Can ecolabels tune a supply chain? The case of MSC-certified haddock from Norway

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Introduction

→ Sustainable seafood production is a growing due to concerns of overfishing and environmental degradation.

→ Ecolabels are a certification scheme that helps consumers identify sustainable seafood products.

→ Ecolabels are based on standards that assess factors like fish stock health, environmental impact, and fishing community conditions.

→ Ecolabels enable consumers to make informed choices and support sustainable fishing practices.

MSCs „Theory of Change“

1. Information is key to getting the consumer to choose environmentally friendly seafood

2. Shifts in demand and higher price - price premium

→The price premium is returned to fishermen and creates incentives for sustainable management and fishing practices

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Literature

- → Price premiums for MSC labeled seafood products in the **retail market.**
- → Studies for Germany and UK report price premiums for MSC labeled products up to 30% (Asche et al., 2015; Bronnmann and Asche, 2016; Asche and Bronnmann, 2017; Sogn-Grundvåg et al., 2013, 2014).
- → Different premiums for different species in the same market (Asche and Bronnmann, 2017; Sogn-Grundvåg et al., 2014).
- → Premiums for the same species also vary across markets (Roheim et al., 2011; Asche and Bronnmann, 2017)
- → Low-end retailers tend to impose a higher price premium for MSC-certified products compared to high-end retailers. (Asche et al. 2015, 2021)
- → Some high-end retailers do not charge a premium for MSC-certified products as sustainability is already integrated into the services they provide to their customers (Asche et al. 2015, 2021)

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Literature

→ Mixed evidence of price premiums at the **ex-vessel level**

→ Wakamatsu (2014): No price premium for MSC-certified flathead flounder in Japanese fish markets.

→ Stemle et al. (2016): Positive price premiums for MSC-certified chum and pink salmon, and flathead flounder, but no premiums for other salmon species.

→ Blomquist et al. (2015): No price premium for MSC-certified Swedish Baltic cod compared to non-certified cod.

→ Blomquist et al. (2020): Delay in MSC certification may explain lack of premium in Swedish Baltic cod fishery. 11% premium observed for small cod prior to certificate suspension.

→ Fernández Sánchez et al. (2020): Price premiums of 15.2% to 24.6% for MSC-certified common octopus in Spanish Asturias region.

→ Andersson and Hammarlund (2023): No general effect of MSC certification on prices and quantities for MSC-certified Norway lobster fishing in Sweden

→ Bronnmann et al (2023): Price Premiums, when sold to certain buyers

Research Question

Research Question:

Do MSC-premiums vary between products of high and low value based on the same species?

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The supply chain for Haddock from Norway

- 3rd most important whitefish species in Norwegian fisheries
- Annual catch of 93,051 tons in 2023
- Large ocean going vessels and coastal fleet
- The Norwegian haddock fishery north of 62°N was MSC-certified June 8, 2011
- The certificate for haddock caught within the Norwegian territorial limit was, however, suspended from May 26, 2021, to November 15, 2023.

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Data

→Transaction data from 2 Wholesalers in Norway

→Covers sales transactions of fresh haddock products >61,000

→Periode: 2015- 2022

→Information on: product forms (whole, loin, fillet), price, destination country, MSC certification

