

# ***Quantifying Russian Exports via Arkhangel'sk in the XVIIth Century***

**J.T. Kotilaine**

Harvard University

Following the 1617 treaty of Stolbovo, the White Sea port of Arkhangel'sk became Russia's only direct outlet to the sea as she was left confronting the so-called 'Baltic barrier' in the West, the Swedish eastern Baltic ports of Reval (Tallinn), Narva, and Nyen(skans), and (since 1621) Riga. This situation presented Russia with a choice between trading through the intermediation of Baltic German merchants and Swedish administrators, and, alternatively, developing the Arctic route which had come into being following the English discovery of the passage around the North Cape. The Russian authorities' preference for the northern route was backed by many Western merchants keen to avoid multiple duty payments in the Baltic, not least the Danish Sound toll. Yet, in spite of the robust growth of Arkhangel'sk, the northern port never fully undermined the position of the Baltic route which remained an important outlet of especially northwestern Russian exports.<sup>1</sup>

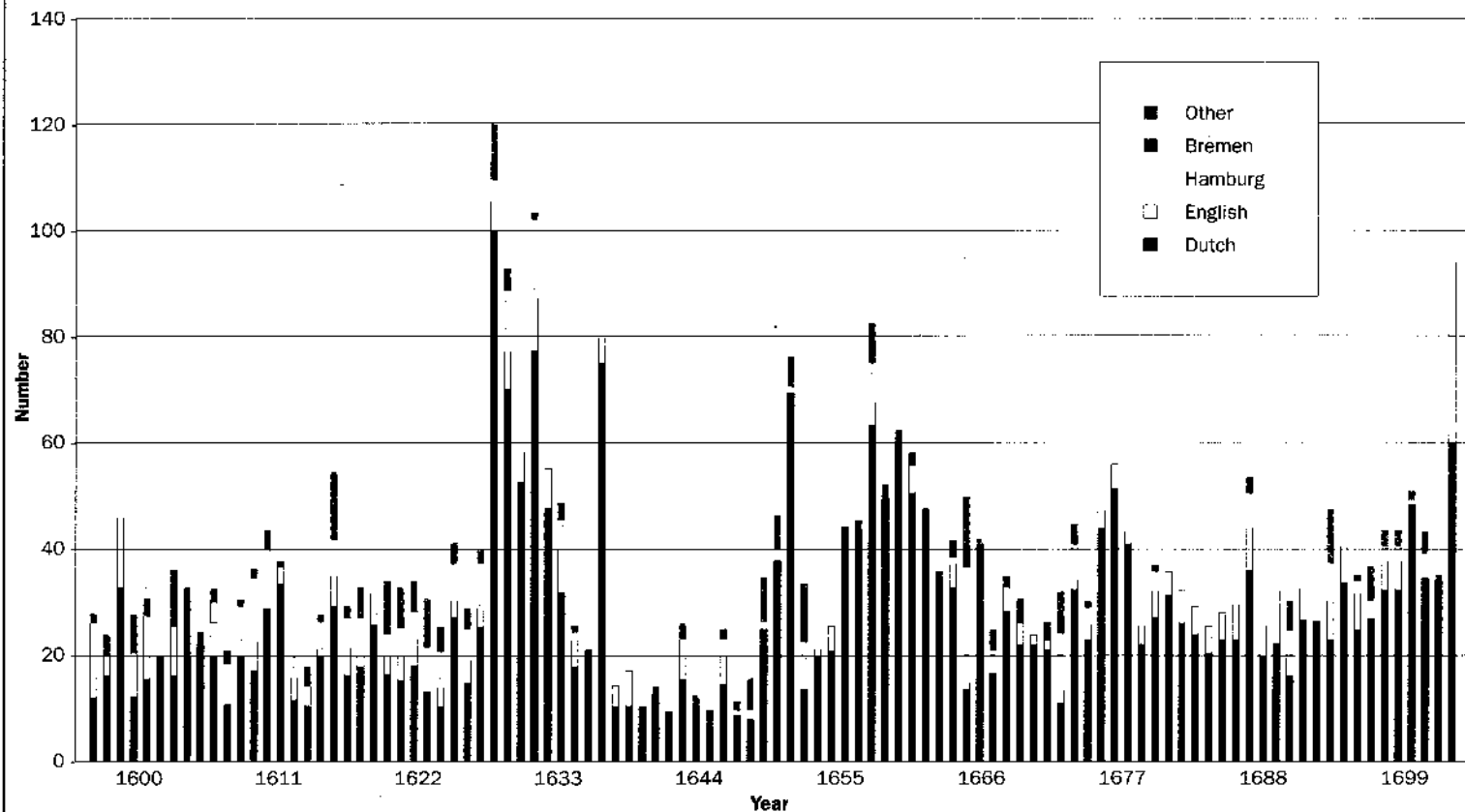
While the importance of studying Arkhangel'sk's trade is indisputable, the challenges this entails are daunting. The most obvious primary source

<sup>1</sup> This issue is examined further in J.T. Kotilaine "Opening a Window on Europe: Foreign Trade and Military Conquest on Russia's Western Border in the 17<sup>th</sup> century", in: *Jahrbücher für Geschichte Osteuropas* (1999). For a comprehensive treatment of Swedish commercial policy vis-à-vis Russia in the middle of the XVII<sup>th</sup> century, see S. Troebst, *Handelskontrolle – "Derivation" – Eindämmung: Schwedische Moskaupolitik 1617-1661* (Wiesbaden 1997).

#### *Money and Measurements:*

R = Rouble; Rd = RTI = Reichsthaler; 1S# = 400 pounds; 1 Timber = 40 pieces; *tufti* = processed ox hides, prized for their quality; *bast* = plant fibre; vat is the equivalent of the German Faß, which was different from Tn (barrel), but not clearly defined; 1 decker = 10 hides; one chet' = 40-80 pounds: there was no uniform definition of this word; karderer = kind of box.

**FIGURE 1 - Ships calling at Arkhangel'sk**



*Estimates based on sourced cited in the text*

for this work, the XVIIth century customs records of the city, no longer exist. The surviving Russian sources are invariably descriptive in nature, either diplomatic records or documents pertaining to the activities of foreign and Russian merchants in the interior of Russia.<sup>2</sup> This essay seeks to establish the basic parameters of Arkhangel'sk's export trade in the XVIIth century by using the obvious substitute for the lost customs records of the White Sea port, *viz.* the surviving customs records of Russia's western trade partners. The problems with this substitute are numerous, however. First of all, much of the relevant West European data has also been lost over the centuries. Secondly, different authorities kept their records in idiosyncratic ways and much of the surviving data is not directly comparable across countries. Finally, serious questions can be posed as to the accuracy of the sources in some cases. Nonetheless, a systematic survey of the surviving source base is crucial in gaining a better understanding of this very important chapter in Russian economic history. In addition to an examination of primary materials collected at several Western European archives, an attempt will be made to summarize the most important findings of the relevant secondary literature.<sup>3</sup>

<sup>2</sup> Russian sources about incoming Western ships were reproduced in N.A. Baklanova "Privoznye tovary v Moskovskom gosudarstve vo vtoroi polovine XVII veka", in: *Ocherki po istorii torgovli i promyshlennosti v Rossii v XVII i v nachale XVIII stoletii* (Moscow, 1928); A.V. Demkin and A.A. Preobrazhenskii, *Zapadnoevropeiskie kuptsy i ikh tovary v Rossii XVII veka* (Moscow 1992). Of considerable value is also the 1634-4 customs book of the city of Vologda which represented the starting point of the northern Dvina route. While it sheds valuable light on the northern route, its numerous limitations do not allow it to be used to estimate the contemporary exports of Arkhangel'sk with any degree of accuracy. M.Ia. Volkov (ed.), *Tamozhennaia kniga goroda Vologdy 1634-1635 gg.* (Moscow 1983).

<sup>3</sup> This work draws on primary sources collected at the Swedish National Archive (RA, *Riksarkivet*), the Amsterdam City Archive (GAA, *Gemeentearchief Amsterdam*), the Public Record Office (PRO) in London, the State Archive of the Free and Hanseatic City of Hamburg (SAH, *Staatsarchiv der Freien und Hansestadt Hamburg*), the State Division of the State Archive of Lower Saxony (NSASt, *Niedersächsisches Staatsarchiv in Stade*), the State City Archive (SASSt, *Stadtarchiv Stade*), the State Archive of the Free Hanseatic City of Bremen (SAB, *Staatsarchiv der Freien Hansestadt Bremen*), the Oldenburg Division of the State Archive of Lower Saxony (NSAO, *Niedersächsisches Staatsarchiv in Oldenburg*), the Danish National Archive (RAD, *Rigsarkivet*), and the Lübeck City Archive (AHL, *Archiv der Hansestadt Lübeck*).

## Summarizing Arkhangel'sk's Total Exports

The basic character of Western trade with the White Sea area is relatively well known from a wealth of descriptive accounts.<sup>4</sup> The trip from Western Europe to Arkhangel'sk normally took around four weeks (sometimes only 16-22 days) in one direction. It could be undertaken only once a year as the northern waters became navigable only in May and ships that left Arkhangel'sk between late September and November ran the risk of encountering winter storms or the *maelstrom* around the North Cape. Delays could force ships to spend the winter in Russia. The threat of piracy and other dangers increasingly caused West Europeans to travel in convoy. Goods bought at the Arkhangel'sk annual fair incurred costs amounting to some 10 per cent of their value in customs, provisions, brokerage fees, warehouse costs, packaging, and labour. Periodically, serious damage was caused by fires in the wooden city, most notably in 1619 and 1667. Western exports to Russia consisted principally of silk and woollen cloth, luxury textiles, paper, haberdashery, copper, lead, tin, wine, distilled liquor, sugar, syrup, oil, vinegar, spices, salted herring, dye, glassware, gold and silver thread, trimmings, weapons, etc. The

<sup>4</sup> The most important general surveys are: S.F. Ogorodnikov, *Ocherk istorii goroda Arkhangel'ska v torgovo-promyslennom otnoshenii* (St Petersburg 1890); S.I. Arkhangel'skii, "Anglo-gollandskaia torgovlia s Moskvoi v XVII v.", in: *Istoricheskie sbornik*, V (1936); H. Kellenbenz, "La signification économique de la route d'Arkhangel'sk (fin XVIe - fin XVIIIe)", in: M. Mollat (ed.), *Études d'histoire maritime présentées au XIIIe congrès international des sciences historiques par la Commission Internationale d'Histoire Maritime à l'occasion de son XIIe colloque, Moscou, 16-23 août 1970* (Moscow 1970); —, "The Economic Significance of the Archangel Route (from the late 16<sup>th</sup> to the late 18<sup>th</sup> century)", in: *Journal of European Economic History*, II (1973); E.D. Rukhmanova, "Arkhangel'skaia torgovlia Rossii (XVII v.)", in: I.I. Kiaiviarainen (ed.), *Voprosy istorii Evropeiskogo Severa: Mezhdvuzovskii sbornik* (Petrozavodsk 1980); P. de Buck, "De Amsterdamse handel op Archangel (1600-1725)", in: Krikke, J., V. Enthoven and K. Mastenbroek (eds.), *Amsterdam, haven in de 17de en 18de eeuw* (Amsterdam 1990); A.V. Demkin, *Zapadnoevropeiskoe kupechestvo v Rossii v XVII v.* (Moscow 1994); N. Angermann, *Hamburg und Rußland in der frühen Neuzeit* (Hamburg 1972); S. Hart, "De handelsbetrekkingen van Amsterdam met Archangel en Lapland (Kola) in de 17de eeuw", in: *Nederlands Archievenblad*, LXXIII (1969).

arrival of American tobacco on the scene gave a new impetus to the trade towards the end of the century.<sup>5</sup>

While the basic character of Arkhangel'sk's exports is well established, much less is known about their changing composition over time. The so-called *Torgovaia kniga* or *Pamiat' tovaram* on the commercial operations of Russian merchants on the Kola coast in 1575-85 mentions scutched hemp, tallow, combed flax, salted meat, wheat, buckwheat groats, lard, oil, ropes, yarn, tar, pitch, resin, wax, and marten, squirrel, wolf, arctic fox, and black cat skins, as well as elk, cow, and calf hides. There may also have been some timber exports: a representative of the Muscovy Company in 1588 claimed that 'almost the entire English military fleet was built with Russian timber and its riggings made of Russian hemp.'<sup>6</sup> For the subsequent evolution of the structure of exports, we can draw on four surviving lists of Arkhangel'sk's annual exports. These compilations were, with the exception of one, commissioned by the Swedish government in an attempt to gain information on the port whose trade they were hoping to divert to the Baltic as part of their 'Great Eastern Programme.' The authors had every incentive to portray accurately the nature of the challenge facing Sweden. The only inaccuracy seems come from a tendency to provide figures that are 'representative' of Arkhangel'sk's trade beyond the year when the compilations were made.

The element of abstraction is particularly obvious in the case of the first two lists. The first one of them was in all probability compiled by Peter Krusebjörn, the Swedish Resident in Moscow.<sup>7</sup> The summary, which reached the Swedish Royal Chancery on 6 May, 1642, seeks to

<sup>5</sup> H. Kellenbenz, "La signification économique de la route d'Arkhangel'sk (fin XVIe - fin XVIIIe)", *op.cit.* (note 4), pp. 44, 60; S. Hart, "De handelsbetrekkingen van Amsterdam met Archangel en Lapland (Kola) in de 17de eeuw", *op.cit.* (Note 4), pp. 75-6; J.M. Price, "The Tobacco Adventure to Russia: Enterprise, Politics, and Diplomacy in the Quest for a Northern Market for English Colonial Tobacco, 1676-1722", in: *Transactions of the American Philosophical Society*, N.S., LI (1961).

<sup>6</sup> E.D. Rukhmanova, "Arkhangel'skaia torgovlia Rossii (XVII v.)", *op.cit.* (note 4), pp. 140-1. Some of the timber may, in fact, have come from the Baltic, in which case a relatively small proportion of it would actually have been Russian.

<sup>7</sup> RA Handel och sjöfart, vol. 15.

represent the state of affairs in the early 1640s. Although most of the data is probably drawn from the 1641 export records, there are some important generalizations. The fur and pelt exports are given in value terms, a very rough figure of R 200,000 which is said to represent the 'approximate annual' (*omtrent åbrligen*) exports of these goods.<sup>8</sup> The same is true of the last category of 'annual' exports, valued at R 11,000, which are miscellaneous goods, some of them re-exports from Persia. Hog bristles, fish glue (*karluk*), beaver stones, and rhubarb were all regular exports, but none by themselves a particularly important category. Hemp appears in the relatively significant quantity of 3,000 S#, although at this point it is still only an occasional export on the northern route. Most Russian hemp was exported through the Baltic which was closer to the northwestern production areas.

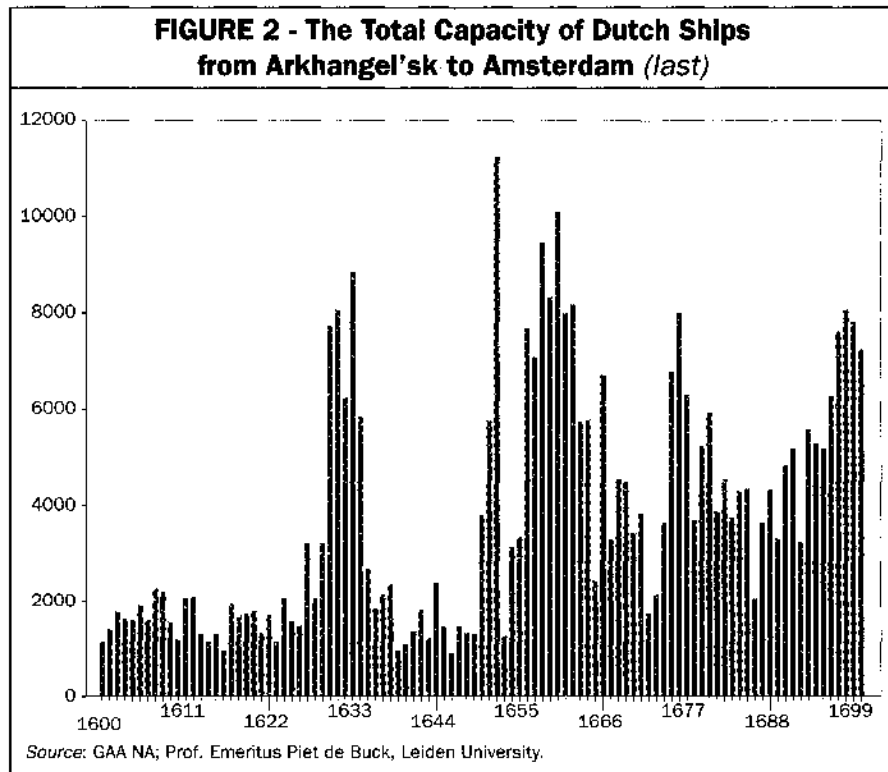
The second list, compiled by Johann de Rodes, was received in Stockholm on 4 November, 1653.<sup>9</sup> It constitutes part of a relatively lengthy and detailed study, an '*aussführliche relation*' of Russia's trade commissioned by Queen Christina. The description of Arkhangel'sk's trade is almost certainly based on the volumes traded in 1653, although again the elements of abstraction are both numerous and obvious. De Rodes includes grain exports but notes that grain was traded only in years when high prices in Western Europe warranted the long-distance trade. Most of the other figures were only marginally rounded, although de Rodes states that 120-50 bales of Persian raw silk were brought to Arkhangel'sk roughly once every three years. They weighed roughly 900 puds each and were valued at Rd 90 a pud.

