

# The futility of mercantilist wars

## a case study of France between 1733 and 1820\*

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### Abstract

How was Mercantilist warfare effective in its own terms, by crippling trade of defeated powers? Our paper explores the Anglo-French experience during the eighteenth century and contributes to understanding how and when this was the case. Using new French data by partner, we explore the general mechanisms relating trade and conflicts. We look into several possible candidates to explain the effectiveness of mercantilist warfare; naval supremacy, colonies loss and neutral policies. Of all the aforementioned factors, we find that the only truly efficient way to curtail the enemy commercial exchanges, was to cripple neutral trade. This strategy was the only one allowing to both decrease the enemy's trade and causing long-lasting losses.

## 1 Introduction

How was mercantilist warfare effective in its own terms, by crippling trade of defeated powers? Our paper explores the Anglo-French experience during the eighteenth century and contributes to disentangle the effects of all the strategies implemented to curtail enemy's trade. Jefferson (1823) famously noticed that European nations *were nations of eternal war*. Indeed, from 1700 to 1825, two years out of three experienced conflict between major European powers (Roser, 2016). Rivalry between Great-Britain and France was central, so much as the period between 1688 to 1815 was called the « 2nd Hundred Years War ». War has many causes. Yet, especially after the death of Louis XIV, it cannot be denied that mercantile rivalry was an important motivation of French wars (Crouzet (2008); Wallerstein (1980)). Each nation was jealous of the other's commercial success.

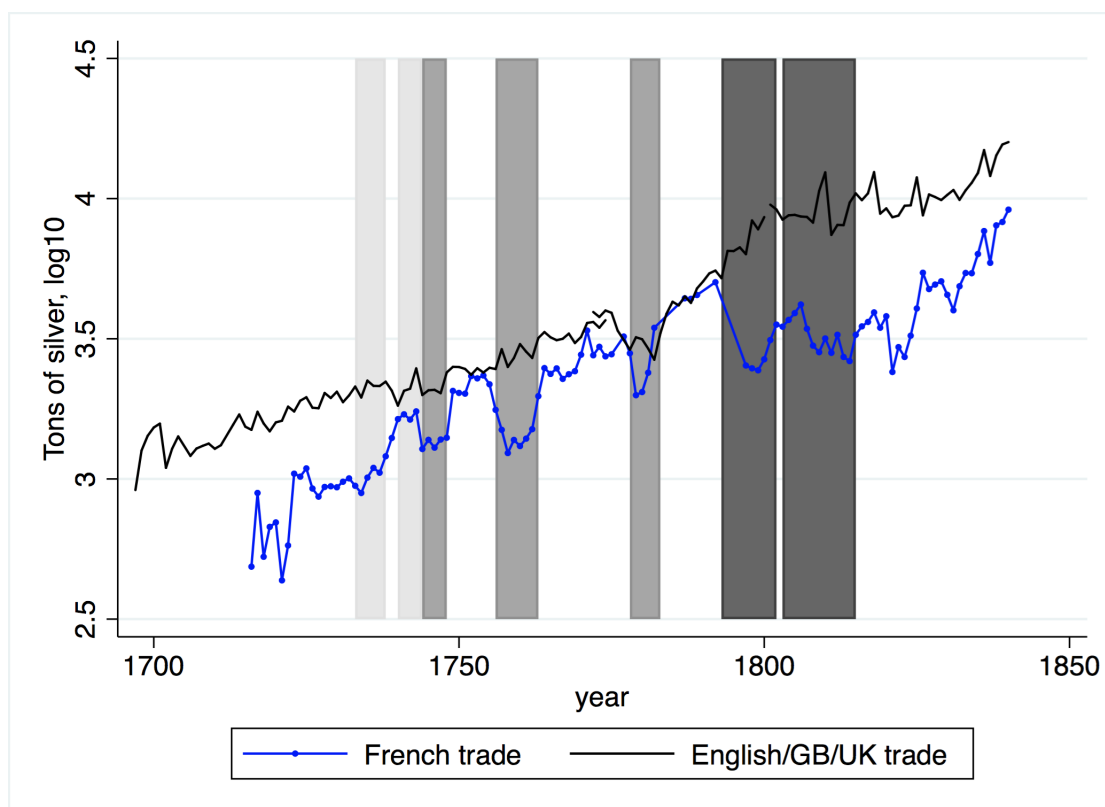
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Figure 1: French, British trade and Anglo-French wars



Source: French trade up to 1821: Daudin et al.. French trade 1822-1840: Federico and Tena-Junguito (2016) / Dedinger and Girard (2017), England/British trade up to 1800: Deane and Cole (1969). UK trade from 1801 to 1840: Federico and Tena-Junguito (2016) / Dedinger and Girard (2017), Livre tournois silver value: de Wailly (1857) and Hoffman et al. (2000); Pound sterling silver value: Clark and Lindert (2006) and Jastram (1981)

The British believed war was a good way to curtail French trade. The French partly agreed but were more wary of wars because they did not have much naval success. Here is the long list of wars between France and Britain after the death of Louis XIV: War of the Polish Succession (1733-1738) (little naval hostilities), War of the Austrian Succession (1740-1748, where naval hostilities started in 1744), Seven Years' War (1756-1763), War of American independence (1775-1783, where French involvement started in 1778), French Revolutionary Wars (1792-1802) and Napoleonic Wars (1803-1815). Yet, not all of these conflicts achieved their goal effectively. Looking at figure 1, it is clear that French trade, despite a visible decrease in wartime, was recovering quite fast, at least until the end of the eighteenth century. The only big exception was the period following the Continental Blockade, when the increase in trade started in the beginning of the century was brought to an end, while British trade maintained its steady growth. Less visibly so, but as a result of some more in-depth analysis, Seven Years War also shows a similar pattern; it caused a bigger and longer-lasting effect than other similar wars. What were the common elements between these two wars, that made them so much more disruptive for trade? In what did they differ from the conflicts

throughout the rest of the century? With this paper, we aim to uncover the strategies and the characteristics that made mercantilist war effective in its purpose. This is important to understand the effect of wars in general, the geopolitical history of the eighteenth and nineteenth century and the globalization/deglobalization cycle from the 1490s to the 1840s.