→54% of the transactions are MSC certified

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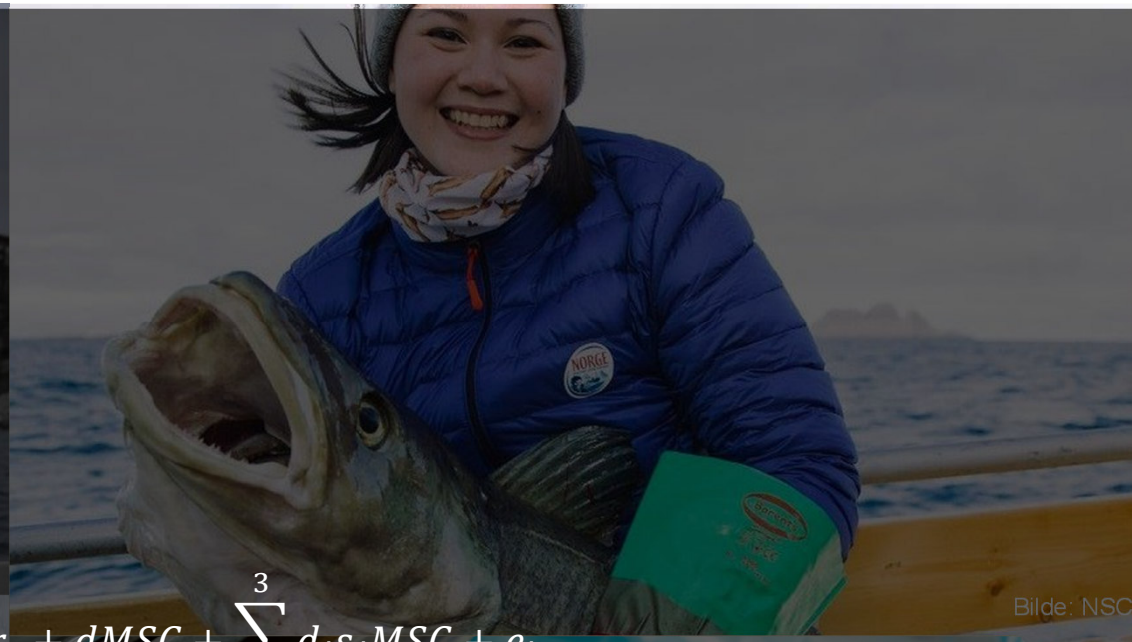
Methodology



Bilde: NSC

$$lnP_{it} = \alpha + \sum_{j=2}^{3} b_j\, s_j + \sum_{k=2}^{K} c_k\, r_k + dMSC + \sum_{j=2}^{3} d_j s_j MSC + e_{it}$$

Bilde: NSC

lnP_{it} is the price of product i at time t

s_j is a vector of product forms

$r_2, \ldots, r_k$ is a vector of the other product attributes (quarter , year…)

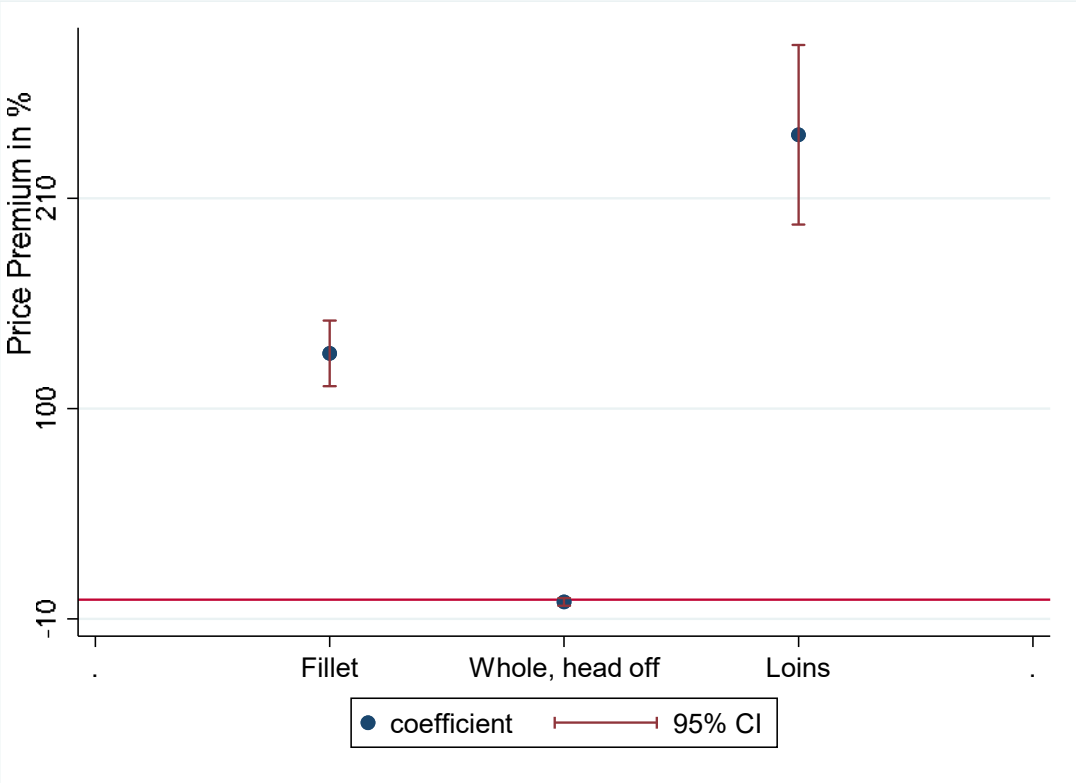
MSC is a dummy variable for products with MSC certification
d_j.sjMSC Intercation dummy

