



# Iceland Seafood Market Report

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October  
2012

## Foreword

Íslandsbanki is extensively involved in the Icelandic fisheries sector. The sector has been an extremely important part of the Bank's operation since it was established. At present, approximately 12% of the Bank's loan portfolio relates to fisheries companies. At the same time, Íslandsbanki is involved in clearly defined overseas fisheries and renewable energy projects. The Bank, thereby, endeavours to take advantage of its specialised knowledge of the sector on a global level.

Íslandsbanki and its predecessors have issued reports on the Icelandic fisheries sector since 2003. As previously, we seek to provide a good insight into the status of the Icelandic fisheries sector and its development over the past few years. The report is intended for interested parties within the Icelandic fisheries industry and all those interested in the sector. Our publications have always drawn attention overseas, and the report, therefore, is also published in English. It is vital that we continue to provide foreign experts and companies in the fisheries sector with such information and show, thereby, how important the Icelandic fisheries sector is for Icelandic society and world food production.

Icelanders' knowledge in this field is vital to the rest of the world. An economical and efficient fisheries management system has been developed here in Iceland. It is important to nurture the system and make sure that it is always arranged so as to ensure the success of the sector and of Icelandic society.

**Rúnar Jónsson**

Executive director, seafood



# Contents

<b>Íslandsbanki</b>	<b>4</b>
Highlights	5
Key Points	5
<b>Fisheries industries globally</b>	<b>6</b>
Seafood consumption	6
Development of seafood product prices	7
Employees in the fisheries industry	8
<b>Development of the Icelandic seafood industry</b>	<b>8</b>
<b>Icelandic fisheries companies</b>	<b>9</b>
Debt position of fisheries companies	10
Stakeholders and companies	10
Prices and exchange rate developments	12
<b>Catch and catch value</b>	<b>13</b>
<b>The seafood industry's weight in the Icelandic economy</b>	<b>15</b>
The Icelandic Ocean Cluster	15
The fisheries sector's contribution to GDP	15
Jobs in the seafood industry	16
<b>Exports of marine products</b>	<b>17</b>
Division of exports according to market areas and countries	17
Exports of seafood products by species, specie groups and product categories	19
<b>Mackerel</b>	<b>20</b>
The mackerel dispute	21
Processing	21
<b>Aquaculture</b>	<b>22</b>
Fish farming in Iceland	22
<b>Sources</b>	<b>23</b>
<b>Figures</b>	<b>24</b>
<b>Tables</b>	<b>25</b>

# Íslandsbanki

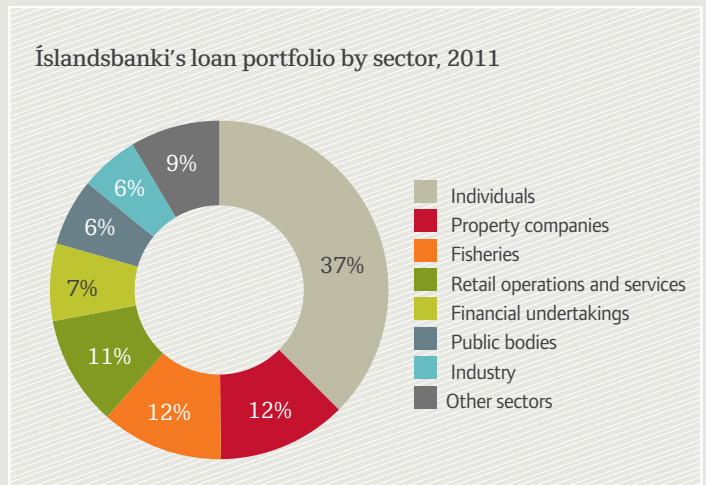
Íslandsbanki offers comprehensive financial services to individuals, households, companies and professional investors. Building on a tradition of service to the nation's basic industries, Íslandsbanki has developed expertise in three key economic sectors – fisheries, renewable energy and, most recently, tourism.

At present, loans to seafood industry companies are the third largest part of the bank's loan portfolio, or approximately 12%. The importance of the fisheries industry to the bank, therefore, is quite clear.

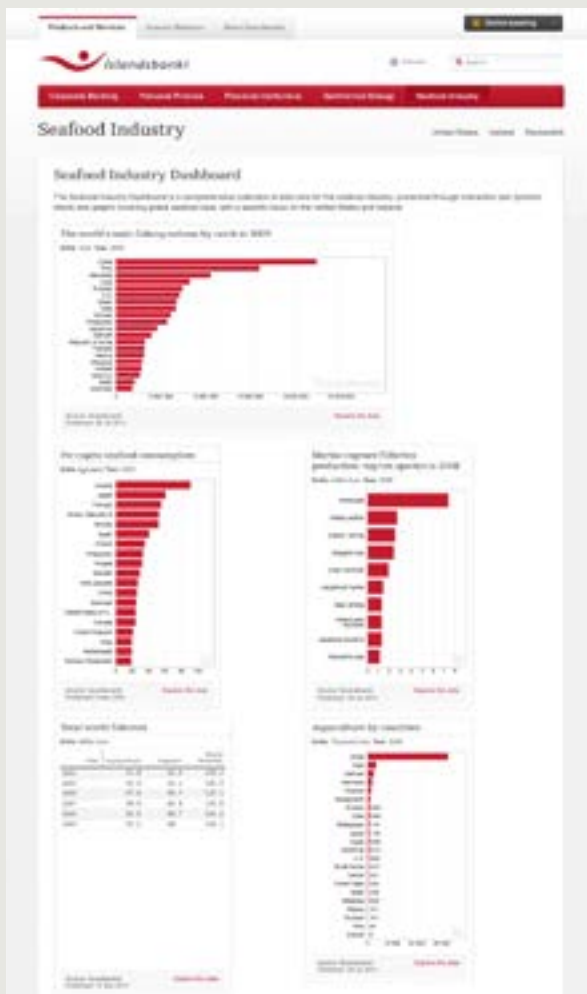
Íslandsbanki employs a group of experts who focus on the seafood industry. The group is part of the corporate banking unit and handles relations and services for domestic and foreign fisheries companies, as well as the publication of analyses and reports.

Many of the largest and leading fisheries companies in Iceland and overseas have been among Íslandsbanki's customers in recent decades.

Íslandsbanki's loan portfolio by sector, 2011



Source: Íslandsbanki



## Íslandsbanki's Dashboard

Íslandsbanki's Seafood Industry Dashboard is designed to make it easier for the industry to follow various data series on the seafood industry, both here in Iceland and overseas. The information in question is collected from various databases and widely disbursed on websites, but the dashboard permits this data to be viewed in one place in graphic form. The dashboard is divided into five parts: Global, United States, Iceland, Stockwatch and Publications.

**Global:** International data on the seafood industry, including volume of fish catches, fish farming and consumption by countries, as well as daily data on the prices of various fish products.

**United States:** Data on the seafood industry in the United States, including volume of fish catches, fish farming and consumption. Information on the main categories of seafood products and their prices relative to other sources of protein.

**Iceland:** Data on the Icelandic seafood industry, including the share of the seafood industry in national product, volume of fish catches, exports and the operation of seafood industry companies, as well as daily prices of cod, haddock and pollock in fish markets.

**Stockwatch:** Share prices for the world's principal seafood industry companies, as well as three Íslandsbanki Share Price Indices for the seafood industry. The indices are based on the 15 largest seafood industry companies on each continent.

**Publications:** All Íslandsbanki analyses of the seafood industry are accessible on the dashboard.

Íslandsbanki's Seafood Industry Dashboard is open to all and accessible on the bank's seafood industry website: [www.islandsbanki.is/seafood](http://www.islandsbanki.is/seafood)

## Highlights

The fisheries sector has been one of the mainstays of the Icelandic economy for decades. The sector accounted for approximately 11% of GDP in 2011, or 25% if account is taken of the ocean cluster (i.e. the indirect effects of the seafood industry on GDP). The importance of the seafood industry can also be seen in exports. Marine products accounted for approximately 38% of the total export value of goods from Iceland in 2011 and approximately 26% of the total value of exported goods and services. The export value amounted to just under ISK 252bn, a 14.2% increase from the previous year. Export value of marine products has never been higher than in 2011. Europe was the most important market area for Icelandic seafood goods in 2011, as 72% of the total value of exported marine products went to Europe, an increase of 12.8% since 2010.

Cod was the most valuable export species in 2011, accounting for approximately 31% of the total export value of marine products. Mackerel and herring followed, with around 10% each. Demersal species products in 2011 accounted for just under 58% of the total value of seafood goods. The share of pelagic species of the total export value was 26.7%, an increase of 48.1% from the previous year. Of individual pelagic species, the export value of mackerel was the greatest, increasing by 158% between 2010 and 2011.

In 2011, the fisheries sector directly accounted for 9,000 jobs, whereof 5,200 were in fishing and 3,800 in fish processing, an increase of just under 5% from the preceding year. The number of fisheries industry-related jobs has increased over the past four years by 1,800. A vast majority of those employed by the seafood industry work outside the greater Reykjavík area, or 80%. The seafood industry plays an especially important role in the countryside, where it accounts for approximately 11.9% of all jobs, compared to only 1.7% in the capital's area.

There have been significant increases in catch volumes and catch values. Catch value rose by 14.2% from 2010 to 2011. The catch value of demersal species rose by 8% between years and by 37.6% in pelagic species. The catch value in 2011 was just under ISK 154bn, a 16% increase from 2010 and an increase of 157% from 2000.

The operation of Icelandic seafood industry companies has generally been successful over recent years despite the sector being heavily leveraged. The EBITDA margin of the companies has been quite high during the past three years, and the EBITDA margin of fisheries has reached ISK 36bn. This achievement has been attained despite a reduction in fishing quotas, high oil prices and increased levies on the industry. It is therefore quite clear that the extensive and comprehensive restructuring activities that the seafood industry companies have undertaken in recent years are beginning to show results in improved operations.

Iceland ranked 18th among the largest fishing nations in 2010, with a catch volume of over one million tonnes. This equates to 1.6% of the total global catch volume. Seafood consumption in Iceland has been decreasing. Nevertheless, consumption was 88 kg per person per year (ungutted fish) according to 2009 data FAO, the highest in the world. Seafood consumption in Iceland is more than four times of the average in Europe, where it is around 22 kg per person per year, and almost five times the global average.

There has been a strong trend towards consolidation in the Icelandic seafood industry in past two decades after fishing quotas became transferable. The driving force behind this was increased economisation. At present, the 50 largest seafood industry companies hold approximately 85% of issued average quotas. In 2011, the following five companies were the largest based on issued quota: HB Grandi, Samherji, Þorbjörn, FISK-Seafood and Brim. The 10 largest companies control just under 52% of issued harvesting rights, and the 20 largest companies control approximately 71%.

It is important to ensure that the Icelandic seafood industry is able to compete on an international level. As a result, Icelandic fisheries companies must be ensured a beneficial and secure operating environment so that the country's resources can provide the economy with the greatest returns in a sustainable manner. At the beginning of 2012, the Minister of Industry and Innovation, formerly the Minister for Fisheries and Agriculture, submitted a legislative proposal for changes to fisheries management on the one hand and fishing fees on the other. The proposals envisaged fundamental changes to the current fisheries management laws. The Proposal for the Fishing Fee only contained changes to the fishing fee, as its name indicates, and was passed at the beginning of summer. The latter proposal will be submitted to the parliament again during the present winter, after an advisory committee has reviewed it, as the proposal contains provisions on amendments to the fisheries management system. Íslandsbanki submitted comments on the proposals in April 2012, which may be accessed on the bank's home page. The comments show that Íslandsbanki has grave doubts about the changes that are envisaged by the proposal.

### Key points

- Iceland ranks 18th among the leading fisheries nations in the world, with 1.6% of the total catch.
- Iceland has the highest consumption of seafood per capita (88 kg/person) according to the 2009 data from FAO.
- There has been a good EBITDA margin from the operation of seafood industry companies over the past three years, leverage has been reduced and profits have increased.
- In 2011, seafood products accounted for 38% of Iceland's total export value and for approximately 26% of the total value of exported goods and services.
- The aggregate value of exported marine products in 2011 was just under ISK 252bn and has never been higher.
- The seafood industry's direct contribution to GDP in 2011 was 11%; 25% if account is taken of the indirect effects of the ocean cluster.
- The UK is the main importer of Icelandic marine products, with an 18% market share; next are Spain (9%), Norway (7%), France (7%) and the Netherlands (7%).
- Cod is the most valuable species, with approximately 31% share of the total export value of marine products.
- Mackerel was the most valuable pelagic species in 2011, its value increasing by 158% between years.
- Approximately 9,000 people are directly employed by the fisheries industry, or approximately 5.3% of Iceland's workforce; 80% of the jobs are outside the greater Reykjavík area.

# Fisheries industries globally

## Seafood consumption

Fish and other marine products are very protein-rich foods and contain many nutritional substances such as iodine, selenium and fish fat. Fish fat is very healthy because it contains omega-3 fatty acids and vitamin D but little saturated fat.

Seafood consumption on a global level has never been greater, amounting to, on average, 18.5 kg per person per year, an increase of around 2.7 kg per person since 2000. FAO (the UN's Food and Agriculture Organisation) estimates that seafood consumption will continue to increase and that by 2021, worldwide consumption will have risen to 19.6 kg per person. This is an interesting trend and shows that marine produce is and will be one of the main sources of protein in the human diet. Marine produce was 6.5% of the total human protein consumption in 2009. If account is taken of only animal protein consumption, the share of seafood was around 16.6%. Although seafood consumption has never been greater than at present on average per person, the share of seafood in the total protein intake in the world has fallen over the past few years due to increased human consumption of other types of animal protein.

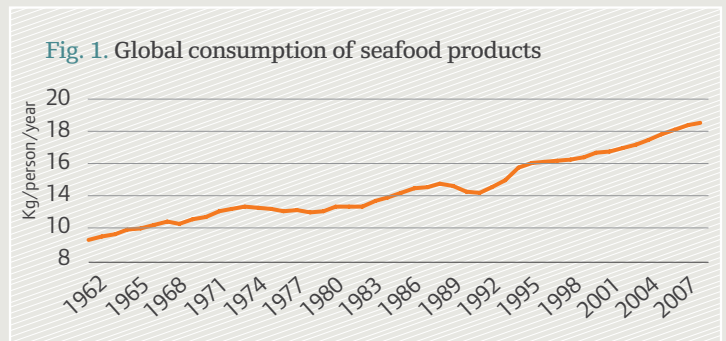
Fig. 2 shows the average meat consumption per person. Of the five categories specified in the figure, poultry intake has proportionately increased the most. Consumption has increased by 232% since 1970, with the annual poultry consumption increasing to 13.6 kg per person in 2009. Other categories have also increased their share over past decades. Consumption of fish has increased by 70% and pork by 65% since 1970. There is only one category in which intake has fallen since 1970, i.e. beef, as its consumption has reduced by approximately 11%.

In 2011, the world's population was around 7.0 billion. In 2030, it is estimated that the world's population will have reached 8.3 billion (an increase of 20%) and will be 9.3 billion (an increase of 35%) by the year 2050.

