Towards managing the United Kingdom's fisheries: A Brexit view from Scotland

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Abstract:

Brexit, the UK's planned withdrawal from the EU, has significant implications for UK fisheries, potentially creating both opportunities and challenges regarding future governance of some of the most important fisheries in the EU. This paper presents findings of discussions with key industry representatives from two of Scotland's largest ports – Peterhead and Fraserburgh. The views of these stakeholders give a unique perspective on the opportunities and challenges provided by Brexit. Views are reported on the current management system, the importance of the EU as an export market and how industry stakeholders believe fisheries should be governed if the UK leaves the Common Fisheries Policy (CFP). Despite the view from stakeholders that the current distribution of fishing rights in UK waters is unbalanced, and the view that the CFP has moved from a positive to a negative for the industry, the implications of these results suggest that this part of the industry is not focussed solely on a quick removal from the CFP that returns 100% of fishing rights and control of UK waters, but instead seeks an improved management system that allows for the long term sustainability of the sector.

Key words:

Brexit; Common Fisheries Policy; Exclusive Economic Zone; Access; Governance; Fisheries management

1. Introduction

The United Kingdom (UK) joined the European Economic Community (EEC), the forerunner to the European Union (EU), in 1972 and became subject to the set of rules that would eventually become the Common Fisheries Policy (CFP). The UK's joining of the EEC, and therefore its acceptance of the CFP when it was introduced in 1983, involved the combining of EU member states Exclusive Economic Zones (EEZ) to form a consolidated EU EEZ. Management of fish stocks, gear and vessel regulations, and quota apportionment are negotiated between all member states within the European Council, and the European Council with non-member states, with annual negotiations on the total catch limits for EU waters and larger reforms to the policy taking place three times since its formation (1992, 2002 and 2013). Access is permitted to any EU vessel to fish in the combined EEZ if they have a licence from their state and sufficient quota for the species caught (The European Parliament and the Council of the European Union, 2002, 2018).

Fishing quota is based on the Total Allowable Catch (TAC) derived from scientific assessments by the International Council for the Exploration of the Sea (ICES) and other scientific bodies. This is then apportioned out to member states using a formula called Relative Stability, which was set in 1983 and was based on historic catches by member states in European waters (European Commission, 2018b, 2018a; Hoefnagel, de Vos, & Buisman, 2015; Sobrino & Sobrido, 2017). The individual member states can then use this quota as they see fit. The UK has developed its own system, managed by the Marine Management Organisation (MMO) for England and Wales and the devolved administrations for Scotland and Northern Ireland. Vessels that operate within Producer organisations (PO) operate under an Individual Transferable Quota (ITQ) system known as Fixed Quota Allocation (FQA) that was introduced in 1999 (Edvardsson, Tingley, Asmundsson, Conides, & Holm, 2011; Hatcher, Pascoe, Banks, & Arnason, 2002; Le Floc'h et al., 2015). The total quota is managed by the PO on behalf of the members and quota can be leased or sold between POs and fishers as the need arises. Quota can also be swapped between member states to aid in the operation of their fleets. Vessels under 10m in length (or that are not part of a PO) have their quota directly managed for them by the MMO (Hatcher et al., 2002; MMO, 2018a; Scottish Government, 2017).

As a result, the UK's management of fisheries within its waters has been intertwined with the EU for over 40 years. Therefore, the decision to leave the European Union (EU), and the Common Fisheries Policy (CFP) requires that a new fisheries governance system, administered and operated by the UK and the devolved administrations must be formed. The political, legislative and economic impacts of leaving the CFP will require careful planning and negotiation between the UK and the EU in order to establish a new relationship upon which a fisheries management framework can be built (Le Gallic, Mardle, & Metz, 2018; Phillipson & Symes, 2018). Decisions will have to be made regarding stocks that exist only within the UK's Exclusive Economic Zone (EEZ) and those shared stocks that migrate across marine boundaries.

This paper draws on research conducted in the summer of 2018, which focussed on the North East Scotland 'over 10m sector' pelagic and demersal fishing industry, which is central to the UK's fishing industry (both in terms of volume and value) and home to the ports of Peterhead and Fraserburgh. Peterhead is the largest UK port measured by fish landings in both tonnage (150,900 tonnes) and value (£166.7 million) with Fraserburgh third. Fraserburgh operates the largest fleet in the UK by gross tonnage (31,426 GT) and power generated (83,976 kW) with Peterhead fourth (MMO, 2018b).

