

# Price integration in the salmonids value chain

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# Outline of the presentation

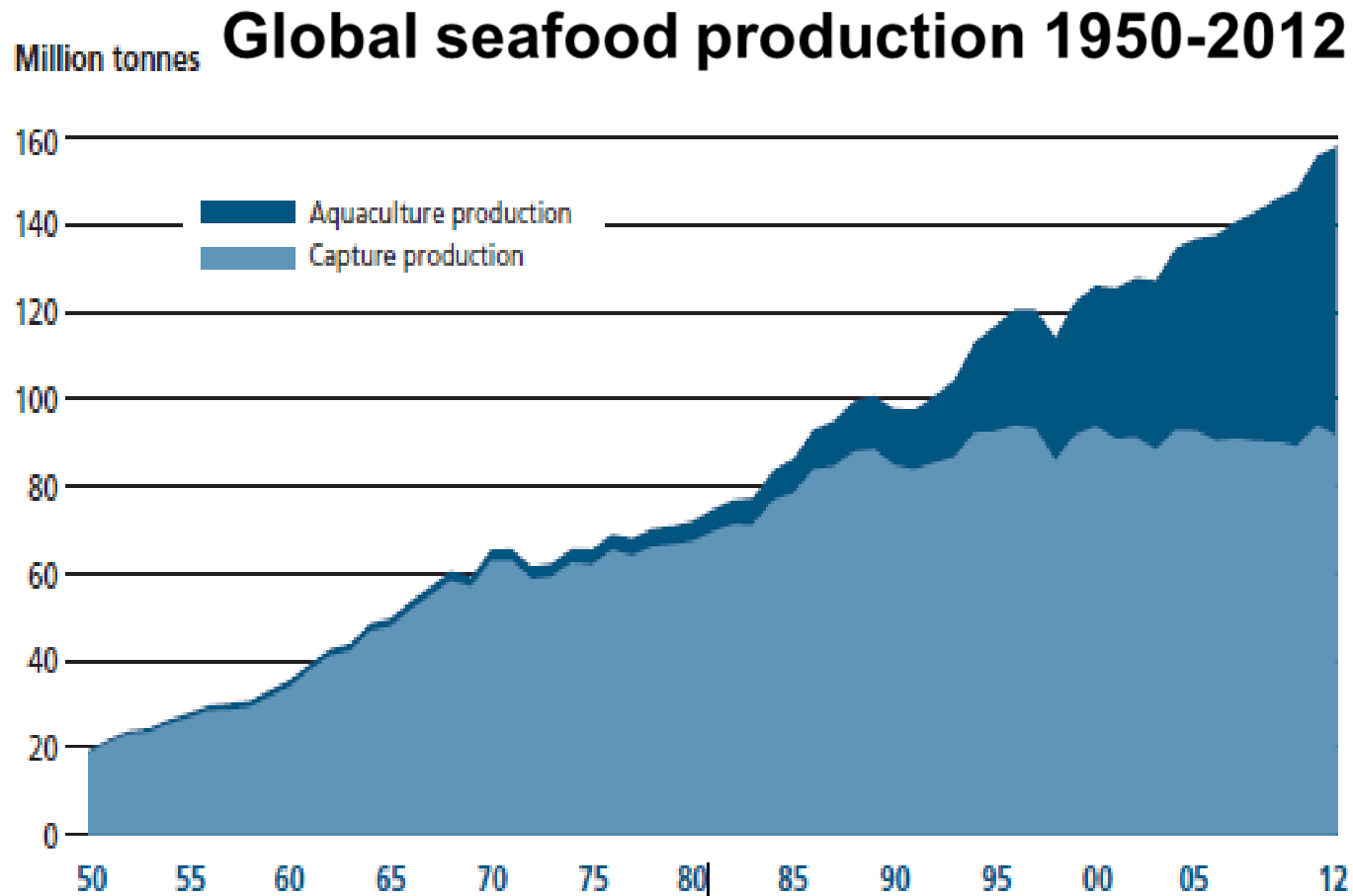
- Review of the European Salmon market
- General description of salmonids value chain
- Description of Finnish value chain
- Market integration of salmonids along the Finnish value chain

# Purpose of the study

## Preliminary analysis

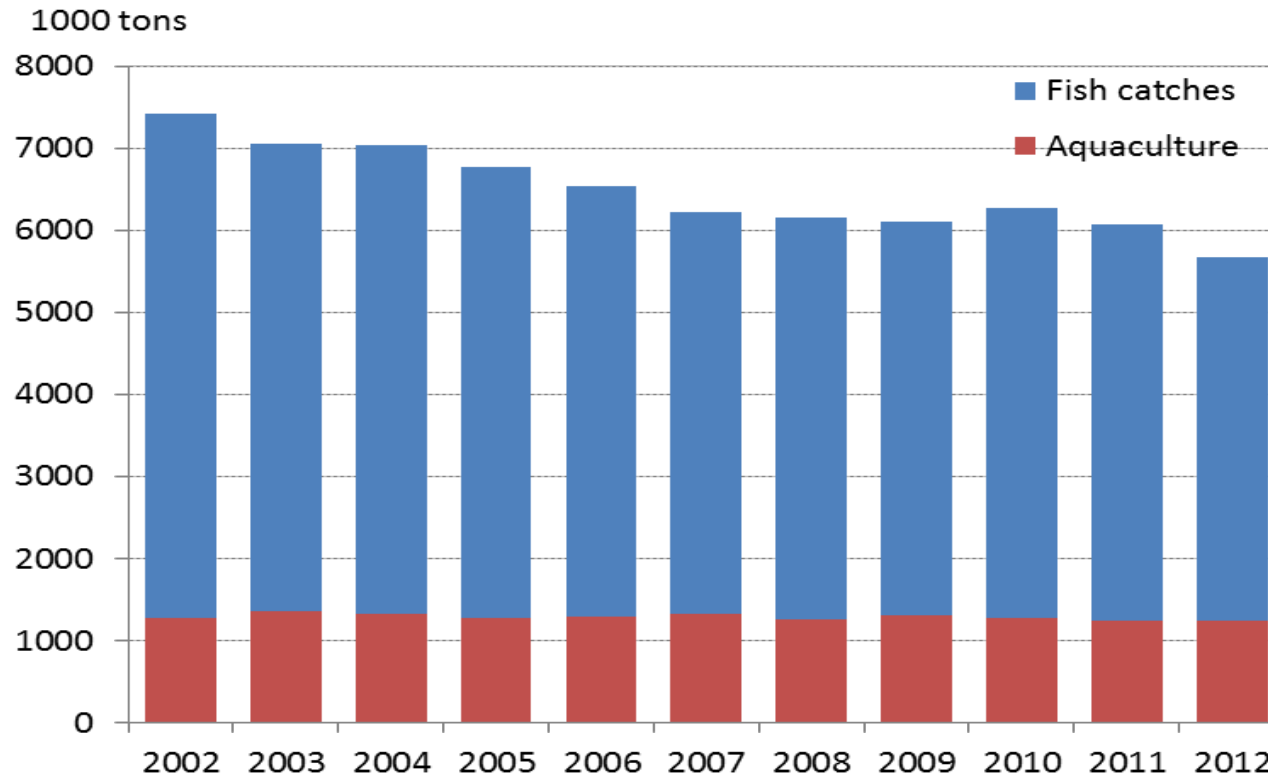
1. Investigate the relationship between salmon and rainbow trout prices at different points along the value chain in Finland.
2. Determine how price information is transmitted through the value chain.

