Fishing in Deep Waters
Assessing the impact of alternative fish trade agreements post EU-Exit

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Objectives of research

1. To detail the policy environment for fisheries, and the policy considerations facing the UK government in the Brexit negotiations

2. To provide an empirical assessment of what the impact on leaving the EU might be on the seafood industry
The overall economic importance of fishing and fisheries to the UK economy is small.

- Less than 1% of trade
- Sector more important in Scotland
From a political economy perspective the sector is considered ‘sensitive’

1. UK’s maritime history
2. Strong lobby in both the UK and in many EU and EU FTA partner countries
3. Timing of UK joining EC and UNCLOS establishing EEZs
4. Classic case of a common property resource
UK waters hold important fishing grounds

- EU vessels landed £575million of fish from UK waters (2013-2015 annual average)
- UK vessels landed £96million from EU waters
### Scenarios – Key Elements

<table>
<thead>
<tr>
<th>Trade Arrangements</th>
<th>Tariffs</th>
<th>Non-tariff measures (NTMs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Tax levied on the value or quantity of goods traded</td>
<td>• Regulatory requirements (technical, sanitary and phyto-sanitary measures)</td>
</tr>
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<td></td>
<td>• Most favoured nations (MFN) for WTO members in absence of trade deal</td>
<td>• Set by each WTO member</td>
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<td></td>
<td></td>
<td>• Measured in terms of “tariffs equivalent”</td>
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<tr>
<td>Quota allocation</td>
<td></td>
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<td></td>
<td>• Application of current <strong>relative stability</strong> key (based on historic shares) vs. <strong>zonal attachment</strong> principles (geographic location of fish when it is caught)</td>
<td></td>
</tr>
</tbody>
</table>
Approach: Ten Species

Shellfish: Crab, Nephrops, Scallops
Whitefish: Cod, Haddock, Hake, Saithe
Pelagic: Mackerel, Herring
Aquaculture: Salmon

☑️ Selected according to importance to landings, trade, and potential for zonal attachment quota increase
Importance of species by UK home nation

Value of UK landings (2015), excluding salmon, by home nation (excluding islands), £ million

- **Cod**
- **Crab**
- **Haddock**
- **Hake**
- **Herring**
- **Mackerel**
- **Nephrops**
- **Saithe**
- **Scallops**

- **England**
- **Northern Ireland**
- **Scotland**
- **Wales**
Approach – The Trade Model

- Adapted version of Trade Analysis Partial Equilibrium Sussex (TAPES) model
  - Created by University of Sussex to analyse impacts of changing trade policies (tariffs, quotas, non-tariff measures)
  - Multi-market model: allows changes in imports and exports between partner countries to adjust simultaneously
  - Partial equilibrium: does not take account for interactions between goods
    - E.g. assumed changes in price for cod will not affect demand for haddock
<table>
<thead>
<tr>
<th>Scenario</th>
<th>Trade arrangements</th>
<th>Quota allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baseline – 2015</strong></td>
<td>Zero tariffs with EU, existing tariffs with RoW</td>
<td>Relative stability (historical shares)</td>
</tr>
<tr>
<td>1. <strong>EEA</strong></td>
<td>Free Trade Agreement with EU, similar terms to EEA; UK leaves the Single Market</td>
<td>Relative stability (historical shares)</td>
</tr>
<tr>
<td>2. No deal</td>
<td>MFN tariffs with EU and rest of world</td>
<td>Relative stability (historical shares)</td>
</tr>
<tr>
<td>3. No Deal, FTAs with <strong>all</strong> non-EU and non-EEA countries</td>
<td>MFN Tariffs with EU and EEA Zero tariffs with RoW</td>
<td>Relative stability (historical shares)</td>
</tr>
<tr>
<td>4. No Deal, FTAs with RoW &amp; shift to Zonal Attachment (50% &amp; 100%)</td>
<td>MFN tariffs with EU and EEA Zero tariffs with RoW</td>
<td>Zonal attachment (shift to 50% or 100% of potential quotas)</td>
</tr>
<tr>
<td>5. No deal &amp; unilateral free trade</td>
<td>Zero tariffs on imports to UK from all countries (MFN tariffs to export to EU)</td>
<td>Relative stability (historical shares)</td>
</tr>
</tbody>
</table>
Approach - Trade Modelling: Data

Production

FAO Global Production Database 2017: Volume of landings
FAO Commodities & Trade Database 2016: Production of processed fish
EUMOFA: Conversion factors for processed fish

Trade

UN Comtrade Database: bilateral trade (imports and exports) for each species (relevant HS codes)

Tariffs

UN Trade Analysis Information System (TRAINS) database: Tariff rates on all commodities (averaged for species)

Non-tariff measures

Assumptions informed by literature: evidence at commodity level is limited
EU MFN tariff rates by species

- Cod: 11.5%
- Crab: 7.8%
- Haddock: 7.5%
- Hake: 12.3%
- Herring: 14.3%
- Mackerel: 14.5%
- Nephrops: 16%
- Saithe: 7.5%
- Salmon: 4.9%
- Scallop: 16%
What about quota changes?