This paper presents the results of the interviews conducted with key stakeholders from the demersal, pelagic and processing sectors in Peterhead and Fraserburgh. The paper has focussed on the part of the industry that operates within the PO system i.e. those that are termed 'Sector' by the MMO. They operate vessels over 10m in length and draw from the pool of quota administered by the MMO under the FQA system, which is managed by the PO on behalf of its members. Views of the 'Non-sector' and '10 metres and under pool' were not sought as part of this research, as the 'Sector' industry accounts for 99% of the pelagic and 97% of the demersal catch (MMO, 2018b)

The views of these stakeholders give a unique perspective on the risks and opportunities provided by Brexit. Views are reported on the current management system, the importance of the EU as an export market and how industry stakeholders believe fisheries should be governed once the UK has left the CFP. These views have been analysed alongside the realities of trade with the EU to give a background for the evolution of the management of the UK's waters post Brexit. The UK fishing industry has received significant focus in the ongoing Brexit debate. The results from this research contribute to knowledge in two ways. Firstly, the research reports on first hand discussions with industry stakeholders from both the demersal and pelagic sectors. Secondly, the results indicate that the demersal and pelagic sectors from two of Scotland's largest ports recognise the importance of a balanced redistribution of fishing rights going forward to maintain relationships with EU counterparts, including trade in UK fish products. The implications of these results suggest that this part of the industry is not focussed solely on a quick removal from the CFP that returns 100% of fishing rights and control of UK waters. What is also clear is that the stakeholders interviewed do not draw a fine distinction between the parts of the current management system that are determined by the European Council, the UK Government, through the MMO, and the devolved Scottish Government through Marine Scotland.

The paper is laid out as follows. The next section outlines the criticism of fisheries management in the EU and the prevailing view of its management measures for UK fisheries. This is followed by an overview of the importance of UK trade and export in fisheries products. The methodology employed in this paper is then discussed, followed by a discussion of the results in the context of management of UK fisheries after Brexit. Finally, the paper concludes on the importance of a UK/EU relationship on the future management of UK fisheries.

1.1. The UK and the CFP

Criticism of the CFP focusses heavily on its role in the sustainable development of the EU EEZ, with claims that it does not manage fish stocks in line with these principles. The volume of quota set by the European Council has been found to be higher than is recommended in the scientific advice from ICES leading to concern over the transparency of this decision making and the Council's commitment to sustainable development (Carpenter, Kleinjans, Villasante, & O'Leary, 2016).

Reforms to the CFP in 1992, 2002 and 2013 have sought to address these criticisms with a discard ban, known as the Landing Obligation, being phased in between 2015 and 2019 to end the practice of returning undersized or out of quota fish to the sea. The phased approach, with pelagic species included from 2015, some demersal species added in 2016 before the full coverage of all quota species by 1st January 2019, acknowledged the increased levels of bycatch in the demersal sector (Sobrino & Sobrido, 2017). Despite these revisions, the CFP is seen as a failing to meet criteria for a successful resource policy and although there has been some improvement over time, against the 17 criteria it was measured as neutral for 10 and negative for the remaining seven (Belschner et al., 2018).

The CFP is a source of deep concern to UK fishermen with a survey ahead of the UK's referendum on leaving or remaining in the EU showing that 92.1% of fishers planned to vote to leave the EU, with 92.8% believing that leaving would either somewhat or greatly improve the UK fishing industry (McAngus, 2016).

1.2. UK export trade in fisheries products

Table 1.1 shows the value of UK fish products exported. Over a five year period to 2017, this was less than the landing's by UK vessels, into the UK and abroad, in terms of tonnage but significantly higher in terms of value (MMO, 2018b).

Table 1.1 – UK landings of fish, into the UK and abroad, and exports of fish products (MMO, 2018b)

		2013	**2014**	**2015**	**2016**	**2017**
Landings	('000 tonnes)	627	758	709	701	724
	(£ million)	741	864	776	947	980
Exports	('000 tonnes)	452	502	442	440	460
	(£ million)	1,460	1,566	1,337	1,638	1,906

Table 1.2 demonstrates that the EU and the European Free Trade Association (EFTA) is the main market for the UK fishing industry. Fisheries products traded between one member of the EU or EFTA are not subject to any tariffs and can be traded freely. In addition to this, the EU has negotiated a variety of trade agreements that reduce tariffs on the export of fish products with third countries. These have the effect of either reducing or removing the tariffs applicable on traded fish products (European Commission, 2017; Seafish, 2017).