William Prideaux's summary – '*A list of goods exported from Archangell, with their prises and value, this present yeere, 1655*' – is quite possibly the most accurate of the four lists. Prideaux, whom the Muscovy Company had elected to deliver Protector Oliver Cromwell's letter to

<sup>8</sup> At the time, the region of Mangazeia produced some 1,000 timber of sable skins p.a. The figure in 1639/40 was 1,030 timber with another 1,028 timber produced in both 1640/41 and 1641/42. At the time, the region of Mangazeia produced some 1,000 timber of sable skins p.a. The figure in 1639/40 was 1,030 timber with another 1,028 timber produced in both 1640/41 and 1641/42. E.D. Rukhmanova, "Arkhangel'skaia torgovlia Rossii (XVII v.)", *op.cit.* (note 4), p. 140.

<sup>9</sup> RA Muscovitica, vol. 601; Handel och sjöfart, vol. 15.

Tsar Aleksei Mikhailovich, was less likely to generalize, since the nature and parameters of Arkhangel'sk's trade will have been well known to the Company. Evidently, the immediate purpose of the mission was to analyze the state of the Arkhangel'sk market at a time when the relations between the two countries were at an all-time low in the wake of the expulsion of the English from the Russian interior after the execution of Charles II in 1649. Prideaux states in his letter that the appended list is one of 'goods exported this last mart from Archangell,' obviously referring to the 1655 annual fair. He notes that 'By reason of the great plague the last yeere in those places, where most hydes are drest, there is but 50000 poodes this yeere, but usually there is 90 or 100000 poodes, and some yeeres more.'<sup>10</sup> Prideaux dates his letter 15 August, 1655, which suggests



<sup>10</sup> T. Birch (ed.), *A Collection of the State Papers of John Thurloe, Esq.: Secretary, First to the Council of State, And afterwards to the Two Protectors, Oliver and Richard Cromwell* 3 (London 1742), p. 714.

that his list is incomplete. However, whereas in ordinary years, trade would have continued beyond the closure of the customs office into the autumn, the plague, as well as the war against Poland, may have limited the availability of many export wares in 1655 and thus shortened the annual fair. Moreover, there was a considerable degree of diversion of Russian exports to the Swedish Baltic ports.

The 1674 compilation by J. Lillienhof is dated 1 June, 1674, and therefore must pertain to 1673.<sup>11</sup> The document offers general estimates only of caviar exports which usually amounted to some 300 vats of 40 pud each. In addition, the combined exports of salted and fresh salmon, as well as considerable amounts of dried cod (*goede partje Stockviss*) and fresh meat generated toll revenues of R 800. Tar was a royal monopoly and normally exported at the rate of 1,000 tons valued at  $\dot{a}$  R 1. Masts were described as a new export commodity, said to have appeared 4-5 years ago to reach annual exports of 150-200 masts taxed at Rd 10 a piece. While there are occasional references in the *Stade Cämmerei-Rechnungen* to masts imported from Arkhangel'sk during the first half of the century, and Amsterdammers are known to have exported Russian masts to Portugal in 1615, it is likely that masts did not establish themselves as a permanent export on a significant scale before the late 1660s.<sup>12</sup>

A Russian source of considerable importance in assessing the evolution of Arkhangel'sk's trade are the records on government purchases of the so called *ukaznye tovary* in 1662. Following a disastrous copper money experiment in the 1650s, designed to finance the financial burden of the Polish war, the Russian economy was in shambles. Inflation, shortages, and growing signs of social unrest forced the government to look for a way out of the crisis which was found in exploiting an old policy of large trade surpluses which foreigners would settle in specie. To maximize the profits from the operation, the sale of the most important exports commodities – hemp, potash, tar, tallow,

<sup>11</sup> RA Kommerskollegium: Huvudarkivet F IV: 96: Handel med Ryssland 1670-talet.

<sup>12</sup> S. Hart, "De handelsbetrekkingen van Amsterdam met Archangel en Lapland (Kola) in de 17de eeuw", *op.cit.* (Note 4), p. 79.

*iufti*, and sable furs – was temporarily monopolized by the Tsar. Large holdings were amassed from all across the country and the sales during the first three years totalled some R 500,000. The amount of hemp collected (19,915 S#) was quite exceptionally high for Arkhangel'sk at the time and clearly marked a temporary diversion from the Baltic ports. Tallow exports at some 2,500 S# were very typical for the era as were the sable exports of some 400 timbers. The *iufti*' exports were not significantly below the norm, in spite of the economic crisis. Tar exports of 8,515 barrels clearly exceeded the typical annual total.<sup>13</sup>

While the basic array of Arkhangel'sk's exports thus remained fairly constant, the relative weight of the various goods changed a great deal over time. The 1642 listing reflects the state of affairs during the first decades of the century when furs and pelts still accounted for almost one-half of the total value of exports, *iufti* and tallow jointly making up some two-fifths. *Iufti* continued to gain in importance for the remainder of the century, accompanied by a steady advance in other types of leather. By the early 1670s, they eclipsed furs and pelts as the leading export ware, the latter facing growing competition from North America and suffering under the effects of the Protestant Reformation. Furs fell to less than a fifth of the total by the early 1650s and further to the 5-10 percent range toward the end of the century. Tallow remained present, although in steadily diminishing quantities. Silk was of considerable importance until the late 1688 when it was completely diverted to

<sup>13</sup> N.N. Repin, "K voprosu o sviazi vneshnego i vnutrennego rynka Rossii vo vtoroi polovine XVII - pervoi chetverti XVIII v. (po materialam Arkhangel'skogo porta)", in: *Vestnik Moskovskogo universiteta*, Seriya IX: Istorii, XXV (1970), No. 6, pp. 61 ff., K.V. Bazilevich, *Denezhnnaia reforma Alekseia Mikhaïlovicha i vosstanie v Moskve v 1662 g.* (Moscow 1936), pp. 65-5.

<sup>14</sup> In 1630, the Dutch imported 400 bales of their total silk imports of 1,500 bales from Arkhangel'sk. Total silk exports of Arkhangel'sk were around 700 bales in the early 1630s, although this fell to 80 bales in 1635 and nil in 1636. The annual average of Russian silk exports in the mid-century was some 100 bales. S. Troebst, *Handelskontrolle – "Derivation" – Eindämmung: Schwedische Moskaupolitik 1617-1661*, op.cit. (note 1), pp. 174-5. Annual exports via Narva initially totalled 200-300 bales and rose to 503 bales in 1696. S. Troebst "Narva und der Außenhandel Persiens im 17. Jahrhundert. Zum merkantile Hintergrund schwedischer Großmachtpolitik", in: A. Loit and H. Piirimäe (eds.), *Die schwedischen Ostseeprovinzen Estland und Livland im 16.-18. Jahrhundert* (*Studia Baltica Stockholmensia*, XI) (Stockholm 1993), pp. 168-9.

Narva.<sup>14</sup> The main 'new' commodity was potash which is first mentioned by de Rodes and already by 1655 accounted for over a fifth of the total. In the early 1650s, Jean de Gron, a French vagabond mercantilist, persuaded the Russian government to increase potash production, promising not only higher foreign trade revenues but also a conversion of the burnt forests into grain fields so as to make Arkhangel'sk a grain exporter on par with Gdansk.<sup>15</sup> Finally, the share of the increasingly important naval stores grew as hemp became a regular export in the 1660s and even timber exports appeared during the last quarter of the century. The most dramatic changes – the explosion of *luft* exports and the appearance of potash – reflect the advance of processed goods with a higher, albeit still limited, value-added for the Russians.

An export good of particular interest was grain. The growing Dutch interest in Russia's grain had to do with a secular decline of the Gdansk market which resulted in considerable inflationary tendencies on the import-dependent Amsterdam market. Grain purchases from Arkhangel'sk were mooted as a possible solution, given the relatively robust recovery of the Russian countryside from the Time of Troubles. While transportation costs were higher than on the Gdansk route, they became quite reasonable given the savings in the multiple customs duties in the Baltic. Moreover, the basic price of grain on the much less developed Russian market was significantly lower, nor was the trade completely controlled by local intermediaries between a domestic supply network and foreigners, as was the case in Gdansk. Demand for grain in Italy was another stimulus for this trade.<sup>16</sup>

The first instances of grain exports can be placed in the mid-1620s. A Dutch company for the Russian grain trade was set up in 1628 for

<sup>14</sup> K.V. Bazilevich "Elementy merkantilizma v ekonomicheskoi politike pravitel'stva Alekseia Mikhailovicha", in: *Uchenye zapiski MGU: Istoriia*, XLI (1940), pp. 12-3.

<sup>16</sup> M. Bogucka "Zboze rosyjskie na rynku amsterdamskim w pierwszej polowie XVII wieku", in: *Przegląd Historyczny*, LIII (1962), No. 3, pp. 617-21; S. Hart, "De handelsbetrekkingen van Amsterdam met Archangel en Lapland (Kola) in de 17de eeuw", *op.cit.* (note 4), pp. 78-9.

a period of three years. In July 1632, Jan and Pieter Gerritsz Hooft of Amsterdam chartered nine ships of 120-150 lasts each to Arkhangel'sk for the purpose of transporting rye. The Marselis Company dispatched 13 ships to acquire 1,450 lasts of rye. Ten more ships with a total capacity of 1,350 lasts followed in 1634 and six vessels with a total capacity of over 1,400 lasts in 1644. At around the same time, Danish, Swedish, and German ships exported grain from Russia as the Tsar subsidized the anti-Habsburg powers in the Thirty Years' War. A total of 47,440 tonnes reached the West this way in 1627-32. 54 percent of it went to the Swedes, 22.6 percent to the Danes, with another 6.2 percent to Holstein, 12.4 percent to the English, and 4.8 percent to the Dutch.<sup>17</sup>

The Amsterdam Notarial Records remain the most reliable source for identifying the 'grain peaks,' since grain was normally specifically identified as a desired export commodity in the notarized shipping contracts. Thus, in the 1630s, the numbers of ships calling at Arkhangel'sk occasionally rose to over 100 a year and grain remained on the market in large quantities for several years. Very rough minimum estimates based on the capacity of Dutch vessels designated as carrying grain suggest that grain exports reached at least 674 lasts in 1627, 595 l. in 1628, 1,595 l. in 1629, and 3,183 l. in 1630. A local peak of 6,029 l. was reached in 1631, to be followed by 3,685 l. in 1632, 5,893 l. in 1633, and 3,317 l. in 1634. At least 160 l. was carried in 1638 and 485 l. in 1644. The 1650s boom was

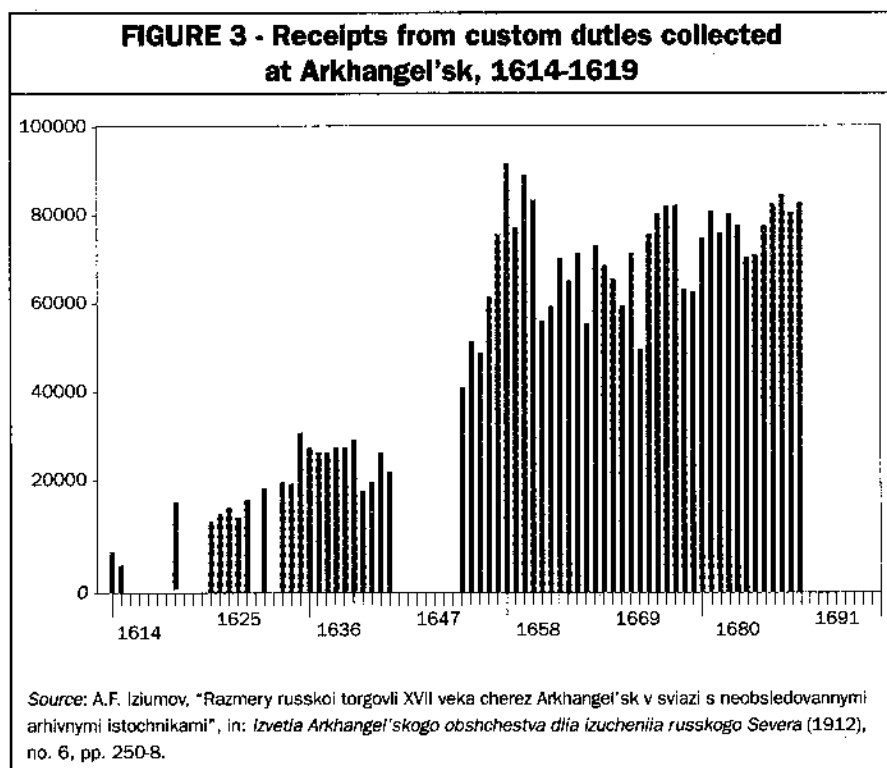
<sup>17</sup> In 1624, Isaac Massa was allowed to export 150 lasts and van Rigen and du Moulin 50 lasts each. Massa even mooted a plan for a new company which would seek a 30-year monopoly on Russian grain exports. E. Amburger, *Die Familie Marselis: Studien zur russischen Wirtschaftsgeschichte* (Gießen 1957), p. 71; S. Hart, "Amsterdamse scheepvaart en handel op Noord-Rusland in de zeventiende eeuw", in: *Geschrift en Getal: Een keuze uit de demografisch-, economisch- en sociaal-historische studiën op grond van Amsterdamse en Zaanse archivalia* (Hollandse Studiën, IX) (Dordrecht 1976), pp. 272-3; M. Bogucka "Zboze rosyjskie na rynku amsterdamskim w pierwszej połowie XVII wieku", *op.cit.* (note 21), pp. 621-2. The Danish King was allowed to buy 1,500 lasts of grain in 1627-8, followed by another 2,000 lasts, all carried on Dutch bottoms. In 1630-2, the Dutch merchant Ruts supplied the King with 3,750 lasts of grain. In 1628, the Swedish King gained permission to import 2,500 lasts in 1629, 7,500 lasts in 1630, and 2,500 lasts in 1631-2. Givi Zhordaniia quoted in S. Troebst, *Handelskontrolle - "Derivation" - Eindämmung: Schwedische Moskaupolitik 1617-1661*, *op.cit.* (note 1), p. 93.

shorter: Grain appeared in relatively small quantities in around 1650 and reached an unprecedented peak of some 7,200 lasts in 1652, possibly for fears of a seize of Arkhangel'sk during the Anglo-Dutch conflict. Already the following year, grain exports fell back to insignificant levels.<sup>18</sup> Starting in 1654, Russia slid into a prolonged period of expensive warfare against her Western neighbours, a development that dealt a devastating blow to foreign trade, although grain sales may have continued as a way of raising money for the Polish and Swedish campaigns. Grain exports of some significance took place also in the 1670s, although on a smaller scale than during the earlier booms. Even so in 1676 exports totalled at least 1,878 lasts. Overall, Arkhangel'sk's foreign trade in the XVIIth century is characterized by a gradual upward trend in total exports, although the number of ships visiting the port does not by itself point to a dramatic change; remaining, indeed, quite stable in the 20-40 p.a. range. The most important exception to the general picture is provided by the grain peaks, as well as by the 1640s when the number of ships clearly fell to an all-time low. Some of the depression may be due to missing evidence, although the continuous data on Dutch ships also points to a clear fall. This was an era of steady progress for the Swedish controlled Eastern Baltic ports.

Data on the total capacity of the ships visiting Arkhangel'sk reveals a clear difference between the first and second half of the century. Most of the increase came from the contemporary advances in navigation and shipbuilding which resulted in a significant increase in the average size of the ships on the White Sea route. With the exception of the first grain peak of 1630-5, the entire first half of the century was relatively stagnant. The promising progress of the opening decades which culminated in the 1630s grain peak was eventually undermined by the success of the Baltic ports and the 1650s' economic crisis. The second grain peak was accompanied by an obvious rise in

<sup>18</sup> Minimum estimates on the capacity of Dutch vessels are: 160 l. in 1650, 1,675 l. in 1651, 7,118.5 l. in 1652, 1,645 l. in 1654, 1,375 l. in 1658, 1,050 l. in 1659, and 105 l. in 1660.

non-grain exports as well. There was a prolonged trough from the new higher level between the late 1670s and the mid-1690s, possibly because of the restrictive 1667 New Commercial Code, which was followed first by a recovery and then by a steep advance due to the outbreak of the Great Northern War in the Baltic in 1700. The relative stagnation of the second half of the century is revealed by the surviving customs data on tax receipts at Arkhangel'sk. After a clear increase until the middle of the century, customs revenues increased only slightly into the 1690s. This may have been connected with a string of measures designed to combat the dominance of foreign merchants, which culminated in the New Commercial Code of 1667. Peter Marselis, at least, attributed a temporary drop in revenues to the reform.<sup>19</sup>



<sup>19</sup>Iu.A. Tikhonov, "Tamozhennaia politika Russkogo gosudarstva s serediny XVI v. do 60-kh godov XVII v.", in: *Istoricheskie zapiski*, LIII (1955), p. 287.