## 2 Literature

There exists a vast literature focusing on the relationship between trade and war. A first strand of this literature concentrates on the impact of trade on the occurrence of wars. Within this strand, two major perspectives have emerged: a liberal and a realist one. The first supports a vision of interdependence between trade and war, pointing out that trade promotes peace since it is a better method of expansion than wars (Doyle (1997), Oneal and Russett (1997), Polachek (1980)). The second opposes this view by claiming that there is no impact of trade on wars, and if any, then it will be a positive impact, as countries will be pushed to move war to maintain trade supremacy (Ripsman and Blanchard (1996), Levy (1989), Buzan (1984))<sup>1</sup>. This is also dealt with, more recently, through a more quantitative approach by Martin et al. (2008), who construct a theoretical model describing the likelihood of war and test it empirically. They find that likelihood of war is much smaller for countries involved in bilateral trade than for those involved in multilateral. Despite the fact that we are investigating the impact of war on trade, this literature is of interest because of the endogeneity issue. All the aforementioned papers imply that trade may have an impact on war and therefore we may not be able to disentangle the effects of one on the other. We argue that, in our case, this is not an issue; wars were either the consequence of exogenous events (the death of Charles VI for the war of Austrian Succession for instance) or else were the political expression of the long-lasting conflict between France and Britain. Therefore, in our specific case, we assume that we are observing the effect of war on trade and not the reverse.

The second strand of the literature, on the other hand, focuses on the impact of conflicts on trade. The works following this perspective are more homogeneous, and most authors agree to the disruptive effects on trade caused by wars. Levy and Barbieri (2004) analyse the impact of war on trade with adversary countries using seven dyads between 1870-1992, and they find that, although different across dyads, the general impact of conflict on trade is not particularly strong and mostly only temporary. Blomberg and Hess (2006) analyse more specifically the effect of all kind of conflicts, distinguishing between internal and external, and find that peace has a large and positive impact on trade. Anderton and Carter (2001) look at the effect of wars on global trade, and find that when

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<sup>1</sup>McMillan (1997) provides an extensive review of these two competing strands.

major world power are at war significant pre and post war effects are observed, whereas impact is much smaller for conflicts between minor powers. Finally Glick and Taylor (2010) try to quantify the economic impact of the two world wars and claim that conflicts had negative effects on both belligerent and neutral countries with lags up to ten years. Altogether, the papers mentioned above do not always find coherent results, and such results were obtained from data from the last century only. The only exception is Rahman (2010) who uses British trade data from eighteenth century, but concentrates mainly on the impact of naval conflicts on trade. The majority of scholars (apart from Levy and Barbieri (2004)) also finds long lasting effects of war; they claim commerce took several years before restoring its prewar level.

The effect of mercantilists wars on French trade does not fit this pattern. Riley (1986), who concentrates on the case study of the Seven Years War, observes French trade series and he notices that there were no war lags but on the contrary pre and post war loss compensation effects. This widely recognized fact about the effect of eighteenth century wars on French trade has led historians to research extensively the strategies of French merchants to cope with war. Neutral carriers were somewhat protected from British predation on the sea. When necessary, French merchants could even hide their cargo ownership behind a neutral partner. Or they could move to neutral countries and operate from there (Marzagalli (2016)). Historians have even reflected that war periods might have been necessary to the functioning of the *Éclusif Colonial*, i.e. the theoretical monopoly of French merchants on French colonial trade (Lespagnol (1997); Marzagalli (2016); Morineau (1997)). The argument rests on the large peace time trade imbalances between France and its Northern European clients for colonial goods that could have been balanced by large service income of Northern European merchants during war time as they, as neutrals, provided shipping and various trade services to the French empire. The quality of the available balance of payment data is not good enough to test that hypothesis.

The aim of this paper is to extend Riley (1986)'s work by analysing the available French data in the eighteenth century. So far the literature has analysed the impact on trade of twentieth century wars and generalized the results. We believe that the effect of wars in twentieth century is different from that of other wars throughout history, and related data offer only a partial point of view. Thus, we are convinced that analysing data older than twentieth century is crucial to understand the general mechanisms relating trade and conflicts. We construct a loss measure for trade throughout the century and we find that indeed the main losses took place during Seven Years War and Revolutionary & Napoleonic Wars. We explore several possible causes and we find that the common factor in case of major disruption was the policy adopted towards neutral countries. This leads us to think that

wars were not a big source of disruption for trade, as long as neutral countries were allowed to trade relatively freely and take over the trade from belligerent countries. It was only during the Seven Years Wars and the Napoleonic & Revolutionary Wars, when commerce with neutral countries was also restricted, that French trade experienced a massive decline (Findlay and O'Rourke, 2009). This decline was long-term and put an end to the competition for trade supremacy in Europe, which was ultimately won by the United Kingdom, by the end of the century. This avails the hypothesis of the role of neutral countries in modern trade and its importance for its success.

**CITE Juhász (2014)**

## 3 Dataset

### 3.1 Sources of the data

For conducting our analysis we use data from the archives of the French *Bureau de la Balance du Commerce* and, subsequently, the *Bureau des archives du commerce*. The former institution was created in 1713, after the Treaty of Utrecht, which followed the Spanish Succession War. While negotiating a trade treaty with the British, the French were positively impressed by the detailed knowledge shown on their trade flows, and they also decided to create an institution that would keep track of exports and imports from and to France (Charles and Daudin, 2011)<sup>2</sup>. Before this, there were already local institutions keeping track of goods going in and out of harbour cities (only in quantity terms) but starting 1716, until 1792, they started sending their records to the *Bureau*. The *Bureau* would then compute aggregate yearly figures for each *direction* (port) and then send them back to the local chamber of commerce, so that they could add the values. Unfortunately these "local sources" mostly did not survive; what we have left are parts of the centralised records. In 1792, through a decree of the National Assembly, the *Bureau de la Balance du commerce* was abolished and replaced by the *Bureau des archives du commerce*.

