Introduction

The ongoing digitalization of the Sound Toll Registers (into the Sound Toll Registers Online or STRO) offers many opportunities for research into early-modern economic and social history. Although the value of Sound Toll Registers as source for historical research has been widely recognized, very few researchers have used the registers considering it too time-consuming. Instead, the information of STR is generally accessed by consulting the summarizing statistical tables called *Tabeller over skibsfort og væretransport gennem Øresund 1497-1783* (Copenhagen and Leipzig, 1906-1953) by Nina Bang and Knut Korst. The *Tabeller* (STT) however have some drawbacks: since the tables are summaries, individual passages are lost; the STT only cover the period 1497-1783; information on ports of departure and destinations is split up in the STT, making it impossible to reconstruct routes; and certain products were merged into categories.¹

The STRO offers us the information of the Sound Toll Registers in its more ‘raw state’. Most importantly, information on individual passages, cargoes, and tolls are preserved. This allows for more detailed research into shipping and commodity trade.² However, before these possibilities offered by the STRO it needs processing. Because the STRO presents the STR in a form which is more similar to the original source the researcher is confronted with some of the particularities of the early-modern era. Names of ports, skippers, and cargoes are featured in several spellings. Furthermore, the large variation in weights and measures present in the STRO complicates research into cargoes. In this paper an attempt to overcome these difficulties, and to use the STRO to research Baltic commodity trade, will be presented.

The commodity trade in the Baltic was primarily bulk trade. The countries bordering the Baltic Sea produced high-volume raw materials. Poland mainly exported cereals, Finland tar, Russia hemp and flax, and Sweden mainly exported iron. The import of the Baltic area consisted mainly of

² The ascent of the Frisians: The Dutch Commercial System and the market for maritime transport, 1550-1800’ research project at the University of Gröningen exploits the possibilities of the STRO for the study of the history of shipping, in particular the maritime transport sector in the Dutch province of Friesland. [http://www.nwo.nl/en/research-and-results/research-projects/26/2300153726.html](http://www.nwo.nl/en/research-and-results/research-projects/26/2300153726.html)
salt, wine, herring, textiles, building materials, and precious metals. The latter were brought to the
Baltic to balance the trade between Western Europe and the Baltic area. Not only was the volume of
the Baltic area’s export larger than the volume of its import, which explains why many ships set sail
for the Baltic in ballast, the value of Baltic export was also higher than the value of its import.

In the sixteenth, seventeenth and eighteenth centuries a set of new products entered the
Baltic: colonial products. This development was related to the European ‘opening-up’ of the Atlantic,
Indian, and Pacific Oceans for trade. First, European traders acquired already existing trades with
Asia, such as the spice trade, by circumventing the Middle-East and its middle-men. Second,
additional production was organized to meet the demands of the European market. Indeed, the
main motive for colonizing the Americas was to produce commodities such as sugar and coffee.
However, also in Asia Europeans colonized lands in order to produce certain crops. A share of the
colonial goods was destined for the home market of the colonial powers. Another share was re-
exported to other countries of Europe which did not have their own colonies or direct trade
relations with the non-European world. This is how colonial commodities made their way from
Western Europe to the rest of Europe. Countries such as Great Britain and the Dutch Republic traded
their ‘new wares’ in return for ‘the traditional wares’ of their European trading partners. In this
process the new overseas markets integrated with the traditional European markets.

Until the launch of the STRO, it was problematic to study the trade in colonial products in
the Baltic region because in the STT colonial commodities (sugar, coffee, cacao, etc.) are merged into
one category: ‘colonial wares’. The colonial product that will be discussed in this paper is coffee. The
rise of trade in this commodity is well documented in the STRO: starting first in small quantities in
the 1720s, the trade in coffee had gained great importance by the end of the century. To my
knowledge nothing has been published specifically relating to Baltic coffee trade. This is probably
related to the fact that in the STT coffee was merged into the category ‘colonial goods’. The
literature therefore mostly deals with the trade of colonial goods in the general.

In the eighteenth century the colonial goods trade increased spectacularly. In the late
seventeenth century the Baltic import of colonial goods was insignificant; by the end of the
eighteenth century however 25,000-30,000 tons were imported yearly. Due to its strong trade
relations with the North Sea region, the Baltic region probably consumed colonial goods at the
European average. This meant that in the 1780s 8 percent of the European coffee import and 5

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percent of the European sugar import passed made its way through the Sound. Unlike in North-Western Europe, the consumption of colonial wares was a mainly an urban affair. According to Klas Rönnbäck, the only author to publish specifically on Baltic colonial commodities trade, ‘three ports around the Baltic Sea were responsible for a dominant share of the total volumes imported: Copenhagen; Stettin; and Petersburg. During the period 1775-1779, these three ports accounted for slightly more than half of all gross imports through the Sound.’ The import of Copenhagen came almost exclusively from the Danish colonies in the West Indies. All the other ports around the Baltic Sea got there imports indirectly from Western Europe.

