

A small, global adventure: mapping Norwegian beer exports in the 19th century

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Introduction

In the second half of the nineteenth century, Norwegian beer was sold literally all over the world: the beverage could be enjoyed everywhere from China to South Africa to Brazil. Norway thus took part in the international trade in beer in this period, together with the U.K., Germany, the Netherlands, Denmark and the U.S.A. This trade has been little studied and we have few systematic and detailed accounts of the beer exports of individual countries. Exports from Norway have not received any attention at all, reflecting the fact that the brewing sector of this country has not previously been the subject of academic study.

This article explores nineteenth century Norwegian beer exports with the aim to map key features of the phenomenon. It gives an overview of the scale and geographical scope of foreign sales, and discusses who the main actors were, what type of products was exported and how the export business was organised. The following paper is based one an ongoing study concerning the Norwegian brewing industry between c.1800 and c.1920, and the mapping of the export

trade will provide a basis for further analysis of this aspect of the sector's development .

'The golden decades', 1870-1890

Beer exports appear in official Norwegian trade statistics from 1835. Figure 1 gives an overview of the annual volume that was exported from this year to 1920. It clearly shows that exports on a significant scale were limited to the period between 1870 and 1890. While Norwegian beer had found its way to foreign markets as early as in the 1830s, export levels were generally very low until 1870. This year there was a sudden increase, to unprecedented high levels. Between 1868 and 1870 the annual export volume almost tripled, from 377,800 to 926,960 litres, and in the following two decades exports never dropped below one million litres per year. In some years during the 1870s they even exceeded two million litres, with a peak of 2.7 million in 1878.

Almost equally striking as the sharp increase in 1870, is the drop in exports around 1890. Although there had been a downward trend in the 1880s, 1890

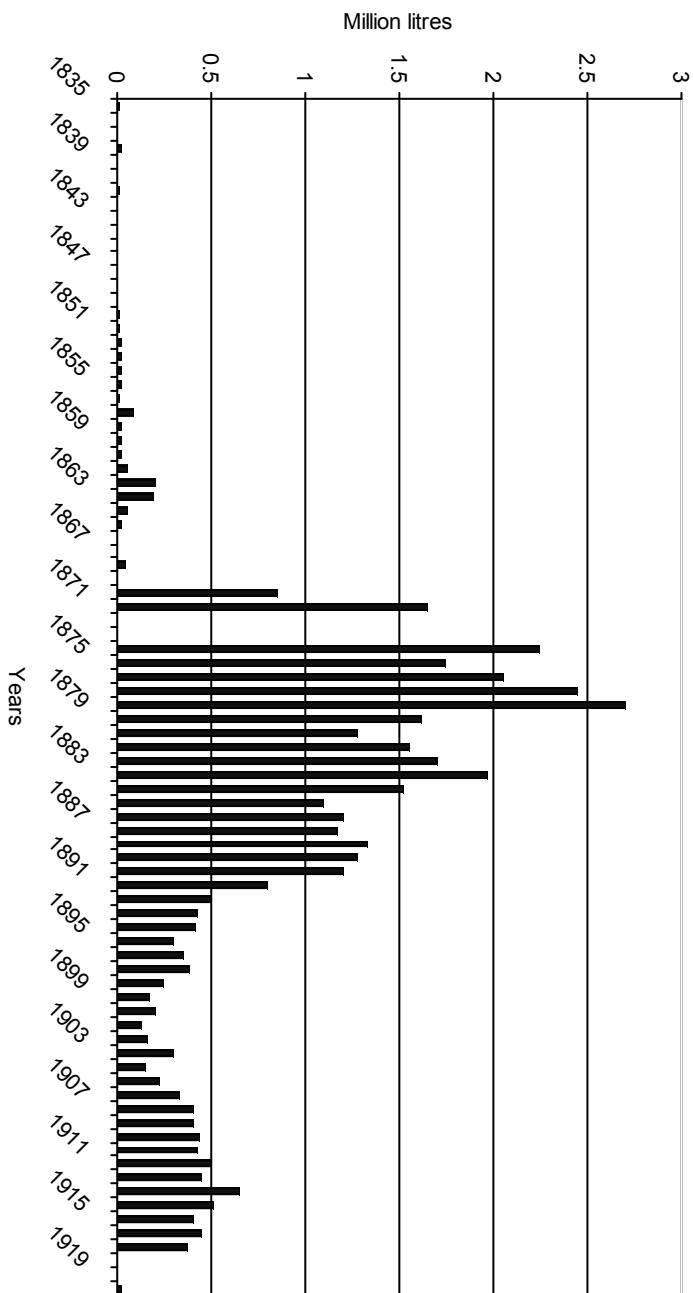


Figure 1. Annual Norwegian beer exports, 1835-1920. The figure reflects a lack of data for the following years: 1836, 1837, 1839, 1840, 1842, 1843, 1845, 1846, 1848, 1849, 1866, 1867, 1869, 1872, 1873, 1918

Source: Tabeller vedkommende Norges Handel, 1835-1920 (trade statistics)

marked a clear shift to substantially lower export levels. From that year to the next, exports dropped from 1.2 to 0.8 million litres. By 1892 they had been more than halved, and in the course of the next nine years dropped as low as to 128,000 litres. And even though there was a certain recovery in the period up to the First World War, exports at no point reached more than around half a million litres, and thus remained far below the levels of the 1870s and 1880s.

