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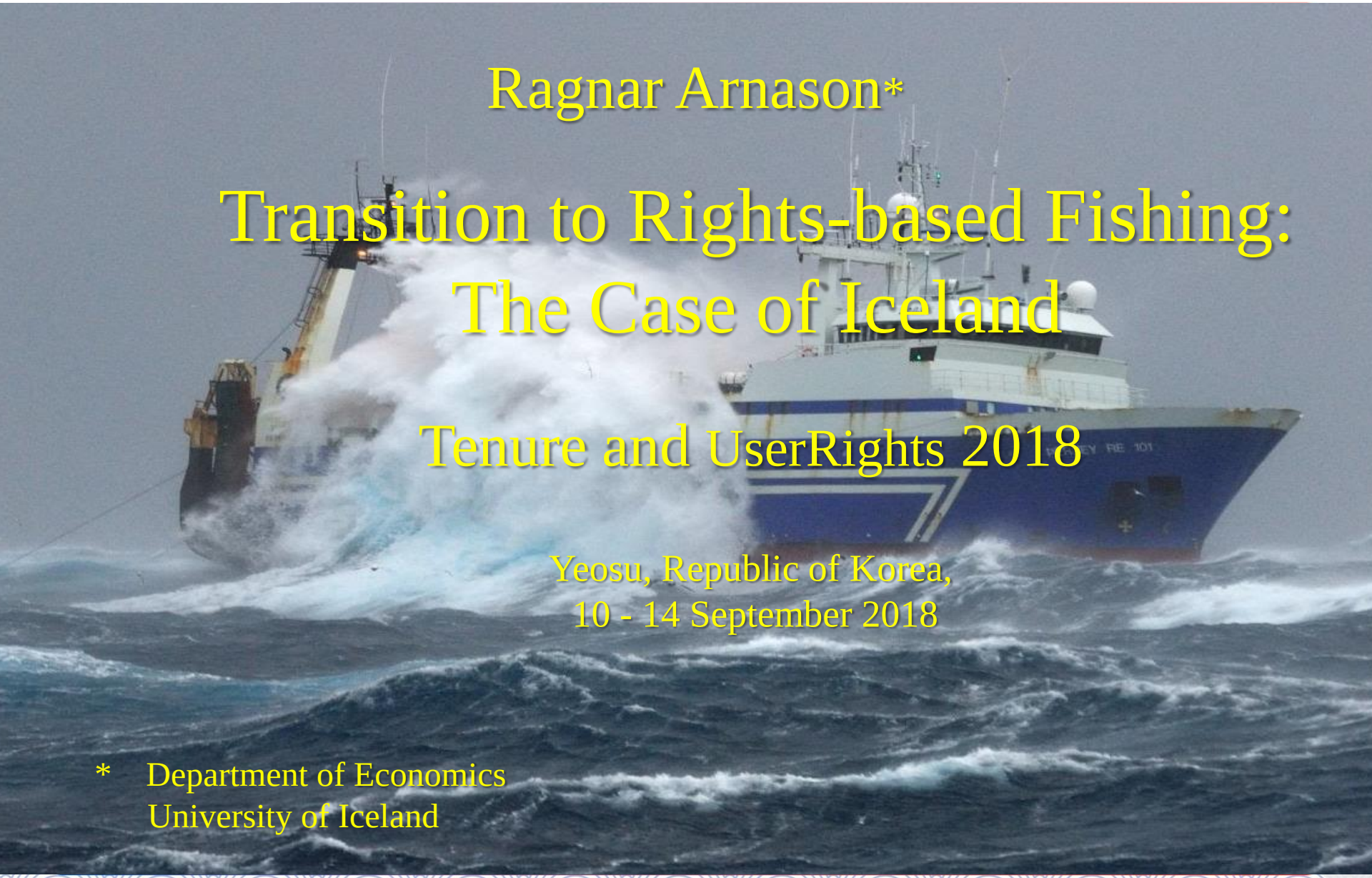