The trade in colonial wares was initially (1700-1750) dominated by the Dutch Republic and Great Britain, but after 1770 France supplied most of the colonial products to the Baltic area. Until the 1740s the Dutch Republic had been the most important destination for French colonial exports, which it partially re-exported to the Baltic, but this position was taken-over by Hamburg. Hamburg developed as a staple market of colonial goods at the cost of Amsterdam. This said, Dutch colonial products exports still increased in the eighteenth century; however, the growth of the Dutch Republic was slower than of its competitors.

In this paper the development of the Baltic coffee trade in the eighteenth century will sketched using the STRO. These are the first results of the research I am doing for my master thesis. I am still in the early stages of my research and this paper must therefore be considered as ‘work in progress’. The remainder of this paper is structured as follows. First the method by which the raw data on coffee trade was extracted from the STRO and converted into statistically useful data presented. Second, the results will be presented and the paper concludes with a brief discussion of results.

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6 Ibidem.
Method

As stated above, using the STRO to its full potential entails some preparation. A few basic functions are available on the STRO website, but more extensive use of the STRO requires a method to prepare the data for historical analysis. In the following few paragraphs a possible method for using the STRO to study the flow of goods is discussed. It is important to note that this is work in progress, as is the methodology. Therefore, readers’ feedback is more than welcome.

The first objective was to import the whole STRO database into Microsoft Access. This would allow me to link the information on passages and cargoes. Because I did not use the website I needed to import the whole database. The data was sent to me in .csv format and needed to be imported into Excel because else certain characters would be lost. This would be particularly problematic, considering the prevalence of characters like ‘Æ’ and ‘Ø’. However, because the database is large in size, the .csv files had to be split into a number of smaller files before they could be successfully imported into Microsoft Excel. Subsequently, the excel files were imported into Access. For reasons unknown to me 283,824 of the 6,977,666 records were lost during this process.

The next necessary step was to extract all coffee cargoes from the more than four million cargoes. This was done by combining a list of all spelling variations of coffee and coffee beans which feature more than ten times in the cargoes table. The table that resulted from this action contained some cargoes which were suspicious due to their size. I manually examined the scans of these cargoes and filtered out some transcription mistakes (table 2). Although the largest cargoes are corrected it is still possible that the table contains some false data. Next, I combined the passages and cargoes list to include the transporters of the coffee in my data. The next link I made was between the table of coffee shipments and George Welling’s database of place names. This solved the problem of the several spellings of place names.

The final difficulty to overcome was the presence of several measures to quantify shipments of coffee. The most frequently used measures are pund (22358 of 24730) and rigsdaler (2003 of 24730). Rigsdaler was used before 1773, pund after 1772. 361 shipments of coffee are

10 http://www.soundtoll.nl
11 I would like to thank mr. Ubo Koijinga, data manager at Tresoar, for providing the data.
12 This includes the table on taxes.
13 The list of spellings of coffee and coffee beans was provided to me by dr. Werner Scheltjens and is work in progress.
recorded in other measures such as Lispund, Sække, or Eendeel. In this paper cargoes which are not recorded in pund and rigsdaler are excluded.

In order to compile continuous data on the eighteenth century it is necessary to convert the rigsdaler observations into pounds. I believe that a simple conversion rate can be applied: 2 pounds = 1 rigsdaler. In the STRO two cargoes of coffee are recorded in pounds as well as in rigsdalers. Firstly, the passage of Gerrit Marcus of Amsterdam on 07/07/1755 sailing from Molde to the Baltic carrying, amongst other things, 36 pounds of coffee beans worth (‘w.’) 18 rigsdalers. Secondly, the passage of Simon Hillers of Bremen sailing from Bremen to Libau on 5/10/1757 carrying, amongst other things, 100 pounds of coffee worth (‘werdi’) 50 rigsdalers. Research by Martin Uebele on the tolls paid on coffee suggests that 2 pounds equal 1 rigsdaler. On most cargoes recorded in rigsdaler the tariff was around 1%, the tariff on the cargoes in pounds was around 0.5%.¹⁴ If we assume that the tariff remained unchanged in 1773, this observation supports the conversion rate mentioned above.