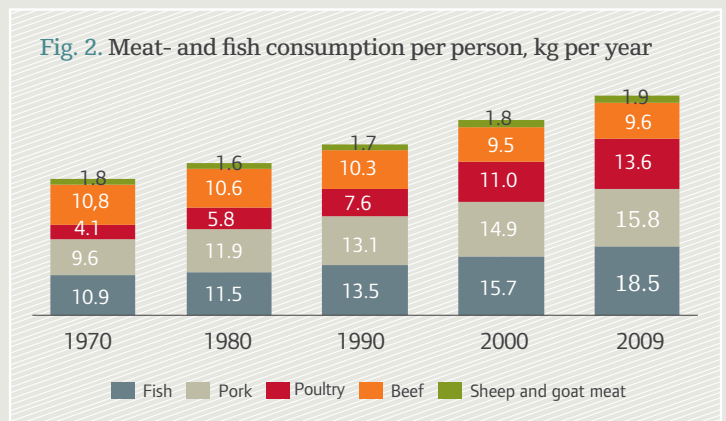
FAO believes that it is likely that protein intake will increase in the future, especially in Eastern Europe, Asia and South- and Central America, where disposable incomes are rising. With increased income, people increase their protein intake, which explains to some extent the rapid growth of meat consumption in developing countries. With increased income available for food purchases, consumers will also increase their purchases of processed and ready-to-eat food, which contains larger portions of protein.

Total global fish consumption in 2011 was approximately 131 million tonnes, an increase of 2% from the year before. It is believed that fish consumption will increase by around 5% to 2021, which is a proportionately lesser increase than e.g. in the consumption of poultry and mutton, while being similar to that of beef. This can be attributed to the increased consumption of protein-rich food, other than fish, by Asian consumers. Price increases and a limited supply of fish may also have an impact.

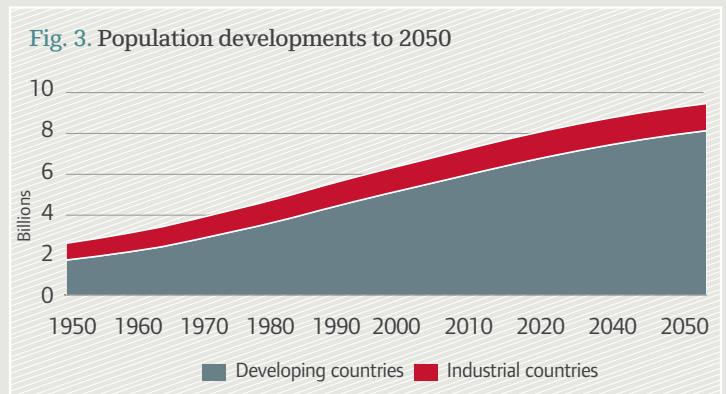
The only product that the OECD and FAO estimate will decrease during the specified period is the global consumption of wheat, while the share of other foodstuffs, particularly the consumption of poultry, will increase.



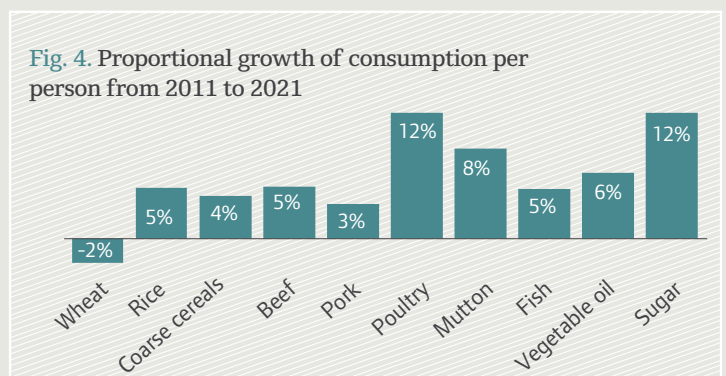
Source: FAO



Source: FAO



Source: Population Division of the Department of Economic and Social Affairs of the UN Secretariat



Source: OECD og FAO

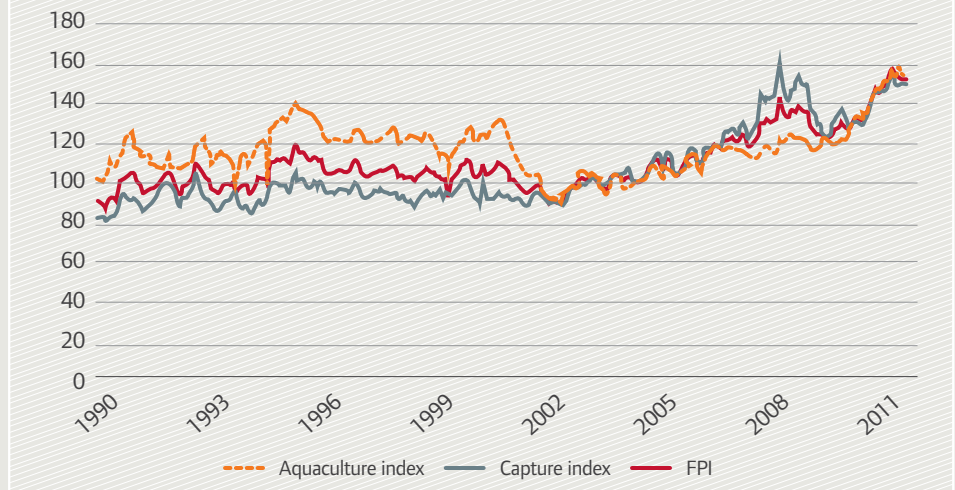
## Development of seafood product prices

The seafood industry has fared better during the past two years following the difficult year in 2009, which was marked by lowered prices. In 2010, the value of marine produce rose by 13% from the 2009 level and was approximately USD 109bn. The value of marine produce rose even higher in 2011 despite the economic instability of several leading nations. The value of seafood was at an historical high last year, and it is believed that exports of marine produce in 2011 were over USD 125bn. Demand has risen in conjunction with price increases, particularly in developing countries, which in part explains this value increase.

FAO's fish price index shows that international fish prices rose by approximately 12% in 2010 and have never been higher than in 2011. The price of captured fish rose more than farmed fish due to rising oil prices, which has a greater impact on vessel operators and their fleets than on aquaculture.

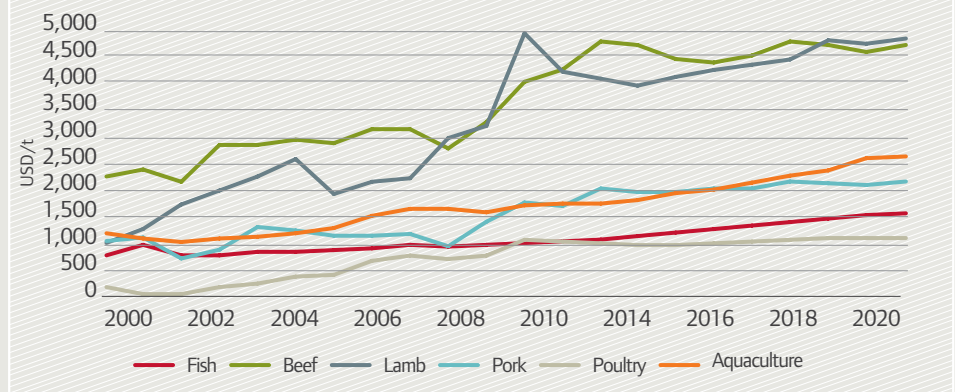
Comparing fish prices to meat prices reveals world meat prices have been on a rising trend during the past decade and continuing price increases are expected according to FAO. It is believed that the price of caught fish will remain somewhat stable into next year and will then increase steadily to 2020. However, it is assumed that prices for farmed fish will not begin to rise until 2014. Thereafter, they will rise in tune with prices for caught fish. In contrast, the price of fish meal will rise faster than the price for caught fish until 2020 as can be seen in the following figures. It is assumed that the average price for caught fish will be around 39% higher in 2020 than in 2011 and 43% higher for farmed fish.

Fig. 5. FAO fish price index and underlying indexes (2002-2004=100)



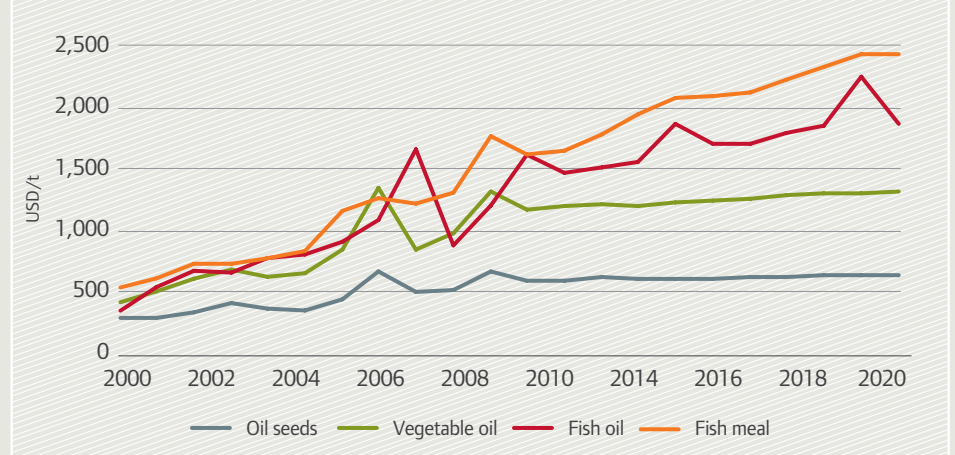
Source: FAO

Fig. 6. World prices for meat products



Source: OECD og FAO

Fig. 7. World prices for oils and meal



Source: OECD og FAO

## Employees in the fisheries industry

A large number of people work in the seafood industry internationally. According to FAO, it is believed that approximately 54.8 million people were employed in fishing or aquaculture in 2010. More than 87% of all those who work in the fisheries industry are in Asia, thereafter comes Africa (just over 7%) and thereafter Central and South America, or just under 4% of the total.

During the years between 2005 and 2010, the number of jobs in the seafood industry increased faster (2.1% per year) than the global population grew (1.2% per year). Over the past five years, there has been a greater increase in the number of people working in aquaculture as compared to the number employed in fishing. On average, there has been a 5% increase in the number of aquaculture jobs, while the number of jobs in fishing has increased by 0.8%.

## Development of the Icelandic seafood industry

The Icelandic fisheries sector has been one of the mainstays of the Icelandic economy for as long as anyone can remember, both as a source of food for the nation as well as significant proportion of Iceland's export income. The history of the Icelandic fisheries sector, however, is not only about the economic wellbeing of the nation. The sector has also played an important role in Iceland's culture and heritage.

The history of the fisheries sector is often divided into three ages: The age of open rowing boats, the age of sail and the age of mechanisation. The age of rowing boats was the longest period, spanning from the colonisation of Iceland to the first decade of the 20th century. The age of sail began in the 1770s and lasted for approximately 130 years. Its most productive period was in the latter part of the 19th century, and then it went into a steep decline in the early part of the 20th century. The last commercial sailing vessels were operated in 1926–1927. The age of mechanisation began in 1902 when a machine was installed in a sixern (rowing boat for six rowers) in Ísafjörður. The first Icelandic-owned trawler arrived in 1904. This change meant that it was now possible to increase the volume caught and source the fish from a greater range of fishing grounds. People obtained more work on land processing the fish, and Icelanders also began to export the fish to the UK, where it was sold in markets.

After the arrival of the first trawler, their number increased steadily. By 1927, their number had increased to 29, and by 1983, a total of 103 trawlers were operating out of Icelandic harbours. The total number of trawlers in 2012 was 57. The decrease over the past 20 years can be attributed to increased economisation in the sector, decreased harvesting rights and more efficient vessels.

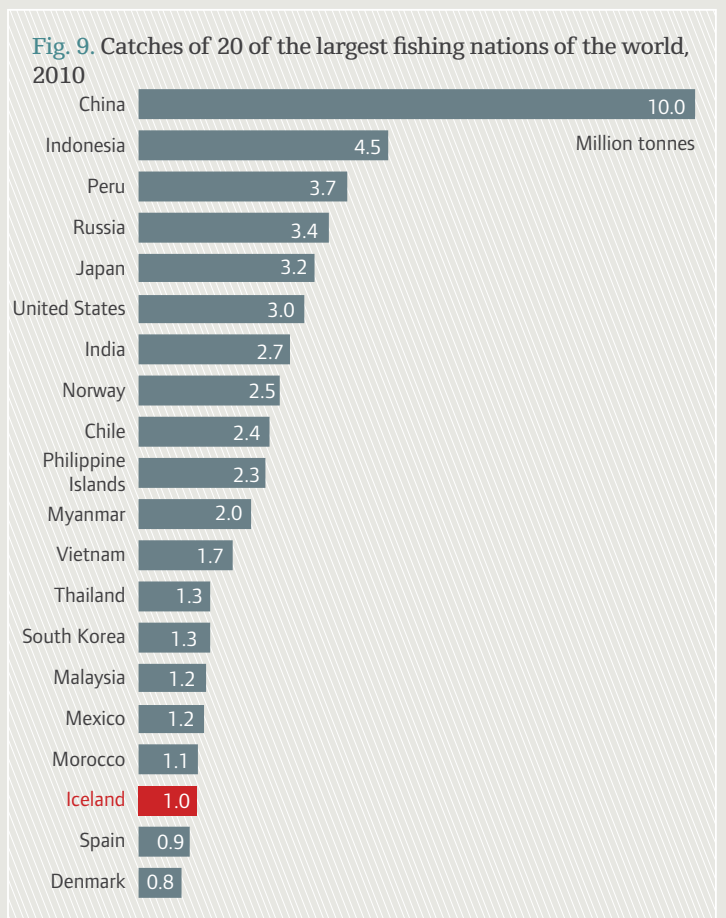
The quota system was established in 1984. The reason was that over-fishing in Icelandic waters had become a serious problem. The

Fig. 8. Individuals employed in the fisheries industry by region



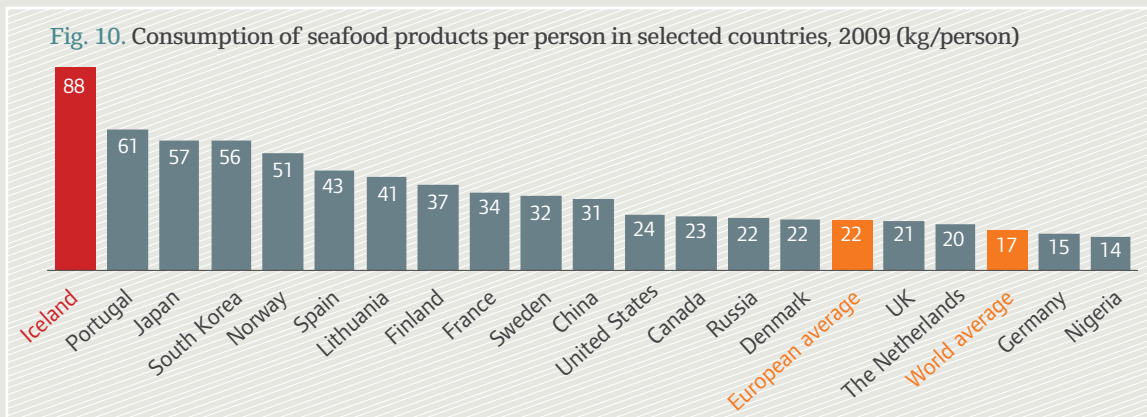
Source: FAO

Fig. 9. Catches of 20 of the largest fishing nations of the world, 2010



Source: FAO

Fig. 10. Consumption of seafood products per person in selected countries, 2009 (kg/person)



