kingdom (colonies) Statistical Yearboooks (1926), (1931), (1939)
		2) 1924-38 Fisher		1) 99,1% (1924)	
			2) as for 1)		2) as for 1)



<b>Germany IMP LINK</b>	1913-1925	1) 1913-1925 Laspeyres	1) Beef (middling), Bacon, Butter, Fish, Eggs, Wheat (English Gazette), Rye, Barley, Oats, Rice, Flour, Fresh fruit, Coffee (Ceylon plantation, low middling), Hides (River plate dry), Oil (linseeds), Rubber crude, Tobacco unmanufactured, Timber (Hewn, average import), Iron Ore, Copper Ore, Iron and steel manufactures, Coal (Wallsend Hetton in London), Wool (english lincoln half hogs), Silk (tsatlee), Cotton (Fair Dhollerah (Surat)), Copra, Oil (palm), Wollen and worsted yarns, Cotton yarns, Cotton manufactures	1) 62,7% (1925)	1) League of Nations (1925)
					League of Nations (1929)
<b>Germany EXP LINK</b>	1913-1925	1) 1913-1925 Laspeyres	1) Rye, Sugar unrefined, Hides (River plate dry), Iron (Bars), Coal (Average Export price), Leather Dressing Hides, Leather and manufactures, Woollen worsted manufactures, Silk, Cotton manufactures, Rubber crude, Paper, Earthenware, Galvanised corrugated sheets, Steel bars, Iron and steel manufactures, Copper lingots, Machinery hardware, Electrical Machinery	1) 58,2% (1925)	1) League of Nations (1925)
					League of Nations (1929)

<b>Germany IMP (prezzi inglesi)</b>	1800-1881	1) 1800-50 Laspeyres	1) Butter, Coal, Cotton raw [cotton wool], MEDIA: hemp and flax [flax+hemp], Wheat, Oats [rye], Oats [barley, malt, oats], Iron Wrought, Iron bars, Lead, Leather Butts, Linseed, Tobacco, Wool, Cotton Textiles, Starch, Coffee, Wine, Indigo, Hides Buenos Aires, Pepper, Sugar, Rum	1) 100% (1840)	1) United Kingdom (foreign countries). Statistical Yearbooks (several years from 1840)
		2) 1850-81 Fisher	2) Cattle [animals (except horses)], Coal (Wallsend Hetton in London), Coffee (Rio good Channel), Copper Ore, Cotton (Fair Dhollerah (Surat)), Cotton manufactures, Flax (Russian average import), Wheat, Rye, Barley, Oats, Bacon, Guano, Fish, Hides (River plate dry), Indigo, Pig iron, Seeds (linseeds), Machinery hardware, Iron and steel manufactures, Oil (linseeds), Petrol. (refined), Silk (tsatlee), Sugar unrefined, Tobacco unmanufactured, Wollen and worsted yarns, Cotton yarns, Wine, Wool (english lincoln half hogs), Woollen worsted manufactures	2) 60,0% (1880)	
<b>Germany EXP (prezzi inglesi)</b>	1800-1881	1) 1800-50 Laspeyres	1) Coal, Coal, Cotton raw [cotton wool], MEDIA: hemp and flax [flax+hemp], Wheat, Oats [rye], Oats [barley, malt, oats], Iron Wrought, Iron bars, Lead, Leather Butts, Linseed, Tobacco, Wool, Cotton Textiles, Starch, Coffee, Wine, Indigo, Rum	1) 100% (1840)	1) United Kingdom (foreign countries). Statistical Yearbooks (several years from 1840)
		2) 1850-81 Fisher	2) Cattle [animals (except horses)], Beer and ale, Butter,	2) 53,4% (1880)	

			Coal (Wallsend Hetton in London), Cotton (Fair Dhollerah (Surat), Cotton yarns, Cotton manufactures, Flax, Wheat, Rye, Barley, Oats, Hemp, Pig iron, Iron and steel manufactures, Rails, Lead, Leather Dressing Hides, Leather and manufactures, Machinery hardware, Oil (linseeds), Paper, Silk, Hides (River plate dry), Spirits, Sugar unrefined, Tobacco unmanufactured, Wool (english lincoln half hogs), Wollen and worsted yarns, Woollen worsted manufactures		
<b>Germany IMP (prezzi tedeschi)</b>	1800-1881	1) 1800-50 Laspeyres  2) 1850-81 Fisher	1) Butter, Coal, Cotton, MEDIA: hemp and flax [flax+hemp], Wheat, Rye, Barley, Iron, Lead, Leather, Linseed, Tobacco, Wool, Cotton yarn, Coffee, Sugar, Rice 2) Beef [animals (except horses)], Coal, Coffee, Copper, Cotton, Cotton yarns [cotton manuf], Flax, Wheat, Rye, Barley, Oats, Lard, Leather, Iron, Linseed, Palm oil, Silk, Sugar, Tobacco, Wool	1) 100% (1840)  2) 50,5% (1880)	1) United Kingdom (foreign countries). Statistical Yearboooks (several years from 1840)
<b>Germany EXP (prezzi tedeschi)</b>	1800-1881	1) 1800-50 Laspeyres	1) Butter, Coal, Cotton, MEDIA: hemp and flax [flax+hemp], Wheat, Rye, Barley, Iron, Lead, Leather, Linseed, Tobacco, Wool, Cotton yarn, Coffee, Meat, Flax, Zinc	1) 100% (1840)	1) United Kingdom (foreign countries). Statistical Yearboooks (several years from 1840)

		2) 1850-81 Fisher	2) Beef [animals (except horses)], Butter, Coal, Cotton, Cotton yarns [cotton manuf], Flax, Wheat, Rye, Barley, Oats, Hemp, Pig iron, Iron, Lead, Leather, Palm oil, Sugar, Tobacco, Wool	2) 30% (1880)	
<b>Ghana IMP</b>	1850-1938	1) 1850-89 Laspeyres	1) Beer and ale, Beef (middling), Cement, Coal (Wallsend Hetton in London), Cotton manufactures, Cotton piece bleached, Fish, Flour, Spirits, Iron Galvanised corrugated sheets, Timber (Hewn, average import), Machinery hardware, Road Motor cars, Petroleum (refined), Rails, Rice, Salt, Silk, Sugar unrefined, Tobacco manufactures, Tobacco unmanufactured, Wine, Woollen worsted manufactures, Silk (tsatlee), Cattle	1) 56,9% (1913)	1) United Kingdom (colonies) Statistical Yearboooks.
		2) 1890- 1938 Fisher	2) as for 1)		(1905), (1926) , (1931), (1937)
					2) as for 1)
<b>Ghana EXP</b>	1850-1938	1) 1850-89 Laspeyres	1) Cocoa, Timber (Hewn, average import), Oil (palm), Rubber crude, Hides (River plate dry)	1) 94,2% (1913)	United Kingdom (colonies) Statistical Yearboooks
		2) 1890- 1938 Fisher	2) as for 1)		(1905), (1926) , (1931), (1937)

					2) as for 1)
					1) United Kingdom (colonies) <i>Tables of the revenue, population, 1836.</i>
					2) United Kingdom (foreign countries). Statistical Yearbooks 1901-1912.
<b>Greece IMP</b>	1850-1938	1) 1850-1938 Fisher	1) Cattle, Chemicals, Coal (Average Export price), Coffee (Rio good Channel), Cotton manufactures, Cotton (Middling uplands), Cotton yarns, Earthenware, Fish, Wheat (English Gazette), Hides (River plate dry), Iron (Bars), Iron and steel manufactures, Machinery hardware, Road Motor cars, Indigo, Paper, Petroleum (refined), Rice, Silk, Sugar unrefined, Timber (Hewn, average import), Oil (olive), Flour, Woollen worsted manufactures, Wollen and worsted yarns	1) 81,4% (1913)	-U.S.A (1909). HISTORICAL STATISTICS
					-League of Nations (1929)
					-League of Nations (1933)
					-League of Nations (1936)
					League of Nations (1938)

					1) United Kingdom (colonies) <i>Tables of the revenue, population, 1836.</i>
					-United Kingdom (foreign countries). Statistical Yearboooks 1901-1912.
<b>Greece EXP</b>	1850-1938	1) 1850-1938 Fisher	1) Chemicals, Tobacco manufactures, Currants, Timber (Hewn, average import), Fresh fruit, Hides (River plate dry), Lead, Spirits, Oil (olive), Beans, Iron Ore, Raisins, Silk, Nitrate (of soda), Cotton manufactures, Tobacco unmanufactured, Valonia, Wine	1) 90,2% (1913)	-U.S.A (1909). HISTORICAL STATISTICS <i>Statistical Abstract of Foreign Countries</i>
					League of Nations (1929)
					League of Nations (1933)
					League of Nations (1936)
					League of Nations (1938)
<b>Guadalupe IMP</b>	1850-1938	1) 1850-1906 Fisher	1) Oil (olive), Rice, Fish, Paper, Chemicals, Cotton manufactures, Machinery hardware, Wine, Tobacco manufactures, Beef (middling), Coal (Wallsend Hetton in London), Woollen worsted manufactures, Timber (Hewn, average import), Leather and manufactures, Butter, Bacon	1) 56,8% (1906)	1) United Kingdom (colonies) Statistical Yearboooks (1849) (1854) (1862) (1870) (1874) (1881)

		2) 1907-38 Laspeyres	2) as for 1)		Department of Commerce and Labor, Bureau of Statistics (1909)
					2) as for 1)
<b>Guadalupe EXP</b>	1800-1938	1) 1800-19 Laspeyres	1) Sugar Brown, Coffee, Rum, Cotton Raw, Cocoa, Logwood	1) 88,7% (1839)	1) Bulmer-Thomas (2012)
		2) 1820-50 Fisher	2) as for 1)	3) 98,9% (1900)	2) as for 1)
		3) 1850- 1900 Fisher	3) Sugar unrefined, Coffee (Rio good Channel), Cocoa, Molasses, Timber (Hewn, average import), Spirits, Cotton (Fair Dhollerah (Surat))		3) Bulmer-Thomas(2012)
		4) 1901-38 Laspeyres	4) as for 3)		4) as for 3)
<b>Guatemala IMP</b>	1850-1938	1) 1850-59 Laspeyres	1) Maize, Flour, Wine, Timber (Hewn, average import), Petroleum (refined), Chemicals, Leather and manufactures, Woollen worsted manufactures, Silk, Cotton (Fair Dhollerah (Surat)), Cotton yarns, Cotton manufactures, Linen manufactures, Earthenware, Iron and steel manufactures, Machinery hardware, Rails, Paper, Copper lingots	1) 73,2% (1913)	1) Macgregor (1850), Vol. II and United Kingdom (foreign countries). Statistical Yearbooks 1854.
		2) 1860- 1938 Fisher	2) as for 1)		League of Nations (1925)
					League of Nations (1929)

				League of Nations (1933)	
				League of Nations (1936)	
				League of Nations (1938)	
				2) as for 1)	
Guatemala EXP	1800-1938	1) 1800-50 Laspeyres	1) Indigo, Cochineal	1) 96,3% (1850) 1) Magregror (1850)	
		2) 1850-1938 Fisher	2) Fresh fruits, Coffee (Rio good Channel), Sugar unrefined, Hides (River plate dry), Timber (Hewn, average import), Indigo, Cochineal	2) 98,8% (1913) 2) United Kingdom (foreign countries). Statistical Yearboooks.	
					League of Nations (1925)
					League of Nations (1929)
			League of Nations (1933)		
			League of Nations (1936)		
			League of Nations (1938)		



<b>Haiti IMP</b>	1850-1938	1) 1850-1906 Laspeyres	1) Beef (middling), Bacon, Fish, Rice, Flour, Spirits, Hides (River plate dry), Tobacco unmanufactured, Timber (Hewn, average import), Petroleum (refined), Cement, Indigo, Chemicals, Woollen worsted manufactures, Silk, Cotton manufactures, Caoutchouc manufactured, Paper, Earthenware, Iron and steel manufactures, Machinery hardware, Road Motor cars	1) 83,9% (1925)	1) Haiti. Historical Statistics (1954).
		2) 1907-38 Fisher	2) as for 1)		League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Haiti EXP</b>	1850-1938	1) 1850-1915 Laspeyres	1) Coffee (Rio good Channel), Cocoa, Sugar unrefined, Timber (Hewn, average import), Cotton (Fair Dhollerah (Surat))		1) Haiti. Historical Statistics (1954).
		2) 1916-38 Fisher	2) as for 1)	1) 95,6% (1925)	League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)

<b>Hawaii IMP</b>	1850-1900	1) 1850-1900 Laspeyres	1) Cattle, Flour, Road Motor cars, Chemicals, Coal (Wallsend Hetton in London), Copper lingots, Cotton manufactures, Eggs, Fish, Fresh fruits, Iron and steel manufactures, Leather and manufactures, Spirits, Petroleum (refined), Paper, Rice, Soap, Sugar unrefined, Tobacco manufactures, Wine, Timber (Hewn, average import), Wollen worsted manufactures	1) 70,8% (1900)	1) Hawaii. Historical Statistics. (1977)
<b>Hawaii EXP</b>	1800-1900	1) 1800-50 Laspeyres	1) Sugar Brown, Hides Buenos Aires, Leather Butts	1) 96,3% (1849)	1) Hawaii. Historical Statistics (1977)
		2) 1850-74 Laspeyres	2) Sugar unrefined, Hides (River plate dry), Leather Dressing Hides	2) 95% (1899)	2) Hawaii. Historical Statistics (1977)
		3) 1875-1899 Fisher	3) as for 2)		3) as for 2)
<b>Honduras IMP</b>	1850-1938	1) 1850-1912 Laspeyres	1) Beef (middling), Rice, Flour, Wine, Spirits, Timber (Hewn, average import), Petroleum (refined), Indigo, Chemicals, Boots and shoes of leather, Silk,		1) League of Nations (1925)
		2) 1913-38 Fisher	Cotton piece bleached, Cotton manufactures, Paper, Iron (Bars), Iron and steel manufactures, Electrical machinery, Machinery hardware, Rails	1) 80,1% (1913)	League of Nations (1929)
			2) as for 1)		League of Nations (1933) League of Nations (1936) League of Nations (1938) 2) as for 1)

		1) 1800-54 Laspeyres	1) Cochineal, Coffee (Rio good Channel), Indigo, Logwood, Mahogany	1) 91% (1854)	1) United Kingdom (trade statistics UK). Annual statement of the trade 1855
		2) 1850-1912 Laspeyres		2) 72,0% (1913)	2) League of Nations (1925)
<b>Honduras EXP</b>	1800-1938	3) 1913-38 Fisher	2) Cattle, Fresh fruit, Coconut Oil, Coffee (Rio good Channel), Sugar unrefined, Hides (River plate dry)		League of Nations (1929)
			3) as for 2)		League of Nations (1933) League of Nations (1936) League of Nations (1938) 3) as for 2)
			1) Wheat (English Gazette), Rice,		
<b>Hungary IMP</b>	1913-1929	1) 1913-1929 Laspeyres	Fresh fruit, Hides (river plate salted), Tobacco unmanufactured, Timber (sawn or split, average import), Iron Ore, Petroleum (refined), Crude petroleum, Coal (Wallsend Hetton in London), Wool (english lincoln half hogs), Silk (tsatlee), Cotton (Fair Dhollerah (Surat)),	1) 74,9% (1929)	1) League of Nations (1933)

			Chemicals, Leather Average Import , Boots and shoes of leather, Wollen and worsted yarns, Cotton yarns, Woollen worsted manufactures, Silk, Cotton manufactures, Linen manufactures, Paper, Earthenware, Steel bars, Iron and steel manufactures, Electrical machinery, Machinery hardware, Road Motor cars		
<b>Hungary EXP</b>	1913-1929	1) 1913- 1929 Laspeyres	1) Cattle, Bacon, Beef (middling), Eggs, Wheat (English Gazette), Rye, Barley, Oats, Maize, Flour, Potatoes, Fresh fruit, Sugar unrefined, Wine, Hides (river plate salted), Tobacco unmanufactured, Oil (linseeds), Coal (Average Export price), Wool (english lincoln half hogs), Chemicals, Leather Dressing Hides, Silk, Cotton manufactures, Timber (sawn or split, average import), Steel bars, Iron and steel manufactures, Electrical machinery, Machinery hardware, Road Motor cars	1) 75,8% (1929)	1) League of Nations (1933)
<b>India IMP</b>	1800-1938	1) 1800-27 Lspeyres  2) 1828-50 Fisher  3) 1850- 1938 Fisher	1) Cotton yarns, Cotton textiles, MEDIA: Iron bars, Lead and Black tin [metals], MEDIA: brandy and wine [wines and spirits], Wool Spanish  2) as for 1)  3) Cotton yarns, Cotton piece bleached, Iron and steel manufactures, Machinery hardware, Petroleum (refined)	1) 100% (1850)  3) 55,5% (1910)	1) Chauduri K.N. (1983)  2) as for 1)  3) as for 2)

India EXP	1800-1938	1) 1800-10 Laspeyres	1) Indigo, Cotton textiles, Raw silk, Cotton Raw, Sugar Brown	1) 66,2% (1811)	1) Chauduri K.N. (1983)
		2) 1811-50 Fisher	2) as for 1)	3) 87,5% (1910)	2) as for 1)
		3) 1850- 1938 Fisher	3) Cotton (Fair Dhollerah (Surat)), Cotton manufactures, Indigo, Rice, Jute (Good medium), Jute Canvas and Sacking, Hides (River plate dry), Opium, Seeds and nuts, Sugar unrefined, Tea (Congou, common)		3) as for 1)
India IMP	1800-1861	1) 1800-27 Lspeyres	1) Cotton yarns, Cotton textiles, MEDIA: Iron bars, Lead and Black tin [metals], MEDIA: brandy and wine [wines and spirits], Wool Spanish	1) 100% (1850)	1) Chauduri K.N. (1983)
		2) 1828-50 Fisher	2) as for 1)		2) as for 1)
		3) 1850-61 Fisher	3) Cotton manufactures, Cotton yarns, Cotton piece bleached, Fresh fruit, Machinery hardware, Iron and steel manufactures, Copper Ore, Iron Ore, Salt, Silk, Spirits, Tea (Average import price), Wine, Wollen worsted manufactures	3) 61,3% (1855)	3) United Kingdom (colonies) Statistical Yearboooks.
		(1853 to 1867 and 1855 to 1869)			
India EXP	1800-1861	1) 1800-10 Laspeyres	1) Indigo, Cotton textiles, Raw silk, Cotton Raw, Sugar Brown	1) 66,2% (1811)	1) Chauduri K.N. (1983)
		2) 1811-50 Fisher	2) as for 1)	3) 69,7% (1855)	2) as for 1)

		3) 1850-61 Fisher	3) Cotton (Fair Dhollerah (Surat)), Indigo, Hides (River plate dry), Opium, Rice (Rangoon, cargoes to arrive), Sugar unrefined, Silk (tsatlee)		3) United Kingdom (colonies) Statistical Yearboooks.  (1853 to 1867) (1855 to 1869).
		1) 1850-95 Laspeyres	1) Cattle, Road Motor cars, Beer and ale, Chemicals, Hemp (Manila, Fair Roping), Coal (Average Export price), Coffee (Rio good Channel), Copper (Chili Bars), Cotton manufactures, Paper Cotton (Fair Dhollerah (Surat)), Cotton yarns, Currants,		1) United Kingdom (foreign countries). Statistical Yearboooks 1901 to 1912.
<b>Indochina IMP</b>	1850-1938	2) 1896- 1926 Fisher	Fish, Fresh fruit, Hides (River plate dry) , Rubber crude, Indigo, Iron and steel manufactures, Leather and manufactures, Boots and shoes of leather, Beef (middling), Petroleum (refined), Opium, Paper, Earthenware, Butter, Rice, Spirits,	1) 36,1% (1913)	And U.S.A (1909). HISTORICAL STATISTICS
		3) 1927-38 Laspeyres	Sugar (British west indian refining), Tea (Congou, common), Tobacco manufactures, Tobacco unmanufactured, Wheat (English Gazette), Wine, Timber (Hewn, average import), Wollen worsted manufactures, Electrical machinary, Silk		
			2) as for 1)		
			3) as for 1)		

<b>Indochina EXP</b>	1850-1938	1) 1850-95 Laspeyres	1) Cattle, Cement, Cinnamon, Coal (Average Export price), Cotton (Fair Dhollerah (Surat)), Cotton yarns, Fish, Hides (River plate dry), Rubber crude, Maize, Pepper, Rice, Silk (tsatlee), Sugar unrefined, Pork, Tea (Congou, common), Timber (Hewn, average import), Zinc: ores	1) 69,4% (1913)	1) United Kingdom (foreign countries). Statistical Yearboooks <i>1901 to 1912</i> .
		2) 1896-1926 Fisher	2) as for 1)		And U.S.A (1909). HISTORICAL STATISTICS
		3) 1927-38 Laspeyres	3) as for 1)		
<b>Indonesia IMP</b>	1825-1913	1) 1825-1896 Fisher	1) Tobacco manufactures, Rice, Paraffin Wax, Cotton manufactures, Wollen worsted manufactures, Iron and steel manufactures, Copper (Chili Bars)	1) 81,8% (1873)	1) Korthals Altes 1991
		2) 1850-95 Laspeyres	2) Cattle, Flour, Earthenware, Road Motor cars, Cement, Opium, Indigo, Coal (Wallsend Hetton in London), Copper (Chili Bars), Cotton manufactures, Fish, Iron Tinsplates, Machinery hardware, Iron and steel manufactures, Beef (middling), Petroleum (refined), Coconut Oil, Oil (linseeds), Paper, Rice, Salt, Seeds (linseeds), Silk, Spirits, Wine, Beer and ale, Sugar unrefined, Tobacco manufactures, Tea (Congou, common), Timber (Hewn, average import), Wollen worsted manufactures	2) 66,8% (1906)	2) U.S.A (1909). HISTORICAL STATISTICS

		3) 1896-1906 Fisher	3) as for 1)		3) as for 1)
		4) 1907-13 Laspeyres	4) as for 1)		4) as for 1)
		1) 1850-99 Laspeyres	1) Tea (Average import price), Sugar (British west indian refining), Pig iron, Chemicals, Cotton yarns, Cotton manufactures, Linen manufactures, Iron and steel manufactures, Flour, Crude petroleum, Non-Steam Engine: Agricultural, Road Motor cars		1) - Issawi, C. (1971)
		2) 1900-38 Fisher	2) as for 1)		- Entner Marvin (1965)
<b>Iran IMP</b>	1850-1938			1) 67,1% (1913)	- U.S.A (1909). HISTORICAL STATISTICS
					League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
					2) as for 1)
<b>Iran EXP</b>	1850-1938	1) 1850-99 Laspeyres	1) Rice, Fresh fruit, Hides (River plate dry), Leather and manufactures, Wool (english lincoln half hogs), Silk (tsatlee), Cotton piece bleached, Wollen worsted manufactures, Petroleum (refined)	1) 72,8% (1913)	1) 1)



		2) 1900-38 Fisher	2) as for 1)		<ul style="list-style-type: none"> <li>- Issawi, C. (1971)</li> <li>- Entner Marvin (1965)</li> <li>- U.S.A (1909). HISTORICAL STATISTICS</li> <li>League of Nations (1925)</li> <li>League of Nations (1929)</li> <li>League of Nations (1933)</li> <li>League of Nations (1936)</li> <li>League of Nations (1938)</li> <li>2) as for 1)</li> </ul>
<b>Iraq IMP</b>	1850-1938	1) 1850-1923 Laspeyres  2) 1924-38 Fisher	1) Cotton manufactures, Silk, Wollen worsted manufactures, Sugar unrefined, Tea (Congou, common), Flour (Town made White), Petroleum (refined), Timber (Hewn, average import), Soap, Coffee (Ceylon plantation, low middling ) , Iron and steel manufactures, Machinery hardware, Chemicals, Road Motor cars, Paper, Tobacco  Manufactures 2) as for 1)	1) 80% (1924)	1) United Kingdom (colonies) Statistical Yearbooks.  -1926  2) as for 1)
<b>Iraq EXP</b>	1850-1938	1) 1850-1923 Laspeyres	1) Wheat (English Gazette), Cattle, Raisins, Wool (english lincoln half hogs), Hides (River plate dry)	1) 88,9% (1924)	1) United Kingdom (colonies) Statistical Yearbooks.(1926)

		2) 1924-38 Fisher	2) as for 1)		2) as for 1)
<b>Irish Free State IMP</b>	1913-1929	1) 1913- 1929 Laspeyres	1) Bacon, Butter , Wheat (English Gazette), Maize, Fresh fruit,  Tea (Congou, common), Sugar unrefined, Spirits, Manures: Sulphate of Ammonia, Tobacco unmanufactured, Timber (sawn or split, average import), Oil Petroleum illuminating, Coal (Newcastle Steam), Soap, Chemicals, Leather and manufactures, Boots and shoes of leather, Wollen worsted manufactures, Cotton yarns, Wollen clothing, Rubber crude, Timber (sawn or split, average import), Paper, Earthenware, Iron and steel manufactures, Machinery hardware, Road Motor cars	1) 74,1% (1929)	1) League of Nations (1933)
<b>Irish Free State EXP</b>	1913-1929	1) 1913- 1929 Laspeyres	1) Cattle, Mutton Middling, Pork, Bacon, Butter , Fish, Eggs, Oats, Beer and ale, Hides (River plate dry), Wool (english lincoln half hogs), Wollen clothing, Road Motor cars, NON-Steam Engine: Agricultural	1) 81,4% (1929)	1) League of Nations (1933)
<b>Jamaica IMP</b>	1800-1885	1) 1800-70 Laspeyres	1) Beer and ale, Wheat, Butter, Coal (Wallsend Hetton in London), Cotton manufactures, Fish, Linen manufactures, Pork, Rice	1) 63,4 % (1870)	1) United Kingdom (colonies). Statistical Yearbooks.

		2) 1850-68 Laspeyres	2) Beer and ale, Butter, Coal (Wallsend Hetton in London), Maize, Cotton manufactures, Fish, Flour, Machinery hardware, Linen manufactures, Pork, Rice	2) 62,3% (1885)	(1864 to 1878).
		2) 1869- 1885 Fisher	3) as for 2)		
					2) United Kingdom (colonies) Statistical Yearbooks.  (1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891).  3) as for 2)
<b>Jamaica EXP</b>	1800-1885	1) 1800-19 Laspeyres	1) Rum, Sugar Brown, Coffee Ordinary, Logwood, Cacao, Ginger, Pepper	1) 95,6% (1836)	1) Bulmer-Thomas(2012)
		2) 1820-50 Fisher	2) as for 1)	3) 91,9% (1869)	
		3) 1850-85 Fisher	3) Spirits, Sugar unrefined, Coffee (Rio good Channel), Timber (Hewn, average import), Cocoa raw, Pepper, Fresh fruit, Oranges		2) as for 1)  3) Bulmer-Thomas(2012).
<b>Japan IMP</b>	1850-1877	1) 1850-68 Laspeyres	1) Rice, Sugar unrefined, Hides (River plate dry), Paraffin Wax, Chemicals, Indigo, Cotton yarns,	1) 99,9% (1868)	1) Japan. Historical Statistics (1987)

		2) 1869-77 Fisher	Cotton manufactures, Paper, Coal (Wallsend Hetton in London), Earthenware, Iron (Scotch pig), Machinery hardware, Cotton (Fair Dhollerah (Surat))		2) as for 1)
			2) as for 1)		
<b>Japan EXP</b>	1850-1877	1) 1850-68 Laspeyres	1) Rice, Tea (Congou, common), Fish, Hides (River plate dry), Paraffin Wax, Chemicals, Indigo, Silk, Cotton manufactures, Paper, Coal (Wallsend Hetton in London), Earthenware,	1) 99,4% (1868)	1) 1) Japan. Historical Statistics (1987)
		2) 1869-77 Fisher	Iron (Scotch pig)		2) as for 1)
			2) as for 1)		
<b>Kenya and Uganda Protectorate IMP</b>	1850-1938	1) 1850-1909 Laspeyres	1) Iron and steel manufactures, Beer and ale, Jute Canvas and Sacking, Copper lingots, Cotton piece bleached, Cotton manufactures, Rice, Flour, Machinery hardware,		1) United Kingdom (colonies) Statistical Yearbooks.
		2) 1910-38 Fisher	Road Motor cars, Petroleum (refined), Spirits, Sugar unrefined, Tea (Congou, common), Tobacco unmanufactured, Tobacco manufactures, Wine, Timber (Hewn, average import), Wollen worsted manufactures	1) 68,6% (1913)	(1926), (1931), (1937)
			2) as for 1)		2) as for 1)
<b>Kenya and Uganda Protectorate EXP</b>	1850-1938	1) 1850-1909 Laspeyres	1) Nitrate (of soda), Coffee (Rio good Channel), Cotton (Fair Dhollerah (Surat)), Maize, Hides (River plate dry), Sesamum, Wool (english lincoln half hogs)	1) 69,4% (1913)	1) United Kingdom (colonies) Statistical Yearbooks.

