

# Swedish Trade and Tariffs during the Napoleonic Wars

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## Preliminary disposition for the dissertation

### Introduction

- Short intro on small/ weak states vs. large/powerful states, and Swedish foreign trade/ neutrality in war.
- Research questions – small states' neutrality as a tool for trade, as well as tariffs as another tool. During wartime a states' trade policy can be viewed as such (simplified):



- Policy-changes during the Napoleonic wars – what, how and why? Effects on trade; changing trade patterns in terms of commodities and trading partners?
- Limitations. Period: 1780-1830. Sweden, but possibly also comparisons with England and Denmark in regards to tariffs.

### Theory

- War and trade (Barbieri & Levy, Findlay & O'Rourke, Davis & Engerman, Förland, etc.)
- Small states and neutrality/ war (Karsh, Ackerman, Handel, af Malmborg for Sweden particularly)
- Tariffs (Williamson, Irwin, Anderson & Neary, Capie, McGillivray et al., etc.)

### Background

- The Napoleonic Wars (parties, events, character and dynamic of the war)
- Sweden's position (from declared neutrality and military non-involvement to involvement and war with Russia 1809)
- The organization of Sweden's foreign trade and the institutions for this
- The organization of Swedish tariffs and the institutions for this – who set the tariffs and how?

### Empirical investigation

- Swedish foreign trade during the period (essentially 1780-1830), partly on its own (such as changes in the composition of commodities and changing geographical

patterns, trading partners) but also in relation to other nations – can we speak of gained “market-shares”?

- Tariff levels 1782-1830. What can we see from the tariff levels before, during and after the war, were there any changes in policy? Different during the war compared to before and after?
- Qualitative material – can something be interpreted from the discussions on foreign trade, and the possible expansion of it, and the role for tariffs?
- Statistical analysis, can the role for tariffs and importance for foreign trade be measured? Regressions with other relevant variables.

### **Concluding analysis**

- Trade policy and war – business as usual or exception to the rule?
- The importance of tariffs for foreign trade – what does the investigation tell us in regard to existing theory and earlier research?
- Small states’ strategies and tools of trade – the impact of external shocks

## Swedish Foreign Trade 1780-1830 – A New Take

Swedish foreign trade during the late 18<sup>th</sup> century and early 19<sup>th</sup> century has been covered pretty extensively in earlier research. The levels in foreign trade and shipping for the long 18<sup>th</sup> century (ending with the definite defeat of Napoleon in 1815) have been investigated thoroughly by Staffan Högberg<sup>1</sup> and Eil Heckscher<sup>2</sup>. The trade in particular goods has also been a subject of interest, where for instance Karl Åmark<sup>3</sup> has written about grains. For a history of institutions, such as the National Board of Trade<sup>4</sup>, Sven Gerentz<sup>5</sup> has done grand work, as has both Kurt Samuelsson<sup>6</sup> and Leos Müller<sup>7</sup> on the role of merchant houses. Lars Magnusson<sup>8</sup> has more than once returned to the doctrinaire side of the trade coin. For particular bilateral trade, look for instance to Jan Thomas Lindblad's<sup>9</sup> exposé of Swedish-Dutch relations over the 18<sup>th</sup> century. With all that has been written so far, what could be the point of bringing out from the shadows the same foreign trade material again? What new knowledge can we gain from twisting, turning and torturing the data all over again? Well, as with many other aspects of the human life it has to do with what sense of perspective you enter the problem.

Little attention has been devoted to putting the development of Swedish foreign trade during the period in relation to two major aspects: the Napoleonic Wars, 1792-1815, and tariffs as an expression of trade policy and a condition for trade itself. Both Högberg and Heckscher did make minor references in their works to the state of major war Europe found itself in and its implications for Swedish trade. Heckscher's treatment of the tariff-issue can however be mostly regarded as inattentive at best. Earlier larger studies of Swedish tariffs

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<sup>1</sup> Högberg, S (1969). *Utrikeshandel och sjöfart på 1700-talet : stapelvaror i svensk export och import 1738-1808*. Stockholm: Bonnier.

<sup>2</sup> Heckscher, E. F. (1949). *Sveriges ekonomiska historia från Gustav Vasa. D. 2, Det moderna Sveriges grundläggning, Halvbd 2*. Stockholm: Bonnier.

<sup>3</sup> Åmark, K. (1915). *Spannmålshandel och spannmålspolitik i Sverige 1719-1830*. Stockholm.

<sup>4</sup> Kommerskollegium

<sup>5</sup> Gerentz, S (1951). *Kommerskollegium och näringslivet : minnesskrift*. Stockholm.

<sup>6</sup> Samuelsson, K. (1951). *De stora köpmanshusen i Stockholm 1730-1815 : en studie i den svenska handelskapitalismens historia*. Stockholm.

<sup>7</sup> Müller, L. (1998). *The merchant houses of Stockholm, c. 1640-1800 : a comparative study of early-modern entrepreneurial behaviour*. Uppsala: Acta Universitatis Upsaliensis.:

<sup>8</sup> But see particularly Magnusson, L. (2004). *The tradition of free trade*. London: Routledge.

<sup>9</sup> Lindblad, J. T. (1982). *Sweden's trade with the Dutch republic 1738-1795 : a quantitative analysis of the relationship between economic growth and international trade in the eighteenth century*. Assen: Van Gorcum.

have either revolved around the early 18<sup>th</sup> century<sup>10</sup>, or excluded the period of the Napoleonic Wars<sup>11</sup>.

Neither aspect has been given the attention that is theoretically called for when wanting to explain the development of a state's foreign trade during the dramatic half-century 1780-1830. Explaining determinants of international trade flows is not the only aspect that will be covered by this study, but also to try to explore the links between war and trade, and tariffs and trade – and possibly the connections between the three. This focus would tap into an already rich research area in several ways.<sup>12</sup> The links between war and trade have been studied quite extensively, although the main focus of the international academic community has been on violent conflicts after the end of World War II. What is essentially meant here is how the outbreak of war affects international trade. The equally investigated issue of how trade relations can influence the likelihood of war and violent conflicts is as interesting, but lies outside the scope and relevance of this particular study.

As mentioned earlier, it is the clear opinion of the author that the role of tariffs has been heavily underestimated in previous research as an explanatory factor in the development of Swedish foreign trade. Tariffs may also be used as an actual, perhaps even the most clear, portrayal of a nation's trade policy. Hence, tariffs will here be treated as both policy intentions and as factors of actual significance, whichever significance that might be. In a sense the study will challenge the claim of Swedish economic history's grand name, Eli Heckscher, that the trade policies of the time didn't have any direct effect on the actual developments of trade, but that they should be seen only as an expression of stakeholders' desires.<sup>13</sup> This is not to say that tariffs would hold full explanatory power, but that they could be assigned *some* effect. It is often found in the literature on tariffs and trade that a rise in toll-taxes is accountable for at least a part of the decline in actual trade numbers:

“[W]hile it is often noted that the effect of the tariff can be avoided to some extent, there is no escaping the fact that trade is impaired. As we have noted, the accompanying fall in some countries has sometimes been steep. There follow declines in shipping and services and so on.”<sup>14</sup>

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<sup>10</sup> Aldman, L-A. (2008). *En merkantilistisk början : Stockholms textila import 1720-1738*. Uppsala: Acta Universitatis Upsaliensis.:

<sup>11</sup> Montgomery, A. (1921). *Svensk tullpolitik 1816-1911 : översikt*. Stockholm.

<sup>12</sup> This discussion will not be developed in full here, but will certainly be done so in the dissertation.

<sup>13</sup> Heckscher, E. F. (1949)., p. 662.

<sup>14</sup> Capie, F. (1994). *Tariffs and growth : some illustrations from the world economy, 1850-1940*. Manchester: Manchester University Press., p. 94.

The implication underlying the research here is quite simple, bordering on the banal - that tariffs matter. The large task is to find out how and to what extent they play a role, here under the conditions given by the Napoleonic Wars.

The following presentation should be seen as work in progress, a start to an empirical chapter in the dissertation which will map the development of Swedish foreign trade and tariff-levels between 1780 and 1830.

What I would want help with the most (although any helpful or constructive comment is appreciated) at this stage is: how to find more data on international foreign trade, whether other measurements of trade should be used, alternative categorisations of trade and tariffs, and how to proceed analytically from here.

### **The development of Swedish foreign trade 1780-1830**

The evolution of Swedish foreign trade and shipping during the 18<sup>th</sup> century is usually described as a success story. Even the French historian Fernand Braudel devoted some (albeit minor) attention to the extraordinary Swedish shipping during the 1700's in his grand work on global economic history.<sup>15</sup> According to the calculations of Swedish economic historian Staffan Högberg, shipping between Sweden and the rest of the world (mainly Europe) was almost twice as high between 1790 and 1808 compared to the early 18<sup>th</sup> century (1734-1750).<sup>16</sup> Högberg's conclusion was that it was "in all likelihood" the growth in exports which determined the development of Swedish shipping during the period.<sup>17</sup>

A country's shipping is of course not necessarily the same as its foreign trade, even though they can be an indication of one another. Goods to and from Sweden could just as well have been carried on foreign vessels. Since the main concern here is exports from and imports to the country, it will not be discerned whether it was brought on Swedish ships or not.

