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The economic importance of the fishery in the exclusive economic zones of the United Kingdom, Norway and the Faroe Islands for Danish fisheries in 2016, 2017 and 2018

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1. Background

In 2017, the Department of Food and Resource Economics carried out an analysis of the possible economic consequences following the decision by the United Kingdom to leave the European Union, cf. Andersen, Andersen, Hoff and Ståhl (2017). The analysis was based on data until 2016.

In order to update the analysis from 2017, this report describes the current situation for the Danish fishery with focus on the fishery in the exclusive economic zone of the United Kingdom (UK-EEZ) based on the latest available data from 2016, 2017 and 2018.

Furthermore, a description of the importance of the Danish fishery in the exclusive economic zones of Norway (NOR-EEZ) and the Faroe Islands (FRO-EEZ) are also included. The current fishing agreements between the European Union and Norway/the Faroe Islands give the fishermen from these countries access to the UK-EEZ as part of the EU-EEZ. However, this may not be the case in the future, depending on the agreements with the United Kingdom.

It must be noted that any possible consequences with respect to access for EU27 vessels to Norwegian and/or Faroese waters will not be automatic. Norway and/or the Faroe Islands would have to initiate negotiations with the EU to find a solution, and it must be stressed that an outcome where Brexit will have consequences for EU access to Norwegian and Faroese waters must be seen as a worst case scenario.

The presented tables cover the years 2016, 2017 and 2018. The year 2016 was the last year available in Andersen, Andersen, Hoff and Ståhl (2017), and updated 2016 figures are included in the current report in order to make a useful link to the previous analysis. The approach and methods used in the current report are the same as in Andersen, Andersen, Hoff and Ståhl (2017).

This report is divided into two sections. In the first section, the Danish fishing activities in the exclusive economic zones of the United Kingdom, Norway and the Faroe Islands are described. The second section considers the economic consequences for the Danish fishery, if Danish fishermen are prohibited from fishing in the UK-EEZ, NOR-EEZ and FRO-EEZ.

2. The Danish fishing activity in the exclusive economic zones of the United Kingdom, Norway and the Faroe Islands

Danish fishermen fish in a range of fishing areas primarily in the North East Atlantic. Many vessels solely fish around Denmark in the Baltic Sea, Kattegat, Skagerrak and the North Sea close to Denmark. However, especially larger vessels have activity further away from Danish ports, i.e. on the fishing grounds around the Shetland Islands, around Ireland, further north in Norwegian waters and in some cases around the Faroe Islands.

In the three sections below, the fishing activity undertaken by Danish fishing vessels is investigated in detail in order to describe the importance of the exclusive economic zones of the United Kingdom

(UK-EEZ), Norway (NOR-EEZ) and the Faroe Islands (FRO-EEZ). Each description covers vessels with activity in the specific EEZ each year. A vessel can be included in more than one description, e.g. if a vessel has activity in the UK-EEZ and NOR-EEZ, it will be included in each description. In addition, a vessel might be included in the description covering one year, but not the next, if it had no activity in the specific EEZ that year. The final section presents a summary of the total importance of the three zones together, for the Danish fishery.

The descriptions below are all based on data derived from the vessel, logbook and sales notes register hosted by the Danish Fisheries Agency and extracted the 11 February 2019. By combining information from the three registers, detailed information on the statistical rectangles of the International Council for the Exploration of the Sea (ICES-squares) can be derived. Based on the statistical rectangles, the activity in the UK-EEZ can be separated from the current EU zone. This has already been done for the NOR-EEZ and FRO-EEZ, because the landings from these areas are managed through the Total Allowable Catches (TAC) regulation.

The general economic importance of various exclusive economic zones for Danish fishery is shown in Table II.1. On average, the NEW-EU-EEZ, i.e. the remaining exclusive economic zone of the European Union excluding the exclusive economic zone of the United Kingdom, make up for 52% of total landings value from 2016 to 2018. The UK-EEZ accounted for 30%, while 14% of the total landings value originated from the Norwegian EEZ. Only minor landings were from FRO-EEZ, while other zones, primarily the Greenland EEZ accounted for 4% on average from 2016 to 2018. Measured in absolute values, the UK-EEZ accounts for approximately 1 billion DKK yearly out of a yearly total landings value of 3.5 billion DKK.

Table II.1 Landings value of exclusive economic zones for Danish fishery (1,000 DKK)

| Exclusive economic zone | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
|------------------------------------|------------------|-------------|------------------|-------------|------------------|-------------|-------------------|-------------|
| | Value | % | Value | % | Value | % | Value | % |
| NEW-EU | 1,959,503 | 53% | 1,733,021 | 51% | 1,852,417 | 52% | 1,848,314 | 52% |
| UK | 1,018,173 | 28% | 1,052,818 | 31% | 1,071,390 | 30% | 1,047,460 | 30% |
| NOR | 536,065 | 15% | 489,437 | 14% | 474,274 | 13% | 499,925 | 14% |
| FRO | 14,106 | 0% | 0 | 0% | 389 | 0% | 4,832 | 0% |
| Other EEZ* | 147,370 | 4% | 144,017 | 4% | 142,557 | 4% | 144,648 | 4% |
| Total by all Danish vessels | 3,675,217 | 100% | 3,419,293 | 100% | 3,541,027 | 100% | 3,545,179 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Note: * Other EEZ includes the exclusive economic zone around Greenland, the zone around Svalbard and Bear Island, the international zone, and the waters adjacent to the territory of Western Sahara.

2.1. Activity in the UK-EEZ

The dependency of Danish fisheries of exclusive economic zones of the United Kingdom (UK-EEZ) is described in detail in this section. In total, 69 vessels in 2016, 69 vessels in 2017 and 69 vessels in 2018 had fishing activity in the UK-EEZ, cf. Table II.2. Out of a total Danish fishing fleet of around 2,200 vessels, it is thus only a minor percentage, who fish in the UK-EEZ. However, besides one vessel in 2016 and 2017, these vessels are all above 18 meters in length and are primarily trawlers.

Table II.2 *Number of Danish fishing vessels by fleets fishing in UK-EEZ*

| Length | Gear type | 2016 | | 2017 | | 2018 | |
|-------------------------------|---------------------|------|------|------|------|------|------|
| | | | | | | | |
| 12-15m | Netters and liners | | | 1 | 1% | | |
| | Subtotal | | | 1 | 1% | | |
| 15-18m | Netters and liners | 1 | 1% | | | | |
| | Subtotal | 1 | 1% | | | | |
| 18-24m | Netters and liners | 3 | 4% | 3 | 4% | 2 | 3% |
| | Multi-purpose gears | 1 | 1% | 1 | 1% | 1 | 1% |
| | Danish seine | 3 | 4% | 3 | 4% | 3 | 4% |
| | Trawl | 3 | 4% | 3 | 4% | 5 | 7% |
| | Subtotal | 10 | 14% | 10 | 14% | 11 | 16% |
| 24-40m | Beam trawl | 1 | 1% | 2 | 3% | 2 | 3% |
| | Multi-purpose gears | 4 | 6% | 3 | 4% | 3 | 4% |
| | Trawl consumption | 16 | 23% | 17 | 25% | 20 | 29% |
| | Trawl reduction | 3 | 4% | 2 | 3% | 2 | 3% |
| | Trawl mixed | 1 | 1% | 1 | 1% | | |
| Subtotal | 25 | 36% | 25 | 36% | 27 | 39% | |
| >40m | Purse seine | 4 | 6% | 4 | 6% | 4 | 6% |
| | Trawl reduction | 14 | 20% | 14 | 20% | 13 | 19% |
| | Trawl mixed | 11 | 16% | 9 | 13% | 10 | 14% |
| Subtotal | 29 | 42% | 27 | 39% | 27 | 39% | |
| Decommissioned vessels | | 4 | 6% | 6 | 9% | 4 | 6% |
| Total | | 69 | 100% | 69 | 100% | 69 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

On average, the 69 vessels observed each year accounted for 59% of the total landings value and 78% of the total landings live weight taken by Danish fishermen in the period 2016 to 2018, cf. Table II.3. Thus, despite being a minor part of the Danish fishing fleet measured in numbers, their activity is of much higher importance for Danish fisheries. The vessels have an equal dependency on the UK-EEZ and the remaining EEZ. Thus, for these vessels, the future access to the UK-EEZ is central for their economic situation, but the exact importance will vary from vessel to vessel.

Table II.3 Landings by Danish vessels, their dependency on UK-EEZ and UK-EEZ active vessels' landings on exclusive economic zones

| Landings value (1,000 DKK) | | | | | | | | |
|--|-----------|------|-----------|------|-----------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ by UK-EEZ active vessels | 1,018,173 | 28% | 1,052,818 | 31% | 1,071,390 | 30% | 1,047,460 | 30% |
| NEW-EU-EEZ by UK-EEZ active vessels | 673,345 | 18% | 497,128 | 15% | 643,677 | 18% | 604,717 | 17% |
| NOR-EEZ by UK-EEZ active vessels | 420,105 | 11% | 403,514 | 12% | 411,721 | 12% | 411,780 | 12% |
| FRO-EEZ UK-EEZ active vessels | 14,106 | 0% | 0 | 0% | 389 | 0% | 4,832 | 0% |
| Other EEZ* by UK-EEZ active vessels | 10,232 | 0% | 21,279 | 1% | 13,710 | 0% | 15,074 | 0% |
| Total by UK-EEZ vessels | 2,135,961 | 58% | 1,974,739 | 58% | 2,140,887 | 60% | 2,083,863 | 59% |
| Total by all Danish vessels | 3,675,217 | 100% | 3,419,293 | 100% | 3,541,027 | 100% | 3,545,179 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------------|----------------|-------------|----------------|-------------|----------------|-------------|-------------------|-------------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ by UK-EEZ active vessels | 208,608 | 31% | 396,918 | 44% | 308,262 | 39% | 304,596 | 38% |
| NEW-EU-EEZ by UK-EEZ active vessels | 247,194 | 37% | 270,314 | 30% | 288,531 | 36% | 268,680 | 34% |
| NOR-EEZ by UK-EEZ active vessels | 40,901 | 6% | 34,145 | 4% | 32,539 | 4% | 35,862 | 5% |
| FRO-EEZ UK-EEZ active vessels | 2,440 | 0% | 0 | 0% | 251 | 0% | 897 | 0% |
| Other EEZ* by UK-EEZ active vessels | 4,099 | 1% | 8,987 | 1% | 2,364 | 0% | 5,150 | 1% |
| Total by UK-EEZ vessels | 503,242 | 75% | 710,364 | 78% | 631,947 | 80% | 615,185 | 78% |
| Total by all Danish vessels | 674,322 | 100% | 907,517 | 100% | 792,404 | 100% | 791,414 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Note: * Other EEZ includes the exclusive economic zone around Greenland, the zone around Svalbard and Bear Island, the international zone, and the waters adjacent to the territory of Western Sahara.

Table II.4 gives a more detailed description of the vessels active in the UK-EEZ and their economic dependency on UK-EEZ compared to the other EEZ, where they fish. There is generally an increasing dependency on the UK-EEZ with the length of the vessel. The vessels above 40 meters in length have a dependency of up to 70% of their landings value from the UK-EEZ.

Table II.4 Landings dependency on UK-EEZ by fleets for UK-EEZ active vessels

| Landings value (1,000 DKK) | | | | | | | | | | |
|----------------------------|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------------|-----------|-------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| | | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | % in UK-EEZ |
| 18-24m | Total | 39,476 | 138,433 | 63,533 | 146,350 | 34,492 | 163,274 | 45,834 | 149,352 | 23% |
| 24-40m | Total | 110,317 | 379,073 | 155,056 | 384,674 | 106,900 | 407,403 | 124,091 | 390,383 | 24% |
| | - Trawl consumption | 76,755 | 268,596 | 113,679 | 274,345 | 72,437 | 308,451 | 87,624 | 283,797 | 24% |
| >40m | Total | 868,380 | 600,280 | 834,228 | 390,898 | 929,999 | 498,818 | 877,536 | 496,665 | 64% |
| | - Trawl reduction | 54,429 | 161,838 | 81,146 | 100,476 | 80,745 | 131,347 | 72,107 | 131,220 | 35% |
| | - Trawl mixed | 541,313 | 295,412 | 446,816 | 174,797 | 525,096 | 247,198 | 504,408 | 239,136 | 68% |
| Total | | 1,018,173 | 1,117,786 | 1,052,817 | 921,922 | 1,071,391 | 1,069,495 | 1,047,461 | 1,036,400 | 50% |

| Landings live weight (tonnes) | | | | | | | | | | |
|-------------------------------|---------------------|---------|-----------|---------|-----------|---------|-----------|-------------------|-----------|-------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| | | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | % in UK-EEZ |
| 18-24m | Total | 8,655 | 36,383 | 29,361 | 45,772 | 14,205 | 35,612 | 17,407 | 39,256 | 31% |
| 24-40m | Total | 10,188 | 30,435 | 19,577 | 28,278 | 10,701 | 27,034 | 13,489 | 28,583 | 32% |
| | - Trawl consumption | 4,198 | 15,113 | 5,913 | 14,558 | 3,934 | 15,601 | 4,682 | 15,091 | 24% |
| >40m | Total | 189,763 | 227,816 | 347,979 | 239,397 | 283,354 | 261,040 | 273,699 | 242,750 | 53% |
| | - Trawl reduction | 26,319 | 79,612 | 65,484 | 82,419 | 44,601 | 78,077 | 45,468 | 80,036 | 36% |
| | - Trawl mixed | 115,691 | 106,234 | 169,873 | 101,812 | 157,436 | 122,903 | 147,667 | 110,316 | 57% |
| Total | | 208,606 | 294,634 | 396,917 | 313,447 | 308,260 | 323,686 | 304,596 | 310,588 | 50% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Definitions: *Trawl consumption* are vessels landing above 80% consumption species and *Trawl reduction* are vessels landing above 80% reduction species (i.e. sand eel, Norway pout, sprat etc.).

Note: For discretionary purposes, vessels below 18 meters and decommissioned vessels have been included in length group 18-24 meters.

The tables above focus on all vessels with activity in the UK-EEZ, but a range of these only have a low economic dependency on the UK-EEZ. Thus, as in Andersen, Andersen, Hoff and Ståhl (2017), the following analyses focus on the vessels having at least 15% of their total landings value from the UK-EEZ.

With this threshold, the number of vessels is reduced from 69 each year, to 36 in 2016, 50 in 2017 and 44 in 2018, cf. Table II.5. Looking at 2018, no vessels below 18 meters are included, 10 out of 11 vessels between 18 and 24 meters are excluded, and 12 out of 27 vessels between 24 and 40 meters, while none above 40 meters are excluded.

Table II.5 Number of Danish fishing vessels by fleets fishing in UK-EEZ with 15%-dependency

| Length | Gear type | 2016 | | 2017 | | 2018 | |
|------------------------|---------------------|------|------|------|------|------|------|
| | | | | | | | |
| 18-24m | Danish seine | 1 | 3% | 2 | 4% | 1 | 2% |
| | Subtotal | 1 | 3% | 2 | 4% | 1 | 2% |
| 24-40m | Beam trawl | | | 1 | 2% | 1 | 2% |
| | Multi-purpose gears | 1 | 3% | 2 | 4% | 2 | 5% |
| | Trawl consumption | 6 | 17% | 11 | 22% | 7 | 16% |
| | Trawl reduction | 2 | 6% | 2 | 4% | 2 | 5% |
| | Trawl mixed | | | 1 | 2% | | |
| | Subtotal | 9 | 25% | 17 | 34% | 12 | 27% |
| >40m | Purse seine | 3 | 8% | 4 | 8% | 4 | 9% |
| | Trawl reduction | 10 | 28% | 14 | 28% | 13 | 30% |
| | Trawl mixed | 10 | 28% | 9 | 18% | 10 | 23% |
| | Subtotal | 23 | 64% | 27 | 54% | 27 | 61% |
| Decommissioned vessels | | 3 | 8% | 4 | 8% | 4 | 9% |
| Total | | 36 | 100% | 50 | 100% | 44 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Table II.6 shows the implications on landing by introducing the 15%-threshold, and thereby reducing the number of vessels included in the following description. On average, the threshold implies that 2% of the landings value, i.e. 23 million DKK from the UK-EEZ are excluded from the description and 1% of the landings weight.

Table II.6 Landings from the UK-EEZ distributed on UK-EEZ 15%-vessels and below-15%-vessels

| Landings value (1,000 DKK) | | | | | | | | |
|------------------------------|-----------|------|-----------|------|-----------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Total UK-EEZ 15%-vessels | 982,939 | 97% | 1,038,353 | 99% | 1,053,396 | 98% | 1,024,896 | 98% |
| Total UK-EEZ non-15%-vessels | 35,235 | 3% | 14,465 | 1% | 17,994 | 2% | 22,565 | 2% |
| Total | 1,018,173 | 100% | 1,052,818 | 100% | 1,071,390 | 100% | 1,047,460 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Total UK-EEZ 15%-vessels | 200,759 | 96% | 393,864 | 99% | 306,086 | 99% | 300,236 | 99% |
| Total UK-EEZ non-15%-vessels | 7,848 | 4% | 3,054 | 1% | 2,176 | 1% | 4,359 | 1% |
| Total | 208,608 | 100% | 396,918 | 100% | 308,262 | 100% | 304,596 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

The UK-EEZ 15%-vessels totally landed for around 1.7 billion DKK annually, comprising thus almost half of the total Danish landings value of 3.5 billion DKK, as shown in Table II.7. 60% of their landings value are from their fishery in the UK-EEZ, while 24% are from NEW-EU-EEZ. Thus, if the agreements with the United Kingdom and Norway were cancelled, these vessels would accordingly get a reduction of 75% in their landings value, everything else being equal.

Table II.7 Landings by the UK-EEZ 15%-vessels distributed on exclusive economic zones

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|-----------|------|-----------|------|-----------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ | 982,939 | 60% | 1,038,353 | 61% | 1,053,396 | 60% | 1,024,896 | 60% |
| NEW-EU-EEZ | 394,008 | 24% | 346,652 | 20% | 487,491 | 28% | 409,384 | 24% |
| NOR-EEZ | 236,517 | 14% | 293,099 | 17% | 214,237 | 12% | 247,951 | 15% |
| FRO-EEZ | 14,106 | 1% | 0 | 0% | 389 | 0% | 4,832 | 0% |
| Other zones* | 10,134 | 1% | 21,279 | 1% | 8,429 | 0% | 13,281 | 1% |
| Total | 1,637,703 | 100% | 1,699,383 | 100% | 1,763,942 | 100% | 1,700,343 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ | 200,759 | 51% | 393,864 | 59% | 306,086 | 51% | 300,236 | 54% |
| NEW-EU-EEZ | 162,674 | 41% | 239,202 | 36% | 267,759 | 45% | 223,212 | 40% |
| NOR-EEZ | 30,156 | 8% | 28,403 | 4% | 22,716 | 4% | 27,092 | 5% |
| FRO-EEZ | 2,440 | 1% | 0 | 0% | 251 | 0% | 897 | 0% |
| Other zones* | 879 | 0% | 8,987 | 1% | 2,060 | 0% | 3,975 | 1% |
| Total | 396,909 | 100% | 670,456 | 100% | 598,873 | 100% | 555,413 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Note: * Other EEZ includes the exclusive economic zone around Greenland, the zone around Svalbard and Bear Island, the international zone, and the waters adjacent to the territory of Western Sahara.

The above 15%-vessels on average take 60% of their landings value and 54% of their landings weight in the UK-EEZ, cf. Table II.8. The lowest dependency of 39% of landings value is seen for trawlers for consumption between 24 and 40 meters and for trawl reduction greater than 40 meters, while the highest is observed for mixed trawlers above 40 meters.

Table II.8 Landings dependency on UK-EEZ by fleets for the 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | | | |
|----------------------------|---------------------|---------|-----------|-----------|-----------|-----------|-----------|-------------------|-----------|-------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| | | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | % in UK-EEZ |
| 24-40m | Total | 126,137 | 162,001 | 204,126 | 270,133 | 123,398 | 211,728 | 151,220 | 214,621 | 41% |
| | - Trawl consumption | 65,992 | 101,392 | 105,938 | 166,262 | 59,408 | 98,016 | 77,113 | 121,890 | 39% |
| >40m | Total | 856,801 | 492,762 | 834,228 | 390,898 | 929,999 | 498,818 | 873,676 | 460,826 | 65% |
| | - Trawl reduction | 48,297 | 100,442 | 81,146 | 100,476 | 80,745 | 131,347 | 70,063 | 110,755 | 39% |
| | - Trawl mixed | 539,914 | 277,678 | 446,816 | 174,797 | 525,096 | 247,198 | 503,942 | 233,224 | 68% |
| Total | | 982,938 | 654,763 | 1,038,354 | 661,031 | 1,053,397 | 710,546 | 1,024,896 | 675,447 | 60% |

| Landings live weight (tonnes) | | | | | | | | | | |
|-------------------------------|---------------------|---------|-----------|---------|-----------|---------|-----------|-------------------|-----------|-------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| | | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | % in UK-EEZ |
| 24-40m | Total | 16,187 | 22,730 | 45,884 | 37,197 | 22,731 | 31,748 | 28,267 | 30,558 | 48% |
| | - Trawl consumption | 3,550 | 5,611 | 5,489 | 9,025 | 3,216 | 5,076 | 4,085 | 6,571 | 38% |
| >40m | Total | 184,573 | 173,421 | 347,979 | 239,397 | 283,354 | 261,040 | 271,969 | 224,619 | 55% |
| | - Trawl reduction | 23,830 | 49,076 | 65,484 | 82,419 | 44,601 | 78,077 | 44,638 | 69,857 | 39% |
| | - Trawl mixed | 114,978 | 96,975 | 169,873 | 101,812 | 157,436 | 122,903 | 147,429 | 107,230 | 58% |
| Total | | 200,760 | 196,151 | 393,863 | 276,594 | 306,085 | 292,788 | 300,236 | 255,178 | 54% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Definitions: *Trawl consumption* are vessels landing above 80% consumption species, *Trawl reduction* are vessels landing above 80% reduction species (i.e. sand eel, Norway pout, sprat etc.), and *Trawl mixed* are the remaining trawl vessels within that length group.

Note: For confidentiality reasons, vessels below 24 meters and decommissioned vessels have been included in length group 24-40 meters.

Table II.9 shows the composition of landings by species from the UK-EEZ by the 15%-vessels. Herring is the most important species in each of the three years based on value. Mackerel is the second most important species, while sand eel in 2017 and 2018 was the third most important. Together, these three species account for around 80% of the total landings value from the UK-EEZ.

Table II.9 Landings of top 10 species in 2018 from the UK-EEZ by the 15%-vessels, measured by value, and share of total landings from the UK-EEZ by the 15%-vessels in Table II.8

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|---------|-----|---------|-----|-----------|-----|-------------------|-----|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Herring | 495,508 | 50% | 313,253 | 30% | 414,773 | 39% | 407,845 | 40% |
| Mackerel | 257,266 | 26% | 280,885 | 27% | 278,469 | 26% | 272,207 | 27% |
| Sandeel | 26,459 | 3% | 240,679 | 23% | 173,284 | 16% | 146,807 | 14% |
| Blue whiting | 49,162 | 5% | 18,515 | 2% | 40,577 | 4% | 36,085 | 4% |
| Cod | 25,224 | 3% | 37,216 | 4% | 32,704 | 3% | 31,715 | 3% |
| Monkfish | 14,642 | 1% | 28,675 | 3% | 20,388 | 2% | 21,235 | 2% |
| Horse mackerel | 16,100 | 2% | 17,325 | 2% | 20,031 | 2% | 17,818 | 2% |
| Norway pout | 44,803 | 5% | 17,653 | 2% | 18,607 | 2% | 27,021 | 3% |
| Sprat | 5,888 | 1% | 9,978 | 1% | 14,804 | 1% | 10,224 | 1% |
| Saithe | 8,876 | 1% | 14,272 | 1% | 12,707 | 1% | 11,952 | 1% |
| Total | 943,929 | 96% | 978,452 | 94% | 1,026,346 | 97% | 982,909 | 96% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|---------|-----|---------|-----|---------|-----|-------------------|-----|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Herring | 96,652 | 48% | 97,708 | 25% | 121,291 | 40% | 105,217 | 35% |
| Mackerel | 34,484 | 17% | 37,423 | 10% | 29,897 | 10% | 33,935 | 11% |
| Sandeel | 13,284 | 7% | 212,149 | 54% | 103,422 | 34% | 109,618 | 37% |
| Blue whiting | 20,876 | 10% | 14,278 | 4% | 24,988 | 8% | 20,048 | 7% |
| Cod | 1,114 | 1% | 1,538 | 0% | 1,334 | 0% | 1,329 | 0% |
| Monkfish | 473 | 0% | 938 | 0% | 632 | 0% | 681 | 0% |
| Horse mackerel | 2,674 | 1% | 3,137 | 1% | 3,363 | 1% | 3,058 | 1% |
| Norway pout | 23,743 | 12% | 13,739 | 3% | 9,871 | 3% | 15,784 | 5% |
| Sprat | 2,963 | 1% | 7,145 | 2% | 7,834 | 3% | 5,980 | 2% |
| Saithe | 772 | 0% | 1,415 | 0% | 1,468 | 0% | 1,219 | 0% |
| Total | 197,036 | 98% | 389,470 | 99% | 304,101 | 99% | 296,869 | 99% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Table II.10 shows the composition of landings at the fleet level. It is the group above 40 meters, which lands the major part of herring, mackerel and reduction species. The vessels below 40 meters primarily land codfish (i.e. cod, hake and monkfish) and flatfish (i.e. plaice).

Table II.10 Landings composition in UK-EEZ by fleets for 15%-vessels, average 2016-2018

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|---------------------|---------|----------|----------|---------|-------------------|---------------|---------|
| Length | Gear type | Codfish | Flatfish | Mackerel | Herring | Reduction species | Other species | Total |
| 24-40m | Total | 95,303 | 7,354 | 12,138 | 10,960 | 24,768 | 696 | 151219 |
| | - Trawl consumption | 72,449 | 4,073 | 1 | 0 | 0 | 590 | 77113 |
| >40m | Total | 1,582 | 52 | 260,069 | 396,885 | 214,737 | 350 | 873675 |
| | - Trawl reduction | 994 | 39 | 219 | 4,329 | 64,150 | 332 | 70063 |
| | - Trawl mixed | 314 | 2 | 143,970 | 249,029 | 110,608 | 18 | 503941 |
| Total | | 96,885 | 7,406 | 272,207 | 407,845 | 239,505 | 1046 | 1024894 |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|---------------------|---------|----------|----------|---------|-------------------|---------------|---------|
| Length | Gear type | Codfish | Flatfish | Mackerel | Herring | Reduction species | Other species | Total |
| 24-40m | Total | 5,082 | 409 | 1,813 | 3,143 | 17,797 | 25 | 28,269 |
| | - Trawl consumption | 3,860 | 206 | 0 | 0 | 0 | 19 | 4,085 |
| >40m | Total | 216 | 6 | 32,121 | 102,074 | 137,536 | 16 | 271,969 |
| | - Trawl reduction | 117 | 4 | 31 | 1,273 | 43,202 | 11 | 44,638 |
| | - Trawl mixed | 55 | 0 | 18,020 | 64,767 | 64,582 | 5 | 147,429 |
| Total | | 5,298 | 415 | 33,934 | 105,217 | 155,333 | 41 | 300,238 |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Definitions: *Trawl consumption* are vessels landing above 80% consumption species, *Trawl reduction* are vessels landing above 80% reduction species, and *Trawl mixed* are the remaining trawl vessels within that length group.