Source: FAO



## Icelandic fisheries companies

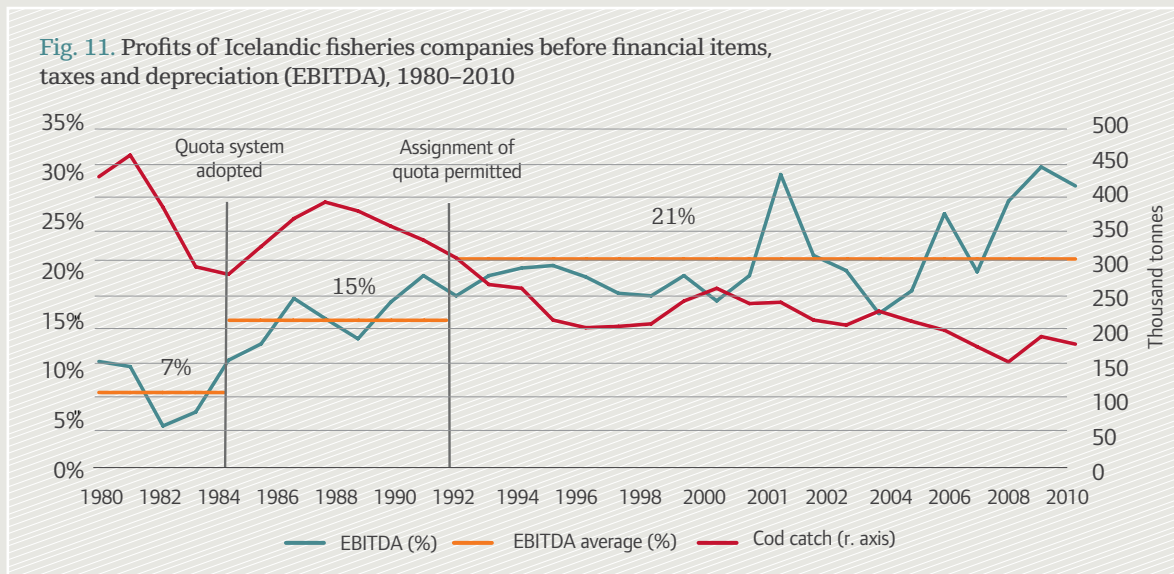
system was intended to limit the pressure on fish stocks around the country. In 1991, laws came into force that allowed the full transfer of quotas between companies. This changed the environment of the Icelandic fisheries sector considerably.

Seafood remained Iceland's main export throughout the 20th century, with the UK being the main destination during WWII. There have been considerable changes over time. Iceland has achieved success in becoming one of the most dynamic fisheries countries in the world. According to the latest data from FAO, Iceland was ranked eighteenth among the world's leading fishing nations in 2010. Iceland has moved down by seven places since 2000, when it ranked as the eleventh leading fishing nation. The total global catch in 2010 was 65.1 million tonnes. Iceland caught approximately 1.6% of the total catch or just over 1 million tonnes. Twenty leading fishing nations caught 77% of the total catch in 2010.

As has been previously noted, marine produce is of considerable importance to Icelanders and remains an important part of their diet. The consumption of seafood in Iceland has been decreasing. Nevertheless, it was 88 kg per person per year (ungutted fish) according to the 2009 data from FAO, the highest in the world. The consumption of seafood in Iceland is more than four times the average in Europe, where it is around 22 kg per person per year, and almost five times the average global consumption.

Since the adoption of the quota system, in the mid-eighties, profitability in the fisheries sector has grown. Prior to that time, the sector was typically operated at a loss. Competition within the sector grew in conjunction with restrictions placed on access to the fisheries resource. As a result, economisation in operation and the concentration of fisheries companies has increased significantly. For example, the EBITDA margin of fisheries companies was 29% in 2010, as compared to 16% in 2004. This trend is highly interesting, not least in light of the fact that catches of the most valuable fish species declined and a large cost item, fuel, rose during the period. The devaluation of the Icelandic króna also had an effect and increased the competitiveness of Icelandic export companies, including the fisheries sector companies. The cod catch fell from 430,000 tonnes in 1980 to just 157,000 tonnes in 2012.

Results from the operation of fisheries companies for the period 2000–2010 show that income and EBITDA margins have increased substantially during the decade. Profits before tax (EBT), after taking into account depreciation and financial items, were generally positive over the period. Over the past decades, profits in fish processing and fishing have not been high and have also been sensitive to exchange rate changes. However, as shown in Table x, net profits have increased over the past two years. The profits, for instance, increased by ISK 8bn from 2009 to 2010.



Source: Statistics Iceland and the National Economic

**Table 1. Operating overview of fishing and fish processing companies**

Fishing (ISK bn)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total income	63	76	83	70	71	75	82	85	103	118	137
EBITDA	12	19	19	15	12	15	20	18	26	31	36
Depreciation	-9	-9	-12	-12	-12	-9	-8	-7	-8	-7	-8
Net price level adjustment and interest rate	-8	-11	5	0	2	3	-22	1	-127	-13	-9
Net profits (EBT)	-5	-2	13	2	3	9	-10	13	-109	11	19
Fish processing (ISK bn)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total income	69	93	98	86	93	80	90	94	128	156	169
EBITDA	6	18	8	8	7	6	12	6	22	33	27
Depreciation	-5	-3	-3	-2	-3	-2	-2	-3	-4	-5	-4
Net price level adjustment and interest rate	-4	-7	6	1	2	0	-12	2	-66	-9	-9
Net profits (EBT)	-3	8	10	6	5	4	-2	6	-48	18	15

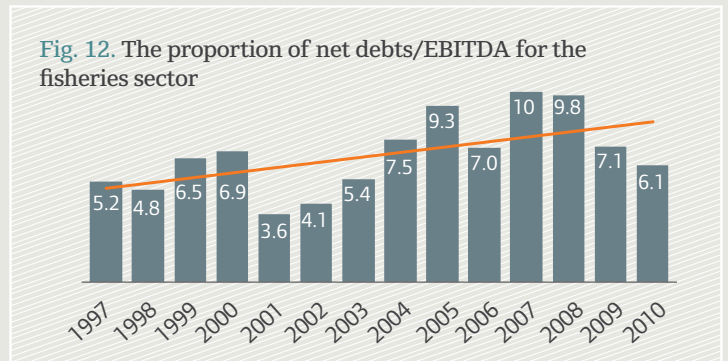
Source: Statistics Iceland

## Debt position of fisheries companies

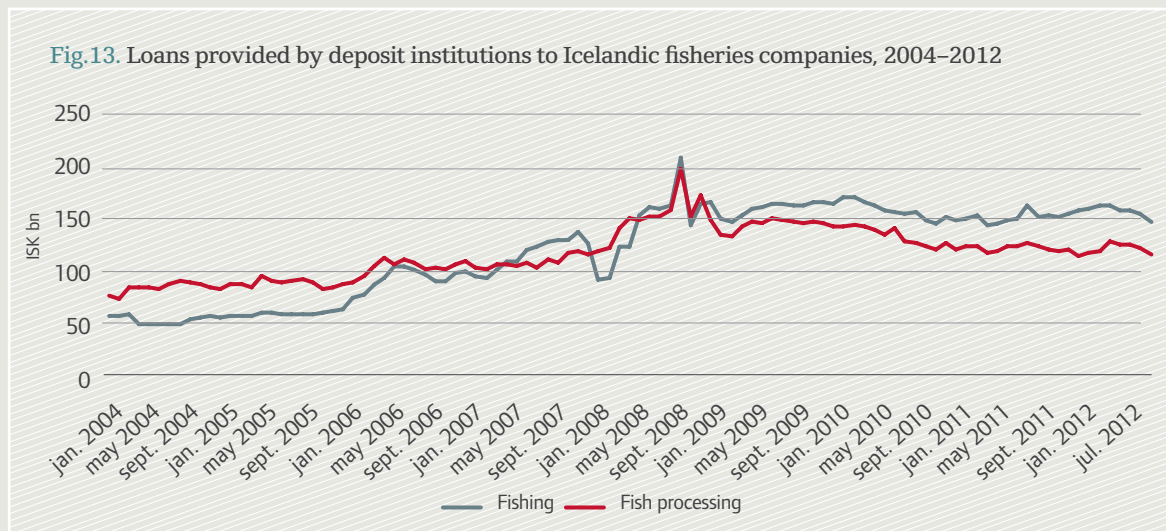
The indebtedness of Icelandic fisheries companies grew quickly in 2006–2008. According to Statistics Iceland, the indebtedness of fisheries companies amounted to ISK 564bn in 2008. The increase may, for the most part, be attributed to the weakening of the Icelandic currency and the fact that a large proportion of the loans of Icelandic fisheries companies were in foreign currencies. As of 2008, the companies debts have decreased steadily. Loans provided by financial undertakings to Icelandic fisheries companies in 2012 are similar to those in 2007, at which time the debts of the fisheries companies stood at approximately ISK 325bn.

The ratio of indebtedness to EBITDA has increased during the past decade in the seafood industry. In 2001, the ratio was 3.6 and then peaked in 2007 at 10.0. As of 2007, the ratio has fallen and stood at 6.1 in 2010.

The increased profits of the fisheries companies before depreciation and financial items (EBITDA) mostly explains the decrease in the debt ratio, as the net debt of the fisheries sector decreased significantly between 2009 and 2010. It currently stands at approximately ISK 390bn.



Heimild: Statistics Iceland



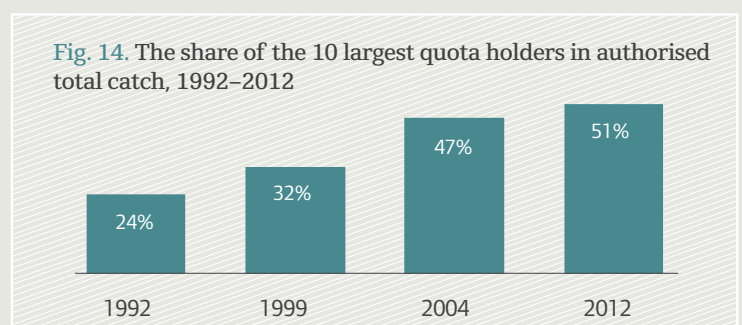
Source: Statistics Iceland

## Stakeholders and companies

There has been a strong trend towards consolidation in the Icelandic seafood industry in past two decades after fishing quotas became transferable. The driving force behind this was increased economisation.

This consolidation entailed increased indebtedness within the seafood industry, while at the same time contributing greatly to increasing the profitability of seafood industry companies. In addition, larger companies, who have harvesting rights to a greater number of species, are better able to tackle operating fluctuations.

At present, the 50 largest seafood industry companies hold approximately 85% of issued average quotas. In 2012, the



Source: Directorate of Fisheries

following five companies were the largest based on issued quota: HB Grandi, Samherji, Þorbjörn, FISK-Seafood and Brim. The 10 largest companies hold almost 52% of the quota, and the 20 largest companies hold approximately 71%.

The Icelandic fishing fleet has shrunk in the past decade, both in terms of the number of ships and gross tonnage. The number of vessels has decreased by 17% since 2000, or from 1,993 to 1,655 in 2011, thereof the number of trawlers has fallen from 91 to 58. The number of trawlers increased by 1 from 2010 to 2011, which is a positive turn of events. There were 833 open fishing boats or the equivalent of 3,988 gross tonnes in total. The number of open fishing boats increased by 26 between years, and their total size increased by 131 gross tonnes.

The greatest number of fishing vessels, 375, had a registered home port in the Westfjords in 2011, which corresponds to 23% of the fishing vessel fleet. The second most numerous, a total of 308, listed their registered home port in West Iceland, or just under 19%. The fewest vessels had a registered home port in South Iceland, a total of 77, which corresponds to 5% of the total number of fishing vessels.

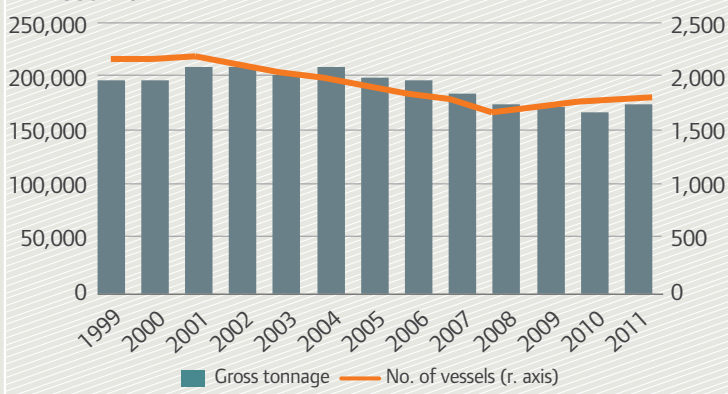
Fig. 17 shows the proportional division of catch quotas by region for the fishing year 2011/2012. North-East Iceland has the highest share, or approximately 20%, and North-West Iceland has the lowest share, or approximately 6%.