Ragnar Arnason*

Transition to Rights-based Fishing: The Case of Iceland

Tenure and UserRights 2018

Yeosu, Republic of Korea,
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Science (both theory and experience) has established:

To maximize the sustainable flow of benefits from ocean resources, fisheries **must** make a **transition** from open access to rights based fishing

This transition can happen in many ways

Depends on country, situation, history and possibilities

Here review one particular case:

The case of Iceland

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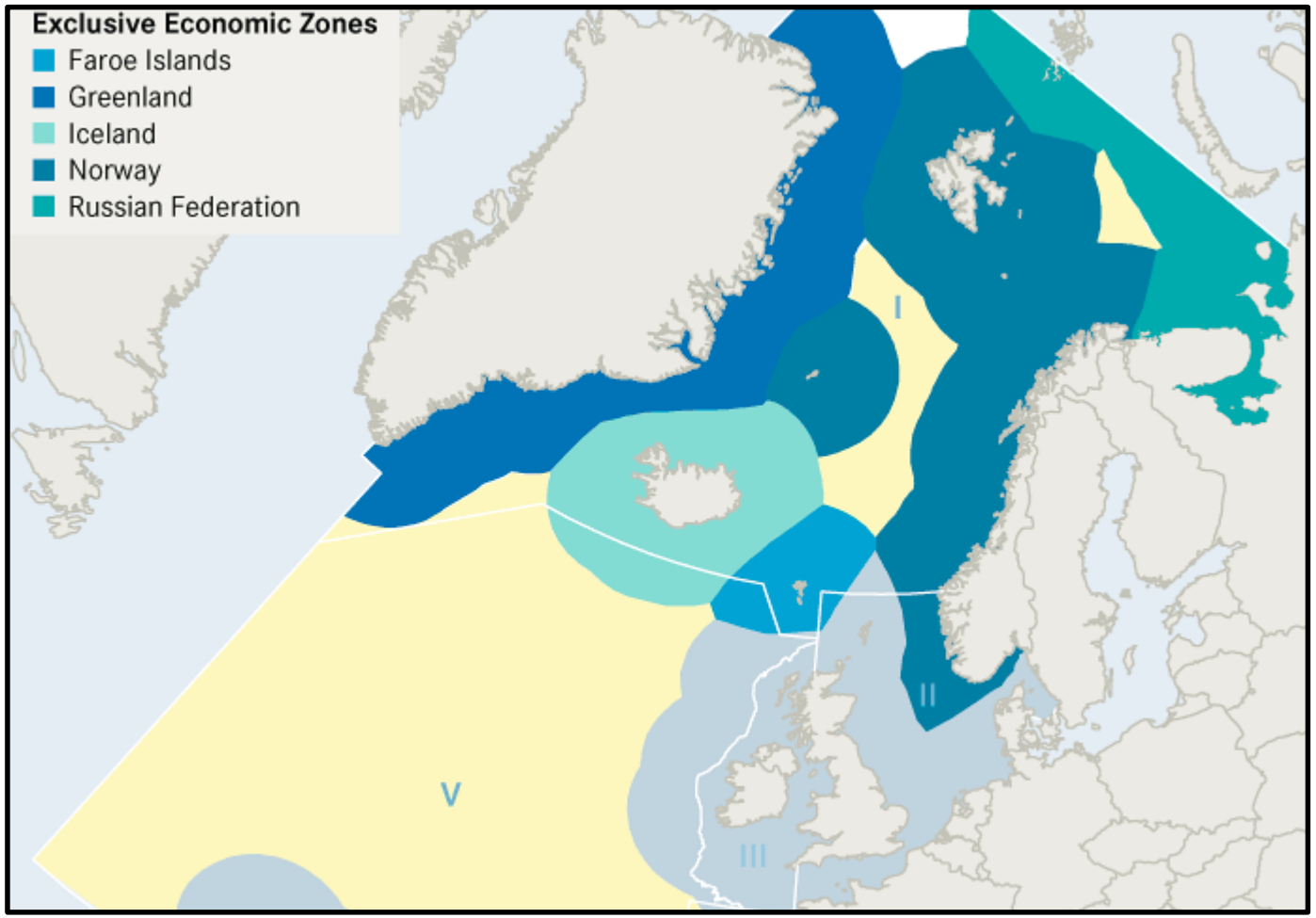
Iceland: Location and EEZ



