

Holtermann

SINCE 1916

Thomas Lundgaard

Globale trender i markedet for (marine) proteiner

Holtermann

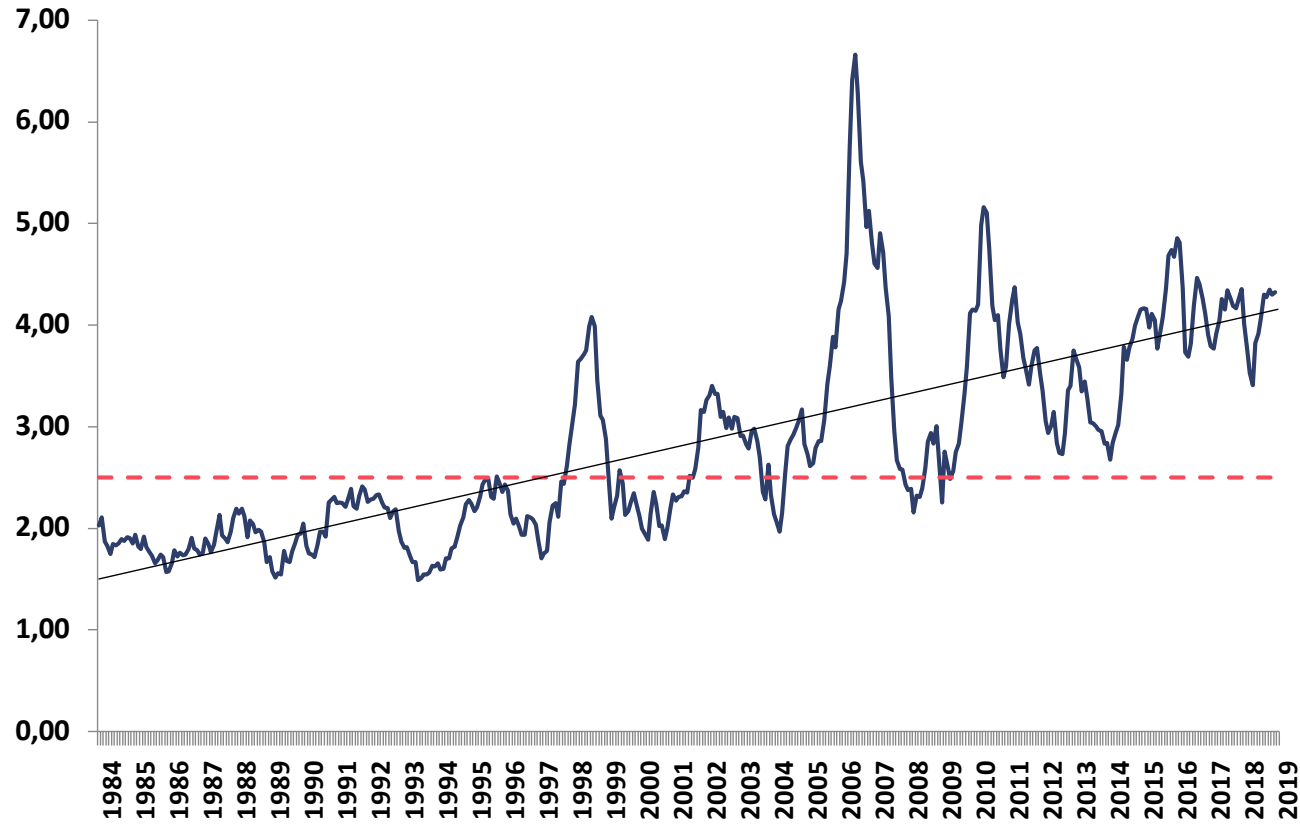
- Råvaremeglere - spesialisert i fôringredienser
- Også omega-3, pelagisk (frossenfisk), spesialstoffer
- Markedskunnskap
- Logistikk og avvikling
- Kontrakter og regelverk

Affiliates:

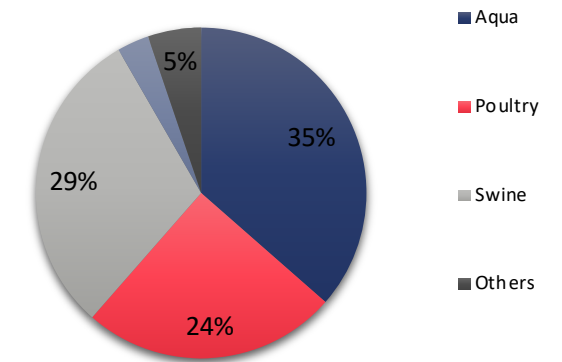
- Lima, Peru - 2 personer
- Bergen, Norway – 1 person (HTF – Holtermann Trade Finance)

