THE DUTCH EAST INDIA COMPANY'S SHIPPING, 1602-1795, IN A COMPARATIVE PERSPECTIVE

by

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It is not surprising that a comparative survey of European-Asian shipping in the 17th and 18th centuries shows more similarities than differences. In all European countries - except Portugal - the monopoly company was chosen as the most suitable form of organization for trade and shipping with Asia. That such companies were far more successful in the Asian trade than in the Atlantic needs no further explanation here. However, it should be noted that part of the explanation for this phenomenon lies in the length of the sailing route to Asia. Before 1800 it took some six to nine months to sail to Asia and a return voyage could be made in hardly a shorter time. For Asian companies the trade-cycle - the time between the ordering of Asian commodities and the selling of these goods in Europe - was two years. For private merchants an expedition to Asia was a long-term, expensive and risky investment. Moreover, it was hardly possible to send a ship to Asia without it being noticed by the official companies. Private merchants or "interlopers" could only compete with companies when: 1) the official monopolies were not fully backed by the governments - in England with the East India Company during the reign of Charles I - 2) these private merchants were supported by governments - during the first expeditions from Osaka between 1715 and 1723 - and 3) companies had officially lost or given up their monopoly, as was the case with the Danish Asiatic Company after 1772.

European-Asian shipping was thus framed in monopolistic organizations: the crowns in Portugal, the chartered companies in other European countries. Regarding the sailing routes and navigation, the ships, the recruitment of personnel and the conditions on board, these companies faced similar problems and often chose similar solutions.
However, it would be wrong to reduce this concluding chapter to an enumeration of solutions of practical problems, setting the Dutch East India Company at the one and its competitors on the other side. In formal organization the companies may have had much in common, but they varied widely in size, complexity and scope of operations. The Dutch Company developed a huge network of trade and shipping in Asia, meanwhile transforming the Company, like the Portuguese in the 16th century and the English in the 18th, into a territorial power. This difference in scale had profound influence on the activities of the various companies and thus should be taken into account in a comparison of their European-Asian shipping.

Numbers of ships and volumes of shipping

It is a well-known but surprising fact that the Dutch nearly from the start of their trade to Asia outstripped the Portuguese in number of ships. After the first expedition to Asia organized by the Compagnie van Verre (Long-distance Company) in 1595, there was an outburst of activities and expectations on profits ran high: at several places companies came into existence and before the end of 1601 no less than fourteen fleets comprising 65 ships had been sent out to Asia. In the whole decade 1591-1601 no more than 59 Portuguese East Indiamen had sailed for Asia.

In 1602 the companies were united under pressure of the States General into the Vereenigde Oostindische Compagnie (VOC). The newly formed company, backed by the government and supplied with a considerable capital from private investors, maintained the supremacy gained by its predecessors and soon in the 17th century more than fifty per cent of the number of European ships rounding the Cape on their way to Asia were Dutch.

It became regular practice in the Company that each year early in the autumn directors or directoraarten decided on the number of ships they wanted to send to Asia. This decision was determined by several factors. Of primary importance was the amount of cargo that had to be transported from Batavia and the other Dutch factories to Europe. But the directors also had to take into account the ships required for the intra-Asian trade, in which the VOC participated. Furthermore, warfare and defense in Asian waters demanded ships. And finally, the extension of the territorial possessions required ever-growing quantities of soldiers and other kinds of personnel ashore. At times the numbers of East Indiamen despatched to Asia were increased only for the transport of troops. That happened, for instance, in 1662, when the directors sent reinforcements to Rijnlov van Goens enabling him to dispatch the Portuguese out of Cochin or in 1664, when the Company feared an attack on Batavia by the English.7

The number of ships sailing from Batavia was far greater than those departing from the Asian ports for the homeward voyage. Only to a small degree this can be explained by the fact that some ships had not completed their voyage to Asia or were upon their arrival in Asia in such a bad state that they had lost their sea-going capacity. In fact, outward voyages rarely ended in disaster; during the two centuries of the Company’s existence only 105 vessels were lost due to the hazards of the sea, while 16 VOC ships fell into hostile hands. So, only 2 to 3 per cent of the 5,000 outward voyages were not completed.

Hence, the difference between the amount of outward and return voyages has to be ascribed to another factor: the Dutch Company used many of its ships in the intra-Asian trade. From table 7.1 it can be concluded that in the 17th century a quarter to half of the ships returned in Asia. From about 1680 this percentage is declining, and from 1710 onwards, roughly speaking even four out of five East Indiamen returned to the Dutch Republic. This development runs more or less parallel to data on the size of the Company’s fleet mentioned in the so-called Nauwkeurige. These surveys of the VOC fleet in Asia were annually compiled in Batavia and used by the directors in Batavia for their decisions as to the building and the equipping of ships. The Nauwkeurige

Table 7.1. Tonnage and number of VOC ships (1602-1755)