Throughout the period both *Bureau* was in placed, different kinds of documents were produced. The two most exhaustive ones were the *Objet Général*, between 1754 and 1780, with the exclusion of the period between 1761 and 1767, and the *Résumé*, between 1787 and 1789 and between 1797 and 1821. The former contains trade by product per partner for the whole of France. It always includes the value of the flows and, from 1771, it includes also quantities and / or unit prices. The latter replaced the *Objet Général* after 1780 but contained trade by class of products per partner for the whole of France, rather than by single product. For the by-product flows of the missing years, i.e.

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<sup>2</sup>Charles and Daudin (2011), in their paper, provide the complete history of the *Bureau*.

for the years 1761-1767, 1780-1787 and 1789-1797, we have estimated the flows by composition of local sources as we will explain in subsection 3.3. As for the bilateral total flows by partner, we have used the *Tableau Général*, which was in placed between 1716 and 1792<sup>3</sup>.

### 3.2 Clasification and Treatment of Data

For the period between 1750 and 1820, this dataset accounts for 146,963 total bilateral trade flows, with incomplete data between 1761 and 1767 and missing data between 1782 and 1787, in 1789 and in 1797. The number of destination recorded varies year by year, but it ranges from only 18 in 1803 up to 260 in 1789. Rather than single countries they are groups of countries and many destinations get broken down into smaller destinations in later periods or even disappeared to be replaced by other smaller entities. To bypass this problem we use country grouping. It was possible to create eleven different groups and each of them comprises all the evolution of one destination, so that we have observations for each group for each year. The groups we are considering are: Germany, England, Flanders and Habsburg Monarchy, Italy, Portugal, Spain, Switzerland, Colonies, Dutch Republic, India, Levant, North. The latter changes scope throughout the period but generally encompasses Hanseatic cities, Denmark, Norway and later Russia.

The same issue arises with products. There are up to 8,129 different products recorded (in 1789); some of them are extremely specific, like sugar or wood, and other are recorded as together with other products, like fruit or textile. To make those data usable, we have, once more, grouped them in categories and sectors, using the SITC classification <sup>4</sup>.

Values in the dataset are expressed in *livres turnois* and French francs, but we convert them in grams of fine silver to have a comparable estimate year to year. The value of the *livre* has been constant at 4.505 grams of fine silver all throughout the period in consideration.

### 3.3 Limitation and Missing data

As mentioned above, data on flows of products are missing for certain periods, i.e. in 1753, between 1763 and 1767, and between 1789 and 1797. For these periods, the only available data are either the yearly aggregate figures by destination, or incomplete local sources (only until 1780), that contain information on each product. For this reason, in order to perform the comparison between the two datasets and the subsequent analysis, it is necessary to estimate the full value of exports from the available data. In order to do this, we run the following regression, that is miming one import/export

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<sup>3</sup>All these data are publicly available on the TOFLIT18: <http://toflit18.medialab.sciences-po.fr/#/home>

<sup>4</sup>All this has been done in the context of the TOFLIT18 project by L. Charles and G. Daudin: <http://toflit18.medialab.sciences-po.fr/#/about>

index:

$$\ln(\text{product}_{i,j,k,t}) = \beta_{0,i} + \beta_{1,i}\text{year}_{t,i} + \beta_{3,i}\text{direction}_{k,i}$$

where the dependent variable *products* stands for the value of exports of one product (*i*), for each country (*j*), for each port (*k*) reported in the local source and for each year (*t*). *Year* is a set of year dummies and *direction* is also a set of dummies that indicates in which port the data were recorded (direction also includes "France", meaning all ports). This model aims at predicting the export value of single products per year basing on the yearly changes in export and on the export composition by source, with the assumption that the composition is constant overtime. We run the model on the whole available years but we only do so for coffee, sugar, wine, eau-de-vie and an aggregate category of all other goods (other). In addition, to avoid the problem of log of zero trade flows, we have substituted them with 0.001, so that observations would not drop but the zero flows in the estimation could be taken into account as a value really close to zero. Finally, we also added weights on value, as to give more importance to flows higher in value. The results are pretty satisfactory, in fact the pattern of estimated and actual value are very similar.

## 4 Historical summary

As mentioned above, the eighteenth century was a period of "eternal war". In fact, between 1716 and 1820, two out of three years experienced a conflict. In this section we provide a brief overview of the main wars that took place in Europe in the period in analysis.

In 1733, the king of Poland August II, died heirless and the issue of his succession soon became a conflict at European level. France, Prussia and Spain were trying to limit the desire of expansion of the Habsburg monarchy in Poland, however, the lack of support by Britain, concluded the war in 1738, with the recognition of August III as king of Poland, as the Habsburg had wished. In the country classification we used, the ally countries were *Espagne*, *Outremers* and *Allemagne* and the foes were *Flandre* and *Russia*. It was a land conflict, as opposed to the naval conflicts that followed. No longer than two years later, a very similar thing happened, as a consequence of the death of Charles the VI. The Habsburg emperor had not died heirless, however his only heir was a woman; Maria Theresa of Austria. France, Prussia and the Electorate of Bavaria used the pretext that she was ineligible to succeed to her father, to challenge, once again, the Habsburg power. On the other hand, Maria Theresa was supported by the Kingdom of Great Britain and the Dutch Republic as well as the Kingdom of Sardinia and the Electorate of Saxony. This conflict, which was born as a succession issue, soon extended to the New World and became a competition between the French and

the British for the control of American colonies. It ended in 1748 with the Treaty of Aix la Chapelle, where France gave back most the territories it had conquered during the war. Ally countries in this case were *Espagne* and *Outremers* and foe were *Angleterre*, *Flandre*, *Hollande* and *Russia*.