Fishmeal/Soybean meal ratio Europe 1984 - 2019

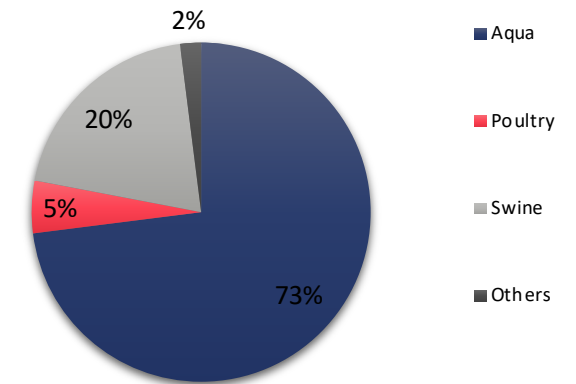
64% Peru FOB Bremen / 44% SBM FOB Hmb



Application Fishmeal World 2000

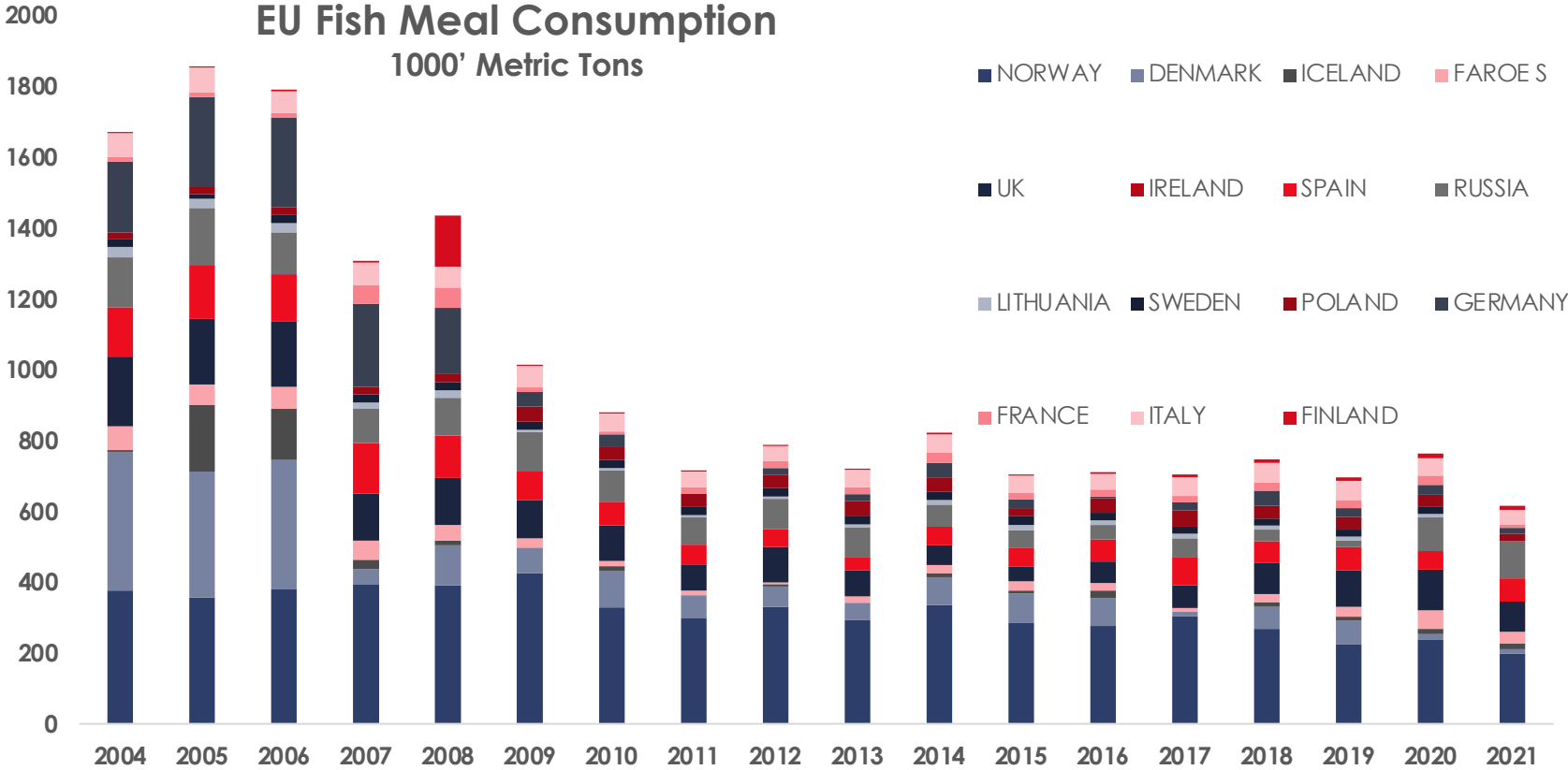


Application Fishmeal World 2020

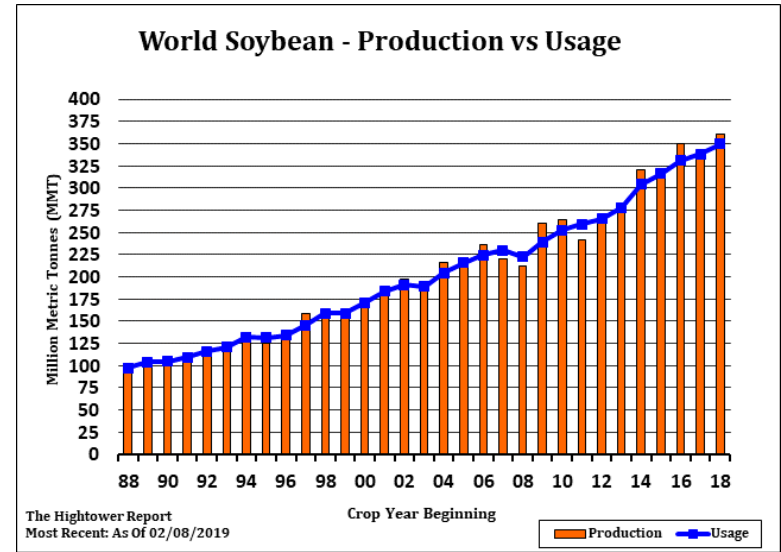
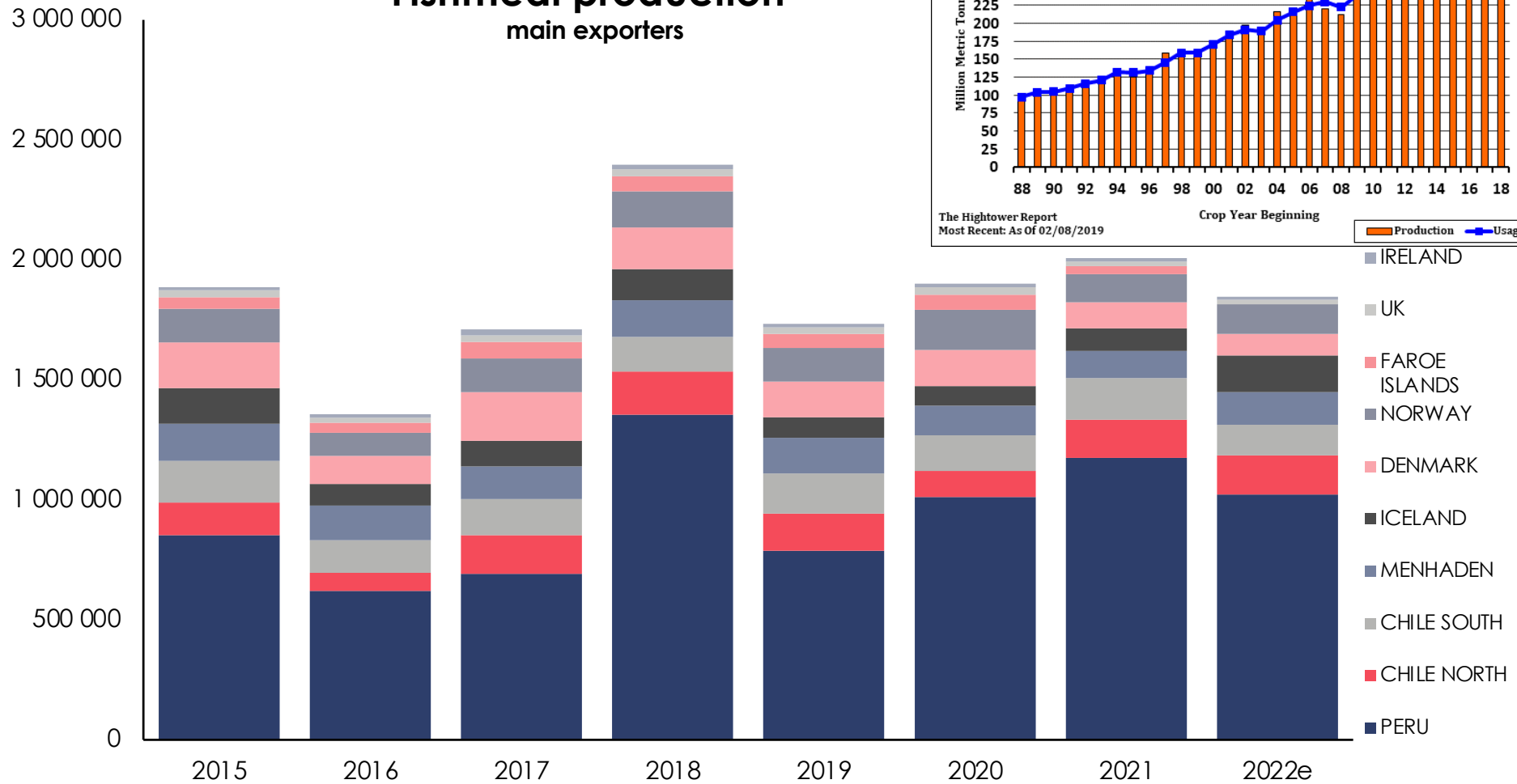


