Positive externalities between the STRO and the TOFLIT18 projects

Loïc Charles & Guillaume Daudin
Transport statistics in pre- and early industrial economic history: The challenges and opportunities of Sound Toll Registers Online
Lepzig, Octobre 2016
Introduction

• What are we speaking about?
  – Toflit18 means “Transformations of the French Economy through the Lens of International Trade, 1716-18”
  – Four-year, 250 000 € project financed by the Agence Nationale de la Recherche (2014-2017)
  – Go and see its history at http://toflit18.hypotheses.org

• Outline
  – Presentation of the project
  – How we treat goods
  – Comparing TOFLIT18 and STRO
First, I want to say a word about Navigocorpus

- They are very much willing to interact with the STRO
- The main difficulty for them is that STRO does not have the names of the ship
- What would be useful is some work on captains’ names
  - But that is quite an ordeal!
Foreign shipping in France

Swedish shipping in France, 1787 (number of ships)
### Identification of ships and captains

<table>
<thead>
<tr>
<th>Ship’s name</th>
<th>captain</th>
<th>tons</th>
<th>Clearing from</th>
<th>destination</th>
<th>Date of clearance</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Femme et enfants</td>
<td>Zantz, Rincke</td>
<td>180 tx</td>
<td>Dunkerque</td>
<td>Bordeaux</td>
<td>1787=02=27</td>
<td>ANF, G5-74</td>
</tr>
<tr>
<td>Femme et enfants</td>
<td>Janz, Rinek</td>
<td>161 tx</td>
<td>Bordeaux</td>
<td>Riga</td>
<td>1787=09=03</td>
<td>ANF, G5-50</td>
</tr>
<tr>
<td>Femme et les enfants</td>
<td>Janz, Ryenek</td>
<td>161 tx</td>
<td>Bordeaux</td>
<td>Riga</td>
<td>1787=09=03</td>
<td>ANF, G5-50</td>
</tr>
</tbody>
</table>

**Sound Toll Register**

1. 17-12-1786 Rynk Jans   Riga   Riga - Dunkerque
2. 5-5-1787 Rynk Jans     Riga   Bordeaux - Riga
3. 11-7-1787 Rinck Janz   Riga   Riga - Bordeaux
4. 10-10-1787 Rynk Jans   Riga   Bordeaux - Riga
5. 28-11-1787 Rink Jansz  Riga   Riga - Bordeaux
6. 3-5-1788 Rinck Jans    Riga   Bordeaux - Riga

**NB:** the identification of ships make it possible to deal with missing data in some sources.
And now a word about RICARDO

- Bilateral trade database from the early 1800s to 1938
  - Has been released: http://ricardo.medialab.sciences-po.fr
Total trade reported by Finland (without its Russian dependent)

The Country view focuses on the distribution of a reporting country’s total trade with its different partners. It compares the partner entities according to their share in the reporting country’s total trade, calculates the annual bilateral trade balance and tracks the growth of trade with selected partners.

Total trade of reporting Finland from 1812 to 1938

In this graph, total trade equals the sum of export (import) flows with all partner entities.

Available and unavailable data for Finland

Data expressed in pound sterling
Comparing Finland’s trade with Russia and the rest of Europe
What are Finland’s trade partners? What is the trade balance?

In this graph, the partners of the reporting country are compared by calculating two indicators:

- the average bilateral trade share estimated for available years over the selected period
- the relative bilateral trade balance estimated for each available year over the selected period

A = reporting / B = partner   Exp A -> B = exports from A to B   ExpA = total exports A
Average bilateral trade share = Exp A->B / ExpA * 100   Relative bilateral trade balance = (Exp A->B - Imp A->B) / (Exp A->B + Imp A->B)

- Europe: 46%
- Russia/USSR: 20%
- Germany: 10%
- Norway & Sweden: 10%
- United Kingdom: 10%
- America: 6%
- United States of America: 4%
Presentation of the project (1): Context

- European trade and navigation data become much richer in the 18th century

- We use a well-known, but unpublished source (Balance du Commerce)
  - This source is not uniform through time: there were a number of changes in what was collected and how
  - All the data have are country x product
  - National data from 1751 to 1821
  - Local data from 1718 to 1781 + 1789.
  - c. 500,000 trade flows (420,000 already «in»)