In the aftermath of the Treaty of Utrecht in 1713, there had prevailed initially a sort of geopolitical and economic equilibrium between France and British colonies on the North American mainland, that, by the mid-eighteenth century was broken, as a consequence of an uneven population growth (Findlay and O'Rourke, 2009). This set the stage to the following war; the Seven Years War, or French and Indian War, which, as the name suggests, was a world-wide conflict. As opposed to the previous wars, this was a decisive triumph of Britain over France, which was forced to give up Canada, Cape Breton Island and Grenada, recognized the Mississippi River as the Eastern boundary of its possessions in North American, then ceded those possession to Spain. France also ceded Senegal and lost enough influence in its colonies in general to lead to the dissolution of the first Compagnies des Indes (Riley, 1986). French allies in this war were *Allemagne*<sup>5</sup>, *Espagne*, *Flandre*, *Sweden*, *Russia*. Foes were *Angleterre*, and *Portugal*.

At the end of the Seven Years War, despite British victory, the French chief minister, the duc de Choiseul, made a prediction to the effect that with no French presence on the continent to threaten them any longer, the American colonies would soon demand independence from Great Britain (Findlay and O'Rourke, 2009). This prediction, as it turned out, was incredibly prescient, and in 1775 North American colonies rebelled against British control over their trade and in 1776 they declared independence. France, still feeling the humiliation subsequent to the Seven Year War, in 1778 entered the fray on the colonies' side, soon followed by Spain. In 1780, the First League of Armed Neutrality was signed between Russia, Sweden and Denmark. Spain accepted this agreement however Britain demurred. When Dutch Republic was about to join the league, Britain found out before the treaty was signed and captured a Dutch ships, thus forcing the Dutch to enter war against them. Spanish and French<sup>6</sup> fleet together, however, outnumbered the British Navy and were able to force Britain to surrender and end the war with the Treaty of Versaille in 1783. In this setting, ally were there *Espagne*, *Hollande*, and *Etas Unis*; foe was only *Angleterre*.

Despite the victory obtained, French finances were suffering to the extent that Colonne, the finance minister at the time, was forced to the summoning of the Estates-Generales in 1789, which then lead to the start of the French Revolution.

The French Revolutionary Wars took place between 1792 and 1802. It was a conflict that had

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<sup>5</sup> *Allemagne* is mainly Alsace, Lorraine and Western Germany, which were allied to France. Our assumption is that "Prussia" is sea trade through the Baltic, i.e. *North*. In terms of share of trade though, *Nord* was mainly dominated by Hanseatic Cities, which were neutral, so we finally decided to code *Nord* as neutral.

<sup>6</sup> France had been investing in its Navy following the preceding defeat (Findlay and O'Rourke, 2009).



Country	Foe	Neutral	Ally	Country	Foe	Neutral	Ally
Allemagne	1792-1804 1814-1821		1733-1791 1805-1813	Portugal	1756-1777 1799-1802 1807-1821	1733-1755 1778-1798 1803-1806	
Angleterre	1740-1791 1793-1821	1733-1739 1792		Suisse		1733-1797 1814-1821	1798-18013
Espagne	1793-1794 1808-1821	1792 1795	1733-1791 1796-1807	Denmark		1733-1807 1814-1821	1808-1813
Flandre	1733-1755 1792-1802 1805 1809 1813-1821	1778-1791 1803-1804 1806-1808	1756-1777 1810-1812	Sweden	1799-1800 1805-1807 1813-1821	1733-1755 1778-1798 1801-1804 1808-1812	1756-1777
Hollande	1740-1755 1793-1794 1814-1821	1733-1739 1756-1777	1778-1792 1795-1813	Russia	1733-1755 1796-1800 1805-1807 18012-1821	1778-1795 1801-1804	1756-1777 1808-1811
Nord	1799-1800 1805-1807 1812-1821	1733-1798 1801-1804 1793-1821	1808-1811	Levant		1733-1821	
Etas-Unis			1778-1792	Italie	1792-1796 1814-1821	1733-1791	1797-1813
Outremers			1733-1821				

started as a consequence of French Revolution, in 1789, with the hope of spreading the revolutionary ideas around Europe. During this war, France, and later Spain, were fighting against most of the rest of Europe, in particular Great Britain and the Habsburg Monarchy. France unprecedented success in continental Europe, thanks to the raise in power of general Napoleon Bonaparte, however was on the other hand heavily defeated by the Royal Navy, thus loosing supremacy over the Mediterranean. Also, in 1804, St. Domingue, which was the major source of sugar and coffee production at the time, declared its independence from the French empire, thus depriving France of a major source of imports. This conflict was ended by the Treaty of Amiens in 1802, which started the only year of peace in Europe between 1792 and 1815.

The Napoleonic wars were a series of conflict between the French Empire of Napoleon I and other countries, led by the British, which took place in the years 1803 to 1815. Its consequences were the final defeat of Napoleon, and the First French Empire, and the rise of the British Empire as the world's premier power. On the other hand, this conflict contributed to spread all over Europe the nationalist and liberal ideas that were born during the French Revolution, despite the restoration of the monarchy in France and the decay of the Revolutionary principles.

The Continental Blockade (1806 to 1814) was the trade policy adopted by Napoleon against the United Kingdom during the Napoleonic Wars. It consisted in a large-scale embargo against British trade where all commercial connections of Britain to the Continent were supposed to be interrupted. It was only stopped in 1814, with Napoleon's abdication.

## 5 Empirical Analysis

The aim of this study is to uncover the effects of the long-lasting war status that marked the eighteenth century and to identify the drivers of the massive loss in trade associated to some of these conflicts.

