



UNIVERSITY OF THE FAROE ISLANDS

“User Rights in Fishery and Fish-Farming on the Faroe Islands: The Issue of Rent Capture”

**“Advantages and Disadvantages of Strong User Rights in Fisheries”, Gothenburg, 5th
and 6th May 2022**

Zvonko Mrdalo

Overview

- Strong User Rights developments within the context of Harvesting performance & economic crisis and ad-hoc political policy making
- “Grandfathering” vs. Market allocations:
Auctions did not bring newcomers – “Grandfathering” continued

Pelagic fleet, Distant waters fleet & Aquaculture:

- Economic rent extraction
 - Concentrated equity holdings & operational know-how
 - Expansion in other industries & abroad
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- Demersal fleet:
Ongoing overcapacity
Mackerel quotas subsidies – resource fee payments exemptions

The Evolution of Property Rights

- Raw-fish Fund established in 1975 – fishermen subsidies
- 1977 EEZ created a new playfield – forced reconfiguration of entire fishing industry at sea and land
- 1ST Act of Faroese Parliament Nr35/1987 establishes limited access to harvest but does not address fleet overcapacity – subsidies continues
- 1990's fishery collapse – forced restructuring phase

The Evolution of Property Rights

- **Aquaculture Act from 1988**
 - establishes rules and regulations applicable entirely to fish-farming activity but does not explicitly claim the fish to be the property of the Faroese people. However, local fjords considered to be public property, ownership of sea water claimed.
- **Commercial Fisheries Act from 1994**
 - “fish within a Faroese exclusive economic zone (EEZ) is claimed to be the property of the Faroese people” §2
- **Elements of governance same for both segments:
The Faroese Government and its agencies
responsible for the management of natural
resources**

The Evolution of Property Rights

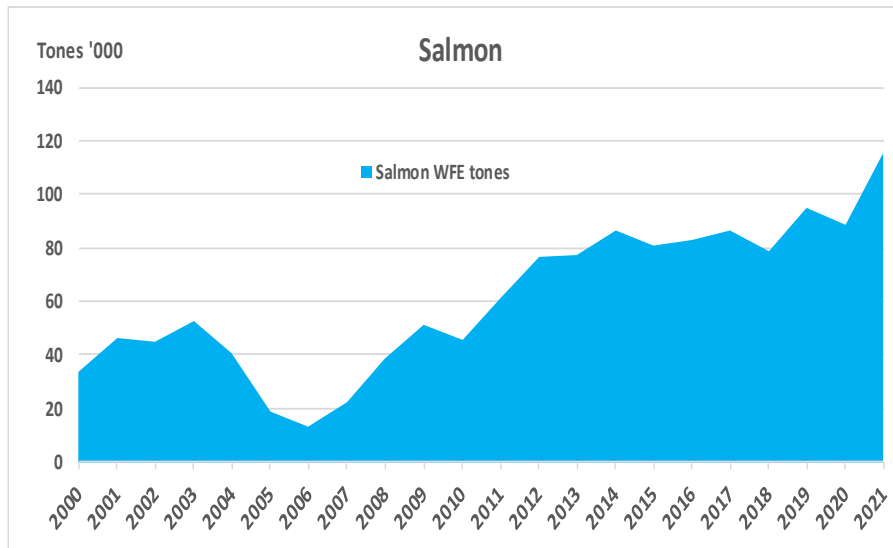
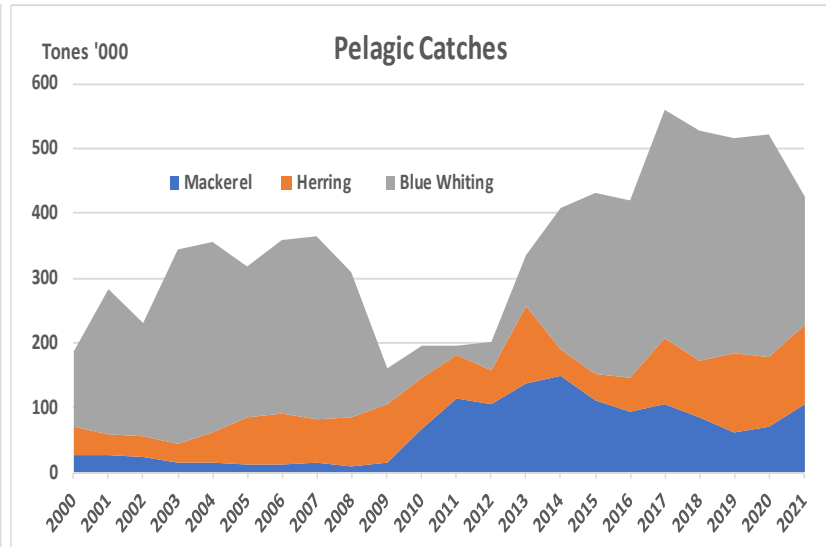
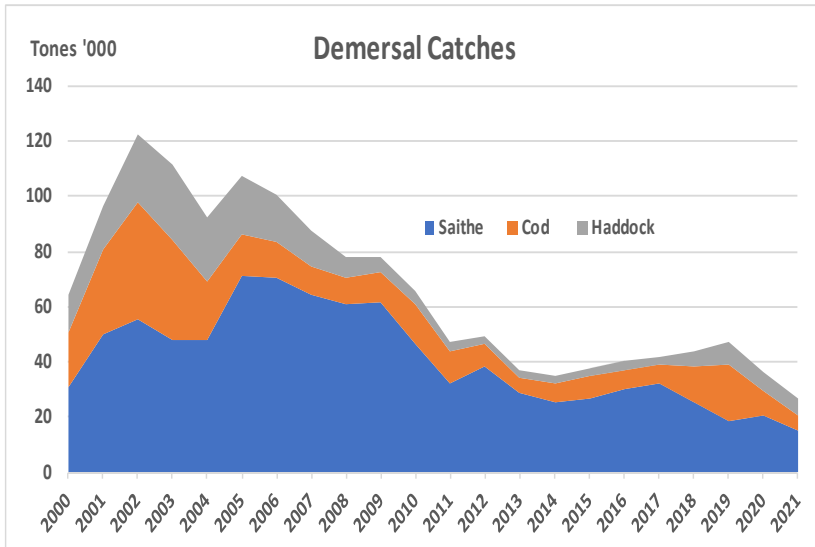
Fishery – Crisis born reforms