**Table 2. Permitted total catch of the largest companies – 2011**

Companies	Cod based volume (thousand tons)	Percentage
HB Grandi hf	42,459	1.60%
Samherji hf	25,758	7.04%
Þorbjörn hf	18,331	5.01%
FISK-Seafood ehf.	17,700	4.84%
Brim hf	15,946	4.36%
Vinnslustöðin hf	15,019	4.10%
Rammi hf	13,895	3.80%
Vísir hf	13,313	3.64%
Síldarvinnslan hf	13,183	3.60%
Skinney-Pinganes hf	12,497	3.41%
Ísfélag Vestmannaeyja hf	11,370	3.11%
Hraðfrystihúsið - Gunnvör hf	10,719	2.93%
Nesfiskur ehf	8,156	2.23%
Eskja hf	7,514	2.05%
Ógurvík hf	6,803	1.86%
Gjögur hf	6,753	1.85%
Útgerðarfélag Akureyringa ehf	6,753	1.85%
Bergur-Huginn ehf	5,245	1.43%
Stálskip ehf	4,555	1.24%
Jakob Valgeir ehf	4,438	1.21%
<b>Top 10</b>	<b>188,101</b>	<b>51%</b>
<b>Top 20</b>	<b>260,408</b>	<b>71%</b>
<b>Top 30</b>	<b>290,346</b>	<b>79%</b>
<b>Top 50</b>	<b>317,096</b>	<b>87%</b>

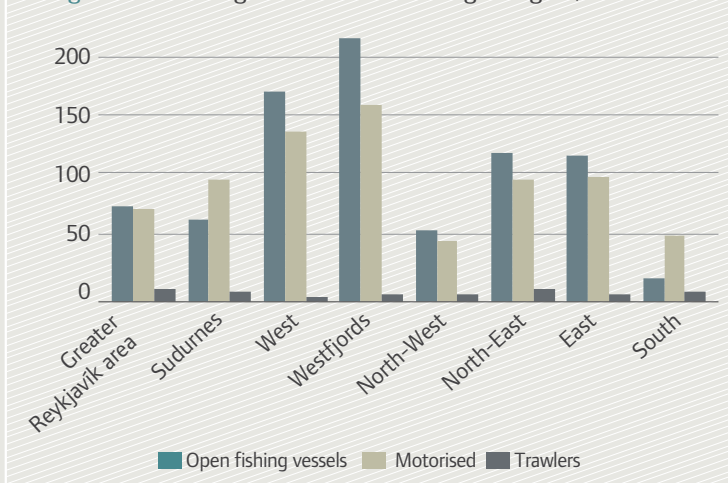
Heimild: The Directorate of Fisheries

**Fig. 15. The fishing vessel fleet, number and gross tonnage, 1999–2011**



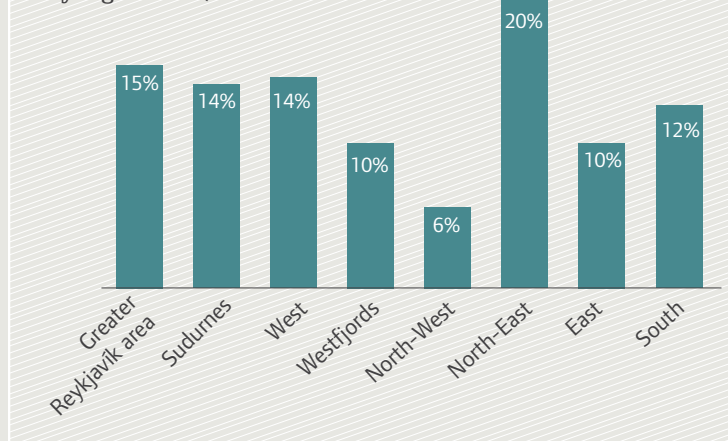
Source: Statistics Iceland

**Fig. 16. The fishing vessel fleet according to region, 2011**



Source: Statistics Iceland

**Fig. 17. Proportional division of catch quota by region 2011/2012**



Heimild: The Directorate of Fisheries

## Prices and exchange rate developments

Seafood product prices have been rising since the beginning of 2010. Since early 2012, the seafood price index in Icelandic krónur has been rather unstable but was, in July this year, at the same level as at the end of 2011. The price index has risen by 14% since the beginning of 2011, but has fallen by approximately 2% since the beginning of 2012, measured in Icelandic króna. Due to the instability of the Icelandic króna, the seafood price index is more commonly measured in SDR (the basket index of the International Monetary Fund, which is based on the euro, yen, pound sterling and the US dollar), which has increased by 5% since the beginning of 2011 and, in July 2012, was at the same level as it was at the beginning of 2012.

Seafood prices on overseas markets have been quite high recently. In addition, the real exchange rate of the króna has been rather low so that prices of seafood measured in Icelandic króna have risen significantly. The weak position of the króna has therefore had somewhat positive effects on the seafood industry and other export industries, since a weak króna improves the competitive position of exporters. The export value of seafood products has been rising sharply during the past three years, a trend which may be partly ascribed to a strong competitive position of Icelandic seafood companies due to a weak currency.

In terms of specific categories of seafood products, it may be mentioned that the price of fishmeal has been at historical highs during the past three years. Prices fell in mid-year 2011 but have risen again in 2012. It is believed that the world market price of meal will continue to rise because of increased demand. Fishmeal is used, among other things, for fish farming, and since fish farming is likely to expand rapidly on a worldwide basis in the future, demand may be expected to increase.

Prices of the principal demersal fish species have also been on an upward curve during the past two years. The price of cod has been quite stable since the beginning of the year, but it has been falling somewhat in recent months.

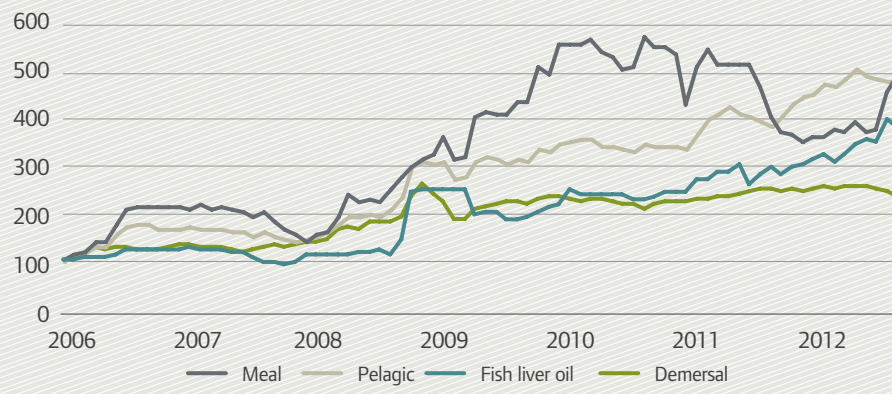
The Freshfish Price Directorate has collected weighted average prices for various fish species, including cod, haddock and pollock. Price and quantity are based on landed catch, and only data on direct purchases by domestic fish processors and sales on domestic fish markets are used. The weighted average of these two is then arrived at. The average prices for 2011 was ISK 253.56 per kg for cod, ISK 205.96 per kg for haddock and ISK 128.66 per kg for pollock.

Fig. 18. Price indices of seafood products (2005=100)



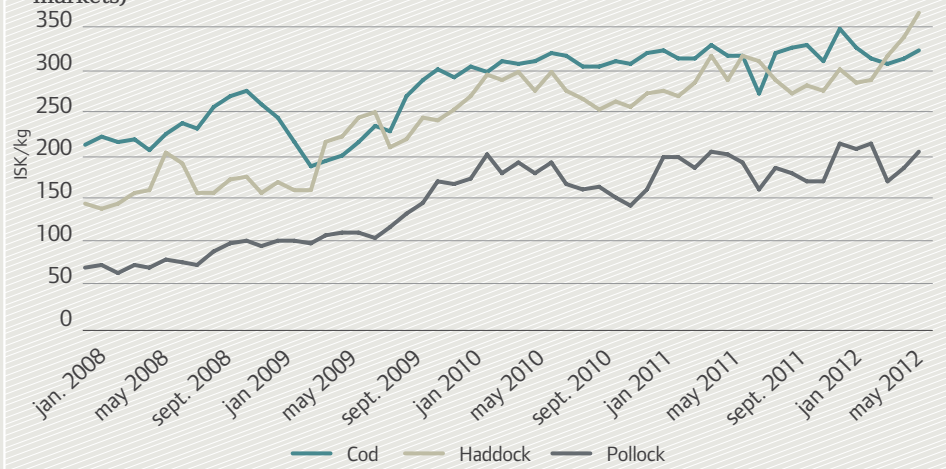
Source: Statistics Iceland

Fig. 19. Price indices of seafood products, sub-indices (2005=100)



Source: Statistics Iceland

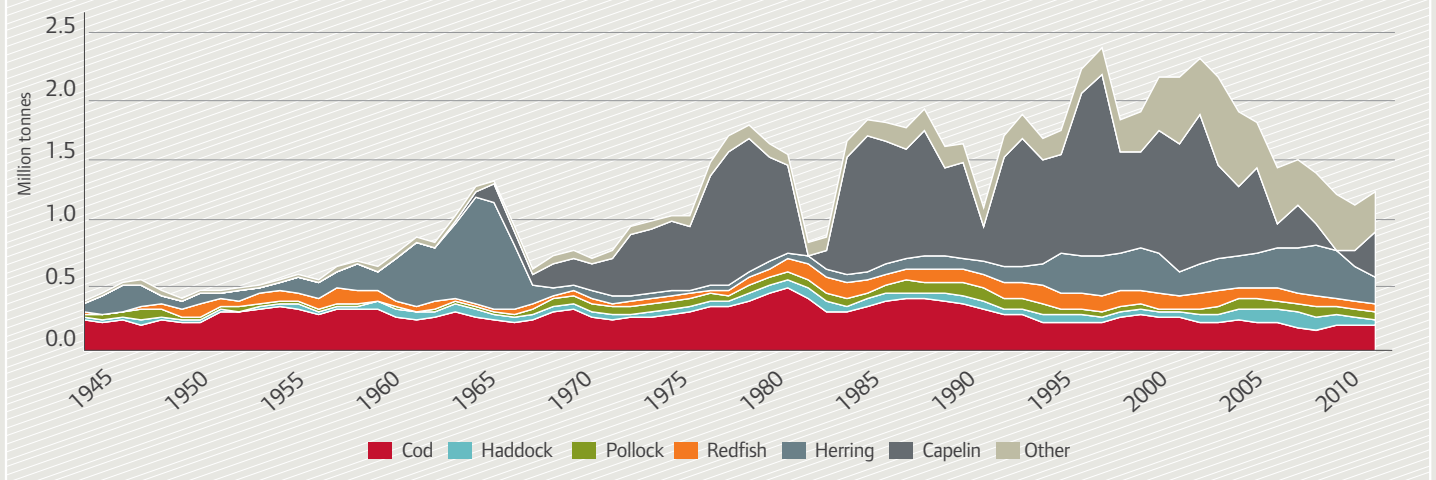
Fig. 20. Weighted average price (sold directly to processors and sold in the domestic markets)



Source: Statistics Iceland

## Catch and catch value

Fig. 21. Catch of Icelandic vessels from all fishing areas, 1945–2011



Source: Statistics Iceland

The waters around Iceland are probably among the richest in the North Atlantic. Primary focus in the Icelandic seafood industry has been placed on catching and processing demersal fish, especially cod but also haddock, pollock and red ocean perch. Pelagic species such as herring, capelin, blue whiting and, most recently, mackerel are also important sources of raw material, and their value has been increasing considerably over the past year.

According to Statistics Iceland, the catch value of Icelandic ships in the first half of 2012 amounted to ISK 80.5bn, as compared to ISK 70.5bn during the same period in 2011. The catch value, therefore, has increased by ISK 10bn, or 14.2%, between years.

The catch value of demersal species was ISK 52.2bn, increasing by 8% from the same period last year. The catch value of cod was approximately ISK 27.2bn, increasing by 12.9% from the previous year. The catch value of haddock amounted to ISK 7.4bn, an increase of 19.4%, while the value of redfish amounted to ISK 7.7bn, which is an increase of 21.4% from 2011. The value of pollock catches

increased by 6.1% between years and amounted to ISK 4.1bn during the first half of 2012.

The catch value of pelagic species amounted to ISK 18.5bn during the first six months of 2012, which is an increase of 37.6% from 2011. This increase can for the most part be attributed to the capelin catch, which amounted to just over ISK 13bn.

The total catch in 2011 amounted to just under 1,150 thousand tonnes, which is an increase of approximately 8% from the year before. It should be noted that in 1945 the total catch was approximately 366 thousand tonnes of which the cod catch was over 222 thousand tonnes. The total catch fished in Icelandic waters, however, has been decreasing over the past nine years.

The catch value in 2011 was just under ISK 154bn, which is an increase of 16% from 2010, or approximately 3.2% if measured at constant prices, and an increase of 157% from the year 2000. In 2011, cod was the most valuable species and was around 30% of the total catch value. Redfish was the second most valuable species and herring thereafter.

Fig. 22. Catch value by species, 2000

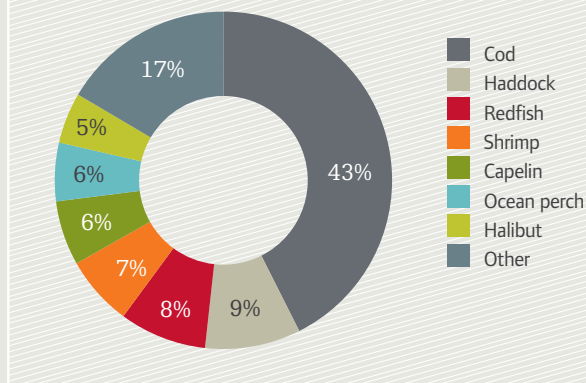
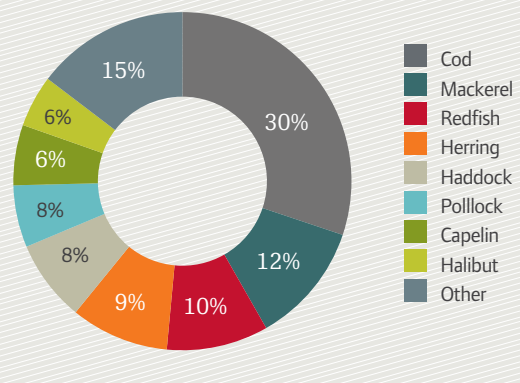
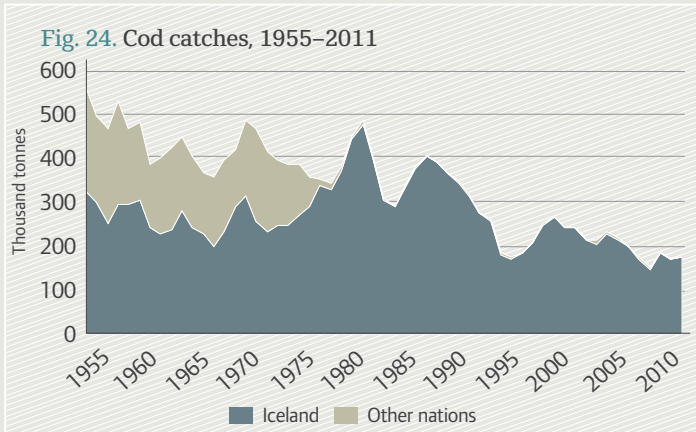


Fig. 23. Catch value by species, 2011

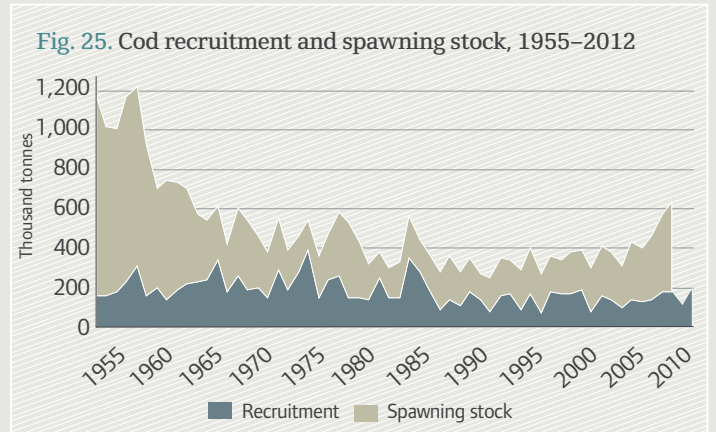


Source: Statistics Iceland

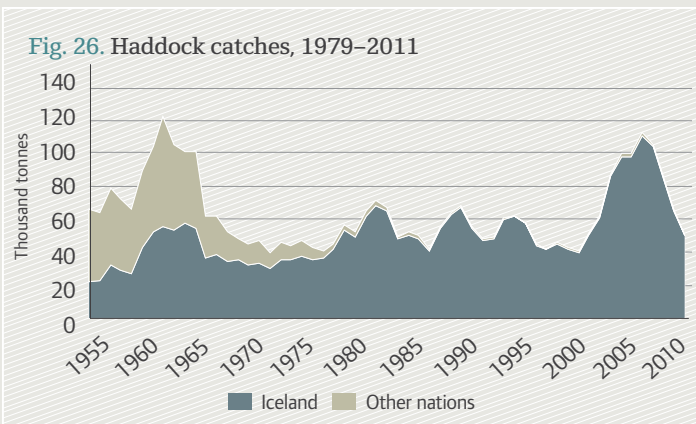
The figures below show the development of catches and the stocks of the main fish species found in Icelandic waters.