<table>
<thead>
<tr>
<th>Year</th>
<th>Outward bound ships</th>
<th>Tonnage</th>
<th>Homeward bound ships</th>
<th>Tonnage</th>
</tr>
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<tbody>
<tr>
<td>1602-10</td>
<td>76</td>
<td>34,950</td>
<td>49</td>
<td>22,580</td>
</tr>
<tr>
<td>1603-20</td>
<td>117</td>
<td>56,280</td>
<td>50</td>
<td>29,130</td>
</tr>
<tr>
<td>1604-30</td>
<td>141</td>
<td>54,720</td>
<td>75</td>
<td>37,380</td>
</tr>
<tr>
<td>1605-40</td>
<td>117</td>
<td>63,750</td>
<td>75</td>
<td>40,150</td>
</tr>
<tr>
<td>1606-50</td>
<td>154</td>
<td>100,950</td>
<td>90</td>
<td>74,240</td>
</tr>
<tr>
<td>1607-60</td>
<td>206</td>
<td>123,990</td>
<td>103</td>
<td>84,560</td>
</tr>
<tr>
<td>1608-70</td>
<td>238</td>
<td>129,349</td>
<td>127</td>
<td>82,240</td>
</tr>
<tr>
<td>1609-80</td>
<td>232</td>
<td>147,647</td>
<td>133</td>
<td>93,132</td>
</tr>
<tr>
<td>1610-90</td>
<td>254</td>
<td>130,849</td>
<td>143</td>
<td>99,523</td>
</tr>
<tr>
<td>1611-100</td>
<td>235</td>
<td>148,295</td>
<td>136</td>
<td>108,123</td>
</tr>
<tr>
<td>1612-20</td>
<td>180</td>
<td>184,264</td>
<td>193</td>
<td>135,407</td>
</tr>
<tr>
<td>1613-30</td>
<td>131</td>
<td>278,966</td>
<td>245</td>
<td>185,274</td>
</tr>
<tr>
<td>1614-40</td>
<td>224</td>
<td>299,233</td>
<td>219</td>
<td>231,662</td>
</tr>
<tr>
<td>1615-50</td>
<td>175</td>
<td>290,010</td>
<td>131</td>
<td>236,640</td>
</tr>
<tr>
<td>1616-60</td>
<td>214</td>
<td>212,715</td>
<td>214</td>
<td>183,605</td>
</tr>
<tr>
<td>1617-70</td>
<td>291</td>
<td>278,845</td>
<td>244</td>
<td>227,760</td>
</tr>
<tr>
<td>1618-80</td>
<td>290</td>
<td>299,640</td>
<td>244</td>
<td>240,308</td>
</tr>
<tr>
<td>1619-90</td>
<td>207</td>
<td>241,824</td>
<td>228</td>
<td>170,923</td>
</tr>
<tr>
<td>1620-100</td>
<td>118</td>
<td>80,317</td>
<td>113</td>
<td>92,520</td>
</tr>
</tbody>
</table>

Macht made up in 1670, for instance, recorded 107 ships, in 1775 the number was reduced to 35 ships. If, however, not the number, but the volume of shipping is taken into consideration, the picture is different. During the decade 1650-1660, for instance, 103 of the 206 out-going ships returned to patria. But these returning ships counted for 60 per cent of the outward bound tonnage. Two things are obvious for the 17th century: the average tonnage of the out-going ships was considerably smaller than that of the returning ships and the smaller ships were used in the intra-Asian trade. During the 18th century, the size of the ships was growing, from about 650 tons on average in the beginning to roughly 1000 tons in 1770-80. Moreover, the difference between the average size of the out-going and returning ships was vanishing, and consequently, ships staying in Asia were far bigger than in the era before 1700. And again, if the decade 1650-1660 is set against the decade 1750-1760, the difference is most remarkable. During the first decade 206 ships measuring 129,990 tons sailed for Asia, 10 vessels measuring 6,650 tons did not arrive. While 103 ships of 84,560 tons departed for the homeward voyage, 93 ships with a total tonnage of 29,110 stayed in Asia. One hundred years later no less than 291 East Indiaans measuring 241,715 tons sailed out from the Republic, 3 ships (or 2,310 tons) did not complete their voyage, 244 ships with a total capacity of 237,760 tons began the return voyage, only 47 ships or 38,515 tons stayed behind in the East.

The increase in the average tonnage of the VOC-ships can only be partly explained by the 17th century's custom of using small vessels, like galliot and hookers, for messenger services to Asia. This practice was revived after 1788, when pockernoats were introduced for better communications between Europe and the Asian factories. The growing importance of the European-Asian trade itself in combination with greater uniformity and rationalization in the Company's shipbuilding after 1650 have also contributed to an increase in the cargo-carrying capacity of the Dutch East Indiaans. Whether these changes were influenced by or had consequences for the intra-Asian trade of the VOC, is still unclear, developments and structures of the Company's intra-Asian trade have less studied than its European-Asian trade. One might suggest, however, that both alterations in the intra-Asian trade, as well as the enormous growth in the trade between Europe and Asia requiring extra numbers of ships, were responsible for these changes.