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<sup>15</sup> Braudel, F. (1982). *Civilization and capitalism : 15th-18th century. Vol. 2, The wheels of commerce*. London: Collins., p. 218-219.

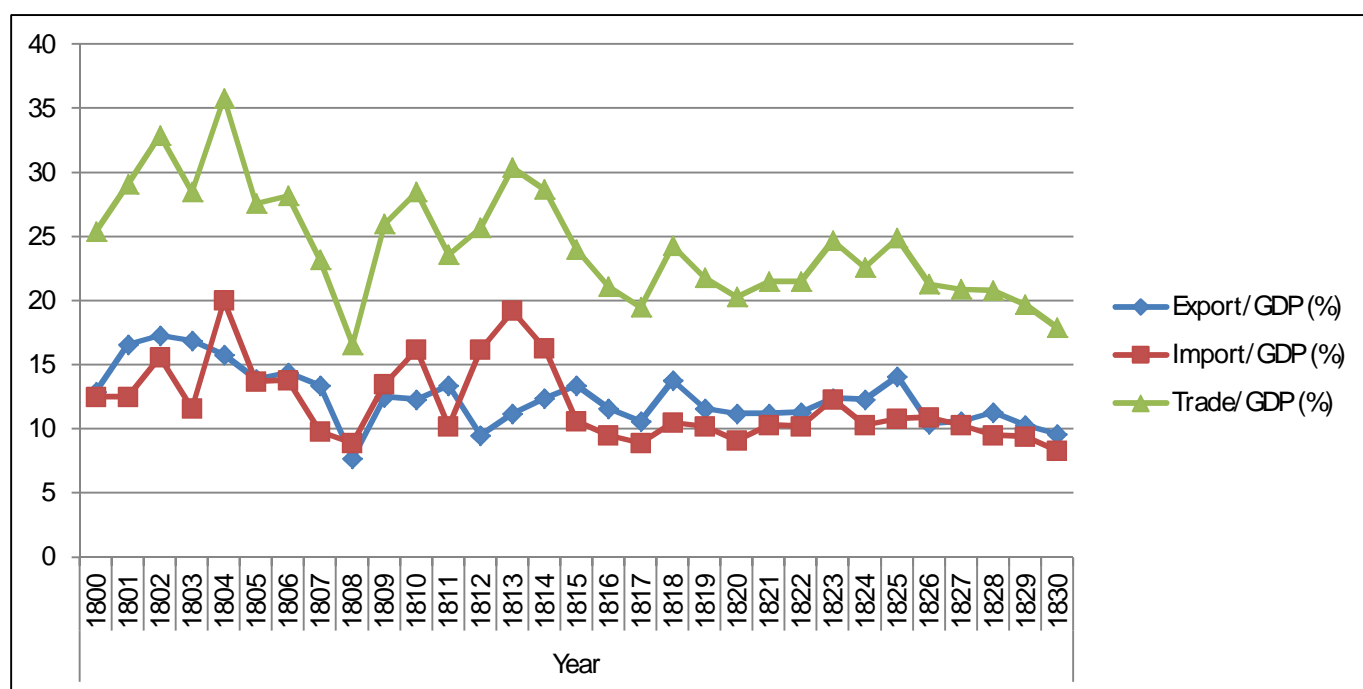
<sup>16</sup> Högberg, S (1969)., p. 12.

<sup>17</sup> *Ibid.*, p. 25.

Heckscher stated that the nation's foreign trade and shipping was of particular interest to those with the political and economic power during the period, second among the domestic industries only to the manufacture industries.<sup>18</sup> Maurits Nyström later added that domestic trade was subordinate to the foreign trade and in some respects only served as a means for the latter.<sup>19</sup>

I will firstly just display a measure of the importance of Swedish foreign trade for the general economic growth during the period. Figure 1 and table 1 shows the contribution of imports and exports to gross domestic product.

Figure 1. Dependency on foreign trade 1800-1830



Source: (Edvinsson, 2005)

Table 1. Dependency on foreign trade 1800-1830

	00-15	16-30
<b>Average export</b>	13,35%	11,49%
<b>Average import</b>	13,79%	10,03%
<b>Average trade</b>	27,14%	21,52%

Source: See figure 1.

<sup>18</sup> Heckscher, E. F. (1949), p. 643.

<sup>19</sup> Nyström, M. (1982). *Norrlands ekonomi i stöpsleven : ekonomisk expansion, stapelvaruproduktion och maritima näringar 1760-1812*. Stockholm: Almqvist & Wiksell international (distr.).

This would suggest that foreign trade was more important for the nation and its economic growth during the years of the Napoleonic wars than it was during those that followed. Imports were slightly more contributing to GDP between 1800 and 1815, while exports played a somewhat larger role 1816-1830.<sup>20</sup> I will not dwell further on this matter now, but just wanted to show some measurement of the importance of foreign trade for the economy writ large. A similar discussion has been conducted for the early American republic during the same period. Douglass North first showed that exports more or less carried the whole American economy during the late 18<sup>th</sup> and early 19<sup>th</sup> century.<sup>21</sup> Later accounts have given North's assessment some validity, but more shows that the role of exports for American economic growth in its initiation was exaggerated and overstated.<sup>22</sup>

I will proceed with displaying what is the bulk of my empirical research so far. The process of describing Swedish foreign trade during the period has at this stage come to a natural halt at 1813. This is mainly due to the nature of the statistics, which changes in 1815 when the National Board of Trade starts to measure a toll-value of each good brought in to each port/staple-town, instead of as before when each commodity was counted in real numbers nationally. I have not yet decided how to proceed with this conundrum. 1813 also makes a fitting cliff-hanger, as the Napoleonic War was nearing its end and the French emperor's creation, the Continental blockade, was drawing its last breaths.

All the following figures for Swedish foreign trade have been assembled from the original series from the National Board of Trade, available at the Swedish National Archives<sup>23</sup> in Stockholm. The data has then been processed and calculated to make up the commodity-categories (see figures below). Some words on the validity of the statistics in use will be necessary. It is basically the same figures that were used by Eil Heckscher in his epos on Swedish economic history, with the difference that instead of five-year-averages I have used yearly data. This is because five-year-averages fail to capture shorter important fluctuations,

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<sup>20</sup> Note that the data here is not the same as I have used for the ensuing series on foreign trade. The aim is however to be able to use the series from the National Board of Trade also for this measurement. It would also allow comparisons with pre-war years, which is not possible with Edvinsson's data.

<sup>21</sup> The latest update of his argument can be found in: North, D. C., Anderson, T. L. and Hill, P. J. (1983). *Growth and welfare in the American past : a new economic history*. Englewood Cliffs, : Prentice-Hall.

<sup>22</sup> Goldin, C. D., Lewis, Frank D. (1980). The role of exports in American economic growth during the napoleonic wars, 1793 to 1807. *Explorations in Economic History* 17.

<sup>23</sup> Riksarkivet.



which will be of necessity in a study which spans across some 50 years. The exports and imports are displayed in Swedish rixdollar, *riksdaler*. The use of monetary value has been the subject of some discussion, where for instance research done by Ernst Söderlund in the 1950's showed that those figures cannot be considered reliable.<sup>24</sup> Staffan Högberg for instance instead uses a quantity measure of number of freights for most of his investigation. I believe however that that measurement serves better the purpose of showing the development of shipping rather than particularly foreign trade. Also, since I want to research exports and imports at the total level (rather than just the largest commodities) a quantity measurement would make difficult a comparison between commodities since some were much more freight-demanding than others.

Another commonly occurring topic when talking about foreign trade in early modern times is the issue of smuggling. It is heavily discussed by Eil Heckscher who stated that it must have had a significant impact on the foreign trade, "of which there can be no doubt", since his statistics showed a big export surplus. He explained that the surplus must have been illusory since the contemporaries rather assumed that there was an *import* surplus. What constituted this difference must have been smuggling, which according to Heckscher must have made up a fifth of the total import value, meaning that the "import-account would need to be raised by a fourth in order to be true."<sup>25</sup> Högberg counters this by showing that the development of foreign trade and shipping can correlate by using the quantitative measurement, and concludes that the smuggling must have decreased rather than increased during the late 18<sup>th</sup> and early 19<sup>th</sup> century since the "older system of bans on imports was alleviated during the Gustavian period [1772-1809]".<sup>26</sup> Neither of the two men were however able to actually calculate how large or small the smuggling should have been (Heckscher's figure above is a pure estimation) or which commodities were most heavily smuggled (even though Heckscher believed that the smuggling in textiles should have been the most significant). Paul Bairoch has however argued that for European foreign trade in general pre-1830, smuggling created a statistical margin of error of about 20-25 percent, and that it probably affected imports more than exports.<sup>27</sup> But, since it is virtually impossible to

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<sup>24</sup> Cited in Högberg, S. (1969)., p. 20. No explanation as to why the figures aren't reliable is not provided.