Table 1.1.2 - UK exports by destination for 2017 (MMO, 2018b)

		Total UK exports	*Exports to the EU*	*Exports to the EFTA*	*Exports to other countries*
Tonnage	('000 tonnes)	460	347	2	111
	%		75.5%	0.4%	24.1%
Value	(£ million)	1,906	1,336	13	557
	%		70.1%	0.7%	29.2%

1.3. Importance of the EU as an export market

The UK benefits from EU trade agreements and as it withdraws from the EU it is uncertain as to whether any of these trade deals will remain in force (Garrett, 2018). If they do not, then the UK would see tariffs applied to all exports to the EU and EFTA, as well as potential increases in tariffs on exports to other countries until such time as trade deals can be negotiated. As the deal for leaving the EU remains to be negotiated and agreed, it is not possible to understand the impact on UK fish exports. It is, however, a significant risk to the industry. Any additional tariffs applied to UK exports, either to the EU, or to those states that have current agreements with the EU, will increase the cost of these goods. As noted by Bartelings & Smeets Kristkova (2018) this would reduce UK exports of fish products by 30%. This reduction would have a significant impact on the fishing industry in both the catching and processing sectors as demand is reduced. Although imported fish would be affected to a similar degree by any imposition of tariffs, the fish consumed in the UK is very different to that caught, as shown by the comparison of UK imports and exports by species (Richardson et al., 2017). This demonstrates that, barring a short-term wholesale change in consumer preferences, the fishing industry would face significant challenge from any disruption to the export of fish landed in the UK (Gasiorek & Walmsley, 2018).

2. Methodology

2.1. Interviewee selection and process

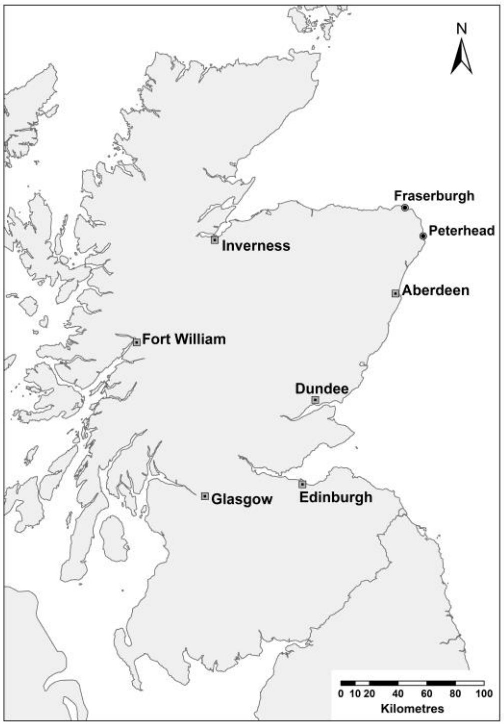

Figure 2.1 Map of Scotland showing Peterhead and Fraserburgh

Peterhead and Fraserburgh's importance as a centre of the Scottish and UK fishing industry allowed the research to be conducted in a discreet geographical area while capturing the views of those that represent a significant share of the UK's fishing industry.

Due to the complexity of the industry, management regime and the uncertainty inherent in exiting the EU, this research focussed on in depth interviews with eight key actors within the industry. Participants were selected who work under the CFP and were able to provide insight into its operation and give a view as to the changes necessary for the future sustainability of the industry.

The eight interviewees were comprised of skippers, senior executives in producer organisations and fleet owning companies, processors, quota managers and vessel owners. The interviewees represent 17% of the total vessels registered in the two ports and 43% of the 'over 10m' sector fleet.