		2) 1910-38 Fisher	2) as for 1)		(1926), (1931), (1937)
					2) as for 1)
<b>Korea IMP</b>	1850-1911	1) 1850-95 Laspeyres	1) Flour, Wheat (English Gazette), Non- Steam Engine: Agricultural, Steel bars, Iron and steel manufactures, Paper, Rice, Spirits, Sugar unrefined, Tobacco manufactures, Timber (Hewn, average import), Wollen worsted manufactures, Cotton manufactures, Cotton yarns, Petroleum (refined)	1) 68,1% (1896)	1) USA (1909) HISTORICAL STATISTICS
		2) 1896- 1911 Fisher	2) as for 1)		2) as for 1)
<b>Korea EXP</b>	1850-1911	1) 1850-95 Laspeyres	1) Beans, Rice, Hides (River plate dry), Fish, Barley	1) 88% (1896)	1) U.S.A (1909). HISTORICAL STATISTICS
		2) 1896- 1911 Fisher	2) as for 1)		2) as for 1)
<b>Latvia IMP</b>	1913-1930	1) 1913-30 Laspeyres	1) Fish, Wheat (English Gazette), Rye, Barley, Oats, Fresh fruit,	1) 78,2% (1930)	1) League of Nations (1933)

			<p>Sugar unrefined, Hides (River plate dry),          Manures: Sulphate of Ammonia,          Manures: Other sorts, Seeds (linseeds),          Rubber crude, Coal (Newcastle Steam),          Tobacco unmanufactured, Timber          (Hewn, average import), Steel bars,          Copper (Chili Bars), Crude petroleum,          Petroleum (refined), Wool (english          lincoln half hogs), Cotton (Fair          Dhollerah (Surat)), Oil Petroleum          illuminating, Indigo, Chemicals, Leather          Average Import , Wollen and worsted          yarns, Cotton yarns, Wollen pice light all          wool, Cotton piece unbleached, Paper,          Galvanised corrugated sheets, Iron and          steel manufactures, NON-Steam Engine:          Agricultural, Machinery hardware,          Electrical machinary, Road Motor cars</p>		
<b>Latvia EXP</b>	1913-1930	1) 1913-30 Laspeyres	<p>1) Bacon, Butter, Hides (River plate          dry), Manures: Sulphate of Ammonia,          Seeds (linseeds), Timber (sawn or split,          average import), Pulp of wood, Oil          Petroleum lubricating, Flax (St.          Petersburg), Leather Dressing Hides,          Cotton yarns, Linen yarns unbleached,          Wollen pice light all wool, Timber (sawn          or split, average import), Paper,</p> <p>Machinery hardware, Road Motor cars</p>	1) 82,1% (1930)	1) League of Nations (1933)

Lithuania IMP	1850-1938	1) 1850-1919 Laspeyres	1) Cattle, Fish, Sugar unrefined, Manures: Sulphate of Ammonia, Tobacco unmanufactured, Timber (Hewn, average import), Petroleum (refined), Coal (Wallsend Hetton in London), Cement, Iron (Bars), Indigo, Chemicals, Wool (english lincoln half hogs), Cotton (Fair Dhollerah (Surat)), Leather and manufactures, Cotton manufactures, Paper, Earthenware, Iron and steel manufactures, NON-Steam Engine: Agricultural, Machinery hardware, Road Motor cars	1) 73,6% (1920)	1) League of Nations (1925)
		2) 1920-38 Fisher	2) as for 1)		League of Nations (1929)
					League of Nations (1933)
					League of Nations (1936)
					League of Nations (1938)
2) as for 1)					
Lithuania EXP	1850-1938	1) 1850-1919 Laspeyres	1) Cattle, Bacon , Beef (middling), Butter, Eggs, Wheat (English Gazette), Potatoes, Hides (River plate dry), Seeds (linseeds), Oil (linseeds), Flax (Russian average import), Timber (Hewn, average import), Iron (Bars)		1) League of Nations (1925)
		2) 1920-38 Fisher	2) as for 1)	1) 91,1% (1920)	League of Nations (1929)
					League of Nations (1933)
					League of Nations (1936)
					League of Nations (1938)
2) as for 1)					

<b>Madagascar IMP</b>	1850-1938	1) 1850-1895 Laspeyres	1) Barley, Flour, Road Motor cars, Cement, Coal (Wallsend Hetton in London), Coffee (Ceylon plantation, low middling ), Cotton yarns, Cotton manufactures, Earthenware, Jute Canvas and Sacking, Fish, Hats, Iron (Bars), Iron and steel manufactures, Rails, Tinplates, Boots and shoes of leather, Leather and manufactures, Oranges, Oil (olive), Beef (middling), Bacon, Butter, Cheese, Rice, Soap, Spirits, Wine, Sugar unrefined, Tea (Congou, common), Tobacco manufactures, Beans, Potatoes, Timber (Hewn, average import), Wollen clothing	1) 83,2% (1906)	1) U.S.A (1909). HISTORICAL STATISTICS
		2) 1896-1906 Fisher	2) as for 1)		
		3) 1907-1938 Laspeyres	3) as for 1)		2) as for 1)
					3) as for 1)
<b>Madagascar EXP</b>	1850-1938	1) 1850-1895 Laspeyres	1) Cattle, Jute (Good medium), Hides (River plate dry), Rubber crude, Rice, Cinnamon, Beans, Paraffin Wax, Timber (Hewn, average import)		1) U.S.A (1909). HISTORICAL STATISTICS
		2) 1896-1906 Fisher	2) as for 1)	1) 96,7% (1906)	
		3) 1907-1938 Laspeyres	3) as for 1)		2) as for 1)
					3) as for 1)



<b>Manchukuo (Manciuria) EXP</b>	1933-1938	1) 1933-38 Fisher	1) Coal (Wallsend Hetton in London), Iron (Bars), MEDIA: Oil (palm) and Oats [soy]	1) 99% (1933)	1) Assume one third Coal, Iron and Soy beans.
<b>Martinique IMP</b>	1850-1938	1) 1850-64 Laspeyres	1) Linen manufactures, Cotton manufactures, Wine, Flour, Oil (olive), Fish, Coal (Wallsend Hetton in London)		1) France (Colonies). Statistical Yearboooks (1854), (55-66).
		2) 1865- 1906 Fisher	2) as for 1)	1) 37,5% (1906)	And U.S.A (1909). HISTORICAL STATISTICS
		3) 1907-38 Laspeyres	3) as for 1)		2) as for 1) 3) as for 1)
<b>Martinique EXP</b>	1800-1938	1) 1800-41 Laspeyres	1) Hides Buenos Aires, Coffee Ordinary, Sugar Brown, Cocoa	1) 93,1% (1842)	1) France (Colonies). Statistical Yearboooks (1842), (1854)
		2) 1842-50 Fisher	2) as for 1)	3) 98,3% (1906)	2) as for 1)
		3) 1850-64 Laspeyres	3) Sugar unrefined, Spirits, Cocoa		3) France (Colonies). Statistical Yearboooks (55- 66).
		4) 1865- 1906 Fisher	4) as for 3)		and U.S.A (1909). HISTORICAL STATISTICS
		5) 1907-38 Laspeyres	5) as for 3)		4) as for 3) 5) as for 3)

<b>Mauritius IMP</b>	1850-1938	1) 1850-1889 Laspeyres	1) Manures: Sulphate of Ammonia, Coal (Wallsend Hetton in London), Cotton manufactures, Fish, Flour, Guano, Iron (Bars), Leather Dressing Hides, Machinery hardware, Manures: Other sorts, Road Motor cars, Petroleum (refined), Phosphate of Lime and Rock, Rice, Soap, Nitrate (of soda), Timber (Hewn, average import), Tobacco manufactures, Wheat (English Gazette), Wine, Wollen worsted manufactures	1) 94,1% (1913)	1) United Kingdom (colonies) Statistical Yearboooks (1905), (1926), (1931), (1937)
		2) 1890-1938 Fisher	2) as for 1)		2) as for 1)
<b>Mauritius EXP</b>	1800-1938	1) 1800-1850 Laspeyres	1) Beef Irish, Coffee Ordinary,	1) 92,7% (1836)	1) United Kingdom Statistical Yearboooks 1836.
		2) 1850-1889 Laspeyres	Copper Manufactured, Wheat Amsterdam, Cotton Raw, Indigo,	2) 60,4% (1913)	
		3) 1890-1938 Fisher	Hides For dressing. Iron Wrought bars, Pepper White, Rum Jamaica		2) United Kingdom (colonies) Statistical Yearboooks. (1905), (1926), (1931), (1937)
			Sugar Brown, Tea Middling, Wine Red		3) as for 2)
			2) Sugar unrefined		
			3) as for 2)		

<b>Mexico IMP</b>	1850-1871	1) 1850-71 Fisher	1) Cotton manufactures, Coal (Wallsend Hetton in London), Cotton (Middling uplands), Cotton yarns, Iron and steel manufactures, Iron (Scotch pig), Linen manufactures, Machinery hardware, Silk, Wollen pice light all wool, Wool (english lincoln half hogs), Cinnamon, Silk (tsatlee), Wine	1) 85% (1870)	1) United Kingdom (trade statistics) Annual Statement of the Trade, 1862, 1872
<b>Mexico EXP</b>	1800-1871	1) 1800-54 Laspeyres	1) Logwood, Timber (Hewn, average import), Cochineal, Copper Ore, Indigo, Mahogany, Hides Buenos Aires, Silver	1) 89,3% (1854)	1) United Kingdom (trade statistics), Annual Statement of the Trade, 1859
		2) 1850-71 Fisher		2) 44,2% (1870)	
			2) Timber (Hewn, average import), Cochineal, Copper (Chili Bars), Cotton (Middling uplands), Guano, Hemp (Manila, Fair Roping), Indigo, Coffee (Rio good Channel), Silver, Rubber crude		France (trade statistics). Tableau Décennal du Commerce 1847- 1856,
			Hides (River plate dry)		Belgium (trade statistics). Tableau Général du Commerce 1859,
					2) United Kingdom (trade statistics), Annual Statement of the Trade, 1862, 1872

<b>Morocco IMP</b>	1850-1938	1) 1850-1938 Laspeyres	1) Paraffin wax, Cement, Coal (Average Export price), Coffee (Rio good Channel), Cotton yarns, Cotton manufactures, Barley, Maize, Wheat (English Gazette), Flour, Iron and steel manufactures, Machinery hardware, Beef (prime), Petroleum (refined), Oil (olive), Oil (linseeds), Rice, Silk (tsatlee), Silk, Soap, Spirits, Sugar (British west indian refining), Tea (Congou, common), Tobacco manufactures, Wine, Timber (Hewn, average import), Wollen worsted manufactures	1) 76,7% (1909)	1) Macgregor (1850) ; Vol II and United Kingdom (colonies) Statistical Yearboooks. (1924)
<b>Morocco EXP</b>	1800-1938	1) 1800-50 Laspeyres	1) Wool Spanish, Olive oil, Beeswax, Hides For dressing, Wheat Amsterdam, Beef Irish,	1) 53,6% (1839)	1) Macgregor (1850); Vol.II
		2) 1850-1938 Laspeyres	Yellow soap	2) 79,9% (1909)	2) United Kingdom (colonies). Statistical Yearboooks (1924)
			2) Almonds, Cattle, Barley, Maize, Wheat (English Gazette), Eggs, Fresh fruit, Rubber crude, Hides (River plate dry), Leather and manufactures, Seeds (linseeds), Beans, Wool (english lincoln half hogs)		
<b>Mozambico e Angola IMP</b>	1850-1938	1) 1850-1926 Laspeyres	1) Rice, Flour, Oil (olive), Wine, Beer and ale, Petroleum (refined),	1) 54,3% (1927)	1) Ribeiro Salgado, F. (1939)
		2) 1927-38 Fisher	Cotton manufactures, Tobacco unmanufactured, Cement		

<b>Mozambique e Angola EXP</b>	1850-1938	1) 1850-1900 Laspeyres	1) Cattle, Beef (prime), Paraffin Wax, Seeds and nuts, Coconut Oil, Copra, Sesamum, Oil (palm), Cotton (Fair Dhollerah (Surat)), Tobacco unmanufactured	1) 91,5% (1913)	1) Ribeiro Salgado, F. (1939)
		2) 1901-38 Fisher	Rubber crude, Timber (Hewn, average import), Coal (Wallsend Hetton in London), Fish, Sugar unrefined, Coffee (Rio good Channel), Maize, Cocoa, Salt		
<b>Netherlands IMP</b>	1913-1930	1) 1913-1930 Laspeyres	1) Bacon, Wheat (English Gazette), Maize, Rice, Fresh fruit, Coffee (Rio good Channel), Cocoa, Tea (Congou, common), Sugar unrefined, Hides (River plate dry),		1) League of Nations (1925)
			Manures: Sulphate of Ammonia, Oil (linseeds), Tobacco unmanufactured, Timber (sawn or split, average import), Oil Petroleum lubricating, Coal (Newcastle Steam), Cement, Wool (english lincoln half hogs),	1) 78,8% (1925)	League of Nations (1929)
			Cotton (Fair Dhollerah (Surat)),		
			Hemp (Manila, Fair Roping), Copra, Indigo, Chemicals, Leather Average Import, Cotton yarns, Cotton piece unbleached, Caoutchouc manufactured, Paper, Earthenware, Iron and steel manufactures, Copper (English Tough Cake), Machinery hardware, Road Motor cars		
<b>Netherlands EXP</b>	1913-1930		1) Cattle, Beef (middling), Bacon, Margarine, Milk, Butter, Cheese,	1) 78,8% (1925)	1) League of Nations (1925)

		1) 1913-1930 Laspeyres	Fish, Eggs, Flour, Tomatoes, Potatoes, Fresh fruit, Coffee (Rio good Channel), Sugar (British west indian refining), Oil (linseeds), Spirits, Hides (River plate dry), Manures: Sulphate of Ammonia, Seeds (linseeds), Coal (Newcastle Steam), Flax (St. Petersburg), Cement, Indigo, Chemicals, Tobacco manufactures, Leather Dressing Hides, Cotton yarns, Cotton manufactures, Paper, Earthenware, Iron and steel manufactures, Machinery hardware		League of Nations (1929)
<b>New Zealand IMP</b>	1855-1927	1) 1855-1927 Laspeyres	1) Cattle, Wollen clothing, Boots and shoes of leather, Wollen worsted manufactures, Coal (Wallsend Hetton in London), Cotton manufactures, Chemicals, Earthenware, Fish, Fresh fruit, Rice, Hats, Machinery hardware, NON-Steam Engine: Agricultural, Electrical machinary, Manures: Sulphate of Ammonia, Iron and steel manufactures, Leather Dressing Hides, Linen manufactures, Beer and ale, Sugar unrefined, Tea (Average import price), Rails, Spirits, Tobacco manufactures, Wine, Petroleum (refined), Cement, Indigo, Paper, Leather and manufactures, Seeds (linseeds), Silk, Cotton piece bleached, Tin (Straits), Timber (Hewn, average import), Jute Canvas and Sacking, Road Motor cars	1) 71,2% (1927)	1) United Kingdom (colonies) Statistical Yearboooks.  (1855 to 1869), (1864 to 1878), (1877 to 1891)  U.S.A (1909). HISTORICAL STATISTICS  United Kingdom (colonies). Statistical Yearboooks (1905) (1926)  (1931), (1937)

<b>New Zealand EXP</b>	1800-1850	1) 1800-45 Laspeyres	1) Wheat Amsterdam, Oats, Hides For dressing [Kauri gum], Timber Pine, Wool Spanish, Whale Oil, Copper Manufactured	1) 54,8% (1846)	1) Macgregor ( 1850)
		2) 1846-50 Fisher	2) as for 1)		2) as for 1)
<b>Newfoundland IMP</b>	1850-1938	1) 1850- 1938 Fisher	1) Butter, Coal (Wallsend Hetton in London), Flour , Fresh fruit, Iron and steel manufactures,		1) United Kingdom (colonies). Statistical Yearbooks.
			Leather and manufactures, Beef (middling), Molasses, Salt, Sugar unrefined, Tea (Average import price), Oats	1) 47,5% (1913)	(1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891)
					United Kingdom (colonies). Statistical Yearbooks (1905) (1926) (1931), (1937)
<b>Newfoundland EXP</b>	1800-1938	1) 1800-35 Laspeyres	1) Whale Oil [fish cod dry and oil cod], Hides Buenos Aires	1) 96% (1836)	1) United Kingdom (colonies) Statistical Yearbooks.
		2) 1836-50 Fisher	2) as for 1)	3) 64,1% (1913)	(1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891)
		3) 1850- 1938 Fisher	3) Fish, Hides (River plate dry)		United Kingdom (colonies). Statistical Yearbooks. (1905) (1926) (1931), (1937)

<b>Nicaragua IMP</b>	1850-1938	1) 1850-1912 Laspeyres	1) Beef (middling), Maize, Rice, Flour, Fresh fruit, Wine, Crude petroleum, Petroleum (refined), Chemicals, Tobacco manufactures, Leather and manufactures, Cotton yarns, Wollen worsted manufactures, Silk, Cotton manufactures, Hats, Caoutchouc manufactured		1) League of Nations (1925)
		2) 1913-38 Fisher	Paper, Earthenware,	1) 66,5% (1913)	League of Nations (1929)
			Iron and steel manufactures, Copper lingots, Electrical machinery, Machinery hardware, Road Motor cars		League of Nations (1933)
			2) as for 1)		League of Nations (1936) League of Nations (1938) 2) as for 1)
<b>Nicaragua EXP</b>	1800-1938	1) 1800-58 Laspeyres	1) Hides Buenos Aires, Logwood,	1) 96,8% (1858)	1) United Kingdom (foreign countries). Statistical Yearbooks (several years).
		2) 1850-1912 Laspeyres	Timber (Hewn, average import)	2) 83,7% (1913)	
		3) 1913-38 Fisher	2) Fresh fruit, Coffee (Rio good Channel), Sugar unrefined, Hides (River plate dry), Rubber crude, Timber (Hewn, average import), Cotton (Fair Dhollerah (Surat))		2) League of Nations (1925)
			3) as for 2)		League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)



					3) as for 2)
Nigeria IMP	1850-1900	1) 1850-64 Laspeyres	1) Cotton manufactures, Spirits,		1) United Kingdom (colonies). Statistical Yearboooks
		2) 1865-1900 Fisher	Machinery hardware, Rails, Tobacco unmanufactured	1) 63,4% (1890)	(1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891)
			2) as for 1)		United Kingdom (colonies). Statistical Yearboooks (1905)
					2) as for 1)
Nigeria EXP	1850-1900	1) 1850-64 Laspeyres	1) Oil (palm), Cotton (Fair Dhollerah (Surat))		1) United Kingdom (colonies). Statistical Yearboooks
		2) 1865-1900 Fisher	2) as for 1)	1) 86,7% (1890)	(1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891)
					United Kingdom (colonies) Statistical Yearboooks (1905)
					2) as for 1)
Northern Rhodesia IMP	1850-1938	1) 1850-1908 Laspeyres	1) Cotton manufactures, Coal (Wallsend Hetton in London), Cotton piece bleached, Electrical machinary, Iron and steel manufactures, Machinery hardware, Road Motor cars, Tobacco manufactures, Timber (Hewn, average import), Rails	1) 36,7% (1913)	1) United Kingdom (colonies). Statistical Yearboooks (1926) (1931) (1937)
		2) 1909-38 Fisher	Sugar unrefined, Petroleum (refined)		
			2) as for 1)		2) as for 1)

<b>Northern Rhodesia EXP</b>	1850-1938	1) 1850-1908 Laspeyres 2) 1909-38 Fisher	1) Cattle, Hides (River plate dry), Maize, Tobacco unmanufactured, Copper (Chili Bars) 2) as for 1)	1) 45,5% (1913)  2) as for 1)	1) United Kingdom (colonies). Statistical Yearboooks (1926), (1931), (1937)
<b>Nyasaland IMP</b>	1850-1938	1) 1850-1923 Laspeyres 2) 1924-38 Fisher	1) Cotton manufactures, Cotton piece bleached, Cotton yarns, Iron and steel manufactures, Road Motor cars, Petroleum (refined) 2) as for 1)	1) 64,4% (1924)  2) as for 1)	1) United Kingdom (colonies). Statistical Yearboooks (1931), (1937), (1947)
<b>Nyasaland EXP</b>	1850-1938	1) 1850-1923 Laspeyres 2) 1924-38 Fisher	1) Tea (Congou, common), Tobacco unmanufactured, Cotton (Fair Dhollehah (Surat)) 2) as for 1)	1) 93,9% (1924)  2) as for 1)	1) United Kingdom (colonies) Statistical Yearboooks (1931), (1937) (1947)
<b>Palestine IMP</b>	1850-1938	1) 1850-1919 Laspeyres 2) 1920-38 Fisher	1) Coal (Wallsend Hetton in London), Coffee (Ceylon plantation, low middling), Cotton manufactures, Cotton yarns, Fish, Flour, Hides (River plate dry), Iron and steel manufactures, Machinery hardware, Paper, Petroleum (refined), Rice, Sugar (British west indian refining), Timber (Hewn, average import), Tobacco unmanufactured, Wollen worsted manufactures, Cattle, Wheat (English Gazette), Oil (olive), Road Motor cars, 2) Chemicals	1) 63,3% (1920)	1) United Kingdom (colonies) Statistical Yearboooks (1926), (1931), (1937)

			2) as for 1)		2) as for 1)
<b>Palestine EXP</b>	1850-1938	1) 1850-1919 Laspeyres 2) 1920-38 Fisher	1) Almonds, Barley, Maize, Beans, Fresh fruit, Oranges, Wine, Hides (River plate dry) 2) as for 1)	1) 50,2% (1920)	1) United Kingdom (colonies) Statistical Yearboooks (1926), (1931), (1937) 2) as for 1)
<b>Panama IMP</b>	1850-1938	1) 1850-1912 Laspeyres 2) 1913-38 Fisher	1) Cattle, Crude petroleum, Timber (Hewn, average import), Cement, Chemicals, Tobacco manufactures, Leather and manufactures, Cotton manufactures, Caoutchouc manufactured, Paper, Earthenware, Iron and steel manufactures, Machinery hardware 2) as for 1)	1) 59,6% (1913)	1) Pan-American Union (PAU). (1952) 2) as for 1)
<b>Panama EXP</b>	1850-1938	1) 1850-1912 Laspeyres 2) 1913-38 Fisher	1) Fresh fruit, Coconut Oil, Cocoa, Hides (River plate dry), Timber (Hewn, average import) 2) as for 1)	1) 86,8% (1913)	1) Pan-American Union (PAU). (1952) 2) as for 1)
<b>Paraguay IMP</b>	1850-1938	1) 1850-1938 Fisher	1) Cotton manufactures, Wollen worsted manufactures, Iron and steel manufactures	1) 42,6% (1913)	1) Magregor (1850) League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Paraguay EXP</b>	1850-1938	1) 1850-1938 Fisher	1) Tobacco manufactures, MEDIA: Coffee (Rio good Channel) and Tea (Congou, common)) [Yerba], Hides (River plate dry), Timber (Hewn, average import)	1) 57,3% (1913)	1) Magregor (1850) League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936)

				League of Nations (1938)
<b>Perù IMP</b>	1800-1938	1) 1800-63 Laspeyres	1) Cotton manufactures, Wool (english lincoln half hogs), Timber (Hewn, average import)	1) 80,2% (1863) 1) 1) Magregor (1850)
		2) 1850- 1901 Laspeyres	2) Bacon, Beef (middling), Butter, Fish, Wheat (English Gazette), Rice, Flour, Tea (Average import price), Fresh fruit, Wine, Timber (Hewn, average import), Oil (linseeds), Paraffin Wax, Coal (Wallsend Hetton in London),	2) 72,6% (1913)
		3) 1902-38 Fisher	Cement, Indigo, Chemicals, Tobacco unmanufactured, Wollen worsted manufactures, Silk, Cotton manufactures, Hemp (St. Petersburg, clean), Caoutchouc manufactured, Paper, Earthenware, Iron and steel manufactures, Electrical machinery, Machinery hardware, Road Motor cars	2) U.S.A (1909). HISTORICAL STATISTICS
			3) as for 2)	League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938) 3) as for 2)
<b>Perù EXP</b>	1800-1850	1) 1800-39 Laspeyres	1) Wool Spanish, Cotton Raw, Saltpetre	1) Hanson, John R., II (1980)
		2) 1840-50 Fisher	2) as for 1)	1) 100% (1840) 2) as for 1)

<b>Philippines IMP</b>	1800-1938	1) 1800-50 Laspeyres	1) Tobacco unmanufactured, Soap, Indigo, Woollen worsted manufactures, Silk, Timber (Hewn, average import), Steel bars, Rails, Beef (middling), Butter, Flour, Coffee (Ceylon plantation, low middling), Coal (Wallsend Hetton in London), Leather Average Import, Cotton piece bleached, Cotton manufactures, Galvanised corrugated sheets	1) 49,3% (1925)	1) Nagano Yoshika (1997) League of Nations (1929)
		2) 1850-1925 Laspeyres	2) Eggs, Vegetables, Fresh fruit, Manures: Sulphate of Ammonia, Tobacco unmanufactured, Crude petroleum, Oil Petroleum illuminating, Oil Petroleum lubricating, Cement, Soap, Indigo, Tobacco manufactures, Woollen worsted manufactures, Silk, Caoutchouc manufactured, Steel bars, Rails, Beef (middling), Butter, Fish, Rice, Flour, Coffee (Rio good Channel), Petroleum (refined), Coal (Wallsend Hetton in London), Chemicals, Leather and manufactures, Cotton piece printed, Cotton piece bleached, Paper, Galvanised corrugated sheets, Pig iron, Electrical machinery, Non-Steam Engine: Agricultural, Road Motor cars	2) 84,1% (1925)	2) League of Nations (1929)
<b>Philippines EXP</b>	1800-1903	1) 1800-39 Laspeyres	1) Sugar Brown, Hemp, Tobacco Brown, Coffee Ordinary	1) 73,7% (1840)	1) Nagano Yoshika (1997)

		2) 1840-50 Fisher	2) as for 1)	3) 78,9% (1895)	
		3) 1850- 1903 Fisher	3) Sugar unrefined, Hemp (Manila, Fair Roping), Tobacco manufactures, Coffee (Ceylon plantation, low middling)	2) as for 1)	
					3) Nagano Yoshika (1997 League of Nations (1929)
<b>Poland IMP</b>	1850-1938	1) 1850- 1919 Laspeyres	1) Bacon, Fish, Rice, Oranges, Flour, Fresh fruit, Coffee (Ceylon plantation, low middling), Hides (River plate dry), Oil (linseeds), Rubber crude, Tobacco unmanufactured, Manures: Sulphate of Ammonia, Iron (Bars), Wool (english lincoln half hogs), Cotton (Fair Dhollerah (Surat)), Indigo, Chemicals, Wollen and worsted yarns, Cotton yarns, Leather Dressing Hides, Cotton piece bleached, Wollen clothing, Paper, Earthenware, Iron and steel manufactures, Electrical machinery, Machinery hardware	1) 72,5% (1923)	1) League of Nations (1925)
		2) 1920-38 Fisher	2) as for 1)		League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
					Poland. Statistical Yearbook (1930)
					2) as for 1)

		1) 1850-1919 Laspeyres	1) Cattle, Pork, Cattle, Butter, Mutton Middling, Eggs, Wheat (English Gazette), Sugar unrefined, Leather Dressing Hides, Seeds (linseeds), Timber (Hewn, average import), Iron (Bars), Zinc Ore, Oil Petroleum lubricating, Coal (Wallsend Hetton in London), Paraffin Wax, Wollen and worsted yarns, Woollen worsted manufactures, Cotton manufactures, Hats, Timber (Hewn, average import),		1) League of Nations (1925)
<b>Poland EXP</b>	1850-1938	2) 1920-38 Fisher	Iron and steel manufactures 2) as for 1)	1) 86,3% (1923)	League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)  Poland. Statistical Yearbook (1930)  2) as for 1)
<b>Puerto Rico IMP</b>	1800-1901	1) 1850-55 Fisher 2) 1856-1901 Laspeyres	1) Wheat (English Gazette), Fish, Cotton Manufactures, Linen manufactures, Timber (Hewn, average import), Soap, Tobacco manufactured 2) as for 1)	1) 50,5% (1855)	1) Bulmer-Thomas (2012)  2) as for 1)
<b>Puerto Rico EXP</b>	1800-1901	1) 1850-1900 Fisher 2) 1901 Laspeyres	1) Sugar unrefined, Molasses, Coffee (Rio good Channel), Tobacco unmanufactured, Tobacco manufactures 2) as for 1)	1) 96,2% (1855)	1) Bulmer-Thomas (2012) 2) as for 1)