When one compares the number of VOC-ships to those of the other East Indian Companies, it seems as if the Dutch maintained their priority in European-Asian shipping well into the 18th century. Until the middle of the 18th century roughly, half of the East Indiaans rounding the Cape of Good Hope on their way to Asia flew the Dutch flag. The European-Asian shipping of the two largest Companies, the VOC and the EIC, shows some intriguing differences. During the first two decades of the 17th century shipping of both companies increased considerably, thereafter its growth floundered. Dutch shipping boomed again after the 1630's, but showed decline in 1680-1690. In 1760 N. Steegregnard noted that the most interesting feature during the last three decades of the 17th century was the complementarity between the Dutch and the English. The EIC vigorously expanded its trade and shipping after 1670 and more and more ships were sent to Asia. A peak was reached in 1686, when no less than 24 East Indiaans set sail for Asia. But as K.N. Chaudhuri explains in his contribution to this volume, the directors in London could not hold their position and made a terrible mistake by attacking the Mogul Empire. The drop was dramatic, in 1707 only 6 ships departed from London, and during the 1690's EIC-trade was at a very low level. The Dutch Company, on the other hand, could boost its annual shipping to Asia from the 1690's onwards until about 1720.

In the second half of the 18th century, the situation gradually changed, although not before the 1780's did EIC-shipping reach the same level as that of its Dutch competitor. More striking, however, are the huge numbers of
French East India ships went out after 1770, when the monopoly of the Compagnie des Indes had been suspended and French shipping and trade in Asia had been decontrolled.

Taking into account the employment of great numbers of Dutch vessels in the Asian waters, one might expect a less overwhelming VOC lead in the shipping back to Europe. Data on the homeward bound voyages is less complete than those outward bound. A comparison between Dutch and English shipping over the years 1700-1760 provides the following data: The VOC sent out 1935 ships to Asia, while 1546 departed from Asian ports for homeward voyages. 1463 ships arriving in the Republic, i.e. 75 per cent. The EIC equipped 925 ships, of which 806 East Indiamen, i.e. 87 per cent, returned safely in England.

<table>
<thead>
<tr>
<th>Year</th>
<th>VOC</th>
<th>EIC</th>
<th>French</th>
</tr>
</thead>
<tbody>
<tr>
<td>1690-10</td>
<td>76</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>1691-20</td>
<td>117</td>
<td>77</td>
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<td>1692-30</td>
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<td>1693-40</td>
<td>157</td>
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<td>6</td>
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<td>1694-50</td>
<td>164</td>
<td>75</td>
<td>6</td>
</tr>
<tr>
<td>1695-60</td>
<td>206</td>
<td>81</td>
<td>6</td>
</tr>
<tr>
<td>1696-70</td>
<td>238</td>
<td>91</td>
<td>24</td>
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<td>1697-80</td>
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<td>155</td>
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<tr>
<td>1760-70</td>
<td>292</td>
<td>242</td>
<td>105</td>
</tr>
<tr>
<td>1770-80</td>
<td>296</td>
<td>129</td>
<td>194</td>
</tr>
<tr>
<td>1780-90</td>
<td>297</td>
<td>292</td>
<td>303</td>
</tr>
<tr>
<td>1790-95</td>
<td>118</td>
<td>177</td>
<td>196</td>
</tr>
</tbody>
</table>

1600-1795 4,720 2,676 1,455

Table 7.2: Numbers of ships sent to Asia by the VOC, EIC and the French Company (1660-1790)

On average, Dutch ships had a greater cargo-carrying capacity than the East Indiamen of the EIC. It has already been demonstrated, that the Dutch increase in the number of ships stood in no proportional relation to the increase in the volume of shipping, because of the things in the mean tonnage. Comparisons of the tonnage of East Indiamen between the companies are not without problems, because of different methods in defining a ship's capacity or reasons to keep the declaration of the tonnage artificially low. The English Company, for instance, usually put its ships on 499 tons, even if in reality the ships were larger, in order to save the cost of a chaplain or surgeon on board, obligatory for ships bigger than 300 tons. The increase in the average tonnage of English East Indiamen after 1740 might have been partly due to easing these regulations. It is likely that in the course of the 18th century most Companies' rates increased, a development partly to be ascribed to the growing importance of the China trade: the Companies used for their China trade ships of the largest rate, while ships destined for India were generally smaller. The shallowness of the Ganges prevented the use of large ships for trade on Bengal. Only developments in French shipping to Asia deviate from this trend, according to the tables provided by Ph. Hautière, French East Indiamen after 1770 were smaller. This deviation can probably be explained by the fact that by then French trade had been released and private merchants used to send out smaller ships than the official Companies.

The gap between the size of Dutch, English and French shipping at the one end and that of the other European nations on the other side is enormous. Portuguese, Danish, Swedish or Oriental trade to Asia was considerably smaller than that of the three greater Companies, although French trade only in the 18th century attained a level not distaining the smaller companies.