## The Netherlands

While there exists an extensive secondary literature on the activities of Dutch merchants in Russia, a very small proportion of it is quantitative in nature.<sup>20</sup> Indeed, the surviving statistical primary data is far from fully satisfactory for establishing a clear picture of Dutch trade with Russia which, at the time, was completely channelled through the main port of Amsterdam.<sup>21</sup> By far the most valuable of the Dutch primary sources are the Notarial Archives of Amsterdam (GAA, *Notariële Archieven*) with their collection of freight contracts (*bevruchtingscontracten*) concluded between shippers and merchants. These were created when a lessee (*bevrachter*) and a lessor (*vervrachter*) drafted a document through the intermediation of a broker, normally at the Bourse. We now possess that proportion of these contracts which was notarized, a figure that varied greatly between the various trade routes but appears to have been rather high for the Arkhangel'sk route.<sup>22</sup> Practically all the notarized contracts for the White Sea route have been located and, while their historical value is diminished by the fact that variations in the number of notarized contracts does not necessarily reflect the real variation in the number of ships (i.e. year-to-year changes in the volume of trade between

<sup>20</sup> The most important examples of statistically oriented studies include: H. Brugmans, "Statistiek van de in- en uitvoer van Amsterdam, 1 October 1667 - 30 September 1668", in: *Bijdragen en Mededelingen van het Historisch Genootschap*, XXXIV (1913); S. van Brakel "Statistische en andere gegevens betreffende onzen handel en scheepvaart op Rusland gedurende de 18de eeuw", in: *Bijdragen en Mededelingen van het Historisch Genootschap*, XXXIV (1913); N.W. Posthumus "Statistiek van den in- en uitvoer van Rotterdam en Dordrecht in het jaar 1680", in: *Bijdragen en Mededelingen van het Historisch Genootschap*, XXXIV (1913). More general studies on Dutch-Russian relations include V.A. Kordt "Ocherk snoshenii Moskovskogo gosudarstva s Respublikoi soedinennykh Niderlandov do 1631 g.", in: *Sbornik Imperatorskago istoricheskago obshchestva*, CXVI (1902) and H. Schade, *Die Niederlande und Rußland: Handel und Aufnahme diplomatischer Kontakte zu Anfang des 17. Jahrhunderts* (Frankfurt am Main 1992).

<sup>21</sup> For instance, Rotterdam's and Dordrecht's trade statistics in 1680 contain only one reference to obviously Muscovite wares. 3,636 *juffen van Muscovie* were exported that year. N.W. Posthumus "Statistiek van den in- en uitvoer van Rotterdam en Dordrecht in het jaar 1680", *op.cit.* (note 40), p. 536.

<sup>22</sup> S. Hart, "De handelsbetrekkingen van Amsterdam met Archangel en Lapland (Kola) in de 17de eeuw", *op.cit.* (note 4), p. 66.

Amsterdam and Arkhangel'sk), comparisons with a very large number of other sources suggest that the year-to-year variation in notarized contracts was probably as a rule less than the variance of the total number of Dutch ships going to Russia.

The Amsterdam contracts normally gave the name of the company leasing a ship, the size of the ship (in lasts or feet and inches), the name of the captain (normally as the lessor representing a shipping company) with his home town, as well as general guidelines on what the ship was supposed to buy in Russia, although only very seldom do these directions go much beyond the general term *koopmanschappen*. Information on the size of the ships is invaluable, however, since similar data is only occasionally available elsewhere. Amsterdam merchants tended to send some of the largest vessels available to northern Russia, their average capacity rising from 95.5 lasts in 1594-1600 to 202.1 lasts in 1690s. The largest of them were involved in the triangular trade between Amsterdam, the White Sea, and the Italian ports of Genoa, Livorno, and Venice.<sup>23</sup> Not recorded in the archives were ships, so-called *stukgoederenvaarders*, that sailed entirely at the risk of the shipowners. These vessels carried a mixed cargo of piece goods, and sometimes even passengers, to and from Russia. The shipowner himself was responsible for finding a commission for the vessel and no formal contract was required. These ships were often very successful reaching northern Russia toward the end of the season, when they alone had capacity left, as Russian merchants were desperate to dispose of their remaining goods. While it is impossible to accurately estimate the number of such ships, a document from the end of the century indicates that, of the total number of 122 ships in 1697-1700, 32 (or 26 percent) sailed *bij 't last*, without a contract.<sup>24</sup>

<sup>23</sup> The average in 1631-41 was 119.5 lasts which rose further to 155.2 lasts in the '40s, 160 lasts in the '50s, 166.8 lasts in the '60s, and 180.7 lasts in the '80s. P. de Buck, notes; S. Hart, "De handelsbetrekkingen van Amsterdam met Archangel en Lapland (Kola) in de 17de eeuw", *op.cit.* (note 4), p. 68.

<sup>24</sup> S. Hart, "Amsterdamse scheepvaart en handel op Noord-Rusland in de zeventiende eeuw", *op.cit.* (note 24), p. 268; GAA arch. 6 Het archief van de Moscovitische Handel, 1694-1823, Nr. 123 Register van de makelaar Abraham de Kramer ... van schepen uitgezeld naar Archangel en teruggekeerd uit Archangel, 1698-.

The Dutch first visited the Kola coast already around 1550. Permanent relations were established in 1560 and the Dvina estuary, definitely reached by 1578, although, already in 1555, ships from 'Holland and Brabant' were said to have visited the area. The Dutch sailed to Russia in two groups. The first flotilla of 5-6 ships left in June, followed by some thirty vessels in July. The ships normally rode in anchor outside of Arkhangel'sk for a period of one month (14-60 days).<sup>25</sup> Given the dominant position of the Dutch, their purchases probably mirrored the overall composition of Arkhangel'sk's exports quite closely. There is only one extant list of Amsterdam's imports from the XVIIth century – a catalogue by commodity of the city's exports and imports between October 1667 and September 1668 – where the only reference to specifically Muscovite goods pertains to *Jufften*, of which 134,633 were imported and 70,009 pairs exported during the year. 77,568 lbs. of hog bristles came probably mainly from Arkhangel'sk. Imports of Muscovite caviar were nil.<sup>26</sup> The well-armed ships that sailed between Amsterdam, Arkhangel'sk, and Italy were commonly referred to as *kaviaarschepen* (caviar ships) whose contracts often required them to buy a certain amount of caviar in Russia. In 1674-7, this route was exclusively the responsibility of English ships which frequently took on some of their provisions at Yarmouth before proceeding to Arkhangel'sk and then on to Livorno. Often the Dutch ships destined for Arkhangel'sk engaged in whale hunting on the way there. The so-called *Koolvaarders* (trading with Kola), which tended to be smaller than the ships destined for Arkhangel'sk, normally bought fish or themselves engaged in fishing. The main exports from Lapland consisted of salmon, cod, both fresh or salted and as dried *stokvis*, train oil, and ising glass which was found in the local mountains. The ships normally spent three months in Lapland. The *Koolvaarders* were often

<sup>25</sup> H. Kellenbenz, "La signification économique de la route d'Arkhangel'sk (fin XVIe - fin XVIIIe)", *op.cit.* (note 4), p. 45; E.D. Rukhmanova, "Arkhangel'skaia torgovlia Rossii (XVII v.)", *op.cit.* (note 4), p. 139; S. Hart, "Amsterdamse scheepvaart en handel op Noord-Rusland in de zeventiende eeuw", *op.cit.* (note 24), p. 293.

<sup>26</sup> H. Brugmans, "Statistiek van de in- en uitvoer van Amsterdam, 1 October 1667 - 30 September 1668", *op.cit.* (note 30), pp. 16, 24, 53.

required to call in at Arkhangel'sk during their trip to sell or buy goods. There is some evidence to suggest that the Dutch also became involved in attempts to trade in areas to the east of Arkhangel'sk.<sup>27</sup>

The Dutch trade with Russia was conducted by highly dynamic private companies and partnerships. When the Tsar in 1628 invited all foreign merchants to trade freely beyond Arkhangel'sk, it turned out that 23 Dutch merchants already possessed special permission for trade in the Russian interior. In 1630, there were already 100 Dutch merchants active in Russia and at least eight companies had permanent agents in Arkhangel'sk. The 1634-5 a Vologda customs book identifies 37 Dutch merchants, as compared with only four Englishmen. The most important group initially consisted of religious refugees from Antwerp which had dominated the foreign trade of the Netherlands in the XVIth century. Of them, Isaac le Maire was the most powerful and chartered 20 ships to Arkhangel'sk and three to Kola in 1594-1600. Marcus de Vogelaer chartered at least nine ships in 1591-1600 and owned houses in Arkhangel'sk, Kholmogory, Vologda, Iaroslavl', and Moscow. Other important merchants were Jean le Brun, Gommer Spranger, Pieter and Selio Marselis, Jan and Daniel Bernart, Arend Schuyt, Jean Andrea and Ottavio Tensini, and Thomas de Swaen. The Thesingh family (father Hendrick and sons Egbert and Jan) jointly account for at least 166 contracts in 1663-1700.<sup>28</sup> The Dutch often played a key role in

<sup>27</sup> S. Hart, "Amsterdamse scheepvaart en handel op Noord-Rusland in de zeventiende eeuw", *op.cit.* (note 24), p. 280, 288, 290; GAA NA 863/182, 215-8; M. Bogucka, "Zboze rosyjskie na rynku amsterdamskim w pierwszej polowie XVII wieku", *op.cit.* (note 21), p. 623. A letter by the *Voevoda* of Tobol'sk to the Tsar on 6 February 1616, mentions rumours of Dutch merchants who had sailed to the Ob'-Taz estuary and were trying to proceed further to the Enisei area. The Russians, having just established their control over Mangazeia, were worried about a Western military challenge which would be logistically difficult to prevent. The ban on using the sea route between Pustozersk and Mangazeia was renewed in 1619 and navigation to Siberia forbidden altogether in 1623. S. Dalgård, *Det Petsoriske Kompagni af 1619* (Copenhagen 1955), pp. 57-9.

<sup>28</sup> M. Bogucka, "Zboze rosyjskie na rynku amsterdamskim w pierwszej polowie XVII wieku", *op.cit.* (note 21), p. 615; S. Hart, "De handelsbetrekkingen van Amsterdam met Archangel en Lapland (Kola) in de 17de eeuw", *op.cit.* (note 4), pp. 62, 70-2; S. Hart, "Amsterdamse scheepvaart en handel op Noord-Rusland in de zeventiende eeuw", *op.cit.* (note 24), p. 309; J.W. Veluwenkamp, "n huis op Archangel' De Amsterdamse koopmansfamilie Thesingh 1650-1725", in: *Jaarboek van het Genootschap Amstelodamum*, LXIX (1977); M.Ia. Volkov (ed.), *Tamozbennaiia kniga goroda Vologdy 1634-1635 gg.*, *op.cit.* (note 3).

introducing new production methods to Russia. They produced cordage at their Kholmogory rope walk. Carp du Moulin, who was seeking the ash monopoly in 1630, offered to produce potash and teach the skill to Muscovites. He gained the monopoly for the following decade promising to 'make ash' in Tot'ma and Ustiug districts, along the Sukhona, Jug, and Dvina rivers. Du Moulin was allowed to expand his production area to Viatka and Nizhnii Novgorod districts and to Samara in 1631. However, a 1640 petition to further expand the production area was denied as du Moulin had failed to establish permanent works and made little profit for the Tsar.<sup>29</sup>

Dutch success in Russian trade was mainly due to financial and technical innovation. The Russians were completely dependent on foreign specie for their money supply and thus needed an active balance in their trade with foreigners. The Dutch were prepared to pay cash for Russian goods which gave them a 10-15 percent reduction in prices. Silver *rijksdaalders* and ducats were normally used to pay for a quarter to one half of the value of Dutch purchases in Russia. The Dutch also supplied Russia with various luxury goods, types of precious textiles, gold and silver products, jewellery, drugs, mirrors, ivory, etc. The English, who moreover paid no taxes, were not allowed to export their own silver coin, only foreign specie, to the detriment of their competitiveness on the Russian market. While the English relied heavily on barter, the Dutch financial prowess allowed them to develop extensive networks based on credit, something that made them virtually immune to protectionist legislation.<sup>30</sup> The importance of Amsterdam was enhanced by its *entrepôt* status which attracted merchants from other areas trading with Russia. Thus for instance, some of the English 'interlopers' who challenged the monopoly of the Muscovy Company, used Amsterdam as the base of their

<sup>29</sup> Ash appears to have become a Treasury monopoly as early as 1623 and was opened up to the market only in 1649. M.S. Arel, *The Muscovy Company in the First Half of the Seventeenth Century: Trade and Position in the Russian State – a Reassessment*, Ph.D. dissertation, Yale University (New Haven 1995), pp. 375, 403, 414-7.

<sup>30</sup> S. Hart, "De handelsbetrekkingen van Amsterdam met Archangel en Lapland (Kola) in de 17de eeuw", *op.cit.* (note 4), pp. 73, 80; P. de Buck, "De Amsterdamse handel op Archangel (1600-1725)", *op.cit.* (note 4), p. 32.

operations. John Chadley of Hull leased 10 ships in 1612-9, mainly for 'Lapland'.<sup>31</sup> Northern German merchants were similarly involved in the trade via Amsterdam and, in times of war, they used their neutrality, in turn, to provide Amsterdam with important Russian goods.<sup>32</sup> In general, it was relatively common for Dutch ships to be given the option of returning to either Amsterdam or Hamburg.

The Dutch also became the almost exclusive intermediaries in French trade with Russia, much to the chagrin of the contemporary observer J. Savary. The French, in fact, exported many of the most desirable luxury goods available in Russia such as wine, distilled liquor, vinegar, syrups, jam, prunes, dried pears, saffron, tobacco, paper, textiles such as fustians, Canadian beaver, rings, jewellery, processed gold and silver, indigo, medicine, spices, instruments of various kinds, and salt. Savary argued that the importance and desirability of French exports gave the country a natural edge over its competitors, although he admitted that problems could be caused by the fact that the Russian tended to recognize only Dutch *rijksdaalders*.<sup>33</sup> Primarily at Jean-Baptiste Colbert's instigation, a number of attempts were made to establish more direct commercial ties with Russia in the 1660s, most notably the formation of the *Compagnie*

<sup>31</sup> GAA NA 668/3. Even the Muscovy Company, through Richard Barne and John Havard, chartered two vessels of 70 and 100 lasts respectively in Amsterdam. S. Hart, "Amsterdamse scheepvaart en handel op Noord-Rusland in de zeventiende eeuw", *op.cit.* (note 24), p. 284.

<sup>32</sup> In 1605-8, an Amsterdam merchant Jan Thijsz Vleyshouwer leased ships for Alessandro Rocca and Walraven Hilligers, Giovanni Battista Ghinucci, Gijsbrecht van Dalen, and Caspar Wolf of Hamburg, as well as Isaac van Rijckt of Lübeck, Elias Petit, and Jan Clamp and Hermann Müller of Bremen. S. Hart, "De handelsbetrekkingen van Amsterdam met Archangel en Lapland (Kola) in de 17de eeuw", *op.cit.* (note 4), pp. 74-5.

<sup>33</sup> J. Savary, *Le Parfait Négociant*, ou *Instruction Générale pour ce qui regarde le Commerce des Marchandises de France & des Pays Étrangers*..., 4<sup>e</sup> édition (Lyons 1697), p. 182. The most important secondary works on Franco-Russian trade include: L. Delavaud, "Un projet d'établissement commercial français à Arkhangel (1664-1672)", in: *Revue des Sciences Politiques*, XXXVIII (1913), no. 3; W. Kirchner, "Le commencement des relations économiques entre la France et la Russie (1550-1650)", in: *Revue historique* 73 (1949), No. 4; G. Zhordania, *Ocherki iz istorii franko-russkikh otnoshenii kontsa XVI i pervoi poloviny XVII vv.*, I-II (Tbilisi 1959). F. Grönebaum, *Frankreich in Ost- und Nordeuropa: Die französisch-russischen Beziehungen von 1648-1689 (Quellen und Studien zur Geschichte des östlichen Europa, II)* (Wiesbaden 1968); A. Kraatz, *La Compagnie française de Russie: Histoire du commerce franco-russe aux XVIIe et XVIIIe siècles* (Paris 1993). J. Kellenbenz, "La signification économique de la route d'Arkhangel'sk (fin XVIe - fin XVIIIe)", *op.cit.* (note 4), p. 61; J. Savary, *Le Parfait Négociant*, *op.cit.* (note 50), p. 182.