We start by defining a loss function of the effects of wars. We construct it as the percent loss during war periods, as opposed to predicted trend in peace time:

$$Loss = \frac{Expected\ value\ in\ peace - Observed\ value\ in\ war}{Expected\ value\ in\ peace}$$

Figure 2 shows the annual loss function for the period of interest. The black dotted line shows observed trade versus trade predicted based on all preceding peace period, whereas the red solid line shows the comparison with the prediction only based on the single preceding peace period. There are two interesting things to notice in this graph. First, the loss function is especially high during the Seven Years Wars and the Revolutionary Wars/Continental Blockade, meaning losses as a consequence of these conflicts were greater than for other conflicts in this century. Second, the loss function is positive also in peace time, after those two wars, meaning losses were longer lasting. Therefore, at a first glance, these two conflicts were more harmful to trade than others. Looking at figure 3 makes this point stronger. We observe, in fact, that post-Seven Years War loss is roughly comparable to that during American Revolutionary War altogether. It is undoubtedly hard to disentangle the effect of the American Revolutionary War itself and the lags from the preceding war, however, whatever the distribution of weights between these two events, it is undeniable that the consequences of the Seven Year War were quite significant. The same holds for the Revolutionary War and the Continental Blockade, which have already been mentioned in the literature as a major cause in French trade disruption at the end of the nineteenth century (O'Rourke, 2005).

Figure 2: Annual Loss Function

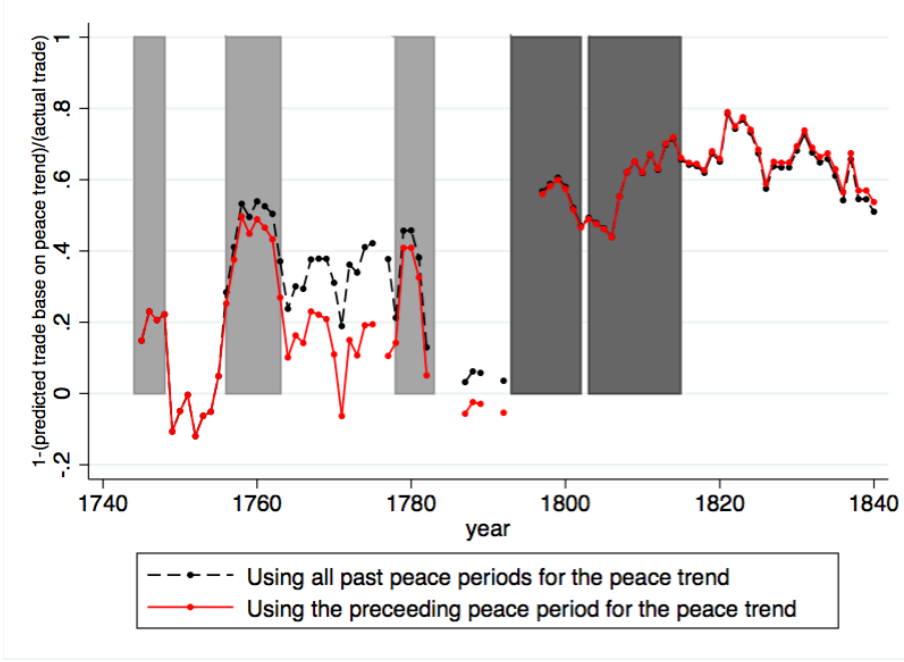
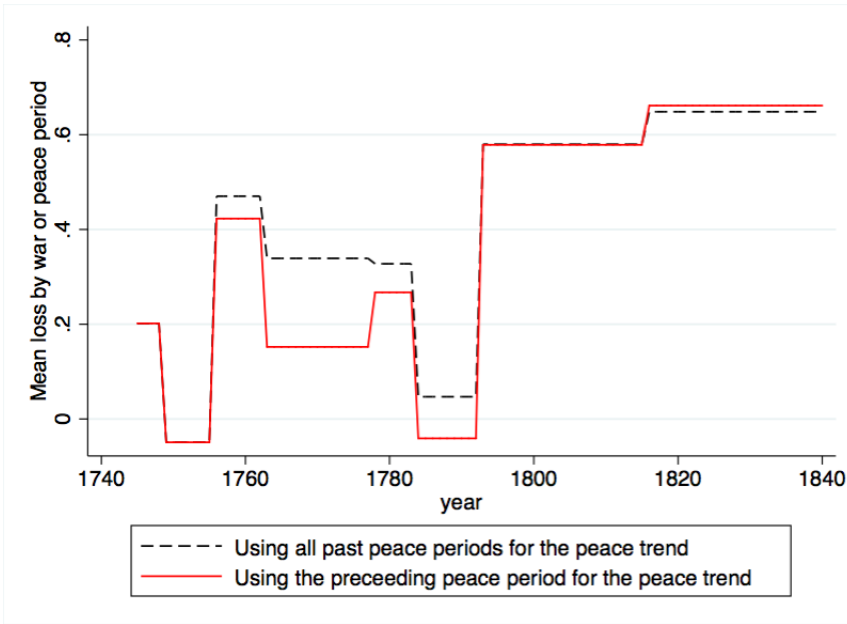