- Definitely trade data
  - Yet, 62% of trade flows are in volume (mainly livres-poids), especially the local ones
Map 1. Coverage of the volume (excluding countries discussed in the “missing countries” section)

- Covered in this volume outside the missing countries section
- Not covered
Contents

EIGHTEENTH-CENTURY INTERNATIONAL TRADE STATISTICS
edited by Loïc Charles and Guillaume Daudin

Loïc Charles, Guillaume Daudin

PAPERS
Past and present issues in trade statistics: An insider's view ........ 39
Hubert Escat
Dealing with commodities in Navigocorpus
Offering tools and flexibility ...................................................... 53
Jean-Pierre Dedieu and Silvia Marzagalli
Trade statistics of the Zollverein, 1834-1871 .......................... 67
Brigitte Dedinger
Early modern trade flows between smaller states: The Portuguese-Swedish trade in the eighteenth century as an example ............... 87
Maria Cristina Moreira, Jari Eloranta, Jari Ojala, and Lauri Karvonen
One source to rule them all? Combining data about trade and shipping from Amsterdam to the Baltic in the late eighteenth-century ........ 111
Jeroen van der Vliet
French imports to the Baltic, a quantitative analysis .................. 137
Werner Schelijns
The quantitative development of Germany's international trade during the eighteenth and early nineteenth centuries .................. 175
Ulrich Pfister

QUESTIONNAIRES
Austrian Netherlands, 1759-1791 ........................................... 225
Ann Coenen
France, c.1713-c.1821 ......................................................... 237
Loïc Charles and Guillaume Daudin
Genoa, sixteenth century-1797 ............................................ 249
Luisa Piccinno and Andrea Zanini
Habsburg Monarchy, eighteenth century-1918 ....................... 253
Klemens Kaps
Hamburg, 1728-1811 ......................................................... 265
Klaus Weber

Revue de l’OFCE, 140 (2011)

Ireland, 1698-1829 ........................................................... 269
Patrick Walsh, Aidan Kane, and Eoin Tennesen
Naples, sixteenth century-1809 ........................................... 275
Daniela Ciccoleva
Livorno, 1680-1845 ........................................................... 281
Mathieu Grenet
Milan, 1762-1790 ............................................................... 289
Giovanna Tonelli
Netherlands, 1753-1809 ....................................................... 295
Werner Schelijns
Norway, 1731-1795 ............................................................. 301
Ragnhild Hutchinson
Papal States, sixteenth-nineteenth centuries ......................... 307
Donatella Strangio
Poland, 1764-1791 .............................................................. 311
Szymon Kuziuk and Jan Kochanowski
Portugal, 1775-1831 ........................................................... 319
Maria Cristina Moreira
Romanian Principalities, eighteenth century ......................... 335
Cristian Luca
Russia, 1758-1766 ............................................................. 343
Werner Schelijns
Scotland, 1707-1783 ........................................................... 345
Philippe Robinon Rössner
Spain, 1717-1827 ............................................................... 355
Javier Cuena-Esteban
Spanish America, 1790-1830 ............................................... 365
Alejandro Irigo
Sweden and Finland c.1700-1809, Finland 1809-c.1850 ........... 373
Jari Ojala and Jari Eloranta
United Kingdom, 1696-1899 ............................................... 379
David Jacks
United States, 1790-1819 .................................................... 385
Javier Cuena-Esteban
Missing countries ............................................................... 391
Loïc Charles and Guillaume Daudin

The opinions expressed by the authors are their own and do not necessarily reflect the views or positions of the institutions to which they belong.
<table>
<thead>
<tr>
<th>Product</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cabeas</td>
<td>1</td>
</tr>
<tr>
<td>Cabanats</td>
<td>38</td>
</tr>
<tr>
<td>Cabillaudy</td>
<td>156</td>
</tr>
<tr>
<td>Daniel</td>
<td>3915.31</td>
</tr>
<tr>
<td>Cables</td>
<td>500</td>
</tr>
<tr>
<td>Cacao</td>
<td>830625.10</td>
</tr>
<tr>
<td>Cachou</td>
<td>757.6</td>
</tr>
</tbody>
</table>

Source picture
Presentation of the project (2): What do we do exactly?