Fiskemel har priset seg ut av landbruksfôr

EU Fish Meal Consumption



Fishmeal production main exporters



The Hightower Report
Most Recent: As Of 02/08/2019

Crop Year Beginning

Production Usage

IRELAND

UK

FAROE ISLANDS

NORWAY

DENMARK

ICELAND

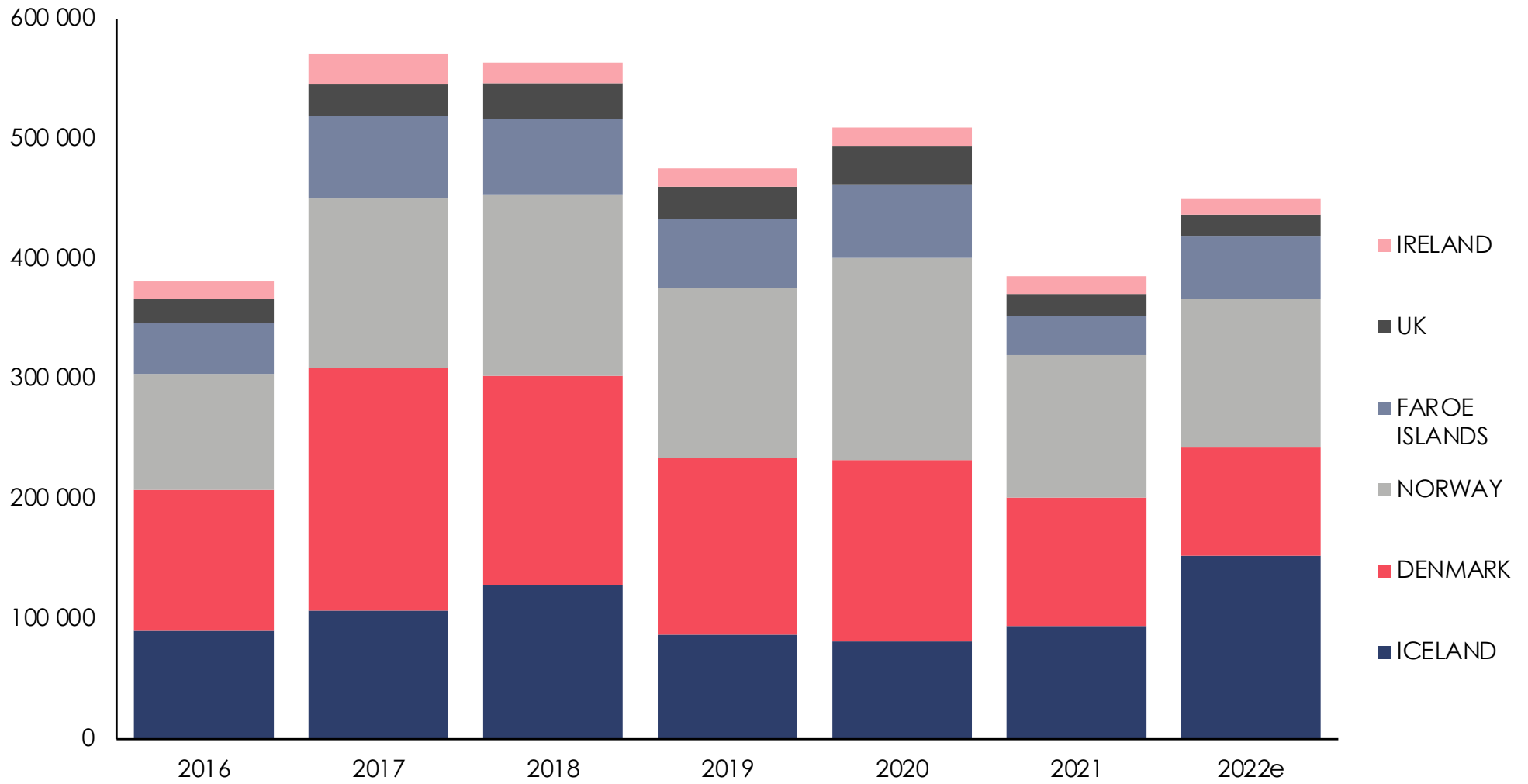
MENHADEN

CHILE SOUTH

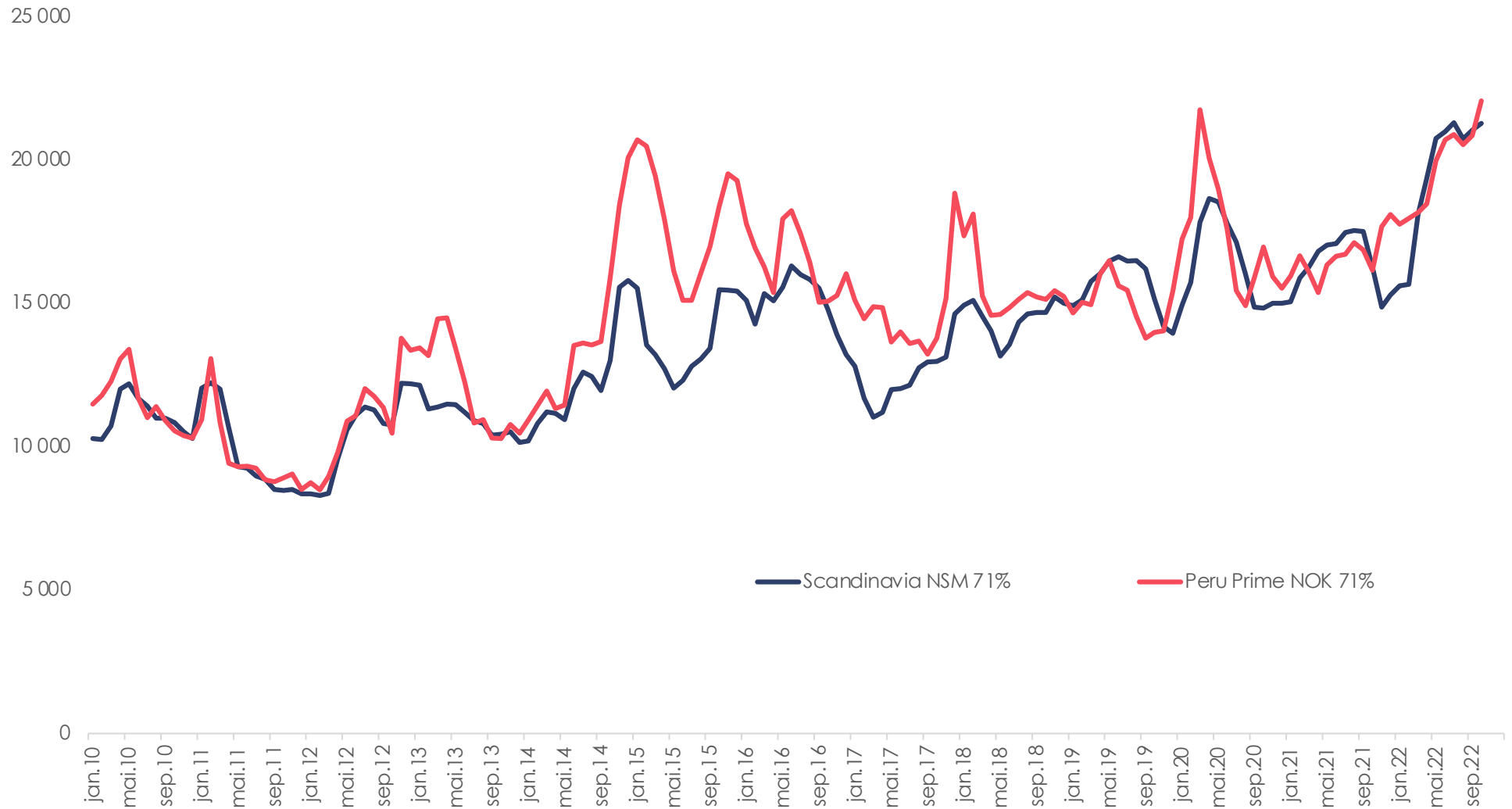
CHILE NORTH

PERU