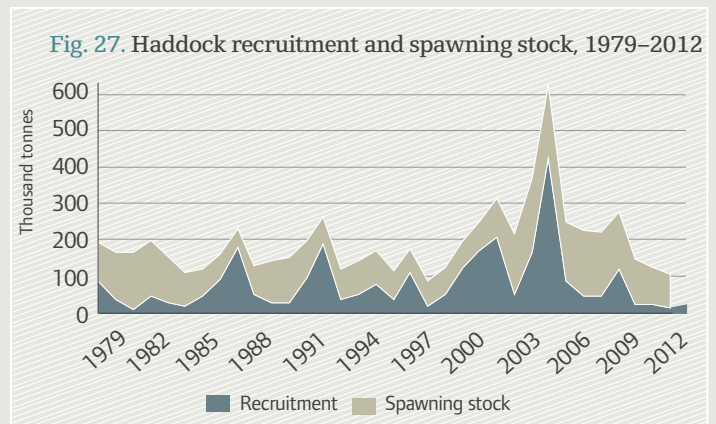
Source: Statistics Iceland



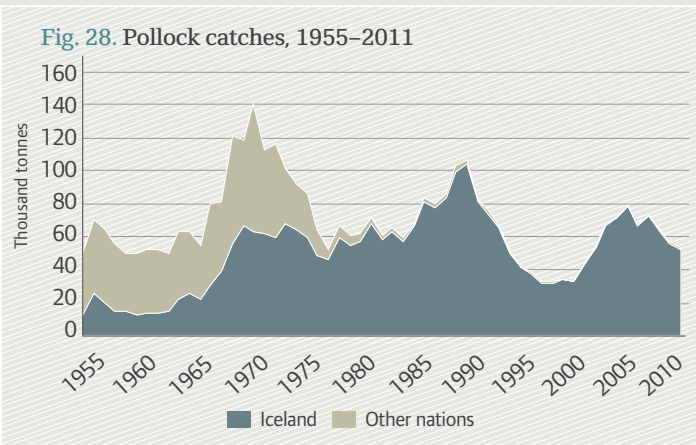
Source: Statistics Iceland



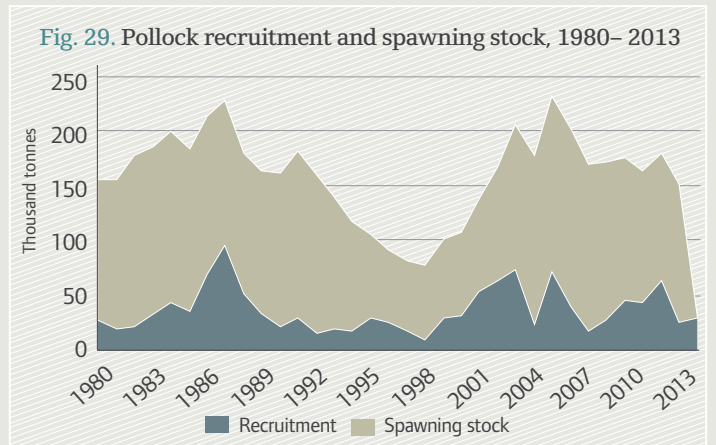
Source: Statistics Iceland



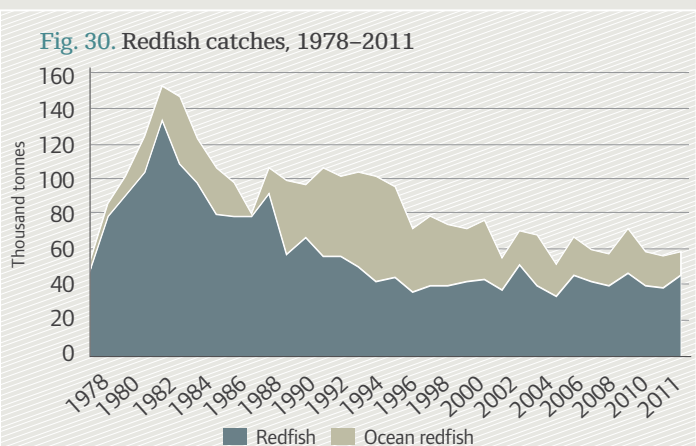
Source: Statistics Iceland



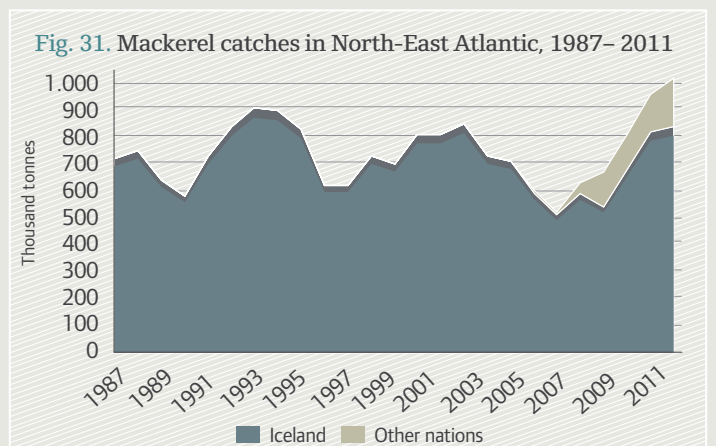
Source: Statistics Iceland



Source: Statistics Iceland



Source: Statistics Iceland



Source: Statistics Iceland

## The seafood industry's weight in the Icelandic economy

The seafood industry sector is very important for the nation's economy in that it contributes approximately 40% of the total value of Iceland's merchandise exports and contributes directly approximately 11% of each year's GDP. In fact, the contribution is considerably greater because the industry has a multiplier effect on other sectors of the economy and generates derived activities and incomes for a great number of production and services companies. Therefore, it is necessary that the value yielded by the fish stocks around the country be maximised in a sustainable manner. That makes it possible to increase the nation's future quality of life and well-being.

### The Icelandic Ocean Cluster

The ocean cluster is a collective undertaking of numerous companies in operations connected to the sea. The objective is to improve co-operation, increase value and enhance understanding of the importance of the operations within the cluster. This involves, among other things, mapping all operations related to the sea, right from fishing, fish processing, research, and innovation to biotechnology and high-tech production, transportation, financial services, and repair and maintenance services.

Íslandsbanki is the principal sponsor of the project. Other sponsors are Brim hf. and Síldarvinnslan hf.

Earlier this year, Íslandsbanki published, in co-operation with the Iceland Ocean Cluster, a report on the importance of the ocean cluster in the Icelandic economy. The report is based on research into the macroeconomic contribution of the fisheries industry sector and related sectors. The report can be accessed on Íslandsbanki's website.

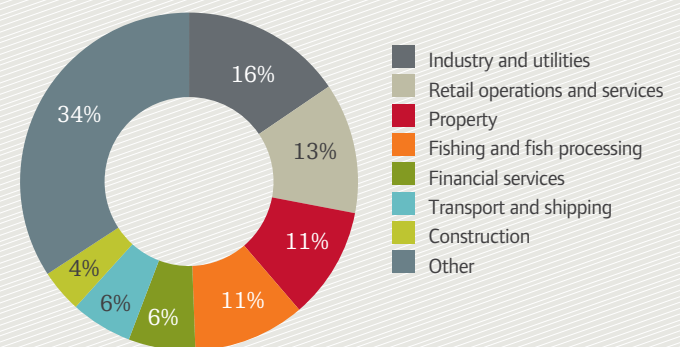
## The fisheries sector's contribution to GDP

The fisheries sector has been one of the mainstays of the Icelandic economy for decades. The industry's direct contribution to GDP in 2011 was 11%, 25% if account is taken of the ocean cluster's manufacture. According to the report on the importance of the ocean cluster in the Icelandic economy, referred to above, if account is taken of derived jobs, the sector is responsible for creating approximately 15–20% of jobs in Iceland.

Taken in historical context, the 11% share of fishing (7.1%) and processing (3.6%) in the GDP is considerably over the average if the last 10 years are examined.

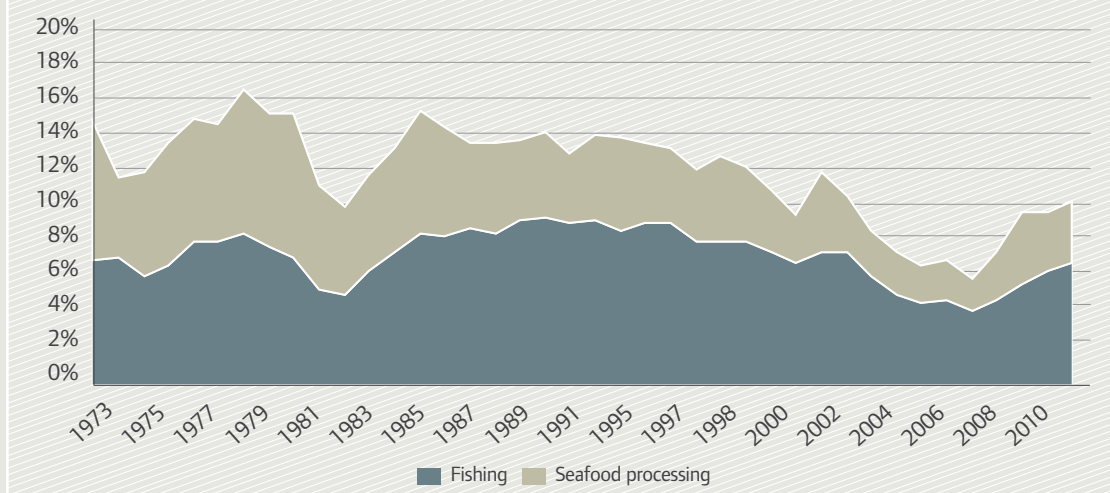
The fisheries sector's contribution to the GDP has increased over the past few years. It is likely however, that the sector was somewhat overshadowed by other sectors, e.g. the financial market, in the final decade of the last century. Developments over the past two years could indicate changing times and a turnaround in the status of fisheries within Icelandic society due to changed circumstances following the economic collapse in 2008.

Fig. 32. Share of industries in GDP in 2011



Source: Statistics Iceland

Fig. 33. Fishing and fish processing as a proportion of GDP, 1973–2011



Source: Statistics Iceland

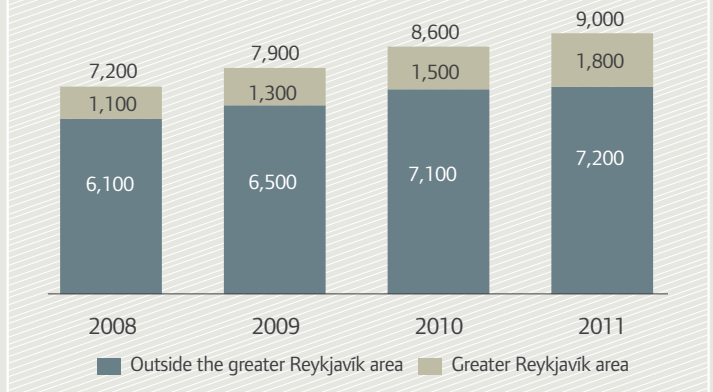
## Jobs in the seafood industry

Jobs in the seafood industry as a proportion of the total number of jobs in Iceland have been decreasing in past decades. Today, approximately 9,000 people are employed directly in the seafood industry in Iceland – 5,200 in fishing and 3,800 in fish processing. Over the past four years, however, the number of jobs in the industry has been on the rise, see Fig. 34. Altogether, jobs in the fisheries industry are approximately 5.3% of the total workforce in Iceland.

As shown in Fig. 35, approximately 80% of jobs in the fishing industry are outside the greater Reykjavik area. This proportion has remained stable over the past 30 years. During the period between 1991 and 2011, the number of jobs in fishing fell by 1,000 and in fish processing by 4,200. The seafood industry plays an especially important role in the countryside, where it accounts for approximately 11.9% of all jobs, compared to only 1.7% in the Greater Reykjavik area.

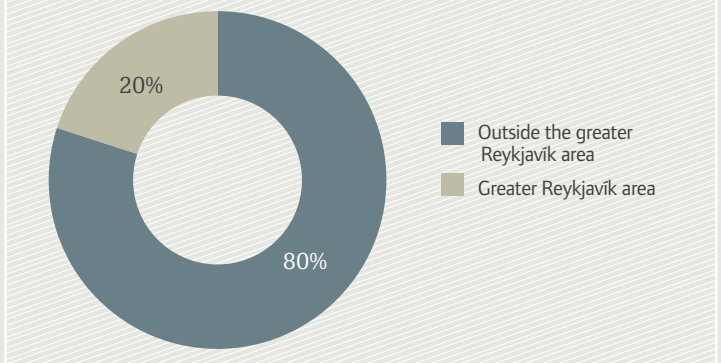
Íslandsbanki's report on the importance of the ocean cluster in the Icelandic economy reveals that the indirect contribution of the fisheries industry toward job creation is in fact much greater than the current statistics on the number of jobs in the sector indicate. It is believed that approximately 25 to 35 thousand jobs are connected to the ocean cluster and that the cluster is therefore indirectly responsible for 15–20% of jobs in Iceland, a figure much higher than currently supposed. The direct contribution of fisheries to job creation is currently estimated to be around 5%. The sectors connected to the ocean cluster, and which indirectly create the highest number of jobs in the seafood industry, include public administration, retail operations, repair services and industry.

Fig. 34. Jobs in fishing and fish processing in Iceland



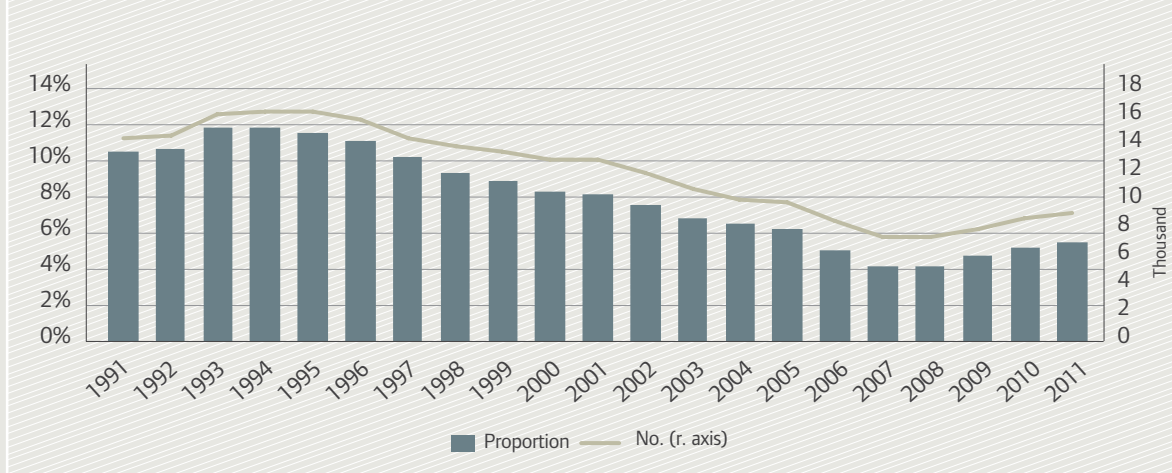
Source: Statistics Iceland

Fig. 35. Division of jobs in the fisheries industry, 2011



Source: Statistics Iceland

Fig. 36. Individuals employed in the fisheries industry, 1991–2011



Source: Statistics Iceland



## Exports of marine products

In 2011, the value of exported marine produce amounted to over ISK 256bn, increasing by 7.8% from the previous year. This figure is the aggregate total of exports and changes in the inventory of marine products. The production, measured at a constant price, increased by 10.3%. The export value of marine products in 2011 amounted to just under ISK 252bn, the value increasing by 14.1% between years. The volume also increased by 6.4% during this period. In 2011, 672 thousand tonnes were exported, as compared to 632 thousand tonnes in 2010.