- We have built a tool for other researchers: a « datascape »
    - Id: toflit18 pw: douelle
  - A kind of « flexible » database
  - That can be adapted to a variety of research questions (we might not have the funding for that)
  - That can certainly be used for data exploration

- Full versionning with Github
  - Every data treatment decision is attributed to a member of the team and can be reversed

- Tour of the interface
Presentation of the project (2): What do we do exactly?

• We have built a tool for other researchers: a «datascape»
    • Id: toflit18 pw: douelle
  – A kind of «flexible» database
  – That can be adapted to a variety of research questions (we might not have the funding for that)
  – That can certainly be used for data exploration

• Full versionning with Github
  – Every data treatment decision is attributed to a member of the team and can be reversed

• Tour of the interface
  – There are five views: metadata / indicators / countries network / product terms / classification
Metadata view: number of sources and observations for trade with the North

Tableau Général
Local
Résumé
Objet Général
National par direction
## Interface of the Metadata view

### Metadata

*Some information about the data itself.*

<table>
<thead>
<tr>
<th>Data type</th>
<th>Source Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>You must select the type of data to control.</td>
<td>Source Type</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source Type</th>
<th>Source type...</th>
</tr>
</thead>
<tbody>
<tr>
<td>From which sources does the data come from?</td>
<td>Source type...</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Hamburg classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>The type of product being shipped.</td>
<td>Hamburg classification (toflit18)</td>
</tr>
<tr>
<td></td>
<td>39 groups.</td>
</tr>
<tr>
<td></td>
<td>1,577 / 45,857 classified items (9%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>Grouping</th>
</tr>
</thead>
<tbody>
<tr>
<td>The country whence we got the products or whither we are sending them.</td>
<td>Grouping (toflit18)</td>
</tr>
<tr>
<td></td>
<td>31 groups.</td>
</tr>
<tr>
<td></td>
<td>193 / 193 classified items (100%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Direction</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>The French harbor where the transactions were recorded.</td>
<td>All</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kind</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Should we look at import, export, or total?</td>
<td>Total</td>
</tr>
</tbody>
</table>

[Add Charts]
Indicators view

Number of observations and value for trade with the North

Number of flows per year

Total value of flows per year

Total number of directions per year

Export data
## Interface of the Indicators view

### 1. Creating a new line

*By selecting the following criteria, you'll be able to add the line you need on the graph that will be created for you below.*

<table>
<thead>
<tr>
<th>Source Type</th>
<th>Local best guess</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>Hamburg classification (toflit18)</td>
<td>39 groups. 1577 / 15857 classified items (9%)</td>
</tr>
<tr>
<td></td>
<td>Grouping (toflit18)</td>
<td>31 groups. 193 / 193 classified items (100%)</td>
</tr>
<tr>
<td>Country</td>
<td>Nantes</td>
<td></td>
</tr>
<tr>
<td>Kind</td>
<td>Export</td>
<td></td>
</tr>
</tbody>
</table>

[Already drawn]
Geography of French trade in 1789
How we treat goods (1)

- Principles
  - Classification is hard
  - Classification actually depends on the question asked
  - Classification is hard

- Situation
  - There are 51,500 different goods in the database
  - All the sources are hand-written, so there are transcription issues.

- Our «solution»: two types of classifications
  - «general classifications»
    - Done by the project and useful for everybody
  - «question-specific classifications»
    - Done by each researcher for his research purposes
How we treat goods (2)

• First general classification: orthographic normalization
  – From 44,000 goods to 21,000 groups
    • E.g. «Aiguiles», «Aiguille», «Aiguiller», «Aiguilles», «Eguilles» and «aiguilles» are all «aiguilles» (needles)
    – We have a strict rule set for what is allowed and what is not (thank you Pierre Gervais!)