Table 2.1 Interviewees organisation, role and fishery (n=8)

	Organisation	Role	Fishery
Interviewee A	Multiple vessel owner and retired skipper	Owner	Demersal
Interviewee B	Producer organisation	Chief Executive	Demersal
Interviewee C	Vessel owner and skipper	Owner and skipper	Demersal
Interviewee D	Vessel owner, merchant and retired skipper	Managing Director	Demersal
Interviewee E	Vessel owner and skipper	Owner and skipper	Demersal
Interviewee F	Multiple vessel owner, producer organisation and processor	PO manager	Pelagic and demersal
Interviewee G	Multiple vessel owner, shipping agent and merchant	Managing Director	Pelagic and demersal
Interviewee H	Multiple vessel owner, producer organisation and processor	Chief Executive	Pelagic and demersal

The semi-structured interviews addressed four critical questions that provided a flexible framework to the interview that allowed both the interviewer and interviewee to explore the subject fully.

1. What are your views on the current management system?
2. What is your view of stock assessments?
3. What is your view of the impact of Brexit?
4. What is your view of the impact of Scottish independence or further devolution?

2.2. Analysis

Analysis of the primary data was conducted using non-numerical analysis of the interview transcriptions. The transcripts were coded for meaning. These coded sections were extracted from the individual transcripts to form groupings of views concerning a topic or sub-topic. These groupings formed a view of the risks and opportunities presented by potential changes to the management of UK fisheries.

This research has used the direct unedited quotes of the key stakeholders interviewed. These interviews, therefore, provided a first hand, detailed understanding of the operational and organisational interactions that take place within the industry.

As stated, the quotes are unedited first-hand views from the stakeholders and in several cases exhibit colloquial and more personalised verbal responses and thereby read as such in the body of the paper. They relay the complexities of internal and external relationships and the myriad challenges and opportunities that manifest themselves in the “real world” or “industry”. Additionally, they have provided very topical and up to date information that compliments the wider published material used elsewhere in this article.

3. Stakeholder views

The results are presented as commentary based on the stakeholder's views, supported by direct quotations. They are broken down into three sections; Current management system; EU withdrawal negotiations and trade with the EU post Brexit; and future fisheries management after leaving the CFP.

3.1. Current management system

The CFP is seen as having provided much needed regulation and funding for the industry that conserved stocks and saved the fishing industry in the North Sea, but at the expense of the fishing communities themselves. As a body that manages fisheries, the CFP is seen as quick in making broad, sweeping decisions that do not consider the diversity within the catching sector. The CFP is also seen as being quick to apply new rules, but slow to review them leading to a management system that is out of date and does not fit the needs of the industry, or the capacity of fisheries resources.

The following views were expressed;

Interviewee E *"To me the Common Fisheries Policy has been a disastrous policy for the fishing industry round the UK. Okay it's conserved the stocks but it's decimated the fishing communities round about the UK"*

Interviewee C *"Current management has gotten better, it needed to get better it was an absolute shambles."*

The CFP is seen as a political body, where the science base is considered but then abandoned in favour of individual EU nation state's needs. The UK is seen as having to accept whatever it is given, rather than being able to negotiate from a position of power that it should have due to the importance of the UK EEZ to the CFP members. Interviewee F stated *"I voted for coming out particularly because of the situation in the fishing because I think we're just going down a blackhole over the fishing. I don't think they had a clue as to where they were going to go with it."*

The concern amongst the stakeholders is that an independence vote could see them re-entering the CFP. Interviewee D *"if it's independence through SNP their policies to go right back in to Europe…their argument is they're trying to keep us in the existing which is totally absurd because the SNP knew that was the one thing that was destroying to a degree destroying the fishing trade."*

The view from the stakeholders is that the industry is buoyant. Stocks are good, there is high demand from consumers, the market price is high and fuel prices are low. Interviewee G stated *"one of my colleagues often describes it as a Kodak moment, you know just take a picture of it because it really can't get much better"*. As all of these factors are currently supportive of the industry there is some scepticism that this level of success is permanent as there will no doubt be fluctuations. Although stakeholders voiced mistrust for the SNP Interviewee C *"I wouldn't trust the SNP as far as I could throw them"*, the devolution of powers that led to Marine Scotland's management of the fisheries is seen as a positive. Marine Scotland are credited with closing the gap between the fisheries scientists and the industry. Interviewee E *"I think the health is very good we have a lot of new boats coming into the industry the stocks are looking good the prices is good and the boats have been doing very well. Mainly crews have been getting good pays, so in the last three four years it has been really good and when you see men investing in new boats. It's a good, we've had quite a lot,* *some new young guys coming in to the industry which is a good sign. We've had some guys leaving the oil industry coming into the fishing."*

The quota system means that the industry is focussed primarily on quota management. Interviewee B *"quota management would be a big part of our operation at the moment just feeding the trying to acquire quota for the boats to have a full 12 months fishery".* Stakeholders would rather that they were able to spend more time and effort on improving the marketing of their product and developing the supply chain to capitalise on the demand for fish from consumers in the UK and abroad.