<sup>25</sup> Heckscher, E. F. (1949)., p. 656-657. My translation.

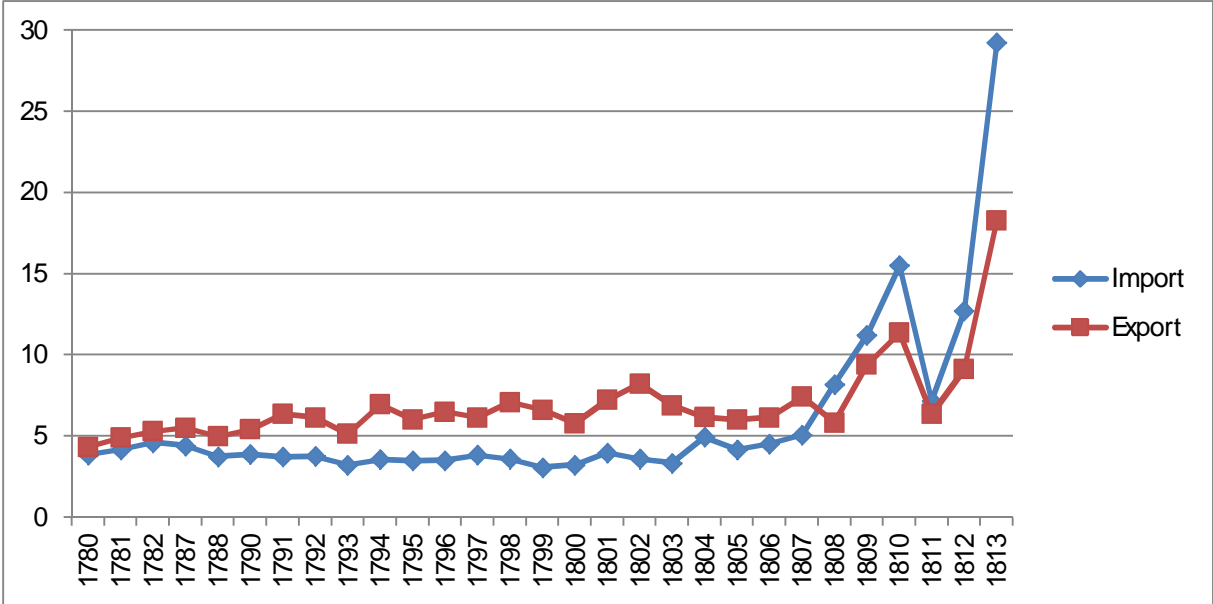
<sup>26</sup> Högberg, S. (1969)., p. 20. My translation.

<sup>27</sup> Bairoch, P. (1973). European Foreign Trade in the 19th Century: The Development of the Value and Volume of Exports (Preliminary Results). *The Journal of European Economic History* 2, 5-36.

actually know the quantity and impact of Swedish smuggling during the period I have not taken it into further consideration and estimation here.

The goal has been to be able to display exports and imports for every year between 1780 and 1830, but as the observant notices below, a few of the earlier years are missing in the archival sources (and seem to be missing for their entire afterlife). This makes the quantitative material pre-1792 (when the Napoleonic War starts) a bit more meager than it is during the war-years and the fifteen years after. Figure 2 displays the exports and imports on the aggregate level.

Figure 2. Export and import 1780-1813, in current value



Source: KmkA, årsb. utrikes handel, ser. 3, RA.

Note: Figures are in million riksdaler. Figures for the years 1783-1786 and 1789 (as well as 1814) are missing in the original source.

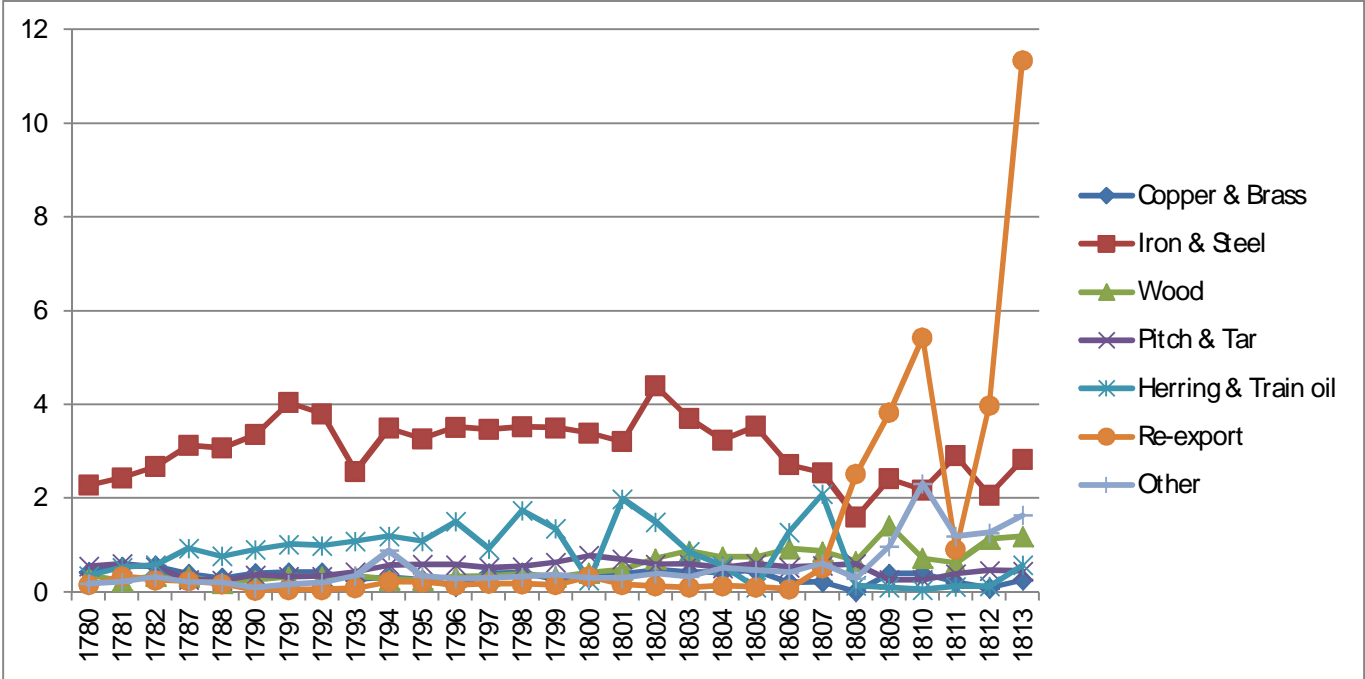
The firstly observable trend is the relative stability of the foreign trade. Particularly imports remain at more or less the same level until 1804 when a certain increase can be seen. The export-side displays a slowly upward direction, in particular after 1790 when the numbers stay steadily over 5 million riksdaler for each year.

The big change happens after 1807, when both exports and imports virtually skyrocket, with exemption of a plummet to more “normal” levels in 1811. In only three years the total

foreign trade increases more than 200 per cent, from roughly 12,5 million in 1807 to just over 26,5 million in 1810. The boom is complete in 1813 when exports and imports together constitute an unprecedented 48 million riksdaler. This is what caused Eil Heckscher to describe the years after 1807 as “without the least doubt the most colorful during the entire long period 1720-1815” and the changed which occurred as “obviously a course without any precedent in the past.”<sup>28</sup> Other than this extraordinary increase, it is also noticeable that up until 1808 the trade balance displayed an export-surplus for every single year which is then turned to an import-ditto for the following six years. Hence, imports increased exponentially more and faster than the exports after 1807.

This development of course coincides with the introduction of Napoleon’s Continental Blockade aimed against England, the first attempt of full total economic warfare in modern history. This is something I will come back to further on. Next in figure 3 and 4 the export-side divided up into groups of commodities will be displayed.