• Second general classification: simplification
  – From 20,500 item to 16,000 groups
  – The idea is not to keep all the information
    • E.g. «aiguilles», «mercerie en aiguilles» and «mercerie fine aiguilles» are all «aiguilles»
    • This is a different group from «aiguilles grosses» and «aiguilles à coudre»
Number of different «simplified» goods per year

1. All sources
2. National sources
The peaks (1751 and 1789) are around 3,000
How we treat goods (3)

• If a researcher has a question, it is easier for him to deal with 16,000 items than with 44,000
  – Still pretty daunting!
  – So we have another, “high-level” classification just to help him by sorting things out

• A variant of “1.5 digit” SITC adapted to 18th century French trade (SITC18) with 24 categories
  – Currently treating 13,500 items

• This is not, directly, a classification for research. It is a convenience to the researcher
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>0a</td>
<td>Other foodstuff and live animals</td>
<td>971</td>
</tr>
<tr>
<td>0b</td>
<td>Plantation foodstuff</td>
<td>175</td>
</tr>
<tr>
<td>1</td>
<td>Beverages and tobacco</td>
<td>479</td>
</tr>
<tr>
<td>2</td>
<td>Raw materials, inedible, except fuels</td>
<td>1824</td>
</tr>
<tr>
<td>3</td>
<td>Fuels</td>
<td>27</td>
</tr>
<tr>
<td>4</td>
<td>Oils</td>
<td>126</td>
</tr>
<tr>
<td>5</td>
<td>Processed chemical products</td>
<td>748</td>
</tr>
<tr>
<td>6a</td>
<td>Leather products except saddlery</td>
<td>409</td>
</tr>
<tr>
<td>6b</td>
<td>Wood, cork and cane products</td>
<td>886</td>
</tr>
<tr>
<td>6c</td>
<td>Paper products</td>
<td>157</td>
</tr>
<tr>
<td>6d</td>
<td>Linen threads and fabrics</td>
<td>233</td>
</tr>
<tr>
<td>6e</td>
<td>Wool threads and fabrics</td>
<td>355</td>
</tr>
<tr>
<td>6f</td>
<td>Silk threads and fabrics</td>
<td>341</td>
</tr>
<tr>
<td>6g</td>
<td>Coton threads and fabrics</td>
<td>261</td>
</tr>
<tr>
<td>6h</td>
<td>Other vegetal threads and fabrics (including mixed ones)</td>
<td>360</td>
</tr>
<tr>
<td>6i</td>
<td>Other threads and fabrics</td>
<td>844</td>
</tr>
<tr>
<td>6j</td>
<td>Metal products</td>
<td>743</td>
</tr>
<tr>
<td>6k</td>
<td>Other industrial products</td>
<td>474</td>
</tr>
<tr>
<td>7</td>
<td>Machines and transportation</td>
<td>463</td>
</tr>
<tr>
<td>8</td>
<td>Various manufactures</td>
<td>1945</td>
</tr>
<tr>
<td>9a</td>
<td>Precious metals</td>
<td>76</td>
</tr>
<tr>
<td>9b</td>
<td>Mixed flows</td>
<td>183</td>
</tr>
<tr>
<td>9c</td>
<td>Various uncertain (unknown level of processing / raw material)</td>
<td>488</td>
</tr>
<tr>
<td>??</td>
<td>Unknown products</td>
<td>797</td>
</tr>
</tbody>
</table>
How we treat goods (4)

• Then come the classifications tuned to specific research questions, which are based on the 16,000 «simplified» goods
  – What is the evolution of the drug trade?
    • 16,000 products into 3 groups (not medical products / maybe medical products / certainly medical products)
  – How do French trade statistics relate to Hamburg’s ones?
    • 1,600 products into 39 groups (the ones of the Hamburg’s statistics)
  – What was the effect of the loss of Canada on French colonial trade?
    • 700 products into 4 categories (not from North America / Maybe from North America / certainly from North America / unknown)
  – The effect of the Eden treaty
    • 343 products into 17 groups (depending on tariff changes)
  – Grain trade and political unrest
    • 16,000 products into 6 groups (not grain / wheat / barley and rye / small grains / substitutes / transformed grain...)

• All this can be manipulated in the datascape
• Very important: we have a process to automatically adapt “downstream” classifications when the upstream classification is changed
  – So we can «revisit» the «orthographic» classification without breaking the «simplification» one, for example.
Classification interface
Mapping the world of commodities

• We can use our tools to map the eighteenth-century world of commodities.