In order to say something about the significance of these levels, we must first see them in a broader context. For example, how great were exports compared to total domestic production? And how large were they in an international context?

Figure 2 shows annual exports as percentage share of total national production of beer. We see that exports never accounted for more than around 7% of

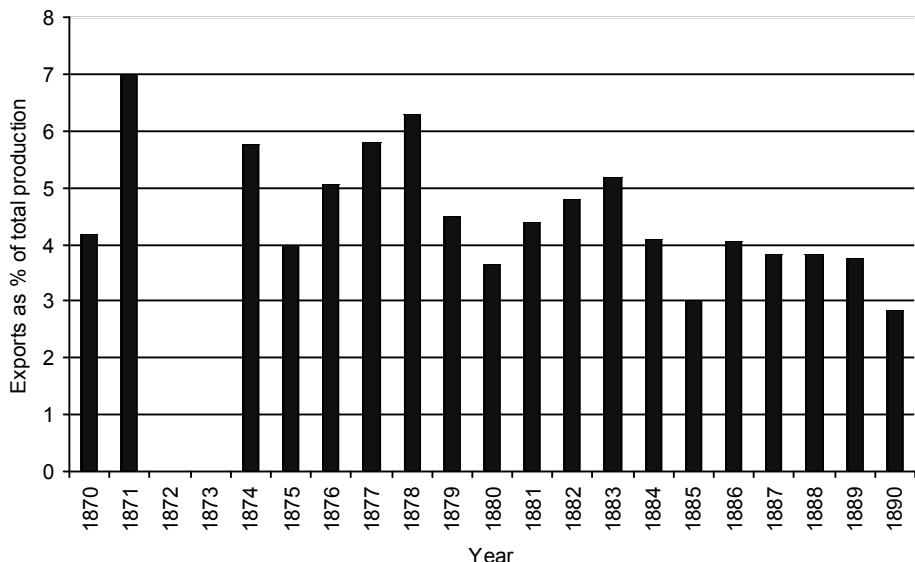


Figure 2. Exports as percentage share of total domestic output of beer, 1870-1890. The figure reflects a lack of export data for 1872 and 1873.

Source. The estimates are based on annual national output figures given in Statistisk Aarbog for Kongeriget Norge for 1880 and 1917 (statistical yearbooks), and annual export figures from Tabeller vedkommende Norges Handel, 1870-1890 (trade statistics).

total production. This level was reached in the early 1870s, after which the share decreased. The annual average for the whole period was 4.6%. So, even when foreign sales were at their highest, they were of significantly less importance to the Norwegian brewing sector as a whole than domestic sales.

As for the international context, it should be noted that we lack a comprehensive overview of the international trade in beer in the second half of the nineteenth century. We know that several countries took part in this trade, including the U.K., Germany, the Netherlands, Denmark and the U.S.A.¹ However, the lack of national export figures in the literature prevents us from establishing the relative size of the individual countries' exports. It is clear, however, that the U.K. and Germany were by far the largest actors throughout this period, with German exports taking the lead over British in the early 1880s.²

It is also clear that Norway was a tiny player. The U.K. on average exported more than 76.5 million litres beer per year between 1870 and 1890.³ In comparison, the Norwegian average was 1.5 million litres.⁴ However, the two countries were also in terms of national output in completely different leagues. An average of 4.2 billion litres of beer were produced in the U.K. every year during this period,⁵ compared to only 35 million litres in Norway.⁶ The difference in national output levels was in fact bigger than the difference in export levels, and Norway was exporting a substantially higher

share of total national output than the UK throughout the 1870s and 1880s. While we have seen that Norwegian exports on average accounted for 4.6% of national output, the British average was only 1.6%.⁷ Foreign markets thus played a relatively more important role for the Norwegian brewing sector than for the British one.

There were other countries that Norway was on a more equal footing with in terms of absolute export levels. Judging from available data for Denmark, exports from the two Scandinavian neighbours were of comparable size. Danish exports were started up in the late 1860s and had by the early 1890s reached an annual average of 2.1 million litres.⁸ We lack national figures for the previous two decades, but it is clear that Carlsberg Brewery exported 8,000 barrels - which equals 1.3 million litres - in 1885.⁹ Since we know that the other major Danish export brewery in the nineteenth century, Tuborg, only started exports on a significant scale after 1885,¹⁰ it seems reasonable to assume that Carlsberg's exports that year more or less equalled total national exports.

We have established then, that the 1870s and 1880s were the 'golden decades' of Norwegian beer exports. And while exports even in these two decades were small compared to total domestic production, and microscopic compared to the exports of the leading countries Germany and the U.K., exports accounted for a significantly higher share of

total national output in Norway than in the U.K. Norway was moreover exporting at similar levels as Denmark, and was thus one of two Scandinavian countries that succeeded in establishing a position for themselves as small-scale beer exporters in this period.