Figure 3. Exports by commodity-group, in current value

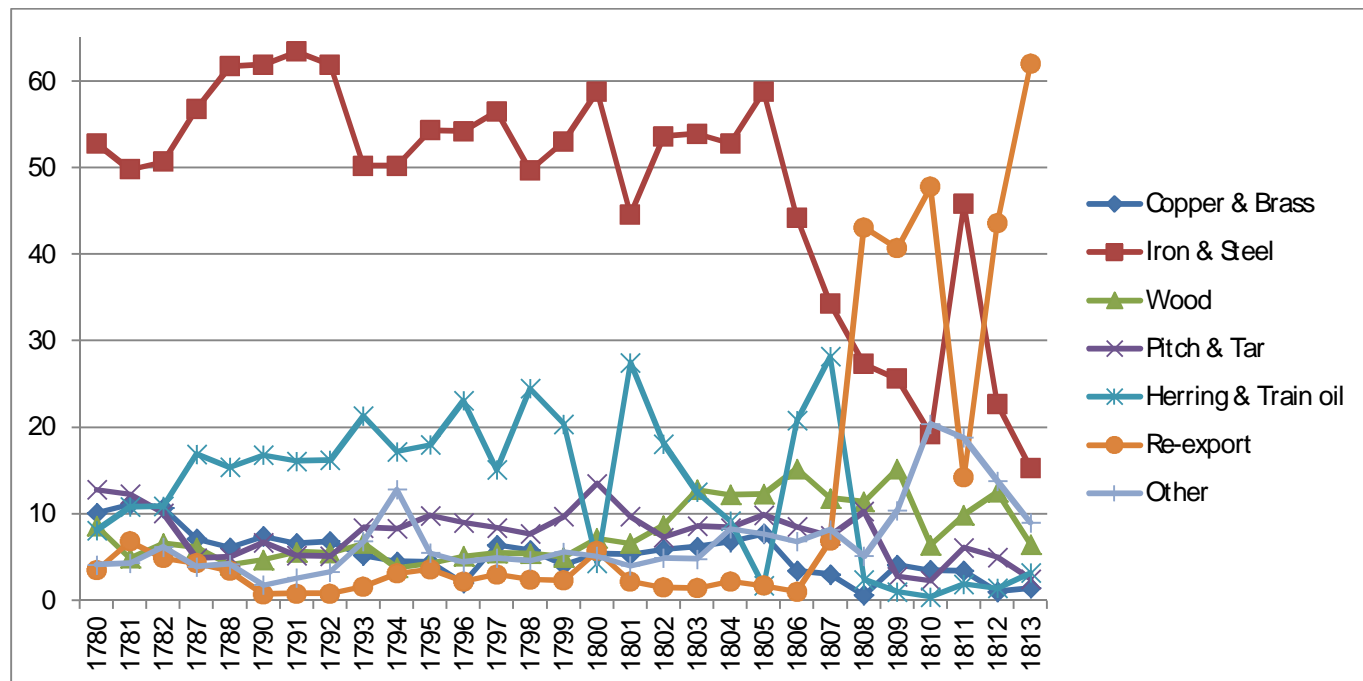


Source: See figure 2.

Note: Figures are in million riksdaler.

<sup>28</sup> Heckscher, E. F. (1949), p. 660 and 661. My translation.

Figure 4. Exports by commodity-group, in percentage of total exports



Source: See figure 2.

Note: For composition of groups see appendix. Figures may not add up to exactly 100 because of rounding.

I have here attempted to group together commodities somewhat logical, all wooden products as one category and iron and steel as one that fits together. Pitch and tar are somewhat similar “chemical” goods, and Staffan Högberg for instance analyse them together in his book on the most important commodities for Swedish foreign trade. Herring and train oil<sup>29</sup> might seem as an odd couple, but as train oil was mostly produced from fish I have seen it fit to put those two together. The rationale for lumping individual commodities together into larger groups is firstly that they are more easily analysable over a longer period time, and secondly that if something can be said about aggregated trade- and tariff-data, then larger groups of both are absolute necessities, for pedagogical and analytical reasons. It is of course not ideal to have a generic category called “other” which occasionally reached

<sup>29</sup> Tran

quite high levels, of over ten per cent in 1794 and 1809-1812 for instance.<sup>30</sup> Until I can establish a better categorisation this one will have to do.<sup>31</sup>

Figure 3 and 4 display the heavy importance of iron and steel, and particularly bar iron which for most of the period was the single most exported commodity. Iron and steel oftentimes constituted over 50 per cent of the total exports, and between 1788 and 1792 even over 60 per cent.

Herring and train oil was for a large share of the period the second most important group, especially between 1787 and 1799 when its numbers grew steadily, although slowly. Herring was the most exported of the two, even though train oil on its own reached quite high levels between 1791 and 1796. After a sharp drop in 1800 fish-exports fluctuate heavily until 1808 when it almost completely disappears from the market.

The importance of copper and brass was generally more accentuated in the 1780s than later during the period, while boards and other forestry-commodities (such as squared timber) won a larger share of total exports and increased also in real numbers after 1801. The exports of boards to England continued to grow until culmination in 1810 when Canadian wooden commodities became a fierce competitor for the British attention.<sup>32</sup>

The amount of pitch and tar exported stayed fairly steady throughout, but had its largest share between 1795 and 1800 and maintained some high level compared to the other commodities up until 1808. According to Staffan Högberg the great naval wars between the main European powers was beneficial for the Swedish export of tar. In times when Britain needed increased imports of the product, mainly for ship-construction, Sweden could provide the demand when other countries' exports were hampered by the state of war.<sup>33</sup> This was the case not only during the Napoleonic wars, but also during the Seven Years War, 1756-1763, and the War of American Independence 1776-1783. Exports then clearly increased in times of war, to decline in the peaceful years in between.<sup>34</sup> The lowest export-levels of pitch and tar between 1780 and 1813 are also in the years of peace between 1787 and 1792.

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<sup>30</sup> The three single largest commodities in this group are grains, alum and textiles.

<sup>31</sup> Lennart Schön has in his work on trade statistics between 1800 and 1870 created a categorisation that with some modifications could be a better alternative. The categorization criteria there has rather been which part of the economy the goods represented; metal, chemical, agriculture and forestry for instance.

<sup>32</sup> Högberg, S (1969), p. 142.

<sup>33</sup> Ibid., p. 145.

<sup>34</sup> Ibid., p. 146.

As with exports on the aggregate level, the biggest change happens after 1807. Then re-exports which had only remained on relatively low levels and at only a few per cent of total share each year suddenly spiked up to 43,1 per cent in 1808. Here, re-exports mean mainly colonial imports such as sugar, coffee, rum and different types of wine were stored in the country not predominantly for domestic consumption, but for export. It would be difficult, not to say impossible, to connect this with the effects of Napoleons Continental System. According to Eli Heckscher, first and foremost Gothenburg became an important Swedish passage for British and colonial goods on their way to the European continent past the French blockade.<sup>35</sup> Hence, an increase in Swedish imports from England should more or less correspond with an increase in Swedish exports to the states of the European mainland.<sup>36</sup>

It was no longer the most common Swedish staple commodities which were the dominant in the exports. Iron and steel lost ground already before the economic warfare between France and England begun; its export numbers was cut to more than half between 1802 and the low point of 1808. Its share of total exports was down below 20 per cent both in 1810 and 1813. This was completely unprecedented before 1808, where metals were below 40 per cent only once. If we look at the composition of exports during the whole period from 1780, the years of the Continental System, particularly 1808-1813, becomes a remarkable and even rather odd time.