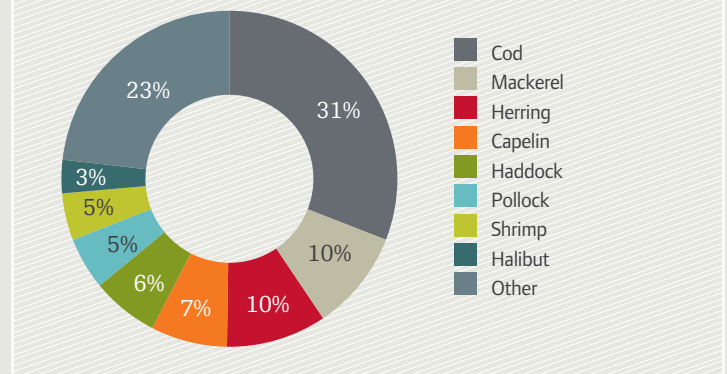
The seafood industry contributed some 38.2% of all goods exports in 2011. However, when both services and goods exports are considered, the seafood industry's share of total export value is 26%. The aluminium industry had the second largest share of export value, or ISK 245bn. Thereafter come transport and shipping (ISK 158bn) and tourism (ISK 87bn).

In terms of export values at constant prices in 2011 (seafood product price index), the export values in 2009 and 2010 were lower than export values in the preceding years. The export value of marine products, however, has never been higher than in 2011, as Fig. 40 shows.

### Division of exports according to market areas and countries

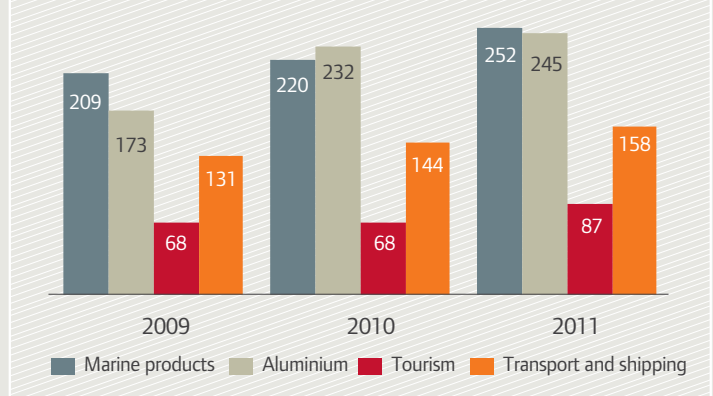
The European Union (the EU) is the most important market area for Icelandic seafood products. Goods valued at ISK 181bn were exported to the EU in 2011, or 72% of the total export value of marine products. The value of exported marine products to the EU countries increased by ISK 20.6bn, or 12.8% between years. Exports to Asia amounted to ISK 22bn, or 8.8% of the total export value of marine products. Exports to Africa amounted to ISK 12.4bn in 2011, which is a 4.9% share.

Fig. 37. Exports of seafood products by species, 2011



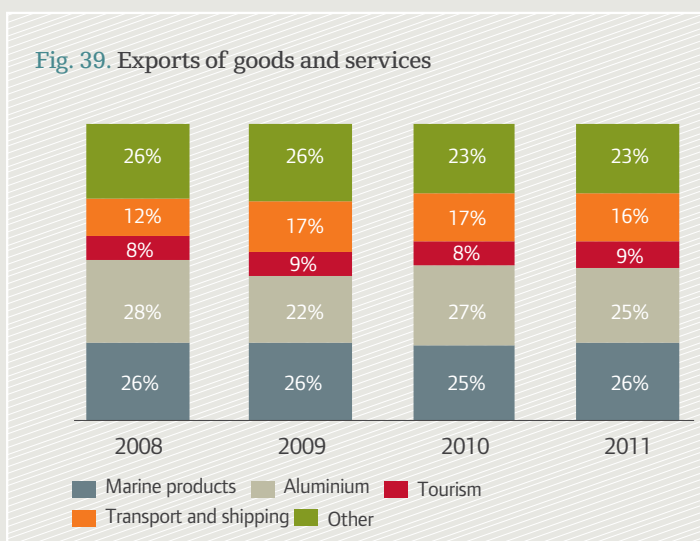
Source: Statistics Iceland

Fig. 38. Export value at each year's price levels



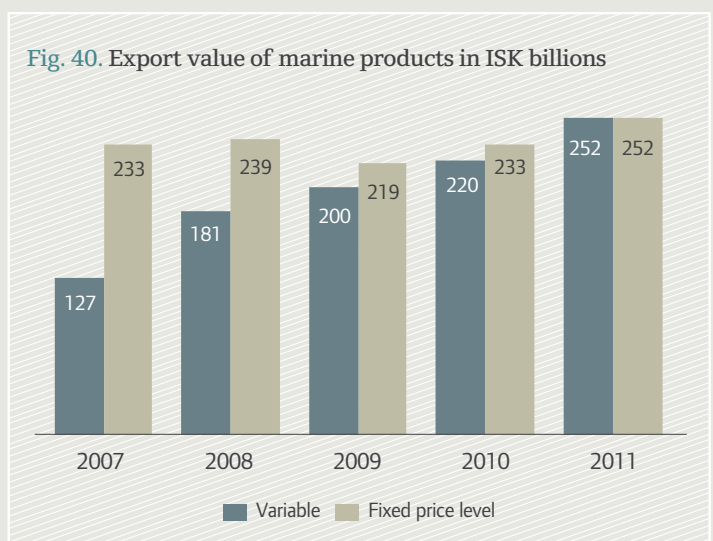
Source: Statistics Iceland

Fig. 39. Exports of goods and services



Source: Statistics Iceland

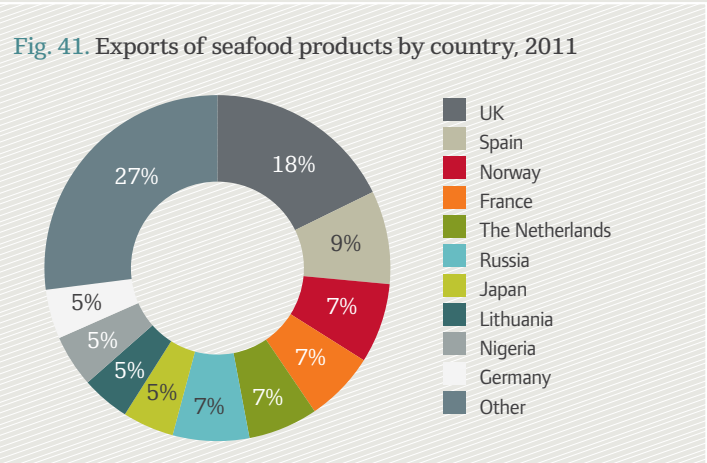
Fig. 40. Export value of marine products in ISK billions



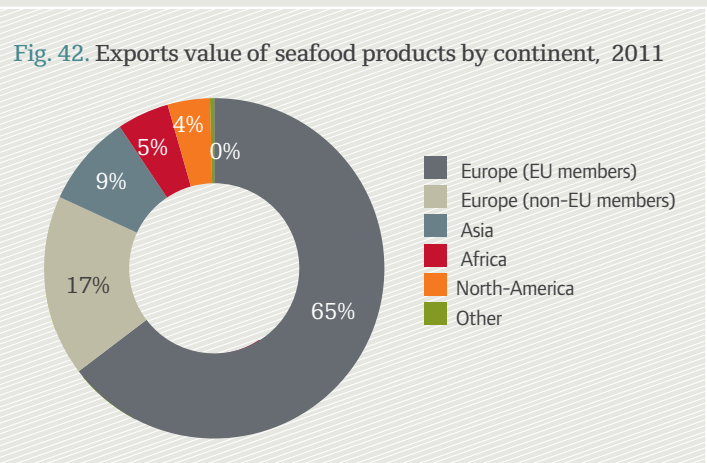
Source: Statistics Iceland

The principal export products to Britain are frozen or refrigerated cod and haddock as well as frozen shrimp. Large amounts of salt fish and frozen cod as well as frozen langoustine are exported to Spain. The Netherlands import large amounts of salt fish and mackerel together with frozen pollock and capelin roe. The main export products to Norway are fishmeal and fish oil from herring, capelin and blue whiting. Exports to France are composed of mainly fresh cod, while capelin roes, sea-frozen red perch and Greenland halibut are the main products exported to Japan.

Table 3 shows the export value of eight of the most valuable species and the countries to which they are mostly exported. As shown therein, among other things, in 2011, 25% of the export value of cod, 55% of haddock and 75% of shrimp was exported to Britain. In addition, exports to Norway were 44% of the export value of capelin and 20% of that of herring. Of special interest is the increase in mackerel, as in 2011, the export value of the mackerel was around ISK 24bn, with 43% being exported to Russia.

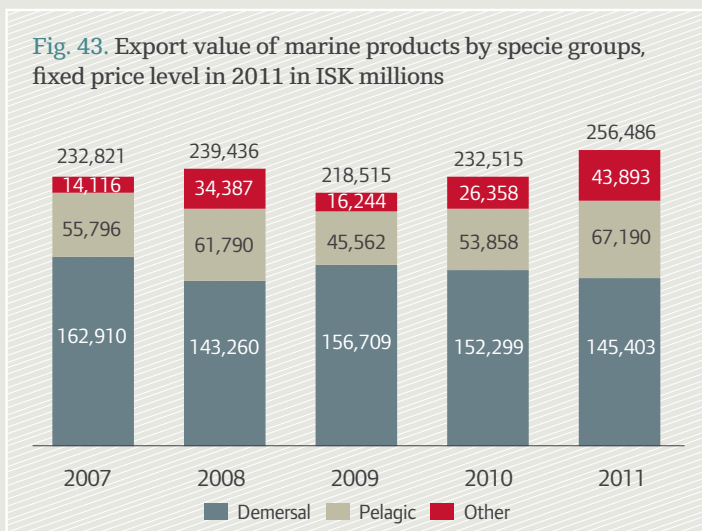


Source: Statistics Iceland



Source: Statistics Iceland

Fig. 43. Export value of marine products by specie groups, fixed price level in 2011 in ISK millions



Source: Statistics Iceland

Table 3. Export value according to species and countries for the eight most valuable species – 2011

1. Cod	ISK bn	% Of total	2. Mackerel	ISK bn	% Of total	3. Herring	ISK bn	% Of total	4. Redfish	ISK bn	% Of total
UK	19.346	25%	Russia	10.341	43%	Lithuania	5.576	23%	Japan	4.726	24%
Spain	15.054	20%	Netherlands	4.184	17%	Poland	5.367	22%	Germany	4.358	22%
France	9.961	13%	Nigeria	2.979	12%	Norway	4.922	20%	Netherland	1.424	7%
Portugal	8.023	10%	China	1.768	7%	Russia	3.952	16%	Russia	1.414	7%
5. Capelin	ISK bn	% Of total	6. Haddock	ISK bn	% Of total	7. Pollock	ISK bn	% Of total	8. Shrimp	ISK bn	% Of total
Norway	8.139	44%	UK	8.805	55%	Germany	3.157	25%	UK	8.113	72%
Denmark	1.719	9%	United states	4.083	25%	Netherland	1.617	13%	Denmark	1.790	16%
Russia	1.318	7%	Nigeria	1.040	6%	Spain	1.537	12%	Estonia	249	2%
Netherlands	1.085	6%	France	670	4%	Nigeria	866	7%	Spain	229	2%

Source: Statistics Iceland

## Exports of seafood products by species, specie groups and product categories

Cod was the most valuable export species in 2011, or accounting for ISK 77bn, an increase of 6.5% between years. Thereafter are mackerel and herring, with ISK 24bn each.

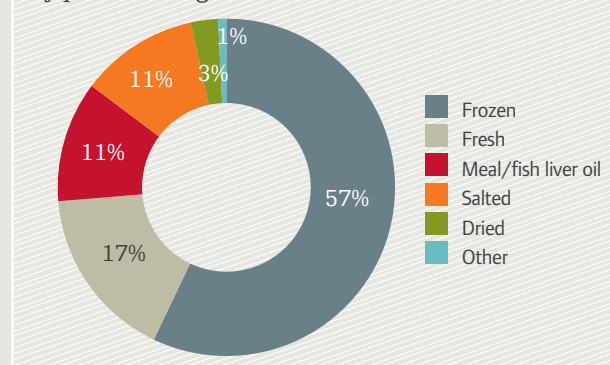
Demersal products in 2011 were just under 58% of the value of marine products, or approximately ISK 145bn, increasing the value of demersal species by 5.5 between years. The export value of haddock products amounted to over ISK 16bn, declining by 15.8% from 2010. The value of demersal species other than cod and haddock rose by 8.1% from the previous year.

The share of pelagic species in the export value of marine products was 26.7%, or just over ISK 67bn, increasing by 48.1% from 2010. Of individual species, the export value of mackerel was the highest, amounting to over ISK 24bn, an increase of 185% from the previous year. The value of herring products also increased and was just under ISK 24bn. The export value of capelin was just over ISK 18bn, an increase of around 47.8% from 2010.

Also exported in 2011 were shellfish, crab and shrimp products, although their value was much lower than that of the demersal and pelagic products. Of individual product categories, frozen products accounted for over 57% of the total export value, or ISK 144bn, which is an increase of ISK 23bn from 2010. Thereafter

come fresh (iced) fish products for approximately ISK 42bn, which is an increase of 4% from the previous year. The proportion of iced products in the export value was 16.6% in 2011 while the share of salted products was 11.3%. Exports of meal and fish liver oil accounted for 11.6% of the export value of marine products and amounted to over ISK 29bn, as compared to ISK 23bn in 2010.