Frydenlund Brewery leads the way onto global markets

Very little information exists about the markets for the earliest Norwegian beer exports, but we know that the first foreign sales were to Copenhagen and Hamburg. More generally, it appears that exports up to the 1860s first and foremost were intended to supply Norwegian sailors in European ports with their homeland brew.¹¹

The first Norwegian brewery to expand beyond European markets was Frydenlund. The brewery was established in Oslo in 1859, and the following year a newspaper described it as 'The largest of all Norwegian and one of Europe's most significant establishments of its kind'.¹² The size reflected that Frydenlund was founded with the intention of supplying foreign markets, as well as the domestic market. While exports were started up in the first year of operations, they were initially limited to Europe, and more specifically to Germany, Sweden, Holland and Spain.¹³

In 1862, however, Frydenlund came into contact with the company H.M. van

Hengel in Holland, who expressed an interest in importing the brewery's beer to Indonesia. While this seems to have been the primary incentive to expand beyond European markets, at least three years went by before Frydenlund's overseas exports became a reality. The reason for the delay was that the brewery during the first two years of exports had experienced problems with the keeping qualities of the beer, and thus wanted to develop a distinct beer that was especially suited for long-distance transport to markets in tropical climates. This process is discussed in further detail below. The important point here is that it was only after Frydenlund had achieved a good result with the new beer - in 1865 - that exports to overseas markets were started up.

It appears that it was only after Frydenlund had made its entry into overseas markets, that a larger number of Norwegian breweries became interested in exporting. From the overview of Norwegian export breweries in Table 1, we see that Christianssand's Brewery is the only one we with certainty can say started exports around the same time as Frydenlund. The others seem to have followed only around - or after - 1870.

The table below shows that 13 breweries took part in the export trade of the 1870s and 1880s. With a total of around 50 breweries in the country in this period, this was a relatively large part of the sector as a whole. It is also clear from the table that while the majority of the brew-

Name	Location	Year of establishment	Year exports began
Aass Brewery	Drammen	1834	1871
Christiania Joint Stock Brewery	Oslo	1872	by 1880
Christiania Brewery	Oslo	1855	by 1870
Christianssand's Brewery	Kristiansand	1859	by 1862
E.C. Dahl's Brewery	Trondheim	1856	c. 1870
Fredrikstad Brewery	Fredrikstad	1877	1877
Frydenlund Brewery	Oslo	1859	1860
Hamar Brewery	Hamar	1857	by 1871
Laurvig's Brewery	Larvik	1857	-
Railway Brewery	Hamar	-	-
Ringnes Brewery	Oslo	1876	1877
Schou Brewery	Oslo	1837	c. 1870
Tønsberg Brewery	Tønsberg	1856	by 1872

Table 1 Norwegian export breweries.

Sources. Apenes, Christian B., En historie om øl skrevet i anledning av 75-års-jubileet i Fredrikstad bryggeri A.S. 1877 - 21.juni - 1952, Fredrikstad, 1952, pp. 42, 43, 47-48

Hambro, C.J. (ed.), Frydenlunds Bryggeri, Oslo, 1934, pp. 22, 47

Lillevold, Eyvind et al, Hamar Bryggeri gjennom 100 år, Hamar, 1957, pp. 48-49

Lorentzen, R.A., Bryggeriet ved Nedre Sund A/S P. Ltz. Aass. En Drammenbedrift gjennom et hundreår, Drammen, 1946, p. 38

Schulerud, Mertz, Ringnes Bryggeri gjennom 100 år, Oslo, 1976, p. 33

Solheim, Bjarte, Mit øl gjør overalt lykke. E.C. Dahls bryggeri 1856-1882, hovedfagsoppgave i historie, NTNU, 1998, pp. 107-109

Vogt, Nils (ed.), Schous Bryggeri. Mindeskrift til Hundreaarsjubilæet 1921, Oslo, 1921, p. 19

Uddrag af Consulatberetninger vedkommende Norges Handel og Skibsfart, 1872, p. 53

Uddrag af Consulatberetninger vedkommende Norges Handel og Skibsfart, 1880, p. 264

eries had been in operation for a while before they began exporting there were some who, like Frydenlund, supplied for-

eign markets from the very outset. This was true for Ringnes and Fredrikstad Brewery, both established in the second

half of the 1870s, and most likely also for Christianssand's Brewery. It should also be noted that some breweries withdrew from foreign markets before 1890. E.C. Dahl more or less gave up exports in the middle of the 1870s,¹⁴ and Fredrikstad Brewery stopped exporting altogether in 1885.¹⁵ The exports of Schou's Brewery were also stopped some time before 1890,¹⁶ although the exact year is not known.