• Network nodes
  – Individual words in commodities names
  – Size of the nodes: number of occurrences (i.e. number of trade flows)
  – Edges: co-presence in a commodity name

• A look at French imports from Sweden
  – Dominated by iron, copper and wood

• A look at French exports to Sweden
  – Dominated by wine, but much more differentiated
National French imports from Sweden, 1749-1789
National French exports to Sweden, 1749-1789
Comparing STRO-TOFLIT18 (1)

- Our first, exploratory aim, is cross-checking the data
  - Only national French data (1750-1789)
  - 111,000 STRO cargoes (An extraction from November 3rd 2013 (thanks J.W. Veluwenkamp and Ubo Kooijinga!))
  - 15,000 French trade flows

- Three issues:
  - Geography
  - Volume units (or tolls ?)
  - Goods

- Geography
  - STRO was already standardized when we did it
  - The problem is that the French data does not distinguish Baltic trade per se:
    - ”Nord” includes Hamburg and Bremen
    - “Denmark” (from 1733) could be Norway or the North Sea
    - “Sweden” (from 1734) could be Gothenburg
    - “Russia” (from 1744) could be Archangel
Comparing STRO-TOFLIT18 (2)

- Volume of goods
  - STRO data: 524 different quantity units
  - Done thanks to Scheltjens (2009) and Scheltjens (2014)
  - + some extra information (including Johansen (1983)). We are left with only 2,000 cargos for which we could not compute the quantities (and 4,000 we assumed to be “pieces”)

<table>
<thead>
<tr>
<th></th>
<th>Scheltjens’s procedure</th>
<th>Using destination instead of departure</th>
<th>Using other information</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>48,533</td>
<td>914</td>
<td>18,474</td>
<td>67,921</td>
</tr>
<tr>
<td>Number of pieces</td>
<td>8,023</td>
<td>469</td>
<td>21,832</td>
<td>30,324</td>
</tr>
<tr>
<td>Rigsdaler</td>
<td></td>
<td></td>
<td>10,613</td>
<td>10,613</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td></td>
<td>102</td>
<td>113</td>
</tr>
<tr>
<td>Total</td>
<td>56,567</td>
<td>1,383</td>
<td>51,021</td>
<td>108,971</td>
</tr>
</tbody>
</table>
Comparing STRO-TOFLIT18 (3)

- French data are comparatively easy to deal with
- An alternative to volume: cargo toll paid
  - Mostly *ad-valorem*
  - Yet, it depended on the nationality of the owner (no taxes for Danes during our period of interest)
  - And on the goods...
- Goods: STRO translation + Scheltjens + a professional translator +
  - 5324 “soort”: 24 with more than 1000 cargos, 168 with more than 100 cargos
  - => 498 in danish (but 2535 are not identified, for 3091 cargos)
  - => 424 French “marchandises” => 16 sectors (SITC based).
    13,534 cargos are not classified, including 2,200 ballast and 5,700 “Diverses marchandises”, 1,000 “Provisions”
  - That is very tedious operation... Which in addition runs quickly into decreasing returns...
Comparing STRO-TOFLIT18 (4)

- **Absolute volume of trade**
  - When we have volumes... they are not the same
  - In the French DB, we kept liters, pieces and bundles rather than transform them into kg

- **Correlation of industrial composition of trade**
  - Using a 16-industry SITC18th
  - French imports from Sweden and Denmark are very different
  - Better for French exports to Russia, Sweden, and especially Denmark,
  - Very good for French imports from Russia
  - STRO tolls are surprisingly good proxies

- **Chronological evolution of trade**
  - Except French imports from Russia and exports to Denmark, there are large differences
## French exports, 1750-1789 (-) (in ,000)

Years covered are 1750, 1771-1777, 1779, 1780, 1782, 1787 and 1789. Silver kg is the converted value of goods not covered in the other categories (when available).

<table>
<thead>
<tr>
<th></th>
<th>Denmark</th>
<th>Russia</th>
<th>Sweden</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FBT</td>
<td>STRO</td>
<td>FBT</td>
</tr>
<tr>
<td><strong>Bundles</strong></td>
<td>0.2</td>
<td>50</td>
<td>4</td>
</tr>
<tr>
<td><strong>Kilograms</strong></td>
<td>70,092</td>
<td>23,114</td>
<td>68,041</td>
</tr>
<tr>
<td><strong>Litres</strong></td>
<td>68,656</td>
<td>11,898</td>
<td>16,880</td>
</tr>
<tr>
<td><strong>Meters</strong></td>
<td>2</td>
<td>29</td>
<td>6</td>
</tr>
<tr>
<td><strong>Pieces</strong></td>
<td>6,233</td>
<td>16,600</td>
<td>1,323</td>
</tr>
<tr>
<td><strong>Silver kg</strong></td>
<td>38</td>
<td>401</td>
<td>40</td>
</tr>
</tbody>
</table>
French imports, 1750-1789 (in ,000)

Years covered are 1750, 1771-1777, 1779, 1780, 1782, 1787 and 1789. Silver kg is the converted value of goods not covered in the other categories (when available).