- Decommissioning scheme & removal of subsidies
- TAC short lived for Demersal mixed species fisheries, replaced by TAE (TRADABLE fishing days at sea)
- TAC applicable to Pelagic and distant water fisheries (international agreements or lack of it)

Aquaculture – Regulative cycles

- Government first relied on advisory agencies during developing phase (3yrs licenses)
- The most stringent regulations issued in 2003 followed by collapse of industry (ISA)
- Consolidation M&A phase, 12yrs licenses, 3 companies & expansion abroad

Harvesting Background



| CAGR | 2000-2021 |
|-----------------------|--------------|
| Cod | -6,1% |
| Haddock | -3,8% |
| Saithe | -3,4% |
| Total Demersal | -4,2% |
| Mackerel | 6,9% |
| Herring | 5,0% |
| Blue Whiting | 2,6% |
| Total Pelagic | 4,0% |
| Total Salmon | 6,1% |

Advantages (observed)

Industry

- Increased Economic benefits
- Long-term resource view & Quotas trades
- Higher Equity ratios
- Vertical integration M&A
- R&D incentives
- **Increased Retained earnings & dividends**
- Capital expansion supported by Strong collateral
- Local businesses supports
- Increased quality of harvest

Government

- Subsidy decrease or total elimination
- Lower risk for economic interventions & legal conflicts
- Employment at periphery
- Decrease of administrative burdens (monitoring & policing)
- Stable Regulation Framework (12yrs)
- **Resource Rent collection**
- Efficient use or resources permits, better focus on welfare developments
- Higher exports & tax revenues
- Coastal regions developments

Disadvantages (observed)

Industry

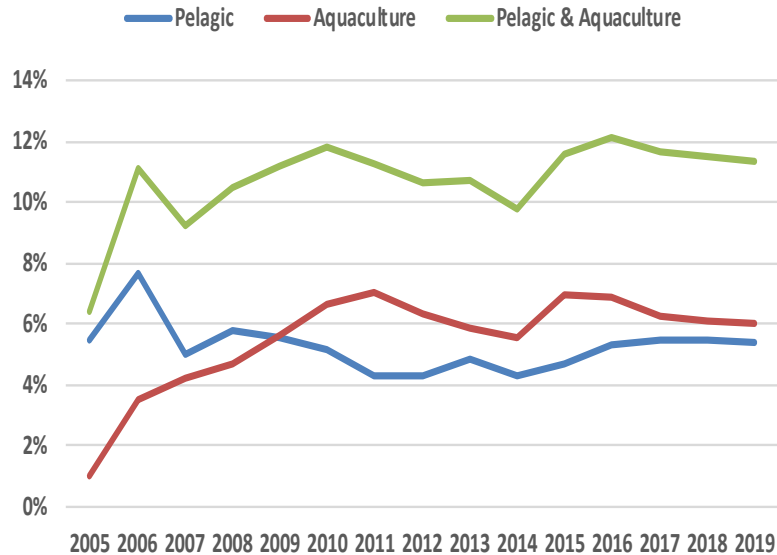
- Generational changes - Principal Agent problem
- Concentrated Operative knowledge
- Small community & small business issues
- Concentration of Equity holdings
- Inadequate number of licenses
- Conflicts between Local and State interests
- Relaxed Barriers to entry (auctions)
- Higher resource fees
- **Renegotiating crew's remunerations**