Lack of export data for individual firms makes it impossible to establish the relative size of the exports from the different breweries. Yet there is reason to believe that the breweries in Oslo, who dominated the domestic market in this period, were also the largest exporters. Frydenlund had a key position: we have reliable data for both total Norwegian exports and exports from Frydenlund for three years: 1871, 1874 and 1875. These data show that Frydenlund alone accounted for close to one fifth of total Norwegian exports in 1871, that they had increased its share to 26% in 1874, and to 34% the following year.¹⁷ In comparison, the only other brewery for which export figures exist for these years, E.C. Dahl, only accounted for 4.3% of total exports in 1871, 1.7 in 1874, and 1.2 in 1875.¹⁸

Once Norwegian beer had found its way to overseas markets, exports became global in scope very quickly. When Frydenlund's export beer for the tropics was ready around 1865, samples were sent not only to H.M. van Hengel, but also to South America. By the early

1870s, the brewery was exporting to Europe, Asia, Africa and South-America. Markets in South America, and more specifically Argentina and Brazil, were of particular importance.¹⁹

Schou was in the first half of the 1870s exporting 'not only to South America, but also to Singapore, Havana and other places'.²⁰ E.C. Dahl was in the same period exporting mainly to Brazil, but also to Peru and Japan.²¹ South America and Japan were also important markets for Ringnes,²² while Hamar Brewery operated on a wide range of markets spanning from Asia and Australia to Africa and North and South America. Chile, Peru and Bolivia were the most significant markets over time.²³

Although we cannot quantify the exact distribution of Norwegian exports between continents, it is clear that exports predominantly went to markets outside Europe and that South America played a particularly important role. Annual reports from the Norwegian consulates from the period show that while large quantities of Norwegian beer was imported to European cities, especially Hamburg and London, most of the beer was further shipped on to more distant, non-European markets. The report from Hamburg for 1874 states that:

The quite substantial quantities of beer that ... are imported from Norway are mainly shipped to overseas ports, especially South-America, but also to Asia, and more specifically, China.²⁴

Figure 3. Frydenlund brewery, Oslo, 1872.



Reports for subsequent years confirm that this continued to be the case. The same is true for the reports from London: the report for 1885 states that of total imports of Norwegian beer that year, '[t]he by far largest part ... is re-exported to overseas countries.'²⁵

This does not mean that Norwegian beer was not consumed in Europe at all. There was an emerging British market for Norwegian beer in the early 1880s. The consular report from London for 1882 states that 'The consumption of Norwegian beer in Great Britain is said to increase',²⁶ and in the following two years approximately 66,000 and 80,000 litres respectively were imported 'especially to London and for consumption here'.²⁷ Norwegian beer was moreover consumed in Belgium, France, Italy, Spain and Portugal, albeit in relatively small quantities.²⁸ It is striking that these were all countries that either were typical wine producers that lacked a significant indigenous brewing industry or, as in the case of the U.K. and Belgium, produced beers of a fundamentally different kind than Norway. This difference in European beer production is elaborated on later in this paper.

While the exact geographical distribution of exports cannot be established at sector level, we have detailed export data for Frydenlund that allows us to quantify the distribution of the exports of this one brewery between continents for the period 1877-1890- see figure 4.

It is evident that South America played a

dominant role. Throughout the years 1877-1890 more than half of Frydenlund's exports went to that continent; in some years, the share was close to 80%. Asia was the second most important continent if we look at the period as a whole. Australia/Oceania and Europe played relatively significant roles from the beginning of the 1880s, and especially in the first half of that decade. With regards to exports to Europe, however, the Frydenlund data show that most of the brewery's European sales went to individuals or companies who clearly intended to re-export the beer to overseas markets.²⁹ This means that even the share of exports which, according to Figure 4, went to Europe, for a large part was based on overseas demand.

One key point must be made in connection with South America's dominant position as market for Norwegian beer: the continent has a tropical climate. The same is true for parts of Asia. This is highly relevant because at the time Norwegian exports were started up, it was for technical reasons impossible to brew beer in tropical climates. Brewing depended on low temperatures, and it was only with the introduction of mechanical cooling in the last quarter of the nineteenth century that it became technically feasible for countries in the tropics to establish an indigenous brewing sector. Generally, brewing first began to spread in South America and Asia in the 1880s.³⁰