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Results

Finally, the table of coffee shipments was exported into Microsoft Excel. This software was used to generate statistics on the total volume of the Baltic coffee import, the coffee exported per country, the coffee imported per city, and the share of the various countries of the shipping of coffee.

Graph 1 shows the volume of Baltic coffee import in the eighteenth century per year. The volumes are quite small until the 1770s, after which the coffee imports boomed. Within 20 years the coffee imports multiplied with a factor of eight: from 1 million pounds in 1767 to 8 million pounds in 1785. The increase of Baltic coffee stopped in 1790s, even dropping below the 3 million mark in 1793.

The statistics (graph 2, graph 3, and table 1) on the exporting countries illustrate the importance of France in Baltic coffee trade. France and her colony on the island of Hispaniola account for 62% of the coffee export recorded in the STRO in the eighteenth century. The first coffee mentioned in the Baltic was shipped via the Dutch Republic and Great Britain. From the 1720s onwards the most coffee came from France. The Dutch Republic regained a share of around 15% in the period 1740-1780, but in the last two decades of the eighteenth century Dutch coffee export to the Baltic declined by two fifths compared to the period 1761-1780. In contrast, British coffee export to the Baltic steadily increased over the course of the eighteenth century. At the end of the eighteenth British coffee exports to the Baltic flourished: from 500,000 pounds in 1761-1780 to more than 3 million pounds in 1781-1800. In the period 1793-1800 Britain replaced France as the Baltic’s main supplier of coffee. Based on the STRO one would argue that Hamburg (the most important German North Sea port) never played a large role in the export of coffee to the Baltic. However, there is the possibility that coffee traveled from Hamburg to the Baltic area overland, which of course is not recorded in the STRO. The United States and Hispaniola exported 13.7 million pounds of to the Baltic in the last twenty years of the eighteenth century.

Several conclusions can be derived from the data on importing cities (graph 4). Firstly, the lines representing the import volumes of the major importing cities (St. Petersburg, Stettin, Copenhagen, Danzig, and Stockholm) roughly follow a similar trend. The one exception is Copenhagen, which imports a significantly more of coffee than the other cities in the 1780s. Furthermore, Copenhagen’s import volumes are also relatively volatile. The import volumes of Stockholm stand out in the sense that in last quarter of the eighteenth century they show a decline, whereas the volumes of the other cities remained more or less similar.
The graph on pounds of coffee shipped per country (graph 6) shows that the countries of the Baltic region largely imported their coffee themselves. Especially after 1780, shipmasters from Denmark, Lübeck, Stettin, Danzig and Königsbergen shipped the majority of the coffee that passed through the Sound. Although, the majority of coffee came from France, French shipmasters played no role in the transport of coffee to the Baltic. When we compare graph 6 with graph 2 we can see that Dutch coffee shipping did better than Dutch coffee export: Dutch shipmasters shipped larger volumes of coffee than the Republic exported. In contrast, British shipping lagged somewhat behind British export. Even in the closing years of the eighteenth century, when the greater part of coffee come from Britain, it were shipmasters from the ‘Southern Baltic cities’ who took care of most of the coffee transport.
Discussion

To a large extent current ideas on the Baltic trade in colonial products in the eighteenth century are confirmed by the data. The volumes of coffee that passed through the Sound increased spectacularly over the course of the eighteenth century. Also, the larger cities of the Baltic area imported the bulk of the coffee that entered the Baltic Sea. Furthermore, the notion that Dutch-Baltic colonial trade did not decline, only increasing less than Baltic trade in colonial wares in general, is confirmed. The fact that in STT coffee is merged into the category ‘colonial wares’ does not hide a distinctively unique trend.

The new data on Baltic coffee trade, made possible by the launch of the STRO, does allow for a few small historiographical adjustments to the current ideas on Baltic coffee/colonial wares trade. Firstly, the development of French coffee exports differs somewhat from the general picture. Already in 1735 the greater part of Baltic coffee imports already came directly from France. Concerning the coffee trade, Amsterdam never was an important intermediate port between the France and the Baltic. Also, the idea that Hamburg emerged as an important entrepôt for trade in colonial products is not confirmed by the data. The decline of Dutch coffee exports instead coincides with the rise of British exports. However, we must take into account the possibility that Hamburg re-exported its coffee overland. Finally more cities on the Baltic Sea imported large volumes of coffee than Rönnbäck suggests. Apart from Copenhagen, Stettin, and Petersburg also Danzig and Stockholm imported substantial amounts of coffee.