*du Nord* in 1669. Colbert was fascinated by rather exaggerated notions of Russia's wealth and sent a Dutch emissary Jan Goosens to study the Russian market. Goosens in his report of 1669 indicates that the French would be able to acquire 25,000 pud of ox leather (*vaches de Russie*), probably *iufli* (valued at R 125,000), 1,000 barrels of potash (R 25,000) 10 (-20,000) pud of tallow (R 10,000), R 10,000 worth of furs and pelts and R 10,000 worth of goat hides and train oil p.a.<sup>34</sup>

## England

While the English soon declined to a marginal position as a trade partner of Russia, the information provided by British sources is particularly valuable due to the dearth of other statistical evidence on Arkhangel'sk's exports. The first systematic attempt to assess English trade volumes – the so-called Book of Tables – dates from 1679 and lists the imports and of exports of the port of London between Michaelmas 1662 and Michaelmas 1663, as well as Michaelmas 1668 to Michaelmas 1669. More systematic accounts began to be kept with the Customs ledgers at Michaelmas 1697. This data can be complemented by information provided by the Port Books which offer the most numerous estimates of English trade with Russia.<sup>35</sup> However, it was only in 1911 that these parchment documents were rescued from a shed where they 'had been rotting since the late 18th century.' By that time, they had experienced considerable damage and many of them decayed to a point where they are no longer legible or even fit for inspection. Attempts to restore them have been limited and several volumes are lost for good, leaving significant gaps in the data series. In the case of London, these are particularly serious for the 1640s and '50s. But there are also potentially serious methodological issues. The commissioners of public accounts of 1782 'reported very unfavourably on their accuracy

<sup>34</sup> L. Delavaud, "Un projet d'établissement commercial français à Arkhangel (1664-1672)", *op.cit.* (note 50), p. 318; A. Kraatz, *La Compagnie française de Russie*, *op.cit.* (note 50), p. 20 ff. For Goosens' estimates, see Bibliothèque Nationale: Mélanges Colbert 153.

<sup>35</sup> G.N. Clark, *Guide to English Commercial Statistics 1696-1782* (London 1938), p. xv; PRO E 190, Customs 3.

and value' and the series was soon discontinued as 'of no practical possible utility to the public' and a 'needless expense.' We do not know enough 'about the way in which the Port Books were made up to be sure how far they represent the trade that was actually carried on.'<sup>36</sup>

The English were the first to establish regular ties with the White Sea coast. After Richard Chancellor's shipwreck in the Dvina delta in 1553, they gained special privileges that included a duty-free status and free mobility within the Muscovite State. The Muscovy (Russia) Company, organized in 1555, effectively monopolized northern trade for a while setting a pattern where the English tended to favour monopolistic arrangements and diplomatic negotiations to promote commercial interests. The English frequently sought to acquire monopoly rights on important export commodities but were often defeated by the superior economic resources of the Dutch.<sup>37</sup> Even Tsar Mikhail Fedorovich's renewal of the old privileges in 1614 did not arrest the decline in the volume of English trade. Also the membership of the Muscovy Company dwindled from 400 in 1565 to 60-70 at the beginning of the century and further to 39 in 1633, 31 in 1681, and 20 in 1698, partly because of very restrictive membership criteria. By the mid-1670s, English merchants only served the Livorno-Arkhangelsk route in addition to direct trade with London. Only in 1699 did the Parliament pass an act 'to enlarge the trade to Russia' and 63 new members were admitted to the Muscovy Company, including merchants involved in the Virginian tobacco trade and some members of the Eastland Company.<sup>38</sup> The number of English

<sup>36</sup> G.N. Clark, *Guide to English Commercial Statistics 1696-1782* (London 1938), *op.cit.* (note 35), pp. 52, 54-5. English-Russian relations have also generated a considerable amount of secondary literature, although the bulk of it tends to focus on diplomatic rather than economic issues, e.g.: I.I. Lubimenko, *Les relations commerciales et politiques de l'Angleterre avec la Russie avant Pierre le Grand* (Paris 1933); G.M. Phipps, *Britons in Seventeenth-Century Russia: A Study in the Origins of Modernization*, Ph.D. dissertation, University of Pennsylvania (Philadelphia 1972).

<sup>37</sup> A rather typical example is the failure of Richard Gasrunt in 1666 to buy the monopoly in masts and tar in the name of John Hebdon. H. Kellenbenz, "La signification économique de la route d'Arkhangel'sk (fin XVIe - fin XVIII)", *op.cit.* (note 4), pp. 44, 58; S. Hart, "De handelsbetrekkingen van Amsterdam met Archangel en Lapland (Kola) in de 17de eeuw", *op.cit.* (note 4), pp. 72.

<sup>38</sup> H. Kellenbenz, "La signification économique de la route d'Arkhangel'sk (fin XVIe - fin XVIII)", *op.cit.* (note 4), pp. 45, 58-9.

ships visiting Arkhangel'sk was frequently around 10 p.a. during the first decade of the century but fell to an annual average of 2-4 already by the 1620s. The 1630s and '40s were marked by a partial recovery with the numbers typically rising to 7-8 a year, very occasionally even more. The second half of the century represented an era of relative decline. In the 1650s and '60s, four ships a year was a typical figure, although there were years when only one English vessel was dispatched to Arkhangel'sk. Of the 32-5 foreign ships visiting Arkhangel'sk in 1667, not a single one appears to have been English and in 1669 there were only two English merchants present in Moscow. The 1670s saw only 2-4 English vessels a years and it is only in the 1680s that a very partial recovery began. The average first rose to 4-6 p.a. and then to 6-7. There were, however, some exceptional years with 10-11 English vessels.<sup>39</sup> Yet the final decisive push to English shipping was clearly due to the outbreak of the Great Northern War.

The composition of English imports from Russia changed considerably in the course of the XVIIth century. Initially, the Muscovy Company focused on a rather narrow selection of goods with relatively high value:weight ratios such as wax, tallow, train oil, hemp, and flax. Hemp was normally worked into more valuable cordage in Russia. Tar, masts and feathers were shunned. The limited interest in furs focused mainly on the cheaper sorts such as martens and minivers. Of the various types of hides and leather on the market, *iufti* were the most common.<sup>40</sup> By the 1660s, English imports were dominated by potash which, over time, came to share the place of prominence with flax and hemp, the former having (re)appeared in the White Sea only at the very close of the century. By the late 1690s, the three commodities together accounted for some two-thirds of total English imports.

<sup>39</sup> PRO E 190. The numbers of interlopers from ports other than London seldom exceeded two in any given year. The English, from very early on, also made attempts to establish contact with areas to the east of Arkhangel'sk. A largely unsuccessful expedition in 1611 was followed by greater success in 1614-5 when Marmaduke Wilson and William Gordon visited the fur-producing area of Mangazeia in the Ob'-Pechora delta.

<sup>40</sup> M.S. Arel, *The Muscovy Company in the First Half of the Seventeenth Century*, *op.cit.* (note 47), pp. 355-6.

*Iufti*, known in England as 'red Russia hides,' were for a long time the most important English import from Russia and over two-thirds of the total imports came from Arkhangel'sk. An early peak was reached with 17,707 *iufti* in 1640; 8,021 hides were imported in 1637 and essentially the same figure, 8,000, by four Company merchants in 1637. On the other hand, the known total for 1634 was a mere 355 hides. In 1646, Anthony Tivery on behalf of Job Harby imported 952 hides. The totals in 1621, 1630, 1633, and 1646 varied between 1,963 and 4,839. Some of the dip in the *iufti* imports in the early part of the century is undoubtedly attributable to the confusion brought on by the Russian Time of Troubles, as well as the financial difficulties of the Muscovy Company. Moreover, to the extent that the Company switched to direct trade between Arkhangel'sk and the Mediterranean, the figures would not have been reflected in the English records. 360 *iufti* reached London from Arkhangel'sk in 1662-3, a figure that rose further to 2,501 in 1668-9. By 1697-8, the total was 2,091, and in Michaelmas-Christmas 1698, 2,199. No *iufti* were recorded in 1699 but a record 18,492 arrived in 1700,<sup>41</sup> almost certainly the first time the 1640 peak was passed.

Tallow imports from Russia varied between 135,632 lbs. in 1604 and 480,896 lbs. in 1633. Throughout the first half of the century, Russia appears to have supplied essentially all the tallow available on the British market, until a price increase in the mid-1630s generated a renaissance for Baltic tallow.<sup>42</sup> Tallow exports remained at a relatively low level in the second half of the century. No tallow was imported in 1662-3, whereas the 1668-9 total was 36,634 lbs. A significant recovery characterized the end of the century. Total imports between Michaelmas 1697 and Christmas 1698 were 271,158 lbs. The 1699 figure was 86,915 lbs. and in 1700 111,891.5 lbs.<sup>43</sup> Wax was traditionally

<sup>41</sup> *Ibid.*, pp. 362-4; BL MS Add. 36785; PRO Customs 3.

<sup>42</sup> The most important merchants in the business appear to have been Abraham Ashe, who imported 72,000 lbs. both in 1633 and in 1641/2, Richard Fowell (36,000 lbs. in 1649), Thomas More (26,503 lbs. in 1646/7), Richard Adams (18,000 lbs. in 1643/4), and William Parker (18,000 lbs. in 1648). M.S. Arel, *The Muscovy Company in the First Half of the Seventeenth Century*, *op.cit.* (note 47), pp. 365-9.

<sup>43</sup> BL MS Add. 36785; PRO Customs 3/1.

of considerable importance: 27,776 lbs. of Russian wax reached London in 1604, although much higher figures had been recorded in the XVIth century: 67,000 lbs. in 1568 and a record 264,768 lbs. in 1587. The Reformation, among other things, reduced the demand for wax in England. At least up to 1607, the Muscovy Company supplied the Treasury with its wax needs. In the second half of the century, wax imports from Arkhangel'sk were highly sporadic. 7,728 lbs. was imported in 1700.<sup>44</sup>

The Muscovy Company, in 1557, set up a rope walk at Kholmogory and a second one at Vologda in the late 1560s, although it was almost certainly later transferred to Arkhangel'sk. The two operations employed some 100 men. The hemp was brought in from the Smolensk region and the English used northern Russian tar to make a thread. The English had a very favourable opinion of Russian cordage and in the late XVIth century, their Navy purchased at least £10,000 worth a year.<sup>45</sup> Russian cordage imports into England totalled 133,907 lbs. in 1568 and gradually rose to 1,119,000 lbs. in 1595. By the early XVIIth century, the East India Company also became a major purchaser of cordage, accounting for roughly one-fifth of the combined sales to it and the Navy which, during the first third of the century, amounted to some 1,000,000 lbs. p.a. Overall, Arkhangel'sk supplied at least 90 percent of English cordage needs in the 1630s. At least some cordage was also sold to Hamburg merchants and it was claimed in 1641 that the English were exporting cordage on 5-6 ships to other states besides England. The Company, in addition, imported large quantities of hempen yarn, the known totals varying between 69,355 and 1,048,992 lbs. in 1604-1640.<sup>46</sup> Yarn and ropes retained their importance throughout the century. 12,656 lbs. of linen yarn was

<sup>44</sup> T.S. Willan quoted in M.S. Arel, *The Muscovy Company in the First Half of the Seventeenth Century*, *op.cit.* (note 47), pp. 358-9; PRO Customs 3/4.

<sup>45</sup> M.S. Arel, *The Muscovy Company in the First Half of the Seventeenth Century*, *op.cit.* (note 47), pp. 396, 404-5. Total English cordage imports from Russia totalled 133,907 lbs. in 1568 and gradually rose to 1,119,000 lbs. in 1595.

<sup>46</sup> These figures, based on London's Port Books, are likely to be incomplete due to direct English trade between Arkhangel'sk and other countries. M.S. Arel, *The Muscovy Company in the First Half of the Seventeenth Century*, *op.cit.* (note 47), pp. 398, 401, 406-7, 410-3.

imported in 1662-3. In 1668-9, evidently an exceptionally bad year, the total fell to 3,360 lbs. of yarn, as well as 3,360 lbs. of bast ropes. Cordage imports in 1697-8 totalled 233,871:14 lbs whereas tow imports amounted to 40,040 lbs. 259,960 lbs. of yarn was imported between Michaelmas 1697 and Christmas 1698. In 1699, cordage imports reached 134,883 lbs and rose further to 382,417 lbs. in 1700. Yarn imports totalled 72,975 lbs. in 1699 and 115,575 lbs. in 1700. Starting in the 1670s, unprocessed hemp was also imported in growing quantities via Arkhangel'sk. Total hemp imports amounted to 64,736 lbs. in 1662-3, 26,544 lbs. in 1668-9, 3,919,777 lbs. between Michaelmas 1697 and Christmas 1698, 4,145,041 lbs. in 1699, and 5,330,815 lbs. in 1700. Also flax very quickly rose into prominence during the final years of the century. Arkhangel'sk never posed a serious challenge to the Baltic ports as a flax exporter but, by the late 1690s, flax was one of the three most important English imports from Russia and by 1700 the most important. The English acquired 883,493 lbs. of flax between Michaelmas 1697 and Christmas 1698. This rose to 1,137,990 lbs. in 1699 and to 3,553,557 lbs. in 1700.<sup>47</sup>

Potash was a commodity of particular importance for the English, given its role in the growing textile industry where it could be substituted for alum in bleaching and dyeing fabric. It was also used in soap production and glass-making. Initially, the unfavourable weight:price ratios led to only relatively occasional potash exports, although the growth of demand in England, through the impact it had on prices, and the growing interest in potash production in Russia, catapulted it to prominence in the second half of the century. Simon Digby of the Muscovy Company gained the potash monopoly from the Dutch, starting in 1642 for a 12-year period 1643-55, which the Company retained after his death in 1644. Digby's operations were limited to areas in the vicinity of the Moscow-Arkhangelsk route. The Company's purchases of potash were some 282,960-694,224 lbs. in 1647, 290,952 lbs. in 1648, and 181,440 lbs. in 1649. Potash was the single most important British import from Arkhangelsk by 1662-3

<sup>47</sup> PRO Customs 3.

with total imports amounting to 720,384 lbs. The 1668-9 total was 243,600 lbs. and 2,825,271 lbs. reached England from Arkhangel'sk in Michaelmas 1697 - Christmas 1698. The 1699 total was 1,736,480 lbs. and 2,682,998 lbs. was imported in 1700.<sup>48</sup>

Caviar exports involved small quantities but were of central importance for English trade with Italy. The Muscovy Company appears to have controlled the Russian caviar monopoly in the early part of the century, until the Dutch took over around 1630. In 1636, the English under their factor John Osborne regained the monopoly for five years at the cost of R 12,600 a year. Annual exports may have totalled 540,000 lbs. a year, a figure that rose to 810,000 lbs. in 1644. No caviar imports are recorded as reaching England in the 1660s, although this may simply mean a complete dominance of the transit trade to Italy. In Michaelmas 1697 - Christmas 1698, 3,442 lbs. of Russian caviare reached England, a figure that fell to 2,275 lbs. in 1699 and 1,191 lbs. in 1700.<sup>49</sup> England also imported sometimes significant quantities of train oil from Russia. Some of the seal oil was purchased directly from the hunters at Kola, Pechenga, Kegor, and even Vardø, areas where the Muscovy Company engaged in fishing. The Company, already in the late XVIth century, thanks to a royal patent, derived an increasing proportion of its train oil from whales which it was authorized to fish in 'any seas.' By the early XVIIth century, much of the whale fishing took place around Spitsbergen. 12 tons of seal oil reached London in 1662-3. Some 650 tons was imported between Michaelmas 1697 and Christmas 1698. The 1699 total was in excess of 351 tons, the 1700 figure just over 301 tons.<sup>50</sup>

The English initially enjoyed a monopoly right – renewed in 1614 – as a tar exporter. Yet the Muscovy Company soon sought to ban all

<sup>48</sup> M.S. Arel, *The Muscovy Company in the First Half of the Seventeenth Century*, op.cit. (note 47), pp. 413, 419-21, 425; PRO Customs 3.

<sup>49</sup> In 1591, the Company set a target annual export quota of 100-150 barrels (c. 89,600 lbs.). M.S. Arel, *The Muscovy Company in the First Half of the Seventeenth Century*, op.cit. (note 47), pp. 369-72; PRO Customs 3.