We have seen that the unprecedented

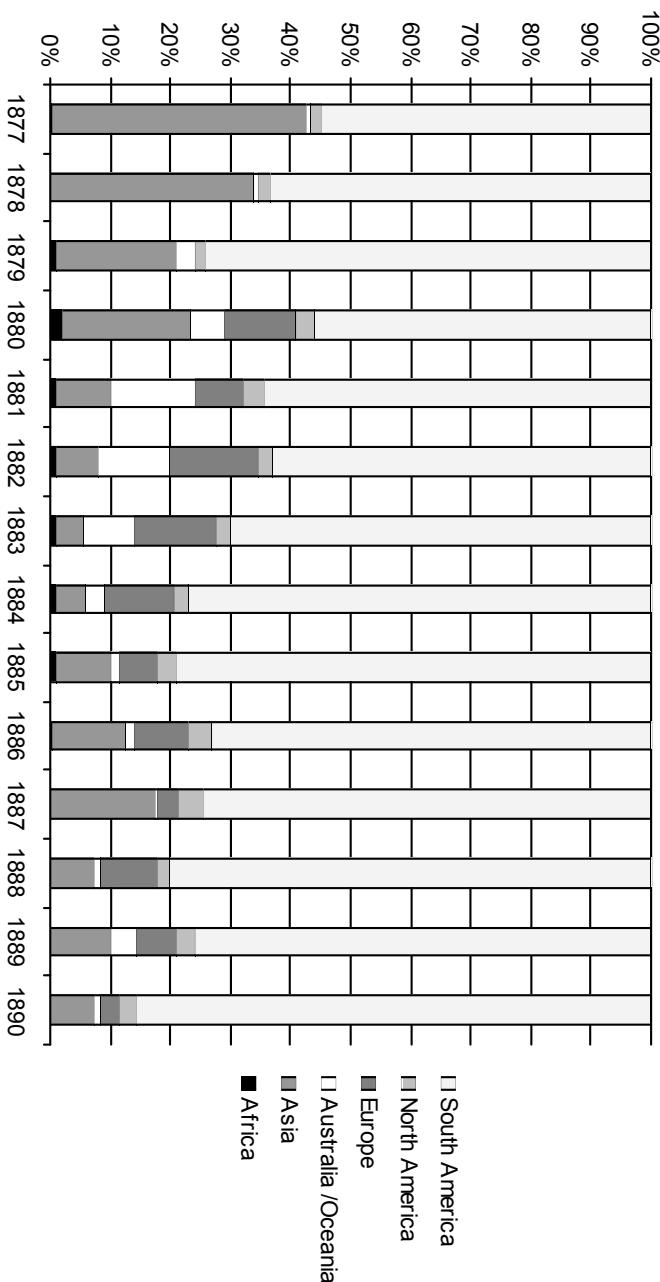


Figure 4. Annual geographical distribution of exports from Frydenlund, 1877-1890.

Source. *Export books for Frydenlund Brewery, 1877-1898.*

high levels of Norwegian beer exports between 1870 and 1890 were intimately linked to the expansion of foreign sales to non-European, overseas markets, and that markets in South America and Asia played a particularly important role. European markets on the other hand were relatively insignificant. The large quantities of Norwegian beer that were imported to Europe were mainly re-exported to other continents. In part, these re-exports were carried out by external actors who bought beer from Norwegian breweries with the intention of supplying overseas markets. More generally however, the observed imports to and re-exports from Europe seem to reflect that the Norwegian breweries, as we shall see below, depended on the trans-continental shipping services that were available in the major European ports.

We have also seen that the importance of markets in South America and Asia can be linked to the fact that countries on these continents only developed indigenous brewing sectors from the 1880s. This, in combination with a demand for beer that we in the next section shall see was linked to European colonialism and emigration, was no doubt a decisive, underlying factor in the boom in Norwegian beer exports from 1870.

High-quality export beer to European expatriates

Before starting overseas exports, Frydenlund had developed a beer espe-

cially suited for exports to tropical climates. The reason was that the brewery had experienced problems with the keeping qualities of the beer that had been exported to Europe. Beer is a perishable product, and keeping qualities is thus of key importance if it is to be transported over long distances. This was not least true in the period studied here, when transport was relatively slow. Moreover, it was before the introduction of mechanical cooling made it possible to effectively regulate temperatures on board ships and other means of transport, and the beer was thus exposed to varying temperatures, which in turn increased its chances of being spoilt.

Beer keeping qualities was a major concern for Frydenlund when exports were started up in 1860. When the brewery received its first orders from Germany during the summer of that year, it made it clear that shipments should be postponed to early September 'when the heat is less strong, and the beer thus stand in less danger of going bad.'³¹ In spite of these precautions, numerous complaints over the quality of the beer came from foreign customers during the first few years, and the major reason was that the beer had turned bad during transport. This was not least caused by poor communications between Oslo and the export destinations - for example:

Existing communications with Lübeck ... occasioned the shipments to that destination to be stored in Copenhagen for eight days.³²



Figure 5. Export beer labels: Culmbacher, Lager Beer, Pale Ale. Frydenlund brewery (years unknown).

Exports to overseas markets in tropical climates implied that the challenge with both transport time and the exposure of the beer to varying temperatures became even more daunting. On average it took 127 days - or more than 4 months - from a shipment of beer left Oslo until it arrived in South America or Asia.³³

While it took Frydenlund several years to develop a beer for the tropics, the brewery was clearly extremely confident about the quality of their product, once a good result had been achieved in 1865. When samples were sent to van Hengel in Holland, they were asked

to expose the bottles to all difficulties, since we feel convinced about the keeping qualities of the beer under strongly varying temperatures.³⁴

And the product appears to have lived up to the expectations: the samples that were sent to South America are reported to have 'turned out to keep very well and to please the palate.'³⁵