In conclusion, the idea that STRO offers possibilities to study the flow of commodities through the Sound is confirmed. The method described above produces reliable results and is not very time-consuming. It requires little preparation, and some help, to arrive at statistics on the trade of a specific product. Based on the comparison of my results with the limited literature available it is not to be expected that STRO will dramatically change the prevailing theories and ideas on Baltic trade, instead use of the STRO will help to refine prevailing ideas.
References


Vries, Jan, de & Ad van der Woude, *Nederland 1500-1815. De eerste ronde van moderne economische groei* (Amsterdam: Balans, 1995).

http://www.soundtoll.nl
Appendices

Graph 1: Baltic coffee imports, 1709-1800 (pounds)
Graph 2: Coffee export to the Baltic per country (pounds), 1700-1800

Graph 3: Share of coffee export per country (pounds), 1700-1800
Graph 4: Shipped coffee per region (pounds), 1700-1800

Shipping of coffee (pounds)
Table 1: Export of coffee to the Baltic in 20-year-period (pounds and shares), 1700-1800

<table>
<thead>
<tr>
<th>Time</th>
<th>1700-1720</th>
<th>1721-1740</th>
<th>1741-1760</th>
<th>1761-1780</th>
<th>1781-1800</th>
<th>1700-1800</th>
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<tbody>
<tr>
<td>Country</td>
<td>Pounds</td>
<td>%</td>
<td>Pounds</td>
<td>%</td>
<td>Pounds</td>
<td>%</td>
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<tr>
<td>France</td>
<td>0</td>
<td>0,0</td>
<td>188843</td>
<td>90,1</td>
<td>2027270</td>
<td>76,0</td>
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<td>Great Britain</td>
<td>600</td>
<td>25,6</td>
<td>5992</td>
<td>2,9</td>
<td>90646</td>
<td>3,4</td>
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<td>Dutch Republic</td>
<td>1748</td>
<td>74,4</td>
<td>13890</td>
<td>6,6</td>
<td>439160</td>
<td>16,5</td>
</tr>
<tr>
<td>Great Britain</td>
<td>82227881</td>
<td>56,1</td>
<td>37616894</td>
<td>25,7</td>
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<tr>
<td>Hispanola</td>
<td>0</td>
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<td>0</td>
<td>0,0</td>
<td>0</td>
<td>0,0</td>
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<tr>
<td>United States</td>
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<td>0</td>
<td>0,0</td>
<td>0</td>
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<tr>
<td>Germany (North Sea)</td>
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<td>0,0</td>
<td>360</td>
<td>0,2</td>
<td>87998</td>
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<tr>
<td>Rest</td>
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<td>0,2</td>
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<td>0,8</td>
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<tr>
<td>Share period</td>
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<td>0,1</td>
<td>1,8</td>
<td>23,7</td>
<td>74,3</td>
<td>100,0</td>
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Table 2: Corrected cargoes

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<tr>
<th>date</th>
<th>Name skipper</th>
<th>Home port</th>
<th>Itinerary</th>
<th>Old amount</th>
<th>New amount</th>
<th>Film and scan number</th>
</tr>
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<tr>
<td>10-8-1810</td>
<td>Nathan Bousch</td>
<td>Norfolk i Amc</td>
<td>Norfolk i Amc - Østersøen</td>
<td>20133711</td>
<td>2013371</td>
<td></td>
</tr>
<tr>
<td>30-9-1853</td>
<td>J. L. Ducros</td>
<td>Kønigsberg</td>
<td>London - Stettin</td>
<td>3322314</td>
<td>332314</td>
<td>filmnr 369 scannr 612</td>
</tr>
<tr>
<td>25-3-1852</td>
<td>D. Fokker</td>
<td>Schiermonikoog</td>
<td>Amsterdam - Stettin</td>
<td>1573400</td>
<td>157340</td>
<td>filmnr 367 scannr 28</td>
</tr>
<tr>
<td>16-4-1848</td>
<td>C. Thompson</td>
<td>London</td>
<td>London - Petersburg</td>
<td>1386085</td>
<td>138608</td>
<td>Sonntol filmnr 358 scannr 101</td>
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<tr>
<td>7-10-1848</td>
<td>J. F. Posthumus</td>
<td>Schiermonikoog</td>
<td>Amsterdam - Königsberg</td>
<td>1330486</td>
<td>133048</td>
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<tr>
<td>16-4-1814</td>
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<td>Whitby</td>
<td>Leverpoole - Rostock</td>
<td>787436</td>
<td>78436</td>
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<tr>
<td>16-9-1800</td>
<td>Andreas Stofregen</td>
<td>Stettin</td>
<td>London - Stettin</td>
<td>722690</td>
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