<b>Portugal IMP</b>	1800-1850	1) 1800-41 Laspeyres	1) Butter, Wheat Amsterdam, Sugar Brown, MEDIA: Coffee and Tea [coffee and tea], Tobacco brown, Cotton raw, Wool Spanish, Raw silk, MEDIA: Flax and Hemp [raw flax and hemp], Hides Buenos Aires, Coal, MEDIA: Cotton Raw (Berbice or Demerara) and Cotton textiles [cotton thread], Leather Butts, Timber, Iron Wrought bars, Copper Manufactured, Black tin, Cotton textiles	1) 65,7% (1848)	1) Pedro Lains (2007) and private communication.
		2) 1842-50 Fisher	2) as for 1)		2) as for 1)
<b>Portugal EXP</b>	1800-1850	1) 1800-38 Laspeyres	1) Wine, Olive oil, Wool Spanish, Beeswax, Hides For dressing		1) - John Macgregor, Volume II (1850)
		2) 1839-50 Fisher	2) as for 1)	1) 58,5% (1848)	- Pedro Lains (2007) and private communication
<b>Romania IMP</b>	1859-1938	1) 1859-1938 Fisher	1) Chemicals, Coal (Average Export price), Coffee (Ceylon plantation, low middling), Indigo, Cotton Manufactures, Cotton (Fair Dhollerah (Surat)), Cotton yarns, Earthenware, Fish, Hides (River plate dry), Iron and steel manufactures, Linen manufactures, Leather Dressing Hides, Leather and manufactures, Machinery hardware, Paper, Rice, Silk, Soap, Sugar (British west indian refining), Tobacco unmanufactured, Oil (olive), Road Motor cars, Wheat (English Gazette), Flour, Timber (Hewn, average import), Wool (english lincoln half hogs), Woollen worsted manufactures, Wollen and worsted yarns, Copper lingots, Fresh fruit, Beans	1) 49,6% (1913)	1) United Kingdom (colonies). Statistical Yearbooks, 1836.
					United Kingdom (foreign countries). Statistical Yearbooks 1901 to 1912  League of Nations (1929) League of Nations (1933)



					League of Nations (1936) League of Nations (1938)
					1) 1) United Kingdom(colonies). Statistical Yearboooks 1836.
<b>Romania EXP</b>	1859-1938	1) 1859-1938 Fisher	1) Barley, Beans, Eggs, Fish, Hides (River plate dry), Maize, Oats, Seeds (linseeds), Petroleum (refined), Rye, Sugar (British west indian refining), Wheat (English Gazette), Flour, Timber (Hewn, average import), Wool (merino, port phillip, average fleece), Indigo, Fresh fruit, Rubber crude, Cattle, Pork	1) 93,6% (1913)	United Kingdom (foreign countries). Statistical Yearboooks 1901 to 1912  League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Russia IMP</b>	1850-1935	1) 1850-1935 Fisher	1) Coal (Average Export price), Coffee (Ceylon plantation, low middling), Copper Ore, Cotton manufactures, Cotton (Fair Dhollerah (Surat)), Cotton yarns, Hides (River plate dry), Indigo, Iron and steel manufactures, Iron (Scotch pig), Lead, Machinery hardware, Oil (olive), Rice, Silk (tsatlee), Tea (Average import price), Wine, Woollen worsted manufactures, Wool (merino, port phillip, average fleece), Wollen and worsted yarns, Chemicals, Fish, Currants, Oranges, Rubber crude, Seeds and nuts, Silk, Tobacco manufactures	1) 43,9% (1912)	1) United Kingdom (colonies). Statistical Yearboooks 1836.  United Kingdom (foreign countries). Statistical Yearboooks 1901 to 1912
<b>Russia EXP</b>	1800-1935	1) 1800-25 Laspeyres	1) Flax (Russian average import), Hemp (St. Petersburg, clean),	1) 70% (1826)	1) United Kingdom (colonies) <i>Tables of the revenue, population, 1836.</i>

		2) 1826-50 Fisher	Hides Buenos Aires, Seeds (linseeds), Oats, Tallow St. Petersburg, Wheat, Wool (merino, port phillip, average fleece)	3) 71,2% (1912)	
		3) 1850- 1935 Fisher	2) as for 1)		United Kingdom (foreign countries). Statistical Yearbooks <i>1901 to 1912</i>
			3) Barley, Wheat (English Gazette), Spirits, Butter, Cattle, Cotton manufactures, Eggs, Flax (Russian average import), Flax (Russian average import), Flour, Hides (River plate dry), Hemp (St. Petersburg, clean), Leather Dressing Hides, Seeds (linseeds), Maize, Oats, Petroleum (refined), Beans, Rye, Silk (tsatlee), Sugar unrefined, Tallow St. Petersburg, Wheat (English Gazette), Timber (Hewn, average import), Wool (merino, port phillip, average fleece), Woollen worsted manufactures		
				2) as for 1)	
					3) United Kingdom (colonies) Statistical Yearbooks, <i>1836</i> .
					United Kingdom ( foreign countries). Statistical Yearbooks <i>1901 to 1912</i>
<b>Sao Tome e Principe EXP</b>	1850-1938	1) 1850- 1938 Fisher	1) Cocoa	1) 100% (1913)	1) We use cacao price as representative of total exports

<b>Sarawak IMP</b>	1850-1938	1) 1850-1908 Laspeyres	1) Cotton manufactures, Flour, Rice, Iron and steel manufactures, Machinery hardware, Petroleum (refined), Opium, Sugar unrefined, Tobacco unmanufactured, Fish, Wine, Tobacco manufactures, Boots and shoes of leather	1) 52,5% (1913)	1) United Kingdom (colonies). Statistical Yearboooks (1926), (1931), (1937)
		2) 1909-38 Fisher	2) as for 1)		2) as for 1)
<b>Sarawak EXP</b>	1850-1938	1) 1850-1908 Laspeyres	1) Fish, Petroleum (refined), Crude petroleum, Pepper, Rubber crude, Copra	1) 34,5% (1913)	1) United Kingdom (colonies). Statistical Yearboooks (1926), (1931), (1937)
		2) 1909-38 Fisher	2) as for 1)		2) as for 1)
<b>Senegal IMP</b>	1850-1938	1) 1850-88 Laspeyres	1) Coffee (Rio good Channel), Sugar unrefined, Tobacco unmanufactured, Spirits, Steel bars, Salt, Cotton yarns, Cotton (Middling uplands), Iron and steel manufactures		1) Deloncle , Jean-Luis (1906)
		2) 1889-99 Fisher	2) as for 1)	1) 96,3% (1899)	
		3) 1900-38 Laspeyres	3) as for 1)		2) as for 1)
<b>Senegal EXP</b>	1800-1938	1) 1800-89 Laspeyres	1) Oil (palm), Hides Buenos Aires, Nuts and kernels	1) 58,9% (1889)	1) Deloncle , Jean-Luis (1906)

		2) 1850-88 Laspeyres		2) 96,1% (1899)	2) as for 1)
		3) 1889-99 Fisher	2) Oil (palm), Rubber crude, Nuts and kernels		3) as for 1)
		4) 1900-38 Laspeyres	3) as for 2)		4) as for 1)
			4) as for 2)		
<b>Serbia IMP</b>	1850-1938	1) 1850-1938 Fisher	1) Chemicals, Coal (Average Export price), Coffee (Rio good Channel), Copper lingots, Cotton yarns, Cotton manufactures, Fish, Fresh fruit, Hides (River plate dry), Iron and steel manufactures, Leather Dressing Hides, Leather manufactures, Petroleum (refined), Paper, Rice, Salt, Silk, Sugar (British west indian refining), Tobacco manufactures, Road Motor cars, Wine, Spirits, Wool (english lincoln half hogs), Earthenware, Cotton manufactures, Machinery hardware, Maize, Oil (olive), Soap, Timber (Hewn, average import), Wollen and worsted yarns, Woollen worsted manufactures, Wheat (English Gazette)	1) 74,9% (1913)	1) U.S.A (1909). HISTORICAL STATISTICS  United Kingdom (foreign countries). Statistical Yearboooks <i>1901 to 1912</i>  League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Serbia EXP</b>	1800-1938	1) 1800-50 Laspeyres  2) 1850-1938 Fisher	1) Pork Mess, Beef Irish, Leather Butts, Wheat Amsterdam	1) 73,6 (1843)  2) 74,8% (1913)	1) Serbia. Sundhaussen H.(1989)  2) U.S.A (1909). HISTORICAL STATISTICS

			2) Barley, Cattle, Coal (Wallsend Hetton in London), Hemp (St. Petersburg, clean), Eggs, Fresh fruit, Hides (River plate dry), Butter, Maize, Beef (prime), Oats, Currants, Rye, Beans, Wheat (English Gazette), Flour, Timber (Hewn, average import), Cement, Chemicals, Nitrate (of soda), Paper, Copper lingots, Pork, Machinery hardware, Iron ore		United Kingdom (foreign countries). Statistical Yearbooks <i>1901 to 1912</i>
					League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Sierra Leone IMP</b>	1850-1938	1) 1850-1908 Laspeyres	1) Beer and ale, Boots and shoes of leather, Cement, Coal (Wallsend Hetton in London), Cotton manufactures, Silk, Flour, Rice, Hats, Iron and steel manufactures, Machinery hardware, Timber (Hewn, average import), Salt, Spirits, Sugar (British west indian refining), Tobacco unmanufactured, Tobacco manufactures,	1) 68,2% (1913)	1) United Kingdom (colonies) Statistical Yearbooks (1926), (1931), (1937)
		2) 1909-38 Fisher	Woollen worsted manufactures, Road Motor cars, Wine		2) as for 1)
<b>Sierra Leone EXP</b>	1800-1938	1) 1800-50 Laspeyres	1) Indigo, Ginger, Hides For dressing, Timber Pine, Pepper White, Beeswax , Coffee Ordinary	1) 86,8% (1836)	1) United Kingdom (colonies)) Statistical Yearbooks, <i>1836</i> .

		2) 1850-1908 Laspeyres	2) Coffee (Rio good Channel), Oil (palm), Iron Ore	2) 94,8% (1913)	
		3) 1909-38 Fisher	3) as for 2)		2) United Kingdom (colonies). Statistical Yearboooks. (1926) (1931), (1937) 3) as for 2)
<b>Somaliland IMP</b>	1850-1938	1) 1850-1900 Laspeyres	1) Fresh fruit, Rice, Sugar unrefined, Cotton piece printed, Cotton piece bleached	1) 80,9% (1913)	1) United Kingdom (colonies). Statistical Yearboooks (1900-1914), (1926) (1931), (1937)
		2) 1901-38 Fisher	2) as for 1)		2) as for 1)
<b>SomalilandEXP</b>	1850-1938	1) 1850-1900 Laspeyres	1) Butter, Rubber crude, Sheep and lambs, Hides (River plate dry)	1) 89,3% (1913)	1) United Kingdom (colonies) Statistical Yearboooks (1900-1914), (1926) (1931), (1937)
		2) 1901-38 Fisher	2) as for 1)		2) as for 1)
<b>South Africa IMP</b>	1800-1938	1) 1800-58 Laspeyres	1) Cotton manufactures, Beer and ale, Coal (Wallsend Hetton in London), Coffee (Rio good Channel), Iron and steel manufactures, Leather and manufactures, Sugar unrefined, Woollen worsted manufactures	1) 52,9% (1858)	1) United Kingdom (colonies). Statistical Yearboooks.
		2) 1850-1938 Fisher		2) 43,7% (1913)	(1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891)

			2) Butter, Cheese, Coal (Average Export price), Coffee (Rio good Channel), Cotton manufactures, Iron and steel manufactures, Machinery hardware, Pork, Rice, Spirits, Sugar unrefined, Tea (Average import price), Tobacco unmanufactured, Wheat (English Gazette), Wine, Timber (Hewn, average import), Woollen worsted manufactures, Beer and ale, Boots and shoes of leather		United Kingdom (colonies). Statistical Yearboooks. (1905)
					(1926), (1931), (1937)
<b>South Africa EXP</b>	1800-1938	1) 1800-50 Laspeyres	1) Beef Irish, Butter Waterford,	1) 72,4% (1836)	1) 1) United Kingdom (colonies). Statistical Yearboooks.
		2) 1850- 1938 Fisher	Copper Manufactured, Wheat Amsterdam, Oats British, Hides For dressing, Iron Wrought bars, Yellow soap, Sugar Brown, Tallow, Tea Middling, Tobacco Brown, Wine, Wool Spanish	2) 15,7% (1913)	(1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891)
					United Kingdom (colonies) Statistical Yearboooks. (1905)
			2) Coal (Wallsend Hetton in London), Fish, Wool (merino, port phillip, average fleece), Hides (River plate dry), Wine, Wool (english lincoln half hogs), Copper Ore, Sheep and lambs		(1926), (1931), (1937).

<b>South West Africa IMP</b>	1850-1938	1) 1850-1918 Laspeyres	1) Coffee (Rio good Channel), Flour, Maize, Sugar unrefined, Tea (Congou, common), Tobacco manufactures, Boots and shoes, Cotton manufactures, Iron and steel manufactures, Machinery hardware, Road Motor cars, Petroleum (refined), Soap, Spirits	1) 47,6% (1919)	1) United Kingdom (colonies). Statistical Yearboooks (1905).
		2) 1919-38 Fisher	2) as for 1)		(1926), (1931), (1939). 2) as for 1)
<b>South West Africa EXP</b>	1850-1938	1) 1850-1918 Laspeyres	1) Cattle, Sheep and lambs, Butter, Fish, Beef (middling), Hides (River plate dry), Copper Ore, Lead (English pig), Tin Ore, Wool (english lincoln half hogs)	1) 43,3% (1929)	1) United Kingdom (colonies). Statistical Yearboooks (1905)
		2) 1919-38 Fisher	2) as for 1)		(1926), (1931), (1939). 2) as for 1)
<b>Southern Rhodesia IMP</b>	1850-1938	1) 1850-1908 Laspeyres	1) Cotton manufactures, Jute Canvas and Sacking, Boots and shoes of leather, Cotton piece bleached, Chemicals, Wheat (English Gazette), Flour, Silk, Wollen pice light all wool, Iron and steel manufactures, Machinery hardware, Electrical machinary, Road Motor cars, Petroleum (refined), Rails, Spirits, Sugar unrefined, Tobacco manufactures, Timber (Hewn, average import), Paper	1) 56% (1913)	1) United Kingdom (colonies). Statistical Yearboooks (1926,(1931),(1937)
		2) 1909-38 Fisher	2) as for 1)		2) as for 1)



<b>Southern Rhodesia EXP</b>	1850-1938	1) 1850-1908 Laspeyres	1) Butter, Cattle, Fresh fruit, Coal (Wallsend Hetton in London), Copper lingots, Maize, Hides (River plate dry), Iron Ore, Tobacco unmanufactured, Tobacco manufactures	1) 56,3% (1913)	1) United Kingdom (colonies) Statistical Yearbooks (several yerars).
		2) 1909-38 Fisher	2) as for 1)		(1926), (1931), (1937) 2) as for 1)
<b>Sudan IMP</b>	1850-1938	1) 1850-1908 Laspeyres	1) Boots and shoes of leather, Coal (Wallsend Hetton in London), Coffee (Ceylon plantation, low middling), Cotton piece bleached, Flour, Rice, Wheat (English Gazette), Iron and steel manufactures, Machinery hardware, Soap, Spirits, Sugar (British west indian refining), Tea (Congou, common), Timber (Hewn, average import), Tobacco unmanufactured, Tobacco manufactures, Road Motor cars	1) 61,5% (1913)	1) United Kingdom (colonies). Statistical Yearbooks (several years).
		2) 1909-38 Fisher	2) as for 1)		(1926), (1931), (1937) 2) as for 1)
<b>Sudan EXP</b>	1850-1938	1) 1850-1908 Laspeyres	1) Cattle, Coal (Wallsend Hetton in London), Cotton (Fair Dhollerah (Surat)), Seeds: cotton, Raisins, Maize, Rubber crude, Hides (River plate dry), Sesamum	1) 77% (1913)	1) United Kingdom (colonies). Statistical Yearbooks (several years).
		2) 1909-38 Fisher	2) as for 1)		(1926), (1931), (1937) 2) as for 1)

<b>Switzerland IMP</b>	1913-30	1) 1913-30 Laspeyres	1) Cattle, Beef (middling), Butter, Eggs, Wheat (English Gazette), Fresh fruit, Coffee (Ceylon plantation, low middling), Cocoa, Sugar unrefined, Oil (linseeds), Wine, Tobacco unmanufactured, Timber (sawn or split, average import), Iron (Bars), Copper (Chili Bars), Coal (Newcastle Steam), Oil Petroleum lubricating, Wool (english lincoln half hogs), Silk (tsatlee), Cotton (Fair Dhollerah (Surat)), Indigo, Chemicals, Leather and manufactures, Woollen worsted manufactures, Silk, Cotton manufactures, Jute Canvas and Sacking, Caoutchouc manufactured, Timber (Hewn, average import), Earthenware, Iron and steel manufactures, Machinery hardware, Road Motor cars	1) 74,5% (1925)	1) League of Nations (1925)
					League of Nations (1929) League of Nations (1933)
<b>Switzerland EXP</b>	1800-92; 1913-30	1) 1800-92 Laspeyres	1) Beef (middling), Cocoa, Tobacco manufactures, Hides Buenos Aires, Leather Crop Hides, Indigo, Timber (Hewn, average import), Copper (Chili Bars), Iron (Bars), Iron Ore, Cheese	1) 12,5% (1892)	1) Switzerland. Historical Statistics (online) 1892-1959.
		2) 1913-30 Laspeyres		2) 69,2% (1925)	2) League of Nations (1925)
			2) Milk, Cheese, Hides (River plate dry), Iron (Bars), Copper (Chili Bars), Wool (english lincoln half hogs), Silk (tsatlee), Soap, Indigo, Chemicals, Leather and manufactures, Boots and shoes of leather, Cotton yarns, Woollen worsted manufactures, Silk, Cotton piece unbleached, Cotton manufactures, Iron and steel manufactures, Electrical machinery, Machinery hardware, Textil Machinery		League of Nations (1929)

League of Nations (1933)					
<b>Syria and Lebanon IMP</b>	1850-1938	1) 1850-1938 Laspeyres	1) Wheat (English Gazette), Rice, Oil (palm), Sugar unrefined, Coal (Wallsend Hetton in London), Chemicals, Valonia, Leather and manufactures, Caoutchouc manufactured, Timber (Hewn, average import), Paper, Silk, Wollen and worsted yarns, Cotton manufactures, Iron (Bars), Machinery hardware, Electrical machinery, Road Motor cars	1) 70,4% (1937)	1) France. Statistical Yearbooks (1937)
<b>Syria and Lebanon EXP</b>	1850-1938	1) 1850-1938 Laspeyres	1) Eggs, Vegetables, Beans, Oranges, Currants, Almonds, Fresh fruit, Wheat (English Gazette), Barley, Flour, Oil (olive), Tobacco unmanufactured, Cement, Leather Dressing Hides, Silk (tsatlee)	1) 46,3% (1937)	1) France. Statistical Yearbooks (1937)
<b>Tanganyika IMP</b>	1850-1938	1) 1850-1919 Laspeyres	1) Cotton manufactures, Coal (Wallsend Hetton in London), Cotton piece bleached, Silk, Rice, Wheat (English Gazette), Jute Canvas and Sacking, Machinery hardware, Road Motor cars, Cement, Sugar unrefined, Rails, Galvanised corrugated sheets, Iron and steel manufactures, Tobacco manufactures, Spirits	1) 69,8% (1920)	1) United Kingdom (colonies) Statistical Yearbooks.
		2) 1920-38 Fisher	2) as for 1)		(1926), (1931), (1937) 2) as for 1)
<b>Tanganyika EXP</b>	1850-1938	1) 1850-1919 Laspeyres	1) Coffee (Ceylon plantation, low middling), Cotton (Middling uplands), Hides (River plate dry), Butter, Rice, Paraffin Wax, Nuts and kernels, Sesamum, Hemp (Manila, Fair Roping)	1) 78,3% (1920)	1) United Kingdom (colonies) Statistical Yearbooks.
		2) 1920-38 Fisher	2) as for 1)		(1926), (1931), (1937)

					2) as for 1)
<b>Thailand IMP</b>	1850-1938	1) 1850-1938 Laspeyres	1) Opium, Road Motor cars, Chemicals, Earthenware, Copper (Chili Bars), Coal (Wallsend Hetton in London), Cotton yarns, 1) Cotton manufactures, Jute Canvas and Sacking, Hats, Iron (Bars), Iron (Scotch pig), Galvanised corrugated sheets, Iron and steel manufactures, Machinery hardware, Leather and manufactures, Spirits, Petroleum (refined), Paper, Indigo, Silk, Sugar unrefined, Timber (Hewn, average import), Tea (Congou, common)	1) 54,4% (1905)	1) U.S.A (1909). HISTORICAL STATISTICS <i>Statistical Abstract of Foreign Countries</i>
<b>Thailand EXP</b>	1850-1938	1) 1850-1938 Laspeyres	1) Cattle, Fish, Rice, Timber (Hewn, average import)	1) 81,9% (1896)	1) U.S.A (1909). HISTORICAL STATISTICS
<b>Trinidad and Tobago IMP</b>	1850-1938	1) 1850-1938 Fisher	1) Cotton manufactures, Coal (Wallsend Hetton in London),  Fish, Flour, Machinery hardware, Leather Dressing Hides, Timber (Hewn, average import), Beef (middling), Rice	1) 43,7% (1913)	1) United Kingdom (colonies). Statistical Yearbooks.  (1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891)  United Kingdom (colonies) Statistical Yearbooks (1905)  (1926), (1931), (1937)
<b>Trinidad and Tobago EXP</b>	1800-1938	1) 1800-35 Laspeyres  2) 1836-50 Fisher	1) Cocoa, Rum, Sugar Brown  2) as for 1)	1) 94,2% (1836)  3) 71,8% (1913)	1) United Kingdom (colonies). Statistical Yearbooks.  (1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891)

		3) 1850-1938 Fisher	3) Cocoa, Spirits, Sugar unrefined, Petroleum (refined)		United Kingdom (colonies). Statistical Yearbooks. (1905)  (1926), (1931), (1937)
<b>Tunis IMP</b>	1850-1938	1) 1850-1938 Laspeyres	1) Road Motor Cars, Barley, Beans, Butter, Cattle, Cheese, Chemicals, Coal (Wallsend Hetton in London), Coffee (Rio good Channel), Copper lingots, Maize, Cotton manufactures, Cotton yarns, Currants, Indigo, Eggs, Fish, Fresh fruit, Iron and steel manufactures, Lead (English pig), Leather and manufactures, Boots and shoes of leather, Phosphate of Lime and Rock, Linen manufactures, Timber (Hewn, average import), Beef (prime), Petroleum (refined), Nuts and kernels, Pepper, Potatoes, Rice, Silk (tsatlee), Spirits, Rails, Sugar unrefined, Tin (Straits), Tobacco manufactures, Tobacco unmanufactured, Oil (olive), Wheat (English Gazette), Flour, Wine, Wollen worsted manufactures, Wool (english lincoln half hogs), Wollen and worsted yarns, Cement, Milk	1) 68,8% (1902)	1) U.S.A (1909). HISTORICAL STATISTICS
<b>Tunis EXP</b>	1800-1938	1) 1800-50 Laspeyres  2) 1850-1938 Laspeyres	1) Wool Spanish. Leather Butts British. Hides For dressing, Olive oil, Beeswax, Yellow soap	1) 80,9% (1839)  2) 70,4% (1902)	1) Macgregor (1850) Vol. II  2) Department of Commerce and Labor, Bureau of Statistics (1909)

			2) Barley, Beans, Cattle, Copper Ore, Cotton manufactures, Currants, Eggs, Phosphate of Lime and Rock, Fish, Seeds (linseeds), Hides (River plate dry), Lead (English pig), Timber (Hewn, average import), Oats, Oil (olive), Spirits, Wheat (English Gazette), Flour, Wine, Wollen worsted manufactures, Wool (english lincoln half hogs), Soap, Zinc Ore		
<b>Turkey IMP</b>	1850-1938	1) 1850-1923 Laspeyres	1) Sugar (British west indian refining), Tea (Congou, common), Coffee (Ceylon plantation, low middling), Wheat (English Gazette), Rice, Paper, Cotton manufactures, Wollen worsted manufactures, Wollen and worsted yarns, Cotton yarns, Iron (Bars), Copper Ore, NON-Steam Engine: Agricultural, Petroleum (refined)	1) 96,3% (1929)	1) Turkey Statistical Yearbooks, 1940-1941.
		2) 1924-38 Fisher	2) as for 1)		2) as for 1)
<b>Turkey EXP</b>	1800-1938	1) 1800-54 Laspeyres	1) Wheat (English Gazette), Madder Root, Oil (olive), Seeds (linseeds), Silk (tsatlee), Hides Buenos Aires, Tobacco unmanufactured, Valonia, Wool (english lincoln half hogs), Oil (linseeds), Copper (English Tough Cake)	1) 71,9% (1854)	1) United Kingdom. (trade statics). Annual Statement of the Trade 1857.
		2) 1850-1923 Laspeyres		3) 86,9% (1929)	
		3) 1924-38 Fisher	2) Tobacco unmanufactured, Tobacco manufactures, Oil (olive), Seeds and nuts, Fresh fruit, Eggs, Raisins, Opium,		France. Tableau Décennal du Commerce (1847 a 1856).