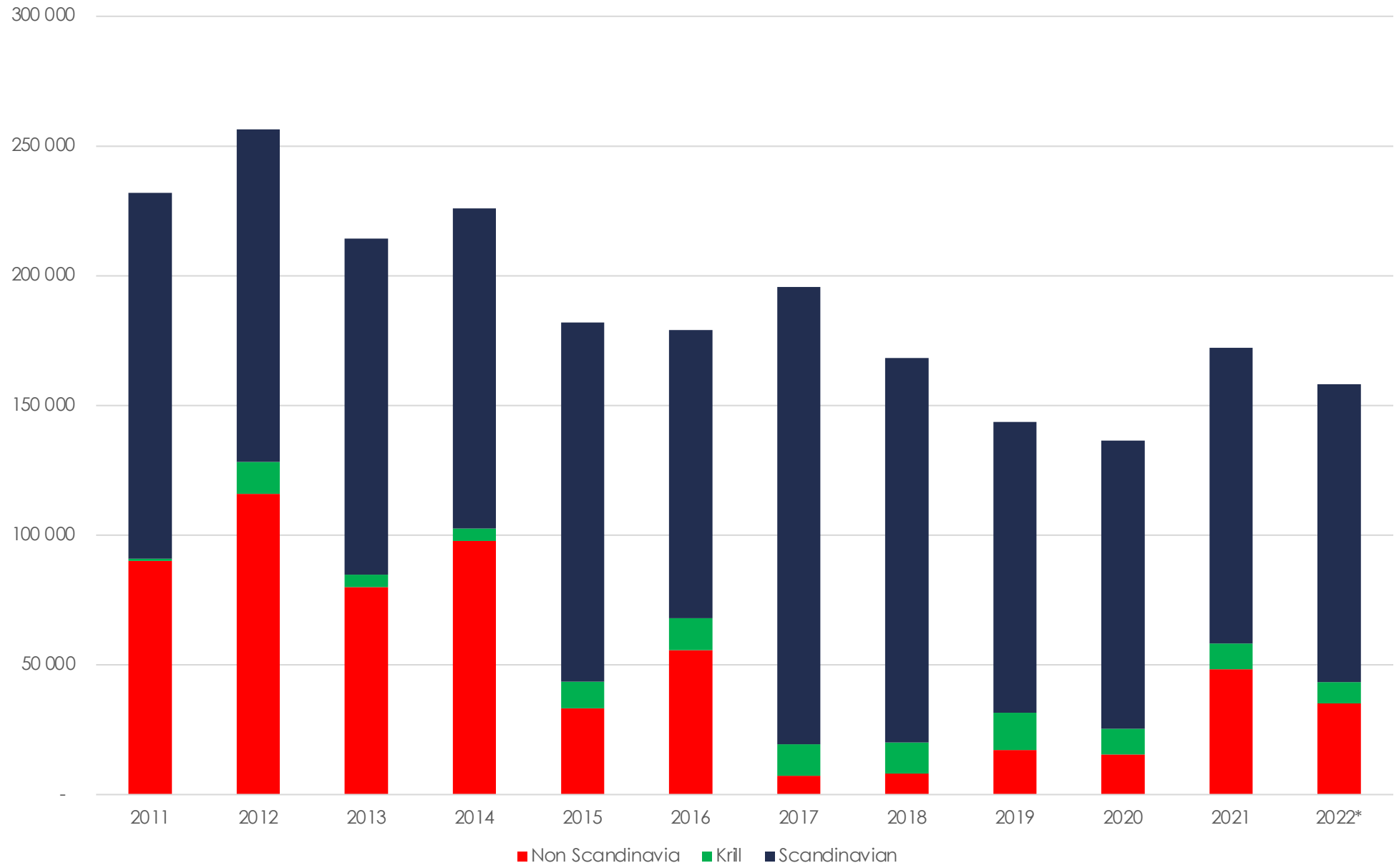
Fishmeal production - North Atlantic



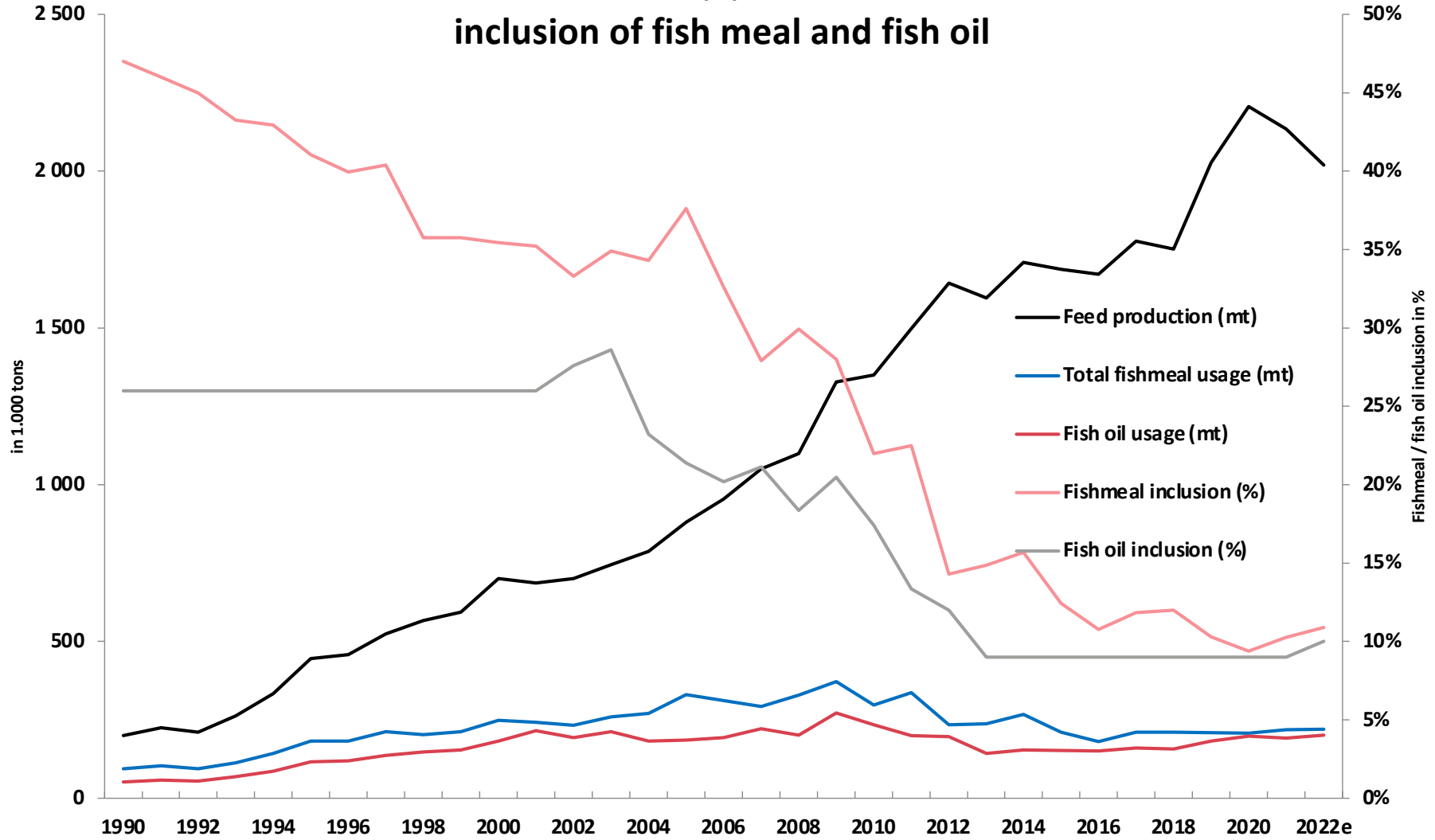
Scandinavian NSM vs Peru Prime quality fishmeal Converted to CIF Norway basis 71%, in NOK