Table 7.3: Dutch, English, French, Portuguese, Danish, Swedish and Oriental shipping to Asia in the 17th and 18th century

<table>
<thead>
<tr>
<th>Year</th>
<th>Dutch</th>
<th>English</th>
<th>French</th>
<th>Portuguese</th>
<th>Danish</th>
<th>Swedish</th>
<th>Oriental</th>
</tr>
</thead>
<tbody>
<tr>
<td>1600-1700</td>
<td>2550</td>
<td>1865</td>
<td>1300</td>
<td>105</td>
<td>254</td>
<td>61</td>
<td>55</td>
</tr>
</tbody>
</table>

Source: For Dutch, French and English shipping see table 7.2; for the other European nations the contributions in this volume.
There can be no question that the management of the huge volume of shipping by the Dutch, the English and, for the 18th century, the French, demanded efforts of a different kind than the management of the easily surveyable shipping of, for instance, the Swedish or Danish companies. But the difference in scale did not mean that the competition of the smaller companies was insignificant or negligible for the greater ones. The smaller companies could direct their attention to the most profitable branches of the European-Asian trade: the trade with Bengal and China.

The Ostendres made their fortune with the tea-trade on Canton and during the second half of the 18th century the Danish and Swedish concentrated also on China. In 1772 the Danish Company abandoned its monopoly on India and thus became a "China company". In this trade, the smaller companies were not insignificant at all. Between 1715 and 1732 no less than 26 ships from Oostende, private as well as from the Ostend Company, arrived in China, while the VOC, relying too long for its tea on the Chinese junk-trade to Batavia, started its direct China-trade not before 1729. The Ostend Company had to be dissolved as a result of the political pressure of the English and Dutch governments, but the competition in China, however, remained, the Swedish standing in for the Ostend Company. In Canton, the English occupied the most prominent place; the Dutch coming second, with the French not at a great distance; but Swedish and Danish shipping were almost of equal size.

**Ships and shipbuilding**

From the records of the VOC one can easily get the impression that the Dutch used a wide variety of ships without any uniformity in type or dimension. [8] Shipping lists and other documents define the Company's vessels not only as ships (schips) or reseem, but also as yachts, frigate, pinasse, fluyt, carthack, galliot or hooker. In reality, the differentiation was not as great as all these names suggest. The VOC used all the other European Companies large square stern ships, in appearance similar to warships. These ships carried guns and had spars, though they were never as heavily armed as warships. This type of ship was mostly named a reseem, a name in fact not denoting a special type of ship, but indicating its use. Yachts, frigates and pinasses were also square stern ships, but mostly smaller and more lightly constructed than the reseem. The name of frigate replaced the term yach in the second half of the 17th century but little or no difference seems to have existed between the two types. In 1601 the Company built some pinasses; such vessels were small yachts, "light of wood and built for fast sailing". Apart from their dimensions, the main difference was in the use of these ships; they were used for service in the Asian waters.

Unlike its competitors, the Dutch operated also with a considerable number of round-stern vessels, of which the fluyt was the most common one. This type of ship played an important role in the Dutch mercantile marine of the 17th century and was regarded as cheap in construction and maintenance and it could be sailed with a small crew. Fluyts were suitable for ballast trade and were in particular used for special purposes, like for transport of masts to Batavia or sugar from Asia to Europe. VOC-fluyts were stronger and more solidly built than fluyts in the European trade and they were well into the 18th century employed in the Europen-Asian as well as in the intra-Asian trade.

In the last quarter of the 17th century the VOC constructed a limited number of cañoniers (kanoepen) and kolliers, ships with the same characteristics as the fluyt. Finally, the directors of Company sent out galleons and broekers to Asia, small round-sterned vessels, mostly for the delivery of wine and spermacets.

The diversity in types and variety in rates caused much discontent among the Company's officials in Batavia and created difficulties for the directors to assess the tonnage capacity required for the Company's trade. When the directors tried to tighten their grip on expenditures and formulated schemes for the composition and capacity of the fleet, they introduced standard plans. According to a project of 1680, the number of ships was fixed at 80, with a total capacity of 46,000 tons. This list still mentioned four different types of ships, next to some 22 large reseem, 18 yachts of two different rates, 30 fluyts of various sizes, with or without the usual upperstructure, and finally 14 cañoniers. The differentiation was once based on the function of the ships built to perform: the bigger fluyts, for instance, were used to be the trade with Japan, the smaller ones for coastal trading in Bengal and in other Indian settlements.

At the end of the 17th century the directors decided to have a more drastic uniformity introduced, and in 1697 the Gentlemen Seventeen stipulated that in future the chambers should build reseem according to only three different rates or shorter: one of 160 feet, carrying circa 1100 tons, one of 145 feet and 800 tons and one of 130 feet and 600 tons. The fluyts to be built, would measure 130 feet in length and carry 600 tons. As a result of this decision, the 18th century fleet showed far more uniformity than the 17th century's. At several occasions, however, the rates were discussed and in 1714 as well as in 1742 and 1749 some changes were decided. In order to increase the carrying capacity, ships were built wider from 1714. This proved to be detrimental for their seaworthiness, making the Dutch East India ships sluggish and unsafe. Ships of the first rate were hardly built any longer.