# Growth of aquaculture production increases global seafood production

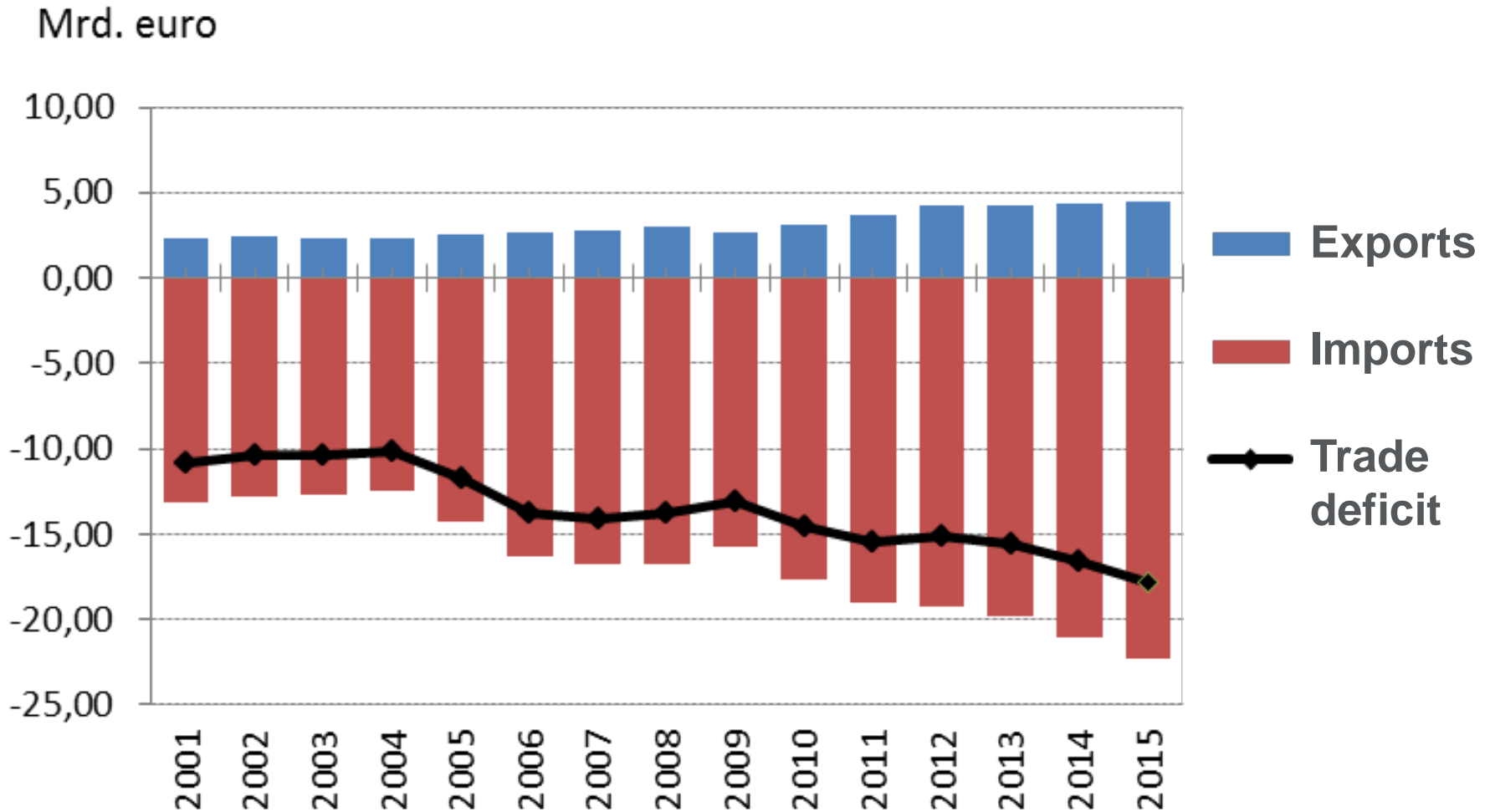


# EU seafood production declining

