THE ROLE OF FISH MARKETS IN THE ICELANDIC VALUE CHAIN

Ögmundur Knútsson, University of Akureyri ogmundur@unak.is
Daði Már Kristófersson University of Iceland dmk@hi.is
MODES OF EXCHANGE

• In Iceland the exchange of wet fish is dominated by three modes of exchange:
  – Auction sales (fish markets)
  – Fish sourced from own vessels (vertically integrated fisheries companies, VICs)
  – Direct sales contracts between fishing vessels and processors
THE FISH MARKETS IN ICELAND

- The first fish market was established in 1986 and two more followed in 1987

- *The Fish Markets’ Data Centre Ldt.*, owned by 15 independent fish markets, owns and operates the computerised auction and sales system

- The auction mechanism is of the Dutch auction type, i.e. an auction clock system. Weekly, there are six auctions during the wintertime and five in the summer time

- All biddings are done via the computerised auction/sales system
  - 15 independent fish markets,
  - up to 1,000 fishing vessels
  - nearly 30 landing places around the coastline

- Creating one virtual marketplace
ALLOCATION OF FISH TO FISH MARKETS

• In the first five years, the traded volume increased from
  – 22,000 tons to up to 100,000 tons

• In the last 27 years the yearly volume has been between
  – 85,000 to 110,000 tons

• Since 2000 the average turnover has been 89,000 tons
RELATIVE SHARE OF MAIN SPECIES (VOLUME)

Relative share of the main species on the fish markets

- Cod
- Haddock
- Saithe
- Catfish
- Other species

- 2000-2004
- 2005-2009
- 2010-13
MARKET SHARE OF AUCTION

![Market Share of Auction Graph]

- The graph shows the market share of auctions from 1980 to 2020.
- The market share increased significantly from 1980 to around 1995, after which it fluctuated and slightly decreased until 2020.

**Note:** The graph is a line graph with the x-axis representing years from 1980 to 2020 and the y-axis representing market share percentages from 0% to 70%.

- Cod
MARKET SHARE OF AUCTION
MARKET SHARE OF AUCTION
MARKET SHARE OF AUCTION
The graph shows a scatter plot with the following equation:

\[ y = -0.023 \ln(x) + 0.4987 \]

and the coefficient of determination, \( R^2 = 0.1279 \). The x-axis represents the overall catch in thousand tonnes, and the y-axis represents the market share of auctions.
DEVELOPMENT OF LING

The graph shows the development of the quantities and market share of LING over the years from 1980 to 2020. The quantities are measured in thousands of tonnes on the left axis, while the market share is measured in percentage on the right axis.
FEWER BUT LARGER BUYERS

• In 2000 the number of buyers of all species was over 200 but gradually this number came down to 140 in 2012 (buyers with more than 50 tons)
• The vertically integrated companies are getting more active on the fish markets as buyers and sellers.
  • This specially applies to the market trade in saithe and redfish as over 50% of saithe and around one-third of redfish sold on the fish markets goes to nine large VICs
CONSOLIDATION ON THE FISH MARKETS COD

- When focusing on the fish market trade in cod, the number of buyers came down from 170 in 2000 down to 56 in 2012.
- In 2000 there were 41 companies buying 75% of the total volume but in 2012, this number was down to only 16.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of buyers</td>
<td>171</td>
<td>125</td>
<td>80</td>
<td>56</td>
</tr>
<tr>
<td>Buyers with &gt;75%</td>
<td>41</td>
<td>28</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td>Buyers with &gt;50%</td>
<td>18</td>
<td>11</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>
PRICES OF COD VS. EXPORT PRICE INDEX (€)
RELATIVE PRICE ICELAND/NORWAY

(Heimild: Hagstofa Íslands, SSB)
IMPORTANCE OF THE FISH MARKETS

The fish markets serve several roles in the fish processing Value Chain:

- they provide a stable flow of raw material to many small processors, creating a lower entry barrier for entrepreneurs in fish processing.
  - helps maintaining competition in the processing
  - foreign companies are on the market
- they provide larger companies with opportunities to even out short run catch variations, for example in species and size.
- they serve as a channel for by-catch species and undersized fish, allowing small quantities from many suppliers to be bought by few specialized processors.
  - All of this has contributed to the progression of specialisation, which again is the backbone of the present production strategy of Icelandic fish processing companies allowing them to be more flexible and adaptable to different business models and situations.
THANK YOU!