In 1742 new rates were introduced, the length of first rate ships was brought back to 150 feet, of second rates to 136 feet and third rates - now this type was rarely built - to 126 feet. The introduction of these new rates was advocated by Gustaaf van Imhoff, a newly appointed governor-general.
and his aide, the naval officer Cornelis Schrijver, were influenced by
English shipbuilders employed by the Amsterdam naval dockyard. As a result
the proportions of the hull were slightly altered and its construction was
lighter.7

Also in the second half of the 18th century changes were introduced, but it
was increasingly difficult for the Dutch Company to follow its competitors
in the innovation of shipbuilding. In 1789 a few modifications were made in the
chambers of 1784, again after an English example: the chamber Rotterdam had
bought an English East Indiaman of a small type (140 feet long) to prove that
ships were more simply constructed and sailed better than the VOC-ships,
built after the English warships fashion of 1742. Other innovations, like the
introduction of three-deckers or the coppering of the bottom, were not easily
accepted by the VOC. Three-deckers were used by the IJC since 1748,
though the English Company did not completely switch over to this type, as
the Swedish did in 1733. From 1748 the chamber Zeeland advocated the
introduction of three-deckers, which were considered stronger and more safe,
while heavy swells in stormy weather could not fill the open space between
the forecastle and the mainmast, the so-called heel. But the other chambers
rejected this innovation, partly because of the draught: the three-deckers were
heavier and had difficulties in passing the shallow waters of the Zuyderzee to
Trinidad, the roadstead from which the ships from Amsterdam, Hoorn and
Eekhoudt departed to Asia. Others objected that these ships would be too
cank. After long discussions Zeeland was officially permitted to build three-
deckers and finally in 1791 it was decided that all chambers should change
to this type.

Such principal discussions on the advantages or disadvantages of a new type
of ship did not arise over copper-bottomed ships. Here it was a matter of
money, long hampering an improvement of the sailing qualities already
accepted by other companies. Finally, at the end of the 18th century the Dutch
Company introduced two complete new types of ships: packet-boats and
pinnace-ships. The packet-boat was a cutter, a one-masted ship, used for despat-
ches and supplementing communication between ports and the main settlements
of the VOC in Asia: Batavia and Colombo. The VOC had accepted this
innovation only under pressure of the Dutch Government, and designed a special
departure schedule for these packetboats: four times a year the vessels
should leave Europe, within three months reaching the Cape of Good Hope;
from there to Batavia the sailing time should be two months. Twice a year
packet-boats would sail to Ceylon.

After some experience with pinnace-ships, hired from private merchants during
the aftermath of the Fourth Anglo-Dutch War (1780-84), the VOC had to
recognize that these ships were cheaper in construction and maintenance. But
this final innovation could not help the Company in its struggle for life only
three of these ships were launched before the VOC had to give up all its
building activities because of shortage of money.

The Dutch East India Company was - this difference with the English East
India Company has already been outlined by Chaudhuri - builder and owner
of its ships. In the beginning of the 18th century few old ships had been
bought from, for instance, the Compagnie or the Admiralties. Moreover,
the Company used to hire an occasional ship, especially in wartime or in
post-war years, when the Company's fleet had been damaged and the need
for transport capacity could not immediately be met by the shipyards of the
Company. On such occasions the directors were confronted with the advan-
tages of hiring ships: without high investments and at short notice the Com-
pany got ships at its disposal for a fixed amount of money. No wonder, that
some directors asked themselves whether the English example should not be
followed and whether it would not be more profitable for the Company to
hire ships. Not until the very end of the Company, however, such a policy was
ever seriously considered. During the aftermath of the Third Anglo-Dutch
War (1672-1674) suggestions for hiring ships made by director Coenraad van
Bommel were put aside. The Company's servants in Batavia complained that
they could not use hired ships for the intra-Asian trade. The directors were
not convinced that hiring would provide financial advantages, and of course,
it would not be easy to close down the enormous shipyards of the six chambers
with their workforces of many hundreds.