Norwegian Fishmeal imports per origin



Norwegian feed production 1990-2022(e) and inclusion of fish meal and fish oil



Source Chr Holtermann

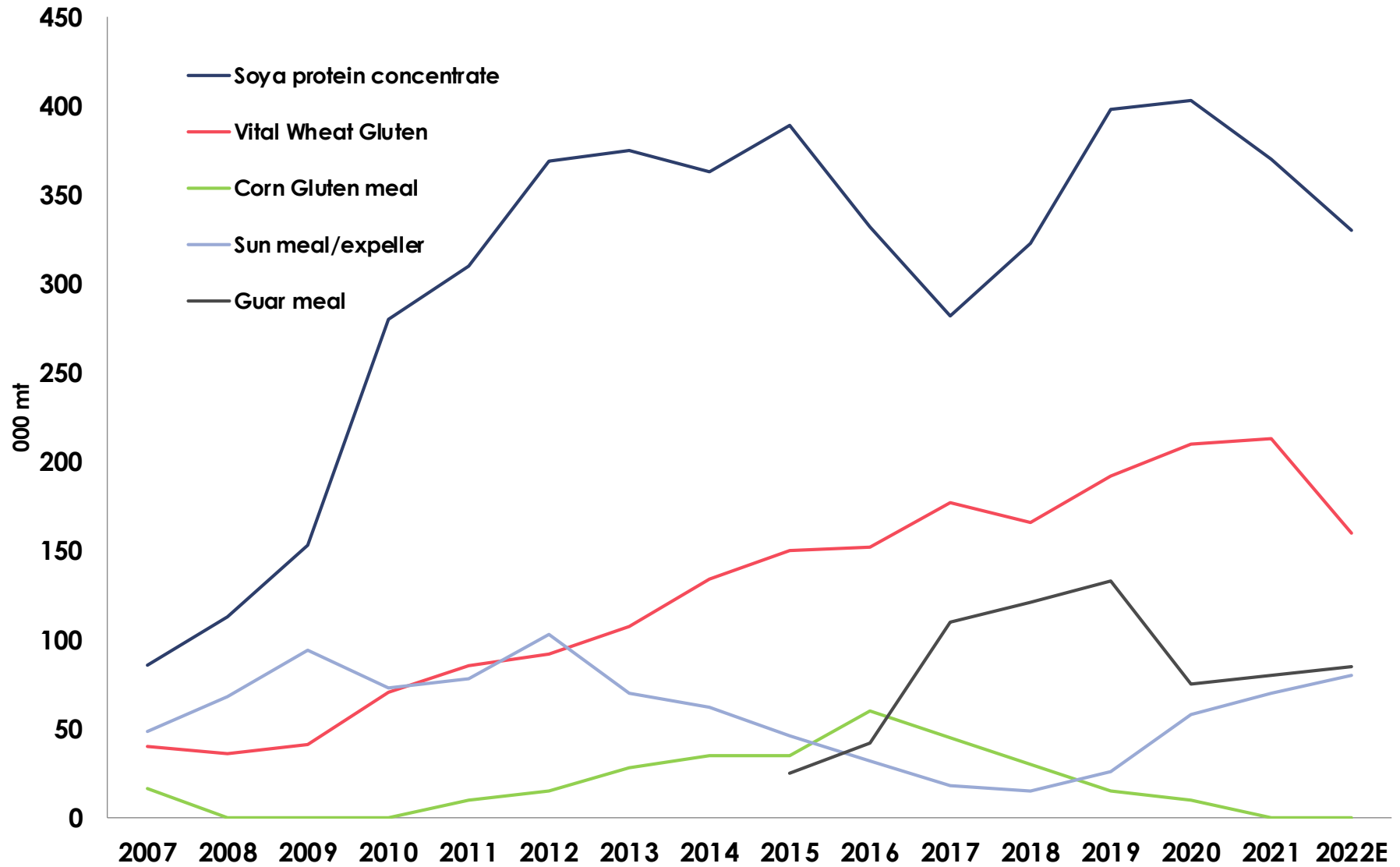
Vegetabilsk vs marint

Fiskemel – marine proteiner – fortsatt gullstandarden(?)

- Produksjon – priselastisitet
 - Fiskemelforbruket er lite elastisk
 - Markedet styres av kvoter og produksjon
 - Sesong produksjon - forbruk
- Homogenitet - forutsigbarhet
 - Arter / kvoter / sesong / aminosyreprofiler / fettinnhold / vitaminer
- Fysiske egenskaper

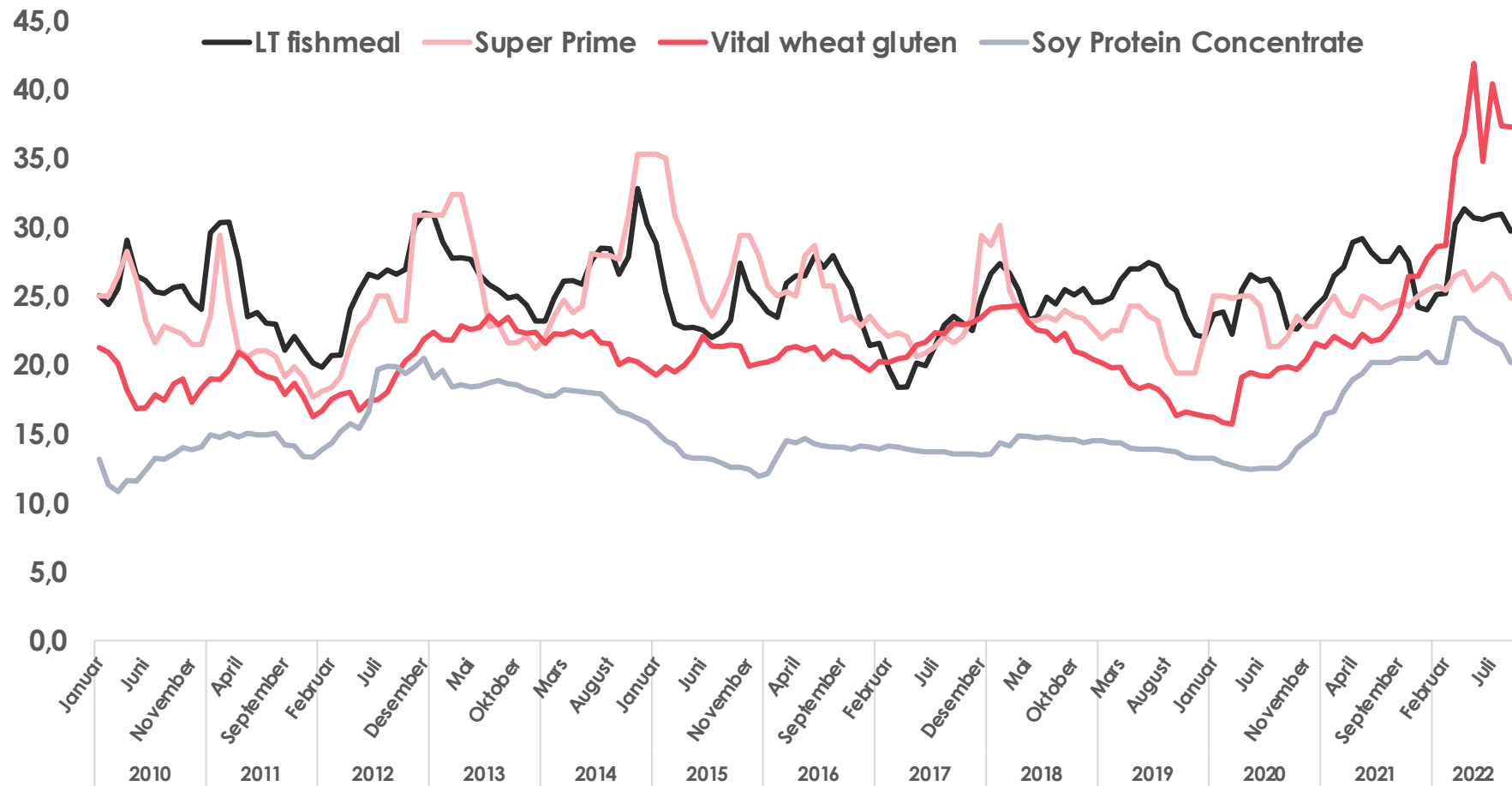
Hvem sitter på kompetansen..?