Frydenlund's example was followed by other breweries: distinct export beers were developed by Schou's, E.C. Dahl's and Hamar Brewery.³⁶ In general, little detailed information exists about how

these beers were produced, but in the case of Schou it is clear that it involved the use of novel raw materials as well as production methods. Schou had looked abroad for knowledge about how to produce a beer suitable for exports and had sent an employee on a study trip to the German Kaiserbräuerei. What was learnt during the trip was that a good export beer could be achieved, first by replacing up to 30% of the malt with rice - more specifically so-called 'Bruchreis'; second, the malt should be made out of high quality barley that during malting was allowed to germinate long enough for the rootlets to attain a substantial length; third, a large amount of hops should be used. What was thus achieved was 'a very mature beer with the highest possible degree of pre-fermentation'.³⁷ The method was successfully adopted and the beer not only had excellent keeping properties but also very good clarity and taste and could 'in every respect ... compete with the German export beer'.³⁸

It is difficult to establish whether the beer that was developed especially for exports was one distinct beer or rather a broader category of beers characterised by distinct production methods. While many breweries did export beer under the label 'Export beer', they were also exporting 'Pilsner beer', 'Lager beer', 'Bock beer', 'Culmbacher beer', 'Schützenbier', and 'Pale Ale'.³⁹ In any case, it is evident that the beer that was exported from Norway in this period generally had excellent keeping properties, and soon gained an international reputation for its high quality.

With reference to Norwegian export beer, the consular report from Hamburg for 1874 states that

As proof of this beer's keeping properties, it can be noted, that there from Egypt was sent us a small quantity that was left of a shipment that had arrived there in the year 1869, and that it still was quite good.⁴⁰

The quality of the Norwegian beer was early on also recognised from other quarters. In an 1875 issue of the British *The Brewers' Journal*, an article about the Vienna Universal Exhibition refers to 'three exhibitors of the famous Christiania export beer' who all 'secured medals for merit'.⁴¹ Christiania was the name of the Norwegian capital at the time. International exhibitions were in fact attended regularly by most Norwegian export breweries throughout the 1870s and 1880s, and the fact that they were frequently rewarded high distinctions for their export beers,⁴² testifies to the international recognition of their quality more generally.

As for the question of who the consumers were, the consular reports indicate that overseas sales did not primarily go to the local population. According to the report from Rio de Janeiro for 1878, imported beers were in Brazil first and foremost consumed by foreigners.⁴³ Reports from Shanghai in the 1870s explicitly state that the consumers of Norwegian beer in that location were not the Chinese but Europeans, and in Turkey in 1891, Norwegian beer is

reported to have been in particular demand by Englishmen.⁴⁴

The extensive European colonialism and emigration of the second half of the nineteenth century meant that there was a large group of Europeans living abroad at this time. This was not least true in parts of the world where local production of beer only was started in the 1880s. It is moreover clear from the literature on British beer exports in this period that European expatriates did play a central role in overseas demand: studies by both Ian Donnachie and Gourvish and Wilson emphasise the importance on the demand side of Britons who had moved to other continents bringing with them the taste for 'the native drink of their homeland'.⁴⁵

There is thus reason to believe that Norwegian beer exports for a large part were catering for an overseas demand created by European expatriates. We have also seen that the Norwegian breweries succeeded in developing a high-quality export beer. This was most likely of key importance for their ability to compete in overseas markets. The same is true for a general switch in taste, from so-called top-fermented beer to bottom-fermented beer, that occurred in the period studied here, and to which we turn next.

Increasing popularity of bottom-fermented beer

We know that British and German breweries, and to a lesser extent Danish,

Dutch and American breweries, were operating in the same markets as the Norwegian export breweries. It is also clear that British and German beers had a dominant position.⁴⁶

An important point to note here is that the period saw an overall increase in the popularity of German beer at the cost of British.⁴⁷ This reflected that there was a fundamental difference between the beers of these two countries. In the U.K., production was dominated by traditional top-fermented beers, like porter and ales. In Germany on the other hand, top-fermented beer had from the 1830s gradually been replaced by so-called bottom-fermented beer. Due to different methods employed in the production of this beer in terms of mashing, fermentation and storage, bottom-fermented beer was lighter, brighter and more carbonated than top-fermented beer. In addition, it had superior keeping qualities.⁴⁸ This last quality was of course a major advantage when it came to exports.

The general change in preferences from British top-fermented beer to German bottom-fermented beer was presumably of great importance for the ability of Norwegian breweries to establish a position for themselves on international markets. Norway had been very quick to follow Germany's example in switching production to bottom-fermented beer: this beer had in fact been successfully introduced as early as in 1842, and appears to have dominated national production by the 1850s.⁴⁹ And it was bottom-fermented beer that formed the basis for Norwegian

exports between 1870 and 1890. While we have seen that exports included pale ale, which was a British-style top-fermented beer, it was bottom-fermented beer that dominated foreign sales in the period. It can be noted that this most likely was true also for Danish, Dutch and American exports. We know that bottom-fermented beer gained ground in Denmark from the 1850s,⁵⁰ and subsequently in the Netherlands and the U.S.A. from the second half of the 1860s.⁵¹