Note: For confidentiality reasons, vessels below 24 meters and decommissioned vessels have been included in length group 24-40 meters.

In which part of the UK-EEZ, the fishery by the UK-EEZ 15%-vessels is conducted, is shown in Table II.11. Around 60% of the landings originate from the northern part of the North Sea (4A), where mackerel and herring are caught. The middle part of North Sea (4B) constitutes the second most important area, and here sand eel and herring are caught. In the waters on the western side of the United Kingdom (6A), mackerel and blue whiting are the main species caught.

Table II.11 Landings distributed on ICES subdivisions by the 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|---------|------|-----------|------|-----------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| 2A | 0 | 0% | 0 | 0% | 2,546 | 0% | 849 | 0% |
| 4A | 687,790 | 70% | 609,536 | 59% | 617,787 | 59% | 638,371 | 62% |
| 4B | 121,001 | 12% | 295,993 | 29% | 310,623 | 29% | 242,539 | 24% |
| 4C | 1,439 | 0% | 1,884 | 0% | 705 | 0% | 1,343 | 0% |
| 5B | 2,306 | 0% | 0 | 0% | 744 | 0% | 1,017 | 0% |
| 6A | 154,590 | 16% | 128,747 | 12% | 120,412 | 11% | 134,583 | 13% |
| 6B | 12,858 | 1% | 0 | 0% | 0 | 0% | 4,286 | 0% |
| 7B | 0 | 0% | 141 | 0% | 0 | 0% | 47 | 0% |
| 7D | 286 | 0% | 1,852 | 0% | 513 | 0% | 883 | 0% |
| 7E | 2,431 | 0% | 42 | 0% | 49 | 0% | 840 | 0% |
| 7H | 238 | 0% | 158 | 0% | 18 | 0% | 138 | 0% |
| Total | 982,939 | 100% | 1,038,353 | 100% | 1,053,396 | 100% | 1,024,896 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| 2A | 0 | 0% | 0 | 0% | 270 | 0% | 90 | 0% |
| 4A | 123,693 | 62% | 120,918 | 31% | 122,311 | 40% | 122,307 | 41% |
| 4B | 35,457 | 18% | 240,981 | 61% | 146,742 | 48% | 141,060 | 47% |
| 4C | 732 | 0% | 1,214 | 0% | 369 | 0% | 772 | 0% |
| 5B | 973 | 0% | 0 | 0% | 480 | 0% | 484 | 0% |
| 6A | 32,923 | 16% | 29,355 | 7% | 35,601 | 12% | 32,626 | 11% |
| 6B | 5,550 | 3% | 0 | 0% | 0 | 0% | 1,850 | 1% |
| 7B | 0 | 0% | 44 | 0% | 0 | 0% | 15 | 0% |
| 7D | 140 | 0% | 1,215 | 0% | 275 | 0% | 543 | 0% |
| 7E | 1,181 | 1% | 26 | 0% | 29 | 0% | 412 | 0% |
| 7H | 111 | 0% | 109 | 0% | 9 | 0% | 76 | 0% |
| Total | 200,759 | 100% | 393,864 | 100% | 306,086 | 100% | 300,236 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Note: See Annex 1 for location of ICES subdivisions.

In Andersen, Andersen, Hoff and Ståhl (2017), the analysis was also undertaken in order to describe the fishing activity, taking place in the areas around the exact borderline between the UK-EEZ and the NEW-EU-EEZ. The analysis showed that the activity in these areas was limited, and therefore no tables are included regarding the border in this analysis. On average, it accounted for approximately 8% of the total yearly landings value, with around 4% in the UK-EEZ and 4% in the NEW-EU-EEZ.

Turning attention to where the 15%-vessels land their fish, Table II.12 shows the countries, where the fish are landed. While Danish ports are the most important, it is observed that landings in ports in the United Kingdom only account for 3% of the landings value, despite that the vessels catches the fish in the UK-EEZ.

Table II.12 Landings from the UK-EEZ to countries by the 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|---------|------|-----------|------|-----------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Denmark | 574,983 | 58% | 624,458 | 60% | 697,351 | 66% | 632,264 | 62% |
| Norway | 110,074 | 11% | 174,278 | 17% | 128,735 | 12% | 137,696 | 13% |
| Germany | 144,315 | 15% | 118,203 | 11% | 111,532 | 11% | 124,683 | 12% |
| Ireland | 47,326 | 5% | 34,645 | 3% | 53,560 | 5% | 45,177 | 4% |
| Faroe Islands | 41,735 | 4% | 65,568 | 6% | 38,170 | 4% | 48,491 | 5% |
| United Kingdom | 60,607 | 6% | 17,854 | 2% | 18,972 | 2% | 32,478 | 3% |
| Sweden | 1,458 | 0% | 90 | 0% | 4,024 | 0% | 1,858 | 0% |
| The Netherlands | 2,028 | 0% | 3,047 | 0% | 1,053 | 0% | 2,043 | 0% |
| France | 34 | 0% | | | | | 11 | 0% |
| Unknown | 380 | 0% | 209 | 0% | | | 196 | 0% |
| Total | 982,939 | 100% | 1,038,353 | 100% | 1,053,396 | 100% | 1,024,896 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Denmark | 133,957 | 67% | 305,226 | 77% | 238,901 | 78% | 226,028 | 75% |
| Norway | 14,305 | 7% | 27,667 | 7% | 17,099 | 6% | 19,691 | 7% |
| Germany | 27,720 | 14% | 36,428 | 9% | 31,764 | 10% | 31,971 | 11% |
| Ireland | 7,516 | 4% | 5,044 | 1% | 6,600 | 2% | 6,387 | 2% |
| Faroe Islands | 6,609 | 3% | 8,790 | 2% | 4,121 | 1% | 6,507 | 2% |
| United Kingdom | 10,115 | 5% | 10,296 | 3% | 6,333 | 2% | 8,915 | 3% |
| Sweden | 287 | 0% | 31 | 0% | 1,201 | 0% | 507 | 0% |
| The Netherlands | 174 | 0% | 371 | 0% | 67 | 0% | 204 | 0% |
| France | 16 | 0% | | | | | 5 | 0% |
| Unknown | 60 | 0% | 11 | 0% | | | 24 | 0% |
| Total | 200,759 | 100% | 393,864 | 100% | 306,086 | 100% | 300,236 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

The specific Danish harbours, where the landings take place, are presented in Table II.13. Essentially only four harbours are used, Skagen, Thyborøn, Hirtshals and Hanstholm.

Table II.13 Landings from the UK-EEZ to Danish harbours by the 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Skagen | 244,657 | 43% | 238,959 | 38% | 280,928 | 40% | 254,848 | 40% |
| Thyborøn | 97,022 | 17% | 180,645 | 29% | 197,806 | 28% | 158,491 | 25% |
| Hirtshals | 161,131 | 28% | 76,229 | 12% | 136,866 | 20% | 124,742 | 20% |
| Hanstholm | 72,173 | 13% | 126,396 | 20% | 81,751 | 12% | 93,440 | 15% |
| Hvide Sande | 0 | 0% | 2,230 | 0% | 0 | 0% | 743 | 0% |
| Total | 574,983 | 100% | 624,458 | 100% | 697,351 | 100% | 632,264 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Skagen | 58,677 | 44% | 124,037 | 41% | 102,667 | 43% | 95,127 | 42% |
| Thyborøn | 38,719 | 29% | 113,037 | 37% | 89,567 | 37% | 80,441 | 36% |
| Hirtshals | 27,776 | 21% | 26,191 | 9% | 24,807 | 10% | 26,258 | 12% |
| Hanstholm | 8,784 | 7% | 41,842 | 14% | 21,859 | 9% | 24,162 | 11% |
| Hvide Sande | 0 | 0% | 119 | 0% | 0 | 0% | 40 | 0% |
| Total | 133,957 | 100% | 305,226 | 100% | 238,901 | 100% | 226,028 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Above, it was observed that the landings in harbours in the United Kingdom constituted around 3% of the landings from the UK-EEZ. In Table II.14, all landings in harbours in the United Kingdom by the 15%-vessels are included. Out of an average yearly landings value of 1.7 billion DKK, only 2% or 37 million DKK are landed in UK harbours.

Table II.14 Landings in UK harbours by the 15%-vessels and percentage of total landings by the 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | |
|---|-----------|------|-----------|------|-----------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Landings in UK harbours from non UK-EEZ | 10,831 | 1% | 1,266 | 0% | 2,235 | 0% | 4,777 | 0% |
| Landings in UK harbours from UK-EEZ | 60,607 | 4% | 17,854 | 1% | 18,972 | 1% | 32,478 | 2% |
| Total landings in UK harbours | 71,438 | 4% | 19,119 | 1% | 21,207 | 1% | 37,255 | 2% |
| Total landings by 15%-vessels | 1,637,703 | 100% | 1,699,383 | 100% | 1,763,942 | 100% | 1,700,343 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|---|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Landings in UK harbours from non UK-EEZ | 1,591 | 0% | 1,209 | 0% | 1,170 | 0% | 1,323 | 0% |
| Landings in UK harbours from UK-EEZ | 10,115 | 3% | 10,296 | 2% | 6,339 | 1% | 8,917 | 2% |
| Total landings in UK harbours | 11,707 | 3% | 11,505 | 2% | 7,509 | 1% | 10,240 | 2% |
| Total landings by 15%-vessels | 396,909 | 100% | 670,456 | 100% | 598,873 | 100% | 555,413 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Four harbours are used by Danish fishermen, when they land in the United Kingdom, cf. Table II.15. Lerwick and Peterhead are the most important ones.

Table II.15 Landings in specified UK harbours by the 15%-vessels and percentage of the landings in UK harbours

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|--------|------|--------|------|--------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Lerwick | 40,312 | 56% | 6,025 | 32% | 13,432 | 63% | 19,923 | 53% |
| Peterhead | 27,905 | 39% | 12,491 | 65% | 7,561 | 36% | 15,986 | 43% |
| Fraserburgh | 2,924 | 4% | 603 | 3% | 195 | 1% | 1,241 | 3% |
| Grimsby | 297 | 0% | 0 | 0% | 18 | 0% | 105 | 0% |
| Total | 71,438 | 100% | 19,119 | 100% | 21,207 | 100% | 37,255 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|--------|------|--------|------|-------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Lerwick | 6,206 | 53% | 2,801 | 24% | 3,163 | 42% | 4,057 | 40% |
| Peterhead | 4,865 | 42% | 8,239 | 72% | 4,246 | 57% | 5,783 | 56% |
| Fraserburgh | 610 | 5% | 464 | 4% | 99 | 1% | 391 | 4% |
| Grimsby | 25 | 0% | 0 | 0% | 1 | 0% | 9 | 0% |
| Total | 11,707 | 100% | 11,505 | 100% | 7,509 | 100% | 10,240 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Table II.16 shows the top five species landed in the United Kingdom by the 15%-vessels. Out of the total landings value and weight, these constitute only very small percentages.

Table II.16 Landings in UK harbours specified by species by the 15%-vessels, top 5 species in 2018 measured by value, and percentage of total landings by 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|--------|----|-------|----|-------|----|-------------------|----|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Herring | 31,795 | 2% | 5,767 | 0% | 7,657 | 0% | 15,073 | 1% |
| Sandeel | | | 7,811 | 0% | 5,693 | 0% | 4,501 | 0% |
| Mackerel | 37,481 | 2% | 2,730 | 0% | 3,526 | 0% | 14,579 | 1% |
| Norway pout | 588 | 0% | 2,583 | 0% | 1,739 | 0% | 1,636 | 0% |
| Sprat | | | 1 | 0% | 884 | 0% | 295 | 0% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|-------|----|-------|----|-------|----|-------------------|----|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Herring | 6,116 | 2% | 2,426 | 0% | 2,234 | 0% | 3,592 | 1% |
| Sandeel | | | 6,665 | 1% | 3,395 | 1% | 3,353 | 1% |
| Mackerel | 5,043 | 1% | 354 | 0% | 390 | 0% | 1,929 | 0% |
| Norway pout | 311 | 0% | 2,035 | 0% | 955 | 0% | 1,100 | 0% |
| Sprat | | | 1 | 0% | 450 | 0% | 150 | 0% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Turning attention to the vessels with a dependency on the UK-EEZ below 15% of their total landings value, Table II.17 shows the number of vessels and the distribution on fleets. 33, 19 and 25 vessels fished in the UK-EEZ.

Table II.17 *Number of Danish fishing vessels by fleets fishing in UK-EEZ with below 15%-dependency*

| Length | Gear type | 2016 | | 2017 | | 2018 | |
|------------------------|---------------------|------|------|------|------|------|------|
| | | | | | | | |
| 12-15m | Netters and liners | | | 1 | 5% | | |
| | Subtotal | | | 1 | 5% | | |
| 15-18m | Netters and liners | 1 | 3% | | | | |
| | Subtotal | 1 | 3% | | | | |
| 18-24m | Netters and liners | 3 | 9% | 3 | 16% | 2 | 8% |
| | Multi-purpose gears | 1 | 3% | 1 | 5% | 1 | 4% |
| | Danish seine | 2 | 6% | 1 | 5% | 2 | 8% |
| | Trawl | 3 | 9% | 3 | 16% | 5 | 20% |
| | Subtotal | 9 | 27% | 8 | 42% | 10 | 40% |
| | | | | | | | |
| 24-40m | Beamtrawl | 1 | 3% | 1 | 5% | 1 | 4% |
| | Multi-purpose gears | 3 | 9% | 1 | 5% | 1 | 4% |
| | Trawl consumption | 10 | 30% | 6 | 32% | 13 | 52% |
| | Trawl reduction | 1 | 3% | | | | |
| | Trawl mixed | 1 | 3% | | | | |
| | Subtotal | 16 | 48% | 8 | 42% | 15 | 60% |
| >40m | Purse seine | 1 | 3% | | | | |
| | Trawl reduction | 4 | 12% | | | | |
| | Trawl mixed | 1 | 3% | | | | |
| | Subtotal | 6 | 18% | | | | |
| Decommissioned vessels | | 1 | 3% | 2 | 11% | | |
| Total | | 33 | 100% | 19 | 100% | 25 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

As Table II.18 shows, these vessels only fished in the UK-EEZ to a minor extent. On average from 2016 to 2018, the UK-EEZ constituted 6% of their total landings value, while landing from the NEW-EU-EEZ and NOR-EEZ made up the major part of their fishery.

Table II.18 Landings by the below 15%-UK-EEZ vessels distributed on zones

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ | 35,235 | 7% | 14,465 | 5% | 17,994 | 5% | 22,565 | 6% |
| NEW-EU-EEZ | 279,337 | 56% | 150,476 | 55% | 156,186 | 41% | 195,333 | 51% |
| NOR-EEZ | 183,589 | 37% | 110,416 | 40% | 197,484 | 52% | 163,829 | 43% |
| Other zones* | 97 | 0% | | | 5,281 | 1% | 1,793 | 0% |
| Total | 498,258 | 100% | 275,357 | 100% | 376,944 | 100% | 383,520 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|---------|------|--------|------|--------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ | 7,848 | 7% | 3,054 | 8% | 2,176 | 7% | 4,359 | 7% |
| NEW-EU-EEZ | 84,520 | 79% | 31,112 | 78% | 20,771 | 63% | 45,468 | 76% |
| NOR-EEZ | 10,745 | 10% | 5,742 | 14% | 9,822 | 30% | 8,770 | 15% |
| Other zones* | 3,220 | 3% | | | 304 | 1% | 1,174 | 2% |
| Total | 106,332 | 100% | 39,908 | 100% | 33,073 | 100% | 59,771 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Note: * Other EEZ includes the exclusive economic zone around Greenland, the zone around Svalbard and Bear Island, the international zone, and the waters adjacent to the territory of Western Sahara.

Broadening the picture out on length groups and selected gear types, it is from Table II.19 observed that the average dependency on UK-EEZ is below 10% for the below 15%-vessels.

Table II.19 Landings dependency on UK-EEZ by fleets for below 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | | | |
|----------------------------|---------------------|--------|-----------|--------|-----------|--------|-----------|-------------------|-----------|-------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| | | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | % in UK-EEZ |
| 18-24m | Total | 4,195 | 107,599 | 6,360 | 121,124 | 3,837 | 11,7540 | 4,797 | 115,421 | 4% |
| 24-40m | Total | 19,461 | 247,905 | 8,105 | 139,768 | 14,157 | 24,1410 | 13,908 | 209,694 | 6% |
| | - Trawl consumption | 10,762 | 167,204 | 7,742 | 108,083 | 13,029 | 21,0435 | 10,511 | 161,907 | 6% |
| >40m | Total | 11,578 | 107,516 | | | | | 3,859 | 35,839 | 10% |
| Total | | 35,234 | 463,020 | 14,465 | 260,892 | 17,994 | 358,950 | 22,564 | 360,954 | 6% |

| Landings live weight (tonnes) | | | | | | | | | | |
|-------------------------------|---------------------|--------|-----------|--------|-----------|--------|-----------|-------------------|-----------|-------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| | | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | UK-EEZ | Other EEZ | % in UK-EEZ |
| 18-24m | Total | 1,377 | 26,782 | 2,609 | 29,490 | 1,402 | 18,999 | 1,796 | 25,090 | 7% |
| 24-40m | Total | 1,281 | 17,308 | 447 | 7,364 | 773 | 11,899 | 834 | 12,190 | 6% |
| | - Trawl consumption | 648 | 9,502 | 424 | 5,533 | 718 | 10,525 | 597 | 8,520 | 7% |
| >40m | Total | 5,189 | 54,395 | | | | | 1,730 | 18,132 | 9% |
| Total | | 7,847 | 98,485 | 3,056 | 36,854 | 2,175 | 30,898 | 4,359 | 55,412 | 7% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Definitions: *Trawl consumption* are vessels landing above 80% consumption species.

Note: For confidentiality reasons, vessels below 18 meters and decommissioned vessels have been included in length group 18-24 meters.

Based on the above detailed description of the below 15%-vessels, it is observed that the number of vessels, their volume of landings and their dependency on the UK-EEZ is low. Therefore, their activity will not be described in more detail.

2.2. Activity in the NOR-EEZ

The Danish fisheries dependency on Norwegian exclusive economic zones (NOR-EEZ) is described in detail in this section. In total, 79 vessels in 2016 and 2017, and 84 vessels in 2018 had fishing activity in the NOR-EEZ, cf. Table II.20. Out of a total Danish fishing fleet of around 2,200 vessels, it is thus only a minor percentage, who fish in NOR-EEZ. However, more than 87% of these vessels are above 18 meters in length.

Table II.20 Number of Danish fishing vessels fishing in NOR-EEZ

| Length | Gear type | 2016 | | 2017 | | 2018 | |
|------------------------|---------------------|------|------|------|------|------|------|
| | | | | | | | |
| 12-15m | Netters and liners | 1 | 1% | 1 | 1% | 0 | 0% |
| | Subtotal | 1 | 1% | 1 | 1% | | 0% |
| 15-18m | Beam trawl | 1 | 1% | | 0% | | 0% |
| | Netters and liners | 3 | 4% | 4 | 5% | 4 | 5% |
| | Multi-purpose gears | 1 | 1% | 1 | 1% | | 0% |
| | Danish seine | 1 | 1% | 1 | 1% | | 0% |
| | Trawl | 4 | 5% | 3 | 4% | 6 | 7% |
| | Subtotal | 10 | 13% | 9 | 11% | 10 | 12% |
| 18-24m | Beam trawl | 1 | 1% | | 0% | | 0% |
| | Netters and liners | 4 | 5% | 5 | 6% | 5 | 6% |
| | Multi-purpose gears | 3 | 4% | 3 | 4% | 2 | 2% |
| | Danish seine | 4 | 5% | 6 | 8% | 8 | 10% |
| | Trawl | 14 | 18% | 12 | 15% | 13 | 15% |
| | Subtotal | 26 | 33% | 26 | 33% | 28 | 33% |
| 24-40m | Beam trawl | 2 | 3% | 2 | 3% | 2 | 2% |
| | Multi-purpose gears | 4 | 5% | 3 | 4% | 2 | 2% |
| | Trawl mixed | 1 | 1% | 2 | 3% | 2 | 2% |
| | Trawl reduction | 1 | 1% | | | | |
| | Trawl consumption | 25 | 32% | 26 | 33% | 29 | 35% |
| | Subtotal | 33 | 42% | 33 | 42% | 35 | 42% |
| >40 | Purse seine | 3 | 4% | 3 | 4% | 3 | 4% |
| | Trawl mixed | 4 | 5% | 3 | 4% | 3 | 4% |
| | Subtotal | 7 | 9% | 6 | 8% | 6 | 7% |
| Licensed fishery | | | | 1 | 1% | 1 | 1% |
| Decommissioned vessels | | 2 | 3% | 3 | 4% | 4 | 5% |
| Total | | 79 | 100% | 79 | 100% | 84 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Note: Licensed fishery is vessels fishing for brown shrimp or mussels.

The 79-84 vessels accounted for 51% of the total landings value and 41% of the total landings live weight taken by Danish fishermen in the period 2016 to 2018, cf. Table II.21. Thus, despite being a minor part of the Danish fishing fleet measured in numbers, their activity is of much higher importance for Danish fisheries. The vessels have an approximately equal dependency on the NOR-EEZ and the remaining EEZ. Thus, for these vessels, the future access to the NOR-EEZ is central for their economic situation, but the exact level will vary from vessel to vessel.

Table II.21 Landings by Danish vessels, their dependency on NOR-EEZ and NOR-EEZ active vessels' landings on exclusive economic zones

| Landings value (1,000 DKK) | | | | | | | | |
|--------------------------------------|-----------|------|-----------|------|-----------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ by NOR-EEZ active vessels | 716,762 | 20% | 811,260 | 24% | 651,582 | 18% | 726,535 | 20% |
| NEW-EU-EEZ by NOR-EEZ active vessels | 571,259 | 16% | 519,594 | 15% | 602,015 | 17% | 564,290 | 16% |
| NOR-EEZ by NOR-EEZ active vessels | 536,065 | 15% | 489,437 | 14% | 474,274 | 13% | 499,925 | 14% |
| FRO-EEZ NOR-EEZ active vessels | 1,115 | 0% | | | 389 | 0% | 501 | 0% |
| Other EEZ* by NOR-EEZ active vessels | 8,635 | 0% | 21,279 | 1% | 1,3710 | 0% | 1,4541 | 0% |
| Total by NOR-EEZ vessels | 1,833,837 | 50% | 1,841,570 | 54% | 1,741,970 | 49% | 1,805,792 | 51% |
| Total by all Danish vessels | 3,675,217 | 100% | 3,419,293 | 100% | 3,541,027 | 100% | 3,545,179 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|--------------------------------------|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ by NOR-EEZ active vessels | 123,894 | 18% | 243,039 | 27% | 159,263 | 20% | 175,399 | 22% |
| NEW-EU-EEZ by NOR-EEZ active vessels | 87,500 | 13% | 102,724 | 11% | 120,483 | 15% | 103,569 | 13% |
| NOR-EEZ by NOR-EEZ active vessels | 46,028 | 7% | 37,359 | 4% | 34,822 | 4% | 39,403 | 5% |
| FRO-EEZ NOR-EEZ active vessels | 470 | 0% | | | 251 | 0% | 240 | 0% |
| Other EEZ* by NOR-EEZ active vessels | 654 | 0% | 8,987 | 1% | 2,364 | 0% | 4,002 | 1% |
| Total by NOR-EEZ vessels | 258,545 | 38% | 392,111 | 43% | 317,182 | 40% | 322,613 | 41% |
| Total by all Danish vessels | 674,322 | 100% | 907,517 | 100% | 792,404 | 100% | 791,414 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Note: * Other EEZ includes the exclusive economic zone around Greenland, the zone around Svalbard and Bear Island, the international zone, and the waters adjacent to the territory of Western Sahara.

Table II.22 gives a more detailed description of the vessels active in the NOR-EEZ and their economic dependency on NOR-EEZ compared to the other EEZ, where they fish. There is generally a high dependency on the NOR-EEZ, relative to other EEZs, in all length groups, where vessels between 24 and 40 meters have the highest dependency on NOR-EEZ.

Table II.22 Landings dependency on NOR-EEZ by fleets for NOR-EEZ active vessels

| Landings value (1,000 DKK) | | | | | | | | | | |
|----------------------------|---------------------|---------|-----------|---------|-----------|---------|-----------|-------------------|-----------|--------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| | | NOR-EEZ | Other EEZ | NOR-EEZ | Other EEZ | NOR-EEZ | Other EEZ | NOR-EEZ | Other EEZ | % in NOR-EEZ |
| 15-18m | Total | 40,927 | 70,827 | 19,575 | 108,328 | 27,703 | 117,551 | 29,402 | 98,902 | 23% |
| 18-24m | Total | 62,781 | 200,964 | 61,155 | 216,068 | 61,004 | 207,419 | 61,647 | 208,150 | 23% |
| | Trawl | 26,557 | 126,762 | 27,483 | 116,203 | 29,881 | 111,136 | 27,974 | 118,034 | 19% |
| 24-40m | Total | 306,299 | 296,395 | 326,451 | 302,242 | 333,717 | 265,957 | 322,156 | 288,198 | 53% |
| | - Trawl consumption | 241,710 | 190,573 | 259,198 | 222,346 | 264,891 | 210,430 | 255,266 | 207,783 | 55% |
| >40m | Total | 126,058 | 729,586 | 82,258 | 725,496 | 51,850 | 676,768 | 86,722 | 710,617 | 11% |
| Total | | 536,065 | 1,297,772 | 489,439 | 1,352,134 | 474,274 | 1,267,695 | 499,926 | 1,305,867 | 28% |

| Landings live weight (tonnes) | | | | | | | | | | |
|-------------------------------|---------------------|---------|-----------|---------|-----------|---------|-----------|-------------------|-----------|--------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| | | NOR-EEZ | Other EEZ | NOR-EEZ | Other EEZ | NOR-EEZ | Other EEZ | NOR-EEZ | Other EEZ | % in NOR-EEZ |
| 15-18m | Total | 4,055 | 9,857 | 1,256 | 24,462 | 2,709 | 28,065 | 2,673 | 20,795 | 11% |
| 18-24m | Total | 3,049 | 21,452 | 2,699 | 17,933 | 2,704 | 10,832 | 2,817 | 16,739 | 14% |
| | Trawl | 1,176 | 11,803 | 1,207 | 4,366 | 1,373 | 7,189 | 1,252 | 7,786 | 14% |
| 24-40m | Total | 16,949 | 24,129 | 16,771 | 26,111 | 16,374 | 16,095 | 16,698 | 22,112 | 43% |
| | - Trawl consumption | 12,856 | 9,474 | 13,023 | 10,898 | 13,095 | 9,468 | 12,991 | 9,947 | 57% |
| >40m | Total | 21,976 | 157,082 | 16,632 | 286,245 | 13,034 | 227,369 | 17,214 | 223,565 | 7% |
| Total | | 46,029 | 212,520 | 37,358 | 354,751 | 34,821 | 282,361 | 39,403 | 283,211 | 12% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Definitions: *Trawl consumption* are vessels landing above 80% consumption species.