Government

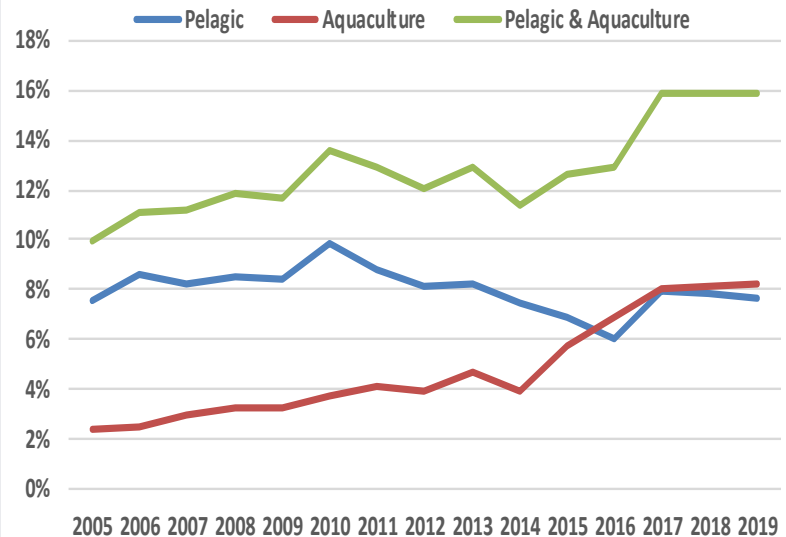
- Law of unintended consequences
- Changes in new information & technology requires intervention
- Democratic process influenced by fishery lobby
- Potential Social inequality
- Concentration of local interests
- **Balancing between scientific advice, commercial & social interests and political agendas**
- Regulatory cycles - unsuspected political events
- Design of optimal arrangements ("grandfathering" vs auctions)
- Intergenerational rollover - tax related regulations

Business statistics

Equity Share of Total Nation's Equity holding



Fixed Assets share of Total Nation's Fixed Assets holding



2005-2019
Pelagic & Aquaculture

| Equity | Equity | Fixed Assets | Fixed Assets |
|--------|---------------|--------------|---------------|
| CAGR | Avg. Holdings | CAGR | Avg. Holdings |
| 14,8% | 10,7% | 12,3% | 12,8% |

Economic Rent dissipation reversals

Pelagic & Distant Water

- Resource Fee payments for Mackerel, Herring, Blue Whiting and Barents sea stocks 2012-present
- 2016-2019 Auctions for above sources
- 2020 Auctions abandoned

Aquaculture

- Revenue Tax and Special Resource Tax 2014
- 2015 Special Resource Tax abolished
- Since 2018 Revenue Tax threshold employed