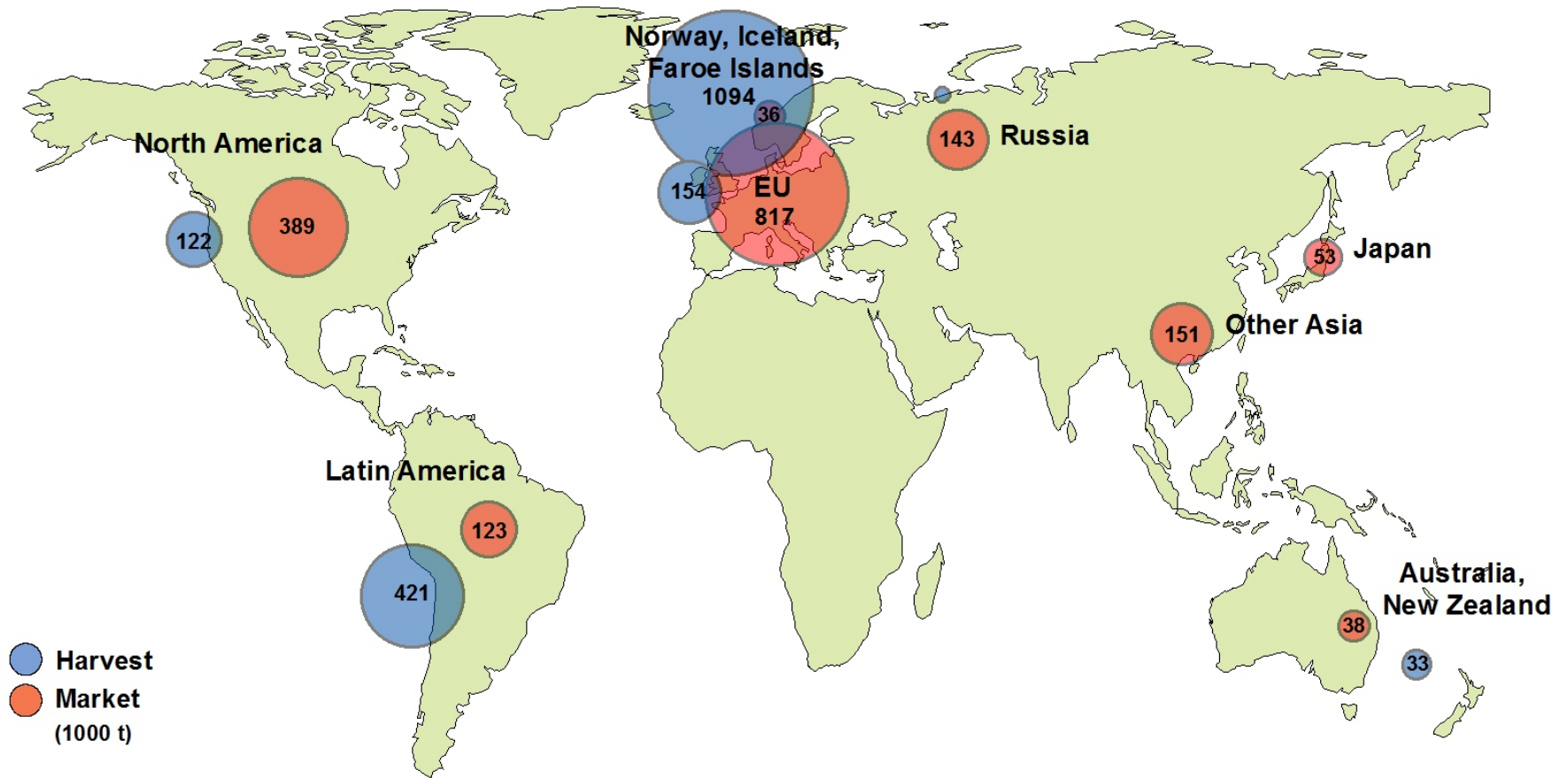
## EU seafood production 2002-2012



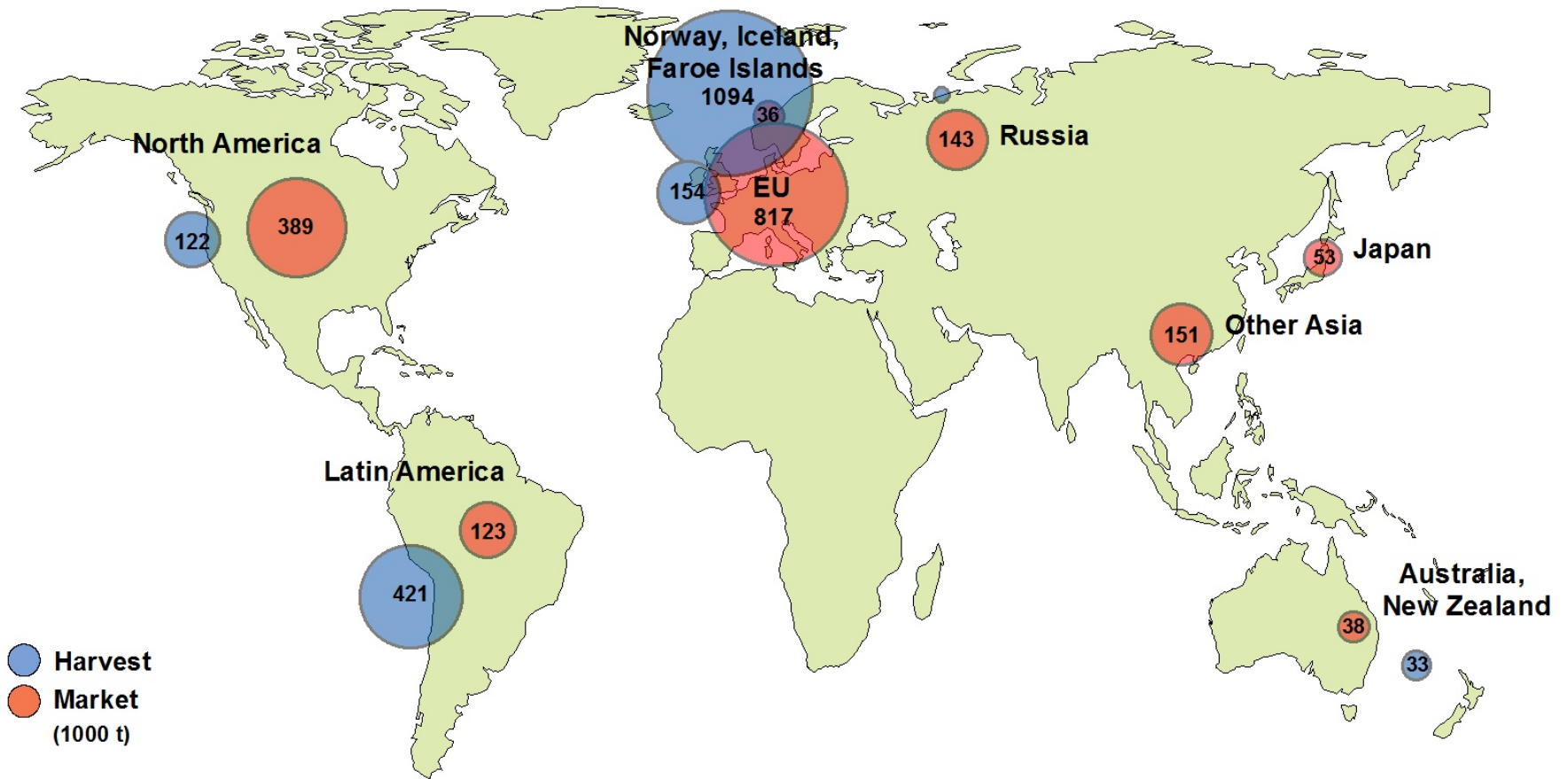
# EU seafood trade balance shows deficit