Note: For confidentiality reasons, vessels below 15 meters, decommissioned vessels, and vessels conducting licensed fishery have been included in length group 15-18 meters.

The tables above focus on all vessels with activity in the NOR-EEZ, but a range of these only have a low economic dependency on the NOR-EEZ. Thus, the focus will be on the vessels having at least 15% of their total landings value from the NOR-EEZ.

With this threshold, the number of vessels reduces to 50 in 2016 and 51 in 2017 and 2018, cf. Table II.23. Looking at 2018, 6 out of 10 vessels between 15 and 18 meters are excluded, 13 out of 28 vessels between 18 and 24 meters are excluded, 6 out of 35 vessels between 24 and 40 meters, while all above 40 meters and the one licensed vessel are excluded.

Table II.23 *Number of Danish fishing vessels fishing in NOR-EEZ with a 15%-dependency*

| Length | Gear type | 2016 | | 2017 | | 2018 | |
|------------------------|---------------------|------|------|------|------|------|------|
| 15-18m | Beam trawl | 1 | 2% | | | | |
| | Netters and liners | 1 | 2% | 3 | 6% | 3 | 6% |
| | Multi-purpose gears | 1 | 2% | 1 | 2% | | |
| | Danish seine | 1 | 2% | 1 | 2% | | |
| | Trawl | 1 | 2% | | | 1 | 2% |
| | Subtotal | 5 | 10% | 5 | 10% | 4 | 8% |
| 18-24m | Beam trawl | 1 | 2% | | | | |
| | Netters and liners | 4 | 8% | 4 | 8% | 4 | 8% |
| | Multi-purpose gears | 1 | 2% | 1 | 2% | 1 | 2% |
| | Danish seine | 3 | 6% | 4 | 8% | 5 | 10% |
| | Trawl | 4 | 8% | 5 | 10% | 6 | 12% |
| | Subtotal | 13 | 26% | 14 | 27% | 16 | 31% |
| 24-40m | Beam trawl | 2 | 4% | 2 | 4% | 2 | 4% |
| | Multi-purpose gears | 3 | 6% | 2 | 4% | 2 | 4% |
| | Trawl mixed | | | 1 | 2% | 1 | 2% |
| | Trawl consumption | 22 | 44% | 23 | 45% | 24 | 47% |
| | Subtotal | 27 | 54% | 28 | 55% | 29 | 57% |
| >40 | Purse seine | 2 | 4% | 1 | 2% | | |
| | Trawl mixed | 1 | 2% | | | | |
| | Subtotal | 3 | 6% | 1 | 2% | | |
| Licensed fishery | | | | 1 | 2% | | |
| Decommissioned vessels | | 2 | 4% | 2 | 4% | 2 | 4% |
| Total | | 50 | 100% | 51 | 100% | 51 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Table II.24 shows the implications on landings by introducing the 15%-threshold, and thereby reducing the number of vessels included in the following description. On average, the threshold implies that 12% of the landings value, i.e. 58 million DKK from the NOR-EEZ are excluded from the description and 25% of the landings weight. In section 2.1, it was observed that the 15%-vessels cover 98% of the total landings from the UK-EEZ, while the 15%-vessels in the NOR-EEZ cover a lower share, equal to 88%.

Table II.24 Landings from the NOR-EEZ distributed on NOR-EEZ 15%-vessels and non-15%-vessels

| Landings value (1,000 DKK) | | | | | | | | |
|-------------------------------|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Total NOR-EEZ 15%-vessels | 501,497 | 94% | 422,886 | 86% | 402,225 | 85% | 442,203 | 88% |
| Total NOR-EEZ non-15%-vessels | 34,569 | 6% | 66,551 | 14% | 72,049 | 15% | 57,723 | 12% |
| Total | 536,065 | 100% | 489,437 | 100% | 474,274 | 100% | 499,925 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|--------|------|--------|------|--------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Total NOR-EEZ 15%-vessels | 42,788 | 93% | 25,998 | 70% | 19,581 | 56% | 29,456 | 75% |
| Total NOR-EEZ non-15%-vessels | 3,239 | 7% | 11,362 | 30% | 15,241 | 44% | 9,947 | 25% |
| Total | 46,028 | 100% | 37,359 | 100% | 34,822 | 100% | 39,403 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

The NOR-EEZ 15%-vessels totally landed for around 1 billion DKK annually, comprising thus between one fourth and one third of the total Danish landings value of 3.5 billion DKK, as shown in Table II.25. 45% of their landings value are from their fishery in the NOR-EEZ, 29% from UK-EEZ, while 26% are from NEW-EU-EEZ. Thus, if the agreements with United Kingdom and Norway are cancelled, these vessels will accordingly get a reduction of 74% in their landings value, everything else being equal.

Table II.25 Landings by the NOR-EEZ 15%-vessels distributed on zones

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|-----------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ | 484,710 | 39% | 245,663 | 26% | 103,942 | 14% | 278,105 | 29% |
| NEW-EU-EEZ | 258,964 | 21% | 263,469 | 28% | 223,237 | 30% | 248,557 | 26% |
| NOR-EEZ | 501,497 | 40% | 422,886 | 45% | 402,225 | 55% | 442,203 | 45% |
| FRO-EEZ | 1,115 | 0% | | | | | 372 | 0% |
| Other zones* | 8,635 | 1% | | | 5,281 | 1% | 4,639 | 0% |
| Total | 1,254,921 | 100% | 932,019 | 100% | 734,685 | 100% | 973,875 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|---------|------|--------|------|--------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ | 76,007 | 51% | 45,188 | 51% | 5,564 | 14% | 42,253 | 46% |
| NEW-EU-EEZ | 30,321 | 20% | 17,457 | 20% | 13,569 | 35% | 20,449 | 22% |
| NOR-EEZ | 42,788 | 28% | 25,998 | 29% | 19,581 | 50% | 29,456 | 32% |
| FRO-EEZ | 470 | 0% | | | | | 157 | 0% |
| Other zones* | 654 | 0% | | | 304 | 1% | 319 | 0% |
| Total | 150,240 | 100% | 88,642 | 100% | 39,018 | 100% | 92,634 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Note: * Other EEZ includes the exclusive economic zone around Greenland, the zone around Svalbard and Bear Island, the international zone, and the waters adjacent to the territory of Western Sahara.

The above 15%-vessels on average take 45% of their landings value and 32% of their landings weight in NOR-EEZ, cf. Table II.26. The lowest dependency of 21% of landings value taken in NOR-EEZ, is seen for vessels greater than 40 meters, while the highest of 59% is observed for trawlers for consumption 24-40 meters.

Table II.26 Landings dependency on NOR-EEZ by fleets for 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | | | |
|----------------------------|---------------------|---------|-----------|---------|-----------|---------|-----------|-------------------|-----------|--------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| | | NOR-EEZ | Other EEZ | NOR-EEZ | Other EEZ | NOR-EEZ | Other EEZ | NOR-EEZ | Other EEZ | % in NOR-EEZ |
| 15-18m | Total | 37,687 | 34,612 | 18,326 | 41,233 | 20,345 | 35,298 | 25,453 | 37,048 | 41% |
| 18-24m | Total | 50,834 | 67,346 | 50,442 | 95,823 | 51,008 | 86,714 | 50,761 | 83,294 | 38% |
| 24-40m | Total | 300,583 | 223,433 | 325,322 | 267,047 | 330,873 | 210,447 | 318,926 | 233,642 | 58% |
| | - Trawl consumption | 239,710 | 161,270 | 258,234 | 207,949 | 262,166 | 166,108 | 253,370 | 178,442 | 59% |
| >40m | Total | 112,393 | 428,033 | 28,796 | 105,030 | | | 47,063 | 177,688 | 21% |
| Total | | 501,497 | 753,424 | 422,886 | 509,133 | 402,226 | 332,459 | 442,203 | 531,672 | 45% |

| Landings live weight (tonnes) | | | | | | | | | | |
|-------------------------------|---------------------|---------|-----------|---------|-----------|---------|-----------|-------------------|-----------|--------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| | | NOR-EEZ | Other EEZ | NOR-EEZ | Other EEZ | NOR-EEZ | Other EEZ | NOR-EEZ | Other EEZ | % in NOR-EEZ |
| 15-18m | Total | 3,862 | 6,984 | 1,125 | 2,031 | 1,038 | 3,402 | 2,008 | 4,139 | 33% |
| 18-24m | Total | 2,524 | 2,827 | 2,215 | 3,666 | 2,255 | 3,321 | 2,331 | 3,271 | 42% |
| 24-40m | Total | 16,645 | 11,413 | 16,728 | 18,771 | 16,288 | 12,715 | 16,554 | 14,300 | 54% |
| | - Trawl consumption | 12,788 | 8,046 | 12,987 | 9,644 | 13,012 | 7,798 | 12,929 | 8,496 | 60% |
| >40m | Total | 19,755 | 86,229 | 5,928 | 38,177 | | | 8,561 | 41,469 | 17% |
| Total | | 42,786 | 107,453 | 25,996 | 62,645 | 19,581 | 19,438 | 29,454 | 63,178 | 32% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Definitions: *Trawl consumption* are vessels landing above 80% consumption species.

Note: For confidentiality reasons decommissioned vessels, and vessels conducting licensed fishery have been included in length group 15-18 meters.

Table II.27 shows the composition of landings by species from the NOR-EEZ by the 15%-vessels. Plaice, cod and herring are the most important species in each of the three years, based on value. Together these three species account for around 48% of the total landings value from the NOR-EEZ.

Table II.27 Landings of top 10 species in 2018 from the NOR-EEZ by the 15%-vessels, measured by value, and share of total landings from the NOR-EEZ by the 15%-vessels in Table II.26

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|---------|-----|---------|-----|---------|-----|-------------------|-----|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Plaice | 86,741 | 17% | 78,905 | 19% | 86,006 | 21% | 83,884 | 19% |
| Cod | 75,293 | 15% | 81,234 | 19% | 86,872 | 22% | 81,133 | 18% |
| Herring | 116,966 | 23% | 29,575 | 7% | 2 | 0% | 48,848 | 11% |
| Monkfish | 35,254 | 7% | 37,612 | 9% | 44,302 | 11% | 39,056 | 9% |
| Hake | 26,024 | 5% | 34,863 | 8% | 48,046 | 12% | 36,311 | 8% |
| Northern prawn | 42,817 | 9% | 38,116 | 9% | 18,360 | 5% | 33,098 | 7% |
| Saithe | 24,185 | 5% | 27,579 | 7% | 30,480 | 8% | 27,415 | 6% |
| Lemon sole | 22,974 | 5% | 25,460 | 6% | 20,131 | 5% | 22,855 | 5% |
| Haddock | 10,624 | 2% | 10,658 | 3% | 10,712 | 3% | 10,665 | 2% |
| Turbot | 9,119 | 2% | 11,215 | 3% | 8,063 | 2% | 9,466 | 2% |
| Total | 449,997 | 90% | 375,216 | 89% | 352,975 | 88% | 392,729 | 89% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|--------|-----|--------|-----|--------|-----|-------------------|-----|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Plaice | 7,506 | 18% | 5,935 | 23% | 4,452 | 23% | 5,964 | 20% |
| Cod | 3,246 | 8% | 3,269 | 13% | 3,502 | 18% | 3,339 | 11% |
| Herring | 21,408 | 50% | 6,166 | 24% | 0 | 0% | 9,191 | 31% |
| Monkfish | 1,156 | 3% | 1,226 | 5% | 1,334 | 7% | 1,239 | 4% |
| Hake | 1,643 | 4% | 1,870 | 7% | 2,659 | 14% | 2,057 | 7% |
| Northern prawn | 963 | 2% | 914 | 4% | 404 | 2% | 760 | 3% |
| Saithe | 2,088 | 5% | 2,722 | 10% | 3,488 | 18% | 2,766 | 9% |
| Lemon sole | 681 | 2% | 738 | 3% | 574 | 3% | 664 | 2% |
| Haddock | 867 | 2% | 850 | 3% | 838 | 4% | 852 | 3% |
| Turbot | 119 | 0% | 152 | 1% | 93 | 0% | 121 | 0% |
| Total | 39,678 | 93% | 23,841 | 92% | 17,345 | 89% | 26,955 | 92% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Table II.28 shows the composition of landings at the fleet level. Codfish and flatfish are mainly landed by vessels between 24 and 40 meters, especially by the trawlers for human consumption. Herring is mainly landed by vessels above 40 meters. The smaller vessels primarily land codfish and flatfish.

Table II.28 Landings composition in NOR-EEZ by fleets for 15%-vessels, average 2016-2018

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|---------------------|---------|----------|----------|---------|-------------------|---------------|---------|
| Length | Gear type | Codfish | Flatfish | Mackerel | Herring | Reduction species | Other species | Total |
| 15-18m | Total | 7,902 | 7,767 | 27 | 5,551 | | 4,203 | 25,452 |
| 18-24m | Total | 17,403 | 24,004 | 5 | | | 9,350 | 50,762 |
| 24-40m | Total | 189,196 | 98,885 | 21 | 1 | 2 | 30,820 | 318,926 |
| | - Trawl consumption | 151,294 | 72,988 | 19 | 1 | 2 | 29,066 | 253,370 |
| >40m | Total | 0 | | 3,766 | 43,296 | 0 | | 47,063 |
| Total | | 214,501 | 130,656 | 3,819 | 48,848 | 2 | 44,373 | 442,203 |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|---------------------|---------|----------|----------|---------|-------------------|---------------|--------|
| Length | Gear type | Codfish | Flatfish | Mackerel | Herring | Reduction species | Other species | Total |
| 15-18m | Total | 405 | 434 | 4 | 1,075 | | 92 | 2,010 |
| 18-24m | Total | 745 | 1,356 | 0 | | | 231 | 2,331 |
| 24-40m | Total | 10,304 | 5,552 | 2 | 0 | 1 | 697 | 16,553 |
| | - Trawl consumption | 8,333 | 3,946 | 2 | 0 | 1 | 649 | 12,929 |
| >40m | Total | 1 | 0 | 435 | 8,116 | 9 | 0 | 8,561 |
| Total | | 11,455 | 7,342 | 441 | 9,191 | 10 | 1,020 | 29,455 |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Definitions: *Trawl consumption* are vessels landing above 80% consumption species.

Note: For confidentiality reasons decommissioned vessels, and vessels conducting licensed fishery have been included in length group 15-18 meters.

In which part of the NOR-EEZ the fishery by the NOR-EEZ 15%-vessels is conducted is shown in Table II.29. Around 59% of the landings originate from the northern part of the North Sea (4A). The middle part of the North Sea (4B) constitutes the second most important area, while the Danish vessels only to a small degree go further north.

Table II.29 Landings distributed on ICES subdivisions by the 15%-vessels in NOR-EEZ

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| 2A | 41,915 | 8% | 25,491 | 6% | 0 | 0% | 22,469 | 5% |
| 3AN | 49,255 | 10% | 48,148 | 11% | 33,802 | 8% | 43,735 | 10% |
| 4A | 289,690 | 58% | 228,082 | 54% | 267,969 | 67% | 261,914 | 59% |
| 4B | 120,638 | 24% | 121,165 | 29% | 100,453 | 25% | 114,085 | 26% |
| Total | 501,497 | 100% | 422,886 | 100% | 402,225 | 100% | 442,203 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|--------|------|--------|------|--------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| 2A | 7,060 | 16% | 5,091 | 20% | 0 | 0% | 4,050 | 14% |
| 3AN | 1,345 | 3% | 1,517 | 6% | 1,181 | 6% | 1,348 | 5% |
| 4A | 26,560 | 62% | 12,734 | 49% | 13,881 | 71% | 17,725 | 60% |
| 4B | 7,823 | 18% | 6,655 | 26% | 4,518 | 23% | 6,332 | 21% |
| Total | 42,788 | 100% | 25,998 | 100% | 19,581 | 100% | 29,456 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Note: See Annex 1 for location of ICES subdivisions.

Turning attention to where the 15%-vessels land their fish, Table II.30 shows the countries, where the landings happen. While Danish ports are the most important, it is observed that landings in ports in Norway only account for 4% of the landings value, despite that the vessels catch the fish in the NOR-EEZ.

Table II.30 Landings from the NOR-EEZ to countries by the 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Denmark | 449,861 | 90% | 382,783 | 91% | 394,548 | 98% | 409,064 | 93% |
| Norway | 36,051 | 7% | 21,841 | 5% | 1,465 | 0% | 19,786 | 4% |
| United Kingdom | 130 | 0% | | | 174 | 0% | 101 | 0% |
| Sweden | 15,012 | 3% | 14,956 | 4% | 6,038 | 2% | 12,002 | 3% |
| Germany | 443 | 0% | 3,305 | 1% | | | 1,249 | 0% |
| Total | 501,497 | 100% | 422,886 | 100% | 402,225 | 100% | 442,203 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|--------|------|--------|------|--------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Denmark | 36,752 | 86% | 20,694 | 80% | 19,352 | 99% | 25,599 | 87% |
| Norway | 5,583 | 13% | 4,057 | 16% | 56 | 0% | 3,232 | 11% |
| United Kingdom | 2 | 0% | | | 7 | 0% | 3 | 0% |
| Sweden | 371 | 1% | 409 | 2% | 166 | 1% | 315 | 1% |
| Germany | 80 | 0% | 837 | 3% | | | 306 | 1% |
| Total | 42,788 | 100% | 25,998 | 100% | 19,581 | 100% | 29,456 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

The specific Danish harbours, where the landings are done, are presented in Table II.31. The majority of landings are done in Hanstholm and Thyborøn, while smaller parts of the landings from NOR-EEZ are done in other harbours in Northern Jutland.

Table II.31 Landings from the NOR-EEZ to Danish harbours by the 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | |
|-----------------------------|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Hanstholm | 136,323 | 30% | 140,829 | 37% | 149,149 | 38% | 142,100 | 35% |
| Havneby | 119 | 0% | | | | | 40 | 0% |
| Hirtshals | 54,803 | 12% | 14,611 | 4% | 9,001 | 2% | 26,138 | 6% |
| Hvide Sande | 37,216 | 8% | 45,066 | 12% | 48,866 | 12% | 43,716 | 11% |
| Skagen | 58,420 | 13% | 12,976 | 3% | 4,503 | 1% | 25,300 | 6% |
| Strandby (Northern Jutland) | 172 | 0% | 404 | 0% | | | 192 | 0% |
| Thorsminde | 6,057 | 1% | 8,917 | 2% | 9,344 | 2% | 8,106 | 2% |
| Thyborøn | 156,751 | 35% | 159,961 | 42% | 173,615 | 44% | 163,443 | 40% |
| Østerby | | | 20 | 0% | 70 | 0% | 30 | 0% |
| Total | 449,861 | 100% | 382,783 | 100% | 394,548 | 100% | 409,064 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|--------|------|--------|------|--------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Hanstholm | 6,660 | 18% | 7,289 | 35% | 7,757 | 40% | 7,236 | 28% |
| Havneby | 8 | 0% | | | | | 3 | 0% |
| Hirtshals | 7,265 | 20% | 688 | 3% | 316 | 2% | 2,757 | 11% |
| Hvide Sande | 2,389 | 7% | 2,461 | 12% | 2,184 | 11% | 2,345 | 9% |
| Skagen | 10,436 | 28% | 1,323 | 6% | 167 | 1% | 3,975 | 16% |
| Strandby (Northern Jutland) | 5 | 0% | 15 | 0% | | | 7 | 0% |
| Thorsminde | 224 | 1% | 285 | 1% | 371 | 2% | 293 | 1% |
| Thyborøn | 9,765 | 27% | 8,631 | 42% | 8,554 | 44% | 8,983 | 35% |
| Østerby | | | 1 | 0% | 3 | 0% | 1 | 0% |
| Total | 36,752 | 100% | 20,694 | 100% | 19,352 | 100% | 25,599 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Above, it was observed that the landings in harbours in Norway were around 4% of the landings value from the NOR-EEZ. In Table II.32, all landings in harbours in Norway by the 15%-vessels are included. Out of an average yearly landings value of 1 billion DKK, 7% or 65 million DKK are landed in Norwegian harbours.

Table II.32 Landings in Norwegian harbours by the 15%-vessels and percentage of total landings by the 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | |
|---|-------------|------|-------------|------|-------------|------|--------------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Landings in NOR harbours from non NOR-EEZ | 106,974 | 9% | 25,515 | 3% | 5,832 | 1% | 46,107 | 5% |
| Landings in NOR harbours from NOR-EEZ | 36,051 | 3% | 21,841 | 2% | 1,465 | 0% | 19,786 | 2% |
| Total landings in NOR harbours | 143,025 | 11% | 47,356 | 5% | 7,297 | 1% | 65,893 | 7% |
| Total landings by 15%-vessels | 1,254,921 | 100% | 932,019 | 100% | 734,685 | 100% | 973,875 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|---|-------------|------|-------------|------|-------------|------|--------------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Landings in NOR harbours from non NOR-EEZ | 5,583 | 4% | 4,057 | 5% | 56 | 0% | 3,232 | 3% |
| Landings in NOR harbours from NOR-EEZ | 13,404 | 9% | 6,512 | 7% | 325 | 1% | 6,747 | 7% |
| Total landings in NOR harbours | 18,987 | 13% | 10,569 | 12% | 381 | 1% | 9,979 | 11% |
| Total landings by 15%-vessels | 150,240 | 100% | 88,642 | 100% | 39,018 | 100% | 92,634 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Thirteen harbours are used by Danish fishermen, when they land in Norway, cf. Table II.33. Ålesund, Ellingsøyfjorden and Hareid are the most important. The landings in Norwegian harbours are considerably smaller in 2018 compared to 2017 and 2016.

Table II.33 Landings in specified Norwegian harbours by the 15%-vessels and percentage of the landings in Norwegian harbours

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|---------|------|--------|------|-------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Egersund | 309 | 0% | 4,201 | 9% | 1,221 | 17% | 1,910 | 3% |
| Ellingsøyfjorden | 37,581 | 26% | | | | | 12,527 | 19% |
| Florø | 1,357 | 1% | | | | | 452 | 1% |
| Frøya | 1,647 | 1% | | | | | 549 | 1% |
| Hareid | 12,302 | 9% | 20,810 | 44% | | | 11,037 | 17% |
| Honningsvåg | 8,264 | 6% | | | 5,281 | 72% | 4,515 | 7% |
| Karmøy | | | 2,943 | 6% | | | 981 | 1% |
| Kristiansand | 5 | 0% | 234 | 0% | 282 | 4% | 174 | 0% |
| Måløy | 14 | 0% | 10,611 | 22% | | | 3,541 | 5% |
| Selje | 10,920 | 8% | 5,421 | 11% | | | 5,447 | 8% |
| Skudesneshavn | 4,145 | 3% | 629 | 1% | 312 | 4% | 1,695 | 3% |
| Stavanger | | | 2,508 | 5% | 201 | 3% | 903 | 1% |
| Ålesund | 66,480 | 46% | | | | | 22,160 | 34% |
| Total | 143,025 | 100% | 47,356 | 100% | 7,297 | 100% | 65,893 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|--------|------|--------|------|------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Egersund | 16 | 0% | 439 | 4% | 46 | 12% | 167 | 2% |
| Ellingsøyfjorden | 4,275 | 23% | | | | | 1,425 | 14% |
| Florø | 160 | 1% | | | | | 53 | 1% |
| Frøya | 290 | 2% | | | | | 97 | 1% |
| Hareid | 1,835 | 10% | 3,560 | 34% | | | 1,798 | 18% |
| Honningsvåg | 497 | 3% | | | 304 | 80% | 267 | 3% |
| Karmøy | | | 380 | 4% | | | 127 | 1% |
| Kristiansand | 0 | 0% | 6 | 0% | 7 | 2% | 4 | 0% |
| Måløy | 1 | 0% | 3,552 | 34% | | | 1,184 | 12% |
| Selje | 1,465 | 8% | 700 | 7% | | | 722 | 7% |
| Skudesneshavn | 730 | 4% | 32 | 0% | 13 | 4% | 259 | 3% |
| Stavanger | | | 1,900 | 18% | 11 | 3% | 637 | 6% |
| Ålesund | 9,717 | 51% | | | | | 3,239 | 32% |
| Total | 18,987 | 100% | 10,569 | 100% | 381 | 100% | 9,979 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Table II.34 shows the top five species (with respect to value averaged over 2016-2018) landed in Norway by the 15%-vessels. Out of the total landings value and weight, these constitute only very small percentages.

Table II.34 Landings in Norwegian harbours specified by species by the 15%-vessels, top five species averaged over 2016-2018 measured by value, and percentage of total landings by 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|---------|----|--------|----|-------|----|-------------------|----|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Mackerel | 108,522 | 9% | 20,420 | 2% | | | 42,981 | 4% |
| Herring | 25,038 | 2% | 20,032 | 2% | | | 15,023 | 2% |
| Cod | 7,750 | 1% | 322 | 0% | 5,358 | 1% | 4,477 | 0% |
| Sandeel | | | 5,083 | 1% | | | 1,694 | 0% |
| Northern prawn | 23 | 0% | 1,071 | 0% | 631 | 0% | 575 | 0% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|--------|----|-------|----|------|----|-------------------|----|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Mackerel | 14,005 | 9% | 2,661 | 3% | | | 5,555 | 6% |
| Herring | 4,332 | 3% | 4,000 | 5% | | | 2,777 | 3% |
| Cod | 460 | 0% | 13 | 0% | 304 | 1% | 259 | 0% |
| Sandeel | | | 3,850 | 4% | | | 1,283 | 1% |
| Northern prawn | | | 19 | 0% | 13 | 0% | 11 | 0% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Turning attention to the vessels with a dependency of the NOR-EEZ below 15% of their total landings value, Table II.35 shows the number of vessels and the distribution on fleets. Twenty-nine, 28 and 33 vessels fished in the NOR-EEZ.