The current management system does not incentivise the sustainability of the industry in the long term and stakeholders would like to see improvements in the system that links investment and quota to improving this.

Foreign workers make up 60 to 70% of the labour on board vessels. Although the management of this has led to improvements in working conditions, the visa conditions for non-EU workers, especially as the EU workforce is declining, is causing a shortage of labour. The reliance on foreign workers is seen as a consequence of the quota system breaking the link between the industry and the community. Interviewee C *"It's still hard, very hard to get crew. It would be wrong to say younger generation don't want to work, but we have a fantastic crew on our boat and it's all middle ages and going on to old dodding crew. We had to turn to foreign crew, we'd no option, but that was caused, when the oil industry boomed, I'd say 30% of Peterhead's industry left the industry, and at the time of the decommission as well."*

Stakeholders with an interest in the processing sector highlight that, although the catching sector is buoyant, the processing sector is less so. The fishing industry is catching sector led, as opposed to demand led. This has led to processors being squeezed between a high market price and a low retail price. The resulting lack of investment in processing capacity has led to much of the pelagic sector landing to Norway. Demand at the processors driving the catching activity is seen by the processors as a potential solution to this. One processor, Interviewee E, stated that *"it may be a good thing in the long term if the price of the fish came down in the market a wee bit, let the processors make up a bit more money so they can reinvest in their business"*

Although the stakeholders expressed a range of concerns regarding the current management system during the interviews, the performance of the industry as a whole is seen as positive and they hope that it remains so in the future.

The stakeholders also gave their views on issues with the current system: Scientific base to quota, landing obligation and the quota system.

3.1.1. Scientific base to quota

The strongly held view is that the scientific evidence for fish stocks lags behind the reality of what is seen by the fishers. Interviewee A *"Science always seems to be maybe a year or two years around the stock".*

A closer working relationship between the scientists and the fishers, in recent years, is credited with closing this gap and increasing the understanding on both sides. A concern raised is that the European Maritime and Fisheries Fund (EMFF) pays for some of the research and the observers that join the fishing vessels. As this funding will be withdrawn after the withdrawal from the EU, there will be a funding gap, which will potentially damage this growing relationship. Interviewee A *"We're funded by Europe just now and there's lads wondering how do we get the funds going forward for science?"*

3.1.2. Landing obligation

The Landing obligation is seen as an example of the problems within the CFP. The Landing obligation was implemented in response to reports from the FAO, and subsequent media and public pressure, that showed that 27% of fish caught is lost to discards and spoilage (FAO, 2018; Guardian News and Media Limited, 2018). The belief amongst stakeholders is that the ban on discarding fish was brought in due to media and political pressure as opposed to being based on scientific evidence (de Vos et al., 2016). Hugh Fearnley-Whittingstall, who highlighted the issue of discards on television is held up as an example of this;

Interviewee B *"we feel as though it was just like a knee-jerk reaction to HFW, his name does come up and when you do knee-jerk reactions it's not to the benefit and it's fine for him because he can just walk away"*

Interviewee C *"I've got no quota* [for choke species]*…. so it's ill thought out. Mr Fearnley-Whittingstall's got a lot to answer for. Yes, that's the problem isn't it, it became a very popular cause in the media."*

The concern surrounding the landing obligation, and to some extent the species led quota system, is that it is not fit for purpose in a demersal mixed fishery, such as that which exists in the North Sea. Interviewee G stated *"I've got pelagic guys fishing out in the North Sea just now, he's about 99% sure if he sees a mark it's going to be herring. And they'll maybe get an odd little mackerel or something. The whitefish guys they genuinely are a mixed fishery. Look what the boats that we had even today you know, they've one landed about 20 different species."*

Species with low or absent quota, due to historically low stocks, can 'choke' the fleet if a high proportion of a trawl contains these fish, which are of no economic value to the vessel. This is seen as a serious issue with species that fall within the landing obligation as, with the full implementation in 2019, it could cause the industry to land a significant quantity of unprofitable fish and prevent them from fishing for target species for fear of landing these 'choke species'.