e_{it} is the unobservable error term.

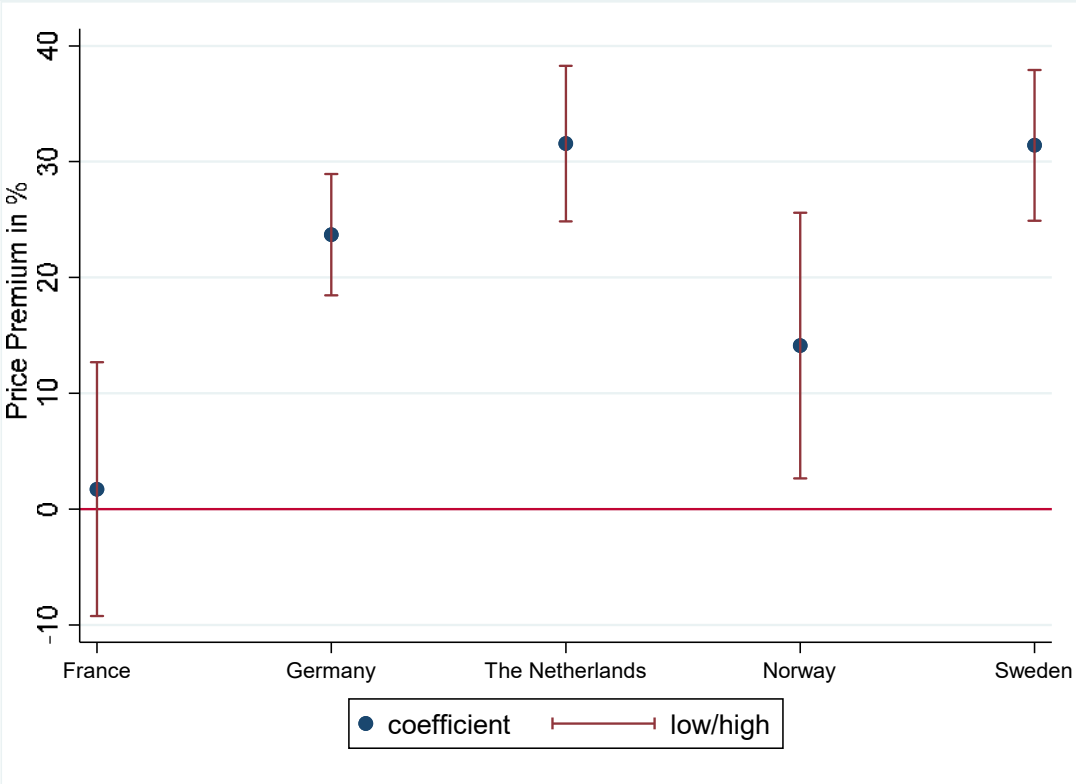
Bilde: NSC

Results

Product Form (base: whole, head on)



Destination country (base: Great Britain)