Economic Rent extractions – inequal charges

| Fish Farming | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2012-2021 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total Revenue Dkr/kg | kr. 30,83 | kr. 41,68 | kr. 44,10 | kr. 45,07 | kr. 59,73 | kr. 62,10 | kr. 56,34 | kr. 58,41 | kr. 55,82 | kr. 54,05 | kr. 51,97 |
| Revenue Tax_FO Dkr/kg | | | kr. 0,91 | kr. 2,03 | kr. 2,69 | kr. 2,44 | kr. 2,45 | kr. 2,77 | kr. 2,36 | kr. 2,57 | kr. 2,28 |
| Revenue Tax as % of Total Revenue | | | 2,07% | 4,51% | 4,51% | 3,94% | 4,35% | 4,74% | 4,23% | 4,75% | 4,39% |
| Mackerel | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2012-2021 |
| Total Revenue Dkr/kg* | kr. 6,68 | kr. 5,35 | kr. 5,97 | kr. 6,12 | kr. 7,25 | kr. 7,18 | kr. 7,99 | kr. 8,64 | kr. 8,20 | kr. 7,04 | kr. 6,90 |
| Resource Fee_FO Dkr/kg | kr. 0,75 | kr. 0,75 | kr. 1,00 | kr. 1,00 | kr. 1,00 | kr. 1,00 | kr. 1,50 | kr. 1,50 | kr. 1,50 | kr. 1,50 | kr. 0,93 |
| Auction_FO Dkr/kg** | | | | | kr. 0,37 | kr. 0,35 | kr. 0,72 | kr. 0,99 | | | kr. 0,56 |
| Resource Fee & Auction as % of Total Revenue | 11,23% | 14,01% | 16,74% | 16,33% | 18,83% | 18,80% | 27,74% | 28,84% | 18,30% | 21,31% | 21,63% |
| Herring | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2012-2021 |
| Total Revenue Dkr/kg | kr. 6,39 | kr. 3,87 | kr. 5,36 | kr. 6,11 | kr. 7,27 | kr. 3,72 | kr. 4,03 | kr. 4,24 | kr. 4,20 | kr. 5,29 | kr. 4,73 |
| Resource Fee_FO Dkr/kg | kr. 0,00 | kr. 0,35 | kr. 0,50 | kr. 0,50 | kr. 0,75 | kr. 0,75 | kr. 0,60 | kr. 0,60 | kr. 0,60 | kr. 0,60 | kr. 0,45 |
| Auction_FO Dkr/kg** | | | | | kr. 0,29 | kr. 0,60 | kr. 0,48 | kr. 1,11 | | | kr. 0,69 |
| Resource Fee & Auction as % of Total Revenue | | 9,05% | 9,32% | 8,18% | 14,25% | 36,40% | 26,67% | 40,29% | 14,29% | 11,35% | 24,11% |
| Blue Whiting | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2012-2021 |
| Total Revenue Dkr/kg | kr. 3,37 | kr. 2,37 | kr. 1,56 | kr. 1,91 | kr. 2,16 | kr. 1,44 | kr. 1,74 | kr. 2,02 | kr. 2,06 | kr. 1,88 | kr. 1,89 |
| Resource Fee_FO Dkr/kg | kr. 0,00 | kr. 0,00 | kr. 0,00 | kr. 0,20 | kr. 0,20 | kr. 0,20 | kr. 0,25 | kr. 0,25 | kr. 0,25 | kr. 0,25 | kr. 0,18 |
| Auction_FO Dkr/kg** | | | | | kr. 0,01 | kr. 0,04 | kr. 0,11 | kr. 0,11 | | | kr. 0,07 |
| Resource Fee & Auction as % of Total Revenue | | | | 10,48% | 9,63% | 16,42% | 20,86% | 17,54% | 12,12% | 13,30% | 13,32% |
| Three Pelagic Species | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2012-2021 |
| Total Revenue Dkr/kg | kr. 5,79 | kr. 3,97 | kr. 3,24 | kr. 3,22 | kr. 3,74 | kr. 2,69 | kr. 3,07 | kr. 3,31 | kr. 3,30 | kr. 4,09 | kr. 3,45 |
| Resource Fee_FO Dkr/kg | kr. 0,36 | kr. 0,39 | kr. 0,34 | kr. 0,40 | kr. 0,40 | kr. 0,36 | kr. 0,43 | kr. 0,39 | kr. 0,49 | kr. 0,65 | kr. 0,39 |
| Auction_FO Dkr/kg** | | | | | kr. 0,14 | kr. 0,20 | kr. 0,27 | kr. 0,45 | | | kr. 0,27 |
| Resource Fee & Auction as % of Total Revenue | 6,13% | 9,93% | 10,61% | 12,36% | 14,37% | 20,67% | 22,78% | 25,38% | 14,69% | 15,89% | 18,99% |

*Mackerel average price Dkr/kg achieved by solely pelagic fleet (pelagic trawlers and purse seiners), rest of fleet (stern trawlers) excluded since Resource Fee payment was not charged to those segments of fishing industry. Total average ex-vessel price was lower at Dkr6,2/kg