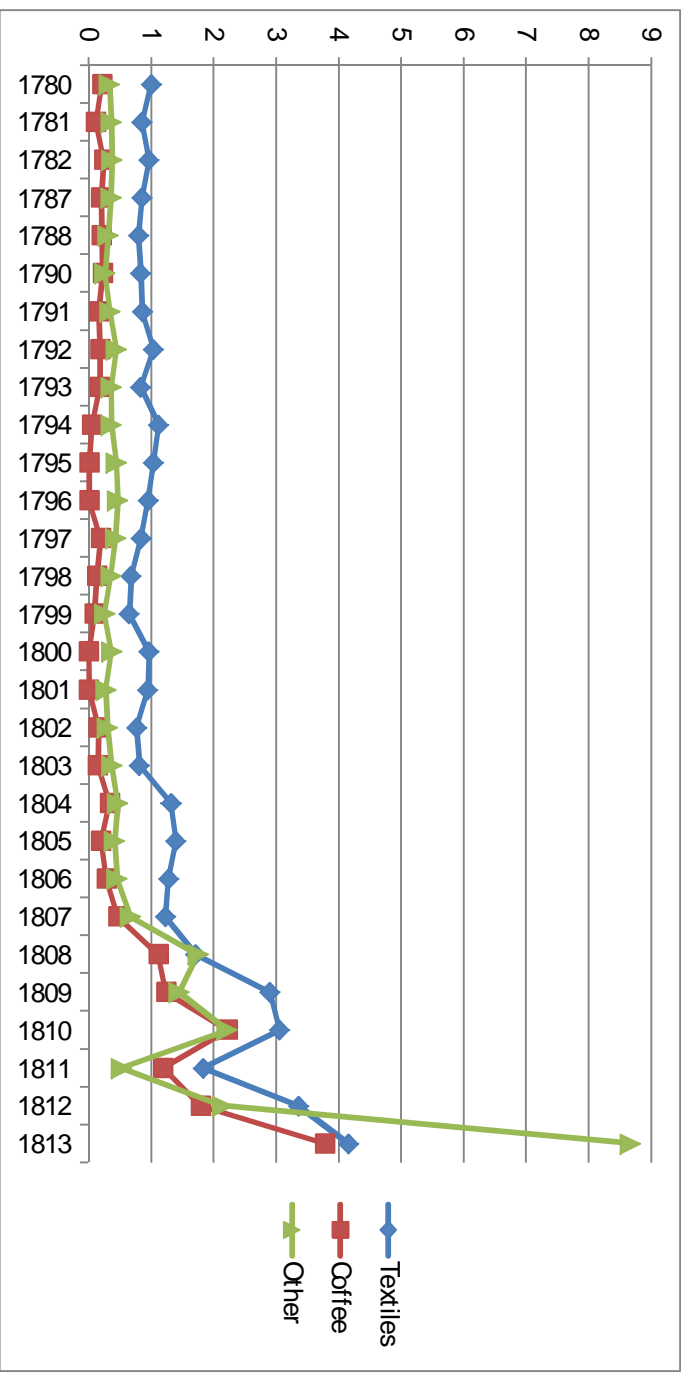
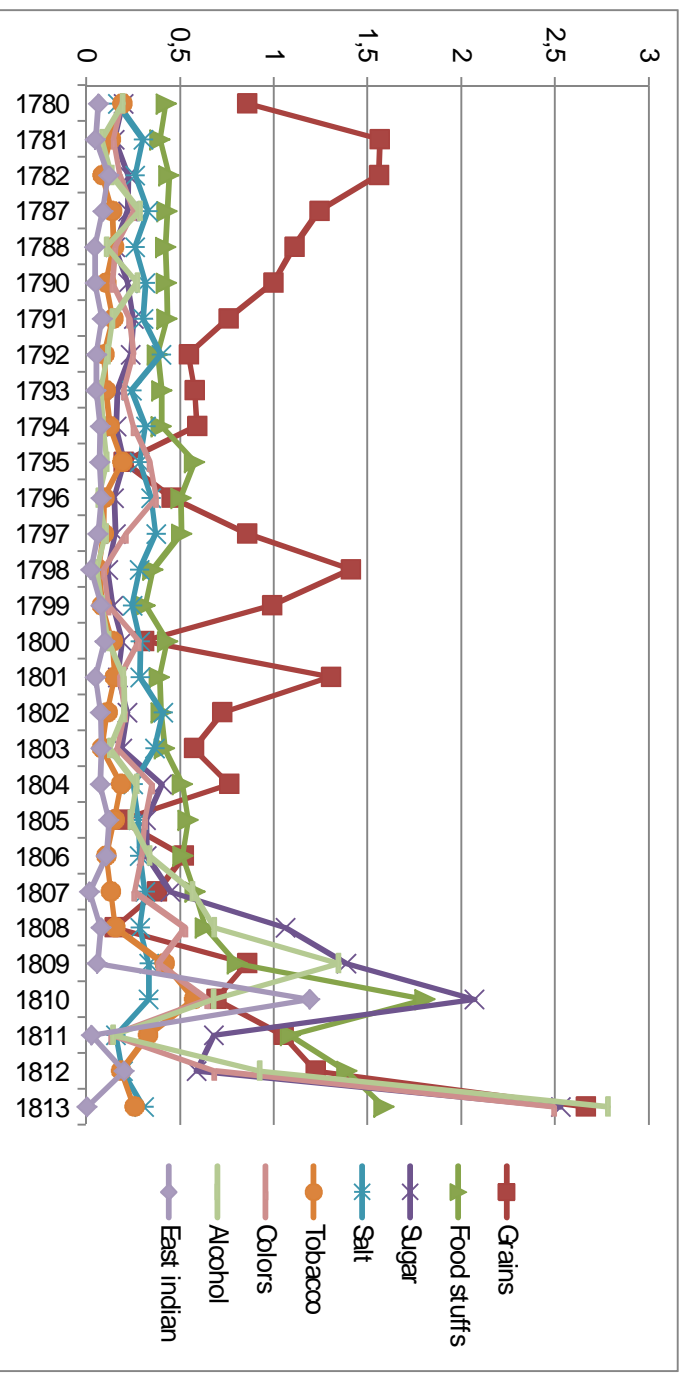
It is then time to look at the import-side in figure 5 and 6, which is presented in the same way as the export-ditto. The commodity categories differ however, for natural reasons.

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<sup>35</sup> Heckscher, E. F. (1949), p. 659.

<sup>36</sup> Ibid. This is something to look up when I dig into the geographical distribution of the Swedish foreign trade.

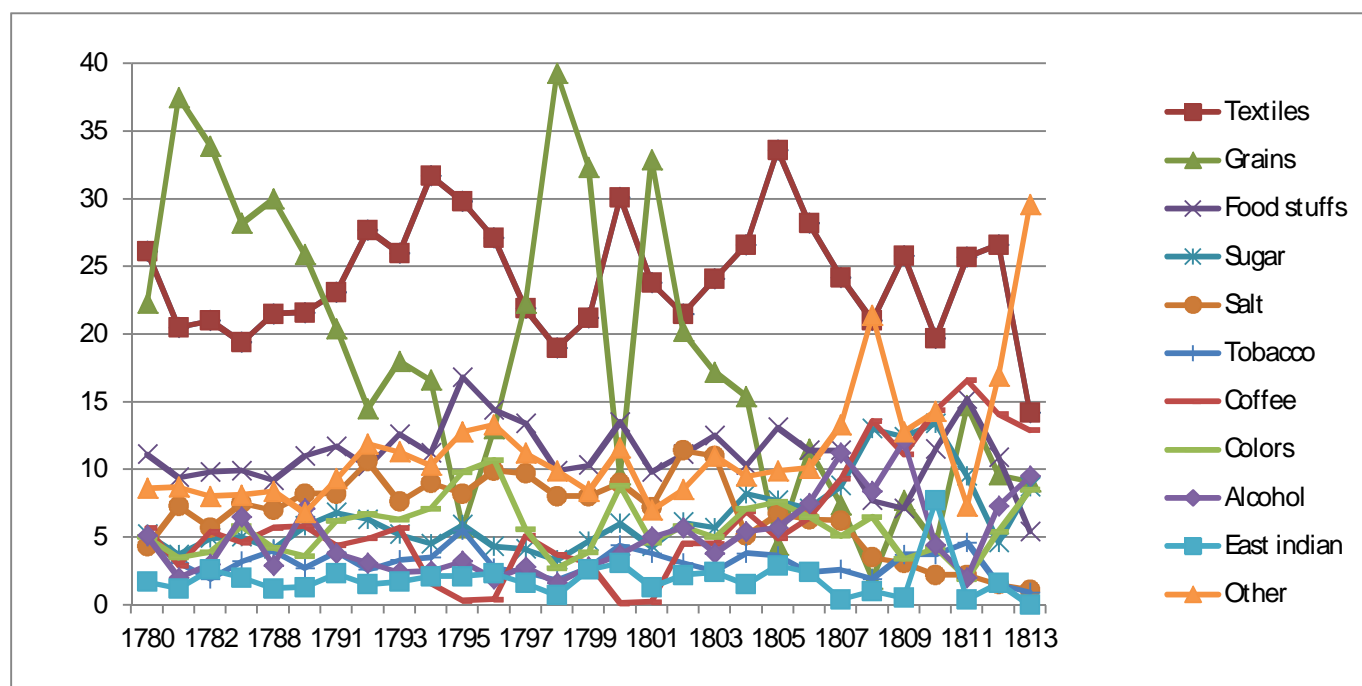
Figure 5. Imports by commodity-group, in current value



Source: See figure 2.

Note: figures are in million riksdaler.

Figure 6. Imports by commodity-group, in percentage of total imports



Source: See figure 2.

Note: For composition of groups see appendix. Figures may not add up to exactly 100 because of rounding.

A first thing to notice is that the import-side is markedly more differentiated than the export-side. It consists of more small items which together make up large commodity-categories. This is especially the case with alcoholic beverages, colours and dyeing products, and food stuffs. Several individual commodities each constituted only a few per cent of the total, and the only really major ones over most of the period have been kept as an own category, such as grains, salt, sugar, coffee and tobacco, as seen above. This naturally makes the graphic presentation a bit “messy” but this is also quite telling of how differentiated the imports were in reality.

Grains is one of the single largest import commodities. Its uniqueness is partly shown by its heavily fluctuating numbers, particularly between 1795 and 1801. The trade in it was oftentimes regulated in regards to how the domestic soils would yield good harvests or not. Hence, if there was a large shortage of grains in the realm, imports would increase and vice versa. Occasionally grains even reached high export-figures, as in 1794, when the environmental conditions had been exceptionally beneficial for the harvest.<sup>37</sup>

<sup>37</sup> For more on the particularity of the trade in grains, see Åmark, K (1919).



The most imported group of commodities over time is textiles, although its per cent of the total also fluctuated substantially at times. Cotton, hemp, flax, linen, and occasionally wool, leather and hides, were the single largest items here. The import of silk virtually vanishes after 1793. In real numbers textiles as a group remained steady until 1804 when a slight increase is initiated which then picks up pace in 1808, and continue to increase until 1813. As noted earlier, a part of the expansion after 1807 should in all likelihood be attributed to the situation created by the Continental System. Since the export in textiles expands between 1808 and 1810 (noticeable in the group “other”, figure 4) it should be hold as believable that some part of the import-increase was destined for export.