It is however clear that over time the Norwegian export breweries increasingly suffered from competition in terms of price, and that the main threat in this respect came from the German exporters. In the consular reports from in the 1880s, there are repeated statements from various locations about Norwegian beer being well liked, but that it was too highly priced to be able to compete with German beers.⁵²

Organising global sales: agents, consignment sales and trans-continental shipping services

Agents played a central role in the organisation of Norwegian beer exports. Although it is difficult to establish the exact roles and responsibilities of these agents, their main function was to be intermediaries between the export breweries and their foreign markets. This involved everything from establishing business connections and overseeing distribution and sales to monitoring and reporting on

developments in markets in terms of competition, consumption patterns, etc.⁵³

Each export brewery seems to have had several agents working for them and the agents could be based in Norway as well as abroad. Hamar Brewery and the Railway Brewery, both located in the town of Hamar, for a time shared an export agent in Oslo.⁵⁴ Hamar Brewery also had an agent in Hamburg, as did Frydenlund, E.C. Dahl, Schou, and Ringnes.⁵⁵ The central role played by agents in this city must be understood in light of Hamburg's position as a key junction for trans-continental shipping and trade. As shown later in this section, the majority of Norwegian exports appears to have been shipped via Hamburg, and it was thus of strategic importance to have intermediaries based in this location.

Another central feature of how exports were organised is that the beer for a large part was sold in consignment. This meant that the breweries assigned the task of selling their beer to an external actor whilst retaining ownership of, and not receiving settlement for, the beer until it was sold.⁵⁶ The external actors - the consignees - were typically international trading houses that were based in large European ports, like Hamburg, London and Amsterdam, and that had consignment warehouses in overseas ports, where the goods they traded in were stored until they were sold.⁵⁷

Sales in consignment meant that the organisation of distribution and sales was

put in the hands of professional actors with well-established international trade connections. Given the importance of geographically dispersed, overseas markets in Norwegian beer exports, this was clearly a major advantage. There were however several downsides to this sales arrangement. First, it involved letting the consignee keep a percentage share of every sale. Second, the consignee sometimes operated on terms that limited the breweries' freedom to make use of other sales arrangements. This is evident from a consular report from Bahia in Brazil for 1877 which states that some Hamburg firms were making monthly deliveries of bottled beer to that market 'on the terms that the suppliers in Norway do not on their own account ship the same products directly to Brazil'.⁵⁸ Third, and most serious, sales in consignment meant that the breweries upon shipping the beer off had no guarantee that it would be sold or, one assumes, that it would be sold at a profit.

There clearly was some scepticism towards consignment sales among the Norwegian export breweries. Hamar Brewery made a conscious effort to limit this type of sales to situations where the brewery attempted to break into new markets.⁵⁹ At Ringnes, there was strong controversy among the managers over whether or not the brewery should make use of consignment sales. Sales of this type dominated the brewery's exports in the first years after they were started up in 1877. In 1885 Axel Heiberg, who together with the brothers Ellef and

Amund Ringnes made up the management group, made it clear that he was opposed to consignment sales, and that he wanted exports to be based on regular sales. Ellef Ringnes on the other hand argued in favour of continuing consignment sales, emphasising their importance when it came to breaking into new markets. The controversy resulted in Heiberg withdrawing from the management group for a shorter period. It was however Heiberg's view that won out in the end: exports were in the second half of the 1880s increasingly based on regular sales, and in 1890 the decision was made that sales in consignment were to be given up entirely.⁶⁰

We see that consignment sales were given up by Ringnes only towards the end of the 'golden decades' of Norwegian beer exports. While we can not establish the exact balance between this type of sales and regular sales in total Norwegian exports between 1870 and 1890, it is clear in the case of Frydenlund that consignment sales were by far the most important throughout the period.⁶¹ This indicates that despite the weaknesses that were associated with it, this sales arrangement was all in all considered to be favourable. The reason is likely to have been that it saved the breweries from the challenge of identifying and dealing with distributors and buyers in each and every market. Even with the help of agents, this can be assumed to have been an impossible task due to the global scope of exports.

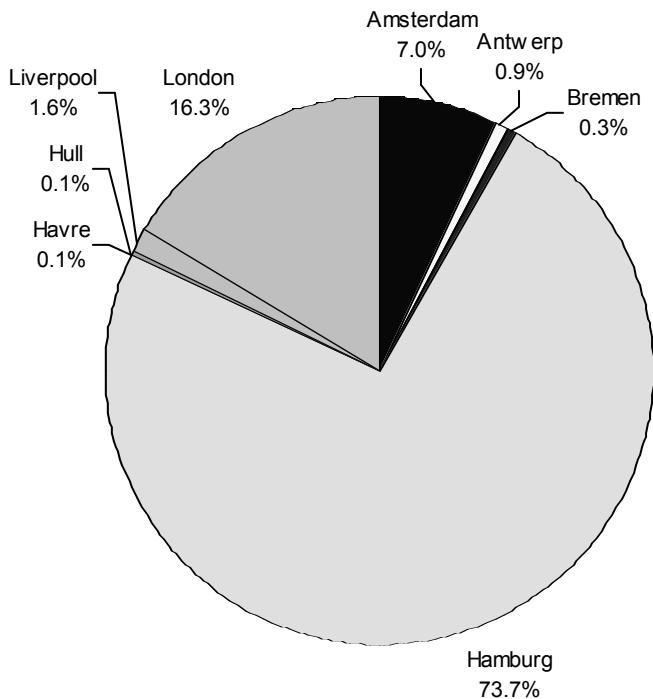


Figure 6. Distribution of Frydenlund's exports between ports of forwarding, 1877-1890.