# Atlantic salmon production increasing

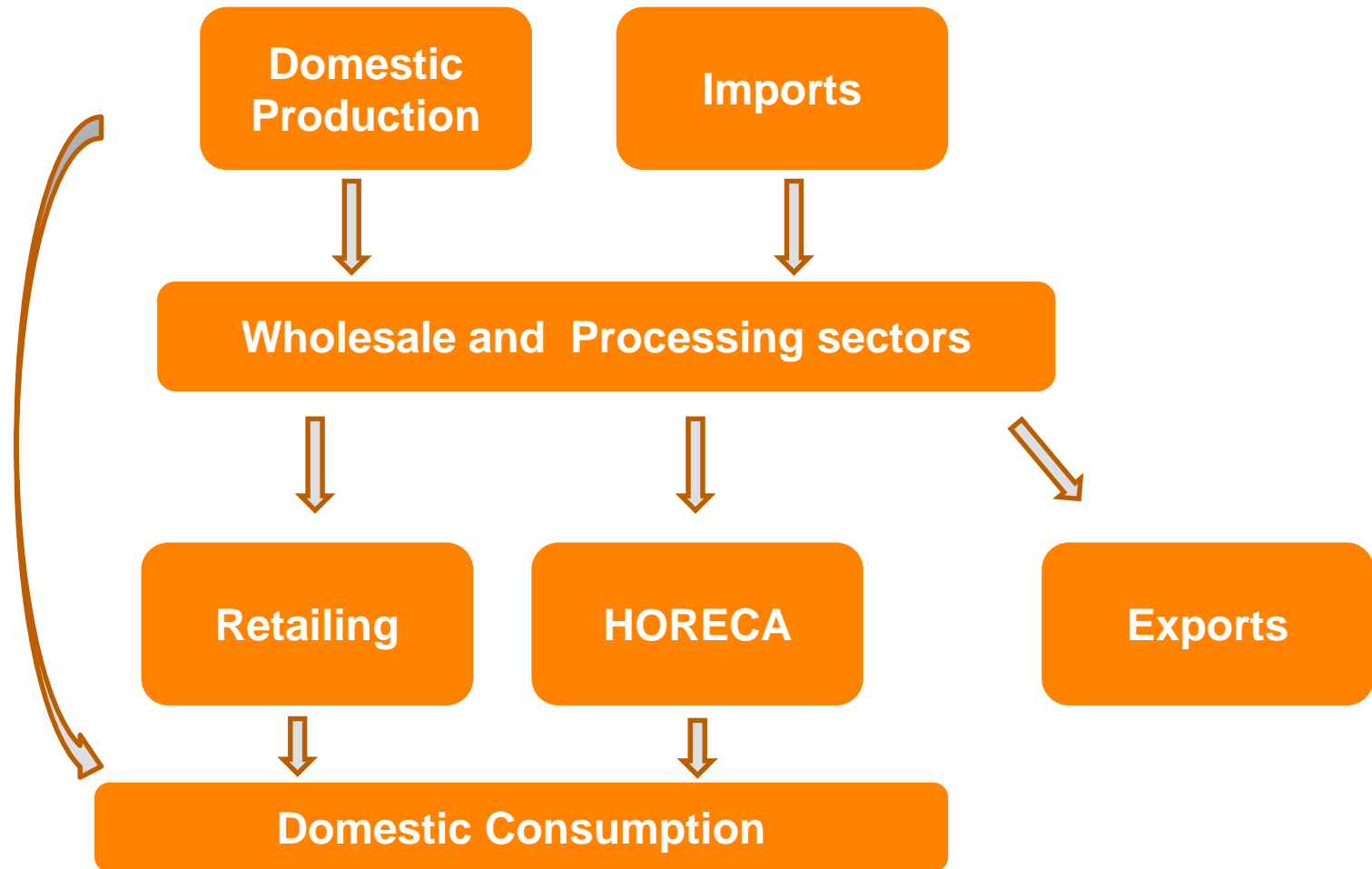


# EU is the largest market area for salmon





# General description of seafood value chain



# The Finnish market for salmon and salmon trout

Finnish salmon market comprises two fish species:

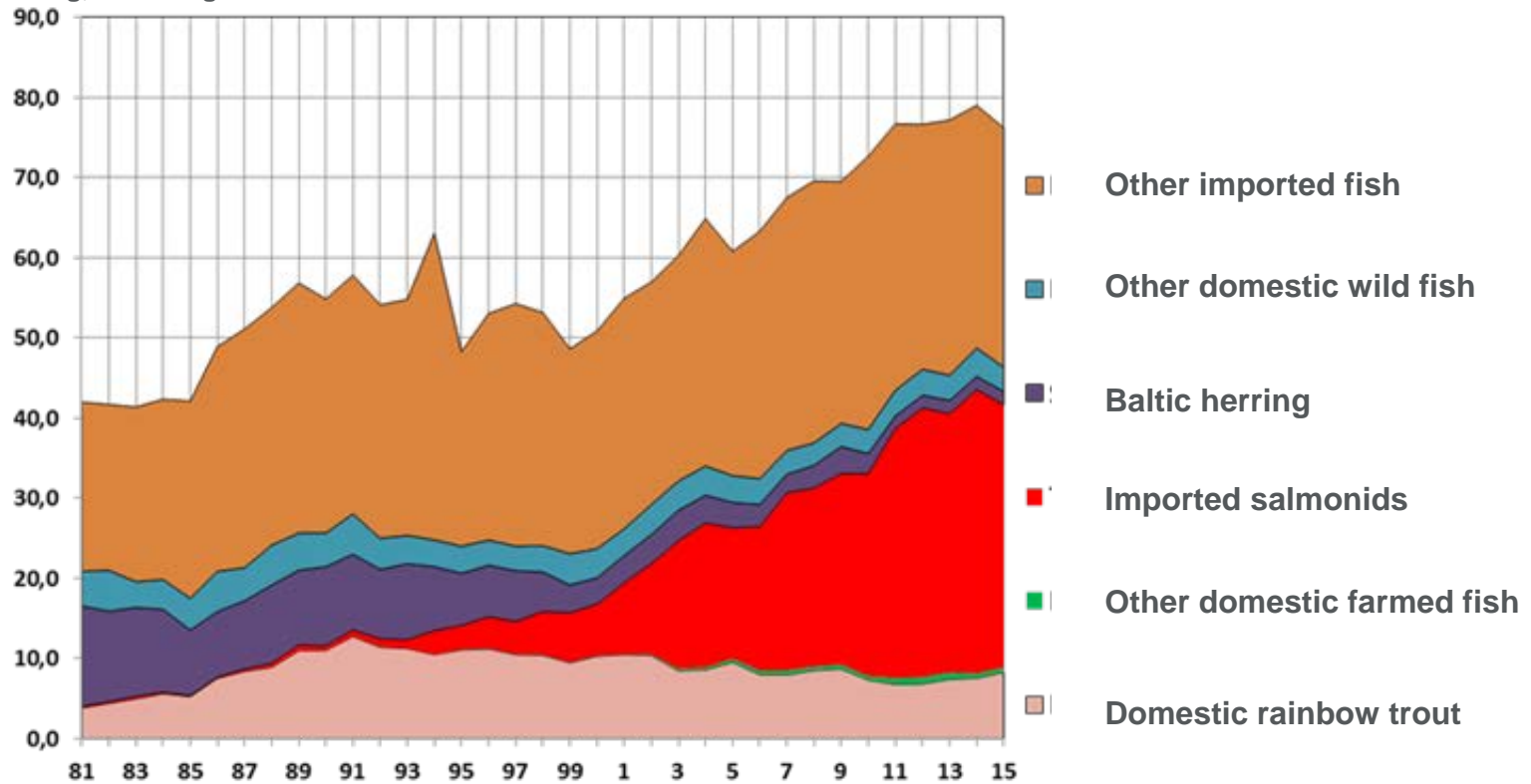
- Domestically farmed salmon trout (rainbow trout of 1-3 kilos marketing size); and,
- Imported salmon from Norway.

Imports of fresh salmon have grown to represent two thirds the total market for salmon and salmon trout in Finland.