### Swedish foreign trade in international comparison

One purpose with this dissertation is to see whether Sweden was able to expand its foreign trade when other nations might have experienced stagnating or decreasing numbers. The rationale for this would be that while the major military (and political and economic) powers of Europe were occupied with naval (and land bound) warfare, those states who remained neutral could continue on with their trade and shipping, or even gain increased shares of the international trade.<sup>38</sup> Leos Müller has explained that neutrality made sailing under Swedish flag more secure, thus decreasing the cost of protection of the shipping which was the single most important factor in explaining the expansion. According to this view Sweden benefitted greatly from having comparatively lower protection costs than other more highly developed maritime states.<sup>39</sup>

It has so far been quite difficult to estimate the Swedish levels of foreign trade against that of other nations. Completely comparable measurements are hard to come by. I have attempted to convert the Swedish trade data into British pounds in order to try to see whether the Swedish figures increased relative to the British. Since England's numbers were

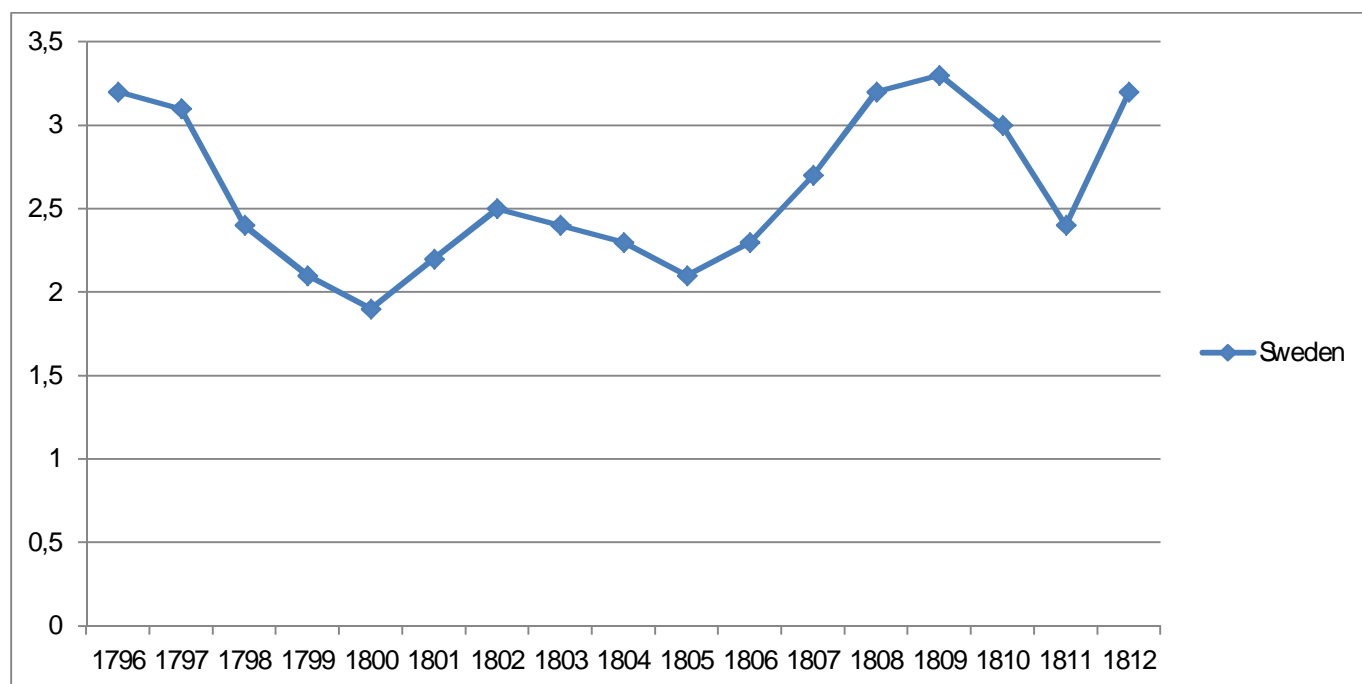
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<sup>38</sup> Johansen, H. C. (1992). Scandinavian Shipping in the Late Eighteenth Century in a European Perspective. *The Economic History Review* 45, 479-493. Andersen, D. H. and Voth, H.-J. (1997). *The grapes of war: neutrality and Mediterranean shipping under the Danish flag, 1750-1807*. Oxford: University of Oxford.

<sup>39</sup> Müller, L. (2004). *Consuls, corsairs, and commerce: the Swedish consular service and long-distance shipping, 1720-1815*. Uppsala: Acta Universitatis Upsaliensis.; Müller, L. (2005). Neutralitet och svensk sjöfart, 1770-1815. *Forum navale* Nr 61, s. 107-130, 152-153.

much higher in absolute terms this does not yield any major changes even if Sweden's absolute numbers were to gain by even a few hundred per cent, which they did after 1807. This is not to say that this measurement should be abandoned completely, but just that it is difficult to analyse at this stage. Figure 7 however show Swedish imports and exports relative to the British between 1796 and 1812.

Figure 7. Swedish trade in per cent of the British



Source: For Sweden see figure 2. For England (Mitchell, 1975).

Note: Swedish riksdaler have been converted into British pounds using the currency rates available at the Swedish National Bank's historical statistics.<sup>40</sup>

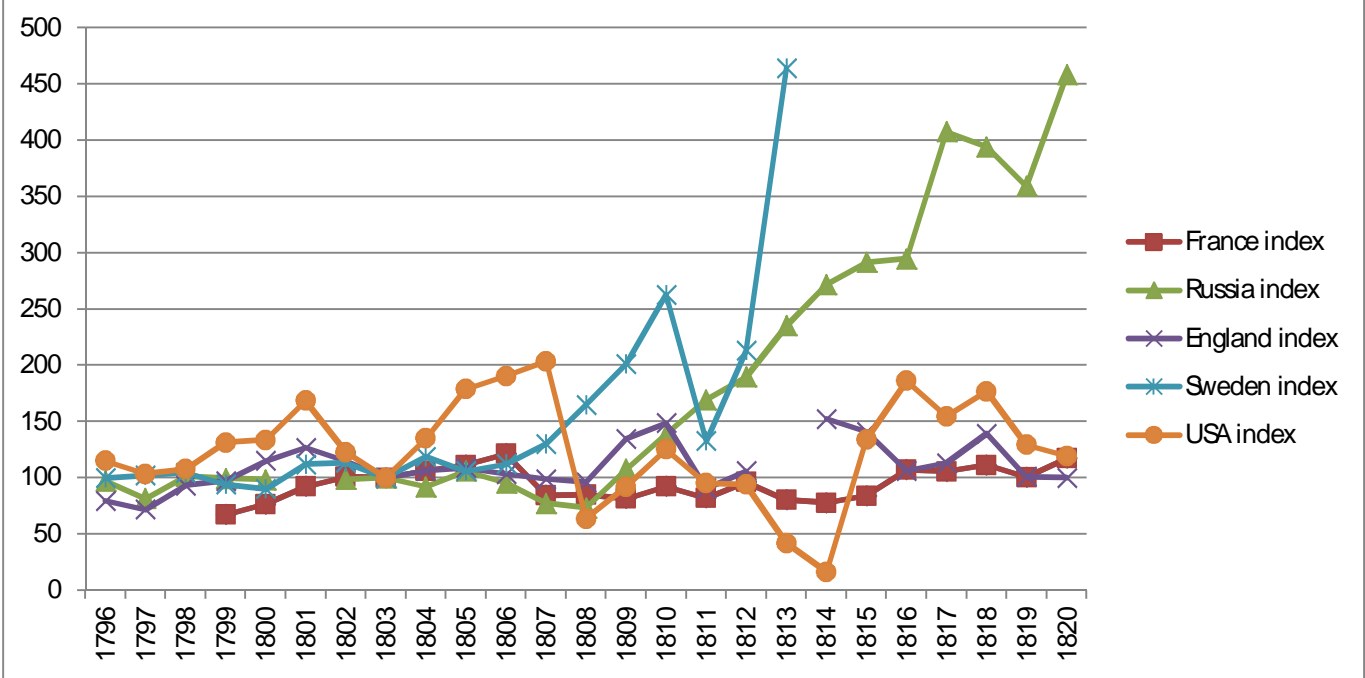
There is another way to compare statistics that would include statistics from more countries. One can create an index which shows the change in each country's foreign trade in per cent, relative to itself. This not ideal since it only shows exponential change and not change in absolute numbers, but it can at least give some indirect indication of matters at hand. Using this measurement has the advantage of being able to include more countries than by converting currencies.<sup>41</sup> There have been no selection criteria as to which countries are

<sup>40</sup> Available at <http://www.riksbank.se/sv/Riksbanken/Forskning/Historisk-monetar-statistik/Valutakurser/Valutakurser-i-Sverige-1534-1834/> (Accessed: 2012-11-07)

<sup>41</sup> So far what I have done in figure 7 is also possible to do with American trade data.

included here. Rather I have just used whatever data I have found for the relevant period.<sup>42</sup> Figure 8 hence displays a comparison of aggregated trade data between five countries 1796-1820.