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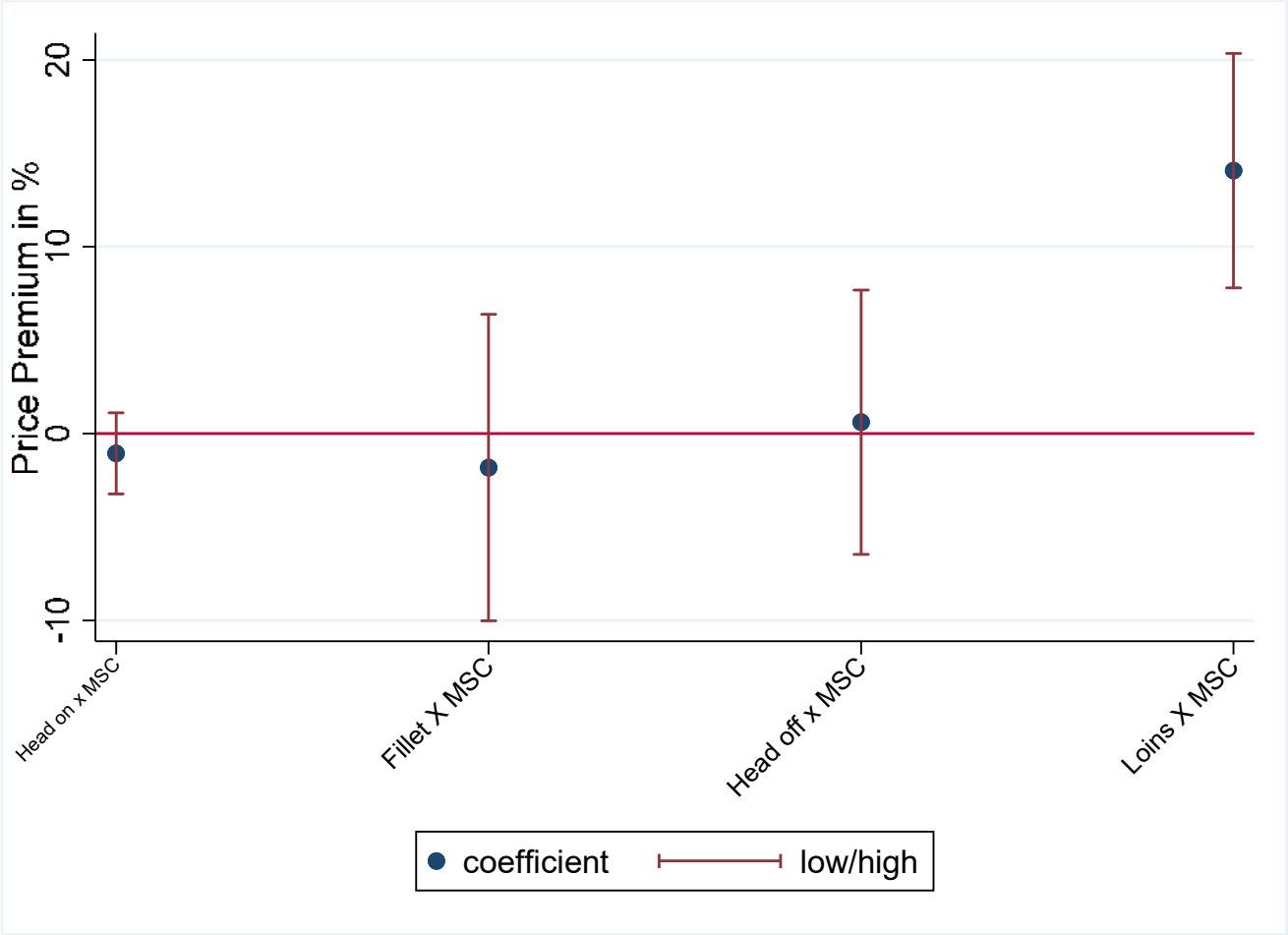
Results

Price Premiums MSC X Product form Interactions



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Conclusion

→14% price premium for MSC certified Loins

→No significant price premiums for low value products

→Incentive to produce products of higher quality

→More fish will landed locally in Norway→ value creation in the region

Do MSC-premiums vary between products of high and low value based on the same species?

Thus, ecolabeling has the potential to tune supply chains for limited marine resources in directions positively associated with all three pillars of sustainability.

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Thank you