Fig. 44. Export value of marine products by product categories, 2011



Source: Statistics Iceland

Fig. 45. Export value of demersal species, 2011

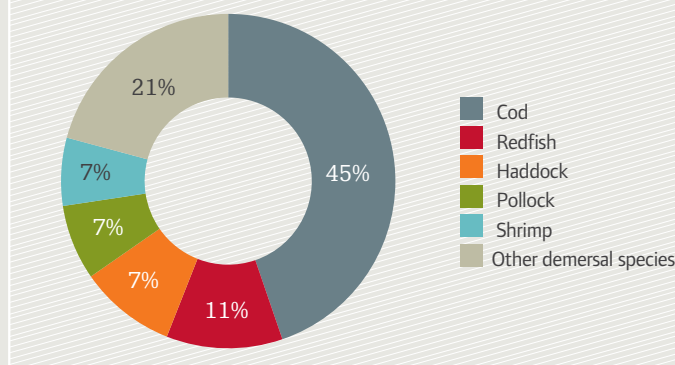
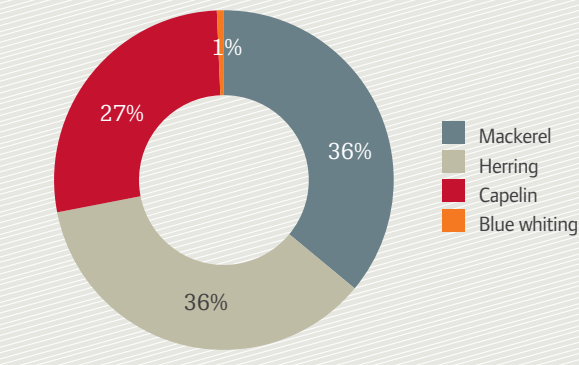


Fig. 46. Export value of pelagic species, 2011



Source: Statistics Iceland

Fig. 47. Export value of demersal species, at fixed price in 2011 in ISK millions

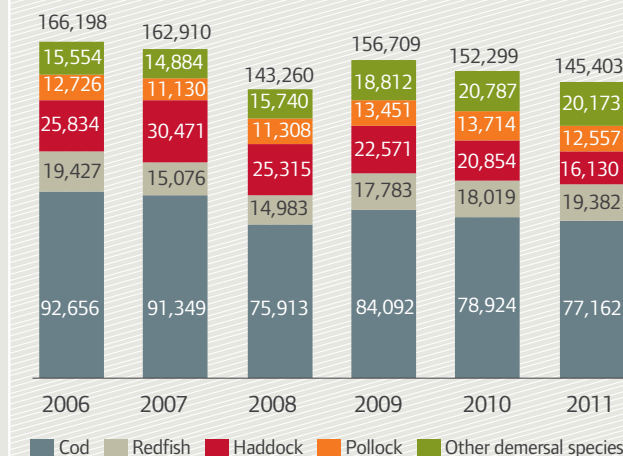
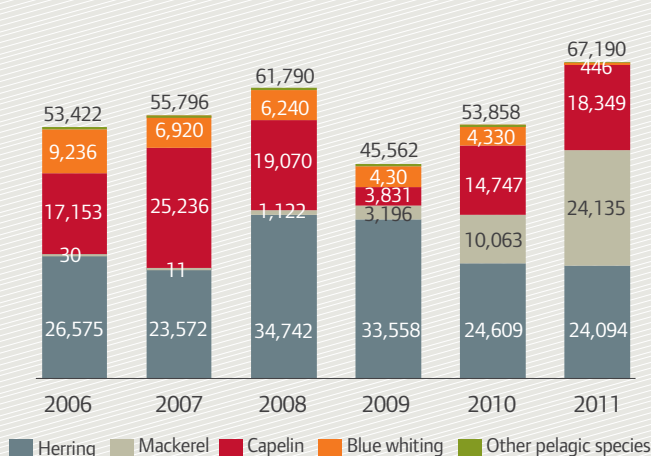


Fig. 48. Export value of pelagic species, at fixed price in 2011 in ISK millions



Source: Statistics Iceland

**Table 4. Export value of marine products by processing sector in 2011 in ISK millions**

<b>Frozen</b>		<b>143,595</b>
Frozen-at-sea, whole	20,004	
Frozen-at-sea, block-frozen fillets	3,230	
Frozen-at-sea, n.e.c.	16,311	
Other frozen-at-sea marine products	123	
Whole frozen fish n.e.c.	32,773	
Frozen on land, block-frozen fillets	3,163	
Land frozen fillets, n.e.c.	20,329	
Minced fish, frozen	1,051	
Frozen roe	5,449	
Other frozen marine products	41,162	
<b>Fresh</b>		<b>41,782</b>
New, chilled or iced whole fish	10,031	
New, chilled or iced fish fillets	14,782	
Other fresh, chilled marine products	16,969	
<b>Salted</b>		<b>28,510</b>
Dried salt fish	3,124	
Wet-cured salt fish	16,887	
Salt fish fillets, pieces, etc.	6,706	
Salted roes	1,793	
<b>Meal / fish liver oil</b>		<b>29,156</b>
Fish meal	17,078	
Fish liver oil	12,078	
<b>Dried</b>		<b>6,535</b>
Stockfish	367	
Dried fish heads	5,826	
Other dried, salted fish	342	
<b>Other</b>		<b>1,995</b>
Other fish processing products, n.e.c.	1,995	
<b>Total</b>		<b>251,573</b>

Source: Statistics Iceland

## Mackerel

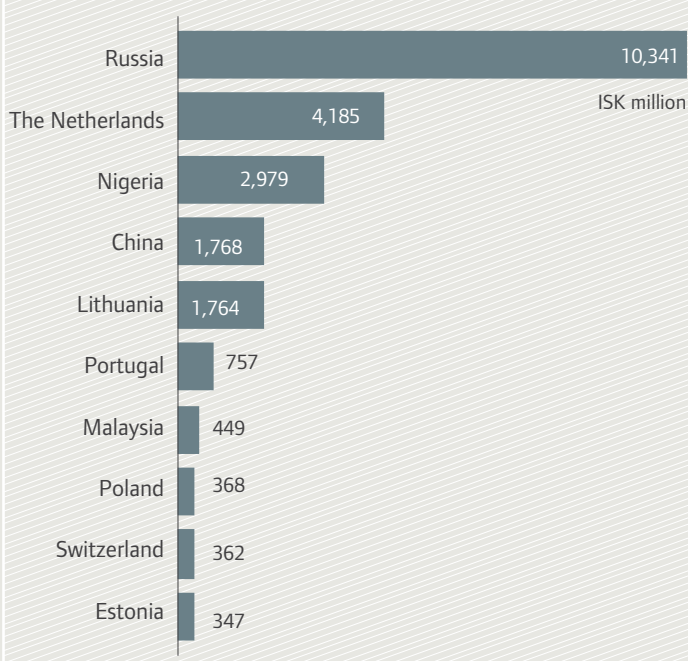
Mackerel fishing has been booming in Iceland in recent years. Sea temperatures and the availability of food play a large role in mackerel distribution in feeding areas. In recent years, the mackerel stock has been strong and krill stocks in the Norwegian Sea have been in a decline. At the same time, ocean temperatures around Iceland have risen and created conditions ideal for the mackerel. It very likely that the interaction of these aspects are causing the mackerel stocks to increasingly migrate further west and north than has previously been the case.

In 2000, there were no mackerel exports. Eleven years later, mackerel has become Iceland's second most valuable export species, with a value of over ISK 24bn.

The main export market for the mackerel exported in 2011 was Russia, with 43% of the total exports. Thereafter come the Netherlands (17%), Nigeria (12%) and China (7%). It should be noted, however, that the mackerel products are transshipped in the Netherlands, which explains the high volume transported there.

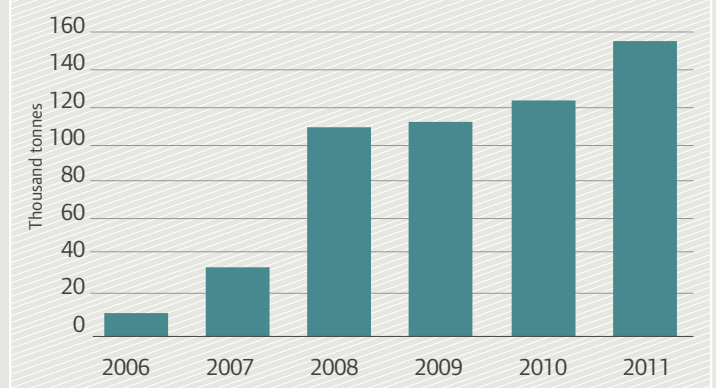
In 2011, the mackerel catch was just under 159 thousand tonnes, which is an increase of just under 37 thousand tonnes, or 30%, from 2010. The average price of mackerel also rose sharply in 2010 and 2011. Whole frozen mackerel returned a 40% higher price on average than the year before. The average price of mackerel went from ISK 147 per kg to ISK 220 per kg in 2011. The catch value of mackerel in 2011 was just under ISK 18bn, which is an increase of 128% from 2010. According to information from vessel operators and sales entities, the price for frozen mackerel was rather lower in the 2012 season, and it is estimated that the catch value for the year may be around ISK 23bn. The main reason for price reductions are the large inventories of Icelandic and Norwegian mackerel overseas. Krill content has also brought up questions about the quality of the 2011 mackerel catch. There are thoughts that some of the mackerel available in inventories is not of acceptable quality due to bad krill.

**Fig. 49. Exports of mackerel, 2011**



Source: Statistics Iceland

**Fig. 50. Mackerel catches, 2006–2011**



Source: Statistics Iceland and The Directorate of Fisheries



## The mackerel dispute

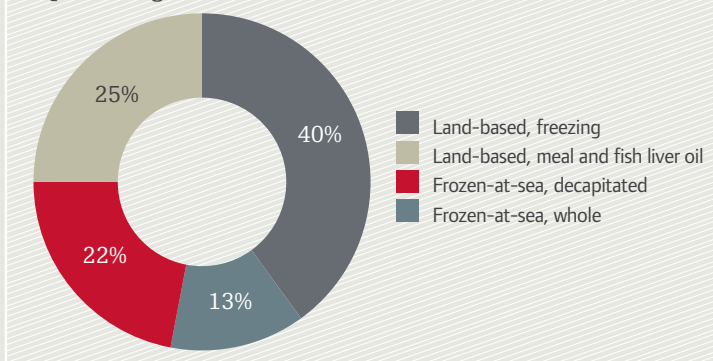
No agreement has been reached between the four coastal states – Iceland, Norway, the Faroe Islands and Russia – as well as the EU on the comprehensive management of mackerel fishing. For this reason, the parties set themselves quotas unilaterally. Iceland’s quota was set at 146,818 tonnes, corresponding to approximately 16% of the total catch, which was approximately 900 thousand tonnes. Experts, however, have recommended that the catch amount be 640 thousand tonnes next year. A few meetings were held this summer and in the autumn. Little progress has been made as the parties have very different ideas of the preferred outcome. Icelanders have requested a 17% share in the total quota while the opposing parties have offered a share of around 7%. It is important that the parties reach an agreement on the allocation of mackerel quotas because in the current situation, there is every likelihood that stocks will be overfished if the said nations cannot agree on its exploitation.

## Processing

Most of all the mackerel unloaded in Iceland is frozen, or 87%. Of this 87%, 47% were frozen on board processing vessels and freezer trawlers, while 40% were frozen on land. Only 13% of the catch was processed into meal and oil. There have been considerable changes in this respect, as in 2009, 80% of the catch was sent to fish meal processors. In 2010, this proportion had decreased to 40%. This is thanks to increased knowledge of

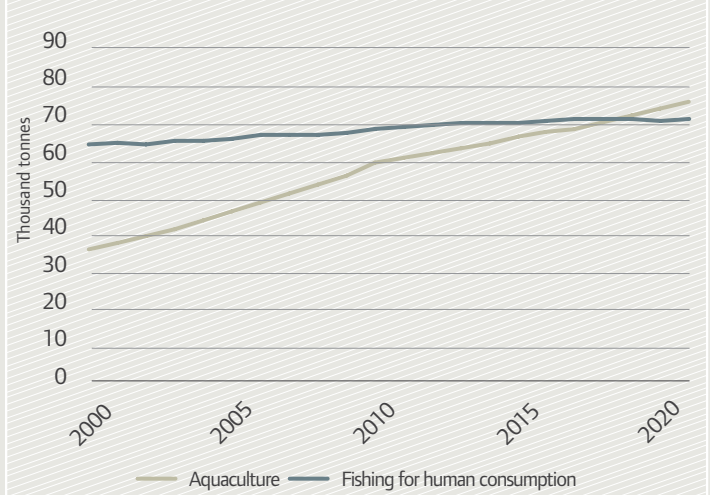
chilling processes and the on-board treatment of the catch, which has led to better raw material quality. Processing vessels that are specifically designed for pelagic species unload trimmings and catch that has been sorted away in chilled raw material tanks. The mackerel is mostly decapitated and gutted on board, and the yield is around 65%. Catch that is unloaded for meal processing from processing vessels is categorised as extra raw materials from on-board processing and not as a catch caught for meal processing. Trawlers freeze the mackerel whole on-board because they have limited space for extra raw material and trimmings that would be sent for further processing on land.

**Fig. 51.** Proportional division of the mackerel catch according to processing means



Source: The Directorate of Fisheries

**Fig. 52.** Fishing for human consumption and aquaculture in the world, 2000–2021



Source: Statistics Iceland

## Aquaculture

The aquaculture industry has been growing rapidly worldwide in recent years, and projections anticipate that this trend will continue, although the growth may slow down somewhat. The aquaculture industry grew by 73% from 2001 to 2010. FAO believes that the growth will be around 25% from 2011 to 2020. At present, farmed fish accounts for 40% of the total available fish in the world and 47% of fish for human consumption. It is believed that the proportion of farmed fish will be greater than caught fish for human consumption in 2018.

In 2010, about 89% of the global output of farmed fish was produced in Asia, with China being by far the largest producer, with some 61% of total world output. Thereafter came India with 7.7% and Vietnam with 4.5%.

Iceland's neighbouring countries in the North Atlantic are extremely proficient in aquaculture. Norway produced in 2010 one million tonnes of farmed fish, Britain produced 200 thousand tonnes, the Faroe Islands produced 47 thousand tonnes and Ireland produced 46 thousand tonnes.

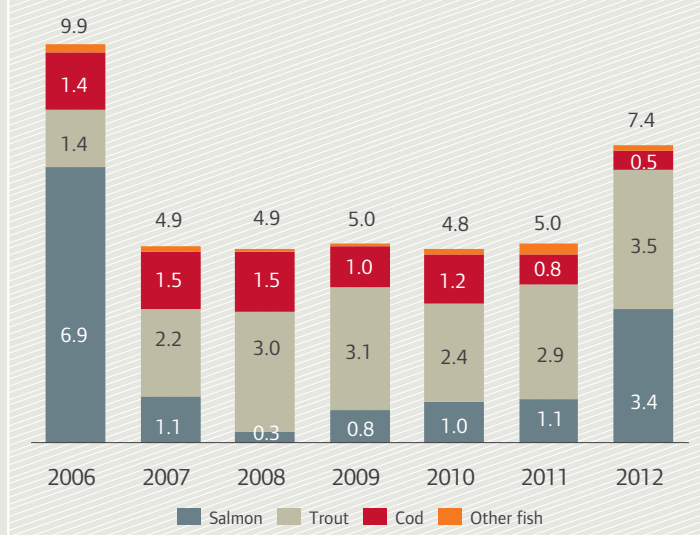
### Fish farming in Iceland

Fish farming in Iceland has a quite long and educational history. The beginnings may be traced to the raising of fingerlings to release into rivers and lakes in the latter part of the 19th century. Interest in aquaculture grew considerably in the latter part of the 20th century when production rose to around 3,000 tonnes in 1990. The principal species farmed were salmon and rainbow trout. Over the next decade, the output remained quite stable, around 3,000 tonnes. Fisheries companies in Iceland began to show an interest in aquaculture, and several started production around 2003. Production figures in Icelandic aquaculture rose again and peaked in 2006, when approximately 10,000 tonnes were produced. The production that year consisted of 7,000 tonnes of salmon, 1,400 tonnes of trout and 1,400 tonnes of cod. There was a significant downturn in salmon farming in 2007, when several companies left the aquaculture industry or reduced their involvement significantly. One could say that the production of salmon had collapsed by 2008, when only 300 tonnes were produced. At the same time, however, interest in trout (Arctic char and rainbow trout are grouped together here) farming grew. The total production in 2007 was around 5,000 tonnes and has remained quite stable since then. Interest in aquaculture appears to be growing again, and it has been estimated that the production during the current year will be around 7,400 tonnes. The largest part played in this is the increase in salmon farming and the continuing increase in trout farming. It should also be noted that construction work on the first phase of a new fish farm in Reykjanes is reaching the final stages, and the first phase is expected to be ready next year. It is estimated the production capacity of the first phase will be around 500 tonnes of Senegalese sole. The planned production capacity of the farm, once construction is completed, is around 2,000 tonnes.