<sup>50</sup> M.S. Arel, *The Muscovy Company in the First Half of the Seventeenth Century*, op.cit. (note 47), p. 360; PRO Customs 3.

tar exportation in an apparent bid to ensure cheap supplies for their rope works. Tar was indeed declared a restricted (*zapovednyi*) good, although the local authorities were instructed to sell it to foreigners for the purpose of strengthening their ships and cables. By 1633, tar was made a Treasury monopoly. In spite of an intervention in 1636 by Charles I, the Russians farmed out the tar monopoly to a Dutch merchant 'Julius Wilkinson' (Elisei Ul'ianov) for five years with the annual rent rising from R 400 to R 770. The English were allowed to continue to buy tar for their needs in the countryside, although the allegations of undercutting the monopoly persisted. An agreement with Wilkinson in 1638 put the Company's annual quota at 800 barrels. Another attempt to acquire the tar monopoly for itself failed as another Dutchman Herman Fentzell gained it for R 1,150 p.a. for 1640-5. Overall, Muscovy Company purchases of Russian tar remained relatively low in 1626-38, varying between 382 and 1,725 barrels p.a. The 1640 total was some 1,000 barrels which compared to only 1,500 barrels p.a. purchased by Fentzell. Due to Dutch complaints, the Company's quota was reduced to 400 barrels p.a. in 1642 and preventive action by Fentzell further reduced the annual purchases to some 100 barrels in 1642-5. Tar imports rose in significance at the end of the century: 59 lasts and 12 barrels were imported between Michaelmas 1697 and Christmas 1698, compared with 13 lasts and 3 barrels in 1699. The 1700 figure was already significantly higher: 113 lasts and 10 barrels. Overall, the Russian tar appears to have been inferior in quality to Baltic tar. It was described as poorly controlled ('wracked') and watery.<sup>51</sup>

<sup>51</sup> Periodic tensions with the Russian authorities arose as the Company was suspected of using its quota of tar for exports rather than cordage production. For instance, various northern German merchants bought tar from the Company in 1636-7. While the Company, estimated the annual needs of its rope walk at 500 barrels, it regularly purchased over 1,000 barrels a year, apparently by offering the Russian peasants higher prices than Wilkinson did. M.S. Arel, *The Muscovy Company in the First Half of the Seventeenth Century*, *op.cit.* (note 47), pp. 373-6, 378-84, 386-8, 391, 393-4; PRO Customs 3. S.-E. Åström, *From Tar to Timber: Studies in Northeast European Forest Exploitation and Foreign Trade 1660-1860* (*Commentationes Humanarum Litterarum*, LXXXV) (Helsinki 1988), p. 28.

## Hamburg

The surviving quantitative data on Hamburg's shipping is very patchy. The best sources at the Hamburg State Archive are the so called *Schifferbücher* which, however, cover – with numerous gaps – only the period up to 1647. In addition, there is a collection of so called *Admiralitätszollbücher*; rather more detailed records which add a couple of data points for the middle of the century, although even they do not give information on the values of individual commodities.<sup>52</sup> The main source for the second half of the century are the surviving Stade toll accounts. The most continuous series are the *Ruderzoll* accounts in the *Cämmerei-Rechnungen* of the Stade City Archive which, however, do not normally list the destinations or points of departure of ships.<sup>53</sup> The

<sup>52</sup> They consist of three series, the first one of which covers incoming (*von der See*) ships for the years 1590-8, 1601-2, 1604, 1605-7, 1609, 1611-2, 1615, and 1620. The data on the ships' point of origin is relatively comprehensive starting at the beginning of the XVII<sup>th</sup> century. This information is given for 1,207 out of 1,497 entries in 1607 and 1,272 out of 1,487 in 1609. The books list ships alphabetically by captain's first name. The second series of *Schifferbücher* consists of incoming ships in 1622-9 and 1631-4. However, only the years 1623, 1625, 1639, 1632, and 1633 are covered by undamaged documents. These documents are chronological lists which tend to give more or less complete sketches of the cargoes of the individual ships. The level of detail and accuracy of this information falls far short, however, of what is found in the customs records of the Baltic cities, or even the Danish toll accounts. The quantities of the most valuable imports are given, although even then there are numerous references to unspecified boxes, chests, and bundles. The values of individual commodities are normally not given. Finally, the third group of *Schifferbücher*, less useful for the purposes of this study, covers departures (*tho der See*) for the years 1610-3, 1615-22, 1625, 1627, 1629, 1630, and 1647. The structure of these books is similar to the first series, the only important difference being that the size of the departing vessels is given in lasts. This information is fully comprehensive only in 1625. The destinations are regularly specified only in 1625 and 1647. E. Baasch, "Hamburgs Seeschiffahrt und Waarenhandel vom Ende des 16. bis zur Mitte des 17. Jahrhunderts", in: *Zeitschrift des Vereins für Hamburgische Geschichte*, IX (1894), pp. 21, 296. Reißmann hypothesizes that initially – up to 1643 – only ships to the Iberian Peninsula paid this duty which was introduced in 1623 to provide weapons for Hamburg ships in protection from pirates. Exceptionally, however, the 1644-6 volumes also cover Russia, *inter alia*. M. Reißmann, *Die hamburgische Kaufmannschaft des 17. Jahrhunderts in sozialgeschichtlicher Sicht (Beiträge zur Geschichte Hamburgs, vol. 4)* (Hamburg 1975), p. 31.

<sup>53</sup> This was a fixed duty on all passing ships, regardless of whether they carried cargo or not. Additional duty, at three alternative rates, was levied on ships carrying masts and poles (*Mast und Stangen*). Occasional volumes survive from the years preceding the fire of 1659 but since then the series is complete into the XIX<sup>th</sup> century. C. Tiedemann, "Journal und Schiffslisten des Stader Elbzolls in Stockholmer und Stader Archiven," in: *Hansische Geschichtsblätter*, LXXXVII (1969), pp. 106-7.

references to Arkhangel'sk, while numerous, are not consistent enough to offer a clear and complete picture of Hamburg's shipping with the White Sea port. Much more informative are the surviving records on the Elbe Toll which was levied by the Swedish authorities at Brunshausen near Stade.<sup>54</sup> The main shortcoming of these records is that, as a result of an agreement between Hamburg and the Swedish Crown, they do not contain entries on goods belonging exclusively to Hamburg merchants and carried by Hamburg ships. Ships from Arkhangel'sk appear only in the 1670s, evidently because larger numbers of non-Hamburg merchants and foreign ships became involved in the trade and soon enough gained a dominated position. For the late XVIIth century, we also possess a number of sea passes issued at Stade.<sup>55</sup>

Hamburg lost no time in making use of the Muscovite invitation issued to the Hanseatic embassy in 1603 to trade at Arkhangel'sk. Regular ties were established in 1604 after the Danish King had forbidden duty-free passage through the Sound. Previously, Russian goods had reached the city from the Baltic, through direct trade with Russian-held Narva and especially through the intermediation of Lübeck's *Novogorodfahrer* who had *Kontors* in Novgorod and Pskov. In addition, Hamburgers had established ties with Dutch and English merchants specializing in Russian trade, not least because of a

<sup>54</sup> The Swedish National Archive has a collection of Audited Accounts for Bremen-Verden (*Bremen-Verden. Reviderade räkenskaper*). The second division of the collection consists of customs accounts (*Tull- och licenträkenskaper*). The collection is a rather motley assortment of various types of customs records. In addition to the main summary records (*huvudböcker*), the collection contains various addenda and verifications, including toll records for the years 1649-63, 1666-7, 1669-70, 1672-5, 1680-3, 1690-1705, and 1707-8. In particular the books for the end of the century are massive volumes consisting of toll receipts (*tullsedlar*) for each individual vessel. In 1676-86, the duty was levied instead by the dukes of Welfisch, and the surviving records from this period are two volumes covering the time between May 1677 and February 1679 at the Stade branch of the State Archive of Lower Saxony. C. Danielson, H. Backhaus, J. Brunius, and L.-O. Skoglund, *Riksarkivets beståndsoversikt*, Pt. 4: *Kammararkivet (Skrifter utgivna av Svenska Riksarkivet, VIII)* (Stockholm 1995), p. 370; NSAS Rep. 5, Fach 381, Nr. 9-12; C. Tiedemann, "Journal und Schiffslisten des Stader Elbzolls in Stockholmer und Stader Archiven," *op.cit.* (note 90), p. 106.

<sup>55</sup> These are now scattered over a handful of archives and were surveyed in C. Tiedemann, *Die Schifffahrt des Herzogtums Bremen zur Schwedenzeit (1645-1712)* (Stade 1970), Anhang 11.

significant influx of new citizens from these countries. The Dutch connection was particularly significant, the Netherlands being Hamburg's most important trade partner which accounted for some one-third of the total volume in 1625. For instance, Jolle Jansen, specified as coming from *van Sunderen uth Rußlandt* on October 3, 1604, was the captain of an Amsterdam ship. In 1606, there were already four such ships, out of a total of 10 ships arriving from Russia: 1607 saw eight such contracts and a total of 12 arrivals.<sup>56</sup>

According to Savary, 4-5 ships from the Elbe estuary annually made the trip to the White Sea, whereas Angermann puts the figure at 7-8. Judging by surviving primary sources, the typical variation appears to have been between these two limits, although figures as high as 24 (in 1665) and as low as two have been recorded. The ships journeying to the White Sea were usually three times the average size of Hamburg merchant vessels – sometimes over 200 lasts by the end of the century.<sup>57</sup> In 1625 (the one year for which we have complete data on ship sizes), two ships with a total capacity of 120 lasts (0.38 percent of the total capacity of departing ships) sailed to Arkhangel'sk, which suggests that White Sea trade may normally have accounted

<sup>56</sup> There appear to have been occasional Hamburg ships to Arkhangel'sk already in the 1580s. L. Schleker, "Reisebericht der Hansischen Gesandtschaft von Lübeck nach Moskau und Novgorod im Jahre 1603", in: *Hansische Geschichtsblätter*, XVIII (1890); II.J. von Witzendorff, "Bremens Handel im 16. und 17. Jahrhundert", in: *Bremisches Jahrbuch*, XLIV (1955), p. 144; N. Angermann, *Hamburg und Rußland in der frühen Neuzeit*, *op.cit.* (note 4), p. 4, 7; E. Baasch, "Hamburgs Seeschiffahrt und Waarenhandel vom Ende des 16. bis zur Mitte des 17. Jahrhunderts", *op.cit.* (note 88), p. 296. Of the people involved in Hamburg's trade with Arkhangel'sk in 1644-6, 47 were Hamburg citizens, 30 Dutch, and six Portuguese subjects. M. Reißmann, *Die hamburgische Kaufmannschaft des 17. Jahrhunderts in sozialgeschichtlicher Sicht*, *op.cit.* (note 89), p. 65. Amsterdam shipping was, in fact, common more generally, as can be seen from evidence accumulated by S. Hart. E. Baasch, "Hamburgs Seeschiffahrt und Waarenhandel vom Ende des 16. bis zur Mitte des 17. Jahrhunderts", *op.cit.* (note 88), pp. 309-10; SAH Cl. VII Lit. E<sup>2</sup> Pars No. 3<sup>a</sup>, Vol. 2, Fasc.2; GAA NA 97/21, 102/212, 104/43, 104/124, 260/97, 107/42, 107/47, 107/49, 107/50, 108/30, 108/39, 108/50, 108/55 (or 107/12); S. Hart, "Amsterdamse scheepvaart en handel op Noord-Rusland in de zeventiende eeuw", *op.cit.* (note 24), p. 307.

<sup>57</sup> J. Savary, *Le Parfait Negociant*, *op.cit.* (note 50), p. 178; N. Angermann, *Hamburg und Rußland in der frühen Neuzeit*, *op.cit.* (note 4), p. 8; Baasch, "Hamburgs Seeschiffahrt und Waarenhandel vom Ende des 16. bis zur Mitte des 17. Jahrhunderts", *op.cit.* (note 88), pp. 324, 332.

for 1.5-4 percent of the total annual lastage. Hamburg ships on the northern route were normally specified as going to Arkhangel'sk, Russia, or Muscovy and some of them evidently traded on the Kola coast. This appears to be true also of a ship which, in 1615, arrived from *Lappland*.<sup>58</sup>

A large number of Hamburg merchants showed interest in Russia. 95 of them were involved in trade with Arkhangel'sk in 1644-6 when a comparatively small total of nine ships undertook the arduous trip to the White Sea. The majority of these merchants were large-scale operators for whom Russia represented a relatively insignificant investment amid a number of other ventures. The leading participants included David Vermöhlen, Paul Roosen, Pelegrim Milder, Hans Pluß, Heinrich de la Camp, and Tobias Hanmann, with annual stakes sometimes in excess of 40,000 Mk. The largest merchants specializing entirely in trade with Russia were de la Camp, Lübbert Nuth, and Jakob de Kramer.<sup>59</sup> The continuing importance of Hamburg for Russia's trade in the second half of the century is reflected in the success of its merchants Philipp Verpoorten and Arnold Beltgens in leasing the Muscovite caviar monopoly in around 1670. Verpoorten also gained the salmon monopoly with his Hamburg colleague Heinrich Butenant who, in addition, took part in a mast monopoly.<sup>60</sup> Starting in 1675, Hamburg merchants began to form convoys to protect their ships. Deterred by the problems brought on by the Great Nordic War, about 30 of Hamburg's leading Arkhangel'sk merchants formed their own association – *Gesellschaft der auf Archangel (on nach Moscowien) handelnden Kaufleute* – in 1704 dominated by Claes Wildt, Jürgen Greve, Frans von Some, Lucas Beckmann, Johann Hinning, and Arnold Verpoorten. The Arkhangel'sk merchants often appear to have been active also in trade with Greenland and the Iberian peninsula. Altona

<sup>58</sup> Identified by Baasch as northern Finland, an unlikely scenario, given the lack of international ports in northern Sweden-Finland, as well as the contemporary Dutch usage of the word. *Ibid.*, p. 307.

<sup>59</sup> M. Reißmann, *Die hamburgische Kaufmannschaft des 17. Jahrhunderts in sozialgeschichtlicher Sicht*, *op.cit.* (note 89), pp. 62-3.

<sup>60</sup> N. Angermann, *Hamburg und Rußland in der frühen Neuzeit*, *op.cit.* (note 4), p. 9.

Mennonites were particularly prominent among them, notably the Roosen family.<sup>61</sup>

Hamburg exports to Russia consisted mainly of textiles, guns, brass products, dishes made of Augsburg silver, Milan gold and silver, Nuremberg and Hamburg wigs, mirrors, Nuremberg miscellanea, paper, wine, indigo, Italian taffeta, damask, and satin. In addition, there were significant quantities of herring, as well as spices and fruit. Hamburg cloth was a particular success and in the second half of the century conquered much of the market from the English. During Russian wars against Poland-Lithuania and Sweden in the 1630s and the 1650s, the Hamburgers also exported weapons to Russia.<sup>62</sup>

Imports appear to have covered a relatively rich, yet representative, assortment of Muscovite goods whose composition did not change significantly over time. Both in quantitative and value terms, hides and leather retained the leading role, although furs also remained important. Quantitative estimates are almost impossible to give, but *tufti* imports can be estimated at 3,000 hides in 1623, 5,760 in 1628, 10,800 in 1629, 2,100 in 1632, and 2,520 in 1633. In addition, there were 2 packs (c. 240 hides) from Bremen in 1632, as well as 4 bales and 2 packs from Amsterdam. By the mid-1640s, however, the annual imports exceeded 25,000 skins and data from 1677-8 suggests annual imports of 63,300-97,320 skins. The *tufti* exports were as a rule at least 25,000 hides p.a. in the 1690s and rose to 61,185 in 1691, 76,230 in 1697, and 56,070 hides in 1700. The taxed value of these imports rose from Mk 15,000 in 1623 to Mk 136,950 in 1646 and Mk 486,600 in 1678. For instance in 1644, the total value of Hamburg's imports on the Arkhangel'sk route was Mk 376,000. *Tufts* retained their prominent role throughout the century. Thus, during the last three decades, they regularly accounted for at least 35 percent of the total value of imports and in many years significantly more. A surviving list on the cargo of

<sup>61</sup> H. Kellenbenz, "La signification économique de la route d'Arkhangelsk (fin XVIe - fin XVIII)", *op.cit.* (note 4), pp. 61-2.