Interviewee B stated *"there's choke species because we are predominantly a mixed fishery there's always a species that is going to choke us and that is what we are finding as more species are getting introduced into the landing obligation"*

In extreme cases, where the quota is unavailable to lease, a concern is that this may cause vessels to have to stop fishing for the year without having caught their quota of species that they were targeting.

A view expressed is that it will lead to an increased removal of biomass from the marine ecosystem as previously any discarded fish, living or dead, re-entered the ecosystem. Interviewee A *"if you throw them in the sea they're still feeding an animal of another sort, so they get back in to the food chain when they go back in to the sea".* Due to the greater ability of the pelagic sector to target individual species, the landing obligation, and any concerns over 'choke' species, was only raised by the demersal fishers as an area of significant concern.

3.1.3. Quota as an asset

The introduction of Individual Transferrable Quotas (ITQs) is seen as positive, as it gave fishers an asset that they could use to secure financing for new or upgraded vessels. Interviewee G *"most of the industry here in Scotland is in favour of the FQA units because that's why we built up businesses and the businesses have become profitable because we've acquired extra quota"*. However, over time this has led to some consequences that are potentially damaging to the future of the industry.

The value of the ITQ is seen as a barrier to new entrants to the industry. This value is driven to some extent by those who hold ITQ but do not actively fish themselves. This was driven in part by decommissioning schemes to reduce fleet capacity that allowed the ITQ to be separated from the vessel and retained. Colloquially these are known as 'slipper skippers' but in some cases are larger commercial ventures. Interviewee H *"Some slipper skippers are massive corporate entities. They just own it as an asset and it's theirs. You want fish? There you go. You can get fish, but it's now going to cost you £3,000 a tonne."*

Quota is leased to those that require it, often once they establish what has come up in a trawl. The urgency and necessity, inherent within this method of leasing, has created a valuable commodity that, when it is made available for purchase, is only within the financial reach of larger organisations, colloquially known as 'quota barons'. Interviewee C *"Quota has become such a valuable asset right there are very very few people or organizations can afford to buy a quota, our quota would be valued at something like three or four million pounds"*

This prevents new entrants from being able to gain quota to start fishing and stops those who work on the vessels currently from being able to become a skipper in the future. This is seen as being responsible for a decline in locals considering fishing a viable career. Interviewee C *"I want to see young lads being able to come back in, because unless you're left a family business now, or you go to a fishing agency and you take a share in the boat, you've no chance."* A view given of a potential solution is that any new quota realised from leaving the EU should have targets and obligations attached to it that promote the long term sustainability of the industry.

The quota system in the UK is a largely unregulated area. Little is formally understood regarding the leasing or sale of quota, the concentration of quota with individual POs or vessels and the extent to which quota is kept by those without vessels and leased to those actively engaged in the industry. The stakeholders have identified these 'slipper skippers' and 'quota barons' as being a bar to new entrants entering the industry. This, coupled with the increase in migrant labour on board vessels, risks the industry being deprived of replacements for those who retire.

The stakeholders held common views on most issues associated with the current management system with two notable exceptions. Firstly, those with an interest primarily in the pelagic sector were much less concerned about the impact of the Landing Obligation than those in the demersal sector. The demersal sector view the landing obligation as a significant risk to their operation. Secondly, those with a commercial interest in the processing sector considered themselves to be neglected and that the current good performance of the industry as a whole is not reflected in their sector. An increase in investment and a move to a demand led model, at the expense of the catching sector, were put forward as potential solutions.

3.2. EU withdrawal negotiations and trade with the EU post Brexit

The ongoing negotiations are a significant source of concern for the stakeholders interviewed.

The largest of these is that the industry could be left in a worse position than it currently is. Continuation of the transition period on fisheries indefinitely, or access to UK waters being traded away to secure a more favourable position for other industries, such as protecting London as a financial centre, represents a significant concern.

Interviewee H *"I'm not a great believer that we're going to see a lot of changes in fishery post Brexit. I don't think, you know I just don't see it coming. I just don't see that coming. Our position could be weakened."*

Although the stakeholders are aware of the weight that fishing carries, due to the support it garners from those who see that regaining control of UK waters is one of the main reasons for leaving the EU, they recognise that the importance of the fishing industry to the UK's economy is negligible with one interviewee saying Interviewee C *"It will just be a bargaining chip, the industry is nothing to the GDP in the UK, it was less than one percent, well if you go to Denmark you go to Holland, they all fight for their fishermen. France, Spain, you take the financial market in London, they'll sacrifice the fishing industry to keep it"*

For this reason, one stakeholder believes that leaving the EU without a deal, followed by a negotiation back towards trade and access would be a better position for the fishing industry.