In 2011, the export value of farmed fish amounted to approximately ISK 3.3bn. The value has been quite stable over the past three years after the instabilities in 2006 to 2008. In 2011, the export value of farmed trout amounted to ISK 2bn and that of farmed salmon to approximately ISK 1.1bn. The value of exported farmed cod was about ISK 200m in 2011, which is slightly less than in the preceding years. It appears that cod farming is in somewhat of a decline, as projections of cod production during the present year assume that it will be about half of what it has been in recent years.

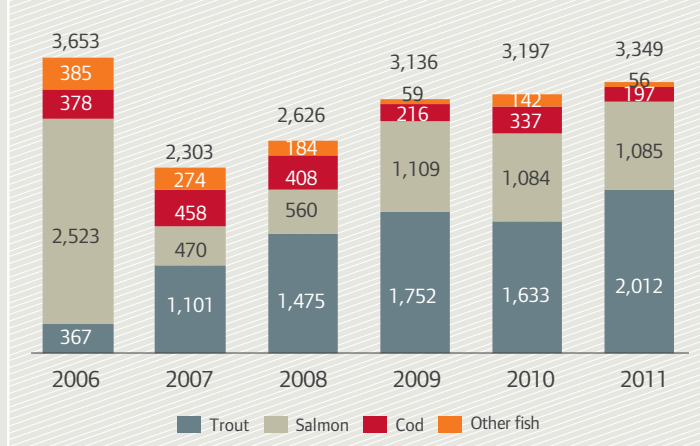
An interesting development in the export of aquaculture products is the export of fertilised roe and live fry. In 2011, these exports amounted to approximately ISK 700m, which is about 20% of the export value of aquaculture products, and in 2010, the export accounted for ISK 800m, or approximately 26% of the value.

Fig. 53. Farmed fish slaughter, whole, ungutted fish – thousands of tonnes



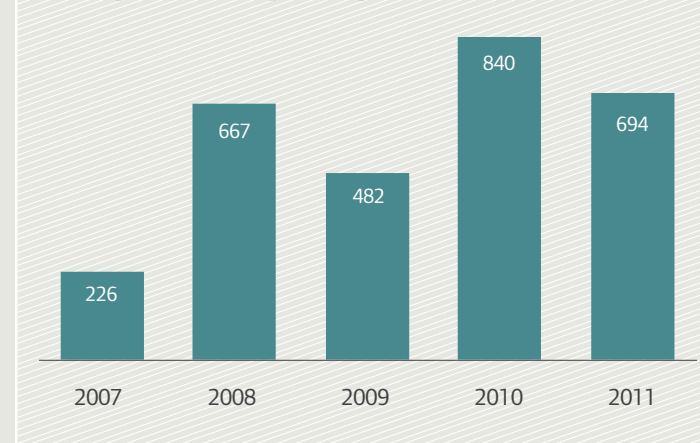
Source: Statistics Iceland

Fig. 54. Export value of farmed fish, at fixed price in 2011 – ISK millions



Source: Statistics Iceland

Fig. 55. Export value of fertilised roes and fry at 2011 fixed price (seafood product price index)



Source: Statistics Iceland

## Sources

**FAO. The state of world fisheries and aquaculture 2012. Accessed on 28 September 2012 from:**

<http://www.fao.org/docrep/016/i2727e/i2727e.pdf>

**The Directorate of Fisheries. Quota share of the largest fishing companies during the fishing year 2011/2012.**

**Accessed on 17 September 2012 from:**

<http://www.fiskistofa.is/umfiskistofu/frettir/nr/775>

**The Directorate of Fisheries. Catch quotas according to region. Accessed on 15 October 2012 from:**

[http://www.fiskistofa.is/media/frettir/18092012aflamark\\_ettir\\_landshlutum.pdf](http://www.fiskistofa.is/media/frettir/18092012aflamark_ettir_landshlutum.pdf)

**Marine Research Institute. Exploitable marine stocks 2011/2012 – catch projections for 2012/2013. Accessed on 1 October 2012 from:**

<http://www.hafro.is/Astand/2012/aflatolurmidja.pdf>

**Statistics Iceland. Catches, value and processing of catch 2011. Accessed on 1 October 2012 from:**

<https://hagstofa.is/lisalib/getfile.aspx?ItemID=14127>

**Statistics Iceland. The number of fishing vessels increased by 30 from the previous year. Accessed on 13 September 2012 from:**

<http://www.statice.is/Pages/444?NewsID=8581>

**Statistics Iceland. Fisheries and agriculture. Accessed on 1 October 2012 from:**

<http://www.statice.is/Statistics/Fisheries-and-agriculture>

**Statistics Iceland. Export and export production of marine products 2011. Accessed on 26 September 2012 from:**

<https://hagstofa.is/lisalib/getfile.aspx?ItemID=13910>

**Statistics Iceland. Exported farmed fish by species and countries 1999–2011. Accessed on 4 October 2012 from:**

<http://www.statice.is/Statistics/Fisheries-and-agriculture/Export>

**The Icelandic Aquaculture Association. Statistics – Aquaculture. Accessed on 5 October 2012 from:**

<http://lfh.is/hagtalur-eldid.htm>

**The Research Department of Arion Bank. The Icelandic Fisheries Sector (Íslenskur sjávarútvegur, report only available in Icelandic).**

**Accessed on 27 September 2012 from:** [http://www.arionbanki.is/library/Skrar/Frettir/Islenstur\\_sjavarutvegur.pdf](http://www.arionbanki.is/library/Skrar/Frettir/Islenstur_sjavarutvegur.pdf)

**OECD-FAO. Agricultural Outlook 2012–2021. Fish and Seafood. Accessed on 5 October 2012 from:**

[http://www.keepeek.com/Digital-Asset-Management/oece/agriculture-and-food/oece-fao-agricultural-outlook-2012/fish-and-seafood\\_agr\\_outlook-2012-11-en](http://www.keepeek.com/Digital-Asset-Management/oece/agriculture-and-food/oece-fao-agricultural-outlook-2012/fish-and-seafood_agr_outlook-2012-11-en)

**OECD-FAO. Agricultural Outlook 2012–2021. Accessed on 5 October 2012 from:**

[http://www.keepeek.com/Digital-Asset-Management/oece/agriculture-and-food/oece-fao-agricultural-outlook-2012/fish-and-seafood\\_agr\\_outlook-2012-11-en](http://www.keepeek.com/Digital-Asset-Management/oece/agriculture-and-food/oece-fao-agricultural-outlook-2012/fish-and-seafood_agr_outlook-2012-11-en)

**The Central Bank of Iceland. Banking system – Loans provided by deposit institutions. Accessed on 21 September 2012 from:**

<http://www.sedlabanki.is/>

**Sigbjorn Tvetaras. 9 June 2011. Fish is Food – The FAO Fish Price Index. Accessed on 2 October from:**

[http://www.academia.edu/1690789/Fish\\_is\\_Food\\_-\\_The\\_FAO\\_Fish\\_Price\\_Index](http://www.academia.edu/1690789/Fish_is_Food_-_The_FAO_Fish_Price_Index)

**Ministry of Fisheries and Agriculture. Report on mackerel catches 2011. Accessed on 4 October 2012 from:**

<http://www.sjavarutvegsraduneyti.is/media/Skyrslur/Makrilskyrsla-2012.pdf>

**United Nations, Department of Economic and Social Affairs. Population Division. Accessed on 3 October 2012 from:**

<http://esa.un.org>

## Figures

- Fig. 1:** Global consumption of seafood products. Source: FAO. Page 6
- Fig. 2:** Meat consumption per person, kg per year. Source: FAO. Page 6
- Fig. 3:** Population developments to 2050. Source: United Nations, Department of Economic and Social Affairs. Page 6
- Fig. 4:** Proportional growth of consumption per person from 2011 to 2021. Source: OECD and FAO. Page 6
- Fig. 5:** FAO fish price index. Source: FAO. Page 7
- Fig. 6:** World prices for meat products. Source: OECD and FAO. Page 7
- Fig. 7:** World prices for oils and meal. Source: OECD and FAO. Page 7
- Fig. 8:** Individuals employed in the fisheries industry, by continent. Source: FAO. Page 8
- Fig. 9:** Catches of the 20 largest fishing nations of the world, 2010. Source: FAO. Page 8
- Fig. 10:** Consumption of seafood products per person in selected countries, 2009. Source: FAO. Page 8
- Fig. 11:** Profits of Icelandic fisheries companies before financial items, taxes and depreciation (EBITDA) amounted to ISK 1,292m. Source: Statistics Iceland and the National Economic Institute. Page 9
- Fig. 12:** Operating overview of fishing and fish processing, 2000–2010. Source: Statistics Iceland. Page 10
- Fig. 13:** The proportion of net debts/EBITDA for the fisheries sector. Source: Statistics Iceland. Page 10
- Fig. 14:** Loans provided by deposit institutions to Icelandic fisheries companies, 2004–2012. Source: The Central Bank of Iceland. Page 10
- Fig. 15:** The share of the 10 largest quota holders in authorised total catch, 1992–2012. Source: The Directorate of Fisheries. Page 11
- Fig. 16:** The fishing vessel fleet, number and gross tonnage, 1999–2011. Source: Statistics Iceland. Page 11
- Fig. 17:** The fishing vessel fleet according to region, 2011. Source: Statistics Iceland. Page 11
- Fig. 18:** Price indices of seafood products. Source: Statistics Iceland. Page 12
- Fig. 19:** Price indices of seafood products, sub-indices. Source: Statistics Iceland. Page 12
- Fig. 20:** Weighted average price (sold directly to processors and sold in the domestic markets). Source: Statistics Iceland. Page 12
- Fig. 21:** Catch of Icelandic vessels from all fishing areas, 1945–2011. Source: Statistics Iceland. Page 13
- Fig. 22:** Catch value by species, 2000. Source: Statistics Iceland. Page 13
- Fig. 23:** Catch value by species, 2011. Source: Statistics Iceland. Page 13
- Fig. 24:** Cod catches, 1955–2011. Source: Marine Research Institute. Page 14
- Fig. 25:** Cod recruitment and spawning stock, 1955–2012. Source: Marine Research Institute. Page 14
- Fig. 26:** Haddock catches, 1955–2011. Source: Marine Research Institute. Page 14
- Fig. 27:** Haddock recruitment and spawning stock, 1979–2012. Source: Marine Research Institute. Page 14
- Fig. 28:** Pollock catches, 1955–2011. Source: Marine Research Institute. Page 14
- Fig. 29:** Pollock recruitment and spawning stock, 1980–2012. Source: Marine Research Institute. Page 14
- Fig. 30:** Redfish catches, 1978–2011. Source: Marine Research Institute. Page 14
- Fig. 31:** Mackerel catches, 1987–2011. Source: Marine Research Institute. Page 14
- Fig. 32:** Share of industries in GDP in 2011. Source: Statistics Iceland. Page 15
- Fig. 33:** Fishing and fish processing as a percentage of GDP, 1973–2011. Source: Statistics Iceland. Page 15
- Fig. 34:** Jobs in fishing and fish processing in Iceland. Source: Statistics Iceland. Page 16
- Fig. 35:** Division of jobs in the fisheries industry, 2011. Source: Statistics Iceland. Page 16
- Fig. 36:** Individuals employed in the fisheries industry, 1991–2011. Source: Statistics Iceland. Page 16
- Fig. 37:** Exports of seafood products by species, 2011. Source: Statistics Iceland. Page 17
- Fig. 38:** Export value at each year's price levels. Source: Statistics Iceland. Page 17
- Fig. 39:** Exports of goods and services. Source: Statistics Iceland. Page 17
- Fig. 40:** Export value of marine products in ISK billions. Source: Statistics Iceland. Page 17
- Fig. 41:** Exports of seafood products by country, 2011. Source: Statistics Iceland. Page 18
- Fig. 42:** Exports of seafood products by continent, 2011. Source: Statistics Iceland. Page 18
- Fig. 43:** Export value of marine products by specie groups, fixed price level in 2011 in ISK millions. Source: Statistics Iceland. Page 18
- Fig. 44:** Export value of marine products by product categories, 2011. Source: Statistics Iceland. Page 19
- Fig. 45:** Export value of demersal species, 2011. Source: Statistics Iceland. Page 19
- Fig. 46:** Export value of demersal species, at fixed price in 2011 in ISK millions. Source: Statistics Iceland. Page 19
- Fig. 47:** Export value of pelagic species, 2011. Source: Statistics Iceland. Page 19
- Fig. 48:** Export value of pelagic species, at fixed price in 2011 in ISK millions. Source: Statistics Iceland. Page 19
- Fig. 49:** Exports of mackerel, 2011. Source: Statistics Iceland. Page 20
- Fig. 50:** Mackerel catches, 2006–2011. Source: Statistics Iceland and the Ministry of Fisheries. Page 20
- Fig. 51:** Proportional division of the mackerel catch according to processing means, 2011. Source: Ministry of Fisheries. Page 21
- Fig. 52:** Fishing for human consumption and aquaculture in the world, 2000–2021. Source: OECD and FAO. Page 21
- Fig. 53:** Farmed fish slaughter, whole, ungutted fish – thousands of tonnes. Source: The Icelandic Aquaculture Association. Page 22
- Fig. 54:** Export value of farmed fish, at fixed price in 2011 – ISK millions. Source: Statistics Iceland. Page 22
- Fig. 55:** Export value of fertilised roes and fry at the price level of 2011 (seafood product price index). Source: Statistics Iceland. Page 22



## Tables

**Tables 1:** Operating overview of fishing and fish processing. Source: Statistics Iceland. Page 9

**Tables 2:** Permitted total catch of the 50 largest companies, 2011. Source: The Directorate of Fisheries and Íslandsbanki. Page 11

**Tables 3:** Export value according to species and countries for the eight most valuable species, 2011. Source: Statistics Iceland. Page 18

**Tables 4:** Export value of marine products by processing sector in 2011 in ISK millions. Source: Statistics Iceland. Page 20

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