<sup>62</sup> H. Kellenbenz, "La signification économique de la route d'Arkhangelsk (fin XVIe - fin XVIII)", *op.cit.* (note 4), pp. 62; SAH 371-2 Admiralitäts-Kollegium F 4 Bd. 13, 14; N. Angermann, *Hamburg und Rußland in der frühen Neuzeit*, *op.cit.* (note 4), p. 9.

a Hamburg ship *Die aufgehende Sonne* in 1692, essentially confirms this picture with *tufti* accounting for 63.7 percent of the total value of the cargo where naval stores were entirely absent. The value share of furs and pelts was 28.9 percent. Hamburg also received some other types of leather from Russia, namely elk hides, seal hides, and generic (cow) 'leather,' although the totals did not as a rule exceed 100 packs p.a. in the 1620s and '30s. In all these three categories Russia appears to have been a very important supplier, especially if trade with Lübeck is included.<sup>63</sup>

Even the smaller categories of goods often represented a significant proportion of Hamburg's total imports of these commodities. Thus for instance, imports of Russian train oil accounted for some 30 percent of Hamburg's total train oil imports in 1623. In 1629, the ratio exceeded 50 percent with the total reaching 2,369 tons. This share fell to 30 percent of over 2,647.5 tons in 1632. A particularly high proportion of Russian train oil was observed in 1633 when it accounted for some 61.5 percent of the total of more than 3,120.5 tons. Hamburg's tallow imports were rather small during the first third of the century and it is likely that imports from Russia were at times of considerable relative importance. Some of the tallow and wax imports took the form of candles. While relatively small quantities of hemp and sporadically even flax reached Hamburg from Arkhangel'sk – some of it in the form of ropes and yarn, at no point did these represent more than a small fraction of corresponding imports via Lübeck. Hamburg even supplied King Christian IV of Denmark with Muscovite cable yarn. Hamburgers imported also significant numbers of Muscovite mats.<sup>64</sup>

<sup>63</sup> E. Harder-Gersdorff, "Lübeck und Hamburg im internationalen Handel mit russischem Juchtenleder in der Frühen Neuzeit", in: *Zeitschrift des Vereins für Lübeckische Geschichte und Altertumskunde*, LXVII (1987) pp. 106-8, 144; SAH 371-2 Admiralitäts-Kollegium F 4 Bd. 13, 14, Senatsakten Cl. VI Nr. 9, Vol. 1, Fasc. 1; NSAst Rep. 5, Fach 381, Nr. 9-12. The 1690s data is based on incomplete information from the Stockholm accounts. RA Bremen-Verden. Reviderade tull- och licenträkenskaper 2. Unfortunately for our purposes, most goods imported from Russia, especially furs and pelts, are specified only in the most general terms in the surviving customs records (chests, boxes, etc.), measures that give no indication of kind or value. However, Russia was clearly Hamburg's main source of furs.

<sup>64</sup> Baasch, "Hamburgs Seeschifffahrt und Waarenhandel vom Ende des 16. bis zur Mitte des 17. Jahrhunderts", *op.cit.* (note 88), pp. 345-6, 356, 371, 378.

Most of Hamburg's fish imports from Russia tended to be dried cod (*Stockfisch*), occasionally also salmon. In 1692, a 48-last vessel *Prophet Jonas* arrived from Kola carrying 47,500 tn dried cod, as well as 502 tn train oil.<sup>65</sup> Small quantities of lard and bacon were also imported, e.g., 76 S# and 294 sacks in 1629, and occasionally there was some meat (33 tons in 1629). In exceptional years, Hamburg merchants also acquired grain, although the volumes were invariably rather small. For much of the 1620s, Muscovite rye accounted for, at best, two percent of Hamburg's total rye imports. The late 1620s and early 1630s appear to have constituted an exception. The 27 lasts of Russian rye in 1628 was already 8.52 percent of the overall rye imports. Of the total rye imports of 561 lasts and 341 sacks in 1629, 57 lasts and 260 sacks came from Russia, as did 26 lasts of wheat, or roughly 10 percent of the total wheat imports. In 1629, total grain imports only narrowly exceeded 1,500 lasts, less than 50 percent of the previous year's total. Rye imports from Russia reached a local peak in 1633 when 897.5 lasts and 126 sacks, out of a total of 1,937 lasts and 126 sacks, came from Arkhangel'sk. That year, total grain imports still fell short of 2,500 lasts. Russia appears to have served the same kind of role as an emergency supplier during times of shortage as it did for Amsterdam. By 1644, rye imports were down to 46.5 lasts. The Hamburgers imported also some flour and relatively small quantities of buckwheat and millet.<sup>66</sup>

Overall, the evolution of Hamburg's import bundle is, with the exception of the central role of *iufiti*, not reflective of the long-term evolution of Russian exports. In Hamburg's case, the rise of naval stores was insignificant and even ashes lost importance towards the end of the century. Furs and pelts remained present throughout the century and, even during the last decades, often accounted for 5-20 percent of the total in value terms, compared to a mere five percent for

<sup>65</sup> RA Bremen-Verden. Reviderade tull- och licenträkenskaper 2, 1692:2, No. 2989, September 20, 1692.

<sup>66</sup> M. Bogucka, "Zboze rosyjskie na rynku amsterdamskim w pierwszej połowie XVII wieku", *op.cit.* (note 21); E. Baasch, "Hamburgs Seeschiffahrt und Waarenhandel vom Ende des 16. bis zur Mitte des 17. Jahrhunderts", *op.cit.* (note 8), pp. 336-8, 343-4, 389, 412, 414.

Arkhangel'sk overall by the early 1670s. It is likely that Hamburg derived its naval stores mainly from Norway and (via Lübeck) from the Baltic.

## Bremen

The original customs records of the Hanseatic City of Bremen have largely been lost over the centuries, with only fragments of the *Retorsionszoll* books for June-August 1630 and October-December 1632 surviving.<sup>67</sup> Important additional information is provided by the remaining Elsflëth Weser Toll Accounts at the Oldenburg division of the State Archive of Lower Saxony which offer a more or less continuous series for 1654-73.<sup>68</sup> Their considerable value is only diminished by the limited data on ships departing for Russia. The duty was imposed on

<sup>67</sup> This was a duty instituted at the time as a countermeasure to the Oldenburg Weser toll and levied by a Bremen man-of-war on ships passing the Hunte delta. SAB Rechnungen des Bremer Orlongsschiffs 2 – U. 13. b. Nr. 9.

<sup>68</sup> The Oldenburg records were analyzed by M. Richter who focussed in particular on the year 1658. The chief problem with this unique source is that the books do not systematically record all the relevant information on the points of departure of the vessels. This was a transit toll on ships sailing on the Weser and the ships' itinerary had little bearing on the duty. For instance in 1658, a total of 3,458 vessels passed Elsflëth but the records indicate the point of departure of only 2,079 ships. The destination is given for a mere 1,522. Müller asserts that full information on points of departure and arrival is only given for 50-60 percent of the ships passing the toll chamber. However, the main problems with the records seem to concern smaller vessels engaged in trade with northern Germany and the Netherlands. The largest ships, whose toll payments were measured in tens of *Reichsthaler*, and which almost invariably plied between Bremen and overseas ports, appear to be recorded with all the relevant details on their itinerary. There have been some attempts to assemble an overall picture of Bremen's foreign trade flows in the XVIIth century, although they have tended to focus on the rather scarce collections of the Bremen State Archive. The most important secondary literature consists of articles by H.J. von Witzendorff and H. Müller. General background information on the activities of Bremen's merchants is available in a study by R. Prange. Occasional data on Bremen ships destined for Russia was compiled by C. Tiedemann. M. Richter, *Die Anfänge des Elsflëther Weserzoll: Beiträge zur Geschichte von Schifffahrt und Wirtschaft der Unterweser im 17. Jahrhundert* (Oldenburger Forschungen, XVII) (Oldenburg (Oldb) 1967), pp. 71, 76-7; H.J. von Witzendorff, "Bremens Handel im 16. und 17. Jahrhundert", *op.cit.* (note 93); H. Müller, "Untersuchungen zur bremischen Reederei in 17. Jahrhundert", in: *Bremisches Jahrbuch*, LIII (1975), pp. 95-6, 115; R. Prange, *Die bremische Kaufmannschaft des 16. und 17. Jahrhunderts in sozialgeschichtlicher Betrachtung* (Veröffentlichungen aus dem Staatsarchiv des Freien Hansestadt Bremen, XXXI) (Bremen 1963); C. Tiedemann, *Die Schifffahrt des Herzogtums Bremen zur Schwedenzeit (1645-1712)* (Stade 1970).

cargo and thus a ship in ballast would not have paid anything. Since Bremen merchants tended to pay for their Russian purchases in cash before delivery, it is quite possible that most such ships passed Elsflëth without being recorded. Alternatively, ships could have first gone to Amsterdam or Hamburg to acquire wares to sell to the Russians.

The first recorded Bremen ships to Arkhangel'sk were sent in 1609. However, the Russian route appears to have got off to a rather shaky start and surviving data suggests that regular annual trips by Bremen ships only began to be undertaken in the late 1620s and early '30s. In the meantime, Bremen would receive Russian wares from both Amsterdam and Hamburg. The two neighbours supplied Bremen with a number of new citizens and merchants who often brought their old business contacts along.<sup>69</sup> Bremer Coenrad Poppens was an active participant in a major partnership with Selio and Peter Marselis in the early 1630s. In May-June 25, 1633 alone, the three men had 32 Amsterdam shipping contracts notarized, for vessels with a total capacity of 3,837 lasts. The close relations also resulted in a high degree of diversion of Bremen's trade with Russia to Amsterdam. As some Amsterdam merchants explained to a Bremen City Councillor in 1634, while leasing a ship from Vlie or Texel to Russia was no more expensive than the Bremen-Arkhangel'sk route, it was much easier to find ships in Amsterdam than in Bremen.<sup>70</sup> Eventually, one to three Bremen ships p.a. typically made the voyage to Russia. This figure rose to six in 1653 when neutral Bremers, much like Hamburgers, gained a temporary advantage from the Anglo-Dutch naval war and some of their ships were clearly leased by Amsterdam merchants. A new impetus to Bremen's Russian trade came from intensifying ties with Hamburg merchants. The later Elsflëth records contain references to ships whose cargoes belonged at least in part to Hamburg merchants. In 1672, there were three of them – of 70, 100, and 120 lasts respectively – carrying a typical array of Muscovite wares. The Bremen-Verden accounts contain

<sup>69</sup> H.J. von Witzendorff, "Bremens Handel im 16. und 17. Jahrhundert", *op.cit.* (note 93), pp. 145, 150.

<sup>70</sup> S. Hart, "De handelsbetrekkingen van Amsterdam met Archangel en Lapland (Kola) in de 17de eeuw", *op.cit.* (note 4), p. 68; S. Hart, "Amsterdamse scheepvaart en handel op Noord-Rusland in de zeventiende eeuw", *op.cit.* (note 24), p. 272.

entries on several Bremen ships sailing between Arkhangel'sk and Hamburg. Savary claimed that there were 1-2 Bremen ships sailing annually between Bremen and Arkhangel'sk, an estimate which may have been correct for the 1670s but clearly somewhat underrepresented the extent of Bremen's ties with Russia.<sup>71</sup>

Bremen's Muscovite imports were dominated both in volume and value terms by train oil which, as a rule, accounted for at least 90 percent of the total value of the total and was used at the time both in soap making and as lamp fuel. Bremen's overall train oil exports, available from the city's *Akzisbücher*, amounted to 10 last, 2,962 tons, 6.5 vats, and 2 S# (valued at some Rtl 500) in 1630 (with two months missing). The 1654 total was 16 lasts, 2,414 tons, 4 vats, and 112 *oxboft* (c. Rtl 430). Imports from Arkhangel'sk totaled 80 last, valued at Rtl 147, or some 34 percent of the total. In 1673, the Bremen train oil imports amounted to 29 lasts, 3,547 tons, 3,564 vats, 125 *oxboft*, and 22 *kardelen* (c. Rtl 1,200). The known imports from Russia totalled 62 lasts, valued at Rtl 114, or some 9.5 per cent. The figures for 1699 are 36.5 lasts, 6,879 tons, 5 *oxboft*, and 561 *kardelen* (Rtl 1,291).<sup>72</sup> During the years covered by the Oldenburg Weser toll records, Bremen's train oil imports varied considerably: 1657, 1659, and 1664 were the low points with imports of 70, 61, and 62 lasts, respectively. The three peak years were 1655, 1665, and 1669 with imports of 200 lasts and 10 tons, 173 lasts and 1,200 tons, and 391 lasts, respectively. The 1669 total would have been worth some Rtl 717, some 60 percent of the known 1673 total value of Bremen's train oil imports. It thus appears clear that Russia was a very important source of train oil for Bremen and would ordinarily have accounted at least for one-third of the total, although it is likely that this proportion declined gradually, as new alternatively

<sup>71</sup> RA Bremen-Verden. Reviderade tull- och licenträkenskaper 2, 1672:2; J. Savary, *Le Parfait Négociant*, *op.cit.* (note 50), p. 178.

<sup>72</sup> The Bremers had initially got the bulk of their train oil from Bergen, where it tended to be cod oil from *Stockfisch*. The XVII<sup>th</sup> century marks the ascendancy of Hamburg and Russia in this trade. By the 1670s, Dutch herring oil emerged on the market and, by the end of the century, oil from whale fishing by Bremers assumed an increasing role. NSAOB Best. 20 Nr. D 2, fol. 240, Nr. D 18. H.J. von Witzendorff, "Bremens Handel im 16. und 17. Jahrhundert", *op.cit.* (note 93), pp. 155, 169.

sources of train oil became available towards the end of the century.

Another article that appears with considerable frequency among Bremen's Muscovite imports are mats (*Matten*) which probably refers to bast mats, although de Rodes claims that the Russian produced mats and carpets of all kinds (*matten allerhand art*) in the Vologda region.<sup>73</sup> While the mats' imports normally numbered several thousands each year, they seldom accounted for more than 5 percent of the total value of Bremen's Russian imports. The 1661 total was 15,000 mats and the 1669 figure 10,800. A typical annual total was 2-6,000 mats which was roughly comparable to the imports of Amsterdam, London, or Hamburg. The mats, as relatively inexpensive goods, were probably imported for the local northwestern German market. Only three other commodities – rye, potash, and *iufti* – were imported in any significant quantities, albeit very sporadically. I have managed to locate only two instances of significant rye imports. In 1659, Helmcke Titien imported 72 lasts of rye from Arkhangel'sk. In 1663, *Die schwarze Adele*, brought in 20 lasts of rye from Russia at Rtl 48 per last. The only two recorded instances of ash imports are 42 vats imported in 1654 and 80 vats of white ash and 51 vats of potash taken by Hinrich Lübbers to Hamburg in 1673. *Iuft*' exports were much more frequent and gradually increased in importance, but still by no means present every year. 240 hides were imported in 1656 and 305 in 1657. The 1655 figure is somewhat higher, judging by the customs duty which was three times that in 1656, although the number of hides is not specified. The 1661 figure was already 720 and, in 1670, a Bremen ship imported 1,140 hides destined for Hamburg. The only other known imports from Russia consisted of 8000 # of bacon in 1655 and a small '*packschen*' (bundle) of linen cloth in 1659. Finally, there was a 200 # contingent of evidently re-exported ginger. In addition, the records specify small quantities of meat and 'dried goods' (*trogen guth*). The only specific mention of furs and pelts is six vats in 1670, as well as one vat and one pack destined for Hamburg in 1671.<sup>74</sup> Towards the end of the

<sup>73</sup> RA Muscovitica, vol. 601.

<sup>74</sup> NSAOB Best. 20 Nr. D 2; Nr. D 3, fol. 253; Nr. D 6, fol. 182; Nr. D 8, fol. 388; Nr. D 16, fol. 476; Nr. D 17, fol. 455; Nr. D 18.

century, the Bremers spoke of *Grönland und Moscowienfahrer* when referring to their northern merchants, although these were apparently never joined in a particular corporation.<sup>75</sup>

### Other Northern German and Baltic Cities

Of the other Northern German cities, only Lübeck sent any significant numbers of ships to Arkhangel'sk. Even then, such traffic was highly sporadic, since the city's trade with Muscovy was mainly intermediated by the *Novgorodfahrer* in the Eastern Baltic. A Lübeck ship is first mentioned in the Danish Sound toll records in 1628. It carried, among other things, 1,291 hides. The surviving Lübeck customs records from 1635 mention a ship steered by Hinrich Sander as arriving from Arkhangel'sk on 3 December. This was a Bremen vessel commissioned by the *Novgorodfahrer* which carried train oil, elk hides, and *iufiti*. Another Lübeck ship left for the White Sea port in 1655 and one arrived from there in 1657. A ship going from Arkhangel'sk to an unspecified destination in 1663 carried 30 lasts of oats. The *Zulage* book for 1672 lists one arrival from Arkhangel'sk with a cargo of 800 tn train oil, 10,000 mats, and 150 hides of 'Russian leather,' probably *iufiti*. Another ship in 1690 had the entire cargo of its vessel confiscated by the Sound customs authorities after the captain produced a false pass indicating Swedish ports as his point of origin and destination in an evident attempt to avoid duty payments. The cargo consisted of 4 lasts of fish, 90 pieces of linen cloth, 14,400 lbs. of *kolonialvarer* (a mixed category of smaller piece goods), 1,880 dried hides, 7,450 *iufiti*, and D 4,080 worth of furs and pelts. At times, Danish ships appear to have intermediated between the White Sea and the Trave delta. One of them in 1672 took 200 dried hides to Lübeck.<sup>76</sup>

<sup>75</sup> H. Kellenbenz, "La signification économique de la route d'Arkhangel'sk (fin XVIe - fin XVIII)", *op.cit.* (note 4), pp. 61.