Figure 3: Mean Loss Function



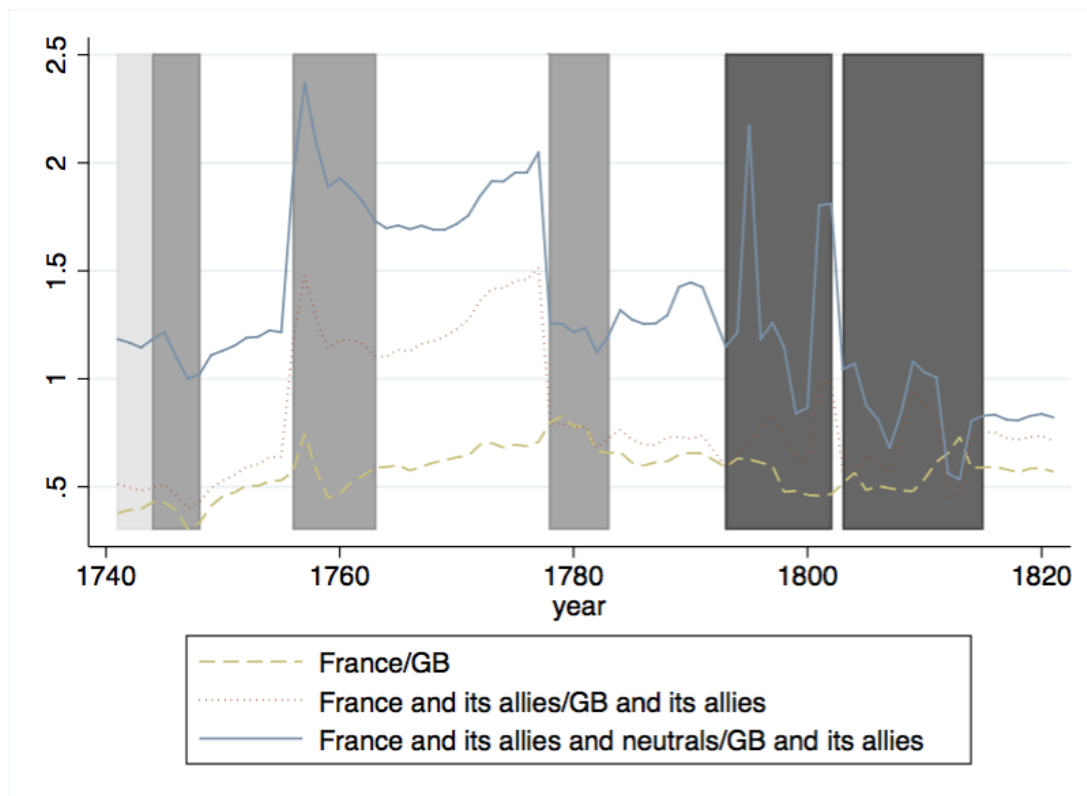
We want to test the hypothesis that the most efficient strategy to curtail enemy's trade was to cut its commercial relations with neutral countries. In order to do this, we run the following specification:

$$Loss = \beta_0 + \beta_1 NavalSupremacy + \beta_2 ColonyLoss + \beta_3 NeutralRegulation$$

We use the loss function as a dependent variable, transformed from percentage to absolute value and then take the logs.

As explanatory variables we introduce several factors. First, we use number of warships, grouped by belligerent/neutral status, as a proxy for naval supremacy. Figure 4 reports the ratio of France over Great Britain, France and its allies versus Britain and its allies and France, its allies and neutral countries versus Britain and its allies. Mostly, among neutral countries, we find Denmark, Hanseatic cities, United States and Russia. The latter, however, occasionally was also allied with France (during Seven Years War for instance). Ally countries were mostly colonies and, as mentioned, occasionally Russia. We can observe here that the France-GB ratio is quite stable over the whole period, quite less so if we take into account allies and neutral. The latter two ratios in fact, actually increase in the period of the Seven Years War and after, and also has some spikes during the Napoleonic Wars. At least at first sight, this does not look related to the pattern of the loss function. Intuitively, we would expect the loss to decrease as the ratio increases, therefore a positive relation.

Figure 4: Naval Supremacy Ratio



Second, we include a colony loss measure. At the time, the French empire owned several colonies in America, Asia and Africa. Especially the American ones were a major source for production of sugar and coffee, which were widely imported and then re-exported by France to other European countries. These territory, therefore, represented a valuable source for French trade, in particular St. Domingo, Guadeloupe and Martinique, which were major provider of sugar. The former, which accounted for

roughly 80% of French imports in 1788 and was producing 60% of total European coffee consumption, declared its independence in 1804 and separated from the French empire, thus depriving France of one of its main sources of colonial goods. As a matter of fact, the revolt of the slaves in Haiti was a long and bloody episode and sugar production was lost well before independence was ultimately acquired. This is easily visible in the graph, where the measure of colonial empire drops from 1 to just a little bit above 0.2 already in 1793. In 1796, the measure increases again, as the revolt was partially under control and France was able to continue production and trade of sugar for a few years. This only lasted until 1804, when ultimately Haiti became independent and France lost its main source of exports for sugar. Guadeloupe was also important for its sugar production and was lost to the British between 1759 to 1763, as it is visible from the decrease of the index in the graphs, and between 1810 and 1816. Finally, Martinique was controlled almost continuously by the British, from 1794-1815, to be traded back to France, after the Napoleonic Wars. We have, therefore, created a weight variable, assigning to each colony a weight corresponding to its share of imports in 1788, for which we have data on single colony, and then interacted it with a dummy variable indicating whether that colony was under French possession in that specific year. When France had all its colonies this variable equals 1, any time one colony is missing this variable equals 1 minus the share of imports of that particular colony. For the specific case of St. Domingue, we coded the possession variable as 0 between 1793 and 1795, when the revolt started, and production was mostly destroyed or fields burnt. For the period 1795 to 1804 we have coded it as 0.5, to account for the fact that the order was partly restored and a portion of the plantation were being cultivated normally, and only 1805 Haiti became independent and the production was lost completely. Intuitively, we would expect a negative effect of this variable on the loss function; i.e. the more this measure increases (the closest it is to 1), the smaller the losses in trade on the French side. Figure 5 shows the evolution of the colony loss measure.

Figure 5: Measure of colonial empire



As we can see, for most of the eighteenth century, French empire encompassed most of its colonies, whereas after the French Revolution a substantial part of its empire was lost either to the British or because colonies obtained independence.