# Increasing demand of salmonids

## Development of food fish market in Finland

Million kg, fillet weight



# The marketing chain for salmon and salmon trout

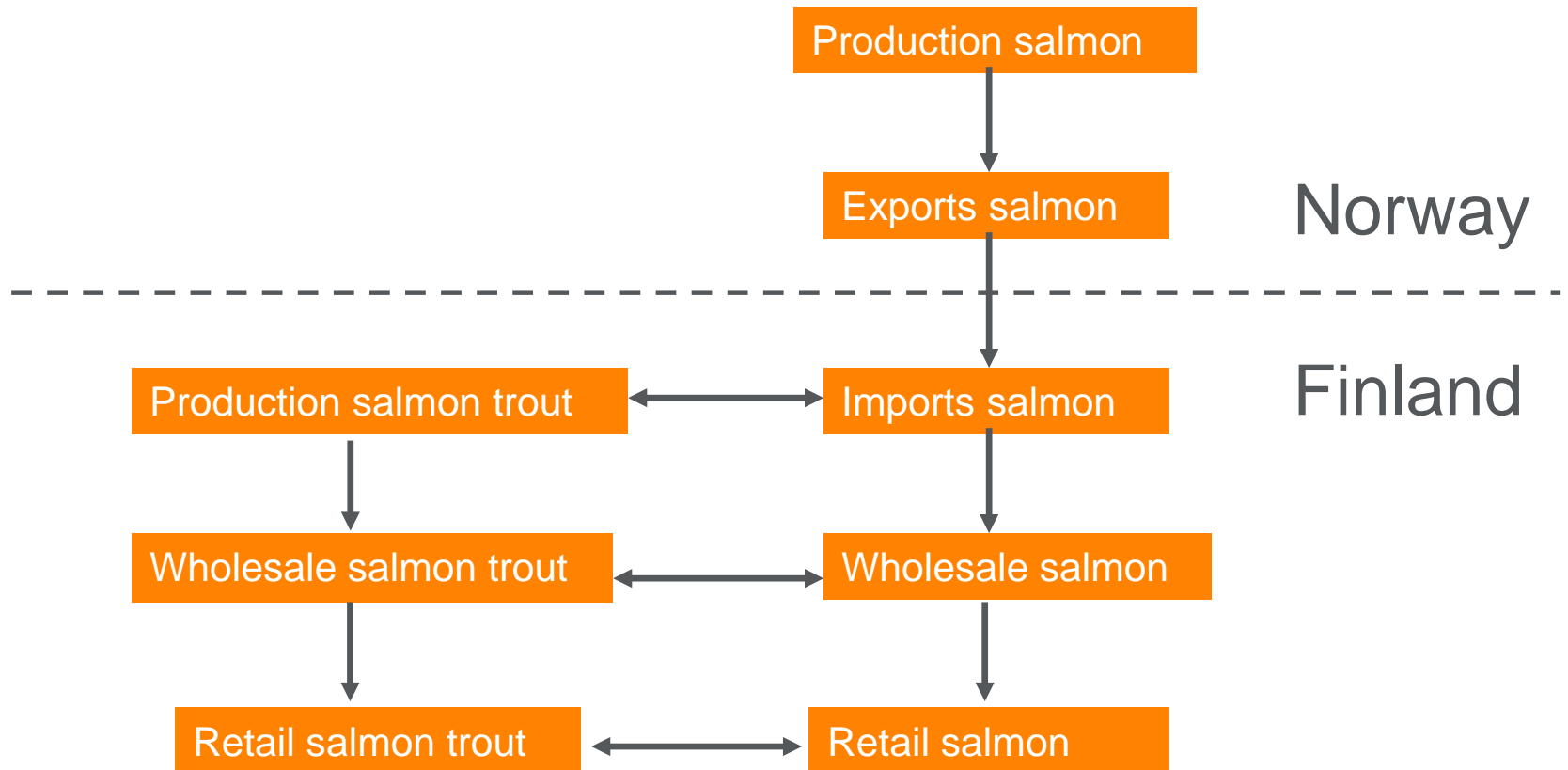
Fewer and larger operators are undertaking the delivery and marketing of salmon and salmon trout in Finland.

This is due both to the increased dominance of supermarkets in retail sales, and also to innovations in processing, transports, distribution and logistics, that has increased the efficient scale of operation.

# The marketing chain for salmon and salmon trout

- The market share of the two biggest retail chains in Finland is 80 percent of total sales.
- The market share of the six biggest fish wholesale companies in Finland is around two thirds of the total fish market.
- The large retailers trade predominately with the large fish wholesalers.
- The production sector for salmon trout in Finland has not concentrated as quickly.

# Analysis of market integration in the Finnish salmonids value chain



# Data

Prices used in the analysis are whole fresh salmon sold at all points along the marketing chain between Norway and Finland, and for whole fresh salmon trout sold internally within the Finnish market.

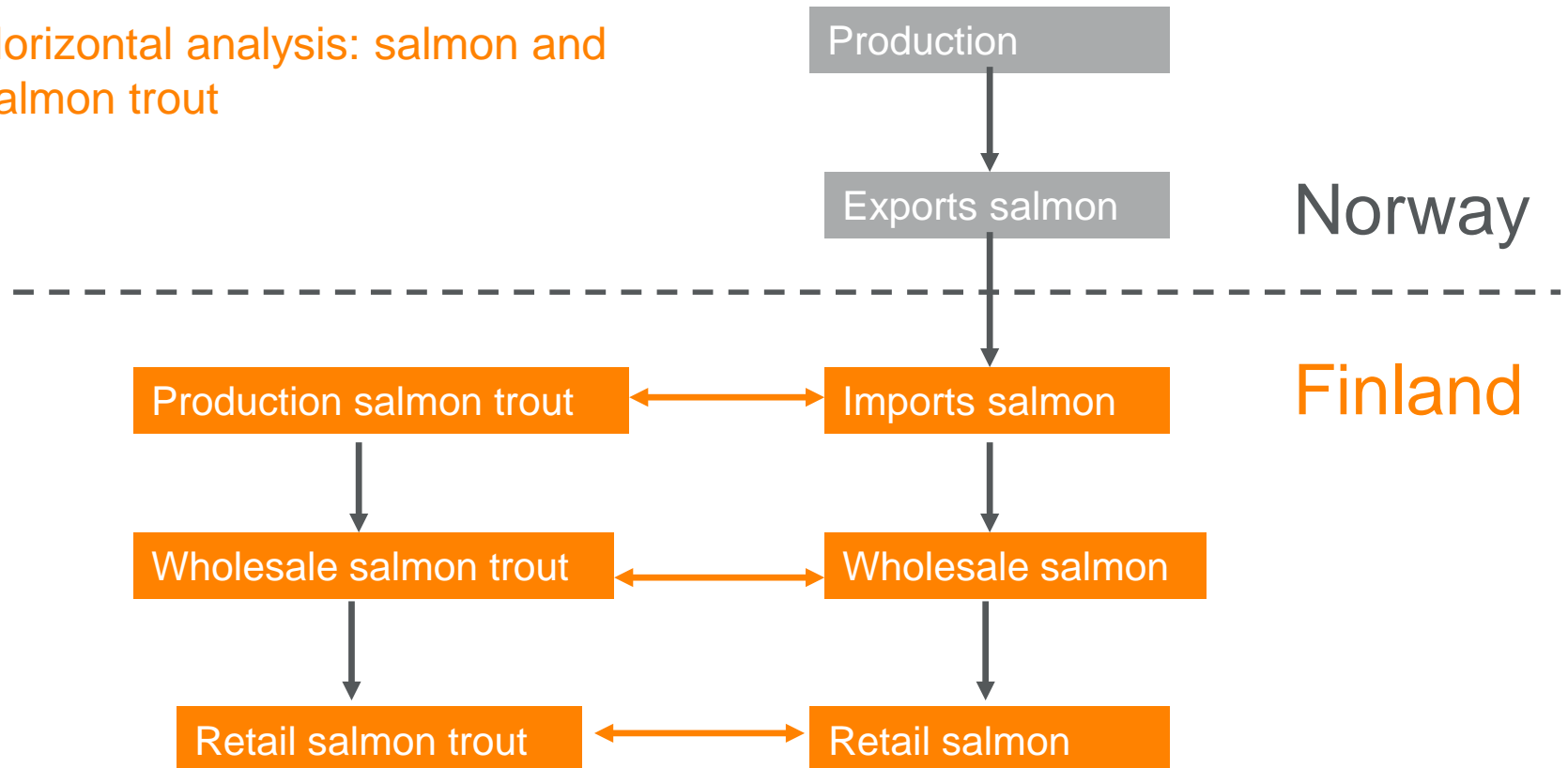
Salmon and salmon trout fillet prices are available at wholesale and retail level.