Interviewee F *"I would like this you know, hard Brexit, I would like this hard Brexit when you come out and you discuss things later. That's not what we're getting, we'll deal with what we've got sort of thing. I'm fearful that the industry will be short changed because I think there's an opportunity there if we could take back control of our waters, we could and we apply ourselves to it we could make a pretty good go of it, given the availability of stocks and these waters."*

There is a view from the stakeholders that the EU's demand for fish from the UK EEZ combined with the UK as a major export country for the EU fish products would lead to pressure for tariff free trade.

Interviewee D *"Yes trade is hugely important but the thing is we've got 70% of the langoustine quota here and the one thing that we do know is our European cousins do like their seafood"*

This view, however, is secondary to the concern that the loss of a free trade mechanism could have on the practicalities of cross border trade. As fish is a perishable product the concern is that border checks could increase lead times, reducing the quality of, and therefore the value and demand for, the product.

These views were expressed as follows;

Interviewee E *"I think the main risk is our markets in Europe. I have a fear that there's a closed-door there and we have a perishable commodity and we have lorry's backing up at the channel and fish the decreasing in quality you know that can hit the price in the market for us."*

Interviewee H *"It's not toilet paper we're bringing in. its perishable goods that have a shelf life."*

There was less concern from the pelagic side as Interviewee H believed that they would be able to do a deal to land into Norway but at the expense of the Scottish fishing communities *"I can redirect* *to Norway, Norway's got all the access to trade deals in the world, tremendous at getting trade deals, and they've got access to the European markets ….. So, the Norwegians can quickly do a trade deal with the UK. Which ensures there's tariff free fish going in to the market. But, that's not good for our communities"*

The issues regarding trade are outweighed however by the risk that trade and access will be linked together and that the price of tariff free trade will be the loss of control over access to UK waters. This would be an unacceptable position for the stakeholders, as they would consider this to be worse than the CFP with Interviewee B saying *"I hope that trade isn't within a Brexit deal in that trade isn't amalgamated with access"*

Although the impact of trade barriers was highlighted as a common risk, it was the processors who saw this as a critical risk.

Interviewee H "(If there is no deal) *we don't have free access to get a perishable good into Europe...they will close our markets. They'll either do it politically, or at a practical level...They will find a way to damage our business."*

In the view of the stakeholders, access to the resources within the UK EEZ should be negotiated with the EU in return for tariff free access to the common market. This does not, however, mean giving away the UK's right to control access. A negotiated position that in effect left the CFP in place would be wholly unacceptable to the stakeholders interviewed. Tariff free trade should be the default position in order to allow negotiations on access and quota to be undertaken.

3.3. View on post-CFP system

There is no view that, upon withdrawing from the EU and leaving the CFP, the UK EEZ should be closed to EU fishing vessels, or that the UK fleet should take the full TAC set by ICES in these waters.

This view is summed up by one quote from Interviewee C *"I'm not also advocating that no foreign boat should be allowed in the UK, that would be wrong in my opinion. They have historical rights as well fishing our waters, it's just the allocation of it."*

The most strongly expressed view is that the UK should negotiate with the EU and Norway as an independent coastal state with access to foreign vessels, and a share of the quota, negotiated in exchange for tariff free trade of fisheries products in to and out of the EU. Interviewee G *"we've got a very very strong case to increase the quotas and I'm certainly not saying for a minute that you don't have access with EU colleagues but it has to be negotiated"*

The UK share of the TAC should not immediately move to 100%, as this is seen as both politically unlikely, unachievable by the UK industry, potentially damaging to the industry due to retaliatory measures from the EU, and unfair on those fellow fishers who have historically fished UK waters and have built their business on the continued ability to do so. A rebalancing of the quota over time is the opinion most clearly expressed, with the end of year position, after international quota swaps, being taken as the starting position for the UK. An increase in share for the UK, and a subsequent reduction for the EU, should be negotiated that allows for EU fishers to adapt to the changes. Interviewee D stated *"I do not think it is fair that on a vote of the UK that a man who has built up a business in Denmark, Holland, France all of a sudden loses out overnight. I think we should be man enough to say we're changing the rules and we're going to do it over a 10 to 15-year period."*