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Iceland: A sizeable fishing nation

- Annual catch ≈ 1.5 m. mt (Korea 1.7 m. mt)
- Approximately 1.8% of global marine catch
- Ranked ≈ 10-15th, in the world

By far the largest fishing nation in catch per capita

- 6 mt/capita
- Next nation; Norway: 0.5 mt/capita
- Korea: 0.03 mt/capita

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The Icelandic fisheries: Basic facts

- The industry: Advanced, high tech, capitalistic fisheries (run for profits)
- The harvest:
  - Demersal species (cod, haddock, flatfish); 2/3 of value, 1/3 of volume
  - Pelagic species (herring, capelin, mackerel); 1/3 of value, 2/3 of volume
  - 98% is exported!
- Fleet (high tech; both large and small scale)
  - Active vessels: ≈ **550**
    - Deep-sea trawlers (freezer and fresh; 50-70m., 1500-2500 GT): ≈ 40
    - Pelagic vessels (purse seiners and mid-water trawlers; 70-90 m. 3000-4000 GT): ≈ 30
    - Multipurpose demersal vessels (gill-nets, long-line; 20-40 m., 100-400 GT):≈ 140
    - Artisanal (handline, longline; 8-15 m., 6-15 GT): ≈ 340
- Fishers: ≈ **3700** (including owner-operators)

  => Harvest per fisher ≈ 405 mt

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Typical deep-sea trawler

(50-70 m.; 1500-2500 GT)

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Typical pelagic fishing vessel (70-90m.; 3-4000 GT)

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Typical demersal vessel (20-40 M.; 100-400 GT)

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Typical artisanal vessel (8-15 m.; 6-15 Gt)

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The Transition

Until 1976: (Before the extension of the EEZ to 200 miles)

Open international access (international common property fishery)

=> Minimal fisheries management

1976 to 2004: Stepwise adoption of an ITQ system

With interim use of (i) Restricted access,
(ii) TACs
(iii) Limited fishing days

} Did not work

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Key steps in the adaptation of the ITQ system

Share of	total fishery
• 1976: Herring fishery	1%
• 1984: Most important demersal fisheries	50%
• 1991: All fisheries (small vessels (<8 m.) exempted)	90%
• 2004: Small (artisanal) vessels in a separate ITQ-system	95%

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Motivation

Not scientific research and theories!
(Not advice from FAO)

Initially: Poor profitability: "*Something has to be done*", IQs seemed a practical way to go.

Subsequent steps: Initial steps worked well. "*Why not do more of the same*". Plus theoretical justification.

The driving force: The industry!

Government was dragged along (common story around the world).