Table II.35 *Number of Danish fishing vessels by fleets fishing in NOR-EEZ with below 15%-dependency*

| Length | Gear type | 2016 | | 2017 | | 2018 | |
|------------------------|---------------------|------|------|------|------|------|------|
| | | | | | | | |
| 12-15m | Netters and liners | 1 | 3% | 1 | 4% | | |
| | Subtotal | 1 | 3% | 1 | 4% | | |
| 15-18m | Netters and liners | 2 | 7% | 1 | 4% | 1 | 3% |
| | Trawl | 3 | 10% | 3 | 11% | 5 | 15% |
| | Subtotal | 5 | 17% | 4 | 14% | 6 | 18% |
| 18-24m | Netters and liners | | | 1 | 4% | 1 | 3% |
| | Multi-purpose gears | 2 | 7% | 2 | 7% | 1 | 3% |
| | Danish seine | 1 | 3% | 2 | 7% | 3 | 9% |
| | Trawl | 10 | 34% | 7 | 25% | 7 | 21% |
| | Subtotal | 13 | 45% | 12 | 43% | 12 | 36% |
| 24-40m | Multi-purpose gears | 1 | 3% | 1 | 4% | | |
| | Trawl mixed | 1 | 3% | 1 | 4% | 1 | 3% |
| | Trawl reduction | 1 | 3% | | | | |
| | Trawl consumption | 3 | 10% | 3 | 11% | 5 | 15% |
| | Subtotal | 6 | 21% | 5 | 18% | 6 | 18% |
| >40 | Purse seine | 1 | 3% | 2 | 7% | 3 | 9% |
| | Trawl mixed | 3 | 10% | 3 | 11% | 3 | 9% |
| | Subtotal | 4 | 14% | 5 | 18% | 6 | 18% |
| Licensed vessels | | | | | | 1 | 3% |
| Decommissioned vessels | | | | 1 | 4% | 2 | 6% |
| Total | | 29 | 100% | 28 | 100% | 33 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

As Table II.36 shows, these vessels only fished in the NOR-EEZ to a minor extent. On average 2016-2018, the NOR-EEZ constituted 7% of their total landings value, while landings from the NEW-EU-EEZ and UK-EEZ made up the major part of their fishery.

Table II.36 Landings by the below 15% NOR-EEZ vessels distributed on zones

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|---------|------|---------|------|-----------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ | 232,052 | 40% | 565,596 | 62% | 547,640 | 54% | 448,430 | 54% |
| NEW-EU-EEZ | 312,295 | 54% | 256,125 | 28% | 378,778 | 38% | 315,733 | 38% |
| NOR-EEZ | 34,569 | 6% | 66,551 | 7% | 72,049 | 7% | 57,723 | 7% |
| Other zones* | | | 21,279 | 2% | 8,817 | 1% | 10,032 | 1% |
| Total | 578,916 | 100% | 909,551 | 100% | 1,007,285 | 100% | 831,917 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ | 47,887 | 44% | 197,852 | 65% | 153,699 | 55% | 133,146 | 58% |
| NEW-EU-EEZ | 57,179 | 53% | 85,267 | 28% | 106,913 | 38% | 83,120 | 36% |
| NOR-EEZ | 3,239 | 3% | 11,362 | 4% | 15,241 | 5% | 9,947 | 4% |
| Other zones* | | | 8,987 | 3% | 2,311 | 1% | 3,766 | 2% |
| Total | 108,305 | 100% | 303,468 | 100% | 278,164 | 100% | 229,979 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Note: * Other EEZ includes the exclusive economic zone around Greenland, the zone around Svalbard and Bear Island, the international zone, and the waters adjacent to the territory of Western Sahara.

Broadening the picture on fleets, it is observed from Table II.37 that the average importance with specific length groups and gear types are all below 10%, i.e. less than 10 % of the landings value is from activities in NOR-EEZ.

Table II.37 Landings dependency on NOR-EEZ by fleets for below 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | | | |
|----------------------------|-----------|---------|-----------|-----------|-----------|-----------|-----------|-------------------|-----------|----------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| | | NOR-EEZ | Other EEZ | NOR - EEZ | Other EEZ | NOR - EEZ | Other EEZ | NOR - EEZ | Other EEZ | % in NOR - EEZ |
| 15-18m | Total | 3,241 | 36,215 | 1,249 | 67,095 | 7,359 | 82,253 | 3,950 | 61,854 | 6% |
| 18-24m | Total | 11,946 | 133,618 | 10,711 | 120,245 | 9,995 | 120,704 | 10,884 | 124,856 | 8% |
| | - Trawl | 10,272 | 104,547 | 8,050 | 79,303 | 8,173 | 71,621 | 8,832 | 85,157 | 9% |
| 24-40m | Total | 5,716 | 72,961 | 1,127 | 35,194 | 2,844 | 55,510 | 3,229 | 54,555 | 6% |
| >40m | Total | 13,665 | 301,553 | 53,462 | 620,466 | 51,850 | 676,768 | 39,659 | 532,929 | 7% |
| Total | | 34,568 | 544,347 | 66,549 | 843,000 | 72,048 | 935,235 | 57,722 | 774,194 | 7% |

| Landings live weight (tonnes) | | | | | | | | | | |
|-------------------------------|-----------|---------|-----------|-----------|-----------|-----------|-----------|-------------------|-----------|----------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| | | NOR-EEZ | Other EEZ | NOR - EEZ | Other EEZ | NOR - EEZ | Other EEZ | NOR - EEZ | Other EEZ | % in NOR - EEZ |
| 15-18m | Total | 192 | 2,872 | 131 | 22,431 | 1,671 | 24,662 | 665 | 16,655 | 4% |
| 18-24m | Total | 524 | 18,626 | 484 | 14,267 | 450 | 7,512 | 486 | 13,468 | 3% |
| | - Trawl | 444 | 10,778 | 369 | 2,943 | 381 | 5,620 | 398 | 6,447 | 6% |
| 24-40m | Total | 303 | 12,715 | 44 | 7,340 | 86 | 3,381 | 144 | 7,812 | 2% |
| >40m | Total | 2,221 | 70,853 | 10,704 | 248,069 | 13,034 | 227,369 | 8,653 | 182,097 | 5% |
| Total | | 3,239 | 105,066 | 11,362 | 292,106 | 15,241 | 262,923 | 9,947 | 220,032 | 4% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Note: For confidentiality reasons vessels 12-15meters, decommissioned vessels and vessels conducting licensed fishery have been included in length group 15-18 meters.

Based on the above detailed description of the below 15%-vessels, it is observed that their volume of landings and their dependency on the NOR-EEZ is low. Therefore, their activity will not be described in more detail.

2.3. Activity in the FRO-EEZ

Danish fishermen have not had fishing activity in the exclusive economic zone around the Faroe Islands every year. Before 2000, landings from the FRO-EEZ consisted primarily of mackerel; from 2000 to 2015 of blue whiting and in 2016 herring was primary. However, in several years, no activity was registered in the FRO-EEZ. This was for instance the case in the period from 2009 to 2013 and in 2017. The development is shown in Table II.38.

Table II.38 Landings value from the FRO-EEZ (1,000 DKK)

| | 1998 | 1999 | 2000 | 2001 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2014 | 2015 | 2016 | 2018 |
|--------------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|------|-------|--------|------|
| Blue whiting | 477 | 1,233 | 5,875 | 9,279 | 4,777 | 3,751 | 4,873 | 6,392 | 9,736 | 5,318 | 670 | 1,576 | 1,115 | 389 |
| Mackerel | 25,788 | 11,581 | 13,364 | 2,556 | | | | | | | | | | |
| Saithe | | | | | | | | 39 | | | | | | |
| Herring | 1,129 | 1,418 | 1,617 | 700 | | | 1,803 | 5 | | | | 3,541 | 12,991 | |
| Total | 27,395 | 14,232 | 20,856 | 12,535 | 4,777 | 3,751 | 6,676 | 6,436 | 9,736 | 5,318 | 670 | 5,117 | 14,106 | 389 |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

The number of vessels active in the FRO-EEZ was in total over the years below five vessels and none of these were more than 15% dependent on their fishery in the FRO-EEZ.

Thus, the direct dependency of the FRO-EEZ is considered to of limited importance for Danish fishermen. This is also the case for the fishermen being active in FRO-EEZ, as seen in Table II.39. They primarily fish in the UK-EEZ.

Table II.39 Landings by the FRO-EEZ vessels distributed on exclusive economic zones

| Landings value (1,000 DKK) | | | | |
|----------------------------|---------|------|---------|------|
| | 2016 | | 2018 | |
| UK-EEZ | 302,322 | 77% | 122,316 | 74% |
| NEW-EU-EEZ | 35,300 | 9% | 24,301 | 15% |
| NOR-EEZ | 38,342 | 10% | 18,051 | 11% |
| FRO-EEZ | 14,106 | 4% | 389 | 0% |
| Other zones* | 1,871 | 0% | | |
| Total | 391,941 | 100% | 165,057 | 100% |

| Landings live weight (tonnes) | | | | |
|-------------------------------|--------|------|--------|------|
| | 2016 | | 2018 | |
| UK-EEZ | 62,621 | 75% | 37,015 | 66% |
| NEW-EU-EEZ | 10,879 | 13% | 13,780 | 25% |
| NOR-EEZ | 7,276 | 9% | 4,750 | 9% |
| FRO-EEZ | 2,440 | 3% | 251 | 0% |
| Other zones* | 382 | 0% | | |
| Total | 83,598 | 100% | 55,796 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Note: * Other EEZ includes the exclusive economic zone around Greenland, the zone around Svalbard and Bear Island, the international zone, and the waters adjacent to the territory of Western Sahara.

2.4. Activity in the UK-EEZ, NOR-EEZ and FRO-EEZ

Having described the activity by Danish fishermen in each of the three exclusive economic zones, UK-EEZ, NOR-EEZ and FRO-EEZ, it is relevant to consider the three zones as one combined EEZ and make a description of the activity altogether. Some vessels may fish in one zone, others in two of them and only a few in all three. However, a combined closure of the fishery in the UK-EEZ, NOR-EEZ and FRO-EEZ will have a potential high impact on the economic performance of the vessels involved. In the tables below, the COMBined EEZ of the UK-EEZ, NOR-EEZ and FRO-EEZ is referred to as COM-EEZ.

Table II.40 shows the number of vessels having fishing activity in the COM-EEZ. As expected, the total number of vessels increases, compared to the individual EEZ analyses. The majority of vessels are above 24 meters, and primarily trawlers. The number of vessels with activity in the COM-EEZ is seen to be stable around 107-111, depending on the year.

Table II.40 Number of Danish fishing vessels fishing in COM-EEZ

| Length | Gear type | 2016 | | 2017 | | 2018 | |
|------------------------|---------------------|------|------|------|------|------|------|
| 12-15m | Netters and liners | 1 | 1% | 2 | 2% | | |
| | Subtotal | 1 | 1% | 2 | 2% | | |
| 15-18m | Beam trawl | 1 | 1% | | | | |
| | Netters and liners | 4 | 4% | 4 | 4% | 4 | 4% |
| | Multi-purpose gears | 1 | 1% | 1 | 1% | | |
| | Danish seine | 1 | 1% | 1 | 1% | | |
| | Trawl | 4 | 4% | 3 | 3% | 6 | 5% |
| | Subtotal | 11 | 10% | 9 | 8% | 10 | 9% |
| 18-24m | Beam trawl | 1 | 1% | | | | |
| | Netters and liners | 5 | 5% | 5 | 5% | 5 | 5% |
| | Multi-purpose gears | 3 | 3% | 3 | 3% | 3 | 3% |
| | Danish seine | 5 | 5% | 6 | 6% | 8 | 7% |
| | Trawl | 15 | 14% | 13 | 12% | 14 | 13% |
| | Subtotal | 29 | 26% | 27 | 25% | 30 | 27% |
| 24-40m | Beam trawl | 2 | 2% | 2 | 2% | 2 | 2% |
| | Multi-purpose gears | 4 | 4% | 3 | 3% | 3 | 3% |
| | Trawl consumption | 25 | 23% | 26 | 24% | 29 | 26% |
| | Trawl reduction | 3 | 3% | 2 | 2% | 2 | 2% |
| | Trawl mixed | 2 | 2% | 2 | 2% | 2 | 2% |
| | Subtotal | 36 | 32% | 35 | 33% | 38 | 34% |
| >40 | Purse seine | 4 | 4% | 4 | 4% | 4 | 4% |
| | Trawl reduction | 14 | 13% | 14 | 13% | 13 | 12% |
| | Trawl mixed | 11 | 10% | 9 | 8% | 10 | 9% |
| | Subtotal | 29 | 26% | 27 | 25% | 27 | 24% |
| Licensed fishery | | | | 1 | 1% | 1 | 1% |
| Decommissioned vessels | | 5 | 5% | 6 | 6% | 5 | 5% |
| Total | | 111 | 100% | 107 | 100% | 111 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

In total, the vessels active in the COM-EEZ accounted for 70% of the total landings value, taken by Danish fishermen from 2016 to 2018, and 81% of the total landings live weight, cf. Table II.41. It can also be observed, by summing the activity in the UK-EEZ, the NOR-EEZ and the FRO-EEZ, that the fishing activity in the COM-EEZ accounts for 44% of the total landings value and 43% of the total landings live weight.

Table II.41 Landings by Danish vessels, their dependency on COM-EEZ and COM-EEZ active vessels' landings on exclusive economic zones

| Landings value (1,000 DKK) | | | | | | | | |
|--------------------------------------|-----------|------|-----------|------|-----------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ by COM-EEZ active vessels | 1,018,173 | 28% | 1,052,818 | 31% | 1,071,390 | 30% | 1,047,461 | 30% |
| NEW-EU-EEZ by COM-EEZ active vessels | 956,538 | 26% | 773,395 | 23% | 960,578 | 27% | 896,837 | 25% |
| NOR-EEZ by COM-EEZ active vessels | 536,065 | 15% | 489,437 | 14% | 474,274 | 13% | 499,925 | 14% |
| FRO-EEZ by COM-EEZ active vessels | 14,106 | 0% | | | 389 | 0% | 4,832 | 0% |
| Other EEZ* by COM-EEZ active vessels | 10,232 | 0% | 21,279 | 1% | 13,710 | 0% | 15,074 | 0% |
| Total by COM-EEZ vessels | 2,535,115 | 69% | 2,336,929 | 68% | 2,520,341 | 71% | 2,464,128 | 70% |
| Total by all Danish vessels | 3,675,217 | 100% | 3,419,293 | 100% | 3,541,027 | 100% | 3,545,179 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|--------------------------------------|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ by COM-EEZ active vessels | 208,608 | 31% | 396,918 | 44% | 308,262 | 39% | 304,596 | 38% |
| NEW-EU-EEZ by COM-EEZ active vessels | 266,493 | 40% | 289,244 | 32% | 311,276 | 39% | 289,005 | 37% |
| NOR-EEZ by COM-EEZ active vessels | 46,028 | 7% | 37,359 | 4% | 34,822 | 4% | 39,403 | 5% |
| FRO-EEZ by COM-EEZ active vessels | 2,440 | 0% | | | 251 | 0% | 897 | 0% |
| Other EEZ* by COM-EEZ active vessels | 4,099 | 1% | 8,987 | 1% | 2,364 | 0% | 5,150 | 1% |
| Total by COM-EEZ vessels | 527,668 | 78% | 732,508 | 81% | 656,975 | 83% | 639,050 | 81% |
| Total by all Danish vessels | 674,322 | 100% | 907,517 | 100% | 792,404 | 100% | 791,414 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Note: * Other EEZ includes the exclusive economic zone around Greenland, the zone around Svalbard and Bear Island, the international zone, and the waters adjacent to the territory of Western Sahara.

Table II.42 gives a more detailed description of the fleets active in the COM-EEZ, and their economic dependency on COM-EEZ, compared to their remaining activity in other EEZ. On average the dependency is 63% measured in landings value, but it varies between fleets. Some fleets have a dependency down to 18%, while others are up to 74% dependent. Again, because the fishing grounds are generally far from Danish harbours, few small vessels are fishing there, and the dependency is therefore increasing with vessel length.

Table II.42 Landings dependency on COM-EEZ by fleets for COM-EEZ active vessels

| Landings value (1,000 DKK) | | | | | | | | | | |
|----------------------------|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------------|-----------|--------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| | | COM-EEZ | Other EEZ | COM-EEZ | Other EEZ | COM-EEZ | Other EEZ | COM-EEZ | Other EEZ | % in COM-EEZ |
| 15-18m | Total | 24,531 | 54,385 | 10,702 | 53,694 | 9,213 | 67,441 | 14,816 | 58,507 | 20% |
| 18-24m | Total | 69,192 | 212,145 | 68,745 | 222,441 | 65,933 | 239,336 | 67,958 | 224,641 | 23% |
| | - Netters and liners | 14,470 | 27,840 | 17,536 | 36,783 | 16,110 | 36,563 | 16,039 | 33,729 | 32% |
| | - Danish seine | 16,048 | 13,783 | 15,292 | 18,745 | 14,704 | 37,402 | 15,348 | 23,310 | 40% |
| | - Trawl | 26,648 | 134,296 | 29,364 | 128,286 | 31,964 | 126,271 | 29,326 | 129,618 | 18% |
| 24-40m | Total | 416,617 | 208,029 | 481,508 | 163,204 | 440,617 | 191,161 | 446,247 | 187,465 | 70% |
| | - Trawl consumption | 318,465 | 113,818 | 372,877 | 108,667 | 337,328 | 137,993 | 342,890 | 120,159 | 74% |
| >40m | Total | 1,008,544 | 460,115 | 916,484 | 308,642 | 982,238 | 446,579 | 969,089 | 405,112 | 71% |
| | - Trawl reduction | 54,429 | 161,838 | 81,146 | 100,476 | 80,745 | 131,347 | 72,107 | 131,220 | 35% |
| | - Trawl mixed | 607,113 | 229,612 | 475,515 | 146,098 | 552,411 | 219,883 | 545,013 | 198,531 | 73% |
| Decommissioned vessels | | 49,459 | 32,094 | 64,815 | 46,694 | 48,052 | 29,769 | 54,109 | 36,186 | 60% |
| Total | | 1,568,343 | 966,768 | 1,542,254 | 794,675 | 1,546,053 | 974,286 | 1,552,219 | 911,911 | 63% |

| Landings live weight (tonnes) | | | | | | | | | | |
|-------------------------------|----------------------|---------|-----------|---------|-----------|---------|-----------|-------------------|-----------|--------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| | | COM-EEZ | Other EEZ | COM-EEZ | Other EEZ | COM-EEZ | Other EEZ | COM-EEZ | Other EEZ | % in COM-EEZ |
| 15-18m | Total | 1,048 | 3,650 | 565 | 5,532 | 394 | 6,525 | 670 | 5,235 | 11% |
| 18-24m | Total | 4,599 | 22,930 | 4,797 | 23,441 | 4,166 | 26,386 | 4,520 | 24,252 | 16% |
| | - Netters and liners | 702 | 1,110 | 697 | 1,261 | 644 | 1,197 | 681 | 1,189 | 36% |
| | - Danish seine | 1,029 | 538 | 804 | 837 | 684 | 1,755 | 839 | 1,043 | 45% |
| | - Trawl | 1,195 | 14,336 | 2,088 | 11,090 | 2,083 | 14,030 | 1,788 | 13,152 | 12% |
| 24-40m | Total | 27,137 | 23,171 | 36,349 | 20,505 | 27,076 | 18,641 | 30,186 | 20,773 | 59% |
| | - Trawl consumption | 17,054 | 5,275 | 18,936 | 4,985 | 17,030 | 5,534 | 17,673 | 5,265 | 77% |
| >40m | Total | 214,179 | 203,399 | 364,612 | 222,765 | 296,639 | 247,755 | 291,810 | 224,639 | 57% |
| | - Trawl reduction | 26,319 | 79,612 | 65,484 | 82,419 | 44,601 | 78,077 | 45,468 | 80,036 | 36% |
| | - Trawl mixed | 127,567 | 94,357 | 175,678 | 96,008 | 164,766 | 115,573 | 156,004 | 101,979 | 60% |
| Decommissioned vessels | | 10,114 | 17,442 | 27,955 | 25,990 | 15,060 | 14,333 | 17,709 | 19,255 | 48% |
| Total | | 257,077 | 270,592 | 434,278 | 298,233 | 343,335 | 313,640 | 344,895 | 294,154 | 54% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Definitions: *Trawl consumption* are vessels landing above 80% consumption species, *Trawl reduction* are vessels landing above 80% reduction species (i.e. sand eel, Norway pout, sprat etc.), and *Trawl mixed* are the remaining trawl vessels within that length group.

Note: For confidentiality reasons, vessels 12-15 meters and vessels conducting licensed fishery have been included in 15-18 meters.

Concentrating the focus to the vessels with a dependency of the COM-EEZ of at least 15% of their total landings value, Table II.43 shows that the number of vessels increased from 76 in 2016 to 84 in 2017 and then reduced to 82 in 2018. Again, it is primarily vessels above 24 meters that are represented.

Table II.43 Number of Danish fishing vessels fishing in COM-EEZ with a 15%-dependency

| Length | Gear type | 2016 | | 2017 | | 2018 | |
|------------------------|---------------------|------|------|------|------|------|------|
| | | | | | | | |
| 15-18m | Beam trawl | 1 | 1% | | | | |
| | Netters and liners | 1 | 1% | 3 | 4% | 3 | 4% |
| | Multi-purpose gears | 1 | 1% | 1 | 1% | | |
| | Danish seine | 1 | 1% | 1 | 1% | | |
| | Trawl | 1 | 1% | | | 1 | 1% |
| | Subtotal | 5 | 7% | 5 | 6% | 4 | 5% |
| 18-24m | Beam trawl | 1 | 1% | | | | |
| | Netters and liners | 4 | 5% | 4 | 5% | 4 | 5% |
| | Multi-purpose gears | 1 | 1% | 1 | 1% | 1 | 1% |
| | Danish seine | 5 | 7% | 5 | 6% | 5 | 6% |
| | Trawl | 4 | 5% | 6 | 7% | 6 | 7% |
| | Subtotal | 15 | 20% | 16 | 19% | 16 | 20% |
| 24-40m | Beam trawl | 2 | 3% | 2 | 2% | 2 | 2% |
| | Multi-purpose gears | 3 | 4% | 2 | 2% | 2 | 2% |
| | Trawl consumption | 22 | 29% | 23 | 27% | 24 | 29% |
| | Trawl reduction | 2 | 3% | 2 | 2% | 2 | 2% |
| | Trawl mixed | | | 1 | 1% | 1 | 1% |
| | Subtotal | 29 | 38% | 30 | 36% | 31 | 38% |
| >40 | Purse seine | 3 | 4% | 4 | 5% | 4 | 5% |
| | Trawl reduction | 10 | 13% | 14 | 17% | 13 | 16% |
| | Trawl mixed | 10 | 13% | 9 | 11% | 10 | 12% |
| | Subtotal | 23 | 30% | 27 | 32% | 27 | 33% |
| Licensed fishery | | | | 1 | 1% | | |
| Decommissioned vessels | | 4 | 5% | 5 | 6% | 4 | 5% |
| Total | | 76 | 100% | 84 | 100% | 82 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

With the 15% threshold, it is observed from Table II.44 that 99% of the total landings value and live weight from the COM-EEZ on average 2016-2018 is covered by these vessels, while only 1% originates from vessels that takes less than 15% of their landings value in COM-EEZ.

Table II.44 Landings from the COM-EEZ distributed on COM-EEZ 15%-vessels and non-15%-vessels

| Landings value (1,000 DKK) | | | | | | | | | |
|-------------------------------|-----------|------|-----------|------|-----------|------|-------------------|------|--|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| Total COM-EEZ 15%-vessels | 1,533,291 | 98% | 1,527,821 | 99% | 1,528,565 | 99% | 1,529,892 | 99% | |
| Total COM-EEZ non-15%-vessels | 35,054 | 2% | 14,433 | 1% | 17,488 | 1% | 22,325 | 1% | |
| Total | 1,568,345 | 100% | 1,542,255 | 100% | 1,546,053 | 100% | 1,552,218 | 100% | |

| Landings live weight (tonnes) | | | | | | | | | |
|-------------------------------|---------|------|---------|------|---------|------|-------------------|------|--|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| Total COM-EEZ 15%-vessels | 249,398 | 97% | 431,317 | 99% | 341,352 | 99% | 340,689 | 99% | |
| Total COM-EEZ non-15%-vessels | 7,677 | 3% | 2,960 | 1% | 1,982 | 1% | 4,207 | 1% | |
| Total | 257,076 | 100% | 434,277 | 100% | 343,334 | 100% | 344,896 | 100% | |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

The COM-EEZ 15%-vessels totally landed for around 2.2 billion DKK annually, comprising thus almost two-thirds of the total Danish landings value of 3.5 billion DKK as shown in Table II.45. Forty-eight percent of the landings value were from the UK-EEZ, 22% from the NOR-EEZ, while the remaining 30% primarily was from the NEW-EU-EEZ. It is observed that the FRO-EEZ and other zones, as it was also the case previously, have a very little importance for these vessels.

Table II.45 Landings by the COM-EEZ 15%-vessels distributed on zones

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|-----------|------|-----------|------|-----------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ | 1,003,159 | 47% | 1,049,441 | 49% | 1,067,902 | 48% | 1,040,167 | 48% |
| NEW-EU-EEZ | 576,983 | 27% | 578,204 | 27% | 700,578 | 31% | 618,588 | 29% |
| NOR-EEZ | 516,026 | 24% | 478,380 | 22% | 460,274 | 21% | 484,893 | 22% |
| FRO-EEZ | 14,106 | 1% | | | 389 | 0% | 4,832 | 0% |
| Other zones* | 10,134 | 0% | 21,279 | 1% | 13,710 | 1% | 15,041 | 1% |
| Total | 2,120,408 | 100% | 2,127,304 | 100% | 2,242,853 | 100% | 2,163,522 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ | 201,890 | 48% | 394,419 | 57% | 306,860 | 49% | 301,056 | 52% |
| NEW-EU-EEZ | 170,733 | 41% | 248,467 | 36% | 280,846 | 45% | 233,349 | 40% |
| NOR-EEZ | 45,068 | 11% | 36,898 | 5% | 34,241 | 5% | 38,736 | 7% |
| FRO-EEZ | 2,440 | 1% | | | 251 | 0% | 897 | 0% |
| Other zones* | 879 | 0% | 8,987 | 1% | 2,364 | 0% | 4,077 | 1% |
| Total | 421,010 | 100% | 688,771 | 100% | 624,562 | 100% | 578,115 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Note: * Other EEZ includes the exclusive economic zone around Greenland, the zone around Svalbard and Bear Island, the international zone, and the waters adjacent to the territory of Western Sahara.