In the years after 1784, however, the problem had to be discussed under
the pressure of a desperate financial situation. The loss of ships during the
war of 1780-1784 was considerable and after the war the directors had to hire
a large number of private vessels in order to restore the connections with Asia.
In the meantime an ambitious construction program was realized and already
in 1789 the Company's fleet was back on the pre-war level. Once again the
VOC returned to its traditional system of only using its own ships. But from
1791 onwards the Company had again to call upon private shipowners for
tonnage. The shortage of seamen brought the directors to this step, the
Company was simply unable to man its own ships. This led to a new discussion
about the most profitable system for the VOC, for some time it seemed as if
a combination of both systems was preferred. In 1795 a committee advised
that hiring ships could be a main factor in using the VOC: from its downfall
- a too late recommendation. 10

The production of the shipsyard of the Company was substantial: from 1600
to 1794 no less than 1461 vessels were launched from the ships of the six
dockyards, almost equally divided over two centuries. The shift to larger ships,
however, is striking, and hence the overall tonnage increased substantially in
the 18th century.
Table 7.4 Ships built by the Dutch East India Company in the 17th and 18th century

<table>
<thead>
<tr>
<th>category</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1600-1609</td>
<td>51</td>
<td>42</td>
<td>199</td>
<td>412</td>
<td>766</td>
</tr>
<tr>
<td>1700-1799</td>
<td>219</td>
<td>283</td>
<td>751</td>
<td>78</td>
<td>711</td>
</tr>
</tbody>
</table>

Cat. I: 1000 tons, cat. II: 800-1000 tons, cat. III: 500-800 tons, cat. IV: 500 tons.

Source: Brujin, A., Dutch East-Indian Shipping, I: 12.

Decisions about the annual building program were taken by the Gentlemen Seventeen, who distributed their orders among the chambers according to the ratio that was laid down in the charter of 1662. Amsterdam half of all the ships, Zeeland 1/5, the smaller chambers each 1/16. This distribution was not based on the number of ships, but on the tonnage capacity of the ships. It goes without saying that the Gentlemen Seventeen needed up-dated information about the size and condition of the ships of their fleet, in ports as well as in Asia. For this very reason, the Nota Admiralis, mentioned above, were compiled and forwarded to Europe. Also informed by the annual reports from the six dockyards the company directors were able to decide how many vessels had to be constructed and how the outward-bound fleet for the new season would be composed.

Route and duration of the voyage

Already early in the 17th century the directors of the VOC issued strict instructions as to the route and the ports of call on the voyage to Asia. The first Dutch voyages organized by the pre-companies had been more experimental, some following the Portuguese trail, others exploring the route via the Strait of Magellan. The first fleets of the VOC had a strong military character and its commanders had received instructions to attack Portuguese settlements in East Africa and India. But soon a more regular pattern emerged.

The directors let the logs of the East Indiamen be carefully studied and in 1617 the first reisboeck or sailing manual was issued, containing sixteen clauses concerning the voyage to Asia. Some years later Cornelis Janse, Lastman, who held the post of "examinant of the steneman" for the chamber Amsterdam, drafted an extensive instruction for sailing to Asia and in 1627 this Instructie om zyt Nederlant naar Java te varen (one for the month May, the other for the autumn) was approved by the directors. Since 1652 these instructions and the regulations were printed and were included among the papers of the schepvaart handed over to the masters of out-going East Indiamen. Apart from

some adjustments and refinements these instructions remained basically the same during the rest of the 17th and the 18th century.8

Shipping to Asia had to adhere, as Haudré observes in his contribution to this volume, to a strict time schedule, because ships should enter the Indian Ocean between April and October when the monsoon winds would carry the ships to the coasts of India and China. The Dutch Company sent most of its ships to Batavia and this port could be reached throughout the year. Hence, the VOC was less tied to the seasons than its competitors. Nevertheless, the departures were not equally divided over the year. In the 17th and first part of the 18th century there was a strong emphasis on December/January (the departure of the so-called Christmas fleet) and April/May (the Easter fleet). Since 1636 it had become a regular practice to equip some ships as early as September/October. This "Fair Fleet" called after the traditional September Fair in Amsterdam could reach Batavia before other ships would depart from there to Japan, China or India. This concentration on certain months did not mean that the shipping to Asia was at a complete stand still in other times of the year. The great and growing numbers of ships to be dispatched to Asia forced the chambers on the long run to spread their activities in this respect throughout the year.

The return voyage was bound to a more strict timetable. Ships from Asia should reach the North Sea before the autumn gales. The date of the auction of Asian goods also demanded an arrival of the ships before the end of the summer - October was considered too late. Buyers at the auction should have ample opportunity to transport their goods inland without fear of winter weather and frozen waterways. The directors urged for a departure from Batavia in November, but that proved mostly to be impossible. In September and November ships arrived at Batavia from the Indian factories and Japan and the transhipment of the goods and the further preparations of an home-bound bound fleet took much time. Ships departed not until the end of the year or in January from Batavia. The increase in numbers of ships here to be prepared also caused an extension of the period of departure. In the 18th century three or even four contingents of ships sailed home, departing between November and March, sometimes even as late as April.

The route to and from Asia followed by VOC ships was quite similar to that followed by other East Indiamen. The main difference originated from the differences in port of departure or destination and were thus related to the beginning and the end of the voyage. As said before, Batavia was in Asia for most Dutch ships the place of destination or departure. The city was the centre of the Company's intra-Asian trade and shipping, well provided with all the necessary warehouses, shipyards and other workshops for the storage of all sorts of commodities and for the repair and maintenance of ships. Despite this unique position of rendez-vous, Batavia was not the only port in Dutch-Assiatic
shipping. Between 1622 and 1636 some VOC-ships sailed straight to Surat in India or Ceylon in Persia and returned from there to Europe. In 1636 this direct trade was discontinued and for some time Batavia’s central position was unchallenged.