Import veg protein - fiskefôr Norge



Per unit protein prices

Calculated in USD



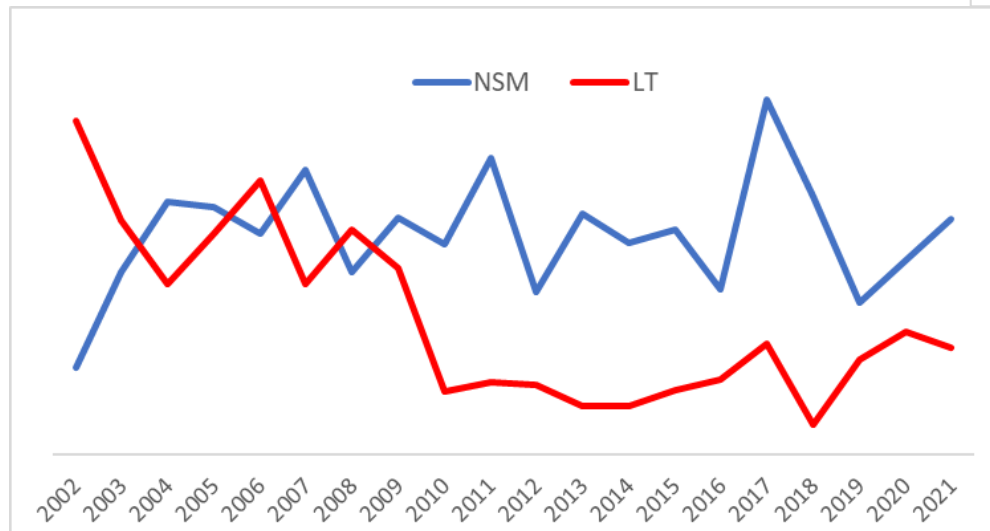
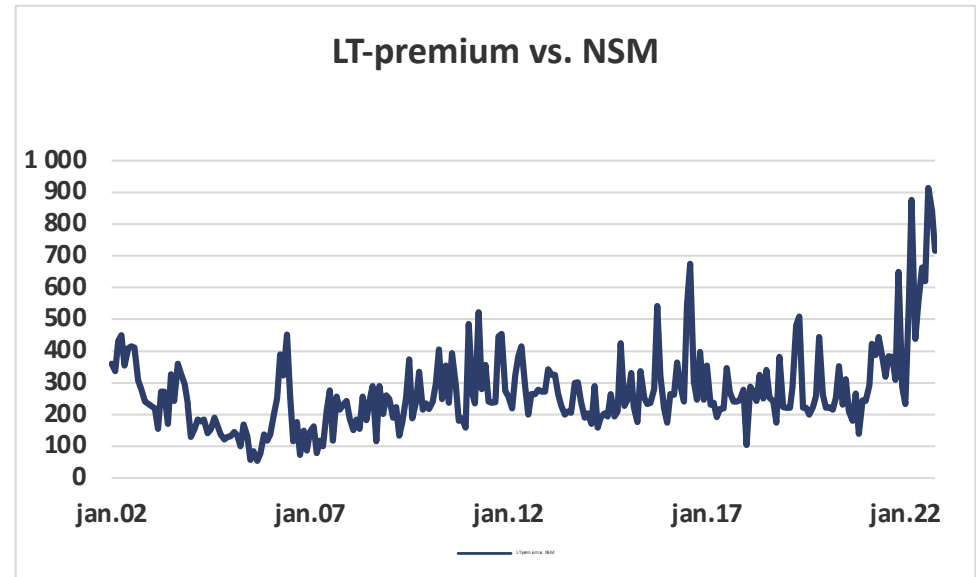
Kvalitet fiskemel – godt nok er best??

Hva er kvalitet?

(volum – stabile leveranser – fysiske egenskaper)

Nye melfabrikker – design

(energiforbruk vs “kvalitet”)



Hva kommer??

Nye vegetabiliske
proteinkonsentrater?

Kommer. Prod.kost?



GMO?
omega-3 planteoljer?
Alge

Hydrolysater
Kun human/nisje eller også bulk?