The overall dependency of COM-EEZ for the 15%-vessels is 71% on average for 2016 to 2018. This varies with the length of the vessels. Generally, the dependency increases with increasing vessel length, but as observed in Table II.46, the dependencies can vary between the length groups. E.g. in the group of vessels above 40 meters, Trawl reduction has a 39% dependency on COM-EEZ, while Trawl mixed has 74%.

Table II.46 Landings dependency on COM-EEZ by fleets for 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | | | |
|----------------------------|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------------|-----------|--------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| | | COM-EEZ | Other EEZ | COM-EEZ | Other EEZ | COM-EEZ | Other EEZ | COM-EEZ | Other EEZ | % in COM-EEZ |
| 15-18m | Total | 21,259 | 13,276 | 9,818 | 27,461 | 8,387 | 28,571 | 13,155 | 23,103 | 36% |
| 18-24m | Total | 55,413 | 71,172 | 57,455 | 103,141 | 53,555 | 84,168 | 55,474 | 86,160 | 39% |
| | - Danish seine | 16,048 | 13,783 | 14,778 | 14,014 | 14,280 | 11,381 | 15,035 | 13,059 | 54% |
| 24-40m | Total | 410,249 | 135,127 | 480,026 | 128,363 | 436,667 | 128,287 | 442,314 | 130,592 | 77% |
| | - Trawl consumption | 316,464 | 84,515 | 371,913 | 94,269 | 334,603 | 93,671 | 340,993 | 90,819 | 79% |
| >40m | Total | 996,966 | 352,598 | 916,485 | 308,641 | 982,238 | 446,579 | 965,230 | 369,273 | 72% |
| | - Trawl reduction | 48,297 | 100,442 | 81,146 | 100,476 | 80,745 | 131,347 | 70,063 | 110,755 | 39% |
| | - Trawl mixed | 605,715 | 211,878 | 475,515 | 146,098 | 552,411 | 219,883 | 544,547 | 192,619 | 74% |
| Decommissioned vessels | | 49,403 | 14,943 | 64,039 | 31,877 | 47,717 | 26,683 | 53,720 | 24,501 | 69% |
| Total | | 1,533,291 | 587,117 | 1,527,821 | 599,483 | 1,528,565 | 714,288 | 1,529,892 | 633,629 | 71% |

| Landings live weight (tonnes) | | | | | | | | | | |
|-------------------------------|---------------------|---------|-----------|---------|-----------|---------|-----------|-------------------|-----------|--------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | |
| | | COM-EEZ | Other EEZ | COM-EEZ | Other EEZ | COM-EEZ | Other EEZ | COM-EEZ | Other EEZ | % in COM-EEZ |
| 15-18m | Total | 855 | 627 | 534 | 1,165 | 357 | 3,034 | 582 | 1,609 | 27% |
| 18-24m | Total | 2,803 | 2,935 | 2,549 | 4,043 | 2,369 | 3,206 | 2,574 | 3,395 | 43% |
| | - Danish seine | 1,029 | 538 | 787 | 717 | 667 | 519 | 828 | 591 | 58% |
| 24-40m | Total | 26,662 | 12,454 | 36,284 | 13,187 | 26,936 | 14,956 | 29,960 | 13,532 | 69% |
| | - Trawl consumption | 16,987 | 3,847 | 18,900 | 3,731 | 16,947 | 3,863 | 17,611 | 3,814 | 82% |
| >40m | Total | 208,989 | 149,004 | 364,611 | 222,765 | 296,639 | 247,754 | 290,080 | 206,508 | 58% |
| | - Trawl reduction | 23,830 | 49,076 | 65,484 | 82,419 | 44,601 | 78,077 | 44,638 | 69,857 | 39% |
| | - Trawl mixed | 126,854 | 85,099 | 175,678 | 96,008 | 164,766 | 115,573 | 155,766 | 98,893 | 61% |
| Decommissioned vessels | | 10,089 | 6,591 | 27,338 | 16,295 | 15,052 | 14,259 | 17,493 | 12,382 | 59% |
| Total | | 249,398 | 171,612 | 431,317 | 257,454 | 341,352 | 283,210 | 340,689 | 237,425 | 59% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Definitions: *Trawl consumption* are vessels landing above 80% consumption species, *Trawl reduction* are vessels landing above 80% reduction species (i.e. sand eel, Norway pout, sprat etc.), and *Trawl mixed* are the remaining trawl vessels within that length group.

Note: For confidentiality reasons, vessels conducting licensed fishery have been included in 15-18 meters.

Looking at the individual species landed from the UK-EEZ, NOR-EEZ and FRO-EEZ, Table II.47 illustrates the importance of the top 10 most important species based on value. Most important for the above 15%-vessels are herring followed by mackerel and sandeel, accounting on average for above 50% of the total landings value, and 78% of the landings live weight of the landings from the COM-EEZ.

Table II.47 Landings of top 10 species in 2018 from the COM-EEZ by the 15%-vessels, measured by value, and share of total landings from the COM-EEZ by the 15%-vessels in Table II.46

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|-----------|-----|-----------|-----|-----------|-----|-------------------|-----|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Herring | 635,172 | 41% | 396,574 | 26% | 472,825 | 31% | 501,524 | 33% |
| Mackerel | 272,557 | 18% | 281,019 | 18% | 278,528 | 18% | 277,368 | 18% |
| Sandeel | 26,500 | 2% | 240,679 | 16% | 173,284 | 11% | 146,821 | 10% |
| Cod | 106,180 | 7% | 121,165 | 8% | 123,082 | 8% | 116,809 | 8% |
| Plaice | 92,176 | 6% | 86,541 | 6% | 90,725 | 6% | 89,814 | 6% |
| Monkfish | 52,392 | 3% | 67,741 | 4% | 66,102 | 4% | 62,079 | 4% |
| Hake | 55,459 | 4% | 71,214 | 5% | 59,665 | 4% | 62,113 | 4% |
| Saithe | 34,206 | 2% | 42,646 | 3% | 44,767 | 3% | 40,540 | 3% |
| Blue whiting | 50,278 | 3% | 18,515 | 1% | 40,966 | 3% | 36,586 | 2% |
| Lemon sole | 24,692 | 2% | 27,719 | 2% | 21,309 | 1% | 24,573 | 2% |
| Total | 1,349,612 | 88% | 1,353,813 | 89% | 1,371,255 | 90% | 1,358,227 | 89% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|---------|-----|---------|-----|---------|-----|-------------------|-----|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Herring | 121,754 | 49% | 114,660 | 27% | 135,945 | 40% | 124,120 | 36% |
| Mackerel | 36,268 | 15% | 37,445 | 9% | 29,902 | 9% | 34,538 | 10% |
| Sandeel | 13,304 | 5% | 212,149 | 49% | 103,422 | 30% | 109,625 | 32% |
| Cod | 4,613 | 2% | 4,926 | 1% | 4,983 | 1% | 4,841 | 1% |
| Plaice | 7,982 | 3% | 6,460 | 1% | 4,704 | 1% | 6,382 | 2% |
| Monkfish | 1,712 | 1% | 2,207 | 1% | 2,009 | 1% | 1,976 | 1% |
| Hake | 3,486 | 1% | 3,814 | 1% | 3,280 | 1% | 3,527 | 1% |
| Saithe | 2,962 | 1% | 4,211 | 1% | 5,134 | 2% | 4,102 | 1% |
| Blue whiting | 21,389 | 9% | 14,279 | 3% | 25,244 | 7% | 20,304 | 6% |
| Lemon sole | 734 | 0% | 807 | 0% | 610 | 0% | 717 | 0% |
| Total | 214,202 | 86% | 400,958 | 93% | 315,234 | 92% | 310,131 | 91% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Table II.48 shows the composition of landings at the fleet level. Codfish and flatfish are mainly landed by vessels between 24 and 40 meters, especially by the trawlers for human consumption. Herring is landed by the group above 40 meters, especially by the mixed trawlers. The smaller vessels primarily land codfish and flatfish.

Table II.48 Landings composition in COM-EEZ by fleets for the 15%-vessels, average 2016-2018

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|---------------------|---------|----------|----------|---------|-------------------|---------------|-----------|
| Length | Gear type | Codfish | Flatfish | Mackerel | Herring | Reduction species | Other species | Total |
| 15-18m | Total | 2,147 | 6,916 | | | | 4,092 | 13,155 |
| 18-24m | Total | 17,960 | 28,056 | 4 | | 5 | 9,448 | 55,474 |
| | - Danish seine | 5,899 | 9,024 | 3 | | 5 | 105 | 15,035 |
| 24-40m | Total | 292,251 | 107,333 | 74 | 893 | 10,186 | 31,578 | 442,314 |
| | - Trawl consumption | 231,146 | 80,101 | 20 | 1 | 2 | 29,724 | 340,993 |
| >40m | Total | 1,582 | 52 | 265,177 | 482,824 | 215,244 | 350 | 965,230 |
| | - Trawl reduction | 994 | 39 | 219 | 4,329 | 64,150 | 332 | 70,063 |
| | - Trawl mixed | 314 | 2 | 145,314 | 287,785 | 111,114 | 18 | 544,547 |
| Decommissioned vessels | | 8,135 | 945 | 12,113 | 17,807 | 14,595 | 125 | 53,720 |
| Total | | 322,075 | 143,303 | 277,368 | 501,524 | 240,030 | 45,593 | 1,529,892 |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|---------------------|---------|----------|----------|---------|-------------------|---------------|---------|
| Length | Gear type | Codfish | Flatfish | Mackerel | Herring | Reduction species | Other species | Total |
| 15-18m | Total | 95 | 399 | | | | 88 | 582 |
| 18-24m | Total | 772 | 1,568 | 0 | | 0 | 233 | 2,574 |
| | - Danish seine | 271 | 549 | 0 | | 0 | 7 | 828 |
| 24-40m | Total | 15,809 | 6,019 | 8 | 274 | 7,126 | 724 | 29,960 |
| | - Trawl consumption | 12,606 | 4,333 | 2 | 0 | 1 | 670 | 17,611 |
| >40m | Total | 217 | 6 | 32,717 | 119,329 | 137,795 | 16 | 290,080 |
| | - Trawl reduction | 117 | 4 | 31 | 1,273 | 43,202 | 11 | 44,638 |
| | - Trawl mixed | 55 | 0 | 18,180 | 72,694 | 64,832 | 5 | 155,766 |
| Decommissioned vessels | | 440 | 41 | 1,812 | 4,516 | 10,679 | 5 | 17,493 |
| Total | | 17,335 | 8,032 | 34,538 | 124,120 | 155,599 | 1,065 | 340,689 |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Definitions: *Trawl consumption* are vessels landing above 80% consumption species, *Trawl reduction* are vessels landing above 80% reduction species, and *Trawl mixed* are the remaining trawl vessels within that length group.

Note: For confidentiality reasons, vessels conducting licensed fishery have been included in 15-18 meters.

In which part of the COM-EEZ the fishery by the COM-EEZ 15%-vessels is conducted is shown in Table II.49. Around 60% of the landings originate from the northern part of the North Sea (4A). The middle part of North Sea (4B) constitutes the second most important area, while the Danish vessels only to a small degree go further north.

Table II.49 Landings distributed on ICES subdivisions by the 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|-----------|------|-----------|------|-----------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| 2A | 59,104 | 4% | 69,335 | 5% | 58,251 | 4% | 62,230 | 4% |
| 3AN | 49,276 | 3% | 48,396 | 3% | 33,802 | 2% | 43,825 | 3% |
| 4A | 1,002,508 | 65% | 855,358 | 56% | 900,178 | 59% | 919,348 | 60% |
| 4B | 247,049 | 16% | 421,909 | 28% | 413,467 | 27% | 360,808 | 24% |
| 4C | 1,531 | 0% | 1,884 | 0% | 742 | 0% | 1,386 | 0% |
| 5B | 3,420 | 0% | | | 1,133 | 0% | 1,518 | 0% |
| 6A | 154,590 | 10% | 128,747 | 8% | 120,412 | 8% | 134,583 | 9% |
| 6B | 12,858 | 1% | | | | | 4,286 | 0% |
| 7B | | | 141 | 0% | | | 47 | 0% |
| 7C | 286 | 0% | 1,852 | 0% | 513 | 0% | 883 | 0% |
| 7E | 2,431 | 0% | 42 | 0% | 49 | 0% | 840 | 0% |
| 7H | 238 | 0% | 158 | 0% | 18 | 0% | 138 | 0% |
| Total | 1,533,291 | 100% | 1,527,821 | 100% | 1,528,565 | 100% | 1,529,892 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| 2A | 9,740 | 4% | 13,216 | 3% | 14,156 | 4% | 12,371 | 4% |
| 3AN | 1,346 | 1% | 1,524 | 0% | 1,181 | 0% | 1,351 | 0% |
| 4A | 152,492 | 61% | 136,743 | 32% | 137,636 | 40% | 142,290 | 42% |
| 4B | 43,739 | 18% | 247,870 | 57% | 151,364 | 44% | 147,658 | 43% |
| 4C | 734 | 0% | 1,214 | 0% | 369 | 0% | 772 | 0% |
| 5B | 1,443 | 1% | | | 731 | 0% | 725 | 0% |
| 6A | 32,923 | 13% | 29,355 | 7% | 35,601 | 10% | 32,626 | 10% |
| 6B | 5,550 | 2% | | | | | 1,850 | 1% |
| 7B | | | 44 | 0% | | | 15 | 0% |
| 7C | 140 | 0% | 1,215 | 0% | 275 | 0% | 543 | 0% |
| 7E | 1,181 | 0% | 26 | 0% | 29 | 0% | 412 | 0% |
| 7H | 111 | 0% | 109 | 0% | 9 | 0% | 76 | 0% |
| Total | 249,398 | 100% | 431,317 | 100% | 341,352 | 100% | 340,689 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Note: See Annex 1 for location of ICES subdivisions.

Turning attention to where the 15%-vessels land their fish, Table II.50 shows the countries, where the fish are landed. Danish ports are the most important, covering 82% of the landed value. Eleven percent of the landed value is landed in the UK, Norway and the Faroe Islands. Minor parts are landed in other harbours within the EU.

Table II.50 Landings from the COM-EEZ to countries by the 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | |
|-----------------------------------|----------------|-------------|----------------|-------------|----------------|-------------|--------------------------|-------------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Denmark | 730,786 | 74% | 553,828 | 83% | 495,562 | 98% | 593,392 | 82% |
| Faroe Islands | 17,163 | 2% | | | | | 5,721 | 1% |
| The Netherlands | | | 715 | 0% | 1,073 | 0% | 596 | 0% |
| Ireland | 15,319 | 2% | | | | | 5,106 | 1% |
| Norway | 124,868 | 13% | 44,758 | 7% | 1,909 | 0% | 57,179 | 8% |
| United Kingdom | 37,845 | 4% | 4,413 | 1% | 1,585 | 0% | 14,614 | 2% |
| Sweden | 15,012 | 2% | 15,046 | 2% | 6,038 | 1% | 12,032 | 2% |
| Germany | 46,329 | 5% | 49,580 | 7% | | | 31,970 | 4% |
| Unknown | | | 209 | 0% | | | 70 | 0% |
| Total | 987,322 | 100% | 668,550 | 100% | 506,167 | 100% | 720,679 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|--------------------------------------|----------------|-------------|---------------|-------------|---------------|-------------|--------------------------|-------------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Denmark | 82,014 | 69% | 45,061 | 63% | 24,778 | 99% | 50,618 | 70% |
| Faroe Islands | 2,559 | 2% | | | | | 853 | 1% |
| The Netherlands | | | 39 | 0% | 57 | 0% | 32 | 0% |
| Ireland | 2,925 | 2% | | | | | 975 | 1% |
| Norway | 16,921 | 14% | 8,617 | 12% | 75 | 0% | 8,538 | 12% |
| United Kingdom | 5,980 | 5% | 3,160 | 4% | 69 | 0% | 3,070 | 4% |
| Sweden | 371 | 0% | 441 | 1% | 166 | 1% | 326 | 0% |
| Germany | 8,496 | 7% | 13,856 | 19% | | | 7,451 | 10% |
| Unknown | | | 11 | 0% | | | 4 | 0% |
| Total | 119,265 | 100% | 71,185 | 100% | 25,145 | 100% | 71,865 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

The specific Danish harbours, where the landings from COM-EEZ are done, are presented in Table II.51. The majority is landed in Thyborøn, Skagen, Hanstholm, and Hirtshals, together covering 94% of the value landed from COM-EEZ in Danish harbours by the 15%-vessels.

Table II.51 Landings from the COM-EEZ to Danish harbours by the 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | |
|-----------------------------|------------------|-------------|------------------|-------------|------------------|-------------|-------------------|-------------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Hanstholm | 213,806 | 20% | 270,258 | 25% | 237,500 | 21% | 240,521 | 22% |
| Havneby | 119 | 0% | | | | | 40 | 0% |
| Hirtshals | 215,934 | 21% | 120,121 | 11% | 147,465 | 13% | 161,173 | 15% |
| Hvide Sande | 40,998 | 4% | 52,815 | 5% | 51,898 | 5% | 48,570 | 4% |
| Skagen | 309,726 | 29% | 275,350 | 26% | 310,618 | 27% | 298,565 | 27% |
| Strandby (Northern Jutland) | 172 | 0% | 404 | 0% | | | 192 | 0% |
| Thorsminde | 6,127 | 1% | 8,945 | 1% | 9,344 | 1% | 8,139 | 1% |
| Thyborøn | 265,510 | 25% | 344,389 | 32% | 378,347 | 33% | 329,415 | 30% |
| Østerby | | | 20 | 0% | 70 | 0% | 30 | 0% |
| Total | 1,052,392 | 100% | 1,072,302 | 100% | 1,135,243 | 100% | 1,086,646 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|----------------|-------------|----------------|-------------|----------------|-------------|-------------------|-------------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Hanstholm | 15,752 | 9% | 49,297 | 15% | 30,001 | 11% | 31,683 | 12% |
| Havneby | 8 | 0% | | | | | 3 | 0% |
| Hirtshals | 35,042 | 20% | 32,340 | 10% | 25,504 | 10% | 30,962 | 12% |
| Hvide Sande | 2,592 | 1% | 2,862 | 1% | 2,317 | 1% | 2,591 | 1% |
| Skagen | 70,624 | 41% | 130,404 | 39% | 109,022 | 41% | 103,350 | 40% |
| Strandby (Northern Jutland) | 5 | 0% | 15 | 0% | | | 7 | 0% |
| Thorsminde | 225 | 0% | 286 | 0% | 371 | 0% | 294 | 0% |
| Thyborøn | 49,157 | 28% | 121,860 | 36% | 99,066 | 37% | 90,028 | 35% |
| Østerby | | | 1 | 0% | 3 | 0% | 1 | 0% |
| Total | 173,406 | 100% | 337,066 | 100% | 266,284 | 100% | 258,919 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Above, it was observed that the landings in harbours in the EU, Norway and the Faroe Islands were around 11% of the landings value from the COM-EEZ from the 15%-vessels. In Table II.52, all landings in harbours in the UK, Norway and the Faroe Islands by the 15%-vessels are included. Out of an average yearly landings value of 2.2 billion DKK, 13% or 282 million DKK are landed in these countries.

Table II.52 Landings in harbours in the United Kingdom, Norway and the Faroe Islands by the 15%-vessels and percentage of total landings by the 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | |
|---|-----------|------|-----------|------|-----------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Landings in UK, NOR and FRO harbours from non COM-EEZ | 35,100 | 2% | 21,531 | 1% | 24,391 | 1% | 27,007 | 1% |
| Landings in UK, NOR and FRO harbours from COM-EEZ | 269,812 | 13% | 280,670 | 13% | 217,078 | 10% | 255,854 | 12% |
| Total landings in UK, NOR and FRO harbours | 304,912 | 14% | 302,201 | 14% | 241,469 | 11% | 282,861 | 13% |
| Total landings by 15%-vessels | 2,120,408 | 100% | 2,127,304 | 100% | 2,242,853 | 100% | 2,163,522 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|---|---------|------|---------|------|---------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Landings in UK, NOR and FRO harbours from non COM-EEZ | 5,441 | 1% | 12,589 | 2% | 8,148 | 1% | 8,726 | 2% |
| Landings in UK, NOR and FRO harbours from COM-EEZ | 39,767 | 9% | 51,017 | 7% | 35,269 | 6% | 42,018 | 7% |
| Total landings in UK, NOR and FRO harbours | 45,209 | 11% | 63,607 | 9% | 43,417 | 7% | 50,744 | 9% |
| Total landings by 15%-vessels | 421,010 | 100% | 688,771 | 100% | 624,562 | 100% | 578,115 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Table II.53 shows in which harbours in the UK, Norway and the Faroe Islands the COM-EEZ 15%-vessels land. Five harbours are used in the UK, 19 harbours in Norway and 3 harbours in the Faroe Islands. The 15%-vessels primarily uses harbours in Norway when landing outside Denmark; 69% of the landed value is landed in Norwegian harbours. Ellingsøyfjorden is the most important Norwegian harbour for the 15%-vessels.

Table II.53 Landings in harbours in the United Kingdom, Norway and the Faroe Islands by the 15%-vessels and percentage of the total landings in all harbours in these countries

| Landings value (1,000 DKK) | | | | | | | | | |
|----------------------------|------------------|---------|--------|---------|------|---------|--------|-------------------|------|
| Country | Harbour | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| United Kingdom | Aberdeen | 287 | 0% | | | 91 | 0% | 126 | 0% |
| | Fraserburgh | 2,924 | 1% | 603 | 0% | 195 | 0% | 1,241 | 0% |
| | Grimsby | 297 | 0% | | | 18 | 0% | 105 | 0% |
| | Lerwick | 40,312 | 13% | 6,025 | 2% | 13,432 | 6% | 19,923 | 7% |
| | Peterhead | 27,905 | 9% | 12,802 | 4% | 7,561 | 3% | 16,089 | 6% |
| Norway | Austevoll | | | | | 660 | 0% | 220 | 0% |
| | Brattvåg | | | | | 31 | 0% | 10 | 0% |
| | Egersund | 17,784 | 6% | 27,135 | 9% | 40,502 | 17% | 28,474 | 10% |
| | Ellingsøyfjorden | 37,581 | 12% | 93,698 | 31% | 81,232 | 34% | 70,837 | 25% |
| | Florø | 1,357 | 0% | | | | | 452 | 0% |
| | Frøya | 1,647 | 1% | | | | | 549 | 0% |
| | Hareid | 12,302 | 4% | 20,810 | 7% | | | 11,037 | 4% |
| | Honningsvåg | 8,264 | 3% | | | 5,281 | 2% | 4,515 | 2% |
| | Karmsund | | | 3,777 | 1% | | | 1,259 | 0% |
| | Karmøy | | | 3,910 | 1% | 3,377 | 1% | 2,429 | 1% |
| | Kristiansand | 5 | 0% | 234 | 0% | 282 | 0% | 174 | 0% |
| | Kristiansund | | | | | 2,662 | 1% | 887 | 0% |
| | Måløy | 5,518 | 2% | 21,676 | 7% | 28,722 | 12% | 18,639 | 7% |
| | Selje | 24,024 | 8% | 26,106 | 9% | 4,404 | 2% | 18,178 | 6% |
| | Skudesneshavn | 12,293 | 4% | 629 | 0% | 1,240 | 1% | 4,721 | 2% |
| | Stavanger | | | 2,508 | 1% | 201 | 0% | 903 | 0% |
| | Sund, Iofoten | | | | | 4,959 | 2% | 1,653 | 1% |
| | Træna | | | | | 8,448 | 3% | 2,816 | 1% |
| Ålesund | 66,480 | 22% | 16,718 | 6% | | | 27,733 | 10% | |
| Faroe Islands | Fuglafjørður | 17,139 | 6% | 27,019 | 9% | 38,170 | 16% | 27,443 | 10% |
| | Kollefjord | 24,596 | 8% | 38,549 | 13% | | | 21,048 | 7% |
| | Tvøroyri | 4,198 | 1% | | | | | 1,399 | 0% |
| Total | | 304,912 | 100% | 302,201 | 100% | 241,469 | 100% | 282,861 | 100% |

| Landings live weight (tonnes) | | | | | | | | | |
|-------------------------------|------------------|---------------|-------------|---------------|-------------|---------------|-------------|-------------------|-------------|
| Country | Harbour | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| United Kingdom | Aberdeen | 6 | 0% | | | 1 | 0% | 3 | 0% |
| | Fraserburgh | 610 | 1% | 464 | 1% | 99 | 0% | 391 | 1% |
| | Grimsby | 25 | 0% | | | 1 | 0% | 9 | 0% |
| | Lerwick | 6,206 | 14% | 2,801 | 4% | 3,163 | 7% | 4,057 | 8% |
| | Peterhead | 4,865 | 11% | 8,245 | 13% | 4,246 | 10% | 5,785 | 11% |
| Norway | Austevoll | | | | | 96 | 0% | 32 | 0% |
| | Brattvåg | | | | | 5 | 0% | 2 | 0% |
| | Egersund | 3,661 | 8% | 8,064 | 13% | 9,790 | 23% | 7,172 | 14% |
| | Ellingsøyfjorden | 4,275 | 9% | 14,169 | 22% | 8,451 | 19% | 8,965 | 18% |
| | Florø | 160 | 0% | | | | | 53 | 0% |
| | Frøya | 290 | 1% | | | | | 97 | 0% |
| | Hareid | 1,835 | 4% | 3,560 | 6% | | | 1,798 | 4% |
| | Honningsvåg | 497 | 1% | | | 304 | 1% | 267 | 1% |
| | Karmsund | | | 3,504 | 6% | | | 1,168 | 2% |
| | Karmøy | | | 1,230 | 2% | 1,430 | 3% | 887 | 2% |
| | Kristiansand | | | 6 | 0% | 7 | 0% | 4 | 0% |
| | Kristiansund | | | | | 651 | 1% | 217 | 0% |
| | Måløy | 801 | 2% | 4,996 | 8% | 6,775 | 16% | 4,191 | 8% |
| | Selje | 3,160 | 7% | 3,520 | 6% | 685 | 2% | 2,455 | 5% |
| | Skudesneshavn | 1,780 | 4% | 32 | 0% | 148 | 0% | 654 | 1% |
| | Stavanger | | | 1,900 | 3% | 11 | 0% | 637 | 1% |
| | Sund, Iofoten | | | | | 1,301 | 3% | 434 | 1% |
| Træna | | | | | 2,131 | 5% | 710 | 1% | |
| Ålesund | 9,717 | 21% | 2,325 | 4% | | | 4,014 | 8% | |
| Faroe Islands | Fuglafjørður | 2,591 | 6% | 3,340 | 5% | 4,121 | 9% | 3,351 | 7% |
| | Kollefjord | 4,018 | 9% | 5,450 | 9% | | | 3,156 | 6% |
| | Tvøroyri | 710 | 2% | | | | | 237 | 0% |
| Total | | 45,209 | 100% | 63,607 | 100% | 43,417 | 100% | 50,744 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Table II.54 shows the top five species (with respect to value averaged over 2016-2018) landed in Norway, the UK and the Faroe Islands by the 15%-vessels. Mackerel is the most important species in landings in these countries, but out of the total landings value and weight, it constitutes only a very small percentage.