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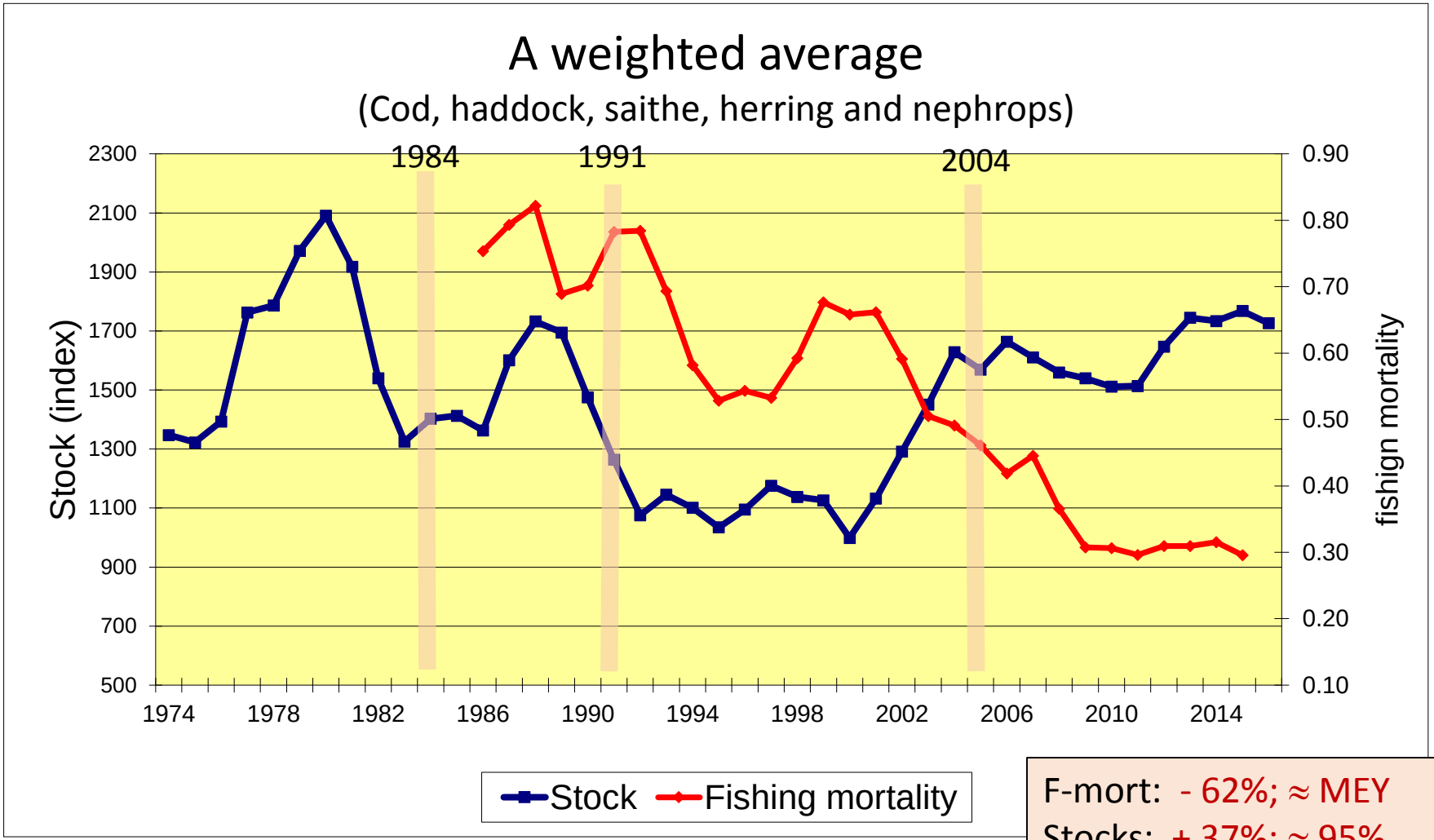
Outcomes: Stocks and fishing mortality