Figure 8. World trade indication 1796-1820



Source: See appendix

Note: 1803=100. French data are missing between the years 1796 and 1798. 1813 is missing for England.

If something brief is to be said about this it is that most of the countries show relative stability before 1807, other than American trade which seems to have increased quite rapidly. After 1807 Sweden and Russia expand their trade, while the American plummet until it regains ground after then of the Napoleonic wars. I would want trade data for all (and include more) countries during the whole period 1780-1830 before I can analyse further. Suffice to say that it is possible to make comparisons across countries as long as data is available.

<sup>42</sup> There is however data from Mexico and Cuba for these years, but I have deemed these to be irrelevant for this study.

## Tariffs 1782-1807

The point of collecting and presenting data on tariffs is principally twofold: (i) tariffs basically display a country's trade policy, some measurement of the level of protectionism/free trade; and (ii) tariffs can de facto affect the level of exports and imports. The main usage up to this point is purpose number one, but some initial speculations can be made about the purpose number two.

### The Method of Assembling and Measuring the Tariffs

The Swedish tariffs of the late 18<sup>th</sup> century were set and decided by the royal majesty (Kungl. Maj:t) and his ministers, particularly the position equivalent to the minister of finance. I have not yet been able to find out the exact process of how this came about, and one would need to know whether changes needed to be discussed and approved by The Diet.<sup>43</sup> This was at least the case after the end of the Napoleonic Wars<sup>44</sup>, but one would also have to consider that a partly new constitution was in place after 1809 which could have revised the old ways of deciding the tariffs. The constitution of 1772 declared the right of taxation to The Diet, but whether the tariffs for the foreign trade was included in this remains unclear from what I have been able to look at so far. Whether the amendment of 1789, which increased the king's powers overall, for instance regarding the control over the public administration, changed the right of taxation also need to be further investigated.<sup>45</sup> One can at least not escape the possibility that the process of setting the tariffs might have changed during the period of interest here.

Major revisions of the toll-taxes were done in 1782 and 1799 which hence are the main points of reference here. Note that for some commodities, especially the import of grains; changes were made more often, occasionally with mere months in between, most often in order to regulate shortages or abundance in the realm.<sup>46</sup> These types of "irregular" revisions have been left out here, for the sake of being able to compare across different types of commodities.

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<sup>43</sup> Ståndsriksdagen.

<sup>44</sup> See Montgomery, A. (1921).

<sup>45</sup> For a brief overview of the content of the mentioned acts, see Behre, G., Österberg, E. and Larsson, L-O. (1985). *Sveriges historia 1521-1809 : stormaktsdröm och småstatsrealiteter*. Solna: Esselte studium., p. 241-244.

<sup>46</sup> For more on the grain-tariffs, see Åmark, K. (1915)., p. 126-186.

The tariffs for the Swedish foreign trade by way of sea<sup>47</sup> are available in a series of yearly proclamations, decrees and resolutions from the majesty.<sup>48</sup> They are set alphabetically and categorically, which means that some larger commodity-groups are placed alongside one another, such as all iron and steel as well as most textiles. Each type of commodity in these groups is however presented separately, which makes for a quite detailed study of the individual tariffs. Each commodity is given a value, which should be read as estimated price, and a tariff/toll-tax corresponding to that value. As an example the export of the largest boards in 1799 had a value of 9 rixdollar (per dozen) and a tariff of 1 rixdollar and 12 shilling; in effect meaning that the tax was at 13,89 per cent.<sup>49</sup>

As mentioned earlier some bans were put on both import and export, but usually those goods are given a value and tariff anyway as they can be allowed to be traded with, through being granted a special license by the state. On rare occasions no tariff is presented whatsoever for a certain commodity; it could hence be interpreted as being completely banned from foreign trade. The export of gun-powder was in this category in 1782, but in 1799 the ban on the product is only conditional and allowed with a special license.<sup>50</sup> Some commodities which were placed with a conditional ban in both 1782 and 1799 were imported coloured silk, imported sugar for candy and sweets, as well as the export of processed silver and tin. Often the conditional tariffs for the banned items were around 50 per cent of their value, in effect making them very expensive to trade with.

Other commodities were placed with certain particular conditions which needed to be fulfilled for trade to be granted. For the export of the largest beams and squared timber in 1799, it was only allowed when these came from Finland or Norrland. Some items were also placed with an official shipping ban, such all export of boards and most categories of beams (not the slimmest) with foreign ships. Even though an official ban was in place these commodities were given a tariff for export on foreign vessels.

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<sup>47</sup> There were also special tariffs for land bound foreign trade, over the borders with Norway and Russia, but they have been omitted here.

<sup>48</sup> "Kongliga placater, resolut, förordningar och påbud", available at Carolina Redviva, Uppsala.

<sup>49</sup> This tariff is for shipment on Swedish vessels. When brought on foreign ships the tariff was more than twice as high, 3 rixdollar.

<sup>50</sup> The tariff was then 4 shilling per each centner (older Swedish weight measurement), but no value is ascribed to the item.

The tariffs have been collected from the vantage point of what where the largest trading commodities of the time. Hence, the goal has been that the tariffs should correspond as much as possible to the data on trade presented earlier. For the export-side this has been an easier task than for the import ditto which was more differentiated between different types of goods (see the earlier section on imports). The status of the import-tariffs that have been collected are therefore a bit more uncertain, in terms of whether they correspond to the majority of the total import level or not. Some of the largest import categories are however accounted for, such as grains, sugar, salt, coffee and textiles. For the export side such major commodities as bar iron, copper, brass, pitch, tar, boards, and train oil are all included in full.

The tariffs are set up somewhat differently depending on commodity. The salt-import is differentiated depending on from where it is brought. Salt from Portugal, Cadiz and Germany is given a lower tariff than when imported from France for instance. The unspecified category "Mediterranean origin" is given an even lower toll-tax. The export-tariff of boards is differentiated with regard to length and thickness. On occasion the tariff is distinguished on basis of port of arrival, such as when all categories of beams are placed with a 25 per cent higher tariff when exported to foreign ports in the Baltic Sea. Similarly, grains imported from Swedish Pomerania and Wismar was completely duty-free in 1799 when brought on ships from these areas, or by Swedish vessels.

Since each commodity has a given value and a tariff it has been possible to calculate each tariff as a percentage of the value. This way of presenting the figures has been chosen partly in order to make the statistics presentable and understandable at all. Since the goods have quite varying values and tariffs it would have been difficult to compose them into readable categories with only the real toll-tax numbers. Recalculating everything into percentages has allowed firstly for creating larger groups of commodities, than to present each commodity individually which would have been the less pedagogic alternative. This is especially important for the commodities which were divided into several subcategories; for copper there were up to six different subtypes, of varying degrees of processing and quality, each with individual values and tariffs, and for boards there were up to ten subdivisions, of varying length and thickness. This ad-valorem-alternative has also given a better possibility to compare differences across groups of commodities, as well as to calculate average tariff

levels for all imports and exports included in this study. Furthermore, this gives an improved possibility of analysing changes over time.

The actual calculations have then been done in two steps. First, the tariff percentage has been calculated for each individual commodity, with its subtypes, from the original raw material. Then the groups have been compiled by calculating the average tariff percentage for all types of copper, cotton, grains, dairy, boards, and etcetera. Where a toll-differentiation according to the Navigation Act<sup>51</sup> is applied to a product, the average between the domestic and foreign toll-tax has been used. This differentiation was put mainly on the export of wooden products, but also on bar iron and certain types of copper, as well as the import of cotton.

A similar way of presenting tariffs has been done by Jan Thomas Lindblad in his research on the Swedish-Dutch trade during the 18<sup>th</sup> century.<sup>52</sup> He also used a way of measuring whether the tariffs actually altered levels of trade, if they struck the most important products or not. A “rank correlation between tariff and value of trade” was calculated, which could be of use further on.

One possible problem with presenting tariff percentages rather than just the actual tariffs is when the value of a commodity changes, but not the actual tax. This was the case in 1801 when the value of some products were augmented, especially bar iron, bolt iron and certain types of copper. The tariff percentage is then lower, but it would be difficult to interpret this as a tariff-decrease as the actual toll-tax being collected is not altered. This is something to keep in mind when looking at the levels of 1801, and then particularly for the export-goods mentioned above.

One should make a note of the fact that there are also other ways of operationalizing/measuring average tariff levels. For example has a larger survey of American, British and Canadian duties between the late 18<sup>th</sup> and late 20<sup>th</sup> century has instead used a measurement of average import duties, as customs revenue divided by net imports.<sup>53</sup> I would however argue that if the desire is to try to bring out the will or intention of the official trade policy, the actual tariff levels put in place by decision-makers also need to be presented. The ad-valorem-tariff is usually favoured over the more indirect measure

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<sup>51</sup> Produktplakatet.