Finally we introduce a categorical variable to measure the strictness of commercial policies versus neutral countries in wartime. Initially, the only enemies were foes, while neutral countries were allowed to continue their trade with all other partners, despite an ongoing conflict. This rule, however, had induced belligerent countries to exploit neutral ships for trading their own merchandises (Carrière, 1973). For this reason, in 1756, during Seven Years War, the British decided to put an end to this practice and produced the *Doctrine of Continuous Voyage*, which was forbidding neutrals, in time of war, to enjoy a trade from which they were barred in time of peace. This prohibition was allowing the British to seize neutral shipping and had a considerable impact on French trade, which was heavily relying on Dutch ships to transport colonial goods. It also created great discontent among neutral countries, which, however, were not able to enforce their rights efficiently until 1780, when, finally, Russia, Norway and Sweden created the *League of Armed Neutrality*. The latter allowed them to defend their interest at least for the time of the War of American Revolution. This experiment however did not have a long lasting success and was finally put to an end in 1783 with

the treaty of Paris, when Catherine of Russia renamed it the *Armed Nullity*<sup>7</sup> (Griffiths, 1971). In 1793, with the outburst of the French Revolution and, subsequently, the Revolutionary Wars, most British goods were prohibited in France. As a response, the British adopted a policy for blockading the coast of France and, subsequently, both countries took action against neutral shipping. A year later, Denmark and Sweden attempted again to enforce their rights by creating a *Second League of Armed Neutrality*, which was joined by Russia and Prussia in 1800. No later than 1801, though, the British blockaded them (with the exception of Prussia) and bombed Copenhagen to end the League for good. In 1806, things worsen even further for neutral countries, when Napoleon enacted the Berlin decree, which provided the basic structure of the Continental System. The provisions of the Berlin Decree included: (1) prohibition of all trade with the British; (2) all British subjects in French-occupied areas were prisoners of war and their property was "fair prize"; (3) all trade in British goods was prohibited and all goods from England and her colonies were fair prize (and one-half their value was to be used to indemnify French merchants for losses to the British); and (4) no ships coming from the ports of Britain or its colonies would be permitted to use any port on the Continent (Davis and Engerman, 2006). Britain responded to this policy with a related Order in Council, which required that neutral vessels call at a British port before proceeding to the continent, hitting at neutrals such as the United States, as well as France (Davis and Engerman, 2006). The United States, were, at the time, the biggest neutral country whose trade was suffering because of the Blockade and, as a consequence, they attempted to fight back. They first enacted, in 1807, an Embargo Act directed against trade with both France and Britain, which was followed by the Non-Intercourse Act of 1809, and finally, after failure of both provisions, by a war against Britain. The United States had no better luck than France in the war, which was ultimately won by British, even if with considerable decline in trade for both sides. The situation started to unravel only around 1810, when Russia pulled out of the Continental Blockade, pushing Napoleon to attempt an invasion, which ultimately led to his final defeat, but put an end to the Blockade System and to the threat for neutral trade. Basing on these facts, we have created a categorical variable that can take three values; 0 if only enemy cargo were fair game, 1 if enemy cargo on neutral ships were fair game, 3 if any good from enemy territory were fair game. As a consequence, for this variable, we would expect a positive effect; the higher the value, the stricter the policy and the bigger the loss. The table 1 reports the value of this variable overtime. Table 2 reports a summary of all expected effects of the independent variables.

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<sup>7</sup>The number of vessels Russia, Norway and Sweden owned combined were still less than the entire British navy, therefore this league was bound to be weak from the very beginning.

Table 1: Measure of neutral policy

Period	Neutral policy variable
1741-1755	0
1756-1779	1
1780-1789	0
1797-1814	2
1815-1820	0

Table 2: Summary of expected effects

Explanatory Variable	Expected Effect
Loss of colonies	-
Naval Supremacy	-
Treatment of neutral countries	+

## 6 Conclusion

In this paper we have analysed the effects of different conflicts on French trade in the eighteenth century. We have first created a loss measure by comparing the amount of trade that would have taken place in the absence of conflicts with the observed trade. We have done so both by using all the preceding peace periods to compute expected trade and just the period immediately before the conflict. From this computation we have observed mainly two things; first that the main losses were during the Seven Years War and the Revolutionary Wars-Continental Blockade, second that only as a consequence of these two conflicts there were long lasting effects. This leads us to think that there must have been a common factor that made these two wars so disruptive. We analyse several cases. Naval supremacy is a possible explanation and for this reason we construct a measure to account for it. We take the ratio first of France and Great Britain's number of warships, then that of France and Great Britain including their allies, and finally France with neutral countries and Great Britain including their allies. Contrary to our expectations, we find rather a positive relation, meaning that an increase in the number of warship was linked to a bigger loss in trade. This can possibly be explained by the fact that countries were investing in their navies in the attempt to protect their trade or to fight wars. However, this does not seem to explain the loss in trade per-se. Another option was the loss of colonies. Especially towards the end of the century, France lost some of its richest colonies, which had a consequence on their imports. We have created a measure to account



for the colonies loss, weighted for the share of trade those colonies accounted for. We find in this case little more correlation with the loss function, however this does still not entirely explain the losses of the Seven Years War, nor the fluctuations in this measure seem to be related to the loss in the Blockade period. Finally, we have investigated the policy towards neutral countries, which had been changing throughout the century. We find that, whenever the policy with respect to trade with neutral countries were looser, war losses were limited and commerce could recover its pre-war level very quickly, even outperform it. On the other hand, when the British started blockading neutral countries as well, French trade experienced a massive drop and a long convalescence.

We conclude that, even if all these factors probably were contributing to the loss in trade during conflicts, the turning point was strictly related to policy towards neutral countries. British could efficiently curtail French trade only by blockading neutral countries.