			Wheat (English Gazette), Barley, Silk (tsatlee), Wool (merino, adelaide, average grease), Wool (english lincoln half hogs), Mutton Middling, Beef (middling), Cotton (Fair Dhollerah (Surat)), Coal (Average Export price)		
			3) as for 2)		2) Turkey. Statistical Yearbooks, 1940-1941.
					3) as for 2)
<b>UK IMP</b>	1913-1920	1) 1913-20 Fisher	1) Wheat (English Gazette), Barley, Oats, Rye, Maize, Rice, Beef (middling), Cattle, Butter, Eggs, Fish, Seeds: cotton, Beer and ale, Spirits, Milk, Tobacco manufactured, Coal (Wallsend Hetton in London), Iron Ore, Timber (Hewn, average import), Cotton (Fair Dhollerah (Surat)), Wool (english lincoln half hogs), Silk (tsatlee), Flax (Russian average import), Oil (linseeds), Hides (River plate dry), Paper, Rubber crude, Earthenware, Iron and steel manufactures, Electrical Machinery, Machinery hardware, Cotton yarns, Cotton piece bleached, Cotton manufactures, Wollen and worsted yarns, Woollen worsted manufactures, Silk, Linen manufactures, Chemicals, Petroleum (refined), Leather and manufactures, Road Motor cars, Caoutchouc manufactured	1) 87,9% (1913)	1) United Kingdom. (trade statistics) Annual Statement (1920)

<b>UK EXP</b>	1913-1920	1) 1913-20 Fisher	1) Wheat (English Gazette), Barley, Oats, Rye, Flour, Beef (middling), Cattle, Butter, Fish, Potatoes, Cocoa raw, Coffee (Ceylon plantation, low middling), Currants, Raisins, Sugar (British west indian refining), Sugar unrefined, Tea (Congou, common), Wine, Tobacco unmanufactured, Coal (Wallsend Hetton in London), Iron Ore, Timber (Hewn, average import), Cotton (Fair Dhollerah (Surat)), Wool (english lincoln half hogs), Silk (tsatlee), Jute (Good medium), Oil (linseeds), Hides (River plate dry), Paper, Rubber crude, Earthenware, Iron and steel manufactures, Electrical Machinery, Machinery hardware, Cotton yarns, Cotton manufactures, Wollen and worsted yarns, Woollen worsted manufactures, Silk, Linen manufactures, Chemicals, Petroleum (refined), Leather and manufactures, Road Motor cars, Caoutchouc manufactured	1) 90,3% (1913)	1) United Kingdom.(trade statistics) Annual Statement (1920)
<b>Uruguay IMP</b>	1800-1938	1) 1800-70 Laspeyres	1) Cotton (Middling uplands), Copper Ore, Iron Ore, Wine, Wool (english lincoln half hogs), Linen manufactures, Timber (Hewn, average import), Hides (River plate dry), Silk (tsatlee)	1) 70,3% (1872)  2) 65,9% (1911)	1) Acevedo Díaz, Eduardo, (1933) p.712  2) Uruguay. Statistical Yearbooks (several years)



		2) 1850-1891 Laspeyres	2) Cattle, Wine, Tobacco manufactures, Cotton manufactures, Petroleum (refined), Indigo, Chemicals, Timber (Hewn, average import), Paper, Leather and manufactures, Iron and steel manufactures, Earthenware		3) as for 2)
		3) 1892-1926 Fisher	3) as for 2)		4) as for 2)
		4) 1927-38 Laspeyres	4) as for 2)		
<b>Uruguay EXP</b>	1800-1871	1) 1800-56 Laspeyres	1) Beef (prime), Hides Buenos Aires, Tallow, Wool (english lincoln half hogs)	1) 76,9% (1856)	1) United Kingdom (foreign countries). Statistical Yearboooks (several years)
		2) 1850-71 Fisher		2) 75,4% (1871)	
			2) Beef (middling), Cattle, Hides (River plate dry), Tallow St. Petersburg, Wool (english lincoln half hogs)		2) Bonino-Tena-Willebald (2015)
<b>Zanzibar IMP</b>	1850-1938	1) 1850-1908 Laspeyres	1) Cattle, Coal (Wallsend Hetton in London), Copra, Cotton piece bleached, Cotton manufactures, Silk, Machinery hardware, Fish, Flour, Butter, Rice, Hides (River plate dry), Petroleum (refined), Sesamum, Sugar unrefined, Tea (Congou, common), Tobacco manufactures	1) 67,1% (1914)	1) United Kingdom (colonies). Statistical Yearboooks (several years).
		2) 1909-38 Fisher	2) as for 1)		(1926), (1931), (1937)
					2) as for 1)

<b>Zanzibar EXP</b>	1850-1938	1) 1850-1908 Laspeyres	1) Cinnamon, Copra	1) 97,9% (1914)	1) United Kingdom (colonies). Statistical Yearboooks.
		2) 1909-38 Fisher	2) as for 1)		(1926), (1931), (1937)
					2) as for 1)

## Appendix H

### Federico-Tena price indexes sources

Polity	Years	Index	Products	Coverage	Source for composition
<b>Albania IMP</b>	1850- 1938	1) 1850-1919 Laspeyres 2) 1920-38 Fisher	1) Wheat (English Gazette), Maize, Rice, Flour, Coffee (Ceylon plantation, low middling), Sugar unrefined, Hides (River plate dry), Salt, Petroleum (refined), Indigo, Chemicals, Leather and manufactures, Woollen worsted manufactures, Cotton yarns, Cotton manufactures, Timber (Hewn, average import), Paper, Cement, Earthenware, Iron and steel manufactures, Machinery hardware, Road Motor cars 2) as for 1)	1) 88,4% (1925)	1) League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)  2) as for 1)
<b>Albania EXP</b>	1850- 1938	1) 1850-1919 Laspeyres 2) 1920-38 Fisher	1) Cattle, Sheep and lambs, Butter, Cheese, Fish, Eggs, Wheat (English Gazette), Barley, Oats, Maize, Oil (olive), Hides (River plate dry), Timber (Hewn, average import), Coal (Wallsend Hetton in London), Crude petroleum, Petroleum (refined), Wool (english lincoln half hogs), Tobacco manufactures 2) as for 1)	1) 90,5% (1925)	1) League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)  2) as for 1)
<b>Algeria IMP</b>	1800- 1938	1) 1800-60 Laspeyres  2) 1850-1938 Fisher	1) Sugar (British west indian refining), Wine, Cotton manufactures, Linen manufactures, Woollen worsted manufactures, Leather Crop Hides 2) Barley, Beans, Butter, Cattle, Cheese, Chemicals, Coal (Wallsend Hetton in London), Coffee (Rio good Channel), Copper lingots, Cotton manufactures, Cotton yarns, Fish, Currants, Fresh fruit, Seeds and nuts, Earthenware, Leather Dressing Hides, Rubber crude, Iron and steel manufactures, Iron (Scotch pig), Linen manufactures, Lead, Leather and manufactures, Boots and shoes of leather, Machinery hardware, Paper, Petroleum (refined), Pork, Potatoes, Rice, Seeds (linseeds), Silk (tsatlee), Soap, Sugar (British west indian refining), Sugar unrefined, Timber	1) 47,9% (1860)  2) 64,6% (1913)	1) France (Colonies). Statistical Yearbooks (several years).  2) United Kingdom (colonies) Statistical Yearbooks (several years).  and United Kingdom (foreign countries): <i>Statistical Tables Relating Foreign Countries</i> in each year from 1901 to 1912.  League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)

			(Hewn, average import), Tobacco manufactures, Tobacco unmanufactured, Oil (olive), Road Motor Cars, Wheat (English Gazette), Flour, Wine, Woollen worsted manufactures		
<b>Algeria EXP</b>	1800-1938	1) 1800-50 Laspeyres	1) Hides For dressing, Wool Spanish, Beeswax, Wheat Amsterdam, Tobacco Brown, Olive oil	1) 66,8% (1849) 2) 84,3% (1913)	1) United Kingdom (foreign countries). Statistical Yearbooks. (1857).
		2) 1850-1938 Fisher	2) Cotton manufactures, Barley, Tobacco manufactures, Copper Ore, Eggs, Fish, Flour, Currants, Fresh fruit, Hides (River Plate dry), Iron (Scotch pig), Lead, Leather and manufactures, Oats, Oil (olive), Cattle, Paper, Phosphate of Lime and Rock, Potatoes, Sheep and lambs, Spirits, Timber (Hewn, average import), Tobacco unmanufactured, Flax (Russian average import), Wheat (English Gazette), Wine, Wool (english lincoln half hogs)		2) United Kingdom (colonies). Statistical Yearbooks (several years).  United Kingdom (foreign countries) Statistical Yearbooks from 1901 to 1912. League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Argentina IMP</b>	1800-1938	1) 1800-63 Laspeyres 2) 1850-1938 Fisher	1) Coal (Wallsend Hetton in London), Cotton manufactures, Iron (Bars), Silk, Woollen worsted manufactures, Linen manufactures, Wheat (English Gazette), Rice, Oil (olive), Sugar (British west indian refining), Tobacco manufactures, Wine, Spirits 2) Wollen clothing, Coal (Average Export price), Cotton manufactures, Chemicals, Machinery hardware, Non-Steam Engine: Agricultural, Rails, Steel bars, Iron and steel manufactures, Silk, Woollen worsted manufactures, Linen manufactures, Paper, Jute Canvas and Sacking, Wheat (English Gazette), Rice, Oil (olive), Sugar (British west indian refining), Tobacco manufactures, Wine, Spirits, Timber (Hewn, average import)	1) 68,8% (1863) 2) 53,4% (1913)	1) Macgregor (1850)  2) United Kingdom (foreign countries). Statistical Yearbooks. (several years) League of Nations (1925) League of Nations (1929)
<b>Argentina EXP</b>	1800-1938	1) 1800-42 Laspeyres 2) 1843-50 Fisher 3) 1850-1938 Fisher	1) Hides Buenos Aires, Tallow, Beef Irish, Wool Spanish 2) as for 1) 3) Bristles, Seeds (linseed), Maize, Wheat (English Gazette), Hides (River plate dry), Beef (prime), Wool (merino, port phillip, average fleece)	1) 90,3% (1843) 3) 68,2% (1913)	1) Macgregor (1850)  2) Tena-Willebald (2012) and United Kingdom (foreign countries): <i>Statistical Tables Relating Foreign</i>  3) as for 2)

					League of Nations (1925) League of Nations (1929)
<b>Australia IMP</b>	1800- 1938	1) 1800-55 Laspeyres 2) 1850-70 Fisher 3) 1871-1938 Laspeyres	1) Cotton manufactures, Wine, Wheat (English Gazette), Flour, Leather and manufactures, Linen manufactures, Sugar unrefined, Tea (Congou, common), Timber (Hewn, average import), Tobacco manufactures, Iron (Bars), Spirits, Paraffin Wax, Coal (Wallsend Hetton in London), Wool (english lincoln half hogs), Butter  2) Wollen clothing, Beer and ale, Wheat (English Gazette), Flour, Iron and steel manufactures, Machinery hardware, Leather and manufactures, Cotton manufactures, Sugar unrefined, Tea (Congou, common), Timber (Hewn, average import), Tobacco manufactures, Wine, Iron (Bars), Paper, Spirits, Boots and shoes of leather, Coal (Wallsend Hetton in London), Woollen worsted manufactures, Wool (english lincoln half hogs), Butter, Potatoes 3) as for 2)	1) 50,7% (1855) 2) 42,3% (1870)	1) United Kingdom (colonies) Statistical Yearboooks <i>1853 to 1867</i> 2) <i>as for 1</i> , in each year from 1855 to 1869. 3) as for 2)
<b>Australia EXP</b>	1800- 1938	1) 1800-35 Laspeyres 2) 1836-50 Fisher 3) 1850-70 Fisher 4) 1871-1938 Laspeyres	1) Wheat Amsterdam, Hides For dressing, Sugar Brown, Tea, Tobacco Brown, Wool Spanish 2) as for 1) 3) Coal (Wallsend Hetton in London), Cotton manufactures, Cotton (Fair Dhollerah (Surat)), Flour, Wheat (English Gazette), Gold, Maize, Iron and steel manufactures, Hides (River plate dry), Sugar (British west indian refining), Sugar unrefined, Tallow Town, Tea (Congou, common), Tobacco unmanufactured, Wool (english lincoln half hogs), Timber (Hewn, average import), Sheep and lambs, Cattle, Beef (middling), Copper (Chili Bars) Copper Ore	1) 60,5% (1836) 3) 59,5% (1870)	1) United Kingdom (colonies) Statistical Yearboook. 1836. 2) as for 1) 3)United Kigdom (colonies) Statistical Yearboooks <i>1855 to 1869</i> . 4) as for 3)
<b>Austria- Hungary IMP</b>	1800- 1875	1) 1800-30 Laspeyres	1) Coal, Coffee, Cotton raw, Wheat Amsterdam, Beef [Horned cattles], Indigo, Iron Wrought, Hides	1) 100% (1841)	1) Trade Statistrics Austria-Hungary <i>Ausweise über den Handel 1843 and 1875</i>

		2) 1831-50 Fisher 3)1850-75 Fisher	Buenos Aires, Rum, Sugar Brown, Tea, Tobacco, Wool 2) as for 1) 3) Cattle [Animals (except horses)], Coal (Wallsend Hetton in London), Coffee (Rio good Channel), Cotton (Fair Dhollerah (Surat)), Cotton yarns, Indigo, MEDIA: hemp and flax [flax, hemp and jute], Wheat, Hides (River plate dry), Pig Iron, Leather Dressing Hides, Machinery hardware, Oil (linseeds), Silk (tsatlee), Silk, Tobacco unmanufactured, Wool (english lincoln half hogs), Woollen worsted manufactures, Wollen and worsted yarns	3) 66,4% (1875)	2) as for 1) 3) United Kingdom (foreign countries): <i>Statistical Tables Relating Foreign Countries</i> (several years)
<b>Austria- Hungary EXP</b>	1800- 1875	1) 1800-30 Laspeyres 2) 1831-50 Fisher 3)1850-75 Fisher	1) Beef, Coal, Wheat Amsterdam, Iron bars, Leather Butts, Sugar Brown, Brandy, Hides For dressing, Oats, Cotton textiles 2) as for 1) 3) Cattle [Animals (except horses)], Coal (Wallsend Hetton in London), Flour, Wheat, Iron and steel manufactures, Leather and manufactures, Linen manufactures, Paper, Silk, Sugar unrefined, Timber (Hewn, average import), Wool (english lincoln half hogs), Woollen worsted manufactures	1) 100% (1841) 3) 51,9% (1875)	1) Trade Statistics Austria-Hungary <i>Ausweise über den Handel 1843 and 1875</i> 2) as for 1) 3) United Kingdom (foreign countries) Statistical Yearbooks (several years)
<b>Austria IMP</b>	1913- 1938	1) 1913-1938 Laspeyres	1) Cattle, Wheat (English Gazette), Flour, Sugar unrefined, Wine, Tobacco unmanufactured, Iron (Scotch pig), Iron (Bars), Coal (Wallsend Hetton in London), Wool (english lincoln half hogs), Cotton (Fair Dhollerah (Surat)), Chemicals, Leather Dressing Hides, Wollen and worsted yarns, Cotton yarns, Woollen worsted manufactures, Silk, Cotton manufactures, Timber (Hewn, average import), Paper, Iron and steel manufactures, Machinery hardware	1) 71,8% (1922)	1) League of Nations (1925) League of Nations (1929)
<b>Austria EXP</b>	1913- 1938	1) 1913-1938 Laspeyres	1) Timber (Hewn, average import), Iron (Scotch pig), Iron (Bars), Cement, Indigo, Chemicals, Leather Dressing Hides,	1) 79,4% (1922)	1) League of Nations (1925) League of Nations (1929)

			Leather and manufactures, Woollen worsted manufactures, Silk, Cotton yarns, Cotton manufactures, Hats, Rubber crude, Timber (Hewn, average import), Paper, Iron and steel manufactures, Machinery hardware, Electrical Machinery		
<b>Bahamas IMP</b>	1850- 1938	1) 1850-95 Laspeyres 2) 1896-1938 Fisher	1) Cattle, Maize, Flour, Coal (Wallsend Hetton in London), Coffee (Rio good Channel), Cotton manufactures, Earthenware, Machinery hardware, Butter, Bacon, Beef (middling), Rice, Beer and ale, Spirits, Sugar (British west indian refining), Sugar unrefined, Petroleum (refined), Jute, Tin (Straits), Boots and shoes of leather, Timber (Hewn, average import), Road Motor cars, Tobacco manufactures 2) as for 1)	1) 68,9% (1913)	1) U.S.A (1909). Historical Statistics. And United Kingdom (colonies), Statistical Yearbooks (1926) , (1931), (1937)  2) as for 1)
<b>Bahamas EXP</b>	1850- 1938	1) 1850-95 Laspeyres 2) 1896-1938 Fisher	1) Fresh fruit, Salt, Fish [Sponges], Timber (Hewn, average import), Hemp (Manila, Fair Roping), Tomatoes 2) as for 1)	1) 90,4% (1913)	1) United Kingdom (colonies) Statistical Yearbooks (1853 ) to (1905) and (1926), (1931), (1937)  2) as for 1)
<b>Barbados IMP</b>	1850- 1938	1) 1850-1938 Fisher	1) Butter, Oats, Maize, Flour, Fish, Machinery hardware, Guano, Manures: Sulphate of Ammonia, Cotton manufactures, Timber (Hewn, average import), Beef (middling), Rice	1) 52,6% (1913)	1) United Kingdom (colonies) Statistical Yearbooks <i>for 1853 to 1905</i> , 1926) (1931) (1937) .
<b>Barbados EXP</b>	1800- 1938	1) 1800-55 Laspeyres 2) 1850-1938 Fisher	1) Wheat (English Gazette), Molasses, Sugar unrefined  2) Flour, Molasses, Sugar unrefined	1) 78,6% (1855) 2) 63,7% (1913)	1) and 2) United Kingdom (colonies) Statistical Yearbooks (1853 to 1867) (1870 to 1884) (1877 to 1891) for (1890 to 1904) , (1909 to 1923), (1923 to 1927), (1924 to 1929) , (1926) , (1931), (1937).
<b>Belgian Congo IMP</b>	1850- 1938	1) 1850-1938 Laspeyres	1) Cattle, Wine, Beer and ale, Chemicals, Coal (Wallsend Hetton in London), Cotton manufactures, Wheat (English Gazette), Flour, Rice, Fish, Salt, Sugar unrefined, Machinery hardware, Rails, Iron and steel manufactures, Galvanised corrugated sheets, Copper lingots,	1) 51,7% (1912)	1) ) United Kingdom (foreign countries): Statistical Yearbooks 1901 to 1912

			Petroleum (refined), Paper, Tobacco manufactures, Woollen worsted manufactures, Earthenware		
<b>Belgian Congo EXP</b>	1850-1938	1) 1850-1938 Laspeyres	1) Cocoa, Copper Ore, Oil (palm), Rubber crude, Hides (River plate dry)	1) 73,6% (1912)	1) United Kingdom (foreign countries): Statistical Yearbooks <i>1901 to 1912</i>
<b>Bermuda IMP</b>	1850-1938	1) 1850-1908 Laspeyres 2) 1909-38 Fisher	1) Beer and ale, Cotton manufactures, Beef (middling), Butter, Coal (Wallsend Hetton in London), Boots and shoes of leather, Manures: Sulphate of Ammonia, Fish, Flour, Oats, Machinery hardware, Petroleum (refined), Cattle, Paper, Potatoes Fresh fruit, Spirits, Sugar unrefined, Earthenware, Timber (Hewn, average import), Tobacco manufactures 2) as for 1)	1) 50,7% (1913)	1) United Kingdom (colonies) Statistical Yearbooks ( <i>1853 to 1867</i> ) ( <i>1870 to 1884</i> ) ( <i>1877 to 1891</i> ) for ( <i>1890 to 1904</i> ) , ( <i>1909 to 1923</i> ) , ( <i>1923 to 1927</i> ) , ( <i>1924 to 1929</i> ) , ( <i>1926</i> ) , ( <i>1931</i> ) , ( <i>1937</i> ) .  2) as for 1)
<b>Bermuda EXP</b>	1850-1938	1) 1850-1908 Laspeyres 2) 1909-38 Fisher	1) Vegetables fresh, Potatoes 2) as for 1)	1) 71,9% (1913)	1) United Kingdom (colonies). Statistical Yearbooks 1909 to 1923), (1923 to 1927), (1924 to 1929 ) , (1926) , (1931) , (1937) . 2) as for 1)
<b>Bolivia IMP</b>	1850-1938	1) 1850-1909 Laspeyres 2) 1910-38 Fisher	1) Cattle, Rice, Wheat (English Gazette), Sugar unrefined, Petroleum (refined), Paraffin Wax, Coal (Wallsend Hetton in London), Cement, Indigo, Chemicals, Boots and shoes of leather, Cotton manufactures, Hats, Caoutchouc manufactured, Timber (Hewn, average import), Paper, Earthenware, Iron and steel manufactures, Machinery hardware, Road Motor cars 2) as for 1)	1) 50,8 (1913)	1) United Kingdom (colonies) Statistical Yearbooks <i>1901 to 1920</i> . League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938) 2) as for 1)
<b>Bolivia EXP</b>	1800-1938	1) 1800-50 Laspeyres 2) 1850-1907 Laspeyres 3) 1908-38 Fisher	1) Yellow soap, Tobacco Brown, Hides Buenos Aires, Starch Common, Beeswax, Black tin [Pewter], Coffee Ordinary, Indigo  2) Opium [Coca], Rubber crude, Copper Ore, Lead, Zinc Ore, Tin Ore 3) as for 2)	1) 95,5% (1840) 2) 92,3% (1913)	1) ) United Kingdom (foreign countries) Statistical Yearbooks 2) <i>as for 1</i> League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938) 3) as for 2)



<b>Brazil IMP</b>	1800-1901	1) 1800-1850 Laspeyres 2) 1850-1901 Fisher	1) Beef, Wheat Amsterdam, Cotton textiles, Wine 2) Beef (middling), Wheat (English Gazette), Machinery hardware, Cotton manufactures, Woollen worsted manufactures, Wine	1) 42,04% (1848) 2) 48,6% (1863)	1) Brazil. IPEA data (2009) 2) U.S.A (1909). Historical Statistics.
<b>Brazil EXP</b>	1800-1901	1) 1800-42 Laspeyres 2) 1843-50 Fisher 3) 1850-1901 Fisher	1) Sugar Brown, Coffee Ordinary, Hides For dressing, Cotton Raw, Tobacco Brown 2) as for 1) 3) Sugar unrefined, Coffee (Rio good Channel), Hides (River plate dry), Cotton (Fair Dhollerah (Surat)), Tobacco unmanufactured, Rubber crude	1) 80,9% (1843) 3) 89,9% (1863)	1) Absell-Tena (2015) and Brazil. IPEA data (2009) 2) as for 1) 3) U.S.A (1909). Historical Statistics.
<b>British Guiana IMP</b>	1850-1938	1) 1850-1938 Fisher	1) Butter, Flour, Fish, Timber (Hewn, average import), Machinery hardware, Beer and ale, Manures: Sulphate of Ammonia, Petroleum (refined), Coal (Wallsend Hetton in London), Tobacco unmanufactured, Opium, Pork, Rice, Spirits	1) 40,1% (1913)	1) United Kingdom (colonies) Statistical Yearbooks (1850 -1901) (1926) (1931) (1937)
<b>British Guiana EXP</b>	1800-1938	1) 1800-19 Laspeyres 2) 1820-50 Fisher 3) 1850-1938 Fisher	1) Rum, Sugar, Cotton Raw, Coffee 2) as for 1) 3) Sugar unrefined, Spirits	1) 88,4% (1850) 3) 72,5% (1913)	1) Bulmer-Thomas (2012) 2) as for 1) 3) as for 2
<b>British Honduras IMP</b>	1850-1938	1) 1850-95 Laspeyres 2) 1896-1906 Fisher 3) 1907-38 Laspeyres	1) Cattle, Maize, Flour, Cotton manufactures, Chemicals, Iron and steel manufactures, Machinery hardware, Leather and manufactures, Bacon, Butter, Beef (middling), Rice, Spirits, Wine, Tobacco manufactures, Timber (Hewn, average import), Woollen worsted manufactures 2) as for 1) 3) as for 1)	1) 61% (1906) 2) as for 1) 3) as for 1)	1) U.S.A (1909). Historical Statistics. 2) as for 1) 3) as for 1)
<b>British Honduras EXP</b>	1800-1938	1) 1800-50 Laspeyres 2) 1850-95 Laspeyres 3) 1896-1906 Fisher 4) 1907-38 Laspeyres	1) Logwood, Mahogany 2) Fresh fruit, Coconut Oil, Rubber crude, Timber (Hewn, average import) 3) as for 2) 4) as for 2)	1) 80,4% (1850) 2) 56,5% (1906)	1) U.S.A (1909). Historical Statistics. 2) as for 1) 3) as for 2) 4) as for 3)

<b>British Malaya IMP</b>	1850- 1938	1) 1850-89 Laspeyres 2) 1890-1923 Fisher 3) 1924-38 Laspeyres	1) Woollen clothing, Nuts and kernels, Cattle, Chemicals, Coal (Average Export price), Coffee (Ceylon plantation, low middling), Cotton manufactures, Cotton yarns, Fish, Flour (Town made White), Rubber crude, Hides (River plate dry), Iron and steel manufactures, Textil Machinery, Chemicals, Road Motor cars, Opium, Paper, Pepper, Crude petroleum, Pork, Rice, Silk, Spirits, Sugar unrefined, Tea (Congou, common), Tin (Straits), Tobacco unmanufactured, Coconut Oil, Timber (Hewn, average import) 2) as for 1) 3) as for 1)	1) 65,4% (1890) 2) as for 1) 3) as for 1)	1) United Kingdom (colonies) Statistical Yearbooks (1905), (1926) ,(1931), (1937) 2) as for 1) 3) as for 2)
<b>British Malaya EXP</b>	1850- 1938	1) 1850-89 Laspeyres 2) 1890-1923 Fisher 3) 1924-38 Laspeyres	1) Seeds and nuts, Fresh fruit, Cotton manufactures, Cotton yarns, Fish, Rubber crude, Hides (River plate dry), Crude petroleum, Opium, Rice, Sugar unrefined, Tin (Straits), Tobacco unmanufactured, Timber (Hewn, average import) 2) as for 1) 3) as for 1)	1) 74,8% (1890) 2) as for 1) 3) as for 1)	United Kingdom (colonies) Statistical Yearbooks (1905), (1926) ,(1931), (1937) 2) as for 1) 3) as for 2)
<b>British North Borneo IMP</b>	1850- 1938	1) 1850-1908 Laspeyres 2) 1909-38 Fisher	1) Cotton manufactures, Rice, Iron and steel manufactures, Machinery hardware, Petroleum (refined), Opium, Spirits, Sugar unrefined, Tobacco manufactures 2) as for 1)	1) 64,1% (1913)	United Kingdom (colonies) Statistical Yearbooks (1905), (1926) ,(1931), (1937) 2) as for 1)
<b>British North Borneo EXP</b>	1850- 1938	1) 1850-1908 Laspeyres 2) 1909-38 Fisher	1) Coal (Average Export price), Indigo, Fish, Rubber crude, Timber (Hewn, average import), Tobacco unmanufactured, Cattle 2) as for 1)	1) 84,5% (1913)	United Kingdom (colonies) Statistical Yearbooks (1905), (1926) ,(1931), (1937) 2) as for 1)
<b>British Settlements of Oceania IMP</b>	1850- 1938	1) 1850-1912 Laspeyres 2) 1913-38 Fisher	1) Fish, Flour, Rice, Beef (middling), Tea (Congou, common), Spirits, Tobacco unmanufactured, Coal (Wallsend Hetton in London), Timber (Hewn, average import), Cotton manufactures, Machinery hardware, Galvanised corrugated sheets, Road Motor cars, Manures: Sulphate of Ammonia, Petroleum (refined)  2) as for 1)	1) 55,8% (1913)	United Kingdom (colonies) Statistical Yearbooks (1926) ,(1931), (1937) 2) as for 1)

<b>British Settlements of Oceania EXP</b>	1850-1938	1) 1850-1912 Laspeyres 2) 1913-38 Fisher	1) Fresh fruit, Sugar unrefined, Copra, Phosphate of Lime and Rock 2) as for 1)	1) 95,2% (1913)	United Kingdom (colonies) Statistical Yearbooks (1926) ,(1931), (1939) 2) as for 1)
<b>Bulgaria IMP</b>	1863-1938	1) 1863-87 Laspeyres 2) 1888-1938 Fisher	1) Chemicals, Coal (Average Export price), Coffee (Ceylon plantation, low middling), Indigo, Linen manufactures, Cotton (Fair Dhollerah (Surat)), Cotton manufactures, Cotton yarns, Beef (prime), Fresh fruit, Earthenware, Leather Dressing Hides, Hides (River plate dry), Steel bars, Pig iron, Rails, Iron and steel manufactures, Leather Dressing Hides, Machinery hardware, Oil (olive), Paper, Petroleum (refined), Rice, Rubber crude, Salt, Seeds (linseeds), Soap, Spirits, Sugar (British west indian refining), Road Motor cars, Wheat (English Gazette), Timber (Hewn, average import), Wool (merino, port phillip, average fleece), Wollen worsted manufactures, Wollen and worsted yarns 2) as for 1)	1) 73,7% (1913)	1) United Kingdom (foreign countries) Statistical Yearbooks League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938) 2) as for 1)
<b>Bulgaria EXP</b>	1863-1938	1) 1863-87 Laspeyres 2) 1888-1938 Fisher	1) Barley, Beans, Cheese, Seeds (linseeds), Eggs, Hides (River plate dry), Leather Dressing Hides, Maize, Oats, Rye, Tobacco unmanufactured, Wheat (English Gazette), Flour, Timber (Hewn, average import), Wollen worsted manufactures, Coal (Average Export price), Tobacco manufactures, Currants, Fresh fruit, Sheep and lambs, Silk (tsatlee), Cattle 2) as for 1)	1) 90,1% (1913)	1) United Kingdom (foreign countries) Statistical Yearbooks. League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938) 2) as for 1)
<b>Cameroons IMP</b>	1850-1938	1) 1850-1926 Laspeyres 2) 1927-38 Fisher	1) Fish, Rice, Cotton manufactures, Cotton piece bleached, Iron and steel manufactures, Machinery hardware, Petroleum (refined) 2) as for 1)	1) 53,6% (1913)	1) United Kingdom (colonies). Statistical Yearbook (1937) 2) as for 1)
<b>Cameroons EXP</b>	1850-1938	1) 1850-1926 Laspeyres 2) 1927-38 Fisher	1) Fresh fruit, Cocoa, Nuts and kernels, Oil (palm), Rubber crude 2) as for 1)	1) 97,5% (1913)	1) United Kingdom (colonies) Statistical Yearbooks (1937) 2) as for 1)
<b>Canada IMP</b>	1800-1870	1) 1800-53 Laspeyres	1) Coal (Wallsend Hetton in London), Iron (Bars), Hides (River plate dry), Cotton manufactures, Iron	1) 70,3% (1853) 2) 52,4% (1869)	1) United Kingdom (colonies). Statistical

		2) 1850-70 Fisher	and steel manufactures, Pig, Boots and shoes of leather, Silk (tsatlee), Wool (english lincoln half hogs), Beef (middling), Spirits, Sugar unrefined, Tea (Average import price), Wine, Leather and manufactures, Tallow St. Petersburg 2) Coal (Wallsend Hetton in London), Fish, Flour, Maize, Wheat (English Gazette), Hides (River plate dry), Cotton manufactures, Iron and steel manufactures, Rails, Pig iron, Boots and shoes of leather, Machinery hardware, Silk (tsatlee), Wollen worsted manufactures, Mutton Middling, Spirits, Sugar unrefined, Tea (Average import price), Wine, Leather and manufactures, Pork, Butter, Tallow St. Petersburg		Yearbooks for 1853 to 1867.  2) as 1) and <i>1855 to 1869 and 1864 to 1878.</i>
<b>Canada EXP</b>	1800-1870	1) 1800-35 Laspeyres 2) 1836-50 Fisher 3) 1850-70 Fisher	1) Ashes Pearl, Timber Pine, Wheat, Butter 2) as for 1) 3) Timber (Hewn, average import), Cattle, Oats, Wool (english lincoln half hogs), Barley, Wheat (English Gazette), Flour, Butter	1) 77,2% (1836) 3) 50,6% (1869)	1) United Kingdom (colonies). Statistical Yearbooks. 1836. 2) as for 1)  3) United Kingdom (colonies). Statistical Yearbooks. 1855 to 1869 and 1864 to 1878.
<b>Ceylon IMP</b>	1850-1890	1) 1850-90 Fisher	1) Coal (Wallsend Hetton in London), Cotton manufactures, Fish, Rice	1) 31,7% (1870)	1) United Kingdom (colonies) Statistical Yearbooks <i>.1855 to 1869</i>
<b>Ceylon EXP</b>	1800-1890	1) 1800-39 Laspeyres 2) 1840-50 Fisher 3) 1850-90 Fisher	1) Coffee Ordinary, Rape oil [oil, coconut] 2) as for 1) 3) Seeds and nuts, Cinnamon, Coffee (Ceylon plantation, low middling), Cotton manufactures, Coconut oil	1) 65% (1840) 3) 89,2% (1870)	1) Hanson, John R., II (1980), and United Kingdom (colonies) Statistical Yearbooks 1853 to 1867.  2) as for 1)  3) United Kingdom (colonies) Statistical Yearbooks 1853 to 1867.
<b>Chile IMP</b>	1800-1938	1) 1800-59 Laspeyres 2) 1850-58 Laspeyres	1) Cattle, Paraffin Wax, Coal (Wallsend Hetton in London), Coffee (Rio good Channel), Cotton manufactures, Iron (Bars), Rails, Sugar unrefined, Tea (Congou, common), Wine, Timber	1) 42,2% (1859)  2) 48,8% (1912)	1) Macgregor (1850)  2) United Kingdom(foreign countries). Statistical Yerabooks and Chile.