Data is monthly between 2011 and 2015.

# The marketing chain: stages of analysis

## Horizontal analysis: salmon and salmon trout

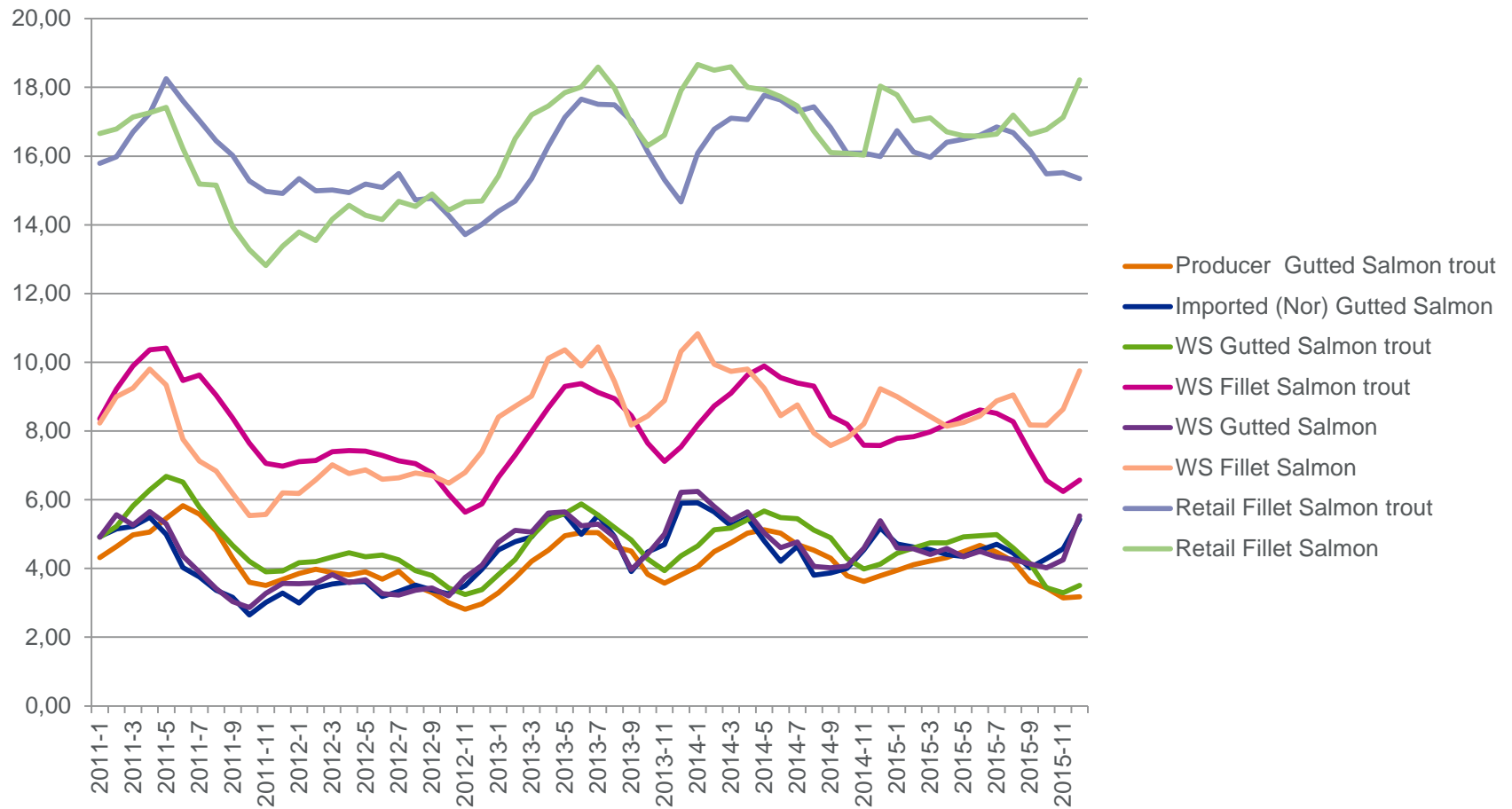
Horizontal analysis: salmon and salmon trout