Source. *Export books for Frydenlund Brewery, 1877-1890.*

As for transport, we know little about the exact shipping arrangements that were used. It is however clear that transport to a very limited extent was direct in the sense that the beer was shipped directly from Norway to the export markets. The export books for Frydenlund show that the beer from that brewery almost without exceptions was shipped via European ports. These included Hamburg and Bremen in Germany, Antwerp in Belgium,

Amsterdam and Rotterdam in the Netherlands, Le Havre in France, and London, Liverpool and Hull in England. Hamburg was however by far most important, as can be seen in figure 6 above.⁶²

That transport was predominantly indirect reflects a general lack of direct shipping connections between Norway and the breweries' major overseas mar-

kets. The breweries thus relied on the trans-continental shipping services that were available in larger European ports. Lack of direct shipping routes was in fact a problem even within Europe. We have already seen that shipments from Oslo to Lübeck in the early 1860s had gone via Copenhagen. Even a decade later, in the early 1870s, shipments to Le Havre in France had to be transported via Hamburg or London. By 1877, this had changed: a Norwegian shipping company - *Det norske søndenfjeldske dampskipsselskap* - was at that point running a regular service between Oslo and Le Havre 'throughout most of the year' which was used for Norwegian beer exports.⁶³ Transport to other European destinations was however still indirect as late as in the middle of the 1880s: when Frydenlund started up exports to Bilbao in Spain in 1885, we know that the beer had to be shipped via Hamburg.⁶⁴

The general lack of direct shipping connections between Norway and the major export markets for beer does not mean that such connections did not exist at all. We know that E.C. Dahl's Brewery in Trondheim in the first half of the 1870s shipped beer directly to Brazil on ships that were catering for the trade in dried fish and coffee between the two countries.⁶⁵ There is moreover evidence of smaller shipments of beer having been transported directly to places such as Buenos Aires, Honolulu, Cape Town, Sydney and Washington.⁶⁶ It is however evident that the direct shipping connections that were available to the Norwegian export breweries were rela-

tively inefficient. The direct route between Norway and Brazil that E.C. Dahl made use of was carried out by sailing-ships. According to the consular report from Rio de Janeiro for 1873, these ships were increasingly losing out in competition with steam ships from Hamburg - it is pointed out that the efficiency of the latter was the reason why

the direct exports of beer and fish from Norway as well as the export of Rio coffee with sailing-ships seem to be decreasing.⁶⁷

To sum up: in organising their export business, the Norwegian breweries made extensive use of external actors. These included agents, both at home and abroad, international trading houses, and providers of trans-continental shipping services in major European ports. What the breweries in effect did was to take advantage of existing international networks, and this can be seen as a way of meeting the challenges involved in operating on a global scale.

A short comment on the role of government policies

One central issue that has not been addressed so far is the role played by tariffs and government policies more generally. There is not room here for a thorough investigation of the tariff levels in all the foreign markets of the Norwegian export breweries in the period between 1870 and 1890. We do however know that when exports were started up

on a significant scale around 1870, the free trade regime that had been built up from the middle of the century was still standing strong. And while the Great Depression that set in from the 1870s eventually led to a return to protectionism,⁶⁸ free trade principles continued to have a strong position in Norway and the country's main trading partners until the end of the century.⁶⁹ The Norwegian government was moreover providing direct support to the country's export sectors.⁷⁰ This included the brewing sector. The production of beer was at the time taxed on the basis of the amounts of malt that were used. In connection with an increase in this so-called malt tax in 1860, the government introduced a reduction in this tax for beer that was exported, on the condition that each export shipment amounted to a minimum of around 460 litres.⁷¹

Conclusion

While Norwegian beer exports were never a long-lasting, large-scale phenomenon, we have seen that around a dozen breweries succeeded in selling their beers world wide between 1870 and 1890. In doing so, they took advantage of a demand for beer created by European expatriates living on continents where tropical climates stood in the way of local beer production for most of this period. Despite their global scope, there was thus a strong 'European' dimension to foreign sales.

The early adoption in Norway of bottom-fermented beer and the development of

high quality export beers have been shown to have played a key role in the success of the Norwegian export breweries. The same is true for the active use they made of existing international networks in organising foreign sales. As for the question of why the success turned out to be relatively short-term, we have seen that two factors must be taken into consideration: first, that Norwegian export beer was increasingly losing out to German beer in terms of price; and second, that the 1880s saw the emergence of local breweries in the all-important overseas markets. However, a more thorough investigation of the factors involved in the rise and fall of nineteenth century Norwegian beer exports needs to be carried out in future work.

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