Withdrawal from the CFP returns control of the UK EEZ to the UK and it is from this position that all future negotiations on the sharing of resources should take place. Interviewee F stated *"And then the fishing side, it's kind of default that we come out, we take our waters, that's just kind of international law sort of thing. But we've got to be responsible when we do it again, we've got to think about, and yeah give folk access, but it's got to be on our terms"*

The view of the stakeholders was that the starting point for quota apportionment outside of the CFP should be the end position of the final year of the transition period after international quota swaps have been made. This best reflects the actual quota used by the UK fleet and gives a solid foundation to future negotiations.

The stakeholders interviewed expressed both sympathy and solidarity with their peers in the EU nations fleets, as regards historic fishing rights and the threat of loss of businesses that have been built up over years. The view that the UK EEZ should be for UK vessels to fish exclusively was not present, even where the stakeholder would see no direct impact from trade barriers or a reciprocal closure of the EU waters.

There was, however, a clear view, shared by all of the stakeholders, that access to the UK EEZ should be on the UK's terms, with access seen as the key to the successful negotiation of future quota apportionment. The economic importance of the UK EEZ to the EU fleet, and the demand from the EU market for exports of fish from the UK, is well understood by the stakeholders and in their view should be the basis of our future relationship with the EU.

4. Conclusion

Although Brexit is seen by the stakeholders as potentially a defining moment in the future of their part of the industry, many of their concerns that related to the current management system were not matters that are governed by the CFP or our relationship with the EU. Conclusions as to why there is the confusion between these areas is outside of the scope of this paper and would require further investigation. However, it is clear that the stakeholders current focus on day to day quota management, the reliance on foreign crew and the lack of integration between the catching and processing sectors will remain regardless of the outcome of Brexit.

The FQA system is seen as a structural issue within the long-term socioeconomic sustainability of the industry, providing a barrier to new entrants and consolidating fishing opportunities within fewer hands. The system is the UK's administrative tool to apportion the TAC received from the European Council. Therefore, even if the result of Brexit is that the UK had 100% of the TAC from UK waters this will not in itself change the FQA system or address these concerns.

The interviews conducted on the management of fisheries under the CFP, stock assessments, Brexit and Scottish independence give a coherent view of an industry that is encouraged by the health of its current performance but is looking to the future with equal measures of hope and trepidation. The consensus is that the CFP constrains the activities of the industry, and even though it is given some credit for saving the industry around the turn of the millennium, it is seen as being overall negative. The inherent contradiction in the view of the CFP, that it has worked to save the industry but is also damaging the industry, is one that is not resolvable from our analysis and would require further study to understand fully.

The stakeholders exhibited a pragmatic outlook on EU withdrawal and the exit from the CFP. Consideration was given to the historic fishing rights of those other nations that fish in the UK EEZ, with no desire shown to block access to foreign vessels. Those within the industry are sympathetic towards their peers who have built businesses and livelihoods on access to UK waters and would not wish them to lose their businesses. The clear desire is for more control over UK waters to enable a stronger negotiating position with the EU. An acceptable negotiated position is that access would be granted in exchange for tariff free trade, EU vessels following UK rules and an increase in the share of the TAC from the UK EEZ over time and reciprocal access based on UK boats following EU rules in the EU EEZ.

Despite the importance of trade to the industry, especially the exporting of fish products to the EU, loss of trade was not seen as a substantial risk. The belief is that the quantity and quality of fish caught within the UK EEZ would force the EU to concede to tariff free trade. The concern raised, regarding trade, is that it will be linked to the current access model for EU vessels into the UK EEZ and effectively lead to a maintenance of the status quo.

The analysis of the primary data shows an industry that, despite some of the media reports to the contrary, does not seek to ban all foreign vessels and retain all UK fish for UK vessels. It instead seeks a rebalancing of the system in favour of the UK industry that will allow a greater input in the local and regional management of fishery resources.

These findings should be included within a wider study that canvasses views from across the UK fishing industry, identifying and including stakeholders such as NGOs, local and national government and consumers. This would provide the basis for a new management system for the UK waters.

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6. References

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