Table II.54 Landings in harbours in the United Kingdom, Norway and the Faroe Islands specified by species by the 15%-vessels, top 5 species averaged over 2016-2018 measured by value, and percentage of total landings by 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|---------|-----|---------|-----|---------|----|-------------------|----|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Mackerel | 212,492 | 10% | 236,152 | 11% | 160,295 | 7% | 202,979 | 9% |
| Herring | 75,520 | 4% | 50,168 | 2% | 160,944 | 7% | 53,648 | 2% |
| Sandeel | | | 5,693 | 0% | 24,252 | 1% | 8,084 | 0% |
| Cod | 7,753 | 0% | 5,886 | 0% | 13,964 | 1% | 4,655 | 0% |
| Blue whiting | 1 | 0% | 6,151 | 0% | 13,079 | 1% | 4,360 | 0% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|--------|----|--------|----|--------|----|-------------------|----|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| Mackerel | 28,893 | 7% | 31,562 | 5% | 17,921 | 3% | 26,125 | 5% |
| Herring | 13,333 | 3% | 9,347 | 1% | 13,546 | 2% | 12,075 | 2% |
| Cod | | | 15,733 | 2% | 3,395 | 1% | 6,376 | 1% |
| Sandeel | 461 | 0% | 13 | 0% | 325 | 0% | 266 | 0% |
| Northern prawn | 22 | 0% | 4,767 | 1% | 3,703 | 1% | 2,831 | 0% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Turning attention to the vessels with a dependency of the COM-EEZ below 15%-of their total landings value, Table II.55 shows the number of vessels and the distribution on fleets. Thirty-five, 23 and 29 vessels fished in the COM-EEZ with a dependency on less than 15%-on this area.

Table II.55 *Number of Danish fishing vessels by fleets fishing in COM-EEZ with below 15%-dependency*

| Length | Gear type | 2016 | | 2017 | | 2018 | |
|------------------------|---------------------|------|------|------|------|------|------|
| | | | | | | | |
| 12-15m | Netters and liners | 1 | 3% | 2 | 9% | | |
| | Subtotal | 1 | 3% | 2 | 9% | | |
| 15-18m | Netters and liners | 3 | 9% | 1 | 4% | 1 | 3% |
| | Trawl | 3 | 9% | 3 | 13% | 5 | 17% |
| | Subtotal | 6 | 17% | 4 | 17% | 6 | 21% |
| 18-24m | Netters and liners | 1 | 3% | 1 | 4% | 1 | 3% |
| | Multi-purpose gears | 2 | 6% | 2 | 9% | 2 | 7% |
| | Danish seine | | | 1 | 4% | 3 | 10% |
| | Trawl | 11 | 31% | 7 | 30% | 8 | 28% |
| | Subtotal | 14 | 40% | 11 | 48% | 14 | 48% |
| 24-40m | Multi-purpose gears | 1 | 3% | 1 | 4% | 1 | 3% |
| | Trawl consumption | 3 | 9% | 3 | 13% | 5 | 17% |
| | Trawl reduction | 1 | 3% | | | | |
| | Trawl mixed | 2 | 6% | 1 | 4% | 1 | 3% |
| | Subtotal | 7 | 20% | 5 | 22% | 7 | 24% |
| >40 | Purse seine | 1 | 3% | | | | |
| | Trawl reduction | 4 | 11% | | | | |
| | Trawl mixed | 1 | 3% | | | | |
| | Subtotal | 6 | 17% | | | | |
| Licensed vessels | | | | | | 1 | 3% |
| Decommissioned vessels | | 1 | 3% | 1 | 4% | 1 | 3% |
| Total | | 35 | 100% | 23 | 100% | 29 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

As Table II.56 shows, the below 15%-vessels only fished in the COM-EEZ to a minor extend. On average from 2016 to 2018, the COM-EEZ constituted 7% of their total landings value, while landings from the NEW-EU-EEZ made up the major part of their fishery. These vessels do not have activity in the FRO-EEZ.

Table II.56 Landings by the below 15%-vessels distributed on zones

| Landings value (1,000 DKK) | | | | | | | | |
|----------------------------|----------------|-------------|----------------|-------------|----------------|-------------|-------------------|-------------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ | 15,015 | 4% | 3,377 | 2% | 3,488 | 1% | 7,293 | 2% |
| NEW-EU-EEZ | 379,555 | 92% | 195,191 | 93% | 260,000 | 94% | 278,249 | 93% |
| NOR-EEZ | 20,039 | 5% | 11,057 | 5% | 14,000 | 5% | 15,032 | 5% |
| Other zones* | 97 | 0% | 0 | 0% | 0 | 0% | 32 | 0% |
| Total | 414,707 | 100% | 209,625 | 100% | 277,488 | 100% | 300,606 | 100% |

| Landings live weight (tonnes) | | | | | | | | |
|-------------------------------|----------------|-------------|---------------|-------------|---------------|-------------|-------------------|-------------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ | 6,718 | 6% | 2,498 | 6% | 1,402 | 4% | 3,539 | 6% |
| NEW-EU-EEZ | 95,761 | 90% | 40,778 | 93% | 30,430 | 94% | 55,656 | 91% |
| NOR-EEZ | 959 | 1% | 462 | 1% | 580 | 2% | 667 | 1% |
| Other zones* | 3,220 | 3% | 0 | 0% | 0 | 0% | 1,073 | 2% |
| Total | 106,658 | 100% | 43,738 | 100% | 32,412 | 100% | 60,936 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Note: * Other EEZ includes the exclusive economic zone around Greenland, the zone around Svalbard and Bear Island, the international zone, and the waters adjacent to the territory of Western Sahara.

Broadening the picture on fleets, it is from Table II.57 observed that the average importance of the COM-EEZ is below 10% for all length groups. The highest dependency is seen for the above 40 meters-group.

Table II.57 Landings dependency on COM-EEZ by fleets for below 15%-vessels

| Landings value (1,000 DKK) | | | | | | | | | | |
|----------------------------|-----------|---------|-----------|-----------|-----------|-----------|-----------|-------------------|-----------|----------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | % in NOR - EEZ |
| | | NOR-EEZ | Other EEZ | NOR - EEZ | Other EEZ | NOR - EEZ | Other EEZ | NOR - EEZ | Other EEZ | |
| 15-18m | Total | 3,273 | 41,109 | 884 | 26,233 | 826 | 38,871 | 1,661 | 35,404 | 4% |
| 18-24m | Total | 13,779 | 140,974 | 11,291 | 119,301 | 12,378 | 155,168 | 12,483 | 138,481 | 8% |
| | - Trawl | 10,300 | 112,144 | 7,517 | 82,808 | 9,300 | 87,713 | 9,039 | 94,222 | 9% |
| 24-40m | Total | 6,367 | 72,902 | 1,482 | 34,840 | 3,949 | 62,875 | 3,933 | 56,872 | 6% |
| >40m | Total | 11,578 | 107,517 | | | | | 3,859 | 35,839 | 10% |
| Decommissioned vessels | | 56 | 17,151 | 777 | 14,817 | 335 | 3,086 | 389 | 11,685 | 3% |
| Total | | 35,054 | 379,653 | 14,433 | 195,191 | 17,488 | 260,000 | 22,325 | 278,281 | 7% |

| Landings live weight (1,000 DKK) | | | | | | | | | | |
|----------------------------------|-----------|---------|-----------|-----------|-----------|-----------|-----------|-------------------|-----------|----------------|
| Length | Gear type | 2016 | | 2017 | | 2018 | | Average 2016-2018 | | % in NOR - EEZ |
| | | NOR-EEZ | Other EEZ | NOR - EEZ | Other EEZ | NOR - EEZ | Other EEZ | NOR - EEZ | Other EEZ | |
| 15-18m | Total | 192 | 3,023 | 31 | 4,367 | 37 | 3,490 | 87 | 3,627 | 2% |
| 18-24m | Total | 1,796 | 19,995 | 2,248 | 19,399 | 1,797 | 23,181 | 1,947 | 20,858 | 9% |
| | - Trawl | 458 | 13,316 | 1,103 | 9,269 | 1,044 | 12,508 | 868 | 11,697 | 7% |
| 24-40m | Total | 475 | 10,717 | 65 | 7,318 | 140 | 3,686 | 227 | 7,240 | 3% |
| >40m | Total | 5,190 | 54,394 | | | | | 1,730 | 18,131 | 9% |
| Decommissioned vessels | | 25 | 10,851 | 616 | 9,695 | 8 | 74 | 216 | 6,873 | 3% |
| Total | | 7,677 | 98,980 | 2,960 | 40,778 | 1,982 | 30,430 | 4,207 | 56,729 | 7% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Definitions: *Trawl consumption* are vessels landing above 80% consumption species, *Trawl reduction* are vessels landing above 80% reduction species, and *Trawl mixed* are the remaining trawl vessels within that length group.

Note: For confidentiality reasons, vessels below 15 meters and vessels conducting licensed fishery have been included in 15-18 meters.

Based on the above detailed description of the below 15%-vessels, it is observed that their volume of landings and their dependency on the COM-EEZ is low. Therefore, their activity will not be described in more detail.

3. Economic consequences of no fishing activity in the UK-EEZ, NOR-EEZ and FRO-EEZ

The description in section 2 gives an overview of the dependency for Danish fishermen's fishing activity in the exclusive economic zone of the United Kingdom, Norway and the Faroe Islands.

In this section, the economic consequences will be analysed for the following situations:

- 1) Danish fishermen are excluded from any fishing activity in the UK EEZ, but can still fish in the NOR-EEZ and FRO-EEZ
- 2) Danish fishermen are excluded from any fishing activity in the UK EEZ, NOR-EEZ and FRO-EEZ

The analysis will be static-comparative thus answering the question of what would have happened in each of the three years, if 1) or 2) had been the situation in those years. No dynamics are considered, i.e. no structural adjustments in the fleet will be accounted for, and no behavioural adjustments will be included, such as for instance changes in fishing grounds. Thus, the two analysed situations mentioned above will have two direct economic effects for the fishing vessels affected:

- 1) Landings value will be reduced with the amount related to the UK-EEZ, NOR-EEZ and FRO-EEZ respectively
- 2) Operating (variable) costs related to the activity in the UK-EEZ, NOR-EEZ and FRO-EEZ respectively will also be reduced

The economic consequences in each of the two situations will be described using three economic measures:

- 1) Landings value
- 2) Gross profit defined as landings value minus operating costs
- 3) Net profit defined as gross profit minus crew payments

The gross profit gives a measure for the amount left to pay for labour and capital, while net profit is then the remaining amount left for payment of capital and any excess payments to the owner.

With respect to the operating costs, fuel costs and costs for provisions and ice/chilled sea water are assumed to depend on the number of days at sea, thus fewer days at sea implies lower costs for this. Sales costs and crew payments are assumed to depend on the value of landings.

The remaining costs are assumed to be fixed and are thus not related to the fishing activity level. These costs include insurance costs, maintenance costs and various other costs. These costs will not change due to any lower fishing activity in the UK-EEZ, NOR-EEZ or FRO-EEZ. Thus, no matter how much the landings' values are reduced for the vessels, the fixed costs have to be paid.

In order to calculate the cost structure and cost levels for the individual fleets, the latest available fisheries account statistics from Statistics Denmark are used. The cost structure observed in the statistics for an average vessel in a fleet is used as a starting point for the cost structure of a vessel

fishing in the UK-EEZ, NOR-EEZ and/or FRO-EEZ. However, in order to account for the specific activity levels of the vessels fishing in the UK-EEZ, NOR-EEZ and/or FRO-EEZ, the cost levels are scaled up/down using the proportion between the landings value of the latter vessels compared to the average vessel in the specific fleet observed in the statistics.

It is noted that the assumption about equal cost structures as well as scaling cost levels up/down using the landings value can be discussed. However, with the current information available, the approach selected gives a transparent and understandable approach.

The latest information available in the fisheries account statistics covers 2015, 2016 and 2017. Thus, the cost structures and cost levels for 2018 have to be estimated. For this, the method described in Andersen (2000) is used. Thus, fuel costs are projected using an oil price index, sales and crew costs using the observed 2018 average landings value within each fleet, and the remaining costs are projected using a weighted three-year average and the yearly harmonized consumer price index from Statistics Denmark.

The economic consequences are calculated for each of the fleets affected, if credible account information is available for the individual fleets. For some fleets, it has not been possible for various reasons to obtain sufficient observations in order to produce credible and reliable cost information. Furthermore, due to confidentiality reasons, the number of vessels within a fleet may be so low that it is not possible to present the economic consequences. However, as in the tables in Section 2, the economic consequences will be presented for totals on length groups, and at the fleet level, if the number of vessels within a fleet is sufficient to do this without compromising the confidentiality of these.

In the two sections below, the economic performance is presented in the two situations mentioned above. It must be mentioned that comparing the results from section 3.1 with the results in section 3.2 should be done with caution. Due to the inclusion and coverage of different fleets, the figures are not comparable, and cannot for instance, be deducted from each other in order to isolate the consequences of closing the NOR-EEZ and FRO-EEZ and not simultaneously closing the UK-EEZ.

3.1. Economic consequences from closure of UK-EEZ

This section will present and comment on the economic (financial) effects of closure of the UK-EEZ for the fishing fleets described in section 2.1. Landings value, gross profit and net profit are shown as three-year averages over the period 2016-2018. The tables include the total values for each fleet group as well as the average value per vessel. Detailed yearly tables have been included in annexes.

With the current Common Fisheries Policy (CFP), where the United Kingdom is included, Danish fishermen can fish in the UK-EEZ. Table III.1 shows that for the fleets, where economic consequences can be calculated, these will have an average yearly total landings value 2016-2018 of 1.6 billion DKK. However, if fishing is prohibited in the UK-EEZ, the total landings value will be reduced to 0.6 billion DKK, i.e. a reduction of 61%. Andersen, Andersen, Hoff and Ståhl (2017) an almost similar reduction was observed from 1.4 billion DKK to 0.6 billion DKK, i.e. 57% on the average for 2014 to 2016.

Table III.1 Landings value 2016-2018 for fleets fishing in UK-EEZ with 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | Scenario 2 No landings from UK-EEZ | |
|---------------|--------|---------------------|--|---------------------------------------|------|
| Total | 24-40m | Total | 281,923 | 174,108 | -38% |
| | | - Trawl consumption | 199,003 | 121,890 | -39% |
| | >40m | Total | 1,334,502 | 460,826 | -65% |
| | | - Trawl reduction | 180,818 | 110,755 | -39% |
| | | - Trawl mixed | 737,166 | 233,224 | -68% |
| | Total | | 1,616,425 | 634,934 | -61% |
| Per vessel | 24-40m | Total | 21,250 | 13,079 | -38% |
| | | - Trawl consumption | 25,044 | 15,339 | -39% |
| | >40m | Total | 52,324 | 18,126 | -65% |
| | | - Trawl reduction | 14,721 | 9,108 | -38% |
| | | - Trawl mixed | 76,019 | 23,970 | -68% |

Source: Own calculations.

Note: For confidentiality reasons, vessels below 24 meters have been included in length group 24-40 meters. Moreover, Beam trawlers 24-40 meters have been omitted from the results, because reliable cost information is missing for this segment.

Note: See Annex 2 for a detailed table.

Looking at the economic performance measures, i.e. gross profit in Table III.2 and net profit in Table III.3, the reduction in gross profit is 81% from 1.1 billion DKK to 0.2 billion DKK, while it for net profit is 91% from 0.7 billion DKK to 0.1 billion DKK. Thus, the reduction in both gross profit and net profit is higher than the reduction in landings value of 61%.

Compared to the results in Andersen, Andersen, Hoff and Ståhl (2017), the reductions in both gross profit and net profit are higher using 2016 to 2018 data. For 2014 to 2016, the reduction in gross profit was 75% compared to 81% based on 2016 to 2018, while it was 82% compared to 91% in net profit.

Table III.2 Gross profit 2016-2018 for fleets fishing in UK-EEZ with 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | Scenario 2 No landings from UK-EEZ | |
|---------------|--------|---------------------|--|---------------------------------------|------|
| Total | 24-40m | Total | 151,501 | 67,316 | -56% |
| | | - Trawl consumption | 113,951 | 53,495 | -53% |
| | >40m | Total | 931,253 | 133,831 | -86% |
| | | - Trawl reduction | 70,227 | 17,103 | -76% |
| - Trawl mixed | | 532,905 | 68,046 | -87% | |
| | Total | 1,082,754 | 201,147 | -81% | |
| Per vessel | 24-40m | Total | 11,478 | 5,095 | -56% |
| | | - Trawl consumption | 14,453 | 6,853 | -53% |
| | >40m | Total | 36,588 | 5,337 | -85% |
| | | - Trawl reduction | 5,768 | 1,496 | -74% |
| - Trawl mixed | | 54,945 | 6,943 | -87% | |

Source: Own calculations.

Note: For confidentiality reasons, vessels below 24 meters have been included in length group 24-40 meters. Moreover, Beam trawlers 24-40 meters have been omitted from the results, because reliable cost information is missing for this segment.

Note: See Annex 3 for a detailed table.

Table III.3 Net profit 2016-2018 for fleets fishing in UK-EEZ with 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | Scenario 2 No landings from UK-EEZ | |
|---------------|--------|---------------------|--|---------------------------------------|-------|
| Total | 24-40m | Total | 67,108 | 15,083 | -78% |
| | | - Trawl consumption | 53,689 | 16,586 | -69% |
| | >40m | Total | 716,191 | 56,103 | -92% |
| | | - Trawl reduction | 29,512 | -7,701 | -126% |
| - Trawl mixed | | 417,181 | 31,553 | -92% | |
| | Total | 783,299 | 71,186 | -91% | |
| Per vessel | 24-40m | Total | 5,139 | 1,186 | -77% |
| | | - Trawl consumption | 6,868 | 2,208 | -68% |
| | >40m | Total | 28,177 | 2,289 | -92% |
| | | - Trawl reduction | 2,477 | -529 | -121% |
| - Trawl mixed | | 42,985 | 3,185 | -93% | |

Source: Own calculations.

Note: For confidentiality reasons, vessels below 24 meters have been included in length group 24-40 meters. Moreover, Beam trawlers 24-40 meters have been omitted from the results, because reliable cost information is missing for this segment.

Note: See Annex 4 for a detailed table.

Looking at the average figures for the individual fleets in the three tables, it is generally observed, that prohibiting fishing in the UK-EEZ will reduce the economic performance to a probably not economically viable level, unless behavioural changes in their fishery and/or capacity adjustments become possible. This is especially the case for the vessels above 40 meters, but a reduction in net

profit for the trawl consumption 24-40 meters of 69% must be considered to have serious economic consequences.

For the vessels with lower dependency of the UK-EEZ, the effects on the economic performance measures are less severe than for the more dependent vessels discussed above. As is seen in Table III.4, the value of landings is expected on average 2016-2018 to be reduced by 6% or 20 million DKK from 0.33 billion DKK to 0.31 billion DKK.

Table III.4 Landings value 2016-2018 for fleets fishing in UK-EEZ with below 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | Scenario 2 No landings from UK-EEZ | |
|---------------|--------|---------------------|--|---------------------------------------|------|
| Total | 18-24m | Total | 83,254 | 80,704 | -3% |
| | 24-40m | Total | 202,203 | 189,196 | -6% |
| | | - Trawl consumption | 172,419 | 161,907 | -6% |
| | >40m | Total | 39,698 | 35,839 | -10% |
| | Total | | 325,156 | 305,738 | -6% |
| Per vessel | 18-24m | Total | 9,583 | 9,284 | -3% |
| | 24-40m | Total | 17,031 | 15,936 | -6% |
| | | - Trawl consumption | 18,097 | 16,974 | -6% |
| | >40m | Total | 6,616 | 5,973 | -10% |

Source: Own calculations.

Note: For confidentiality reasons, vessels below 18 meters have been included in length group 18-24 meters. Moreover, Beam trawlers 24-40 meters and multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Note: See Annex 5 for a detailed table.

Moreover, it is seen from Table III.5 and III.6 that gross profit and net profit are reduced with 8% and 12% respectively. The maximum reduction is observed for the >40 meter vessels with 14% in gross profit and 17% in net profit.

Table III.5 Gross profit 2016-2018 for fleets fishing in UK-EEZ with below 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | Scenario 2 No landings from UK-EEZ | |
|---------------|--------|---------------------|--|---------------------------------------|------|
| Total | 18-24m | Total | 48,728 | 46,634 | -4% |
| | 24-40m | Total | 113,822 | 103,514 | -9% |
| | | - Trawl consumption | 98,268 | 89,999 | -8% |
| | >40m | Total | 23,196 | 19,840 | -14% |
| | Total | | 185,746 | 169,988 | -8% |
| Per vessel | 18-24m | Total | 5,610 | 5,364 | -4% |
| | 24-40m | Total | 9,563 | 8,696 | -9% |
| | | - Trawl consumption | 10,380 | 9,492 | -9% |
| | >40m | Total | 3,866 | 3,307 | -14% |

Source: Own calculations.

Note: For confidentiality reasons, vessels below 18 meters have been included in length group 18-24 meters. Moreover, Beam trawlers 24-40 meters and multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Note: See Annex 6 for a detailed table.

Table III.6 Net profit 2016-2018 for fleets fishing in UK-EEZ with below 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | Scenario 2 No landings from UK-EEZ | |
|---------------|--------|---------------------|--|---------------------------------------|------|
| Total | 18-24m | Total | 17,740 | 16,617 | -6% |
| | 24-40m | Total | 52,799 | 46,407 | -12% |
| | | - Trawl consumption | 46,106 | 41,017 | -11% |
| | >40m | Total | 16,015 | 13,344 | -17% |
| | Total | | 86,555 | 76,367 | -12% |
| Per vessel | 18-24m | Total | 2,039 | 1,907 | -6% |
| | 24-40m | Total | 4,418 | 3,881 | -12% |
| | | - Trawl consumption | 4,900 | 4,353 | -11% |
| | >40m | Total | 2,669 | 2,224 | -17% |

Source: Own calculations.

Note: For confidentiality reasons, vessels below 18 meters have been included in length group 18-24 meters. Moreover, Beam trawlers 24-40 meters and multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Note: See Annex 7 for a detailed table.

To conclude, a closure of the UK-EEZ will have a severe impact on the economic performance of the vessels getting at least 15% of their landings value from the UK-EEZ. The vessels with lower dependency of the UK-EEZ will also be influenced, but not at the same magnitude as the others.

3.2. Economic consequences from closing UK-EEZ, NOR-EEZ and FRO-EEZ

As also described in Section 2, the simultaneous closure of the UK-EEZ, NOR-EEZ and FRO-EEZ will have a larger impact for Danish fishery. The 15%-vessels included in the economic analysis undertaken in this section had on average, from 2016 to 2018, a yearly landings value of 2.0 billion DKK, cf. Table III.7. Closing all three EEZ at the same time will for these vessels imply a reduction in landings value of 71% to 0.6 billion DKK. Much of the reduction for the vessels above 24 meters is driven by closing the UK-EEZ, but especially closing the NOR-EEZ will have an impact on the demersal fishery as well, thus influencing the fleet more dependent on this type of fishery, i.e. vessels below 24 meters and the Trawl consumption 24-40 meters.

Table III.7 Landings value 2016-2018 for fleets fishing in COM-EEZ with 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | Scenario 2 No landings from COM-EEZ | |
|-------------------|--------|---------------------|--|--|------|
| Total | 15-18m | Total | 34,903 | 22,334 | -36% |
| | 18-24m | Total | 125,379 | 74,656 | -40% |
| | | - Danish seine | 28,095 | 13,059 | -54% |
| | 24-40m | Total | 530,969 | 114,912 | -78% |
| | | - Trawl consumption | 431,812 | 90,819 | -79% |
| | >40m | Total | 1,334,502 | 369,273 | -72% |
| - Trawl reduction | | 180,818 | 110,755 | -39% | |
| - Trawl mixed | | 737,166 | 192,619 | -74% | |
| | Total | 2,025,753 | 581,174 | -71% | |
| Per vessel | 15-18m | Total | 7,690 | 4,821 | -37% |
| | 18-24m | Total | 8,712 | 5,170 | -41% |
| | | - Danish seine | 5,619 | 2,612 | -54% |
| | 24-40m | Total | 18,970 | 4,110 | -78% |
| | | - Trawl consumption | 18,780 | 3,948 | -79% |
| | >40m | Total | 52,324 | 14,434 | -72% |
| - Trawl reduction | | 14,721 | 9,108 | -38% | |
| - Trawl mixed | | 76,019 | 19,803 | -74% | |

Source: Own calculations.

Note: For confidentiality reasons, vessels conducting licensed fishery have been included in 15-18 meters. Moreover, beam trawlers 15-18 meters, 18-24 meters and 24-40 meters together with multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Note: See Annex 8 for a detailed table.

Including costs in the analyses and calculating gross profit as well as net profit, shows that the impact on economic performance will be severe and economically critical for the vessels with activity in these three EEZ. Total gross profit will be reduced with 96% and at the minimum with 50% per vessel for the 15-18 meter vessels, while the 24-40 meter vessels will face a potential reduction of 112% to a negative gross profit, cf. Table III.8.