- Assumed % change in quotas, based on study by University of Aberdeen & Scottish Fishermen’s Federation, for areas IV & VI
Impact on Output

![Bar chart showing the impact on output for different scenarios: EEA, No Deal, No Deal+FTAs, Deal+100% ZA, No Deal+50%, ZA, No Deal+UFT. The chart illustrates the change in output as a percentage, with negative values indicating a decrease. The UK-output is represented by red bars, and the EU-output by blue bars. Notable changes include a -1.33% decrease for EEA, a -2.53% decrease for No Deal, a -1.81% decrease for No Deal+FTAs, a 10.43% increase for Deal+100% ZA, a 4.96% increase for ZA, and a -3.20% decrease for No Deal+UFT.](image-url)
Impact on Trade

**Exports**

- EEA: -3.43
- No Deal: -6.44
- No Deal+FTAs: -4.72
- Deal+100% ZA: 11.99
- ZA: 4.27
- No Deal+UFT: -3.30

**Imports**

- EEA: -1.92
- No Deal: -4.74
- No Deal+FTAs: -3.23
- Deal+100% ZA: 1.67
- ZA: 0.70
- No Deal+UFT: 2.99

Colors:
- **UK-Exp** (Red)
- **EU-Exp** (Blue)
- **UK-Imp** (Orange)
- **EU-Imp** (Purple)
<table>
<thead>
<tr>
<th>Species</th>
<th>Price</th>
<th>Output</th>
<th>Exports</th>
<th>Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cod</td>
<td>1.88</td>
<td>-7.64</td>
<td>-11.26</td>
<td>-8.35</td>
</tr>
<tr>
<td>Crab</td>
<td>0.16</td>
<td>-2.48</td>
<td>-6.33</td>
<td>-2.20</td>
</tr>
<tr>
<td>Haddock</td>
<td>6.21</td>
<td>8.59</td>
<td>-7.74</td>
<td>1.13</td>
</tr>
<tr>
<td>Hake</td>
<td>1.96</td>
<td>-14.61</td>
<td>-15.83</td>
<td>-0.84</td>
</tr>
<tr>
<td>Herring</td>
<td>5.41</td>
<td>-9.51</td>
<td>-9.68</td>
<td>-9.79</td>
</tr>
<tr>
<td>Mackerel</td>
<td>4.87</td>
<td>-5.92</td>
<td>-6.60</td>
<td>-8.84</td>
</tr>
<tr>
<td>Nephrops</td>
<td>3.76</td>
<td>-1.88</td>
<td>-3.25</td>
<td>-3.27</td>
</tr>
<tr>
<td>Saithe</td>
<td>2.86</td>
<td>-1.67</td>
<td>-9.48</td>
<td>-6.09</td>
</tr>
<tr>
<td>Salmon</td>
<td>3.28</td>
<td>-0.61</td>
<td>-5.69</td>
<td>-3.20</td>
</tr>
<tr>
<td>Scallop</td>
<td>2.37</td>
<td>-4.38</td>
<td>-6.86</td>
<td>-1.48</td>
</tr>
</tbody>
</table>
Results by species: % change in output

- Cod: -7.6%
- Crab: -2.5%
- Haddock: 13.9%
- Hake: 31%
- Herring: 45.7%
- Mackerel: -9.5%
- Nephrops: 19.4%
- Saithe: 18.1%
- Salmon: -5.9%
- Scallop: -1.9%

No Deal vs. No Deal with 50% ZA
Summary

- Policy with regard to fishing and fish processing is complex and politically sensitive
- All the scenarios without quota changes lead to a decline in UK output, and the biggest decline (3.2%) occurs with UFT
- Losses from the EEA and no-deal outcomes can be partly mitigated by free trade agreements with third countries – but only partly
  - with No Deal is a 2.5% decline in output
  - No Deal + FTAs there is a 1.8% decline in output
Impacts not evenly distributed across the UK industry

There is a modest decline in EU output across all scenarios

If the UK takes an assertive approach to quotas this can have a big impact on the results with output going up by over 10%

Potential benefits for UK are offset against losses for the EU – unlikely to accept this without some form of retaliation or seeking compensation elsewhere
Thank you for your attention

http://blogs.sussex.ac.uk/uktpo/publications/fishing-in-deep-waters/

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