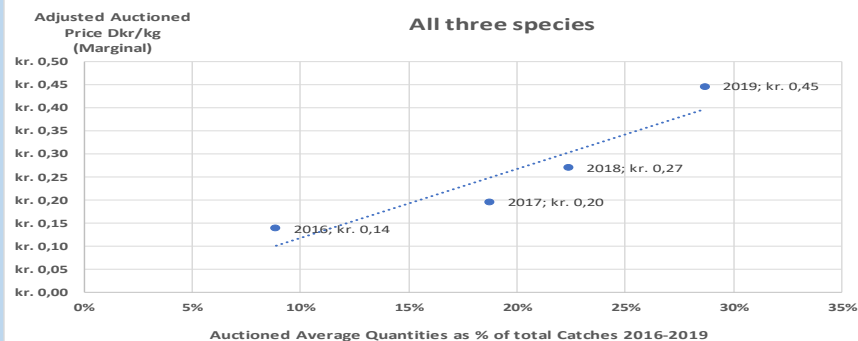
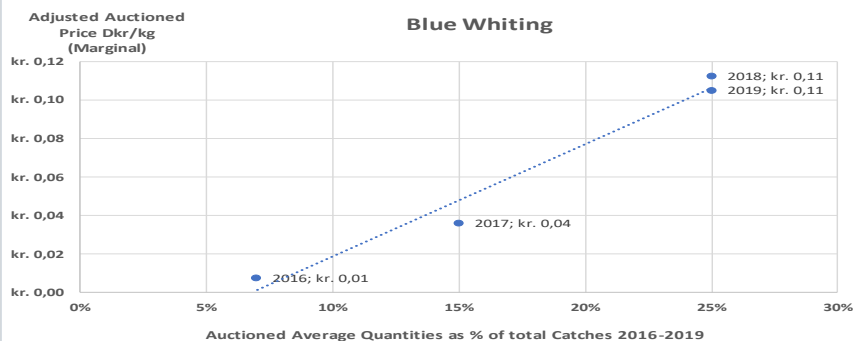
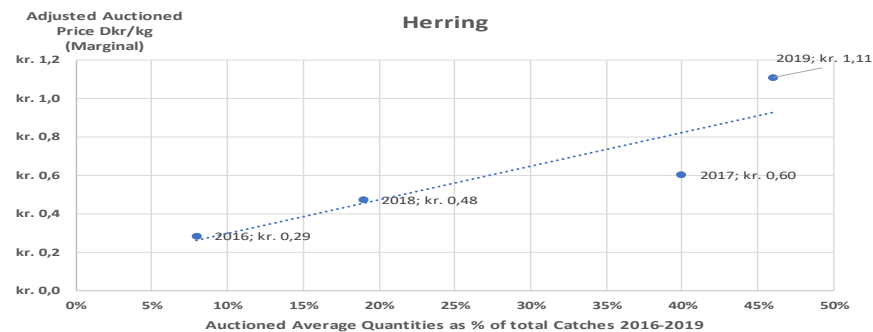
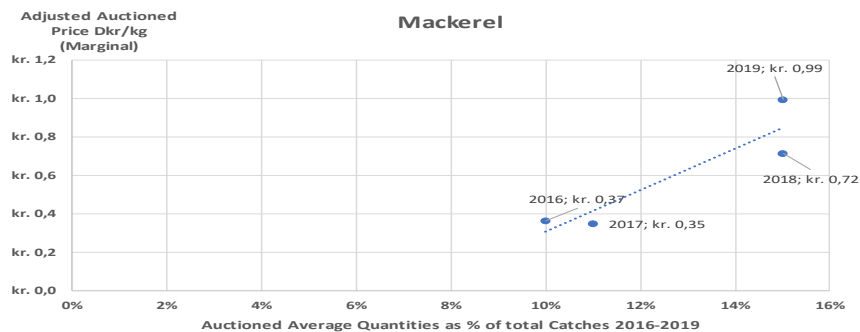
**Adjusted (Marginal) Auction price by allocated (non-auctioned) share of actual catches. The nominal average bidding price for all three species 2016-2019 was Dkr 1,32/kg or 42,12% of the average ex-vessel price.

Economic Rent auctions 2016-2019 – No new actors

High Nominal bidding price suggest current license holders willing to Preserve Barriers to Entry – Economic rationale present nevertheless

| Dkr/kg (%of average landing price) | Nominal Bidding Price | Ajduced* Bidding Price |
|------------------------------------|-----------------------|------------------------|
| Mackerel | 3,66 (53,64%) | 0,366 (5,36%) |
| Herring | 2,15 (62,86%) | 0,69 (20,27%) |
| Blue Whiting | 0,37 (20,21%) | 0,07 (3,75%) |
| All three species | 1,32 (42,12%) | 0,27 (8,63%) |

*Adjusted (Marginal) Auction price by allocated (non-auctioned) share of actual catches.



Ongoing Issues

- Subsidies in disguise (Mackerel to Demersal fleet)
- Aquaculture & Pelagic highly concentrated equity holding – highest assets & risks
- Pelagic newcomers (“Grandfathering” in making – long-term capacity issues
- Due to favorable macro conditions, government’s dealing with persistent overcapacity in Demersal fishery has been ignored/postponed
- Continues welfare pressure to extract higher rents from the Aquaculture & Pelagic segments – effect on long-term investment incentives unknown

Takk Fyri