F-mort: - 62%; ≈ MEY
Stocks: + 37%; ≈ 95% of MEY

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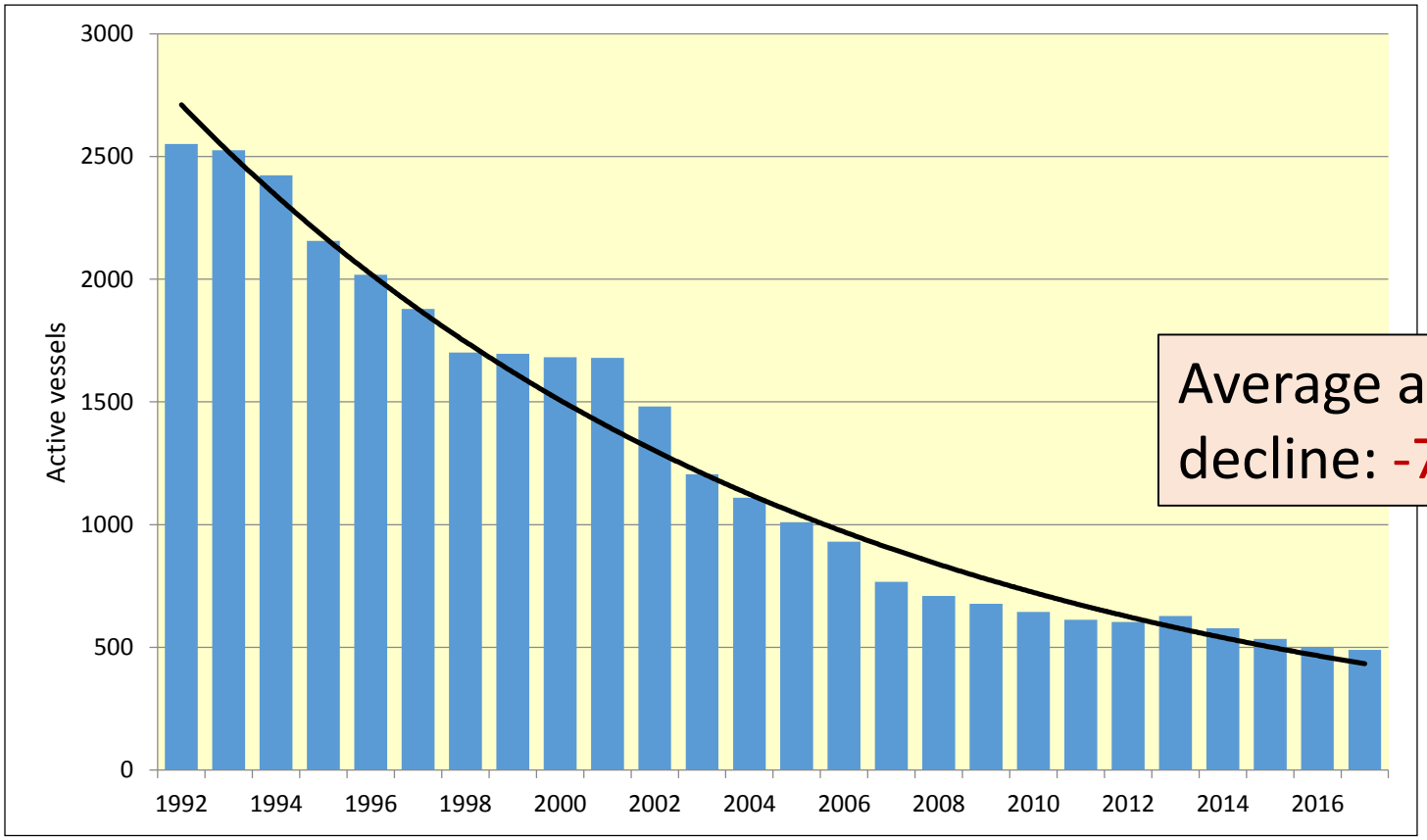
Outcomes: Evolution of fleet

(Demersal fisheries: Number of active vessels)