Table III.8 Gross profit 2016-2018 for fleets fishing in COM-EEZ with 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | Scenario 2 No landings from COM-EEZ | |
|---------------|--------|---------------------|--|--|-------|
| Total | 15-18m | Total | 21,457 | 11,084 | -48% |
| | 18-24m | Total | 72,150 | 30,742 | -57% |
| | | - Danish seine | 13,736 | 1,748 | -87% |
| | 24-40m | Total | 292,994 | -35,118 | -112% |
| | | - Trawl consumption | 246,909 | -21,629 | -109% |
| | >40m | Total | 931,253 | 48,412 | -95% |
| | | - Trawl reduction | 70,227 | 17,103 | -76% |
| - Trawl mixed | | 532,905 | 30,022 | -94% | |
| | Total | | 1,317,854 | 55,121 | -96% |
| Per vessel | 15-18m | Total | 4,733 | 2,365 | -50% |
| | 18-24m | Total | 5,014 | 2,122 | -58% |
| | | - Danish seine | 2,747 | 350 | -87% |
| | 24-40m | Total | 10,486 | -1,241 | -112% |
| | | - Trawl consumption | 10,766 | -925 | -109% |
| | >40m | Total | 36,588 | 1,894 | -95% |
| | | - Trawl reduction | 5,768 | 1,496 | -74% |
| - Trawl mixed | | 54,945 | 3,040 | -94% | |

Source: Own calculations.

Note: For confidentiality reasons, vessels conducting licensed fishery have been included in 15-18 meters. Moreover, beam trawlers 15-18 meters, 18-24 meters and 24-40 meters together with multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Note: See Annex 9 for a detailed table.

Taking crew payments into consideration in the net profit measure, the economic performance at the total level is reduced with 109% and becomes negative, compared to a surplus of 0.9 billion DKK before any closures. For the individual vessels, net profit is reduced to either levels close to zero or negative levels.

Table III.9 Net profit 2016-2018 for fleets fishing in COM-EEZ with 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | Scenario 2 No landings from COM-EEZ | |
|---------------|--------|---------------------|--|--|-------|
| Total | 15-18m | Total | 7,359 | 1,897 | -74% |
| | 18-24m | Total | 25,172 | 2,679 | -89% |
| | | - Danish seine | 3,732 | -2,903 | -178% |
| | 24-40m | Total | 133,511 | -69,164 | -152% |
| | | - Trawl consumption | 116,196 | -49,118 | -142% |
| | >40m | Total | 716,191 | -15,859 | -102% |
| | | - Trawl reduction | 29,512 | -7,701 | -126% |
| - Trawl mixed | | 417,181 | -139 | -100% | |
| | Total | 882,233 | -80,447 | -109% | |
| Per vessel | 15-18m | Total | 1,622 | 375 | -77% |
| | 18-24m | Total | 1,751 | 178 | -90% |
| | | - Danish seine | 746 | -581 | -178% |
| | 24-40m | Total | 4,787 | -2,459 | -151% |
| | | - Trawl consumption | 5,080 | -2,120 | -142% |
| | >40m | Total | 28,177 | -613 | -102% |
| | | - Trawl reduction | 2,477 | -529 | -121% |
| - Trawl mixed | | 42,985 | -67 | -100% | |

Source: Own calculations.

Note: For confidentiality reasons, vessels conducting licensed fishery have been included in 15-18 meters. Moreover, beam trawlers 15-18 meters, 18-24 meters and 24-40 meters together with multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Note: See Annex 10 for a detailed table.

Closing all three EEZs will also have a negative impact for vessels with a dependency of these EEZ below 15%. The landings value will be reduced with 20 million DKK, i.e. 7%, cf. Table III.10. It is primarily vessels (trawlers) between 18 and 24 meters that will get the absolute reduction - in total 9 million DKK per year. Gross profit and net profit are also reduced, cf. Table III.11 and III.12, but despite that there is an impact on the economic performance of these vessels, it is not at the magnitude observed for the vessels more dependent on the COM-EEZ

Table III.10 Landings value 2016-2018 for fleets fishing in COM-EEZ with below 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 | Scenario 2 | |
|------------|--------|-----------|-----------------------|--------------------------|------|
| | | | Given the current CFP | No landings from COM-EEZ | |
| Total | 15-18m | Total | 37,065 | 35,404 | -4% |
| | 18-24m | Total | 121,990 | 112,001 | -8% |
| | | - Trawl | 103,261 | 94,222 | -9% |
| | 24-40m | Total | 60,805 | 56,872 | -6% |
| | >40m | Total | 39,698 | 35,839 | -10% |
| | Total | | 259,559 | 240,117 | -7% |
| Per vessel | 15-18m | Total | 5,510 | 5,266 | -4% |
| | 18-24m | Total | 11,131 | 10,216 | -8% |
| | | - Trawl | 12,054 | 10,996 | -9% |
| | 24-40m | Total | 9,378 | 8,788 | -6% |
| | >40m | Total | 6,616 | 5,973 | -10% |

Source: Own calculations.

Note: For confidentiality reasons, vessels conducting licensed fishery and vessels below 15 meters have been included in 15-18 meters. Moreover, multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Note: See Annex 11 for a detailed table.

Table III.11 *Gross profit 2016-2018 for fleets fishing in COM-EEZ with below 15%-dependency (1,000 DKK)*

| | Length | Gear type | Scenario 1 Given the current CFP | Scenario 2 No landings from COM-EEZ | |
|---------------|--------|-----------|--|--|------|
| Total | 15-18m | Total | 22,017 | 20,645 | -6% |
| | 18-24m | Total | 71,978 | 64,089 | -11% |
| | | - Trawl | 62,040 | 54,927 | -11% |
| | 24-40m | Total | 33,520 | 30,470 | -9% |
| | >40m | Total | 23,196 | 19,840 | -14% |
| | Total | | 150,711 | 135,043 | -10% |
| Per vessel | 15-18m | Total | 3,267 | 3,065 | -6% |
| | 18-24m | Total | 6,558 | 5,836 | -11% |
| | | - Trawl | 7,202 | 6,371 | -12% |
| | 24-40m | Total | 5,171 | 4,714 | -9% |
| | >40m | Total | 3,866 | 3,307 | -14% |

Source: Own calculations.

Note: For confidentiality reasons, vessels conducting licensed fishery and vessels below 15 meters have been included in 15-18 meters. Moreover, multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Note: See Annex 12 for a detailed table.

Table III.12 *Net profit 2016-2018 for fleets fishing in COM-EEZ with below 15%-dependency (1,000 DKK)*

| | Length | Gear type | Scenario 1 Given the current CFP | Scenario 2 No landings from COM-EEZ | |
|---------------|--------|-----------|--|--|------|
| Total | 15-18m | Total | 7,334 | 6,638 | -9% |
| | 18-24m | Total | 29,741 | 25,297 | -15% |
| | | - Trawl | 27,089 | 23,036 | -15% |
| | 24-40m | Total | 14,870 | 13,026 | -12% |
| | >40m | Total | 16,015 | 13,344 | -17% |
| | Total | | 67,960 | 58,305 | -14% |
| Per vessel | 15-18m | Total | 1,082 | 980 | -9% |
| | 18-24m | Total | 2,694 | 2,288 | -15% |
| | | - Trawl | 3,105 | 2,633 | -15% |
| | 24-40m | Total | 2,291 | 2,015 | -12% |
| | >40m | Total | 2,669 | 2,224 | -17% |

Source: Own calculations.

Note: For confidentiality reasons, vessels conducting licensed fishery and vessels below 15 meters have been included in 15-18 meters. Moreover, multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Note: See Annex 13 for a detailed table.

4. Summary

The decision by the UK about leaving the European Union causes a range of negotiations about the future collaboration between the remaining EU Member States and the United Kingdom. Fisheries is one of the areas that will be a part of these negotiations.

This report describes the situation for the Danish fishery with focus on the fishery in the Exclusive Economic Zone of the United Kingdom (UK-EEZ), based on the latest available data from 2016, 2017 and 2018. Furthermore, a description of the importance of the Danish fishery in the exclusive economic zones of Norway (NOR-EEZ) and the Faroe Islands (FRO-EEZ) is included. The current fishing agreements between the European Union and Norway/the Faroe Islands give the fishermen from Norway and the Faroe Islands access to the UK-EEZ, and EU-fishermen access to NOR-EEZ and FRO-EEZ. However, this may not be the case in the future, depending on the agreements with the United Kingdom.

Importance of the UK-EEZ, NOR-EEZ and FRO-EEZ for the Danish fishermen

Overall, the Danish fisheries obtained a substantial part of its landings from the UK-EEZ and NOR-EEZ in 2016-2018, cf. Table IV.1 below. The landings value from the UK-EEZ constituted on average 30% of the total Danish landings value, corresponding to 1 billion DKK, while the landings value from the NOR-EEZ constituted 14%, or 0.5 billion DKK over the period. Contrary to this, the contribution from the FRO-EEZ was of minor importance.

Table IV.1 Economic importance of exclusive economic zones for Danish fishery (1,000 DKK)

| Exclusive economic zone | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
|-----------------------------|-----------|------|-----------|------|-----------|------|-------------------|------|
| | Value | % | Value | % | Value | % | Value | % |
| NEW-EU-EEZ | 1,959,503 | 53% | 1,733,021 | 51% | 1,852,417 | 52% | 1,848,314 | 52% |
| UK-EEZ | 1,018,173 | 28% | 1,052,818 | 31% | 1,071,390 | 30% | 1,047,460 | 30% |
| NOR-EEZ | 536,065 | 15% | 489,437 | 14% | 474,274 | 13% | 499,925 | 14% |
| FRO-EEZ | 14,106 | 0% | 0 | 0% | 389 | 0% | 4,832 | 0% |
| Other EEZ* | 147,370 | 4% | 144,017 | 4% | 142,557 | 4% | 144,648 | 4% |
| Total by all Danish vessels | 3,675,217 | 100% | 3,419,293 | 100% | 3,541,027 | 100% | 3,545,179 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Note: * Other EEZ includes the exclusive economic zone around Greenland, the zone around Svalbard and Bear Island, the international zone, and the waters adjacent to the territory of Western Sahara.

In all, 69 vessels in 2016, 69 vessels in 2017 and 69 vessels in 2018 fished in the UK-EEZ. Of these 36 vessels in 2016, 50 vessels in 2017 and 44 vessels in 2018 took at least 15% of their landings value from the UK-EEZ (in the following referred to as 'UK-15%' vessels). Correspondingly 79 vessels in 2016 and 2017 and 84 vessels in 2018 fished in the NOR-EEZ, of which 50 vessels in 2016 and 51 vessels in 2017 and 2018 took at least 15% of their landings value from the NOR-EEZ (in the following referred to as 'NOR-15%' vessels). The number of vessels active in the FRO-EEZ was in total over the years below five vessels and none of these were more than 15% dependent on their fishery in the FRO-EEZ.

The UK-15% vessels on average landed 98% of the Danish landings value and 99% of the Danish landings weight from the UK-EEZ in 2016-2018, and the NOR-15% vessels landed 88% of the Danish landings value and 75% of the landings weight from the NOR-EEZ in 2016-2018. The analysis has

focused on a detailed outline of the above 15%-vessels' activity but has also covered basic information on the activity of the below 15%-vessels.

The most important species taken by the UK-15% vessels in the UK-EEZ are herring, mackerel and sandeel that on average cover 81% of the Danish landings value and 83% of the landings weight over 2016-2018. These species are mainly caught in the Northern and central North Sea, with a smaller part caught in the fishing waters west of Scotland. The catches are mainly landed in Denmark, and to some degree in Norway and Germany, with only 3% of the landings value landed in the UK. In Denmark, the landings are mainly done in the harbours of Skagen, Thyborøn, Hirtshals and Hanstholm.

The most important species taken by the NOR-15% vessels in the NOR-EEZ are plaice, cod and herring that cover 48% of the Danish landings value and 62% of the landings weight over 2016-2018. These species are mainly caught in the northern and central North Sea and to some degree in the southern part of the Norwegian Sea. The catches are mainly landed in Denmark, while only 4% of the landings value is landed in Norway. In Denmark, the landings are mainly done in harbours of Thyborøn, Hanstholm and Hvide Sande.

The analysis has also considered vessels fishing in all three areas, considered as one combined EEZ (named 'COM-EEZ'). Some vessels may fish in one zone, others in two of them and only a few in all three. However, a combined closure of the fishery in the UK-EEZ, NOR-EEZ and FRO-EEZ will have a potentially high impact on the economic performance of the vessels involved. In all, 111 vessels in 2016, 107 in 2017 and 111 in 2018 fished in COM-EEZ. The landings value from the COM-EEZ, i.e. UK-EEZ, NOR-EEZ and FRO-EEZ, for these vessels constituted on average 44% of the total Danish landings value in 2016-2018 (cf. Table IV.2), corresponding to 1.5 billion DKK.

Table IV.2 Landings by Danish vessels, their dependency on COM-EEZ and COM-EEZ active vessels' landings on exclusive economic zones

| Landings value (1,000 DKK) | | | | | | | | |
|--------------------------------------|-----------|------|-----------|------|-----------|------|-------------------|------|
| | 2016 | | 2017 | | 2018 | | Average 2016-2018 | |
| UK-EEZ by COM-EEZ active vessels | 1,018,173 | 28% | 1,052,818 | 31% | 1,071,390 | 30% | 1,047,461 | 30% |
| NEW-EU-EEZ by COM-EEZ active vessels | 956,538 | 26% | 773,395 | 23% | 960,578 | 27% | 896,837 | 25% |
| NOR-EEZ by COM-EEZ active vessels | 536,065 | 15% | 489,437 | 14% | 474,274 | 13% | 499,925 | 14% |
| FRO-EEZ by COM-EEZ active vessels | 14,106 | 0% | | | 389 | 0% | 4,832 | 0% |
| Other EEZ* by COM-EEZ active vessels | 10,232 | 0% | 21,279 | 1% | 13,710 | 0% | 15,074 | 0% |
| Total by COM-EEZ vessels | 2,535,115 | 69% | 2,336,929 | 68% | 2,520,341 | 71% | 2,464,128 | 70% |
| Total by all Danish vessels | 3,675,217 | 100% | 3,419,293 | 100% | 3,541,027 | 100% | 3,545,179 | 100% |

Source: The Danish Fisheries Agency Vessel, Logbook and Sales Notes Register 11th February 2019.

Of the vessels fishing in the COM-EEZ, 76 in 2016, 74 in 2017 and 82 in 2018 took more than 15% of their landings value in the COM-EEZ (in the following named the 'COM-15%' vessels).

The COM-15% vessels on average landed 99% of the Danish landings value and weight from the COM-EEZ in 2016-2018. The analysis has focused on a detailed outline of the above 15%-vessels' activity, but has also covered information on the activity of the below 15%-vessels.

The most important species taken by the COM-15% vessels in the COM-EEZ were herring, mackerel and sandeel that on average covered 61% of the Danish landings value and 78% of the landings weight in COM-EEZ over 2016-2018. These species are mainly caught in the Northern and central North Sea, with a smaller part caught in the fishing waters west of Scotland and in the southern Norwegian Sea. The catches are mainly landed in Denmark (82% of the value and 70% of the weight), and to some degree in Norway and Germany. In Denmark, the landings are mainly done in the harbours of Skagen, Thyborøn, Hirtshals and Hanstholm.

Consequences of the United Kingdom leaving the European Union for Danish fishermen

Based on landing and cost information, an economic analysis has been undertaken in order to show the effects for the Danish fishing fleet following the United Kingdom leaving the European Union. The analysis is data demanding, and various assumptions have therefore been set up in order to define the possible effects following different situations. The following situations have been investigated:

- 1) Continuation of the current CFP, i.e. the negotiations end up with unchanged access to the UK-EEZ respectively COM-EEZ
- 2) All Danish (and other EU) vessels are excluded from fishing in the UK-EEZ respectively the COM-EEZ. In both cases, it is assumed that there is no possibility to take some of the catches previously taken in UK-EEZ/COM-EEZ in the NEW-EU-EEZ after the United Kingdom has left the European Union.

The analyses have been performed for both vessels having a more than 15%-dependency on the two areas, and vessels having a less than 15%-dependency. The analysis has been based on the years 2016, 2017 and 2018, and it shows what would potentially have happened if Danish fishermen had not been able to fish in these areas in those years. The analysis is thus a short run analysis, without taking for instance any capacity adjustments into consideration.

The results of these scenarios are displayed in Table IV.3 and Table IV.4.

Table IV.3 Closure of UK-EEZ: Aggregated landings value, gross profit and net profit, average of 2016-18 (1,000 DKK)

| | | Given the current CFP | No landings from UK-EEZ | |
|--|----------------|-----------------------|-------------------------|------|
| Vessels with more than 15% dependency | Landings value | 1,616,425 | 634,934 | -61% |
| | Gross profit | 1,082,754 | 201,147 | -81% |
| | Net profit | 783,299 | 71,186 | -91% |
| Vessels with less than 15% dependency | Landings value | 325,156 | 305,738 | -6% |
| | Gross profit | 185,746 | 169,988 | -8% |
| | Net profit | 86,555 | 76,367 | -12% |

Source: Own calculations.

Note: The gross profit gives a measure for the amount left to pay for labour and capital, while net profit is then the remaining amount left for payment of capital and any excess payments to the owner. With respect to the operating costs, fuel costs and costs for provisions and ice/chilled sea water are assumed to dependent on the number of days at sea, thus fewer days at sea implies lower costs for this. Sales costs and crew payments are assumed to depend on the value of landings. The remaining costs are assumed to be fixed and are thus not related to the fishing activity level. These costs include insurance costs, maintenance costs and various other costs.

Table IV.4 Closure of COM-EEZ: Aggregated landings value, gross profit and net profit, average of 2016-18 (1,000 DKK)

| | | Given the current CFP | No landings from COM-EEZ | |
|--|----------------|-----------------------|--------------------------|-------|
| Vessels with more than 15% dependency | Landings value | 2,025,753 | 581,174 | -71% |
| | Gross profit | 1,317,854 | 55,121 | -96% |
| | Net profit | 882,233 | -80,447 | -109% |
| Vessels with less than 15% dependency | Landings value | 259,559 | 240,117 | -7% |
| | Gross profit | 150,711 | 135,043 | -10% |
| | Net profit | 67,960 | 58,305 | -14% |

Source: Own calculations.

Note: The gross profit gives a measure for the amount left to pay for labour and capital, while net profit is then the remaining amount left for payment of capital and any excess payments to the owner. With respect to the operating costs, fuel costs and costs for provisions and ice/chilled sea water are assumed to depend on the number of days at sea, thus fewer days at sea implies lower costs for this. Sales costs and crew payments are assumed to depend on the value of landings. The remaining costs are assumed to be fixed and are thus not related to the fishing activity level. These costs include insurance costs, maintenance costs and various other costs.

The overall picture is that the economic consequences for the above 15% fleet in all scenarios are significant, given that the basis is the situation in 2016-2018. The UK-15% vessels cover 98% of the landings value and 99% of the landings weight from the UK-EEZ, while the COM-15% vessels cover 99% of the landings weight and value from the COM-EEZ. Thus, unless the current CFP continues, the decision by the United Kingdom to leave EU will lead to a significant decline in landing values, gross profit, and net profit for the fleets involved. This is the case both if it is only the UK-EEZ that is closed, and if it is the COM-EEZ that is closed, with the latter scenario leading to more severe losses than the former scenario, as could be expected.

The gross profit and net profit are still positive for most UK-15% fleets in the case where only the UK-EEZ is closed, while the net profit is negative for most COM-15% fleets if the COM-EEZ is closed. It must be remembered that the analysis is based on the assumption that structural changes are not taking place in the fleets, i.e. that the fleet structure and capacity is unchanged in all situations. Furthermore, the analysis has not considered any price effects following any change in trade

agreements and consequences in trade patterns between the EU and UK. Fish prices are mainly determined by world prices, and therefore no major price effects can be expected following the decision by the United Kingdom to leave the European Union.

Looking at the Danish harbours and their landings from the UK-15% and COM-15% vessels, they primarily locate and land their fish in the harbours on the west coast of Northern Jutland. Skagen receives mostly herring and some reduction species, Hirtshals mostly receives herring and mackerel, while Thyborøn receives reduction species and some amounts of herring and some landings of demersal species. Hanstholm mostly receives demersal species. A small part of the landings from the UK-15% and the COM-15% vessels take place in the UK and in Norway.

Summarizing the findings in this report in short points, the primary ones are as follows:

Overall

- Danish fishermen take 30% of their total landings value in the UK-EEZ and 14% in the NOR-EEZ while the FRO-EEZ is of only minor importance.

Fishing in the Exclusive Economic Zone of the United Kingdom

- Of the Danish fleet fishing in the UK-EEZ, 36 vessels in 2016, 50 in 2017 and 44 in 2018 took more than 15% of their landings value in the UK-EEZ (named the UK-15% vessels). Together these vessels account for 98% of the landings value and 99% of the landings weight taken on average over 2016-2018 in the UK-EEZ
- The most important species caught in the UK-EEZ are herring, mackerel and sandeel, which account for 81% of the landings value and 83% of the landings weight for the UK-15% vessels
- The UK-15% vessels land 62% of their landings value and 75% of their landings weight from the UK-EEZ in Denmark, especially in the harbours of Skagen, Thyborøn, Hirtshals and Hanstholm
- If the UK-EEZ is closed the Danish UK-15% vessels will lose 61% of their total landings value, corresponding to a reduction of 81% in gross profit and 91% in net profit, assuming that the effort used in the UK-EEZ is not utilised in other fishing areas.

Fishing in the combined area of the Exclusive Economic Zone of the United Kingdom, Norway and the Faroe Islands

- Of the Danish vessels fishing in either the UK-EEZ, the NOR-EEZ or the FRO-EEZ (named the COM-EEZ), 76 in 2016, 84 in 2017 and 82 in 2018 (named the COM-15% vessels) took more than 15% of their landings value from COM-EEZ. Together these vessels account for 99% of the landings value and 99% of the landings weight taken on average over 2016-2018 in the COM-EEZ
- The most important species caught by the COM-15% vessels in COM-EEZ are herring, mackerel and sandeel, which account for 61% of the landings value and 78% of the landings weight taken in the COM-EEZ

- The COM-15% vessels land 82% of their landings value and 70% of their landings weight from the COM-EEZ in Denmark, especially in Thyborøn, Skagen, Hanstholm and Hirtshals
- If the COM-EEZ is closed the Danish COM-15% vessels will lose 71% of their total landings value, corresponding to a reduction of 96% in gross profit and 109% in net profit, assuming that the effort used in the COM-EEZ is not utilised in other fishing areas.

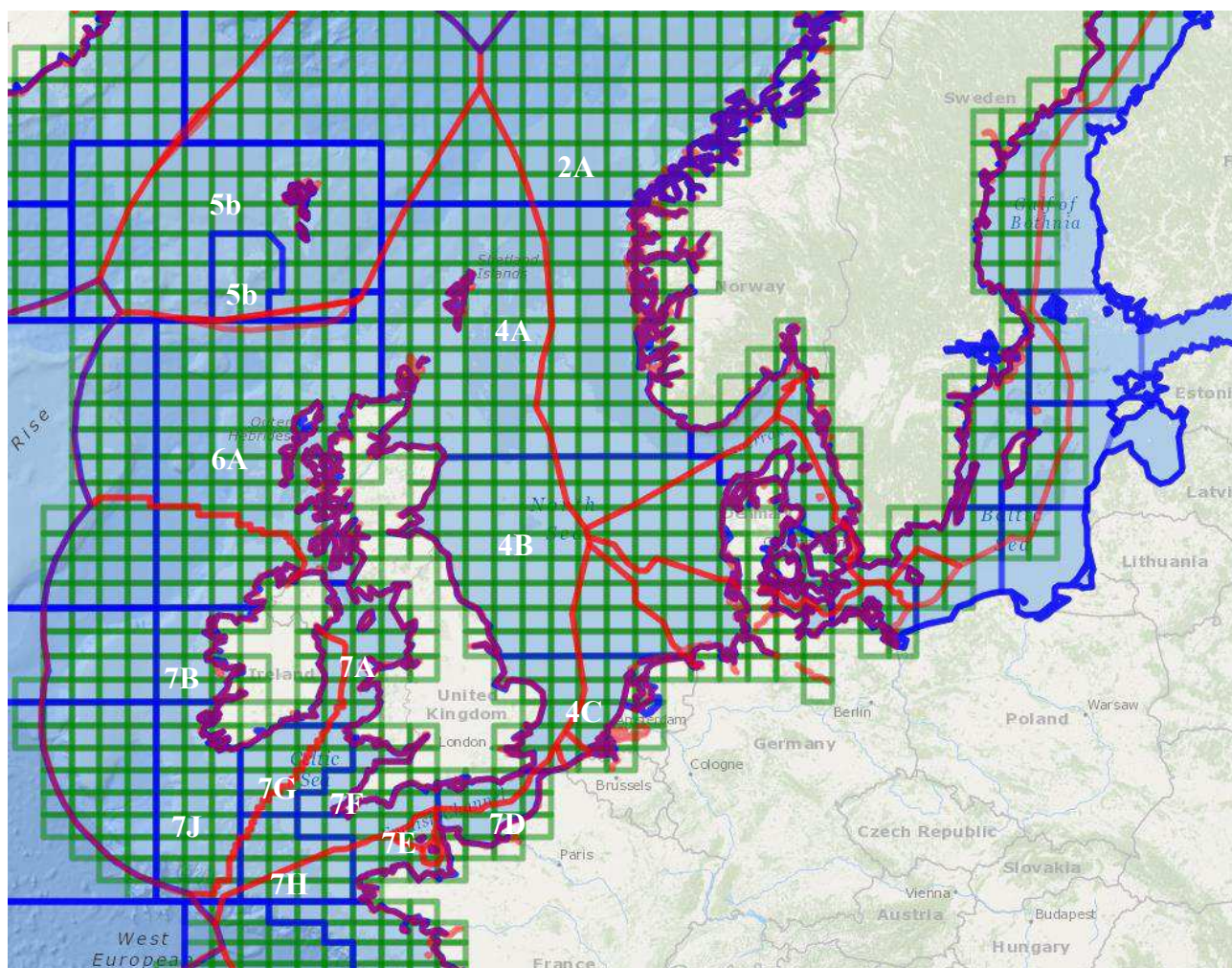
5. Literature

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ANNEXES

Annex 1 ICES statistical rectangles (square grid) FAO areas (blue bold lines) and country EEZ (red bold lines)



Source: Danish Fisheries Agency

Annex 2 Landings value 2016-2018 for fleets fishing in UK-EEZ with 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | | | | Scenario 2 No landings from UK-EEZ | | | |
|------------|--------|---------------------|-------------------------------------|-----------|-----------|----------------------|---------------------------------------|---------|---------|----------------------|
| | | | 2016 | 2017 | 2018 | Average 2016-2018 | 2016 | 2017 | 2018 | Average 2016-2018 |
| Total | 24-40m | Total | 224,733 | 377,152 | 243,886 | 281,923 | 131,571 | 233,393 | 157,361 | 174,108 |
| | | - Trawl consumption | 167,385 | 272,199 | 157,424 | 199,003 | 101,392 | 166,262 | 98,016 | 121,890 |
| | >40m | Total | 1,349,564 | 1,225,125 | 1,428,817 | 1,334,502 | 492,763 | 390,898 | 498,818 | 460,826 |
| | | - Trawl reduction | 148,740 | 181,621 | 212,092 | 180,818 | 100,442 | 100,476 | 131,347 | 110,755 |
| | | - Trawl mixed | 817,592 | 621,613 | 772,294 | 737,166 | 277,678 | 174,797 | 247,198 | 233,224 |
| | | Total | 1,574,297 | 1,602,277 | 1,672,703 | 1,616,426 | 624,333 | 624,291 | 656,179 | 634,934 |
| Per vessel | 24-40m | Total | 22,473 | 20,953 | 20,324 | 21,250 | 13,157 | 12,966 | 13,113 | 13,079 |
| | | - Trawl consumption | 27,897 | 24,745 | 22,489 | 25,044 | 16,899 | 15,115 | 14,002 | 15,339 |
| | >40m | Total | 58,677 | 45,375 | 52,919 | 52,324 | 21,424 | 14,478 | 18,475 | 18,126 |
| | | - Trawl reduction | 14,874 | 12,973 | 16,315 | 14,721 | 10,044 | 7,177 | 10,104 | 9,108 |
| | | - Trawl mixed | 81,759 | 69,068 | 77,229 | 76,019 | 27,768 | 19,422 | 24,720 | 23,970 |

Source: Own calculations.