In 1664, however, direct sailings started between the Republic and Ceylon. It was the ambition of the governor of Ceylon, Rijklof van Goens, to develop Ceylon and its port Galle, at the southernmost of the island, into a rendez-vous for shipping and trade with the VOC-factories in India and this policy led to a period of fierce competition with Batavia. Around 1700, Batavia had regained much of the ground lost, although Gallo served as post of departure for small contingents of the homeward-bound fleet until the end of the 18th century. The directors in patria had followed an irresolute and half-hearted policy on the rivalry between their rivals in Asia, first putting more faith in Van Goens, later giving more support to the Governor-General in Batavia. But soon after 1700 the directors themselves came into conflict with the authorities in Batavia about direct shipping to and from Europe. The new issue was the China-trade. While the EIC and the Ostendeers reaped the full profits from the boom of the tea-market in Europe, the VOC, for its tea relying on the Chinese junktrade to Batavia, lost ground. From 1719 the directors urged Batavia to send VOC-ships to Canton, but they were faced with a stubborn refusal from their subordinate, who did not want to irritate the Chinese merchants. Not until ten years later the Gentlemen Seventeen took action and decided to equip two ships for Canton, thus by-passing Batavia. Between 1728 and 1733 thirteen Chinsmans sailed directly from the Netherlands for Canton. Then the directors shifted to another shipping pattern. It was considered a better use of the transport capacity if outward-bound Chinsmans would call at Batavia to bring European commodities and personnel from Canton the ships should make straight for home. The reconcentration of the China-trade in 1756, putting the direction of this trade in the hands of a separate committee, did not change this pattern. So, the suggestion, that the VOC after 1714 reverted to its former practice in the tea-trade, is not correct.4 Dutch Chinsmans remained sailing directly from Canton, while after 1736 all decisions about shipping and investments in this trade rested with the directors in Amsterdam and Middelburg.

The establishment of direct sailings from to and to the VOC-factory Hoogly in Bengal also aroused irritation between the directors at home and their subordinates in Batavia. In 1718 Batavia had finally succeeded in wresting this trade out of the hands of Ceylon. The much desired textiles from Bengal were to be shipped to Europe via Batavia with the second contingent of the remittance, departing in November. But the Governor-General and Council of the Indies in Batavia had been too optimistic, Bengal textiles were only shipped in January or even later, and sometimes arrived too late in patria to be auctioned. The directors thereupon considered re-routing their transport via Ceylon, but the Company authorities in Bengal preferred direct shipping to patria: why cannot we do what all European Companies are doing? Theirs was the correct question. Of course, the VOC could do. From 1734 two and from 1738 four ships sailed annually from the Ganges via the Cape of Good Hope to Europe. Moreover, from 1750 the chamber Amsterdam sent each year two Chinsmans to Bengal, carrying the latest orders and silver required for investments in the textile-trade.

Ships of the VOC departed from roadsteads lying far away from where the chamber cities and the Company’s warehouses and dockyards were located: those of Amsterdam, Hoorn and Fakelachon departed from Texel, those from Rotterdam and Delft from Goes and the ships of the chamber Zeeland from the roadstead near Flashing. The shortest route southwards was of course through the English Channel, but the matters of the Dutch East Indies often chose the longer route north of Scotland, around the Shetland Isles, just as their Danish and Swedish colleagues.5 The prevailing westerly winds explained this, and the directors also recommended the longer route around the Shetland, the "backway" as it was called; there would be no opportunity for a long delay in English harbours with the dangers of smuggling or deserting, things happening so often in the Channel ports. And finally during wartime the route through the Channel was dangerous because East Indians could easily run into hostile warships and privateers. The instructions, however, let the master a free choice in this matter, and later in the 18th century the "backway" seems to have gone out of use.