<sup>76</sup> AHL Archiv der Novgorodfahrer (Nof) Prahmbücher (Schreibgeldrechnungen) 1635-1639, 1641, vol. 302; 48' Ältere Finanz-, Steuer- und Zollbehörden (bis 1811): *Zulage* 12 (1672), fol. 283. The Lübeck records are far from complete. N.E. Bang and K. Korst, *Tabeller over Skibsfart og Varetransport gennem Øresund 1661-1783 og gennem Storebælt 1701-1748*, *op.cit.* (note 136), pp. 20, 115, 450; H. Kellenbenz, "La signification économique de la route d'Arkhangel'sk (fin XVIe - fin XVIII)", *op.cit.* (note 4), pp. 63.

With the exception of the Swedish-held city of Stade in the Elbe delta, which was tied into Hamburg's trade, the lesser northern German ports sent ships to Russia only extremely occasionally. Two Wismar ships made the journey in 1663 and 1665 respectively. A Gdansk ship in 1699 carried 3 lasts and 50 S# of fish from Arkhangel'sk. Another Gdansk ship made the journey in 1700 with 7.5 lasts of fish and 2 lasts of train oil. In addition, a Dutch ship took 7.5 lasts of herring, 1.5 lasts of other fish, and 40 dried hides to Gdansk.<sup>77</sup> The largest unknown quantity in northern German trade with Russia were ships from Emden. The surviving Stade sea passes suggest that Emden ships were occasionally hired by northern German merchants for the White Sea route. However, no data on this survives in the Emden records and the nature of this trade is therefore impossible to establish clearly.<sup>78</sup> However, it evidently constituted an auxiliary component to Hamburg's, and possibly Bremen's trade, and thus probably did not deviate much from the broader picture of northern German trade.

## Denmark

Denmark had long-standing ties with Muscovy and a keen interest in developing them further.<sup>79</sup> Since the 1580s, relatively small ships of

<sup>77</sup> N.E. Bang and K. Korst, *Tabeller over Skibsfart og Varetransport gennem Øresund 1661-1783 og gennem Storebælt 1701-1748*, op.cit. (note 136), p. 475, 490.

<sup>78</sup> See for instance, B. Kappelhoff, *Geschichte der Stadt Emden von 1611 bis 1749: Emden als quasiautonome Stadtrepublik (Ostfriesland im Schutze des Deiches)*, XI (Leer 1994).

<sup>79</sup> In spite of this, Danish-Russian relations have attracted relatively little attention in historical scholarship. The most important works are: S.A. Christensen, "Die dänisch-russische Verbindungen während der ersten Hälfte des 17. Jahrhunderts", in: *Scando-Slavica*, XX (1974); S.A. Christensen, "Dänisch-russische Verhandlungen und russische Außenpolitik in den Jahren 1656-1659", in: *Scando-Slavica*, XXI (1975); G.V. Forsten, "Snosheniia Danii s Rossiei v tsarstvovanie Khristiana IV", in: *Zhurnal Ministerstva narodnago prosveshcheniia* (1892); O.A. Johnsen, "Norsk-dansk handelsforbindelse med nord-Russland under Kristian IV", in: *Tromsø Museums Skrifter*, II (1928); I. P. Shaskol'skii, "Ekonomicheskie svyazi Rossii s Daniei i Norvegiei v IX-XVII vv.", in: N.E. Nosov and I.P. Shaskol'skii (eds.), *Istoricheskie svyazi Skandinavii i Rossii (IX-XX vv.): Sbornik statei* (Leningrad 1970); Iu.N. Shcherbachev (ed.), *Datskii arkhiv: Materialy po istorii drevnei Rossii, khraniashchiesia v Kopengagene, 1326-1690 gg.* (Moscow 1893); —, *Russkie akty Kopengagenskogo gosudarstvennogo arkhiva* (*Russkaia istoricheskaia biblioteka*, XVI) (St Petersburg 1897). On Norway, see for instance K. Selnes, *Norge-Russland: grannefolk gjennom tusen år* (Oslo 1972).

25-30 lasts were sent almost annually to Russia, mainly to the Kola coast where they bought fish and train oil. The Danish cities involved were the Sound towns Copenhagen, Helsingør (Elsinore), Malmø (Sw. Malmö), Landskrone (Sw. Landskrona), Køge, and Flensburg, the latter having a particularly prominent position. The information offered by the Danish Sound customs records on the goods carried by Danish ships to and from Russia is rather sparse. Typically, a ship in 1611 carried 43,000 fish and another in 1612 was loaded with 45 lasts of fish. The Danes enjoyed the right to trade in the interior of Russia; apparently Tsar Mikhail Fedorovich's 1619 grant of privilege on trade along the Dvina acknowledged an extant state of affairs. This led to occasional exports of more traditional Russian goods. A 1609 ship carried 335 hides: 60 were imported in 1630 and 17,100 in 1635, along with 58 forties of furs. A ship in 1671 carried 30 dried hides and 50 otter skins, as well as 1.5 S# of wool.<sup>80</sup> Occasionally, there were small quantities of Russian woven cloth. Often lengthy intervals passed without a single Danish ship being recorded as coming from the White Sea, e.g. 1638-47. Between 1654 and 1695, Danish ships were recorded in only six years.

The Danes developed an interest in direct trade with Siberia following a shift of the main production area of the finest furs to the region east of the Ural mountains, the Ob' valley and the Mangazeia district. A company set up for the purpose of trading in the Pechora region is named in historical records for the first time on 7 April, 1619 as a joint venture of prominent Copenhagen merchants and King Christian IV. It was a relatively small partnership with an initial capital of Rd 1,200 and one small vessel (*St. Michel (Engel)*) of 35 lasts which was expected to carry only specie to Russia and then load on furs and pelts. The King ordered mint master Johan Post to mint Rd 1,500 of Russian *den'gi*, since it was felt that non-Russian coin might be

<sup>80</sup> S. Dalgård, *Det Petsoriske Kompagni af 1619*, *op.cit.* (note 43), pp. 18-9, 41, 48; H. Kellenbenz, "La signification économique de la route d'Arkhangel'sk (fin XVIe - fin XVIII)", *op.cit.* (note 4), p. 54; I. P. Shaskol'skii, "Ekonomicheskie svyazi Rossii s Dаниеi i Norvegiei v IX-XVII vv.", *op.cit.* (note 141), p. 29; N.E. Bang and K. Korst, *Tabeller over Skibsfart og Varetransport gennem Øresund 1661-1783 og gennem Storebælt 1701-1748*, *op.cit.* (note 136), p. 100.

unacceptable in an area with little direct contact with foreigners. In addition, the ship took on Rd 1,635.5 in Danish money and Rd 1,050 were used to buy goods for exchange at Lübeck. The Danish government, concerned by earlier English and Dutch setbacks, also made diplomatic efforts to lay the ground for the new operation, pointing to full freedom of trade throughout Russia under a 1562 treaty. The King's letter of 5 May, 1619 explains that the merchants intended to establish a permanent year-round presence in Pechora and were hoping to build a factory (*købmandskontor*) there. Russian protection and total exemption from all customs duties were requested. The Tsar in reply portrayed the project as unreasonable and misguided, referring to the difficult climatic and geographic circumstances of the area. He warned that the local Russian merchants did not trade with foreigners and advised the Danes to trade at Arkhangel'sk instead. A lengthy exchange along these lines followed with neither side yielding.<sup>81</sup>

The crew of the *St. Michael* spent their first winter in Kola where they evidently entered into credit relations with Russian merchants and bought at least 3,000 dried cods (valued at Rd 122) and at least 12 timbers of sable furs (Rd 600). However, Russian consternation over the intended destination of the ship led to an 18-week imprisonment of the men. The settlement of the juridical problems lasted until the end of July leading to losses in 1619-20 of Rd 9,359 which could not be recovered through diplomatic channels and the Danes eventually sent a flotilla of four men-of-war to Russia where, in late July 1623, they attacked Kildin Island and the Kola fjord. Local toll stations were raided and the ships loaded with some Rd 4,500 worth of rye, dried cod, and train oil, at least some of which was sold to foreign merchants in the area. Christian IV countered the Tsar's

<sup>81</sup> This combined with a continuing obsession with finding a new and shorter northern passage to Asia. Jens Munk had been dispatched to discover the Passage in 1619-20 with the assistance of Marmaduke Wilson and William Gordon who claimed that he could 'buy for half the money the wares that are bought in St Nicholas [the English base near Arkhangel'sk]'. The King's share in the company was Rd 600 and the rest was shared between Mikkel Vibe, Johan de Willem, Johan Post, Herman Hegerfeldt, and Boldewin Blanckefort, Jacob Mikkelsen, and Thomas Lorck. S. Dalgård, *Det Petsoriske Kompagni af 1619, op. cit.* (note 43), pp. 12-3, 20, 25-6, 30, 32, 40-4, 46, 48-9, 52-5, 59-62.

protest by asserting that the gains from the expedition were still insufficient to make up for the Danish losses incurred in Russia. The Pechora Company had closed down by 1623 and the *St. Michael* was taken over by the King.<sup>82</sup>

The Danes remained interested in the Russian market, however, and were, in 1640, sold 3,000 pud salpeter by the Tsar. In 1641, Christian IV sent his envoys Valdemar Christian and Gregor Krabbe to Moscow for the establishment of a 'close alliance' with the Tsar and instructed them to gain the Tsar's assent for a company of Danish merchants for the purpose of exporting Russian *iufti* and other hides. King Frederick III sponsored a Copenhagen trading company which in 1647 sent three ships to northern Russia to chart the route to the Siberian fur areas. The merchants acquired furs in the Kola peninsula and eventually reached the Pechora estuary from whence they proceeded on sledges to Liapin in the Ob' valley acquiring furs from the local population. A trip to Novaia Zemlia was fruitless, however. Alliance plans in 1660 led to the authorization of grain purchases of 5,000 *chel'*, which was then converted to hemp exported via Arkhangel'sk in 1663. Further grain purchases ensued in 1676 (10,000 *chel'*) and 1684. These various projects notwithstanding, sustained trade based on a renewed treaty failed to materialize. The King's commercial interests were represented in Moscow by Dutch merchants, first by David Ruts and then by the Marselis family. The Danish exports to Russia were similar to exports by other West Europeans with detailed information surviving on 1620 and 1647 when the most important category were different textiles with a total resale value in Russia of R 1,600. Dalgård puts the Danish profit margin in trade with Russia at 33.3-50 percent, although the lack of evidence makes accurate estimates impossible.<sup>83</sup>

<sup>82</sup> *Ibid.*, pp. 63, 65-75, 84-5.

<sup>83</sup> Peter Marselis since 1640 represented in Moscow the Danish 'Baltic Company,' a partnership whose interests included Russian trade. E.D. Rukhmanova "Arkhangel'skaia trgovlia Rossii (XVII v.)", *op.cit.* (note 4), p. 146; I. P. Shaskol'skii, "Ekonomicheskie sviazi Rossii s Daniei i Norvegiei v IX-XVII vv.", *op.cit.* (note 141), pp. 31-7, 40; Ju.N. Shcherbachev (ed.), *Datskii arkhiv*, *op.cit.* (note 141), No. 931, 936, 1015; S. Dalgård, *Det Petersiske Kompagni af 1619*, *op.cit.* (note 43), pp. 80, 82-3, 86.

Several merchants in Danish-controlled Norway also took part in trade with Russia, something that for them was but an extension of the age-old trade routes to Nordland. Trondheim and Bergen appear to have been of particular importance for this trade. In 1629, a company for Muscovite trade, dominated by Crijn Hooft, Rasmus Lauritzen, and Sander Jansen, was set up in Bergen principally for the purpose of the grain and fish trade but also for provisioning Vardøhus and capitalizing on the growing demand for Russian goods on West European markets. David Ruts served as the agent of the company, which appears to have cooperated closely with the Marselis and Berns. Also other Dutch merchants established themselves on the Norwegian coast, including Jan de Nocquer of Amsterdam in Trondheim. In the second half of the century, Trondheim merchants, such as Lorents Moternsen Angell, Albert Angell, Jens Hansen Collin, and 'Burgomaster' Hagerup, sent ships to Arkhangel'sk and in 1714 a *Arkhangelsk Handels-Compagnie* was set up in the city. The Swedish Crown also expressed interest in trade with Arkhangel'sk. Karl IX granted Dutch immigrants the privilege of trade with Lapland, including Vardø and Arkhangel'sk in order to help along the new foundation of Gothenburg in the Göta estuary. Between 1628 and 1630, the Swedish Crown was one of the major purchasers of Russian grain and was represented in Russia through his agent Johann Möller and often aided by Dutch merchants.<sup>84</sup>

### Concluding Remarks

In global terms, Arkhangel'sk remained part of the European 'periphery,' a port which did not account for a significant proportion of the total trade of its partners. Even the Dutch seldom had more than a couple of percent of their merchant fleet engaged on the White Sea route. Thus, in 1636, ships destined for Arkhangel'sk accounted

<sup>84</sup> *Ibid.*, p. 56 ff.; H. Kellenbenz, "La signification économique de la route d'Arkhangelsk (fin XVIe - fin XVIII)", *op.cit.* (note 4), pp. 54-6, 63; D. Jørgensen, "Cryn Crynsz. Hooft: En storkjøpmann i Bergen på 1600-tallet", in: *Bergens Historiske Forening. Skrifter. 1947* (1948), pp. 213-44.

for 2.85 percent of the total of 1,750 ships. In 1699, the proportion was 2.15-2.19 percent of the 1,487-1,595 ships belonging to the merchant fleet (*koopvaardijvloot*) which excluded the navy, the United East India Company (*Vereenigde Oostindische Compagnie*), and fishing and whaling boats. However, the ships on the northern route were, on the average, very large. In 1670, Arkhangel'sk ships accounted for 4,500 lasts of the total 184,000. Larger ships were used only in Mediterranean trade which, in turn, was partially linked to the White Sea trade. England is the only country for which we have detailed quantitative data on the relative value of Russian imports, although all of it dates from the very end of the century. In 1699, imports from Russia accounted for 1.75 percent of the total value of English imports, a proportion that rose to 2.96 percent in 1700, making them almost equal to Sweden's share. In Bremen, the three ships destined for Russia compared with total departures of 544 ships, but only 13 of these were in long-distance (*übersee*) trade. In 1664, there were a total of 101 ships in long-distance trade, three of them on the Arkhangel'sk route. The figures in Hamburg are similar, although the proportion of Arkhangel'sk ships is normally even smaller, because of the broader range of destinations for the city's ships. For instance, in 1647-8, the three Arkhangel'sk ships compare to a total of 1,743 departures.<sup>85</sup>

Two facts should be borne in mind, however, when interpreting Arkhangel'sk's trade data. First, the Arkhangel'sk data do not cover all of Russia's exports. Especially in the middle of the century and from the 1670s onwards, Russian exports through the Swedish Baltic ports were roughly comparable to, and sometimes exceeded, Arkhangel'sk's exports. Even in other cases, they tended to account for at least a third of the total Russian exports. Secondly, the totals

<sup>85</sup> The Dutch merchant navy accounted for 65 percent of the total employment of scamen in 1610, a proportion that fell to 55 percent in 1630-40, and 45 percent in 1680. P.C. van Royen, *Zeevaardende op de koopvaardijvloot. Omstreeks 1700* (Hollandse Historische Reeks, VIII) (Amsterdam 1987), pp. 14-5, 24; J. de Vries and A. van der Woude, *Nederland 1500-1815: De eerste ronde van moderne economische groei* (Amsterdam 1995), p. 472; PRO Customs 3/3-4; H. Müller, "Untersuchungen zur bremischen Reederei in 17. Jahrhundert", *op.cit.* (note 114), pp. 103-4, 121; Baasch, "Hamburgs Seeschiffahrt und Waarenhandel vom Ende des 16. bis zur Mitte des 17. Jahrhunderts", *op.cit.* (note 88), p. 325.

naturally do not reveal the dependency of Western nations on specific Russian export wares. The above discussion has highlighted the significance of a number of Russian goods for Western European economies. Especially towards the end of the century, the significance of Russian naval stores became steadily greater and the leading seafaring nations could be said to depend on Russian naval stores to a significant, albeit unfortunately unquantifiable, degree. It is fair to assume that a disturbance to Western trade with Russia would have resulted in significant perturbations to the Western trading nations.