Note: For confidentiality reasons, vessels below 18 meters have been included in length group 18-24 meters. Moreover, beam trawlers 24-40 meters and multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Annex 3 Gross profit (1,000 DKK) 2016-2018 for fleets fishing in UK-EEZ with 15%-dependency

| | Length | Gear type | Scenario 1 Given the current CFP | | | | Scenario 2 No landings from UK-EEZ | | | |
|---------------|---------------|---------------------|-------------------------------------|-----------|-----------|----------------------|---------------------------------------|---------|---------|----------------------|
| | | | 2016 | 2017 | 2018 | Average 2016-2018 | 2016 | 2017 | 2018 | Average 2016-2018 |
| Total | 24-40m | Total | 129,198 | 201,412 | 123,894 | 151,501 | 54,260 | 88,192 | 59,495 | 67,316 |
| | | - Trawl consumption | 105,494 | 153,795 | 82,563 | 113,951 | 52,132 | 69,460 | 38,892 | 53,495 |
| | >40m | Total | 976,520 | 844,856 | 972,384 | 931,253 | 176,951 | 90,756 | 133,786 | 133,831 |
| | | - Trawl reduction | 64,278 | 70,335 | 76,069 | 70,227 | 25,776 | 9,662 | 15,872 | 17,103 |
| | - Trawl mixed | 601,015 | 446,634 | 551,065 | 532,905 | 94,406 | 37,303 | 72,429 | 68,046 | |
| | Total | | 1,105,717 | 1,046,268 | 1,096,278 | 1,082,755 | 231,211 | 178,948 | 193,281 | 201,147 |
| Per vessel | 24-40m | Total | 12,920 | 11,190 | 10,325 | 11,478 | 5,426 | 4,900 | 4,958 | 5,095 |
| | | - Trawl consumption | 17,582 | 13,981 | 11,795 | 14,453 | 8,689 | 6,315 | 5,556 | 6,853 |
| | >40m | Total | 42,457 | 31,291 | 36,014 | 36,588 | 7,694 | 3,361 | 4,955 | 5,337 |
| | | - Trawl reduction | 6,428 | 5,024 | 5,851 | 5,768 | 2,578 | 690 | 1,221 | 1,496 |
| | - Trawl mixed | 60,102 | 49,626 | 55,107 | 54,945 | 9,441 | 4,145 | 7,243 | 6,943 | |

Source: Own calculations.

Note: For confidentiality reasons, vessels below 18 meters have been included in length group 18-24 meters. Moreover, beam trawlers 24-40 meters and multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Annex 4 Net profit 2016-2018 for fleets fishing in UK-EEZ with 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | | | | Scenario 2 No landings from UK-EEZ | | | |
|------------|---------------|---------------------|-------------------------------------|---------|---------|----------------------|---------------------------------------|---------|---------|----------------------|
| | | | 2016 | 2017 | 2018 | Average 2016-2018 | 2016 | 2017 | 2018 | Average 2016-2018 |
| Total | 24-40m | Total | 62,609 | 86,573 | 52,141 | 67,108 | 15,326 | 16,874 | 13,049 | 15,083 |
| | | - Trawl consumption | 54,531 | 71,318 | 35,218 | 53,689 | 21,262 | 19,083 | 9,414 | 16,586 |
| | >40m | Total | 769,222 | 634,153 | 745,198 | 716,191 | 98,134 | 19,654 | 50,520 | 56,103 |
| | | - Trawl reduction | 32,930 | 25,165 | 30,443 | 29,512 | 4,606 | -15,327 | -12,384 | -7,701 |
| | - Trawl mixed | 477,187 | 342,094 | 432,262 | 417,181 | 52,350 | 7,907 | 34,402 | 31,553 | |
| | Total | | 831,831 | 720,726 | 797,339 | 783,299 | 113,461 | 36,528 | 63,569 | 71,186 |
| Per vessel | 24-40m | Total | 6,261 | 4,810 | 4,345 | 5,139 | 1,533 | 937 | 1,087 | 1,186 |
| | | - Trawl consumption | 9,089 | 6,483 | 5,031 | 6,868 | 3,544 | 1,735 | 1,345 | 2,208 |
| | >40m | Total | 33,444 | 23,487 | 27,600 | 28,177 | 4,267 | 728 | 1,871 | 2,289 |
| | | - Trawl reduction | 3,293 | 1,798 | 2,342 | 2,477 | 461 | -1,095 | -953 | -529 |
| | - Trawl mixed | 47,719 | 38,010 | 43,226 | 42,985 | 5,235 | 879 | 3,440 | 3,185 | |

Source: Own calculations.

Note: For confidentiality reasons, vessels below 18 meters have been included in length group 18-24 meters. Moreover, beam trawlers 24-40 meters and multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Annex 5 Landings value 2016-2018 for fleets fishing in UK-EEZ with below 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | | | | Scenario 2 No landings from UK-EEZ | | | |
|---------------|--------|---------------------|-------------------------------------|---------|---------|----------------------|---------------------------------------|---------|---------|----------------------|
| | | | 2016 | 2017 | 2018 | Average 2016-2018 | 2016 | 2017 | 2018 | Average 2016-2018 |
| Total | 18-24m | Total | 76,081 | 71,933 | 101,748 | 83,254 | 74,569 | 68,470 | 99,073 | 80,704 |
| | 24-40m | Total | 249,350 | 125,326 | 231,934 | 202,203 | 232,557 | 117,230 | 217,800 | 189,196 |
| | | - Trawl consumption | 177,966 | 115,825 | 223,464 | 172,419 | 167,204 | 108,083 | 210,435 | 161,907 |
| | >40m | Total | 119,095 | | | 39,698 | 107,517 | | | 35,839 |
| | Total | | 444,527 | 197,259 | 333,683 | 325,156 | 414,643 | 185,700 | 316,872 | 305,738 |
| Per vessel | 18-24m | Total | 8,453 | 8,992 | 11,305 | 9,583 | 8,285 | 8,559 | 11,008 | 9,284 |
| | 24-40m | Total | 16,623 | 17,904 | 16,567 | 17,031 | 15,504 | 16,747 | 15,557 | 15,936 |
| | | - Trawl consumption | 17,797 | 19,304 | 17,190 | 18,097 | 16,720 | 18,014 | 16,187 | 16,974 |
| | >40m | Total | 19,849 | | | 6,616 | 17,919 | | | 5,973 |

Source: Own calculations.

Note: For confidentiality reasons, vessels below 18 meters have been included in length group 18-24 meters. Moreover, beam trawlers 24-40 meters and multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Annex 6 Gross profit 2016-2018 for fleets fishing in UK-EEZ with below 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | | | | Scenario 2 No landings from UK-EEZ | | | |
|------------|--------|---------------------|-------------------------------------|---------|---------|----------------------|---------------------------------------|---------|---------|----------------------|
| | | | 2016 | 2017 | 2018 | Average 2016-2018 | 2016 | 2017 | 2018 | Average 2016-2018 |
| Total | 18-24m | Total | 45,122 | 42,328 | 58,734 | 48,728 | 43,842 | 39,487 | 56,572 | 46,634 |
| | 24-40m | Total | 149,503 | 70,168 | 121,794 | 113,822 | 135,813 | 63,755 | 110,974 | 103,514 |
| | | - Trawl consumption | 112,163 | 65,442 | 117,199 | 98,268 | 103,400 | 59,305 | 107,291 | 89,999 |
| | >40m | Total | 69,588 | | | 23,196 | 59,519 | | | 19,840 |
| | | Total | 264,213 | 112,496 | 180,529 | 185,746 | 239,174 | 103,242 | 167,547 | 169,988 |
| Per vessel | 18-24m | Total | 5,014 | 5,291 | 6,526 | 5,610 | 4,871 | 4,936 | 6,286 | 5,364 |
| | 24-40m | Total | 9,967 | 10,024 | 8,700 | 9,563 | 9,054 | 9,108 | 7,927 | 8,696 |
| | | - Trawl consumption | 11,216 | 10,907 | 9,015 | 10,380 | 10,340 | 9,884 | 8,253 | 9,492 |
| | >40m | Total | 11,598 | | | 3,866 | 9,920 | | | 3,307 |

Source: Own calculations.

Note: For confidentiality reasons, vessels below 18 meters have been included in length group 18-24 meters. Moreover, beam trawlers 24-40 meters and multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Annex 7 Net profit 2016-2018 for fleets fishing in UK-EEZ with below 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | | | | Scenario 2 No landings from UK-EEZ | | | |
|------------|--------|---------------------|-------------------------------------|--------|--------|----------------------|---------------------------------------|--------|--------|----------------------|
| | | | 2016 | 2017 | 2018 | Average 2016-2018 | 2016 | 2017 | 2018 | Average 2016-2018 |
| Total | 18-24m | Total | 16,417 | 14,685 | 22,118 | 17,740 | 15,765 | 13,172 | 20,912 | 16,617 |
| | 24-40m | Total | 74,251 | 32,104 | 52,043 | 52,799 | 65,599 | 28,148 | 45,473 | 46,407 |
| | | - Trawl consumption | 57,978 | 30,347 | 49,992 | 46,106 | 52,492 | 26,556 | 44,002 | 41,017 |
| | >40m | Total | 48,046 | | | 16,015 | 40,032 | | | 13,344 |
| | Total | | 138,714 | 46,789 | 74,161 | 86,555 | 121,396 | 41,321 | 66,386 | 76,367 |
| Per vessel | 18-24m | Total | 1,824 | 1,836 | 2,458 | 2,039 | 1,752 | 1,647 | 2,324 | 1,907 |
| | 24-40m | Total | 4,950 | 4,586 | 3,717 | 4,418 | 4,373 | 4,021 | 3,248 | 3,881 |
| | | - Trawl consumption | 5,798 | 5,058 | 3,846 | 4,900 | 5,249 | 4,426 | 3,385 | 4,353 |
| >40m | Total | 8,008 | | | 2,669 | 6,672 | | | 2,224 | |

Source: Own calculations.

Note: For confidentiality reasons, vessels below 18 meters have been included in length group 18-24 meters. Moreover, beam trawlers 24-40 meters and multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Annex 8 Landings value 2016-2018 for fleets fishing in COM-EEZ with 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | | | | Scenario 2 No landings from COM-EEZ | | | |
|-------------------|--------|---------------------|-------------------------------------|-----------|-----------|----------------------|--|---------|---------|----------------------|
| | | | 2016 | 2017 | 2018 | Average 2016-2018 | 2016 | 2017 | 2018 | Average 2016-2018 |
| Total | 15-18m | Total | 30,471 | 37,279 | 36,958 | 34,903 | 10,969 | 27,461 | 28,571 | 22,334 |
| | 18-24m | Total | 103,381 | 141,763 | 130,992 | 125,379 | 56,515 | 88,501 | 78,951 | 74,656 |
| | | - Danish seine | 29,831 | 28,792 | 25,660 | 28,095 | 13,783 | 14,014 | 11,381 | 13,059 |
| | 24-40m | Total | 504,438 | 563,986 | 524,483 | 530,969 | 119,957 | 110,710 | 114,071 | 114,912 |
| | | - Trawl consumption | 400,980 | 466,183 | 428,274 | 431,812 | 84,515 | 94,269 | 93,671 | 90,819 |
| | >40m | Total | 1,349,564 | 1,225,125 | 1,428,817 | 1,334,502 | 352,598 | 308,641 | 446,579 | 369,273 |
| - Trawl reduction | | 148,740 | 181,621 | 212,092 | 180,818 | 100,442 | 100,476 | 131,347 | 110,755 | |
| - Trawl mixed | | 817,592 | 621,613 | 772,294 | 737,166 | 211,878 | 146,098 | 219,883 | 192,619 | |
| | Total | 1,987,855 | 1,968,154 | 2,121,250 | 2,025,753 | 540,039 | 535,313 | 668,171 | 581,174 | |
| Per vessel | 15-18m | Total | 7,618 | 6,213 | 9,239 | 7,690 | 2,742 | 4,577 | 7,143 | 4,821 |
| | 18-24m | Total | 7,952 | 9,451 | 8,733 | 8,712 | 4,347 | 5,900 | 5,263 | 5,170 |
| | | - Danish seine | 5,966 | 5,758 | 5,132 | 5,619 | 2,757 | 2,803 | 2,276 | 2,612 |
| | 24-40m | Total | 18,683 | 20,142 | 18,086 | 18,970 | 4,443 | 3,954 | 3,933 | 4,110 |
| | | - Trawl consumption | 18,226 | 20,269 | 17,845 | 18,780 | 3,842 | 4,099 | 3,903 | 3,948 |
| | >40m | Total | 58,677 | 45,375 | 52,919 | 52,324 | 15,330 | 11,431 | 16,540 | 14,434 |
| - Trawl reduction | | 14,874 | 12,973 | 16,315 | 14,721 | 10,044 | 7,177 | 10,104 | 9,108 | |
| - Trawl mixed | | 81,759 | 69,068 | 77,229 | 76,019 | 21,188 | 16,233 | 21,988 | 19,803 | |

Source: Own calculations.

Note: For confidentiality reasons, vessels conducting licensed fishery have been included in 15-18 meters. Moreover, beam trawlers 15-18 meters, 18-24 meters and 24-40 meters together with multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Annex 9 Gross profit 2016-2018 for fleets fishing in COM-EEZ with 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | | | | Scenario 2 No landings from COM-EEZ | | | |
|-------------------|--------|---------------------|-------------------------------------|-----------|-----------|----------------------|--|---------|---------|----------------------|
| | | | 2016 | 2017 | 2018 | Average 2016-2018 | 2016 | 2017 | 2018 | Average 2016-2018 |
| Total | 15-18m | Total | 17,794 | 22,714 | 23,864 | 21,457 | 1,694 | 14,606 | 16,953 | 11,084 |
| | 18-24m | Total | 59,787 | 81,458 | 75,203 | 72,150 | 21,133 | 37,811 | 33,283 | 30,742 |
| | | - Danish seine | 14,959 | 14,299 | 11,950 | 13,736 | 2,201 | 2,300 | 745 | 1,748 |
| | 24-40m | Total | 301,101 | 307,464 | 270,418 | 292,994 | -10,734 | -50,785 | -43,835 | -35,118 |
| | | - Trawl consumption | 252,717 | 263,397 | 224,614 | 246,909 | -3,923 | -31,115 | -29,849 | -21,629 |
| | >40m | Total | 976,520 | 844,856 | 972,384 | 931,253 | 46,983 | 13,184 | 85,070 | 48,412 |
| - Trawl reduction | | 64,278 | 70,335 | 76,069 | 70,227 | 25,776 | 9,662 | 15,872 | 17,103 | |
| - Trawl mixed | | 601,015 | 446,634 | 551,065 | 532,905 | 32,966 | 10,263 | 46,839 | 30,022 | |
| | Total | 1,355,202 | 1,256,492 | 1,341,869 | 1,317,854 | 59,076 | 14,816 | 91,471 | 55,121 | |
| Per vessel | 15-18m | Total | 4,448 | 3,786 | 5,966 | 4,733 | 423 | 2,434 | 4,238 | 2,365 |
| | 18-24m | Total | 4,599 | 5,431 | 5,014 | 5,014 | 1,626 | 2,521 | 2,219 | 2,122 |
| | | - Danish seine | 2,992 | 2,860 | 2,390 | 2,747 | 440 | 460 | 149 | 350 |
| | 24-40m | Total | 11,152 | 10,981 | 9,325 | 10,486 | -398 | -1,814 | -1,512 | -1,241 |
| | | - Trawl consumption | 11,487 | 11,452 | 9,359 | 10,766 | -178 | -1,353 | -1,244 | -925 |
| | >40m | Total | 42,457 | 31,291 | 36,014 | 36,588 | 2,043 | 488 | 3,151 | 1,894 |
| - Trawl reduction | | 6,428 | 5,024 | 5,851 | 5,768 | 2,578 | 690 | 1,221 | 1,496 | |
| - Trawl mixed | | 60,102 | 49,626 | 55,107 | 54,945 | 3,297 | 1,140 | 4,684 | 3,040 | |

Source: Own calculations.

Note: For confidentiality reasons, vessels conducting licensed fishery have been included in 15-18 meters. Moreover, beam trawlers 15-18 meters, 18-24 meters and 24-40 meters together with multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Annex 10 Net profit 2016-2018 for fleets fishing in COM-EEZ with 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | | | | Scenario 2 No landings from COM-EEZ | | | |
|---------------|--------|---------------------|-------------------------------------|---------|---------|----------------------|--|---------|---------|----------------------|
| | | | 2016 | 2017 | 2018 | Average 2016-2018 | 2016 | 2017 | 2018 | Average 2016-2018 |
| Total | 15-18m | Total | 5,997 | 7,825 | 8,255 | 7,359 | -2,808 | 3,594 | 4,907 | 1,897 |
| | 18-24m | Total | 21,187 | 28,100 | 26,228 | 25,172 | -62 | 4,500 | 3,598 | 2,679 |
| | | - Danish seine | 4,412 | 3,935 | 2,850 | 3,732 | -2,673 | -2,745 | -3,291 | -2,903 |
| | 24-40m | Total | 149,910 | 136,421 | 114,202 | 133,511 | -46,066 | -84,107 | -77,321 | -69,164 |
| | | - Trawl consumption | 130,632 | 122,143 | 95,811 | 116,196 | -29,655 | -59,679 | -58,021 | -49,118 |
| | >40m | Total | 769,222 | 634,153 | 745,198 | 716,191 | -11,754 | -45,348 | 9,526 | -15,859 |
| | | - Trawl reduction | 32,930 | 25,165 | 30,443 | 29,512 | 4,606 | -15,327 | -12,384 | -7,701 |
| - Trawl mixed | | 477,187 | 342,094 | 432,262 | 417,181 | 876 | -14,307 | 13,014 | -139 | |
| | Total | 946,316 | 806,499 | 893,884 | 882,233 | -60,691 | -121,361 | -59,290 | -80,447 | |
| Per vessel | 15-18m | Total | 1,499 | 1,304 | 2,064 | 1,622 | -702 | 599 | 1,227 | 375 |
| | 18-24m | Total | 1,630 | 1,873 | 1,749 | 1,751 | -5 | 300 | 240 | 178 |
| | | - Danish seine | 882 | 787 | 570 | 746 | -535 | -549 | -658 | -581 |
| | 24-40m | Total | 5,552 | 4,872 | 3,938 | 4,787 | -1,706 | -3,004 | -2,666 | -2,459 |
| | | - Trawl consumption | 5,938 | 5,311 | 3,992 | 5,080 | -1,348 | -2,595 | -2,418 | -2,120 |
| | >40m | Total | 33,444 | 23,487 | 27,600 | 28,177 | -511 | -1,680 | 353 | -613 |
| | | - Trawl reduction | 3,293 | 1,798 | 2,342 | 2,477 | 461 | -1,095 | -953 | -529 |
| - Trawl mixed | | 47,719 | 38,010 | 43,226 | 42,985 | 88 | -1,590 | 1,301 | -67 | |

Source: Own calculations.

Note: For confidentiality reasons, vessels conducting licensed fishery have been included in 15-18 meters. Moreover, beam trawlers 15-18 meters, 18-24 meters and 24-40 meters together with multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Annex 11 Landings value 2016-2018 for fleets fishing in COM-EEZ with below 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | | | | Scenario 2 No landings from COM-EEZ | | | |
|------------|--------|-----------|-------------------------------------|---------|---------|----------------------|--|---------|---------|----------------------|
| | | | 2016 | 2017 | 2018 | Average 2016-2018 | 2016 | 2017 | 2018 | Average 2016-2018 |
| Total | 15-18m | Total | 44,382 | 27,117 | 39,697 | 37,065 | 41,109 | 26,233 | 38,871 | 35,404 |
| | 18-24m | Total | 129,705 | 104,243 | 132,023 | 121,990 | 119,405 | 95,313 | 121,286 | 112,001 |
| | | - Trawl | 122,444 | 90,325 | 97,012 | 103,261 | 112,144 | 82,808 | 87,713 | 94,222 |
| | 24-40m | Total | 79,269 | 36,322 | 66,824 | 60,805 | 72,902 | 34,840 | 62,875 | 56,872 |
| | >40m | Total | 119,095 | | | 39,698 | 107,517 | | | 35,839 |
| | Total | | 372,452 | 167,683 | 238,543 | 259,559 | 340,933 | 156,387 | 223,031 | 240,117 |
| Per vessel | 15-18m | Total | 6,340 | 4,520 | 5,671 | 5,510 | 5,873 | 4,372 | 5,553 | 5,266 |
| | 18-24m | Total | 10,809 | 11,583 | 11,002 | 11,131 | 9,950 | 10,590 | 10,107 | 10,216 |
| | | - Trawl | 11,131 | 12,904 | 12,127 | 12,054 | 10,195 | 11,830 | 10,964 | 10,996 |
| | >40m | Total | 11,324 | 7,264 | 9,546 | 9,378 | 10,415 | 6,968 | 8,982 | 8,788 |
| | >40m | Total | 19,849 | | | 6,616 | 17,919 | | | 5,973 |

Source: Own calculations.

Note: For confidentiality reasons, vessels conducting licensed fishery and vessels below 15 meters have been included in 15-18 meters. Moreover, multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Annex 12 Gross profit 2016-2018 for fleets fishing in COM-EEZ with below 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | | | | Scenario 2 No landings from COM-EEZ | | | |
|---------------|--------|-----------|-------------------------------------|--------|---------|----------------------|--|--------|---------|----------------------|
| | | | 2016 | 2017 | 2018 | Average 2016-2018 | 2016 | 2017 | 2018 | Average 2016-2018 |
| Total | 15-18m | Total | 26,253 | 15,358 | 24,441 | 22,017 | 23,529 | 14,634 | 23,770 | 20,645 |
| | 18-24m | Total | 80,540 | 60,499 | 74,895 | 71,978 | 72,319 | 53,453 | 66,494 | 64,089 |
| | | - Trawl | 76,218 | 52,580 | 57,321 | 62,040 | 67,998 | 46,703 | 50,080 | 54,927 |
| | 24-40m | Total | 46,015 | 20,074 | 34,472 | 33,520 | 40,908 | 18,938 | 31,564 | 30,470 |
| | >40m | Total | 69,588 | | | 23,196 | 59,519 | | | 19,840 |
| | Total | | 222,395 | 95,930 | 133,808 | 150,711 | 196,275 | 87,026 | 121,828 | 135,043 |
| Per vessel | 15-18m | Total | 3,750 | 2,560 | 3,492 | 3,267 | 3,361 | 2,439 | 3,396 | 3,065 |
| | 18-24m | Total | 6,712 | 6,722 | 6,241 | 6,558 | 6,027 | 5,939 | 5,541 | 5,836 |
| | | - Trawl | 6,929 | 7,511 | 7,165 | 7,202 | 6,182 | 6,672 | 6,260 | 6,371 |
| | 24-40m | Total | 6,574 | 4,015 | 4,925 | 5,171 | 5,844 | 3,788 | 4,509 | 4,714 |
| >40m | Total | 11,598 | | | 3,866 | 9,920 | | | 3,307 | |

Source: Own calculations.

Note: For confidentiality reasons, vessels conducting licensed fishery and vessels below 15 meters have been included in 15-18 meters. Moreover, multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.

Annex 13 Net profit 2016-2018 for fleets fishing in COM-EEZ with below 15%-dependency (1,000 DKK)

| | Length | Gear type | Scenario 1 Given the current CFP | | | | Scenario 2 No landings from COM-EEZ | | | |
|------------|--------|-----------|-------------------------------------|--------|--------|----------------------|--|--------|--------|----------------------|
| | | | 2016 | 2017 | 2018 | Average 2016-2018 | 2016 | 2017 | 2018 | Average 2016-2018 |
| Total | 15-18m | Total | 8,215 | 4,379 | 9,407 | 7,334 | 6,860 | 4,009 | 9,045 | 6,638 |
| | 18-24m | Total | 36,900 | 23,283 | 29,039 | 29,741 | 32,083 | 19,438 | 24,370 | 25,297 |
| | | - Trawl | 35,753 | 20,941 | 24,574 | 27,089 | 30,937 | 17,697 | 20,472 | 23,036 |
| | 24-40m | Total | 21,656 | 8,750 | 14,203 | 14,870 | 18,524 | 8,069 | 12,484 | 13,026 |
| | >40m | Total | 48,046 | | | 16,015 | 40,032 | | | 13,344 |
| | Total | | 114,817 | 36,413 | 52,650 | 67,960 | 97,499 | 31,516 | 45,899 | 58,305 |
| Per vessel | 15-18m | Total | 1,174 | 730 | 1,344 | 1,082 | 980 | 668 | 1,292 | 980 |
| | 18-24m | Total | 3,075 | 2,587 | 2,420 | 2,694 | 2,674 | 2,160 | 2,031 | 2,288 |
| | | - Trawl | 3,250 | 2,992 | 3,072 | 3,105 | 2,812 | 2,528 | 2,559 | 2,633 |
| | 24-40m | Total | 3,094 | 1,750 | 2,029 | 2,291 | 2,646 | 1,614 | 1,783 | 2,015 |
| | >40m | Total | 8,008 | | | 2,669 | 6,672 | | | 2,224 |

Source: Own calculations.

Note: For confidentiality reasons, vessels conducting licensed fishery and vessels below 15 meters have been included in 15-18 meters. Moreover, multi-purpose gears 18-24 meters have been omitted from the results, because reliable cost information is missing for these segments.