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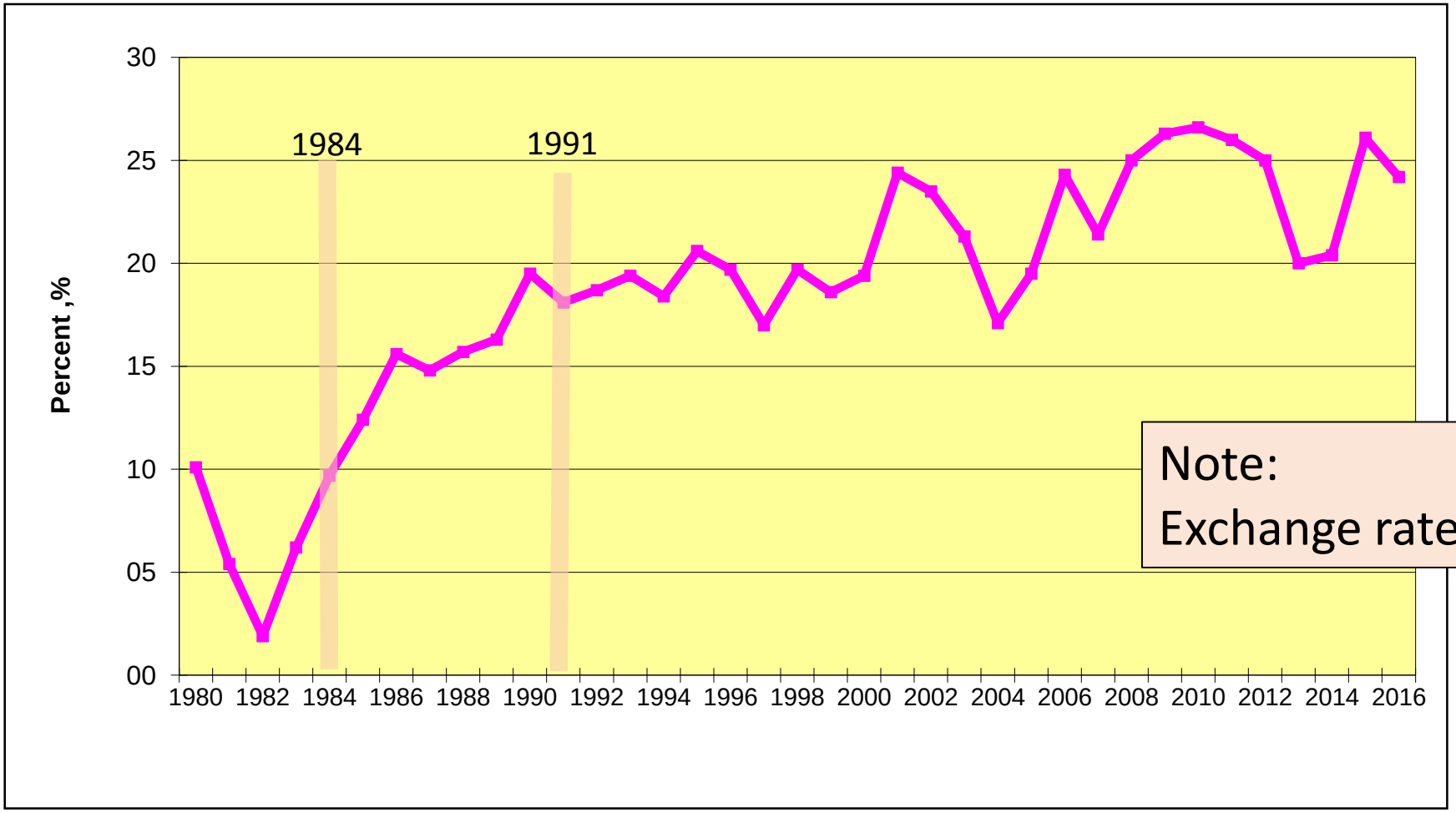
Outcomes: Industry profitability

(EBIDTA, Percent of revenues)



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Impact: Summary

- Biological: Good
- Economic: Excellent
- Social: Equivocal

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Can this success be replicated in developing countries?

- Only to a certain extent
  - Not many developing nations have the administrative capacity to run ITQs in all fisheries
- Industrial fisheries (large, high tech vessels, off-shore)
  - Possible to operate ITQs in most cases
- Artisanal fisheries (small, low tech vessels, inshore)
  - ITQs generally too costly to enforce

  $\Rightarrow$ Must look for alternatives

Some form of community rights seems most promising


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END