		3) 1859-1938 Fisher	(Hewn, average import), Wollen worsted manufactures 2) Cattle, Paraffin Wax, Coal (Wallsend Hetton in London), Coffee (Rio good Channel), Cotton manufactures, Cotton yarns, Iron and steel manufactures, Machinery hardware, Paper, Rails Sugar unrefined, Tea (Congou, common), Wine, Timber (Hewn, average import), Wollen worsted manufactures 3) as for 2)		Statistical Yearbook (1934) 3) as for 2)
<b>China EXP</b>	1800-1867	1) 1800-67 Laspeyres	1) Cotton (Middling uplands), Silk (tsatlee), Tea (Congou, common), Tobacco unmanufactured	1) 95,6% (1867)	1) China. Hsiao L. (1974)
<b>Colombia EXP</b>	1800-1850	1) 1800-50 Laspeyres	1) Sugar Brown, Hides Buenos Aires, Tobacco Brown, Quicksilver, Cocoa, Logwood, Cotton Raw, Fustic	1) 79,4% (1836)	1) United Kingdom (colonies). Statistical Yearbooks 1836.
<b>Costa Rica IMP</b>	1850-1938	1) 1850-1902 Laspeyres 2) 1903-38 Fisher	1) Cattle, Bacon, Fish, Flour, Maize, Rice (Rangoon, cargoes to arrive), Wine, Timber (Hewn, average import), Petroleum (refined), Paraffin Wax, Earthenware, Hides (River plate dry), Tobacco unmanufactured, Zinc Ore, Coal (Wallsend Hetton in London), Cement, Chemicals, Tobacco manufactures, Leather and manufactures, Wollen worsted manufactures, Silk, Cotton piece bleached, Hats, Caoutchouc manufactured, Paper, Rails, Electrical machinery, Iron and steel manufactures, Machinery hardware, Road Motor cars, Timber (Hewn, average import) 2) as for 1)	1) 49,5% (1913)	1) U.S.A (1909). Historical Statistics. League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938) 2) as for 1)
<b>Costa Rica EXP</b>	1800-1938	1) 1800-60 Laspeyres 2) 1850-1902 Laspeyres 3) 1903-38 Fisher	1) Coffee (Rio good Channel) 2) Fresh fruit, Coffee (Rio good Channel), Cocoa, Sugar unrefined, Hides (River plate dry), Timber (Hewn, average import) 3) as for 2)	1) 73,3% (1860) 2) 88,7% (1913)	1) Hanson, John R., II (1980) 2) U.S.A (1909). Historical Statistics. League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938) 3) as for 2)

<b>Creta EXP</b>	1850-1913	1) 1850-1913 Laspeyres	1) Oil (olive)	1) 100% (1913)	1) we use olive oil prices only
<b>Cuba IMP</b>	1800-1902	1) 1800-51 Laspeyres 2) 1850-1902 Laspeyres	1) Wine, Beef (middling), Rice, Wheat (English Gazette), Cotton manufactures, Linen manufactures, Timber (Hewn, average import) 2) Beef (middling), Pork, Maize, Rice, Flour, Potatoes, Coffee (Rio good Channel), Wine, Coal (Wallsend Hetton in London), Boots and shoes of leather, Cotton yarns, Cotton manufactures, Linen manufactures, Timber (Hewn, average import), Paper, Iron and steel manufactures,	1) 51,2% (1851) 2) 65,4% (1851)	1) Macgregor (1850) 2) United Kingdom (foreign countries). Statistical Yearbooks. League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936)
<b>Cuba EXP</b>	1800-1902	1) 1800-19 Laspeyres 2) 1820-50 Fisher 3) 1850-1902 Fisher	1) Sugar, Coffee, Copper Manufactured, Tobacco Brown, Rum 2) as for 1) 3) Fresh fruit, Sugar unrefined, Coffee (Rio good Channel), Spirits, Molasses, Tobacco unmanufactured, Tobacco manufactures, Copper Ore	1) 96,2% (1839) 3) 96,4% (1850)	1) Bulmer-Thomas (2012) 2) as for 1) 3) as for 2 League of Nations (1925)
<b>Cyprus IMP</b>	1850-1938	1) 1850-90 Laspeyres 2) 1891-1938 Fisher	1) Butter, Coal (Average Export price), Coffee (Ceylon plantation, low middling ), Cotton manufactures, Cotton yarns, Fish, Flour, Hides (River plate dry), Iron (Bars), Leather Dressing Hides, Machinery hardware, Road Motor cars, Oil (olive), Petroleum (refined), Rice, Silk, Sugar unrefined, Timber (Hewn, average import), Tobacco unmanufactured, Wheat (English Gazette), Wollen worsted manufactures 2) as for 1)	1) 54% (1913)	1) United Kingdom (colonies). Statistical Yearbooks (1905), (1926) ,(1931), (1937) 2) as for 1)
<b>Cyprus EXP</b>	1850-1938	1) 1850-90 Laspeyres 2) 1891-1938 Fisher	1) Cocoa, Cotton (Fair Dhollerah (Surat)), Raisins, Barley, Wheat (English Gazette), Hides (River plate dry), Silk (tsatlee), Spirits, Tobacco unmanufactured, Wine, Wool (english lincoln half hogs), Cheese, Potatoes, Cattle 2) as for 1)	1) 70,7% (1913)	1) United Kingdom (colonies). Statistical Yearbooks. (1905), (1926) ,(1931), (1937) 2) as for 1)
<b>Czechoslovakia IMP</b>	1913-1937	1) 1913-1937 Laspeyres	1) Cattle, Bacon, Wheat (English Gazette), Rye, Maize, Flour , Fresh fruit, Coffee (Rio good Channel), Hides (River plate dry)	1) 75,9% (1929)	1) League of Nations (1933)

			Rubber crude, Tobacco unmanufactured, Timber (Hewn, average import), Iron Ore, Coal (Newcastle Steam), Wool (english lincoln half hogs), Silk (tsatlee), Cotton (Fair Dhollerah (Surat)), Hemp (St. Petersburg, clean), Chemicals, Leather Dressing Hides, Wollen and worsted yarns, Cotton yarns, Silk, Paper, Iron and steel manufactures, Electrical machinery, Non-Steam Engine: Agricultural, Road Motor cars		
<b>Czechoslovakia EXP</b>	1913-1937	1) 1913-1937 Laspeyres	1) Wheat (English Gazette), Fresh fruit, Sugar (British west indian refining), Timber (sawn or split, average import), Iron (Bars), Coal (Newcastle Steam), Chemicals, Leather Dressing Hides, Cotton yarns, Wollen pice light all wool, Silk, Cotton manufactures, Hemp (St. Petersburg, clean), Hats, Wollen clothing, Timber (sawn or split, average import), Paper, Earthenware, Galvanised corrugated sheets, Iron and steel manufactures, Road Motor cars	1) 73,5% (1929)	1) League of Nations (1933)
<b>Denmark EXP</b>	1800-1850	1) 1800-17 Laspeyres 2) 1818-50 Fisher	1) Beef, Pork, Butter, Wheat, Sugar Brown 2) as for 1)	1) 55% (1836)	1) Johansen Hans (1985) 2) as for 1)
<b>Dominican Republic IMP</b>	1850-1938	1) 1850-1912 Laspeyres 2) 1913-38 Fisher	1) Fish, Spirits, Petroleum (refined), Chemicals, Leather and manufactures, Silk, Cotton manufactures, Timber (Hewn, average import), Paper, Iron and steel manufactures, Machinery hardware, Road Motor cars 2) as for 1)	1) 58% (1913)	1) League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938) 2) as for 1)
<b>Dominican Republic EXP</b>	1800-1938	1) 1800-19 Laspeyres 2) 1820-50 Fisher 3) 1850-1938 Fisher	1) Mahogany, Hides Buenos Aires, Tobacco Brown, Sugar, Cocoa, Coffee 2) as for 1) 3) Coffee (Rio good Channel), Cocoa, Sugar unrefined, Hides (River plate dry), Tobacco unmanufactured, Tobacco manufactures, Timber (Hewn, average import)	1) 93,9% (1850) 3) 89,8% (1913)	1) Bulmer-Thomas (2012) 2) as for 1) 3) as for 2) and League of Nations (1925)



<b>Dutch Guiana IMP</b>	1850-1938	1) 1850-95 Laspeyres 2) 1896-1906 Fisher 3) 1907-38 Laspeyres	1) Wheat (English Gazette), Fish, Spirits, Beer and ale, Flour (Town made White), Butter, Machinery hardware, Cotton manufactures, Oil (linseeds), Rice, Bacon, Beef (middling) 2) as for 1) 3) as for 1)	1) 58,9% (1906)	1) U.S.A (1909). Historical Statistics. 2) as for 1) 3) as for 1)
<b>Dutch Guiana EXP</b>	1850-1938	1) 1850-95 Laspeyres 2) 1896-1906 Fisher 3) 1907-38 Laspeyres	1) Rubber crude, Cocoa, Sugar unrefined 2) as for 1) 3) as for 1)	1) 93,1% (1906)	1) U.S.A (1909). Historical Statistics. 2) as for 1) 3) as for 1)
<b>Ecuador IMP</b>	1850-1938	1) 1850-1938 Fisher	1) Butter, Bacon, Fish, Flour, Rice, Wine, Petroleum (refined), Cement, Indigo, Chemicals, Leather and manufactures, Boots and shoes of leather, Cotton yarns, Woollen worsted manufactures, Cotton manufactures, Silk, Jute (Good medium), Hats, Earthenware, Machinery hardware, Road Motor cars, Timber (Hewn, average import), Iron and steel manufactures, Rails	1) 68,1% (1913)	1) Macgregor (1850), Vol II and United Kingdom (foreign countries). <i>Statistical Abstract for the Principal and other Foreign Countries</i>  League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Ecuador EXP</b>	1800-1938	1) 1800-58 Laspeyres 2) 1850-1938 Fisher	1) Cocoa, Hides Buenos Aires, Tobacco unmanufactured, Timber (Hewn, average import)  2) Rice, Fresh fruit, Coffee (Rio good Channel), Cocoa, Sugar unrefined, Hides (River plate dry) Rubber crude, Crude petroleum, Boots and shoes of leather, Cotton (Fair Dhollerah (Surat)), Seeds and nuts, Hats, Tobacco unmanufactured	1) 56,6% (1852) 2) 93,4% (1913)	1) Macgregor (1850), Vol. II and United Kingdom (foreign countries). <i>Statistical Yearbooks</i> 1854. 2) as for 1 Ecuador. (historical Statistics). League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Egypt IMP</b>	1850-1897	1) 1850-97 Fisher	1) Timber (Hewn, average import), Cotton manufactures, Coal (Average Export price), Indigo, Iron and steel manufactures, Cotton manufactures, Wine, Woollen worsted manufactures, Cotton yarns, Silk (tsatlee), Currants, Tobacco manufactures	1) 55,7% (1855)	1) United Kingdom (colonies) <i>Statistical Yearbooks</i> .



<b>Egypt EXP</b>	1850-1897	1) 1850-97 Fisher	1) Barley, Beans, Cotton (Fair Dhollerah (Surat)), Flax (Russian average import), Maize, Rice, Sesamum, Wheat (English Gazette), Wool (merino, port phillip, average fleece), Rubber crude	1) 85,1% (1855)	1) United Kingdom (colonies) Statistical Yearbooks. 1836.
<b>El Salvador IMP</b>	1850-1938	1) 1850-1900 Laspeyres 2) 1901-38 Fisher	1) Fish, Flour, Fresh fruit, W, ine, Spirits, Manures: Sulphate of Ammonia, Timber (Hewn, average import), Petroleum (refined), Crude petroleum, Coal (Wallsend Hetton in London), Cement, Chemicals, Leather and manufactures, Cotton yarns, Woollen worsted manufactures, Silk, Cotton manufactures, Jute, Caoutchouc manufactured, Paper, Earthenware, Iron (Scotch pig), Iron and steel manufactures, Galvanised corrugated sheets, Electrical machinary, Machinery hardware, Rails, Road Motor cars 2) as for 1)	1) 66,7% (1901)	1) United Kingdom (foreign countries). Statistical Yearbooks 1901-1912.  League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938) 2) as for 1)
<b>El Salvador EXP</b>	1800-1938	1) 1800-54 Laspeyres 2) 1850-1938 Fisher	1) Indigo, Tobacco unmanufactured, Hides Buenos Aires  2) Rice, Coffee (Rio good Channel), Sugar unrefined, Hides (River plate dry), Rubber crude, Cotton (Fair Dhollerah (Surat)), Tobacco unmanufactured, Hemp (Manila, Fair Roping), Indigo	1) 90,8% (1854) 2) 89,5% (1901)	1) United Kingdom (foreign countries). <i>Statistical Yearbooks</i> 1901-1912  2) as for 1) and League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Estonia IMP</b>	1913-1930	1) 1913-1930 Laspeyres	1) Fish, Wheat (English Gazette), Rye, Oats, Flour , Sugar unrefined, Leather Dressing Hides, Manures: Sulphate of Ammonia, Tobacco unmanufactured, Pulp of wood, Petroleum (refined), Coal (Newcastle Steam), Chemicals, Wool (english lincoln half hogs), Cotton (Fair Dhollerah (Surat)), Hemp (St. Petersburg, clean), Woollen worsted manufactures, Cotton manufactures, Paper, Earthenware, Rails, Galvanised corrugated sheets, Steel bars, NON-Steam Engine: Agricultural, Textil machinary, Electrical machinary, Road Motor cars	1) 77% (1930)	1) League of Nations (1933)
<b>Estonia EXP</b>	1913-1930	1) 1913-1930 Laspeyres	1) Beef (middling), Butter, Potatoes, Spirits, Leather Dressing Hides, Seeds (linseeds), Timber	1) 84,5% (1930)	1) League of Nations (1933)

			(sawn or split, average import), Pulp of wood, Cement, Flax (St. Petersburg), Cotton yarns, Cotton manufactures, Paper, NON-Steam Engine: Agricultural		
<b>Finland IMP</b>	1850-1865	1) 1850-65 Laspeyres	1) Flour, Sugar unrefined, Coffee (Ceylon plantation, low middling), Tobacco unmanufactured, Cotton (Fair Dhollerah (Surat)), Cotton yarns, Hemp (St. Petersburg, clean), Hides (River plate dry), Chemicals, Iron and steel manufactures, Timber (Hewn, average import), Jute Canvas and Sacking, Coal (Average Export price), Fish, Fresh fruit, Spirits, Salt, Wollen piece light all wool, Cotton manufactures, Linen manufactures	1) 80,3% (1860)	1) Finland. Hjerrpe Riitta (1996) Finland. Vattula Kaarina (1983) Finland. Pihkala Erkki: (1970)
<b>Finland EXP</b>	1800-1865	1) 1800-60 Laspeyres 2) 1850-65 Laspeyres	1) Oats, Wheat (English Gazette), Butter, Beef (middling), Timber (Hewn, average import), Iron (Bars)  2) Oats, Wheat (English Gazette), Butter, Beef (middling), Cattle, Fish, Timber (Hewn, average import), Cotton manufactures, Iron and steel manufactures	1) 56,4% (1860) 2) 70,5% (1860)	1) Finland. Hjerrpe Riitta (1996) Finland. Vattula Kaarina (1983) Finland. Pihkala Erkki: Pihkala, Erkki (1970)  2) as for 1)
<b>France IMP</b>	1800-1850	1) 1800-06 Laspeyres 2) 1807-50 Fisher	1) Butter, Copper, Iron bars, Wheat Amsterdam, Ashes, Brimstone, Cocoa, Coffee Ordinary, Cotton Raw, Flax St. Petersburg, Hemp Clean, Hides Buenos Aires, Indigo, Olive oil, Pepper, Raw silk, Sugar Brown, Tea, Timber Pine, Tobacco Brown, Wine, Wool Spanish, Coal (Wallsend Hetton in London) 2) as for 1)	1) 73,2% (1850)	1) France (trade statistics). Balance du Commerce in Archives. 1807, 1814. France (Trade Statistics).Tableau general (1850)  2) as for 1)
<b>France EXP</b>	1800-1850	1) 1800-06 Laspeyres 2) 1807-50 Fisher	1) Butter, Copper, Iron bars, Lead, Linseed oil, Yellow soap, Wheat Amsterdam, Cocoa, Coffee Ordinary, Cotton Raw, Hides Buenos Aires, Olive oil, Raw silk, Sugar Brown, Timber Pine, Tobacco Brown, Wine, Cotton textiles 2) as for 1)	1) 40,1% (1850)	1) France (trade statistics). Balance du Commerce in Archives. 1807, 1814. France (Trade Statistics).Tableau general (1850)  2) as for 1)

<b>French Equatorial Africa IMP</b>	1850-1938	1) 1850-1895 Laspeyres 2) 1896-1911 Fisher 3) 1912-38 Laspeyres	1) Flour, Sugar unrefined, Wine, Tobacco manufactures, Salt, Spirits, Cotton manufactures, Iron and steel manufactures 2) as for 1) 3) as for 1)	1) 94,6% (1911)	1) <i>Gouvernement general de l'Afrique Equatoriale Francaise</i> (1913) 2) as for 1) 3) as for 1)
<b>French Equatorial Africa EXP</b>	1850-1938	1) 1850-1895 Laspeyres 2) 1896-1911 Fisher 3) 1912-38 Laspeyres	1) Rubber crude, Oil (palm), Timber (Hewn, average import) 2) as for 1) 3) as for 1)	1) 86,6% (1911)	1) 1) <i>Gouvernement general de l'Afrique Equatoriale Francaise</i> (1913) 2) as for 1) 3) as for 1)
<b>French Guyana IMP</b>	1850-1938	1) 1850-95 Laspeyres 2) 1896-1906 Fisher 3) 1907-38 Laspeyres	1) Cattle, Flour, Chemicals, Coffee (Rio good Channel), Cotton manufactures, Earthenware, Fish, Iron and steel manufactures, Machinery hardware, Boots and shoes of leather, Leather and manufactures, Petroleum (refined), Oil (olive), Oil (linseeds), Paper, Beef (middling), Bacon, Butter, Beer and ale, Spirits, Wine, Sugar unrefined, Tobacco manufactures, Timber (Hewn, average import), Woollen worsted manufactures 2) as for 1) 3) as for 1)	1) 70,5% (1906)	1) U.S.A (1909). HISTORICAL STATISTICS <i>Statistical Abstract of Foreign Countries</i> 2) as for 1) 3) as for 1)
<b>French Guyana EXP</b>	1800-1938	1) 1800-38 Laspeyres 2) 1839-50 Fisher 3) 1850-95 Laspeyres 4) 1896-1906 Fisher	1) Sugar Brown, Annato, Logwood 2) as for 1) 3) Manures: Sulphate of Ammonia, Rubber crude, Hides (River plate dry) 4) as for 2) 5) as for 2)	1) 64,6% (1839) 3) 75,0% (1906)	1) France (colonies). Statistical Yearbooks,(1939) (1949) (1954) 2) as for 1) 3) U.S.A (1909). Historical Statistics. 4) as for 2) 5) as for 2)

		5) 1907-38 Laspeyres			
<b>French Polynesia IMP</b>	1850- 1938	1) 1850-1938 Laspeyres	1) Cattle, Flour, Fresh fruit, Sugar unrefined, Coconut Oil, Timber (Hewn, average import), Iron (Bars), Chemicals, Indigo, Earthenware, Cotton yarns, Cotton manufactures, Paper, Hides (River plate dry), Iron and steel manufactures	1) 62,7% (1912)	1) France. Statistical Yearbook.(1913)
<b>French Polynesia EXP</b>	1850- 1938	1) 1850-1938 Laspeyres	1) Cattle, Flour, Fresh fruit, Coffee (Rio good Channel), Timber (Hewn, average import), Cotton manufactures, Paper, Hides (River plate dry), Iron and steel manufactures	1) 77,3% (1912)	1) France.Statistical Yearbook (1913)
<b>French West Africa EXP</b>	1800- 1938	1) 1800-50 Laspeyres	1) Nuts and Kernels (to express oil), Oil (palm) 2) as for 1)	1) 100% (1925) 2) as for 1)	1) Poquin, J.J. (1957) 2) as for 1)
		2) 1850-1938 Laspeyres			
<b>Gambia IMP</b>	1850- 1938	1) 1850-1908 Laspeyres	1) Coffee (Rio good Channel), Rice, Sugar unrefined, Cotton piece bleached, Iron and steel manufactures, Petroleum (refined), Spirits, Tobacco	1) 72,9% (1913) 2) as for 1)	1) United Kingdom (colonies) Statistical Yearbooks. (1926), (1931), (1937)
		2) 1909-38 Fisher	unmanufactured, Tobacco manufactures, Road Motor cars, Timber (Hewn, average import) 2) as for 1)		2) as for 1)
<b>Gambia EXP</b>	1800- 1938	1) 1800-50 Laspeyres	1) Cotton Raw, Copper Manufactured, Wheat Amsterdam, Hides For dressing, Iron bars, Rum, Tobacco Brown, Wine, Beeswax,	1) 50,6% (1836) 2) 99,3% (1913)	1) United Kingdom (colonies) Statistical Yearbooks. 1836.
		2) 1850-1908 Laspeyres	Timber, Indigo		2) United Kingdom (colonies). Statistical Yearbooks (1926), (1931), (1937)
		3) 1909-38 Fisher	2) Seeds and nuts, Oil (palm), Hides (River plate dry) 3) as for 2)		3) as for 2)
<b>German Colonies in Oceania IMP</b>	1850- 1938	1) 1850-1923 Laspeyres 2) 1924-38 Fisher	1) Beer and ale, Spirits, Tobacco manufactures, Tobacco unmanufactured, Coal (Wallsend Hetton in London), Timber (Hewn, average import), Cotton manufactures, Machinery hardware, Road Motor cars, Petroleum (refined), Flour, Rice, Beef (middling), Sugar unrefined 2) as for 1)	1) 51,9% (1924)	1) United Kingdom (colonies) Statistical Yearbooks (1926), (1931), (1937) 2) as for 1)

<b>German Colonies in Oceania EXP</b>	1850-1938	1) 1850-1923 Laspeyres 2) 1924-38 Fisher	1) Phosphate of Lime and Rock, Fresh fruit, Cocoa raw, Copra  2) as for 1)	1) 99,1% (1924)	1) United Kingdom (colonies). Statistical Yearbooks (1926), (1931), (1939)  2) as for 1)
<b>Germany IMP LINK</b>	1913-1925	1) 1913-1925 Laspeyres	1) Beef (middling), Bacon, Butter, Fish, Eggs, Wheat (English Gazette), Rye, Barley, Oats, Rice, Flour, Fresh fruit, Coffee (Ceylon plantation, low middling), Hides (River plate dry), Oil (linseeds), Rubber crude, Tobacco unmanufactured, Timber (Hewn, average import), Iron Ore, Copper Ore, Iron and steel manufactures, Coal (Wallsend Hetton in London), Wool (english lincoln half hogs). Silk (tsatlee), Cotton (Fair Dhollerah (Surat)), Copra, Oil (palm), Wollen and worsted yarns, Cotton yarns, Cotton manufactures	1) 62,7% (1925)	1) League of Nations (1925) League of Nations (1929)
<b>Germany EXP LINK</b>	1913-1925	1) 1913-1925 Laspeyres	1) Rye, Sugar unrefined, Hides (River plate dry), Iron (Bars), Coal (Average Export price), Leather Dressing Hides, Leather and manufactures, Woollen worsted manufactures, Silk, Cotton manufactures, Rubber crude, Paper, Earthenware, Galvanised corrugated sheets, Steel bars, Iron and steel manufactures, Copper lingots, Machinery hardware, Electrical Machinery	1) 58,2% (1925)	1) League of Nations (1925) League of Nations (1929)
<b>Germany IMP (prezzi inglesi)</b>	1800-1881	1) 1800-50 Laspeyres 2) 1850-81 Fisher	1) Butter, Coal, Cotton raw [cotton wool], MEDIA: hemp and flax [flax+hemp], Wheat, Oats [rye], Oats [barley, malt, oats], Iron Wrought, Iron bars, Lead, Leather Butts, Linseed, Tobacco, Wool, Cotton Textiles, Starch, Coffee, Wine, Indigo, Hides Buenos Aires, Pepper, Sugar, Rum 2) Cattle [animals (except horses)], Coal (Wallsend Hetton in London), Coffee (Rio good Channel), Copper Ore, Cotton (Fair Dhollerah (Surat)), Cotton manufactures, Flax (Russian average import), Wheat, Rye, Barley, Oats, Bacon, Guano, Fish, Hides (River plate dry), Indigo, Pig iron, Seeds (linseeds), Machinery hardware, Iron and steel manufactures, Oil (linseeds), Petrol. (refined), Silk (tsatlee), Sugar unrefined, Tobacco	1) 100% (1840) 2) 60,0% (1880)	1) United Kingdom (foreign countries). Statistical Yearbooks (several years from 1840)

			unmanufactured, Wollen and worsted yarns, Cotton yarns, Wine, Wool (english lincoln half hogs), Woollen worsted manufactures		
<b>Germany EXP (prezzi inglesi)</b>	1800- 1881	1) 1800-50 Laspeyres 2) 1850-81 Fisher	1) Coal, Coal, Cotton raw [cotton wool], MEDIA: hemp and flax [flax+hemp], Wheat, Oats [rye], Oats [barley, malt, oats], Iron Wrought, Iron bars, Lead, Leather Butts, Linseed, Tobacco, Wool, Cotton Textiles, Starch, Coffee, Wine, Indigo, Rum 2) Cattle [animals (except horses)], Beer and ale, Butter, Coal (Wallsend Hetton in London), Cotton (Fair Dhollerah (Surat), Cotton yarns, Cotton manufactures, Flax, Wheat, Rye, Barley, Oats, Hemp, Pig iron, Iron and steel manufactures, Rails, Lead, Leather Dressing Hides, Leather and manufactures, Machinery hardware, Oil (linseeds), Paper, Silk, Hides (River plate dry), Spirits, Sugar unrefined, Tobacco unmanufactured, Wool (english lincoln half hogs), Wollen and worsted yarns, Woollen worsted manufactures	1) 100% (1840) 2) 53,4% (1880)	1) United Kingdom (foreign countries). Statistical Yearbooks (several years from 1840)
<b>Germany IMP (prezzi tedeschi)</b>	1800- 1881	1) 1800-50 Laspeyres 2) 1850-81 Fisher	1) Butter, Coal, Cotton, MEDIA: hemp and flax [flax+hemp], Wheat, Rye, Barley, Iron, Lead, Leather, Linseed, Tobacco, Wool, Cotton yarn, Coffee, Sugar, Rice 2) Beef [animals (except horses)], Coal, Coffee, Copper, Cotton, Cotton yarns [cotton manuf], Flax, Wheat, Rye, Barley, Oats, Lard, Leather, Iron, Linseed, Palm oil, Silk, Sugar, Tobacco, Wool	1) 100% (1840) 2) 50,5% (1880)	1) United Kingdom (foreign countries). Statistical Yearbooks (several years from 1840)
<b>Germany EXP (prezzi tedeschi)</b>	1800- 1881	1) 1800-50 Laspeyres 2) 1850-81 Fisher	1) Butter, Coal, Cotton, MEDIA: hemp and flax [flax+hemp], Wheat, Rye, Barley, Iron, Lead, Leather, Linseed, Tobacco, Wool, Cotton yarn, Coffee, Meat, Flax, Zinc 2) Beef [animals (except horses)], Butter, Coal, Cotton, Cotton yarns [cotton manuf], Flax, Wheat, Rye, Barley, Oats, Hemp, Pig iron, Iron, Lead, Leather, Palm oil, Sugar, Tobacco, Wool	1) 100% (1840) 2) 30% (1880)	1) United Kingdom (foreign countries). Statistical Yearbooks (several years from 1840)