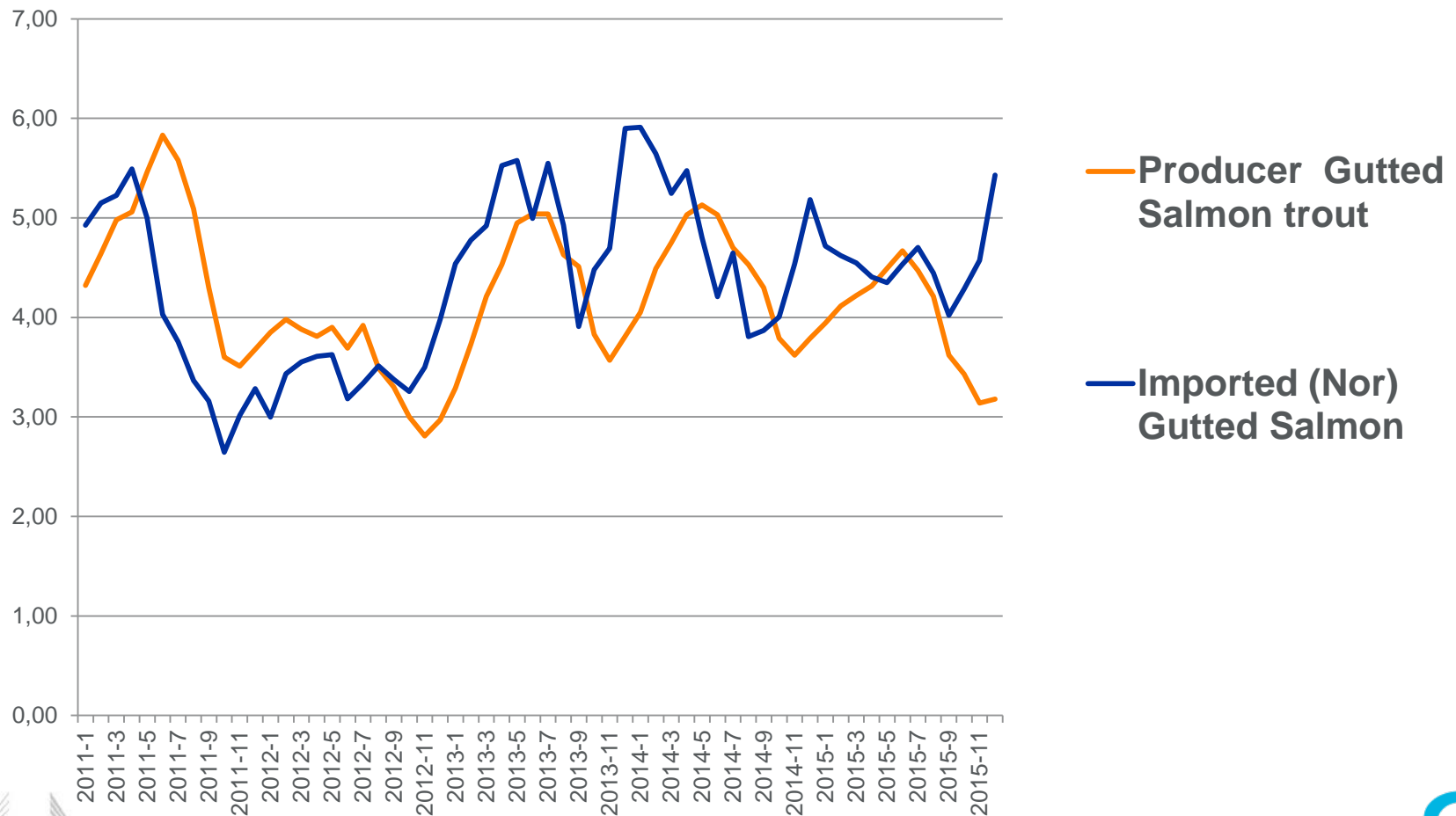
# The marketing chain: stages of analysis

## Horizontal analysis: salmon and salmon trout



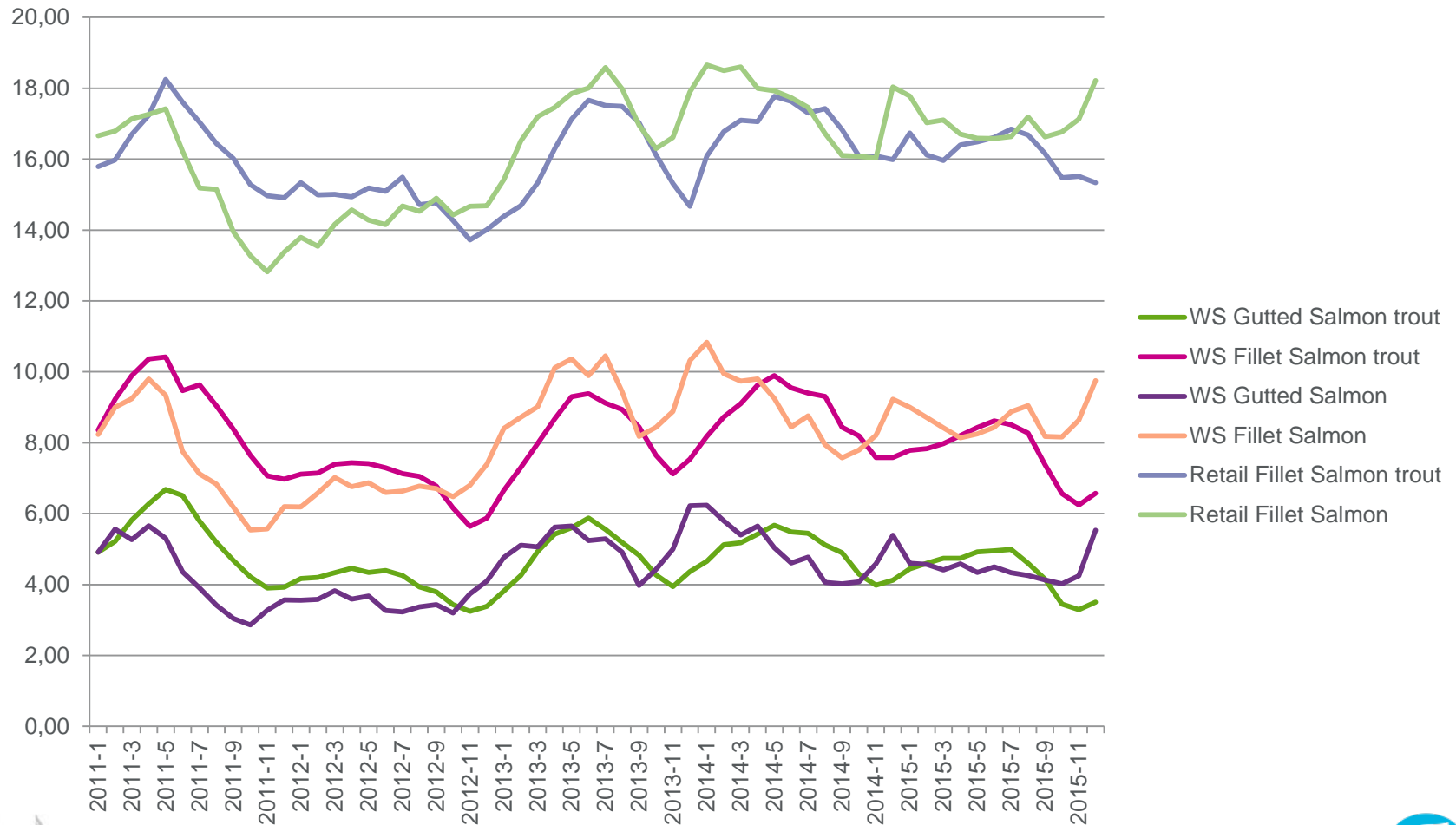
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## Horizontal analysis: salmon and salmon trout