<table>
<thead>
<tr>
<th></th>
<th>Denmark</th>
<th>Russia</th>
<th>Sweden</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bundles</strong></td>
<td>2</td>
<td></td>
<td>220</td>
</tr>
<tr>
<td><strong>Kilograms</strong></td>
<td>259,623</td>
<td>1,270</td>
<td>69,724</td>
</tr>
<tr>
<td><strong>Litres</strong></td>
<td>4,039</td>
<td>274</td>
<td></td>
</tr>
<tr>
<td><strong>Meters</strong></td>
<td>7,285</td>
<td>274</td>
<td></td>
</tr>
<tr>
<td><strong>Pieces</strong></td>
<td>9,240</td>
<td>700</td>
<td>1,371</td>
</tr>
<tr>
<td><strong>Silver kg</strong></td>
<td>20</td>
<td>50</td>
<td>33</td>
</tr>
</tbody>
</table>
Correlation of industrial composition of trade, 1750-1789 (-)

Years covered are 1750, 1752, 1754, 1756, 1758, 1759, 1760, 1761, 1767, 1768, 1769, 1770, 1771-1777, 1779, 1780, 1782, 1787-1789. The units in the French source is always the value of trade

<table>
<thead>
<tr>
<th></th>
<th>Unit in 'converted' STRO</th>
<th>Denmark</th>
<th>Russia</th>
<th>Sweden</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exports from France</strong></td>
<td>Kilograms</td>
<td>0,64</td>
<td>-0,01</td>
<td>0,07</td>
</tr>
<tr>
<td></td>
<td>Number of cargos</td>
<td>0,41</td>
<td>0,24</td>
<td>0,19</td>
</tr>
<tr>
<td></td>
<td>Taxes</td>
<td>0,64</td>
<td>0,58</td>
<td>0,62</td>
</tr>
<tr>
<td><strong>Imports to France</strong></td>
<td>Kilograms</td>
<td>-0,12</td>
<td>0,67</td>
<td>0,02</td>
</tr>
<tr>
<td></td>
<td>Number of cargos</td>
<td>0,19</td>
<td>0,83</td>
<td>0,08</td>
</tr>
<tr>
<td></td>
<td>Taxes</td>
<td>-0,06</td>
<td>0,89</td>
<td>0,04</td>
</tr>
</tbody>
</table>
Total French imports from Russia, 1750-1795

Corr : 0.84

Year

Sound taxes (rigsdaler)

French values (silver kg)

1750 1760 1770 1780 1790 1800

STRO  FBT
Total French exports to Sweden

Corr : 0.27

Sound taxes (Rigsdaaler)

French values (silver kg)

Year

1750 1760 1770 1780 1790 1800

STRO  FBT
Comparing STRO-TOFLIT18 (5)

• What to believe?

• Pessimist
  – One (or both) of these data are not worth much.

• Very optimist
  – Combining these data tell us about Gothenburg, Archangel and Norway?

• Mildly optimist
  – Werner’s work will allow us to converge

• Maybe we can explain the discrepancies?
  – Getting a closer look at geography?
  – Tax policies?
Fun things to do with goods and networks (1)

- You do not have to classify goods to ask interesting questions
- The names of goods are made from individual words. How do they relate? Do their relations change through time? Through space?
- Contrast between exports from Marseilles and Bordeaux in 1750
- Contrast between La Rochelle’s exports in 1720-1729 and 1770-1779
- This does not replace analysis...
  - But the treatment of goods is important for data exploration as well
Conclusion

• Outline
  – Presentation of the project
  – Classifying goods
    • Opposition between “general” classifications and “research-based classifications”
  – Comparing TOFLIT18 and STRO

• What do we plan to do?
  – Of course, a lot of our energy will go into editing the existing classification
  – The missing part of the datascape: the capacity to create or change the classifications directly in the site