<b>Ghana IMP</b>	1850-1938	1) 1850-89 Laspeyres 2) 1890-1938 Fisher	1) Beer and ale, Beef (middling), Cement, Coal (Wallsend Hetton in London), Cotton manufactures, Cotton piece bleached, Fish, Flour, Spirits, Iron Galvanised corrugated sheets, Timber (Hewn, average import), Machinery hardware, Road Motor cars, Petroleum (refined), Rails, Rice, Salt, Silk, Sugar unrefined, Tobacco manufactures, Tobacco unmanufactured, Wine, Woollen worsted manufactures, Silk (tsatlee), Cattle 2) as for 1)	1) 56,9% (1913)	1) United Kingdom (colonies).). Statistical Yearbooks (1905), (1926) , (1931), (1937)  2) as for 1)
<b>Ghana EXP</b>	1850-1938	1) 1850-89 Laspeyres 2) 1890-1938 Fisher	1) Cocoa, Timber (Hewn, average import), Oil (palm), Rubber crude, Hides (River plate dry) 2) as for 1)	1) 94,2% (1913)	United Kingdom (colonies)). Statistical Yearbooks (1905), (1926) , (1931), (1937)  2) as for 1)
<b>Greece IMP</b>	1850-1938	1) 1850-1938 Fisher	1) Cattle, Chemicals, Coal (Average Export price), Coffee (Rio good Channel), Cotton manufactures, Cotton (Middling uplands), Cotton yarns, Earthenware, Fish, Wheat (English Gazette), Hides (River plate dry), Iron (Bars), Iron and steel manufactures, Machinery hardware, Road Motor cars, Indigo, Paper, Petroleum (refined), Rice, Silk, Sugar unrefined, Timber (Hewn, average import), Oil (olive), Flour, Woollen worsted manufactures, Wollen and worsted yarns	1) 81,4% (1913)	1) United Kingdom (colonies).). Statistical Yearbooks. 1836. 2) United Kingdom (foreign countries). ). Statistical Yearbooks 1901-1912. -U.S.A (1909).Historical Statistics. -League of Nations (1929) -League of Nations (1933) -League of Nations (1936) League of Nations (1938)
<b>Greece EXP</b>	1850-1938	1) 1850-1938 Fisher	1) Chemicals, Tobacco manufactures, Currants, Timber (Hewn, average import), Fresh fruit, Hides (River plate dry), Lead, Spirits, Oil (olive), Beans, Iron Ore, Raisins, Silk, Nitrate (of soda) , Cotton manufactures, Tobacco unmanufactured, Valonia, Wine	1) 90,2% (1913)	1) United Kingdom (colonies) <i>Tables of the revenue, population, 1836.</i>  -United Kingdom (foreign countries). ). Statistical Yearbooks 1901-1912.  -U.S.A (1909).Historical Statistics.  League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Guadalupe IMP</b>	1850-1938	1) 1850-1906 Fisher	1) Oil (olive), Rice, Fish, Paper, Chemicals, Cotton manufactures, Machinery hardware, Wine, Tobacco	1) 56,8% (1906)	1) United Kingdom (colonies).). Statistical Yearbooks. (1854) (1862) (1870) (1874) (1881)



		2) 1907-38 Laspeyres	manufactures, Beef (middling), Coal (Wallsend Hetton in London), Woollen worsted manufactures, Timber (Hewn, average import), Leather and manufactures, Butter, Bacon 2) as for 1)		Department of Commerce and Labor, Bureau of Statistics (1909) 2) as for 1)
<b>Guadalupe EXP</b>	1800- 1938	1) 1800-19 Laspeyres 2) 1820-50 Fisher 3) 1850-1900 Fisher 4) 1901-38 Laspeyres	1) Sugar Brown, Coffee, Rum, Cotton Raw, Cocoa, Logwood 2) as for 1) 3) Sugar unrefined, Coffee (Rio good Channel), Cocoa, Molasses, Timber (Hewn, average import), Spirits, Cotton (Fair Dhollerah (Surat)) 4) as for 3)	1) 88,7% (1839) 3) 98,9% (1900)	1) Bulmer-Thomas (2012) 2) as for 1) 3) Bulmer-Thomas(2012) 4) as for 3)
<b>Guatemala IMP</b>	1850- 1938	1) 1850-59 Laspeyres 2) 1860-1938 Fisher	1) Maize, Flour, Wine, Timber (Hewn, average import), Petroleum (refined), Chemicals, Leather and manufactures, Woollen worsted manufactures, Silk, Cotton (Fair Dhollerah (Surat)), Cotton yarns, Cotton manufactures, Linen manufactures, Earthenware, Iron and steel manufactures, Machinery hardware, Rails, Paper, Copper lingots 2) as for 1)	1) 73,2% (1913)	1) Macgregor (1850), Vol. II and United Kingdom (foreign countries). Statistical Yearbooks 1854. League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938) 2) as for 1)
<b>Guatemala EXP</b>	1800- 1938	1) 1800-50 Laspeyres 2) 1850-1938 Fisher	1) Indigo, Cochineal 2) Fresh fruits, Coffee (Rio good Channel), Sugar unrefined, Hides (River plate dry), Timber (Hewn, average import), Indigo, Cochineal	1) 96,3% (1850) 2) 98,8% (1913)	1) Magregor (1850) 2) United Kingdom (foreign countries). <i>Statistical Abstract for the Principal and other Foreign Countries</i> League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Haiti IMP</b>	1850- 1938	1) 1850-1906 Laspeyres 2) 1907-38 Fisher	1) Beef (middling), Bacon, Fish, Rice, Flour, Spirits, Hides (River plate dry), Tobacco unmanufactured, Timber (Hewn, average import), Petroleum (refined), Cement, Indigo, Chemicals, Woollen worsted manufactures, Silk, Cotton manufactures, Caoutchouc manufactured, Paper, Earthenware, Iron and steel manufactures, Machinery hardware, Road Motor cars 2) as for 1)	1) 83,9% (1925)	1) Haiti, (1954) “1804-1954 Cent Cinquante ans de Commerce Extérieur League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)



<b>Haiti EXP</b>	1850-1938	1) 1850-1915 Laspeyres 2) 1916-38 Fisher	1) Coffee (Rio good Channel), Cocoa, Sugar unrefined, Timber (Hewn, average import), Cotton (Fair Dhollerah (Surat)) 2) as for 1)	1) 95,6% (1925)	1) Haiti, (1954) “1804-1954 Cent Cinquante ans de Commerce Extérieur. League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Hawaii IMP</b>	1850-1900	1) 1850-1900 Laspeyres	1) Cattle, Flour, Road Motor cars, Chemicals, Coal (Wallsend Hetton in London), Copper lingots, Cotton manufactures, Eggs, Fish, Fresh fruits, Iron and steel manufactures, Leather and manufactures, Spirits, Petroleum (refined), Paper, Rice, Soap, Sugar unrefined, Tobacco manufactures, Wine, Timber (Hewn, average import), Wollen worsted manufactures	1) 70,8% (1900)	1) Historical Statistics. Haway. Schmitt Robert C. (1977)
<b>Hawaii EXP</b>	1800-1900	1) 1800-50 Laspeyres 2) 1850-74 Laspeyres 3) 1875-1899 Fisher	1) Sugar Brown, Hides Buenos Aires, Leather Butts 2) Sugar unrefined, Hides (River plate dry), Leather Dressing Hides 3) as for 2)	1) 96,3% (1849) 2) 95% (1899)	1) Historical Statistics of Hawaii (1977) 2) Historical Statistics of Hawaii (1977) 3) as for 2)
<b>Honduras IMP</b>	1850-1938	1) 1850-1912 Laspeyres 2) 1913-38 Fisher	1) Beef (middling), Rice, Flour, Wine, Spirits, Timber (Hewn, average import), Petroleum (refined), Indigo, Chemicals, Boots and shoes of leather, Silk, Cotton piece bleached, Cotton manufactures, Paper, Iron (Bars), Iron and steel manufactures, Electrical machinary, Machinery hardware, Rails 2) as for 1)	1) 80,1% (1913)	1) League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938) 2) as for 1)
<b>Honduras EXP</b>	1800-1938	1) 1800-54 Laspeyres 2) 1850-1912 Laspeyres 3) 1913-38 Fisher	1) Cochineal, Coffee (Rio good Channel), Indigo, Logwood, Mahogany  2) Cattle, Fresh fruit, Coconut Oil, Coffee (Rio good Channel), Sugar unrefined, Hides (River plate dry) 3) as for 2)	1) 91% (1854) 2) 72,0% (1913)	1) United Kingdom (trade statistics UK). Annual statement of the trade 1855 2) League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938) 3) as for 2)
<b>Hungary IMP</b>	1913-1929	1) 1913-1929 Laspeyres	1) Wheat (English Gazette), Rice, Fresh fruit, Hides (river plate salted), Tobacco unmanufactured, Timber (sawn or split, average	1) 74,9% (1929)	1) League of Nations (1933)

			import), Iron Ore, Petroleum (refined), Crude petroleum, Coal (Wallsend Hetton in London), Wool (english lincoln half hogs), Silk (tsatlee), Cotton (Fair Dhollerah (Surat)), Chemicals, Leather Average Import , Boots and shoes of leather, Wollen and worsted yarns, Cotton yarns, Woollen worsted manufactures, Silk, Cotton manufactures, Linen manufactures, Paper, Earthenware, Steel bars, Iron and steel manufactures, Electrical machinery, Machinery hardware, Road Motor cars		
<b>Hungary EXP</b>	1913-1929	1) 1913-1929 Laspeyres	1) Cattle, Bacon, Beef (middling), Eggs, Wheat (English Gazette), Rye, Barley, Oats, Maize, Flour, Potatoes, Fresh fruit, Sugar unrefined, Wine, Hides (river plate salted), Tobacco unmanufactured, Oil (linseeds), Coal (Average Export price), Wool (english lincoln half hogs), Chemicals, Leather Dressing Hides, Silk, Cotton manufactures, Timber (sawn or split, average import), Steel bars, Iron and steel manufactures, Electrical machinery, Machinery hardware, Road Motor cars	1) 75,8% (1929)	1) League of Nations (1933)
<b>India IMP</b>	1800-1938	1) 1800-27 Lspeyres 2) 1828-50 Fisher 3) 1850-1938 Fisher	1) Cotton yarns, Cotton textiles, MEDIA: Iron bars, Lead and Black tin [metals], MEDIA: brandy and wine [wines and spirits], Wool Spanish 2) as for 1) 3) Cotton yarns, Cotton piece bleached, Iron and steel manufactures, Machinery hardware, Petroleum (refined)	1) 100% (1850) 3) 55,5% (1910)	1) Chauduri K.N. (1983) 2) as for 1) 3) as for 2)
<b>India EXP</b>	1800-1938	1) 1800-10 Laspeyres 2) 1811-50 Fisher 3) 1850-1938 Fisher	1) Indigo, Cotton textiles, Raw silk, Cotton Raw, Sugar Brown 2) as for 1) 3) Cotton (Fair Dhollerah (Surat)), Cotton manufactures, Indigo, Rice, Jute (Good medium), Jute Canvas and Sacking, Hides (River plate dry), Opium, Seeds and nuts, Sugar unrefined, Tea (Congou, common)	1) 66,2% (1811) 3) 87,5% (1910)	1) Chauduri K.N. (1983) 2) as for 1) 3) as for 1)
<b>India IMP</b>	1800-1861	1) 1800-27 Lspeyres 2) 1828-50 Fisher	1) Cotton yarns, Cotton textiles, MEDIA: Iron bars, Lead and Black tin [metals], MEDIA: brandy and wine [wines and spirits], Wool Spanish 2) as for 1)	1) 100% (1850) 3) 61,3% (1855)	1) Chauduri K.N. (1983) 2) as for 1) 3) United Kingdom (colonies). Statistical Yearbooks

		3) 1850-61 Fisher	3) Cotton manufactures, Cotton yarns, Cotton piece bleached, Fresh fruit, Machinery hardware, Iron and steel manufactures, Copper Ore, Iron Ore, Salt, Silk, Spirits, Tea (Average import price), Wine, Wollen worsted manufactures		(1853 to 1867, (1855 to 1869)
<b>India EXP</b>	1800-1861	1) 1800-10 Laspeyres 2) 1811-50 Fisher 3) 1850-61 Fisher	1) Indigo, Cotton textiles, Raw silk, Cotton Raw, Sugar Brown 2) as for 1) 3) Cotton (Fair Dhollerah (Surat)), Indigo, Hides (River plate dry), Opium, Rice (Rangoon, cargoes to arrive), Sugar unrefined, Silk (tsatlee)	1) 66,2% (1811) 3) 69,7% (1855)	1) Chauduri K.N. (1983) 2) as for 1) 3) United Kingdom (colonies)). Statistical Yearbooks (1853 to 1867) (1855 to 1869).
<b>Indochina IMP</b>	1850-1938	1) 1850-95 Laspeyres 2) 1896-1926 Fisher 3) 1927-38 Laspeyres	1) Cattle, Road Motor cars, Beer and ale, Chemicals, Hemp (Manila, Fair Roping), Coal (Average Export price), Coffee (Rio good Channel), Copper (Chili Bars), Cotton manufactures, Paper Cotton (Fair Dhollerah (Surat)), Cotton yarns, Currants, Fish, Fresh fruit, Hides (River plate dry) , Rubber crude, Indigo, Iron and steel manufactures, Leather and manufactures, Boots and shoes of leather, Beef (middling), Petroleum (refined), Opium, Paper, Earthenware, Butter, Rice, Spirits, Sugar (British west indian refining), Tea (Congou, common), Tobacco manufactures, Tobacco unmanufactured, Wheat (English Gazette), Wine, Timber (Hewn, average import), Wollen worsted manufactures, Electrical machinery, Silk 2) as for 1) 3) as for 1)	1) 36,1% (1913)	1) United Kingdom (foreign countries). Statistical Yearbooks 1901 to 1912. And U.S.A (1909).Historical Statistics.
<b>Indochina EXP</b>	1850-1938	1) 1850-95 Laspeyres 2) 1896-1926 Fisher 3) 1927-38 Laspeyres	1) Cattle, Cement, Cinnamon, Coal (Average Export price), Cotton (Fair Dhollerah (Surat)), Cotton yarns, Fish, Hides (River plate dry), Rubber crude, Maize, Pepper, Rice, Silk (tsatlee), Sugar unrefined, Pork, Tea (Congou, common), Timber (Hewn, average import), Zinc: ores 2) as for 1) 3) as for 1)	1) 69,4% (1913)	1) United Kingdom (foreign countries). Statistical Yearbooks. 1901 to 1912. And U.S.A (1909).Historical Statistics.
<b>Indonesia IMP</b>	1825-1913	1) 1825-1896 Fisher	1) Tobacco manufactures, Rice, Paraffin Wax, Cotton manufactures, Wollen worsted	1) 81,8% (1873) 2) 66,8% (1906)	1) Korthals Altes 1991 2) U.S.A (1909). Historical Statistics. 3) as for 1)

		2) 1850-95 Laspeyres 3) 1896-1906 Fisher 4) 1907-13 Laspeyres	manufactures, Iron and steel manufactures, Copper (Chili Bars) 2) Cattle, Flour, Earthenware, Road Motor cars, Cement, Opium, Indigo, Coal (Wallsend Hetton in London), Copper (Chili Bars), Cotton manufactures, Fish, Iron Tinsplates, Machinery hardware, Iron and steel manufactures, Beef (middling), Petroleum (refined), Coconut Oil, Oil (linseeds), Paper, Rice, Salt, Seeds (linseeds), Silk, Spirits, Wine, Beer and ale, Sugar unrefined, Tobacco manufactures, Tea (Congou, common), Timber (Hewn, average import), Wollen worsted manufactures 3) as for 1) 4) as for 1)		4) as for 1)
<b>Iran IMP</b>	1850-1938	1) 1850-99 Laspeyres 2) 1900-38 Fisher	1) Tea (Average import price), Sugar (British west indian refining), Pig iron, Chemicals, Cotton yarns, Cotton manufactures, Linen manufactures, Iron and steel manufactures, Flour, Crude petroleum, Non-Steam Engine: Agricultural, Road Motor cars 2) as for 1)	1) 67,1% (1913)	1) - Issawi, C. (1971)  - Entner Marvin (1965)  - U.S.A (1909). Historical Statistics.  League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)  2) as for 1)
<b>Iran EXP</b>	1850-1938	1) 1850-99 Laspeyres 2) 1900-38 Fisher	1) Rice, Fresh fruit, Hides (River plate dry), Leather and manufactures, Wool (english lincoln half hogs), Silk (tsatlee), Cotton piece bleached, Wollen worsted manufactures, Petroleum (refined) 2) as for 1)	1) 72,8% (1913)	1) 1)  - Issawi, C. (1971)  - Entner Marvin (1965)  - U.S.A (1909). HISTORICAL STATISTICS <i>Statistical Abstract of Foreign Countries</i>  League of Nations (1925) League of Nations (1929) League of Nations (1933)

					League of Nations (1936) League of Nations (1938)  2) as for 1)
<b>Iraq IMP</b>	1850-1938	1) 1850-1923 Laspeyres 2) 1924-38 Fisher	1) Cotton manufactures, Silk, Wollen worsted manufactures, Sugar unrefined, Tea (Congou, common), Flour (Town made White), Petroleum (refined), Timber (Hewn, average import), Soap, Coffee (Ceylon plantation, low middling ), Iron and steel manufactures, Machinery hardware, Chemicals, Road Motor cars, Paper, Tobacco Manufactures 2) as for 1)	1) 80% (1924)	1) United Kingdom (colonies). Statistical Yearbooks. (1926)  2) as for 1)
<b>Iraq EXP</b>	1850-1938	1) 1850-1923 Laspeyres 2) 1924-38 Fisher	1) Wheat (English Gazette), Cattle, Raisins, Wool (english lincoln half hogs), Hides (River plate dry) 2) as for 1)	1) 88,9% (1924)	1) United Kingdom (colonies). Statistical Yearbooks. (1926)  2) as for 1)
<b>Irish Free State IMP</b>	1913-1929	1) 1913-1929 Laspeyres	1) Bacon, Butter , Wheat (English Gazette), Maize, Fresh fruit, Tea (Congou, common), Sugar unrefined, Spirits, Manures: Sulphate of Ammonia, Tobacco unmanufactured, Timber (sawn or split, average import), Oil Petroleum illuminating, Coal (Newcastle Steam), Soap, Chemicals, Leather and manufactures, Boots and shoes of leather, Wollen worsted manufactures, Cotton yarns, Wollen clothing, Rubber crude, Timber (sawn or split, average import), Paper, Earthenware, Iron and steel manufactures, Machinery hardware, Road Motor cars	1) 74,1% (1929)	1) League of Nations (1933)
<b>Irish Free State EXP</b>	1913-1929	1) 1913-1929 Laspeyres	1) Cattle, Mutton Middling, Pork, Bacon, Butter , Fish, Eggs, Oats, Beer and ale, Hides (River plate dry), Wool (english lincoln half hogs), Wollen clothing, Road Motor cars, NON-Steam Engine: Agricultural	1) 81,4% (1929)	1) League of Nations (1933)

<b>Jamaica IMP</b>	1800-1885	1) 1800-70 Laspeyres 2) 1850-68 Laspeyres 2) 1869-1885 Fisher	1) Beer and ale, Wheat, Butter, Coal (Wallsend Hetton in London), Cotton manufactures, Fish, Linen manufactures, Pork, Rice 2) Beer and ale, Butter, Coal (Wallsend Hetton in London), Maize, Cotton manufactures, Fish, Flour, Machinery hardware, Linen manufactures, Pork, Rice 3) as for 2)	1) 63,4 % (1870) 2) 62,3% (1885)	1) United Kingdom (colonies). Statistical Yearbooks (1864 to 1878).  2) United Kingdom (colonies)). Statistical Yearbooks (1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891).  3) as for 2)
<b>Jamaica EXP</b>	1800-1885	1) 1800-19 Laspeyres 2) 1820-50 Fisher 3) 1850-85 Fisher	1) Rum, Sugar Brown, Coffee Ordinary, Logwood, Cacao, Ginger, Pepper 2) as for 1) 3) Spirits, Sugar unrefined, Coffee (Rio good Channel), Timber (Hewn, average import), Cocoa raw, Pepper, Fresh fruit, Oranges	1) 95,6% (1836) 3) 91,9% (1869)	1) Bulmer-Thomas(2012)  2) as for 1)  3) Bulmer-Thomas(2012).
<b>Japan IMP</b>	1850-1877	1) 1850-68 Laspeyres 2) 1869-77 Fisher	1) Rice, Sugar unrefined, Hides (River plate dry), Paraffin Wax, Chemicals, Indigo, Cotton yarns, Cotton manufactures, Paper, Coal (Wallsend Hetton in London), Earthenware, Iron (Scotch pig), Machinery hardware, Cotton (Fair Dhollerah (Surat)) 2) as for 1)	1) 99,9% (1868)	1) Japan. Historical Statistics of Japan (1987)  2) as for 1)
<b>Japan EXP</b>	1850-1877	1) 1850-68 Laspeyres 2) 1869-77 Fisher	1) Rice, Tea (Congou, common), Fish, Hides (River plate dry), Paraffin Wax, Chemicals, Indigo, Silk, Cotton manufactures, Paper, Coal (Wallsend Hetton in London), Earthenware, Iron (Scotch pig) 2) as for 1)	1) 99,4% (1868)	1) 1) Japan. Historical Statistics of Japan (1987)  2) as for 1)
<b>Kenya and Uganda Protectorate IMP</b>	1850-1938	1) 1850-1909 Laspeyres 2) 1910-38 Fisher	1) Iron and steel manufactures, Beer and ale, Jute Canvas and Sacking, Copper lingots, Cotton piece bleached, Cotton manufactures, Rice, Flour, Machinery hardware, Road Motor cars, Petroleum (refined), Spirits, Sugar unrefined, Tea (Congou, common), Tobacco unmanufactured, Tobacco manufactures, Wine, Timber (Hewn, average import), Wollen worsted manufactures 2) as for 1)	1) 68,6% (1913)	1) United Kingdom (colonies). Statistical Yearbooks (1926),(1931), (1937)  2) as for 1)

<b>Kenya and Uganda Protectorate EXP</b>	1850-1938	1) 1850-1909 Laspeyres 2) 1910-38 Fisher	1) Nitrate (of soda), Coffee (Rio good Channel), Cotton (Fair Dhollerah (Surat)), Maize, Hides (River plate dry), Sesamum, Wool (english lincoln half hogs) 2) as for 1)	1) 69,4% (1913)	1) United Kingdom (colonies)). Statistical Yearbooks. (1926), (1931), (1937) 2) as for 1)
<b>Korea IMP</b>	1850-1911	1) 1850-95 Laspeyres 2) 1896-1911 Fisher	1) Flour, Wheat (English Gazette), Non-Steam Engine: Agricultural, Steel bars, Iron and steel manufactures, Paper, Rice, Spirits, Sugar unrefined, Tobacco manufactures, Timber (Hewn, average import), Wollen worsted manufactures, Cotton manufactures, Cotton yarns, Petroleum (refined) 2) as for 1)	1) 68,1% (1896)	1) U.S.A (1909). Historical Statistics. 2) as for 1)
<b>Korea EXP</b>	1850-1911	1) 1850-95 Laspeyres 2) 1896-1911 Fisher	1) Beans, Rice, Hides (River plate dry), Fish, Barley 2) as for 1)	1) 88% (1896)	1) U.S.A (1909). Historical Statistics. 2) as for 1)
<b>Latvia IMP</b>	1913-1930	1) 1913-30 Laspeyres	1) Fish, Wheat (English Gazette), Rye, Barley, Oats, Fresh fruit, Sugar unrefined, Hides (River plate dry), Manures: Sulphate of Ammonia, Manures: Other sorts, Seeds (linseeds), Rubber crude, Coal (Newcastle Steam), Tobacco unmanufactured, Timber (Hewn, average import), Steel bars, Copper (Chili Bars), Crude petroleum, Petroleum (refined), Wool (english lincoln half hogs), Cotton (Fair Dhollerah (Surat)), Oil Petroleum illuminating, Indigo, Chemicals, Leather Average Import, Wollen and worsted yarns, Cotton yarns, Wollen pice light all wool, Cotton piece unbleached, Paper, Galvanised corrugated sheets, Iron and steel manufactures, NON-Steam Engine: Agricultural, Machinery hardware, Electrical machinary, Road Motor cars	1) 78,2% (1930)	1) League of Nations (1933)
<b>Latvia EXP</b>	1913-1930	1) 1913-30 Laspeyres	1) Bacon, Butter, Hides (River plate dry), Manures: Sulphate of Ammonia, Seeds (linseeds), Timber (sawn or split, average import), Pulp of wood, Oil Petroleum lubricating, Flax (St. Petersburg), Leather Dressing Hides, Cotton yarns, Linen yarns unbleached, Wollen pice light all wool, Timber (sawn or split, average import), Paper, Machinery hardware, Road Motor cars	1) 82,1% (1930)	1) League of Nations (1933)

<b>Lithuania IMP</b>	1850- 1938	1) 1850-1919 Laspeyres 2) 1920-38 Fisher	1) Cattle, Fish, Sugar unrefined, Manures: Sulphate of Ammonia, Tobacco unmanufactured, Timber (Hewn, average import), Petroleum (refined), Coal (Wallsend Hetton in London), Cement, Iron (Bars), Indigo, Chemicals, Wool (english lincoln half hogs), Cotton (Fair Dholerah (Surat)), Leather and manufactures, Cotton manufactures, Paper, Earthenware, Iron and steel manufactures, NON-Steam Engine: Agricultural, Machinery hardware, Road Motor cars 2) as for 1)	1) 73,6% (1920)	1) League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)  2) as for 1)
<b>Lithuania EXP</b>	1850- 1938	1) 1850-1919 Laspeyres 2) 1920-38 Fisher	1) Cattle, Bacon , Beef (middling), Butter, Eggs, Wheat (English Gazette), Potatoes, Hides (River plate dry), Seeds (linseeds), Oil (linseeds), Flax (Russian average import), Timber (Hewn, average import), Iron (Bars) 2) as for 1)	1) 91,1% (1920)	1) League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)  2) as for 1)
<b>Madagascar IMP</b>	1850- 1938	1) 1850-1895 Laspeyres 2) 1896-1906 Fisher 3) 1907-1938 Laspeyres	1) Barley, Flour, Road Motor cars, Cement, Coal (Wallsend Hetton in London), Coffee (Ceylon plantation, low middling ), Cotton yarns, Cotton manufactures, Earthenware, Jute Canvas and Sacking, Fish, Hats, Iron (Bars), Iron and steel manufactures, Rails, Tinplates, Boots and shoes of leather, Leather and manufactures, Oranges, Oil (olive), Beef (middling), Bacon, Butter, Cheese, Rice, Soap, Spirits, Wine, Sugar unrefined, Tea (Congou, common), Tobacco manufactures, Beans, Potatoes, Timber (Hewn, average import), Wollen clothing 2) as for 1) 3) as for 1)	1) 83,2% (1906)	1) U.S.A (1909). Historical Statistics.  2) as for 1)  3) as for 1)
<b>Madagascar EXP</b>	1850- 1938	1) 1850-1895 Laspeyres 2) 1896-1906 Fisher 3) 1907-1938 Laspeyres	1) Cattle, Jute (Good medium), Hides (River plate dry), Rubber crude, Rice, Cinnamon, Beans, Paraffin Wax, Timber (Hewn, average import) 2) as for 1) 3) as for 1)	1) 96,7% (1906)	1) U.S.A (1909). Historical Statistics.  2) as for 1)  3) as for 1)