VOC-ships never called at Cadiz, the place where other East Indiamen occasionally or, for instance the Swedish, regularly, collected precious merchandises for the Asian trade. Having sailed through the Channel or north of Scotland, the VOC-ships made for Porto Santo and Madeira Island, then steering a course west of the Canary Islands. The Cape Verde Islands, being right in the track, were sometimes called on, although these islands lacked an abundance of fresh food and water. The regulations on this point were not strict although for some period in the beginning of the 18th century it was encouraged to provision at St. Tiago. After the Cape Verde Islands ships had to pass the equator. For this part of the voyage detailed instructions were provided. From the spring to October in particular, ships ran the risks of either meeting a course too far to the east and ending up in Gulf of Guinea or steering too much to the west and be driven to the South American continent or even into the Caribean. On the chart of the sea two parallel lines were drawn, and ships had to stay within these lines - the _wegvresuur_ (cut track) as it was called in the instructions. In the southern Atlantic, the ships would pick up the favourable south-east tradewind and the Brazil current and later the westertij, then heading for the Cape of Good Hope.
As early as 1646, it was prescribed that masters should call at the Table Bay on their way to Asia, but it was only after the establishment of permanent settlement by the VOC in 1652 that practically each Dutch East Indiaman interrupted its voyage to Asia at the Cape. From the viewpoint of the directors of this step was understandable and wise. The annual number of ships was growing and these ships were carrying large crews of sailors, soldiers and other company-servants. Smaller islands on the route could not provide sufficient fresh food and drinking water. The VOC simply needed this provisioning station, without it the Company would have found it extremely difficult to expand its shipping to Asia on the large scale it did. Calling at the Cape, however, prolonged the voyage considerably. In 1656 it was stipulated that a stay at the Cape should not exceed ten days, in 1723 a stay of fourteen days was allowed; but this order of the directors at home was seldom observed. The average stay in the 17th century was 24 days, in the 18th century even as long as 29 days.

After leaving the Cape, the ships sailed east to pick up again the westerlies and the southeasterly trade winds. According the symbol of 1647 the masters had to steer this easterly course for a thousand miles, thus well beyond the islands of St. Paul and Amsterdam, which, if sighted, formed some point of reference on this leg. Then they could turn north and easily reach Sunda Strait. This southerly route had been discovered by Hendrik Brouwer. His first voyage in 1610 from the Cape to Batavia within only two and half months time had demonstrated the advantage of this route, that since 1617 was obligatory for all VOC-ships heading for Sunda Strait. Indiamen with destination Ceylon or one of the factories on the Indian subcontinent followed from the beginning of the 17th century the old Portuguese route, and chose either the "inner-passage" between the East African coast and Madagascar, or the seaway outside Madagascar. During the period from around October till April the northeast monsoon prevented ship reaching India this way, and therefore masters were instructed to take the same easterly course as the ships bound for Batavia did, but to turn north immediately after sighting St. Paul and Amsterdam, some seven hundred miles east from the Cape. In the 18th century this period was extended to August and by then the old Portuguese route had fallen into disuse.

The same wind patterns and ocean currents that forced the ships to sail such long routes over the oceans on the outward voyage, made it possible to take the shortest way home. After leaving Sunda Strait ships caught the southeast trade winds and steered a southerly course to the Cape. The East Indiamen from Ceylon or Bengal were carried southwards by the northeast monsoon and then entered the same route as the Batavian Bentre. Just before the Cape, the ships entered the most dangerous part of the voyage because of the cyclones prevailing in the area near Mauritius from January to March. A call at the Cape was also for the returning ships obligatory. The hazards of the Table Bay during the Cape winter period made anchoring from May 15 till August 15 too dangerous. Ships then had to take refuge into Saldanha Bay or Bresto. Very related ships were even allowed to pass all bays.

From the Cape the returnships or individual returning ships set sail for St. Helena, after sighting this island, they steered a northwesterly course passing Ascension and then a northerly course for the western Azores. At the Cape the masters had received instructions whether the Channel or the seaway around Scotland had to be used. The reasons for prescribing the longer way north of Scotland were the same as for the outgoing ships: the directors feared the risks of war, the activities of privateers from Dunkirk or the Biscay states as well as the ample opportunity for smuggling and private trade in English ports. From the end of the 17th century, the returning Bentre were always awaited by a few warships and vessels of the VOC, carrying fresh food. This small fleet cruised in certain areas and at the Cape the commanders of the returnships had received the instructions about signs and signals to be used in calling its attention if bad weather conditions made it difficult to sight the cruising ships. This convoy on the last leg of the voyage was also for the prevention of smuggling.

The performance of the VOC-ships in terms of duration of the voyage and safe and sound arrivals should be related to its competitors. In the case of the VOC, however, it is not possible to take a "round trip" as standard, for the Company employed its ships for shorter or longer trips in the intra-Asian trade. Most of its ships did not return immediately. The only exception were the Chinsamten that sailed to Canton and directly back home in the Netherlands in the years 1728-1733. The average duration of the outward-bound or homebound voyages is given in table 7.5 a and b.

From both tables it is obvious, that the duration of the voyages did hardly change in the course of time. In the decade of 1610-1619, the outward voyages were in general very long (238 days), what has to be ascribed to the fact that not before 1619 the Brouwer-route came into use. The return voyages in this decade took as much time as the average for the whole century: 230 days. From 1610 to 1650 the average duration of outward voyages sank to 200 days, thereafter it rose again, a fact no doubt to be explained by the general use of the Cape as a port of call after 1652. The war period between 1680 and 1709 resulted for both the voyages to and from Asia into a relative long duration, because most ships took the route north of Scotland.

It is not so easy to compare these figures with those of the other Companies. For the two larger competitors of the VOC, the English and French companies, the data are not as specified as required for a fair comparison. Moreover, there is the difference in ports of departure and destination,