## References

- Charles H Anderton and John R Carter. The impact of war on trade: An interrupted times-series study. *Journal of Peace Research*, 38(4):445–457, 2001.
- S Brock Blomberg and Gregory D Hess. How much does violence tax trade? *The Review of Economics and Statistics*, 88(4):599–612, 2006.
- Barry Buzan. Economic structure and international security: The limits of the liberal case. *International Organization*, 38(4):597–624, 1984.
- Charles Carrière. *Négociants marseillais au XVIIIe siècle: contribution à l'étude des économies maritimes*, volume 2. Institut historique de Provence, 1973.
- Loïc Charles and Guillaume Daudin. La collecte du chiffre au xviii<sup>e</sup> siècle: le bureau de la balance du commerce et la production des données sur le commerce extérieur de la france. *Revue d'histoire moderne et contemporaine*, (1):128–155, 2011.
- Greg Clark and Peter Lindert. England\_1209-1914. "[gpih.ucdavis.edu/files/England\\_1209-1914\\_\(Clark\).xls](http://gpih.ucdavis.edu/files/England_1209-1914_(Clark).xls)", 2006.
- François Crouzet. *La Guerre Économique Franco-Anglaise Au XVIII<sup>e</sup> Siècle*. Fayard, Paris, 2008.
- Guillaume Daudin, Loïc Charles, and Paul Girard. TOFLIT18 database. <https://toflit18.hypotheses.org>.
- Lance E Davis and Stanley L Engerman. *Naval blockades in peace and war: an economic history since 1750*. Cambridge University Press, 2006.
- Natalis de Wailly. *Mémoire Sur Les Variations de La Livre Trounois Depuis Le Règne de Saint Louis Jusqu' à l'établissement de La Monnaie Décimale*, volume 2. Mémoires de l'Institut national de France, Académie des inscriptions et belles lettres, Paris, 1857.
- Phyllis Deane and W.A. Cole. *British Economic Growth 1688-1959 : Trends and Structure*. Cambridge University Press, Cambridge, 2 edition, 1969.
- Béatrice Dedinger and Paul Girard. Exploring trade globalization in the long run: The RICardo project - Google Scholar. *Historical Methods: A Journal of Quantitative and Interdisciplinary History*, 50(1):30–48, 2017. doi: 10.1080/01615440.2016.1220269.
- Michael W Doyle. Ways of war and peace: Realism. *Liberalism, & Socialism WW Norton & Company, New York/London*, 1997.
- Giovanni Federico and Antonio Tena-Junguito. World trade, 1800-1938: A new data-set. *EHES Working Papers in Economic History*, (93):300, 2016.
- Ronald Findlay and Kevin H O'Rourke. *Power and plenty: trade, war, and the world economy in the second millennium*. Princeton University Press, 2009.
- Reuven Glick and Alan M Taylor. Collateral damage: Trade disruption and the economic impact of war. *The Review of Economics and Statistics*, 92(1):102–127, 2010.
- David M Griffiths. An american contribution to the armed neutrality of 1780. *The Russian Review*, 30(2):164–172, 1971.

- Philip Hoffman, Gilles Postel-Vinay, and Jean-Laurent Rosenthal. *Priceless Markets: The Political Economy of Credit in Paris, 1660-1870*. Paris, 2000.
- Roy W. Jastram. *Silver, the Restless Metal*. John Wiley, 1981.
- Thomas Jefferson. Letter from Thomas Jefferson to James Monroe, 11 June 1823. 1823.
- Réka Juhász. Temporary protection and technology adoption: Evidence from the napoleonic blockade. 2014.
- André Lespagnol. Mondialisation des trafics inter-océaniques et structures commerciales nationales au XVIIIe siècle: Contradictions et compromis. *Bulletin de la Société d'Histoire Moderne et Contemporaine*, pages 1–2, 1997.
- Jack S Levy. The causes of war: A review of theories and evidence. behavior, society, and nuclear war. p. tetlock, jl husbands, r. jervis, pc stern and c. tilly, 1989.
- Jack S Levy and Katherine Barbieri. Trading with the enemy during wartime. *Security Studies*, 13 (3):1–47, 2004.
- Philippe Martin, Thierry Mayer, and Mathias Thoenig. Make trade not war? *The Review of Economic Studies*, 75(3):865–900, 2008.
- Silvia Marzagalli. Was Warfare Necessary for the Functioning of Eighteenth-Century Colonial Systems? Some Reflections on the Necessity of Cross-Imperial and Foreign Trade in the French Case. In Cátia Antunes and Amélia Polónia, editors, *Beyond Empires: Global, Self-Organizing, Cross-Imperial Networks, 1500-1800*, page 253. 2016.
- Susan M McMillan. Interdependence and conflict. *Mershon International Studies Review*, 41 (Supplement\_1):33–58, 1997.
- Michel Morineau. La vraie nature des choses et leur enchaînement entre la France, les Antilles et l'Europe (XVir-XIX'siècle). *Revue française d'histoire d'outre-mer*, 84(314):3–24, 1997.
- John R Oneal and Bruce M Russett. The classical liberals were right: Democracy, interdependence, and conflict, 1950–1985. *International Studies Quarterly*, 41(2):267–294, 1997.
- Kevin H O'Rourke. The worldwide economic impact of the Revolutionary and Napoleonic Wars. Technical report, National Bureau of Economic Research, 2005.
- Solomon William Polachek. Conflict and trade. *Journal of conflict resolution*, 24(1):55–78, 1980.
- Ahmed S Rahman. Fighting the forces of gravity–Seapower and maritime trade between the 18th and 20th centuries. *Explorations in Economic History*, 47(1):28–48, 2010.
- J.C. Riley. *The Seven Years War and the Old Regime in France*. Princeton University Press, 1986.
- Norrin M Ripsman and Jean-Marc F Blanchard. Commercial liberalism under fire: Evidence from 1914 and 1936. *Security Studies*, 6(2):4–50, 1996.
- Max Roser. War and Peace. <https://ourworldindata.org/war-and-peace/>, 2016.
- Immanuel Wallerstein. *The Modern World System II : Mercantilism and the Consolidation of the European World Economy 1600-1750*. Academic Press, New-York, 1980.