<b>Manchukuo (Manciuria) EXP</b>	1933- 1938	1) 1933-38 Fisher	1) Coal (Wallsend Hetton in London), Iron (Bars), MEDIA: Oil (palm) and Oats [soy]	1) 99% (1933)	1) Asume one third Coal, Iron and Soy beans.
<b>Martinique IMP</b>	1850- 1938	1) 1850-64 Laspeyres 2) 1865-1906 Fisher 3) 1907-38 Laspeyres	1) Linen manufactures, Cotton manufactures, Wine, Flour, Oil (olive), Fish, Coal (Wallsend Hetton in London) 2) as for 1) 3) as for 1)	1) 37,5% (1906)	1) France (Colonies). ). Statistical Yearbooks. (1854), (55-66). And U.S.A (1909). Historical Statistics. 2) as for 1) 3) as for 1)
<b>Martinique EXP</b>	1800- 1938	1) 1800-41 Laspeyres 2) 1842-50 Fisher 3) 1850-64 Laspeyres 4) 1865-1906 Fisher 5) 1907-38 Laspeyres	1) Hides Buenos Aires, Coffee Ordinary, Sugar Brown, Cocoa 2) as for 1) 3) Sugar unrefined, Spirits, Cocoa 4) as for 3) 5) as for 3)	1) 93,1% (1842) 3) 98,3% (1906)	1) France (Colonies). Statistical Yearbooks (1842), (1854) 2) as for 1) 3) France (Colonies). Statistical Yearbooks (1855-1866). And U.S.A (1909). HISTORICAL STATISTICS <i>Statistical Abstract of Foreign Countries</i> 4) as for 3) 5) as for 3)
<b>Mauritius IMP</b>	1850- 1938	1) 1850-1889 Laspeyres 2) 1890-1938 Fisher	1) Manures: Sulphate of Ammonia, Coal (Wallsend Hetton in London), Cotton manufactures, Fish, Flour, Guano, Iron (Bars), Leather Dressing Hides, Machinery hardware, Manures: Other sorts, Road Motor cars, Petroleum (refined), Phosphate of Lime and Rock, Rice, Soap, Nitrate (of soda), Timber (Hewn, average import), Tobacco manufactures, Wheat (English Gazette), Wine, Wollen worsted manufactures 2) as for 1)	1) 94,1% (1913)	1) United Kingdom (colonies) Statistical Yearbooks. (1905) (1926) (1931) (1937)  2) as for 1)
<b>Mauritius EXP</b>	1800- 1938	1) 1800-1850 Laspeyres 2) 1850-1889 Laspeyres 3) 1890-1938 Fisher	1) Beef Irish, Coffee Ordinary, Copper Manufactured, Wheat Amsterdam, Cotton Raw, Indigo, Hides For dressing. Iron Wrought bars, Pepper White, Rum Jamaica Sugar Brown, Tea Middling, Wine Red  2) Sugar unrefined 3) as for 2)	1) 92,7% (1836) 2) 60,4% (1913)	1) United Kingdom (colonies) Statistical Yearbook. 1836.  2) United Kingdom (colonies) Statistical Yearbooks (1905) (1926) (1931) (1937)  3) as for 2)

<b>Mexico IMP</b>	1850-1871	1) 1850-71 Fisher	1) Cotton manufactures, Coal (Wallsend Hetton in London), Cotton (Middling uplands), Cotton yarns, Iron and steel manufactures, Iron (Scotch pig), Linen manufactures, Machinery hardware, Silk, Wollen pice light all wool, Wool (english lincoln half hogs), Cinnamon, Silk (tsatlee), Wine	1) 85% (1870)	1) United Kingdom (trade statistics) Annual Statement of the Trade, 1862, 1872 .
<b>Mexico EXP</b>	1800-1871	1) 1800-54 Laspeyres 2) 1850-71 Fisher	1) Logwood, Timber (Hewn, average import), Cochineal, Copper Ore, Indigo, Mahogany, Hides Buenos Aires, Silver  2) Timber (Hewn, average import), Cochineal, Copper (Chili Bars), Cotton (Middling uplands), Guano, Hemp (Manila, Fair Roping), Indigo, Coffee (Rio good Channel), Silver, Rubber crude Hides (River plate dry)	1) 89,3% (1854) 2) 44,2% (1870)	1) United Kingdom (trade statistics), Annual Statement of the Trade, 1859  France. Tableau Décennal du Commerce 1847- 1856,  Belgium. Statistique de la Belgique. Tableau Général du Commerce 1859,  2) United Kingdom(trade statistics), Annual Statement of the Trade, 1862, 1872 .
<b>Morocco IMP</b>	1850-1938	1) 1850-1938 Laspeyres	1) Paraffin wax, Cement, Coal (Average Export price), Coffee (Rio good Channel), Cotton yarns, Cotton manufactures, Barley, Maize, Wheat (English Gazette), Flour, Iron and steel manufactures, Machinery hardware, Beef (prime), Petroleum (refined), Oil (olive), Oil (linseeds), Rice, Silk (tsatlee), Silk, Soap, Spirits, Sugar (British west indian refining), Tea (Congou, common), Tobacco manufactures, Wine, Timber (Hewn, average import), Wollen worsted manufactures	1) 76,7% (1909)	1) Macgregor (1850) ; Vol II and United Kingdom (colonies). Statistical Yearbooks (1924)
<b>Morocco EXP</b>	1800-1938	1) 1800-50 Laspeyres 2) 1850-1938 Laspeyres	1) Wool Spanish, Olive oil, Beeswax, Hides For dressing, Wheat Amsterdam, Beef Irish, Yellow soap 2) Almonds, Cattle, Barley, Maize, Wheat (English Gazette), Eggs, Fresh fruit, Rubber crude, Hides (River plate dry), Leather and manufactures, Seeds (linseeds), Beans, Wool (english lincoln half hogs)	1) 53,6% (1839) 2) 79,9% (1909)	1) Macgregor (1850); Vol.II 2) United Kingdom (colonies) <i>Statistical Yearbook</i> (1924)

<b>Mozambique e Angola IMP</b>	1850- 1938	1) 1850-1926 Laspeyres 2) 1927-38 Fisher	1) Rice, Flour, Oil (olive), Wine, Beer and ale, Petroleum (refined), Cotton manufactures, Tobacco unmanufactured, Cement	1) 54,3% (1927)	1) Ribeiro Salgado, F. (1939)
<b>Mozambique e Angola EXP</b>	1850- 1938	1) 1850-1900 Laspeyres 2) 1901-38 Fisher	1) Cattle, Beef (prime), Paraffin Wax, Seeds and nuts, Coconut Oil, Copra, Sesamum, Oil (palm), Cotton (Fair Dhollerah (Surat)), Tobacco unmanufactured Rubber crude, Timber (Hewn, average import), Coal (Wallsend Hetton in London), Fish, Sugar unrefined, Coffee (Rio good Channel), Maize, Cocoa, Salt	1) 91,5% (1913)	1) Ribeiro Salgado, F. (1939)
<b>Netherlands IMP</b>	1913- 1930	1) 1913-1930 Laspeyres	1) Bacon, Wheat (English Gazette), Maize, Rice, Fresh fruit, Coffee (Rio good Channel), Cocoa, Tea (Congou, common), Sugar unrefined, Hides (River plate dry), Manures: Sulphate of Ammonia, Oil (linseeds), Tobacco unmanufactured, Timber (sawn or split, average import), Oil Petroleum lubricating, Coal (Newcastle Steam), Cement, Wool (english lincoln half hogs), Cotton (Fair Dhollerah (Surat)), Hemp (Manila, Fair Roping), Copra, Indigo, Chemicals, Leather Average Import, Cotton yarns, Cotton piece unbleached, Caoutchouc manufactured, Paper, Earthenware, Iron and steel manufactures, Copper (English Tough Cake), Machinery hardware, Road Motor cars	1) 78,8% (1925)	1) League of Nations (1925) League of Nations (1929)
<b>Netherlands EXP</b>	1913- 1930	1) 1913-1930 Laspeyres	1) Cattle, Beef (middling), Bacon, Margarine, Milk, Butter, Cheese, Fish, Eggs, Flour, Tomatoes, Potatoes, Fresh fruit, Coffee (Rio good Channel), Sugar (British west indian refining), Oil (linseeds), Spirits, Hides (River plate dry), Manures: Sulphate of Ammonia, Seeds (linseeds), Coal (Newcastle Steam), Flax (St. Petersburg), Cement, Indigo, Chemicals, Tobacco manufactures, Leather Dressing Hides, Cotton yarns, Cotton manufactures, Paper, Earthenware, Iron and steel manufactures, Machinery hardware	1) 78,8% (1925)	1) League of Nations (1925) League of Nations (1929)

<b>New Zealand IMP</b>	1855-1927	1) 1855-1927 Laspeyres	1) Cattle, Wollen clothing, Boots and shoes of leather, Wollen worsted manufactures, Coal (Wallsend Hetton in London), Cotton manufactures, Chemicals, Earthenware, Fish, Fresh fruit, Rice, Hats, Machinery hardware, NON-Steam Engine: Agricultural, Electrical machinery, Manures: Sulphate of Ammonia, Iron and steel manufactures, Leather Dressing Hides, Linen manufactures, Beer and ale, Sugar unrefined, Tea (Average import price), Rails, Spirits, Tobacco manufactures, Wine, Petroleum (refined), Cement, Indigo, Paper, Leather and manufactures, Seeds (linseeds), Silk, Cotton piece bleached, Tin (Straits), Timber (Hewn, average import), Jute Canvas and Sacking, Road Motor cars	1) 71,2% (1927)	1) United Kingdom (colonies). Statistical Yearbooks. (1855 to 1869), (1864 to 1878), (1877 to 1891)  U.S.A (1909). HISTORICAL STATISTICS <i>Statistical Abstract of Foreign Countries</i>  United Kingdom (colonies) Statistical Yearbooks. (1905) (1926) (1931), (1937)
<b>New Zealand EXP</b>	1800-1850	1) 1800-45 Laspeyres 2) 1846-50 Fisher	1) Wheat Amsterdam, Oats, Hides For dressing [Kauri gum], Timber Pine, Wool Spanish, Whale Oil, Copper Manufactured 2) as for 1)	1) 54,8% (1846)	1) Macgregor ( 1850) 2) as for 1)
<b>Newfoundland IMP</b>	1850-1938	1) 1850-1938 Fisher	1) Butter, Coal (Wallsend Hetton in London), Flour , Fresh fruit, Iron and steel manufactures, Leather and manufactures, Beef (middling), Molasses, Salt, Sugar unrefined, Tea (Average import price), Oats	1) 47,5% (1913)	1) United Kingdom (colonies). Statistical Yearbooks (1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891)  United Kingdom (colonies) Statistical Yearbooks (1905) (1926) (1931), (1937)
<b>Newfoundland EXP</b>	1800-1938	1) 1800-35 Laspeyres 2) 1836-50 Fisher 3) 1850-1938 Fisher	1) Whale Oil [fish cod dry and oil cod], Hides Buenos Aires 2) as for 1) 3) Fish, Hides (River plate dry)	1) 96% (1836) 3) 64,1% (1913)	1) United Kingdom (colonies) Statistical Yearbooks. (1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891)  United Kingdom (colonies). Statistical Yearbooks (1905) (1926) (1931), (1937)

<b>Nicaragua IMP</b>	1850- 1938	1) 1850-1912 Laspeyres 2) 1913-38 Fisher	1) Beef (middling), Maize, Rice, Flour, Fresh fruit, Wine, Crude petroleum, Petroleum (refined), Chemicals, Tobacco manufactures, Leather and manufactures, Cotton yarns, Wollen worsted manufactures, Silk, Cotton manufactures, Hats, Caoutchouc manufactured Paper, Earthenware, Iron and steel manufactures, Copper lingots, Electrical machinery, Machinery hardware, Road Motor cars 2) as for 1)	1) 66,5% (1913)	1) League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938) 2) as for 1)
<b>Nicaragua EXP</b>	1800- 1938	1) 1800-58 Laspeyres 2) 1850-1912 Laspeyres 3) 1913-38 Fisher	1) Hides Buenos Aires, Logwood, Timber (Hewn, average import)  2) Fresh fruit, Coffee (Rio good Channel), Sugar unrefined, Hides (River plate dry), Rubber crude, Timber (Hewn, average import), Cotton (Fair Dhollerah (Surat)) 3) as for 2)	1) 96,8% (1858) 2) 83,7% (1913)	1) United Kingdom (foreign countries). Statistical Yearbooks.  2) League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938) 3) as for 2)
<b>Nigeria IMP</b>	1850- 1900	1) 1850-64 Laspeyres 2) 1865-1900 Fisher	1) Cotton manufactures, Spirits, Machinery hardware, Rails, Tobacco unmanufactured 2) as for 1)	1) 63,4% (1890)	1) United Kingdom (colonies) Statistical Yearbooks. (1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891)  United Kingdom (colonies) Statistical Yearbooks (1905)  2) as for 1)
<b>Nigeria EXP</b>	1850- 1900	1) 1850-64 Laspeyres 2) 1865-1900 Fisher	1) Oil (palm), Cotton (Fair Dhollerah (Surat)) 2) as for 1)	1) 86,7% (1890)	1) United Kingdom (colonies) Statistical Yearbooks. (1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891)  United Kingdom (colonies), Statistical Yearbook (1905)  2) as for 1)

<b>Northern Rhodesia IMP</b>	1850-1938	1) 1850-1908 Laspeyres 2) 1909-38 Fisher	1) Cotton manufactures, Coal (Wallsend Hetton in London), Cotton piece bleached, Electrical machinery, Iron and steel manufactures, Machinery hardware, Road Motor cars, Tobacco manufactures, Timber (Hewn, average import), Rails Sugar unrefined, Petroleum (refined) 2) as for 1)	1) 36,7% (1913)	1) United Kingdom (colonies). Statistical Yearbooks (1926), (1931),(1937)  2) as for 1)
<b>Northern Rhodesia EXP</b>	1850-1938	1) 1850-1908 Laspeyres 2) 1909-38 Fisher	1) Cattle, Hides (River plate dry), Maize, Tobacco unmanufactured, Copper (Chili Bars) 2) as for 1)	1) 45,5% (1913)	1) United Kingdom (colonies). Statistical Yearbook (1926), (1931), (1937)  2) as for 1)
<b>Nyasaland IMP</b>	1850-1938	1) 1850-1923 Laspeyres 2) 1924-38 Fisher	1) Cotton manufactures, Cotton piece bleached, Cotton yarns, Iron and steel manufactures, Road Motor cars, Petroleum (refined) 2) as for 1)	1) 64,4% (1924)	1) United Kingdom (colonies) Statistical Yearbook (1931), (1937), (1947)  2) as for 1)
<b>Nyasaland EXP</b>	1850-1938	1) 1850-1923 Laspeyres 2) 1924-38 Fisher	1) Tea (Congou, common), Tobacco unmanufactured, Cotton (Fair Dhollerah (Surat)) 2) as for 1)	1) 93,9% (1924)	1) United Kingdom (colonies) Statistical Yearbook (1931), (1937), (1947)  2) as for 1)
<b>Palestine IMP</b>	1850-1938	1) 1850-1919 Laspeyres 2) 1920-38 Fisher	1) Coal (Wallsend Hetton in London), Coffee (Ceylon plantation, low middling), Cotton manufactures, Cotton yarns, Fish, Flour, Hides (River plate dry), Iron and steel manufactures, Machinery hardware, Paper, Petroleum (refined), Rice, Sugar (British west indian refining), Timber (Hewn, average import), Tobacco unmanufactured, Wollen worsted manufactures, Cattle, Wheat (English Gazette), Oil (olive), Road Motor cars, Chemicals 2) as for 1)	1) 63,3% (1920)	1) ) United Kingdom (colonies) Statistical Yearbook, (1836) (1926), (1931), (1937)  2) as for 1)
<b>Palestine EXP</b>	1850-1938	1) 1850-1919 Laspeyres 2) 1920-38 Fisher	1) Almonds, Barley, Maize, Beans, Fresh fruit, Oranges, Wine, Hides (River plate dry) 2) as for 1)	1) 50,2% (1920)	1) United Kingdom (colonies) Statistical Yearbook, (1926), (1931), (1937)  2) as for 1)
<b>Panama IMP</b>	1850-1938	1) 1850-1912 Laspeyres	1) Cattle, Crude petroleum, Timber (Hewn, average import), Cement, Chemicals, Tobacco manufactures, Leather and manufactures, Cotton	1) 59,6% (1913)	1) Pan-American Union (PAU). (1952) 2) as for 1)

		2) 1913-38 Fisher	manufactures, Caoutchouc manufactured, Paper, Earthenware, Iron and steel manufactures, Machinery hardware 2) as for 1)		
<b>Panama EXP</b>	1850-1938	1) 1850-1912 Laspeyres 2) 1913-38 Fisher	1) Fresh fruit, Coconut Oil, Cocoa, Hides (River plate dry), Timber (Hewn, average import) 2) as for 1)	1) 86,8% (1913)	1) Pan-American Union (PAU). (1952) 2) as for 1)
<b>Paraguay IMP</b>	1850-1938	1) 1850-1938 Fisher	1) Cotton manufactures, Wollen worsted manufactures, Iron and steel manufactures	1) 42,6% (1913)	1) Magregor (1850) League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Paraguay EXP</b>	1850-1938	1) 1850-1938 Fisher	1) Tobacco manufactures, MEDIA: Coffee (Rio good Channel) and Tea (Congou, common)) [Yerba], Hides (River plate dry), Timber (Hewn, average import)	1) 57,3% (1913)	1) Magregor (1850) League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Perù IMP</b>	1800-1938	1)1800-63 Laspeyres 2) 1850-1901 Laspeyres 3) 1902-38 Fisher	1) Cotton manufactures, Wool (english lincoln half hogs), Timber (Hewn, average import) 2) Bacon, Beef (middling), Butter, Fish, Wheat (English Gazette), Rice, Flour, Tea (Average import price), Fresh fruit, Wine, Timber (Hewn, average import), Oil (linseeds), Paraffin Wax, Coal (Wallsend Hetton in London), Cement, Indigo, Chemicals, Tobacco unmanufactured, Wollen worsted manufactures, Silk, Cotton manufactures, Hemp (St. Petersburg, clean), Caoutchouc manufactured, Paper, Earthenware, Iron and steel manufactures, Electrical machinary, Machinery hardware, Road Motor cars 3) as for 2)	1) 80,2% (1863) 2) 72,6% (1913)	1) 1) Magregor (1850) 2) U.S.A (1909). HISTORICAL STATISTICS <i>Statistical Abstract of Foreign Countries</i> . League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938) 3) as for 2)
<b>Perù EXP</b>	1800-1850	1) 1800-39 Laspeyres 2) 1840-50 Fisher	1) Wool Spanish, Cotton Raw, Saltpetre 2) as for 1)	1) 100% (1840)	1) Hanson, John R., II (1980) 2) as for 1)



<b>Philippines IMP</b>	1800-1938	1) 1800-50 Laspeyres 2) 1850-1925 Laspeyres	1) Tobacco unmanufactured, Soap, Indigo, Woollen worsted manufactures, Silk, Timber (Hewn, average import), Steel bars, Rails, Beef (middling), Butter, Flour, Coffee (Ceylon plantation, low middling), Coal (Wallsend Hetton in London), Leather Average Import, Cotton piece bleached, Cotton manufactures, Galvanised corrugated sheets 2) Eggs, Vegetables, Fresh fruit, Manures: Sulphate of Ammonia, Tobacco unmanufactured, Crude petroleum, Oil Petroleum illuminating, Oil Petroleum lubricating, Cement, Soap, Indigo, Tobacco manufactures, Woollen worsted manufactures, Silk, Caoutchouc manufactured, Steel bars, Rails, Beef (middling), Butter, Fish, Rice, Flour, Coffee (Rio good Channel), Petroleum (refined), Coal (Wallsend Hetton in London), Chemicals, Leather and manufactures, Cotton piece printed, Cotton piece bleached, Paper, Galvanised corrugated sheets, Pig iron, Electrical machinery, Non-Steam Engine: Agricultural, Road Motor cars	1) 49,3% (1925) 2) 84,1% (1925)	1) Nagano Yoshika (1997) League of Nations (1929) 2) League of Nations (1929)
<b>Philippines EXP</b>	1800-1903	1) 1800-39 Laspeyres 2) 1840-50 Fisher 3) 1850-1903 Fisher	1) Sugar Brown, Hemp, Tobacco Brown, Coffee Ordinary 2) as for 1) 3) Sugar unrefined, Hemp (Manila, Fair Roping), Tobacco manufactures, Coffee (Ceylon plantation, low middling)	1) 73,7% (1840) 3) 78,9% (1895)	1) Nagano Yoshika (1997) 2) as for 1) 3) Nagano Yoshika (1997) League of Nations (1929)
<b>Poland IMP</b>	1850-1938	1) 1850-1919 Laspeyres 2) 1920-38 Fisher	1) Bacon, Fish, Rice, Oranges, Flour, Fresh fruit, Coffee (Ceylon plantation, low middling), Hides (River plate dry), Oil (linseeds), Rubber crude, Tobacco unmanufactured, Manures: Sulphate of Ammonia, Iron (Bars), Wool (english lincoln half hogs), Cotton (Fair Dhollerah (Surat)), Indigo, Chemicals, Wollen and worsted yarns, Cotton yarns, Leather Dressing Hides, Cotton piece bleached, Wollen clothing, Paper, Earthenware, Iron and steel manufactures, Electrical machinery, Machinery hardware	1) 72,5% (1923)	1) League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)  Poland.Statistical Yearbook (1930)  2) as for 1)



<b>Poland EXP</b>	1850-1938	1) 1850-1919 Laspeyres 2) 1920-38 Fisher	2) as for 1) 1) Cattle, Pork, Cattle, Butter, Mutton Middling, Eggs, Wheat (English Gazette), Sugar unrefined, Leather Dressing Hides, Seeds (linseeds), Timber (Hewn, average import), Iron (Bars), Zinc Ore, Oil Petroleum lubricating, Coal (Wallsend Hetton in London), Paraffin Wax, Wollen and worsted yarns, Woollen worsted manufactures, Cotton manufactures, Hats, Timber (Hewn, average import), Iron and steel manufactures 2) as for 1)	1) 86,3% (1923)	1) League of Nations (1925) League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)  Poland. Statistical Yearbook (1930).  2) as for 1)
<b>Puerto Rico IMP</b>	1800-1901	1) 1850-55 Fisher 2) 1856-1901 Laspeyres	1) Wheat (English Gazette), Fish, Cotton Manufactures, Linen manufactures, Timber (Hewn, average import), Soap, Tobacco manufactured 2) as for 1)	1) 50,5% (1855)	1) Bulmer-Thomas (2012)  2) as for 1)
<b>Puerto Rico EXP</b>	1800-1901	1) 1850-1900 Fisher 2) 1901 Laspeyres	1) Sugar unrefined, Molasses, Coffee (Rio good Channel), Tobacco unmanufactured, Tobacco manufactures 2) as for 1)	1) 96,2% (1855)	1) Bulmer-Thomas(2012) 2) as for 1)
<b>Portugal IMP</b>	1800-1850	1) 1800-41 Laspeyres 2) 1842-50 Fisher	1) Butter, Wheat Amsterdam, Sugar Brown, MEDIA: Coffee and Tea [coffe and tea], Tobacco brown, Cotton raw, Wool Spanish, Raw silk, MEDIA: Flax and Hemp [raw flax and hemp], Hides Buenos Aires, Coal, MEDIA: Cotton Raw (Berbice or Demerara) and Cotton textiles [cotton thread], Leather Butts, Timber, Iron Wrought bars, Copper Manufactured, Black tin, Cotton textiles 2) as for 1)	1) 65,7% (1848)	1) Pedro Lains (2007) and private communication.  2) as for 1)
<b>Portugal EXP</b>	1800-1850	1) 1800-38 Laspeyres 2) 1839-50 Fisher	1) Wine, Olive oil, Wool Spanish, Beeswax, Hides For dressing 2) as for 1)	1) 58,5% (1848)	1) - John Macgregor, Volume II (1850) - Pedro Lains (2007) and private communication  2) as for 1)
<b>Romania IMP</b>	1859-1938	1) 1859-1938 Fisher	1) Chemicals, Coal (Average Export price), Coffee (Ceylon plantation, low middling), Indigo, Cotton Manufactures, Cotton (Fair Dhollerah (Surat)), Cotton yarns, Earthenware, Fish, Hides (River plate dry), Iron and steel manufactures, Linen	1) 49,6% (1913)	1) United Kingdom <i>Tables of the revenue, population, 1836.</i>

			manufactures, Leather Dressing Hides, Leather and manufactures, Machinery hardware, Paper, Rice, Silk, Soap, Sugar (British west indian refining), Tobacco unmanufactured, Oil (olive), Road Motor cars, Wheat (English Gazette), Flour, Timber (Hewn, average import), Wool (english lincoln half hogs), Woollen worsted manufactures, Wollen and worsted yarns, Copper lingots, Fresh fruit, Beans		United Kingdom (foreign countries). <i>Statistical Abstract for the Principal and other Foreign Countries 1901 to 1912</i>  League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Romania EXP</b>	1859-1938	1) 1859-1938 Fisher	1) Barley, Beans, Eggs, Fish, Hides (River plate dry), Maize, Oats, Seeds (linseeds), Petroleum (refined), Rye, Sugar (British west indian refining), Wheat (English Gazette), Flour, Timber (Hewn, average import), Wool (merino, port phillip, average fleece), Indigo, Fresh fruit, Rubber crude, Cattle, Pork	1) 93,6% (1913)	1) 1) United Kingdom(annum) <i>Tables of the revenue, population, 1836.</i>  United Kingdom (foreign countries). <i>Statistical Yearbook, 1901 to 1912</i>  League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Russia IMP</b>	1850-1935	1) 1850-1935 Fisher	1) Coal (Average Export price), Coffee (Ceylon plantation, low middling), Copper Ore, Cotton manufactures, Cotton (Fair Dhollerah (Surat)), Cotton yarns, Hides (River plate dry), Indigo, Iron and steel manufactures, Iron (Scotch pig), Lead, Machinery hardware, Oil (olive), Rice, Silk (tsatlee), Tea (Average import price), Wine, Woollen worsted manufactures, Wool (merino, port phillip, average fleece), Wollen and worsted yarns, Chemicals, Fish, Currants, Oranges, Rubber crude, Seeds and nuts, Silk, Tobacco manufactures	1) 43,9% (1912)	1) United Kingdom (colonies) <i>Statistical Yearbook, 1836.</i>  United Kingdom (foreign countries). <i>Statistical Yearbooks 1901 to 1912</i>
<b>Russia EXP</b>	1800-1935	1) 1800-25 Laspeyres 2) 1826-50 Fisher 3) 1850-1935 Fisher	1) Flax (Russian average import), Hemp (St. Petersburg, clean), Hides Buenos Aires, Seeds (linseeds), Oats, Tallow St. Petersburg, Wheat, Wool (merino, port phillip, average fleece) 2) as for 1) 3) Barley, Wheat (English Gazette), Spirits, Butter, Cattle, Cotton manufactures, Eggs, Flax (Russian average import), Flax (Russian average import), Flour, Hides (River plate dry), Hemp (St. Petersburg, clean), Leather Dressing Hides, Seeds	1) 70% (1826) 3) 71,2% (1912)	1) United Kingdom (annum) <i>Tables of the revenue, population, 1836.</i>  United Kingdom (foreign countries). <i>Statistical Yearbooks 1901 to 1912</i>  2) as for 1)  3) United Kingdom (colonies) <i>Statistical Yearbook, 1836.</i>

			(linseeds), Maize, Oats, Petroleum (refined), Beans, Rye, Silk (tsatlee), Sugar unrefined, Tallow St. Petersburg, Wheat (English Gazette), Timber (Hewn, average import), Wool (merino, port phillip, average fleece), Woollen worsted manufactures		United Kingdom (foreign countries). Statistical Yearbooks 1901 to 1912
<b>Sao Tome e Principe EXP</b>	1850-1938	1) 1850-1938 Fisher	1) Cocoa	1) 100% (1913)	1) We use cacao price as representative of total exports
<b>Sarawak IMP</b>	1850-1938	1) 1850-1908 Laspeyres 2) 1909-38 Fisher	1) Cotton manufactures, Flour, Rice, Iron and steel manufactures, Machinery hardware, Petroleum (refined), Opium, Sugar unrefined, Tobacco unmanufactured, Fish, Wine, Tobacco manufactures, Boots and shoes of leather 2) as for 1)	1) 52,5% (1913)	1) United Kingdom (colonies). Statistical Yearbooks (1926), (1931), (1937)  2) as for 1)
<b>Sarawak EXP</b>	1850-1938	1) 1850-1908 Laspeyres 2) 1909-38 Fisher	1) Fish, Petroleum (refined), Crude petroleum, Pepper, Rubber crude, Copra 2) as for 1)	1) 34,5% (1913)	1) United Kingdom (colonies). Statistical Yearbooks (1926), (1931), (1937)  2) as for 1)
<b>Senegal IMP</b>	1850-1938	1) 1850-88 Laspeyres 2) 1889-99 Fisher 3) 1900-38 Laspeyres	1) Coffee (Rio good Channel), Sugar unrefined, Tobacco unmanufactured, Spirits, Steel bars, Salt, Cotton yarns, Cotton (Middling uplands), Iron and steel manufactures 2) as for 1) 3) as for 1)	1) 96,3% (1899)	1) Deloncle , Jean-Luis (1906) 2) as for 1)  3) as for 1)
<b>Senegal EXP</b>	1800-1938	1) 1800-89 Laspeyres 2) 1850-88 Laspeyres 3) 1889-99 Fisher 4) 1900-38 Laspeyres	1) Oil (palm), Hides Buenos Aires, Nuts and kernels  2) Oil (palm), Rubber crude, Nuts and kernels 3) as for 2) 4) as for 2)	1) 58,9% (1889) 2) 96,1% (1899)	1) Deloncle , Jean-Luis (1906) 2) as for 1) 3) as for 1) 4) as for 1)