<sup>52</sup> Lindblad, J. T. (1982)., p. 84.

<sup>53</sup> Capie, F. (1994)., p. 31-32.

cited above which “does not distinguish between revenue and protective tariffs, and is subject to severe index number problems.”<sup>54</sup>

### Swedish Tariff Levels, 1782-1807

The tariffs for Swedish foreign trade have, as mentioned earlier, been categorised in the same manner as the trade data above. However, some things differ in what is included in the categories. For a full description I refer to the appendix, but I will just make a few remarks. In table 2, “re-exports” are so far only made up by the export-tariffs for sugar and tobacco.<sup>55</sup> This category will be supplemented to be more complete further on. The same is applicable for the category “other”, which now is the average for the tariffs on grains and alum. These two categories can hence be read as proxies.

Table 2. Ad valorem tariffs, export commodities

<b>Export commodity</b>	<b>1782</b>	<b>1799</b>	<b>1801</b>	<b>1807</b>
<b>Copper &amp; Brass</b>	7,2	8,55	7,58	6,54
<b>Iron &amp; Steel</b>	6,28	7,09	5,36	4,94
<b>Wood</b>	27,08	33,19	33,19	17,21
<b>Herring &amp; Train oil</b>	7,04	5,79	5,79	5,79
<b>Pitch &amp; Tar</b>	26,25	27,2	27,2	27,2
<b>Other</b>	2,44	2,52	2,31	2,62
<b>Re-exports</b>	0,25	0,25	0,25	0,25
<b>Average</b>	10,93	12,08	11,67	9,22

Source: Kongliga placater, resolut, förordningar och påbud.

Note: For description of each commodity-group see appendix.

As can be seen the commodities are treated quite differently in terms of what tariff they have been given. The tariffs for pitch, tar and forestry products are set markedly higher than for metals and herring and train oil. Whether this should signal that commodities with a higher tax was regarded as easily exportable regardless of circumstance, or whether it

<sup>54</sup> Findlay, R. and O'Rourke, K. H. (2007). *Power and plenty: trade, war, and the world economy in the second millennium*. Princeton, N.J.: Princeton University Press., p. 402, footnote 14. See also Anderson, J. E. and Neary, J. P. (2005). *Measuring the restrictiveness of international trade policy*. Cambridge, Mass. : MIT Press.

<sup>55</sup> I have not been able to locate an export-tariff for coffee for example.



means that the crown saw a possibility to raise revenue to the treasury by maintaining high levels for some commodities and not for others, I will leave open for now. One can briefly mention that among iron and steel it was the most exported commodity, bar iron, which actually had the highest individual tariff.

Table 3. Ad valorem tariffs, import commodities

<b>Import commodity</b>	<b>1782</b>	<b>1794</b>	<b>1799</b>	<b>1801</b>	<b>1807</b>
<b>Coffee</b>	21,87	50	50	50	50
<b>Tea</b>	23,6	23,6	23,6	23,6	23,6
<b>Salt</b>	47,17	47,17	47,69	47,69	47,69
<b>Sugar</b>	14,92	29,22	16,67	16,67	16,67
<b>Grains</b>	7,09	7,09	13,96	11,44	11,44
<b>Tobacco</b>	39,45	39,76	51,9	51,9	51,9
<b>Colours</b>	16,7	16,7	15,4	15,4	15,4
<b>Alcohol</b>	90,2	93,3	71,2	71,2	71,2
<b>Food stuffs</b>	13,63	15,93	26,02	26,02	26,02
<b>Textiles</b>	21,69	22	19,08	19,08	19
<b>Other</b>	6,12	6,32	4,7	4,7	4,7
<b>Average</b>	27,49	31,91	30,93	30,7	30,69

Source: See table 2.

Note: For description of each commodity-group see appendix.

The differentiation in tariff-setting between commodities definitely applies equally for imports as it does for exports. It is for example noticeable that such a common import as salt is set three times higher than colours and dyeing-products. Staffan Högberg has argued that the supply of salt was steady even during the Napoleonic War, as well as during earlier wars of the 18<sup>th</sup> century. Erik Lindberg has similarly shown that the salt market continued more or less uninterrupted during the Great Northern War (1700-1721) when Sweden was at war.<sup>56</sup> It could be that a steady flow and supply of salt in the realm was believed to continue regardless of a high tariff.

One can otherwise remark that the import-tariffs were generally set much higher than the export-tariffs. Particularly high are the tariffs on coffee and alcoholic beverages. From

<sup>56</sup> Lindberg, E. (2009). The Swedish Salt Market during the Great Northern War. *Scandinavian Economic History Review* 57, 191-206.

the revision of 1794 an import-ban is officially instated for these commodities (although not on exactly all alcohols), and so the tax from then on should be read as a prohibitive tariff. Despite the ban the import of these goods did not cease (see figure 5), even though coffee entered the country in very low volumes some years. Both coffee and alcoholic beverages was imported more and more after 1807, but their high tariff should have meant that the cost for importing these commodities were very high, say compared to textiles such as cotton and hemp for instance.

## Appendix

### Description of the categories in figure 3 and 4.

**Copper and brass:** includes all types of copper and brass, from processed to unprocessed.

**Iron and steel:** includes bar iron, bolt iron, forged iron, bundle iron, sheet iron, canons and bombs, steel, ships, “other iron” such as minor iron works, nails.

**Wood:** includes all boards and larger squared timber, smaller squared timber (such as “sparrar”) and smaller wood-works.

**Herring and train oil:** all types of the two commodities (meaning salted herring, fresh herring, train oil from fish and train oil from steel).

**Pitch and tar:** all types of pitch and tar.

**Other:** grains, alum, textiles, fur, pit coal, glass-works, groceries, livestock.

**Re-exports:** sugars, tobacco, coffee, tea, alcohols, and some unspecified commodities (stock-goods or stored goods).

### Description of the categories in figure 5 and 6.

**Sugar:** usually just white and brown sugar or unspecified, but includes some more sub-types later during the period.

**Grains** include oats, pees, wheat, rye, barley and malt.

**Alcohol** includes several types of wine, schnapps or aquavit (“brännvin”), rum, English beer, vinegar.

**Food stuffs:** dairy, meats, fish, fruits, livestock, spices, beans and grains other than coffee and the grains noted above, groceries, tallow.

**Textiles:** cotton, hemp, flax, linen, silk, clothing, sailcloth and other cloths, hides, leather, wool, unspecified “miscellaneous textiles”.

**East Indian:** Mostly tea, porcelain, some textiles, and commodities of minor quantities.

**Other:** lead, wood, pit coal, mirrors and glass-works, books, feathers, wax-candles, dirt and clay, etc.

### Description of the categories in table 2:

**Copper and brass:** includes all types of copper and brass, from processed to unprocessed.

**Iron and steel:** includes bar iron, bolt iron, forged iron, bundle iron, sheet iron, canons and bombs, steel, ships, “other iron” such as minor iron works. Does not include nails.

**Wood:** includes all boards and larger squared timber, but not smaller squared timber (such as “sparrar”) and smaller works.

**Herring and train oil:** all types of the two commodities. Note however that there is no tariff available for herring after 1799, and so what is displayed then is the tariff for train oil.

**Pitch and tar:** all types of pitch and tar.

**Other:** all types of grains and alum.

**Re-exports:** all types of sugar and tobacco.

#### Description of the categories in table 3:

**Sugar and tobacco** are weighted so as to exclude those items that were officially banned.

**Grains** include oats, pees, wheat, rye, barley and malt.

**Colours** include six types from 1782: indigo, madder, cochennille, fernambusch, lead-white, and bresilja (“brazilwood”, or “redwood”). From 1799 five more types are added: india rubber, blaufel, orleana, Spanish green and red-lead.

**Alcohol** includes all types of wine, schnapps or aquavit (“brännvin”), rum, “beverages” (where the tariff for beer is denoted). Does not take account of the tariff for vinegar.

**Food stuffs** is the average for meats, dairy such as cheese (from sweet and sour milk) and milk, potatoes, cocoa, black pepper. Does not include fruits, other spices, flours, fish, tallow, etc.

**Textiles** include cotton (all types), unprocessed hemp and flax, silk, wool (weighted so as to exclude banned types of wool), linen. Does not contain leather, hides, clothing and sailcloth.

**Other:** the average for all lead, all wood and pit coal.

#### Sources for figure 8

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For USA: (Mitchell, 2003), International Historical Statistics, The Americas.

For Russia: D.I. Oparin – Статистический анализ развития внешней торговли России за 175 лет (1742-1917 гг.) (Statistical analysis of Russian foreign trade development within 175 years, 1742-1917), in Методологические вопросы в статистических исследованиях

(Methodological problems of research of statistics). Moscow, 1968.<sup>57</sup>

For Sweden: KmkA, årsb. utrikes handel, ser. 3, RA.

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<sup>57</sup> Many thanks to Dr. Timur Valetov of Moscow State University for sharing this information with me.

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