**TABLE 1 - Existing Estimates of Arkhangel'sk's Total Exports.**

|                                  | c. 1642        | c. 1653 <sup>a</sup> | 1655 <sup>a</sup>    | c. 1673 <sup>c</sup> |
|----------------------------------|----------------|----------------------|----------------------|----------------------|
| Hemps, S#                        | 3,000          |                      |                      | 8,000                |
| Cable tarn, S#                   |                |                      | 2,000                | 2,000                |
| Ropes, S#                        | 2,000          |                      | 1,000 ropes          |                      |
| Tallow, S#                       | 2,625          | 11,508               | 600                  | 2,000                |
| Wax, S#                          | 300            | 350                  | 100                  |                      |
| Cndles, arshin                   |                |                      | 2,000                |                      |
| Furs, Roubles                    | 200,000        |                      |                      |                      |
| Sable, timber                    |                | 579                  | 1,000                | 340                  |
| <i>Ditto</i> tails, strips, ends |                | 34,846               | 46,000               | 17,000               |
| Squirrel, timber                 |                | 8,898:30             | 2,500                | 11,250               |
| Marten, timber                   |                | 360                  | 450                  |                      |
| Mink, timber                     |                | 287                  |                      | 400                  |
| Fox, timber                      |                | 399:10               | 50                   | 125                  |
| Cats, timber                     |                | 719:35               | 125                  |                      |
| <i>lufti</i> , decker            | 6,000          | 45,000               | 50,000 pud           | 80,000 pud           |
| Elk hides, deck.                 |                | 592:5                | 500                  | 800                  |
| Ox/cow hides, d.                 | 1,000          |                      | 2,000 pud            | 6,000 pud            |
| Goat, decker                     | 60,000         | 897:8                | 2,000                | 1,000                |
| Other leather, d.                | 130-150        | 3,820                |                      |                      |
| Linen cloth, ars.                |                | 325,980              | 100,000              | 60,000               |
| Woolen cl., arsh.                |                | 168,500              | 2,000                | 30,000               |
| Persia silk, pud                 |                | 36-45,000            | 200                  | 200                  |
| Mats                             |                | 389,000              |                      | 200,000              |
| Beav. stones, pd                 | *              | 70                   | 400#                 | 400#                 |
| Beav. wombs, 1#                  |                | 3,000                | 400 pud              | 600 pud              |
| Rhubard, pud                     | *              | 150                  | 100                  |                      |
| <i>Agaricum</i> , pud            |                | 60                   | 200                  | 200                  |
| Isin glass, pud                  |                | 250                  |                      | 600 pound            |
| Hogg br., pud                    | *              | 5,700                | 2,00                 | 5,000                |
| Train oil, barrels               | 4,000          | 6,000                |                      | 3,000                |
| Bacon/meat, S#                   |                | 5,500                | 400 + 500<br>gammons |                      |
| Caviar, pud                      | 12-14,000      | 20,000               | 18,000               | 12,000               |
| Pitch/tar, brls                  | 2,000          | c. 2,400             | 2,000                | 1,000                |
| Potash, barrels                  |                | 3,000                | 3,000                | 3,000                |
| Speck/meat, S#                   |                | 5,500                | 400+500<br>gammons   |                      |
| <b>Total value, R</b>            | <b>430,500</b> | <b>1,164,676</b>     | <b>660,975</b>       | <b>768,500</b>       |

\* Total combined value approx. R. 11,000.

<sup>a</sup> Also: 100,000 last grain and 600 last linseed.

<sup>b</sup> Also: 1,000 S# cordage, 100 timber mice, 100 pud and 100 lbs. down, 2,000 pud feather, and 100,000 hats.

<sup>c</sup> Also: 4,000 martentails, 400 glutton skins, 800 wolf skins, 150 lbs. *muscus*, 2,000 pud *karloek* (fish glue), 3,000 barrels white ash, and 150-200 masts.

Source: RA Handel och sjöfart, vol. 15; Muscovitica, vol. 601; Kommersekollegium: Huvudarkivet F IV:96: Handel med Ryssland 1670-talet; Birch, T. (ed.) *A collection of the State Papers of John Thurloe, Esq., III*, p. 713.

# REFERENCES

- AMBURGER E., *Die Familie Marselis: Studien zur russischen Wirtschaftsgeschichte (Gießener Abhandlungen zur Agrar- und Wirtschaftsforschung des europäischen Ostens, IV)* (Gießen 1957).
- ANGERMANN N., *Hamburg und Rußland in der frühen Neuzeit (Die Ost-Reihe im Namen des Deutschen Gesellschaft für Osteuropakunde e.V., Zweigstelle Hamburg, XVII)* (Hamburg 1972).
- AREL M.S., *The Muscovy Company in the First Half of the Seventeenth Century: Trade and Position in the Russian State – a Reassessment*, Ph.D. dissertation, Yale University (New Haven 1995).
- ARKHANGEL'SKII S.I., "Anglo-gollandskaia torgovlia s Moskvoi v XVII v.", in: *Istoricheskii sbornik*, V (1936), pp. 5-38.
- ÅSTRÖM S.-E., *From Tar to Timber: Studies in Northeast European Forest Exploitation and Foreign Trade 1660-1860 (Commentationes Humanarum Litterarum, LXXXV)* (Helsinki, 1988).
- BAASCH E., "Hamburgs Seeschiffahrt und Waarenhandel vom Ende des 16. bis zur Mitte des 17. Jahrhunderts", in: *Zeitschrift des Vereins für Hamburgische Geschichte*, IX (1894), pp. 295-416.
- BAKLANOVA N.A., "Privoznye tovary v Moskovskom gosudarstve vo vtoroi polovine XVII veka", in: *Očerki po istorii torgovli i promyslennosti v Rossii v XVII i v nachale XVIII stoletii (Trudy Gosudarsvennogo istoricheskogo muzeia: Otdel istoricheskii obshchii, IV)* (Moscow 1928).
- BARBOUR V., "Dutch and English Merchant Shipping in the Seventeenth Century", in: *Economic History Review*, II (1930), no. 2, pp. 261-90.
- BAZILEVICH K.V., *Denezbnaia reforma Alekseia Mikhailovicha i vosstanie v Moskve v 1662 g.* (Moscow 1936).
- BAZILEVICH K.V., "Elementy merkantilizma v ekonomicheskoi politike pravitel'stva Alekseia Mikhailovicha", in: *Uchenye zapiski MGU: Istorii*, XLI (1940), pp. 3-34.
- BIRCH T., (ed.) *A Collection of the State Papers of John Thurloe, Esq.: Secretary, First to the Council of State, And afterwards to the Two Protectors, Oliver and Richard Cromwell*, III (London 1742).
- BOGUCKA M., "Zboze rosyjskie na rynku amsterdamskim w pierwszej polowie XVII wieku", in: *Przegląd Historyczny*, LIII, No. 3 (1962), pp. 611-28.
- VAN BRAKEL S., "Statistische en andere gegevens betreffende onzen handel en scheepvaart op Rusland gedurende de 18de eeuw", in: *Bijdragen en Mededelingen van het Historisch Genootschap*, XXXIV (1913), pp. 350-404.
- BRUGMANS H., "Statistiek van de in- en uitvoer van Amsterdam, 1 October 1667 - 30 September 1668", in: *Bijdragen en Mededelingen van het Historisch Genootschap*, XIX (1898), pp. 125-83.
- DE BUCK P., "De Amsterdamse handel op Archangel (1600-1725)", in: Krikke,

- J., V. Enthoven and K. Mastenbroek (eds.), *Amsterdam, haven in de 17de en 18de eeuw* (Amsterdam 1990), pp. 28-33.
- CHRISTENSEN S.A., "Die dänisch-russische Verbindungen während der ersten Hälfte des 17. Jahrhunderts", in: *Scando-Slavica*, XX (1974), pp. 95-104.
- CHRISTENSEN S.A., "Dänisch-russische Verhandlungen und russische Außenpolitik in den Jahren 1656-1659", in: *Scando-Slavica*, XXI (1975), pp. 139-152.
- CLARK G.N., *Guide to English Commercial Statistics 1696-1782* (London 1938).
- DALGÅRD S., *Det Petsoriske Kompagni af 1619* (Copenhagen 1955).
- DANIELSON C., H. Backhaus, J. Brunius and L.-O. Skoglund (eds.), *Riksarkivets bestandsöversikt*, vol. 4: *Kammararkivet (Skrifter utgivna av Svenska Riksarkivet, VIII)* (Stockholm 1995).
- DELAUVAUD L., "Un projet d'établissement commercial français à Arkhangel (1664-1672)", in: *Revue des Sciences Politiques*, XXXVIII (1913), no. 3, pp. 313-32.
- DEM'KIN A.V., *Zapadnoevropeiskoe kupechestvo v Rossii v XVII v.* (Moscow 1994).
- DEM'KIN A.V. and A.A. PREOBRAZHENSKII, *Zapadnoevropeiskie kuptsy i ikh tovary v Rossii XVII veka* (Moscow 1992).
- FORSTEN G.V., "Snosheniia Danii s Rossiei v tsarstvovanie Khristiana IV," *Zhurnal Ministerstva narodnago prosveshcheniia* 280 (April 1892), pp. 281-353.
- GRÖNEBAUM F., *Frankreich in Ost- und Nordeuropa: Die französisch-russischen Beziehungen von 1648-1689 (Quellen und Studien zur Geschichte des östlichen Europa, II)*. (Wiesbaden 1968).
- HART S., "De handelsbetrekkingen van Amsterdam met Archangel en Lapland (Kola) in de 17de eeuw", in: *Nederlands Archievenblad*, LXXIII (1969), pp. 66-80.
- HART S., "Amsterdamse scheepvaart en handel op Noord-Rusland in de zeventiende eeuw", in: *Geschrift en Getal: Een keuze uit de demografisch, economisch- en sociaal-historische studiën op grond van Amsterdamse en Zaanse archivalia (Hollandse Studiën, IX)*. (Dordrecht 1976), pp. 267-314.
- IZIUMOV A.F., "Razmery russkoi torgovli XVII veka cherez Arkhangel'sk v sviazi s neobsledovannymi arkhivnymi istochnikami", in: *Izvestiia Arkhangel'skogo obshestva dlia izucheniia russkogo Severa* (1912), no. 6, pp. 250-8.
- JOHNSON O.A., "Norsk-dansk handelsforbindelse med Nord-Rusland under Kristian IV", in: *Tromsø Museums Skrifter*, II (1928), pp. 88-96.
- JØRGENSEN D., "Cryn Crynsz. Hooft: En storkjøpmann i Bergen på 1600-taller", in: *Bergens Historiske Forening. Skrifter*. 1947 (1948), pp. 213-44.
- KAPPELHOFF B., *Geschichte der Stadt Emden von 1611 bis 1749: Emden als quasiautonome Stadtrepublik (Ostfriesland im Schutze des Deiches, XI)* (Leer 1994).

- KELLENBENZ H., "La signification économique de la route d'Arkhangelsk (fin XVIe - fin XVIIIe)", in: Mollat, M. (ed.), *Études d'histoire maritime présentées au XIIIe congrès international des sciences historiques par la Commission Internationale d'Histoire Maritime à l'occasion de son XIIe colloque, Moscou, 16-23 août 1970* (Moscow 1970), pp. 42-83.
- KELLENBENZ H., "The Economic Significance of the Archangel Route (from the late 16<sup>th</sup> to the late 18<sup>th</sup> century)", in: *Journal of European Economic History*, II (1973), pp. 541-81.
- KIRCHNER W., "Le commencement des relations économiques entre la France et la Russie (1550-1650)", in: *Revue historique* 73 (1949), no. 4, pp. 161-83.
- KOROT V.A., "Ocherk snoshenii Moskovskogo gosudarstva s Respublikoi soedinennykh Niderlandov do 1631 g.", in: *Sbornik Imperatorskago istoricheskago obshchestva*, CXVI (1902).
- KOTILAINE J.T., "Opening a Window on Europe: Foreign Trade and Military Conquest on Russia's Western Border in the 17<sup>th</sup> century", in: *Jahrbücher für Geschichte Osteuropas*, Neue Folge, XLVI, 4, pp. 495-530.
- KRAATZ A., *La Compagnie française de Russie: Histoire du commerce franco-russe aux XVIIe et XVIIIe siècles* (Paris 1993).
- LUBIMENKO I.I., *Les relations commerciales et politiques de l'Angleterre avec la Russie avant Pierre le Grand* (Paris 1933).
- MÜLLER H., "Untersuchungen zur bremischen Reederei im 17. Jahrhundert", in: *Bremisches Jahrbuch*, LIII (1975), pp. 91-142.
- OGORODNIKOV S.F., *Ocherk istorii goroda Arkhangel'ska v torgovo-promyshlennom otnoshenii* (St Petersburg 1890).
- PHIPPS G.M., *Britons in Seventeenth-Century Russia: A Study in the Origins of Modernization*, Ph.D. dissertation, University of Pennsylvania (Philadelphia 1972).
- POSTHUMUS N.W., "Statistiek van den in- en uitvoer van Rotterdam en Dordrecht in het jaar 1680", in: *Bijdragen en Mededelingen van het Historisch Genootschap*, XXXIV (1913), pp. 529-37.
- PRICE J.M., "The Tobacco Adventure to Russia: Enterprise, Politics, and Diplomacy in the Quest for a Northern Market for English Colonial Tobacco, 1676-1722", in: *Transactions of the American Philosophical Society*, N.S., LI (1961).
- REISMANN M., *Die hamburgische Kaufmannschaft des 17. Jahrhunderts in sozialgeschichtlicher Sicht (Beiträge zur Geschichte Hamburgs, vol. 4)* (Hamburg 1975).
- REPIN N.N., "K voprosu o svyazi vneshnego i vnutrennego rynka Rossii vo vtoroi polovine XVII - pervoi chetverti XVIII v. (po materialam Arkhangel'skogo porta)", in: *Vestnik Moskovskogo universiteta*, Seriya IX: Istorii, XXV (1970), No. 6, pp. 56-72.
- VAN ROYEN P.C., *Zeevaardenden op de koopvaardijvloot: Omstreeks 1700 (Hollandse Historische Reeks, VIII)* (Amsterdam 1987).

- RUKHMANOVA E.D., "Arkhangel'skaia trgovlia Rossii (XVII v.)", in: I.I. Kiaivariainen (ed.), *Voprosy istorii Evropeiskogo Severa: Mezhdunarodnyi sbornik* (1980), pp. 137-56.
- SAVARY J., *Le Parfait Négociant, ou Instruction Générale pour ce qui regarde le Commerce des Marchandises de France & des Pays Estrangers...*, 4<sup>th</sup> edition (Lyons 1697).
- SCHADE H., *Die Niederlande und Rußland: Handel und Aufnahme diplomatischer Kontakte zu Anfang des 17. Jahrhunderts* (Frankfurt am Main 1992).
- SCHLEKER L., "Reisebericht der Hansischen Gesandtschaft von Lübeck nach Moskau und Nowgorod im Jahre 1603", in: *Hansische Geschichtsblätter*, XVIII (1890), pp. 29-62.
- SELNES K., *Norge-Russland: grannefolk gjennom tusen år* (Oslo 1972).
- SHASKOL'SKII I.P., "Ekonomicheskie sviazi Rossii s Daniei i Norvegiei v IX-XVII vv.", in: Nosov, N.E. and I.P. Shaskol'skii (eds.), *Istoricheskie sviazi Skandinavii i Rossii (IX-XX vv.): Sbornik statei* (Leningrad 1970), pp. 9-63.
- SICHERBACHEV I.U.N. (ed.), *Datskii arkhiv. Materialy po istorii drevnei Rossii, khraniaschiesia v Kopengagene, 1326-1690 gg.* (Moscow 1893).
- SICHERBACHEV I.U.N., *Russkie akty Kopengagenskogo gosudarstvennogo arkhiva (Russkaia Istoricheskaia Biblioteka, XVI)* (St Petersburg 1897).
- TIEDEMANN C., "Journal und Schiffslisten des Stader Elbzolls in Stockholmer und Stader Archiven," in: *Hansische Geschichtsblätter*, LXXXVII (1969), pp. 105-7.
- TIEDEMANN C., *Die Schiffahrt des Herzogtums Bremen zur Schwedenzeit (1645-1712)* (Stade 1970).
- TIKHONOV I.U.A., "Tamozhennaia politika Russkogo gosudarstva s serediny XVI v. do 60-kh godov XVII v.", in: *Istoricheskie zapiski*, LIII (1955), pp. 258-307.
- TROEBST S., "Narva und der Außenhandel Persiens im 17. Jahrhundert. Zum merkantilen Hintergrund schwedischer Großmachtpolitik", in: A. Loit and H. Piirimäe (eds.), *Die schwedischen Ostseeprovinzen Estland und Livland im 16.-18. Jahrhundert (Studia Baltica Stockholmensia, XI)* (Stockholm 1993), pp. 161-78.
- TROEBST S., *Handelskontrolle – "Derivation" – Eindämmung: Schwedische Moskaupolitik 1617-1661* (Wiesbaden 1997).
- VELIWKAMP J.W., "n huis op Archangel' De Amsterdamse koopmansfamilie Thesingh 1650-1725", in: *Jaarboek van het Genootschap Amstelodamum*, LXIX (1977), pp. 123-39.
- VOIKOV M.I.A. (ed.), *Tamozhennaia kniga goroda Vologdy 1634-1635 gg.* (Moscow 1983).
- DE VRIES J. and VAN DER WOUDE A., *Nederland 1500-1815: De eerste ronde van moderne economische groei* (Amsterdam 1995).
- VON WITZENDORFF H.J., "Bremens Handel im 16. und 17. Jahrhundert", in: *Bremisches Jahrbuch*, XLIV (1955), pp. 128-74.

ZHORDANIA G., *Ocherki iz istorii franko-russkikh otnoshenii kontsa XVI i pervoi poloviny XVII vv.*, I-II (Tbilisi 1959).