<b>Serbia IMP</b>	1850-1938	1) 1850-1938 Fisher	1) Chemicals, Coal (Average Export price), Coffee (Rio good Channel), Copper lingots, Cotton yarns, Cotton manufactures, Fish, Fresh fruit, Hides (River plate dry), Iron and steel manufactures, Leather Dressing Hides, Leather manufactures, Petroleum (refined), Paper, Rice, Salt, Silk, Sugar (British west indian refining), Tobacco manufactures, Road Motor cars, Wine, Spirits, Wool (english lincoln half hogs), Earthenware, Cotton manufactures, Machinery hardware, Maize, Oil (olive), Soap, Timber (Hewn, average import), Wollen and worsted yarns, Woollen worsted manufactures, Wheat (English Gazette)	1) 74,9% (1913)	1) U.S.A (1909). Historical Statistics.  United Kingdom (foreign countries). Statistical Yearbooks 1901 to 1912  League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Serbia EXP</b>	1800-1938	1) 1800-50 Laspeyres 2) 1850-1938 Fisher	1) Pork Mess, Beef Irish, Leather Butts, Wheat Amsterdam  2) Barley, Cattle, Coal (Wallsend Hetton in London), Hemp (St. Petersburg, clean), Eggs, Fresh fruit, Hides (River plate dry), Butter, Maize, Beef (prime), Oats, Currants, Rye, Beans, Wheat (English Gazette), Flour, Timber (Hewn, average import), Cement, Chemicals, Nitrate (of soda), Paper, Copper lingots, Pork, Machinery hardware, Iron ore	1) 73,6 (1843) 2) 74,8% (1913)	1) Serbia. Sundhaussen H.(1989) 2) U.S.A (1909). HISTORICAL STATISTICS <i>Statistical Abstract of Foreign Countries</i>  United Kingdom (foreign countries). Statistical Yearbooks 1901 to 1912  League of Nations (1929) League of Nations (1933) League of Nations (1936) League of Nations (1938)
<b>Sierra Leone IMP</b>	1850-1938	1) 1850-1908 Laspeyres 2) 1909-38 Fisher	1) Beer and ale, Boots and shoes of leather, Cement, Coal (Wallsend Hetton in London), Cotton manufactures, Silk, Flour, Rice, Hats, Iron and steel manufactures, Machinery hardware, Timber (Hewn, average import), Salt, Spirits, Sugar (British west indian refining), Tobacco unmanufactured, Tobacco manufactures, Woollen worsted manufactures, Road Motor cars, Wine	1) 68,2% (1913)	1) United Kingdom (colonies). Statistical Yearbooks (1926), (1931), (1937)  2) as for 1)
<b>Sierra Leone EXP</b>	1800-1938	1) 1800-50 Laspeyres 2) 1850-1908 Laspeyres 3) 1909-38 Fisher	1) Indigo, Ginger, Hides For dressing, Timber Pine, Pepper White, Beeswax , Coffee Ordinary 2) Coffee (Rio good Channel), Oil (palm), Iron Ore 3) as for 2)	1) 86,8% (1836) 2) 94,8% (1913)	1) United Kingdom Statistical Yearbooks. 1836.  2) United Kingdom (colonies). Statistical Yearbooks

					(1926) (1931), (1937)
					3) as for 2)
<b>Somaliland IMP</b>	1850-1938	1) 1850-1900 Laspeyres 2) 1901-38 Fisher	1) Fresh fruit, Rice, Sugar unrefined, Cotton piece printed, Cotton piece bleached 2) as for 1)	1) 80,9% (1913)	1) United Kingdom (colonies). Statistical Yearbooks (1900-1914), (1926) (1931), (1937)
					2) as for 1)
<b>Somaliland EXP</b>	1850-1938	1) 1850-1900 Laspeyres 2) 1901-38 Fisher	1) Butter, Rubber crude, Sheep and lambs, Hides (River plate dry) 2) as for 1)	1) 89,3% (1913)	1) United Kingdom (colonies). Statistical Yearbooks (1900-1914), (1926) (1931), (1937)
					2) as for 1)
<b>South Africa IMP</b>	1800-1938	1) 1800-58 Laspeyres 2) 1850-1938 Fisher	1) Cotton manufactures, Beer and ale, Coal (Wallsend Hetton in London), Coffee (Rio good Channel), Iron and steel manufactures, Leather and manufactures, Sugar unrefined, Woollen worsted manufactures  2) Butter, Cheese, Coal (Average Export price), Coffee (Rio good Channel), Cotton manufactures, Iron and steel manufactures, Machinery hardware, Pork, Rice, Spirits, Sugar unrefined, Tea (Average import price), Tobacco unmanufactured, Wheat (English Gazette), Wine, Timber (Hewn, average import), Woollen worsted manufactures, Beer and ale, Boots and shoes of leather	1) 52,9% (1858) 2) 43,7% (1913)	1) United Kingdom (colonies). Statistical Yearbooks. (1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891)  United Kingdom (colonies). Statistical Yearbooks (1905) (1926), (1931), (1937)

<b>South Africa EXP</b>	1800-1938	1) 1800-50 Laspeyres 2) 1850-1938 Fisher	1) Beef Irish, Butter Waterford, Copper Manufactured, Wheat Amsterdam, Oats British, Hides For dressing, Iron Wrought bars, Yellow soap, Sugar Brown, Tallow, Tea Middling, Tobacco Brown, Wine, Wool Spanish  2) Coal (Wallsend Hetton in London), Fish, Wool (merino, port phillip, average fleece), Hides (River plate dry), Wine, Wool (english lincoln half hogs), Copper Ore, Sheep and lambs	1) 72,4% (1836) 2) 15,7% (1913)	1) 1) United Kingdom (colonies). Statistical Yearbooks (1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891)  United Kingdom (colonies). Statistical Yearbooks (1905) (1926), (1931), (1937).
<b>South West Africa IMP</b>	1850-1938	1) 1850-1918 Laspeyres 2) 1919-38 Fisher	1) Coffee (Rio good Channel), Flour, Maize, Sugar unrefined, Tea (Congou, common), Tobacco manufactures, Boots and shoes, Cotton manufactures, Iron and steel manufactures, Machinery hardware, Road Motor cars, Petroleum (refined), Soap, Spirits  2) as for 1)	1) 47,6% (1919)	1) United Kingdom (colonies). Statistical Yearbooks (1905) (1926), (1931), (1939).  2) as for 1)
<b>South West Africa EXP</b>	1850-1938	1) 1850-1918 Laspeyres 2) 1919-38 Fisher	1) Cattle, Sheep and lambs, Butter, Fish, Beef (middling), Hides (River plate dry), Copper Ore, Lead (English pig), Tin Ore, Wool (english lincoln half hogs) 2) as for 1)	1) 43,3% (1929)	1) United Kingdom (colonies). Statistical Yearbooks (1905) (1926), (1931), (1939).  2) as for 1)
<b>Southern Rhodesia IMP</b>	1850-1938	1) 1850-1908 Laspeyres 2) 1909-38 Fisher	1) Cotton manufactures, Jute Canvas and Sacking, Boots and shoes of leather, Cotton piece bleached, Chemicals, Wheat (English Gazette), Flour, Silk, Wollen pice light all wool, Iron and steel manufactures, Machinery hardware, Electrical machinary, Road Motor cars, Petroleum (refined), Rails, Spirits, Sugar unrefined, Tobacco manufactures, Timber (Hewn, average import), Paper 2) as for 1)	1) 56% (1913)	1) United Kingdom (colonies). Statistical Yearbooks. (1926), (1931),(1937)  2) as for 1)
<b>Southern Rhodesia EXP</b>	1850-1938	1) 1850-1908 Laspeyres 2) 1909-38 Fisher	1) Butter, Cattle, Fresh fruit, Coal (Wallsend Hetton in London), Copper lingots, Maize, Hides (River plate dry), Iron Ore, Tobacco unmanufactured, Tobacco manufactures 2) as for 1)	1) 56,3% (1913)	1) United Kingdom (colonies) Statistical Yearbooks (1926), (1931), (1937)  2) as for 1)

<b>Sudan IMP</b>	1850-1938	1) 1850-1908 Laspeyres 2) 1909-38 Fisher	1) Boots and shoes of leather, Coal (Wallsend Hetton in London), Coffee (Ceylon plantation, low middling), Cotton piece bleached, Flour, Rice, Wheat (English Gazette), Iron and steel manufactures, Machinery hardware, Soap, Spirits, Sugar (British west indian refining), Tea (Congou, common), Timber (Hewn, average import), Tobacco unmanufactured, Tobacco manufactures, Road Motor cars 2) as for 1)	1) 61,5% (1913)	1) United Kingdom (colonies). Statistical Yearbooks (1926), (1931), (1937) 2) as for 1)
<b>Sudan EXP</b>	1850-1938	1) 1850-1908 Laspeyres 2) 1909-38 Fisher	1) Cattle, Coal (Wallsend Hetton in London), Cotton (Fair Dhollerah (Surat)), Seeds: cotton, Raisins, Maize, Rubber crude, Hides (River plate dry), Sesamum 2) as for 1)	1) 77% (1913)	1) United Kingdom (colonies). Statistical Yearbooks (1926), (1931), (1937) 2) as for 1)
<b>Switzerland IMP</b>	1913-30	1) 1913-30 Laspeyres	1) Cattle, Beef (middling), Butter, Eggs, Wheat (English Gazette), Fresh fruit, Coffee (Ceylon plantation, low middling), Cocoa, Sugar unrefined, Oil (linseeds), Wine, Tobacco unmanufactured, Timber (sawn or split, average import), Iron (Bars), Copper (Chili Bars), Coal (Newcastle Steam), Oil Petroleum lubricating, Wool (english lincoln half hogs), Silk (tsatlee), Cotton (Fair Dhollerah (Surat)), Indigo, Chemicals, Leather and manufactures, Woollen worsted manufactures, Silk, Cotton manufactures, Jute Canvas and Sacking, Caoutchouc manufactured, Timber (Hewn, average import), Earthenware, Iron and steel manufactures, Machinery hardware, Road Motor cars	1) 74,5% (1925)	1) League of Nations (1925) League of Nations (1929) League of Nations (1933)
<b>Switzerland EXP</b>	1800-92; 1913-30	1) 1800-92 Laspeyres 2) 1913-30 Laspeyres	1) Beef (middling), Cocoa, Tobacco manufactures, Hides Buenos Aires, Leather Crop Hides, Indigo, Timber (Hewn, average import), Copper (Chili Bars), Iron (Bars), Iron Ore, Cheese  2) Milk, Cheese, Hides (River plate dry), Iron (Bars), Copper (Chili Bars), Wool (english lincoln half hogs), Silk (tsatlee), Soap, Indigo, Chemicals, Leather and manufactures, Boots and shoes of	1) 12,5% (1892) 2) 69,2% (1925)	1) Historical Statistics. Switzerland (online) 1892-1959. 2) League of Nations (1925) League of Nations (1929) League of Nations (1933)



			leather, Cotton yarns, Woollen worsted manufactures, Silk, Cotton piece unbleached, Cotton manufactures, Iron and steel manufactures, Electrical machinery, Machinery hardware, Textil Machinery		
<b>Syria and Lebanon IMP</b>	1850-1938	1) 1850-1938 Laspeyres	1) Wheat (English Gazette), Rice, Oil (palm), Sugar unrefined, Coal (Wallsend Hetton in London), Chemicals, Valonia, Leather and manufactures, Caoutchouc manufactured, Timber (Hewn, average import), Paper, Silk, Wollen and worsted yarns, Cotton manufactures, Iron (Bars), Machinery hardware, Electrical machinery, Road Motor cars	1) 70,4% (1937)	1) France. Statistical Yearbooks (1937)
<b>Syria and Lebanon EXP</b>	1850-1938	1) 1850-1938 Laspeyres	1) Eggs, Vegetables, Beans, Oranges, Currants, Almonds, Fresh fruit, Wheat (English Gazette), Barley, Flour, Oil (olive), Tobacco unmanufactured, Cement, Leather Dressing Hides, Silk (tsatlee)	1) 46,3% (1937)	1) France. Statistical Yearbook (1937)
<b>Tanganyika IMP</b>	1850-1938	1) 1850-1919 Laspeyres 2) 1920-38 Fisher	1) Cotton manufactures, Coal (Wallsend Hetton in London), Cotton piece bleached, Silk, Rice, Wheat (English Gazette), Jute Canvas and Sacking, Machinery hardware, Road Motor cars, Cement, Sugar unrefined, Rails, Galvanised corrugated sheets, Iron and steel manufactures, Tobacco manufactures, Spirits 2) as for 1)	1) 69,8% (1920)	1) United Kingdom (colonies) Statistical Yearbooks. (1926), (1931), (1937) 2) as for 1)
<b>Tanganyika EXP</b>	1850-1938	1) 1850-1919 Laspeyres 2) 1920-38 Fisher	1) Coffee (Ceylon plantation, low middling), Cotton (Middling uplands), Hides (River plate dry), Butter, Rice, Paraffin Wax, Nuts and kernels, Sesamum, Hemp (Manila, Fair Roping) 2) as for 1)	1) 78,3% (1920)	1) United Kingdom (colonies). Statistical Yearbooks (1926), (1931), (1937) 2) as for 1)
<b>Thailand IMP</b>	1850-1938	1) 1850-1938 Laspeyres	1) Opium, Road Motor cars, Chemicals, Earthenware, Copper (Chili Bars), Coal (Wallsend Hetton in London), Cotton yarns, 1) Cotton manufactures, Jute Canvas and Sacking, Hats, Iron (Bars), Iron (Scotch pig), Galvanised corrugated sheets, Iron and steel manufactures, Machinery	1) 54,4% (1905)	1) U.S.A (1909). Historical Statistics



			hardware, Leather and manufactures, Spirits, Petroleum (refined), Paper, Indigo, Silk, Sugar unrefined, Timber (Hewn, average import), Tea (Congou, common)		
<b>Thailand EXP</b>	1850-1938	1) 1850-1938 Laspeyres	1) Cattle, Fish, Rice, Timber (Hewn, average import)	1) 81,9% (1896)	1) U.S.A (1909). Historical Statistics
<b>Trinidad and Tobago IMP</b>	1850-1938	1) 1850-1938 Fisher	1) Cotton manufactures, Coal (Wallsend Hetton in London), Fish, Flour, Machinery hardware, Leather Dressing Hides, Timber (Hewn, average import), Beef (middling), Rice	1) 43,7% (1913)	1) United Kingdom (colonies). Statistical Yearbooks (1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891)  United Kingdom (colonies). Statistical Yearbooks (1905), (1926), (1931), (1937)
<b>Trinidad and Tobago EXP</b>	1800-1938	1) 1800-35 Laspeyres 2) 1836-50 Fisher 3) 1850-1938 Fisher	1) Cocoa, Rum, Sugar Brown 2) as for 1) 3) Cocoa, Spirits, Sugar unrefined, Petroleum (refined)	1) 94,2% (1836) 3) 71,8% (1913)	1) United Kingdom (colonies). Statistical Yearbooks (1853 to 1867), (1855 to 1869), (1864 to 1878), (1877 to 1891)  United Kingdom (colonies). Statistical Yearbooks. (1905)(1926), (1931), (1937)
<b>Tunis IMP</b>	1850-1938	1) 1850-1938 Laspeyres	1) Road Motor Cars, Barley, Beans, Butter, Cattle, Cheese, Chemicals, Coal (Wallsend Hetton in London), Coffee (Rio good Channel), Copper lingots, Maize, Cotton manufactures, Cotton yarns, Currants, Indigo, Eggs, Fish, Fresh fruit, Iron and steel manufactures, Lead (English pig), Leather and manufactures, Boots and shoes of leather, Phosphate of Lime and Rock, Linen manufactures, Timber (Hewn, average import), Beef (prime), Petroleum (refined), Nuts and kernels, Pepper, Potatoes, Rice, Silk (tsatlee), Spirits, Rails, Sugar unrefined, Tin (Straits), Tobacco manufactures, Tobacco unmanufactured, Oil (olive), Wheat (English Gazette), Flour, Wine, Wollen worsted manufactures, Wool (english lincoln half hogs), Wollen and worsted yarns, Cement, Milk	1) 68,8% (1902)	1) U.S.A (1909). Historical Statistics.
<b>Tunis EXP</b>	1800-1938	1) 1800-50 Laspeyres	1) Wool Spanish. Leather Butts British. Hides for dressing, Olive oil, Beeswax, Yellow soap	1) 80,9% (1839) 2) 70,4% (1902)	1) Macgregor (1850) Vol. II 2) Department of Commerce and Labor, Bureau of Statistics (1909)

		2) 1850-1938 Laspeyres	2) Barley, Beans, Cattle, Copper Ore, Cotton manufactures, Currants, Eggs, Phosphate of Lime and Rock, Fish, Seeds (linseeds), Hides (River plate dry), Lead (English pig), Timber (Hewn, average import), Oats, Oil (olive), Spirits, Wheat (English Gazette), Flour, Wine, Wollen worsted manufactures, Wool (english lincoln half hogs), Soap, Zinc Ore		
<b>Turkey IMP</b>	1850-1938	1) 1850-1923 Laspeyres 2) 1924-38 Fisher	1) Sugar (British west indian refining), Tea (Congou, common), Coffee (Ceylon plantation, low middling), Wheat (English Gazette), Rice, Paper, Cotton manufactures, Wollen worsted manufactures, Wollen and worsted yarns, Cotton yarns, Iron (Bars), Copper Ore, NON-Steam Engine: Agricultural, Petroleum (refined) 2) as for 1)	1) 96,3% (1929)	1) Turkey.Statistical Yearbooks, 1940-1941.  2) as for 1)
<b>Turkey EXP</b>	1800-1938	1)1800-54 Laspeyres 2) 1850-1923 Laspeyres 3) 1924-38 Fisher	1) Wheat (English Gazette), Madder Root, Oil (olive), Seeds (linseeds), Silk (tsatlee), Hides Buenos Aires, Tobacco unmanufactured, Valonia, Wool (english lincoln half hogs), Oil (linseeds), Copper (English Tough Cake)  2) Tobacco unmanufactured, Tobacco manufactures, Oil (olive), Seeds and nuts, Fresh fruit, Eggs, Raisins, Opium, Wheat (English Gazette), Barley, Silk (tsatlee), Wool (merino, adelaide, average grease), Wool (english lincoln half hogs), Mutton Middling, Beef (middling), Cotton (Fair Dhollerah (Surat)), Coal (Average Export price) 3) as for 2)	1) 71,9% (1854) 3) 86,9% (1929)	1) United Kingdom Annual Statement of the Trade 1857.  France. Tableau Décennal du Commerce (1847 a 1856).  2) Turkey. Statistical Yearbooks, 1940-1941.  3) as for 2)
<b>UK IMP</b>	1913-1920	1) 1913-20 Fisher	1) Wheat (English Gazette), Barley, Oats, Rye, Maize, Rice, Beef (middling), Cattle, Butter, Eggs, Fish, Seeds: cotton, Beer and ale, Spirits, Milk, Tobacco manufactured, Coal (Wallsend Hetton in London), Iron Ore, Timber (Hewn, average import), Cotton (Fair Dhollerah (Surat)), Wool (english lincoln half hogs), Silk (tsatlee), Flax (Russian average import), Oil (linseeds), Hides (River plate dry), Paper, Rubber crude, Earthenware, Iron and	1) 87,9% (1913)	1) United Kingdom. Trade Statistics Annual Statement (1920)

			steel manufactures, Electrical Machinery, Machinery hardware, Cotton yarns, Cotton piece bleached, Cotton manufactures, Wollen and worsted yarns, Woollen worsted manufactures, Silk, Linen manufactures, Chemicals, Petroleum (refined), Leather and manufactures, Road Motor cars, Caoutchouc manufactured		
<b>UK EXP</b>	1913-1920	1) 1913-20 Fisher	1) Wheat (English Gazette), Barley, Oats, Rye, Flour, Beef (middling), Cattle, Butter, Fish, Potatoes, Cocoa raw, Coffee (Ceylon plantation, low middling), Currants, Raisins, Sugar (British west indian refining), Sugar unrefined, Tea (Congou, common), Wine, Tobacco unmanufactured, Coal (Wallsend Hetton in London), Iron Ore, Timber (Hewn, average import), Cotton (Fair Dhollerah (Surat)), Wool (english lincoln half hogs), Silk (tsatlee), Jute (Good medium), Oil (linseeds), Hides (River plate dry), Paper, Rubber crude, Earthenware, Iron and steel manufactures, Electrical Machinery, Machinery hardware, Cotton yarns, Cotton manufactures, Wollen and worsted yarns, Woollen worsted manufactures, Silk, Linen manufactures, Chemicals, Petroleum (refined), Leather and manufactures, Road Motor cars, Caoutchouc manufactured	1) 90,3% (1913)	1) United Kingdom. Trade Statistics Annual Statement (1920)
<b>Uruguay IMP</b>	1800-1938	1) 1800-70 Laspeyres 2) 1850-1891 Laspeyres 3) 1892-1926 Fisher 4) 1927-38 Laspeyres	1) Cotton (Middling uplands), Copper Ore, Iron Ore, Wine, Wool (english lincoln half hogs), Linen manufactures, Timber (Hewn, average import), Hides (River plate dry), Silk (tsatlee) 2) Cattle, Wine, Tobacco manufactures, Cotton manufactures, Petroleum (refined), Indigo, Chemicals, Timber (Hewn, average import), Paper, Leather and manufactures, Iron and steel manufactures, Earthenware 3) as for 2) 4) as for 2)	1) 70,3% (1872) 2) 65,9% (1911)	1) Acevedo Díaz, Eduardo, (1933) p.712 2) Uruguay. Anuario Estadístico de la República Oriental del Uruguay 3) as for 2) 4) as for 2)
<b>Uruguay EXP</b>	1800-1871	1) 1800-56 Laspeyres	1) Beef (prime), Hides Buenos Aires, Tallow, Wool (english lincoln half hogs)	1) 76,9% (1856) 2) 75,4% (1871)	1) United Kingdom (foreign countries). Statistical Yearbooks.

		2) 1850-71 Fisher	2) Beef (middling), Cattle, Hides (River plate dry), Tallow St. Petersburg, Wool (english lincoln half hogs)		2) Bonino-Tena-Willebald (2015)
<b>Zanzibar IMP</b>	1850- 1938	1) 1850-1908 Laspeyres 2) 1909-38 Fisher	1) Cattle, Coal (Wallsend Hetton in London), Copra, Cotton piece bleached, Cotton manufactures, Silk, Machinery hardware, Fish, Flour, Butter, Rice, Hides (River plate dry), Petroleum (refined), Sesamum, Sugar unrefined, Tea (Congou, common), Tobacco manufactures 2) as for 1)	1) 67,1% (1914)	1) United Kingdom (colonies). Statistical Yearbooks (1926), (1931), (1937)  2) as for 1)
<b>Zanzibar EXP</b>	1850- 1938	1) 1850-1908 Laspeyres 2) 1909-38 Fisher	1) Cinnamon, Copra 2) as for 1)	1) 97,9% (1914)	1) United Kingdom (colonies). Statistical (1926),(1931),(1937)  2) as for 1)

## Appendix I: - Freight series (inbound, outbound) (World Trade 1800-1938 Appendix Excell File)

### Appendix I: Freight sources

#### a) UK Inbound freights (export i-th country)

	<i>Product</i>	<i>Source</i>	<i>Period</i>		<i>Source</i>	<i>Period</i>	<i>Source</i>	<i>Period</i>	<i>Source</i>	<i>Period</i>
<i>Northern Europe</i>										
Danzig	Wheat	KL	1848-61		North	1855-1913				
St-Petersburg	Deals	KL	1848-61		Ha	1854-1913	WS	1869-1938		
Baltic	Timber	Ha	1800-1848							
<i>Southern Europe</i>										
Spain (Cadiz)	Salt	KL	1850-61							
Spain (Bilbao)	Ore	JP	1871-1912		WS	1871-1938				
Sulina (Romania)	Wheat	KL	1848-61		JP	1869-1913	WS	1869-1938		
Varna (Bulgaria)	Wheat	KL	1848-61		Linear interpolate	1862-83	JP	1884-1913	WS	1869-1938
Odessa	Wheat	KL	1848-61		Ha	1840-1912	WS	1869-1938		
Poti (Black Sea)	Ore	JP	1889-1914		Interpoated with Wheat (Odessa)	1920-38				
<i>North Africa</i>										
Alexandria	Beans	KL	1849-61							
Alexandria	cottonseed	Interpolated with Beans (Alexandria)	1849-60		Interpoated with Wheat (Odessa)	1861-67	JP	1869-1913	WS	1869-1938
<i>Asia</i>										
Bombay	cotton	KL	1849-61							

Bombay	general	Interpolat ed with Cotton (Bombay)	1849-60		Interpolated with Generic (Java)	1862-71	JP	1872-1913	WS	1869-1938
Calcutta	grain						WS	1869-1938		
	General	KL	1849-61		Interpolated with Generic (Java)	1861-70			Interpolat ed with General (Bombay)	1914-38
	Jute						JP	1871-1913		
Java	Sugar						Fe	1848-1938		
	Generic						Korthals Altes	1848-1938		
Manilla	Hemp	Interpolat ed with Generic (Java)	1848-68		JP	1869-1913	Interpolat ed with Generic (Java)	1914-38		
Rangoon	Rice	KL	1849-61		JP	1869-1913	Interpolat ed with Generic (Java)	1914-38		
Shangai	Tea	KL	1850-61		Interpolated with Generic (Java)	1862-84	WS	1884-1938		
Indonesia	Sugar	CF	1823-70							
Indonesia	Coffee	CF	1823-70							
<i>Oceania</i>										
Melbourne	Wheat	JP	1887-1913		Interpolated with Tea (Shangai)	1914-38				
<i>South America</i>										
Peru	Guano	KL	1850-61							
Chile	Nitrate				Interpolated with Coffee (Rio Janeiro)	1862-69	WS	1869-1936	Interpolat ed with Grain (East (Atlantic))	1937-38
Rio Grande	Hides	KL	1849-61		JP	1870-71	Interpolat ed with Grain	1872-1938		

							(East (Atlantic))			
Rio Janeiro	Coffee	KL	1849-61		Ha	1857-78	Interpolat ed with Grain (East (Atlantic))	1879-1938		
Buenos Ayres	Wheat	Interpolat ed with Hides (Rio Grande)	1849-56		Interpolated with Coffee (Rio Janeiro)	1857-68	JP	1887-1913	Interpolat ed with Grain (East (Atlantic))	1914-38 1869-86
North America										
East (Atlantic)	Grain	WS	1869-1938							
USA	Wheat	CF	1814-1938							
USA	Cotton	CF	1814-1938							

## Appendix I: Freight sources

**b) Outbound freights (imports i-th country)**[illegible]

<i>Africa</i>									
Alexandria	Coal	KL	1848-1861	JP	1869-1913	WS	1869-1938		
Cape Verde	Coal	Interpolat ed with Cape Town	1848-1869	JP	1870-1902	Interpolat ed with Cape Town	1903-1938		
Cape Town	Coal	KL	1848-1861	JP	1869-1913	Interpolat ed with East (Atlantic)	1914-1938		
<i>Asia</i>									
Colombo	Coal	Interpolat ed with Calcutta	1850-1852	Ha	1853-1885	JP	1870-1913	Interpolat ed with East (Atlantic)	1914-1938
Singapore	Coal	KL	1848-1861	JP	1869-1913	Interpolat ed with East (Atlantic)	1914-1938		
Calcutta	Coal	KL	1848-1861						
<i>South America</i>									
Buenos Aires	Coal	KL	1848-1861	Ha	1862-1885	JP	1869-1913	Interpolat ed with East (Atlantic)	1914-1938
Chile	Coal	KL	1848-1861	Ha	1859-1891	JP	1870-1913	Interpolat ed with East (Atlantic)	1914-1938
Rio de Janeiro	Coal	KL	1848-1861	JP	1869-1913	Interpolat ed with East (Atlantic)	1914-1938		
<i>North America</i>									
<i>East (Atlantic)</i>	Coal					WS	1869-1938		



Ha: Harley (1989)

JP: Jacks and Pendakur (2010)

KL: Klovland (2006)

North: North (1958)

WS: Shah and Williamson (2003)

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## **HISTORICAL STATISTICS (nationals by country and comparative by author)**

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