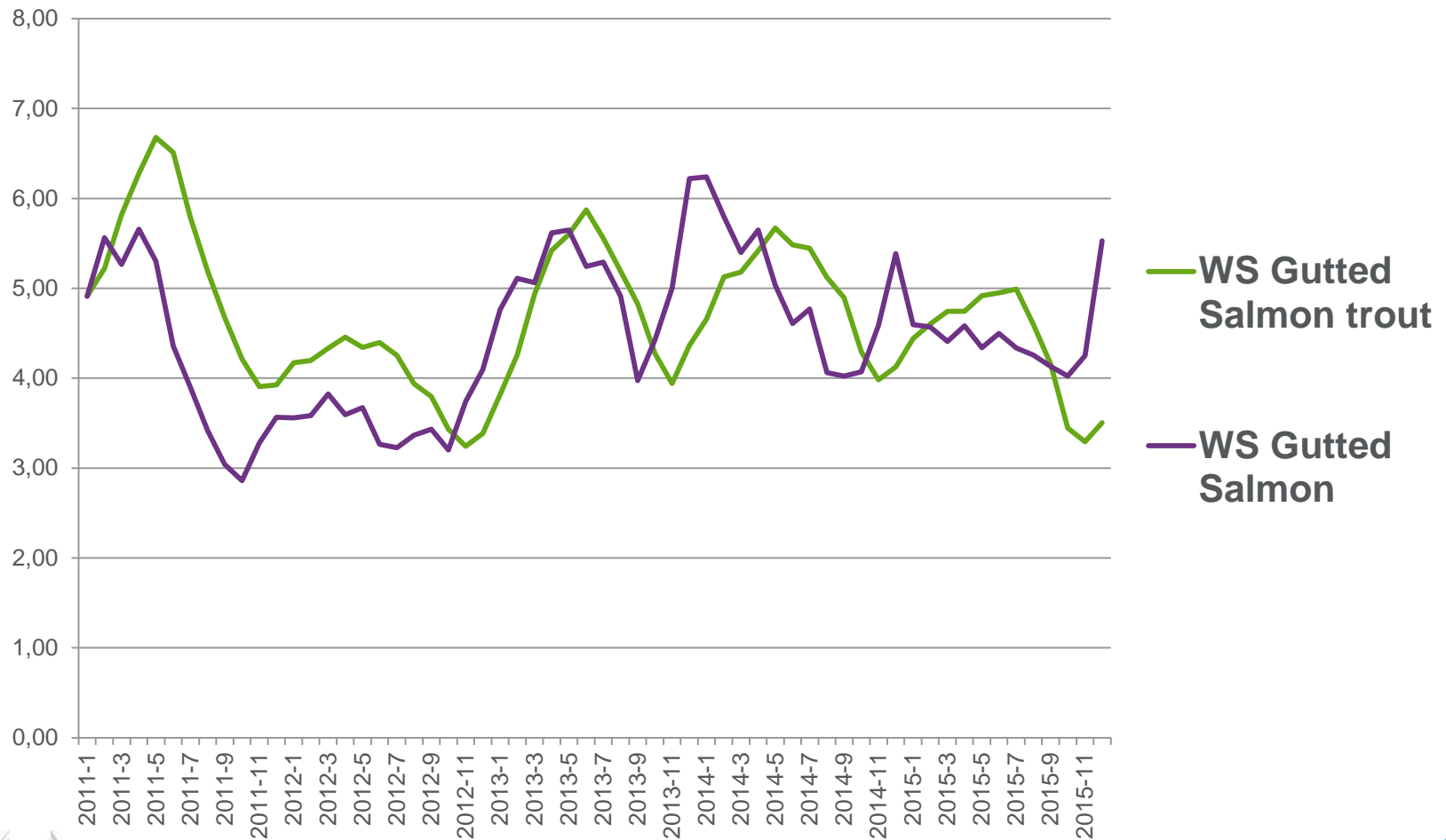
# The marketing chain: stages of analysis

## Horizontal analysis: salmon and salmon trout



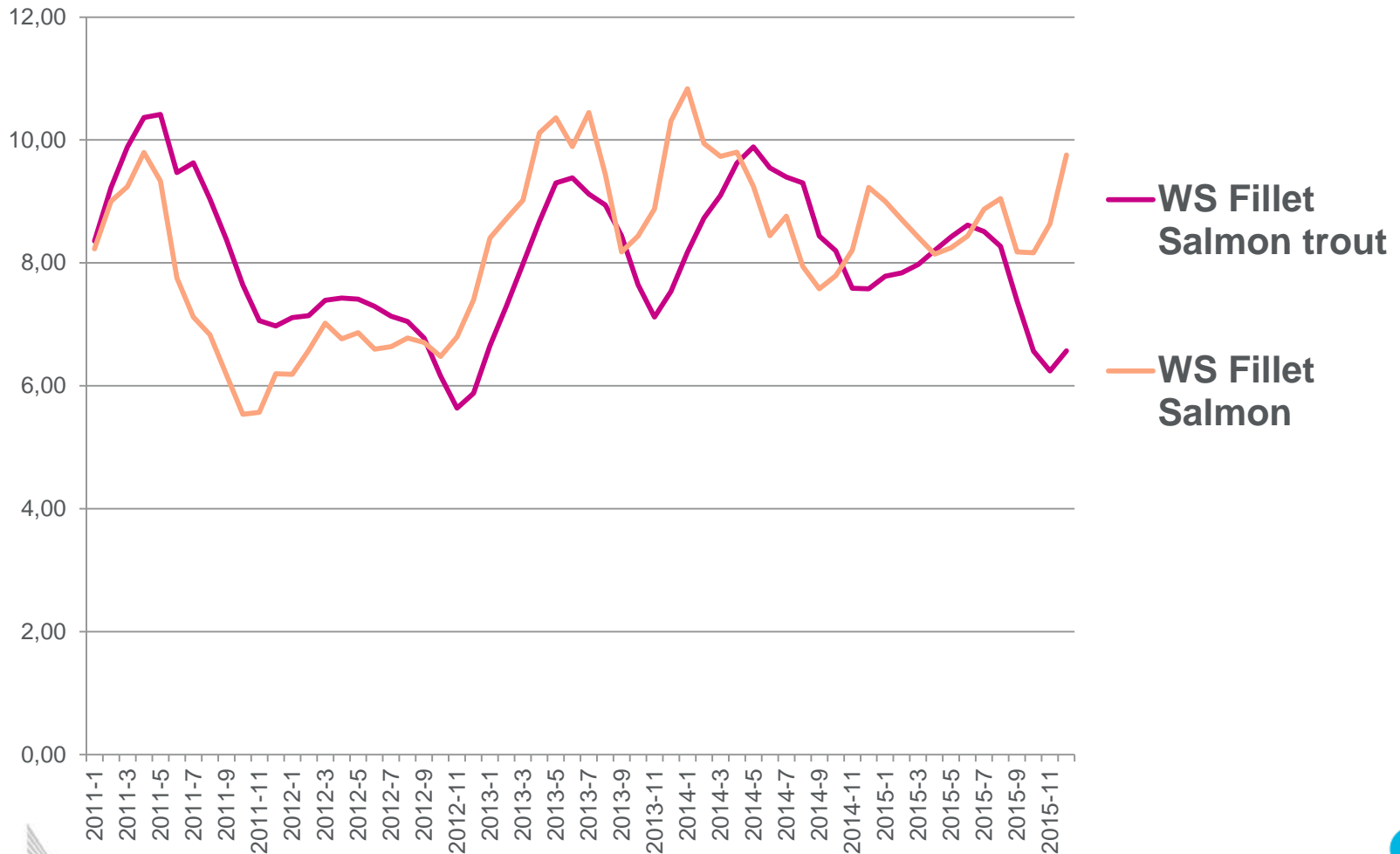
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## Horizontal analysis: salmon and salmon trout



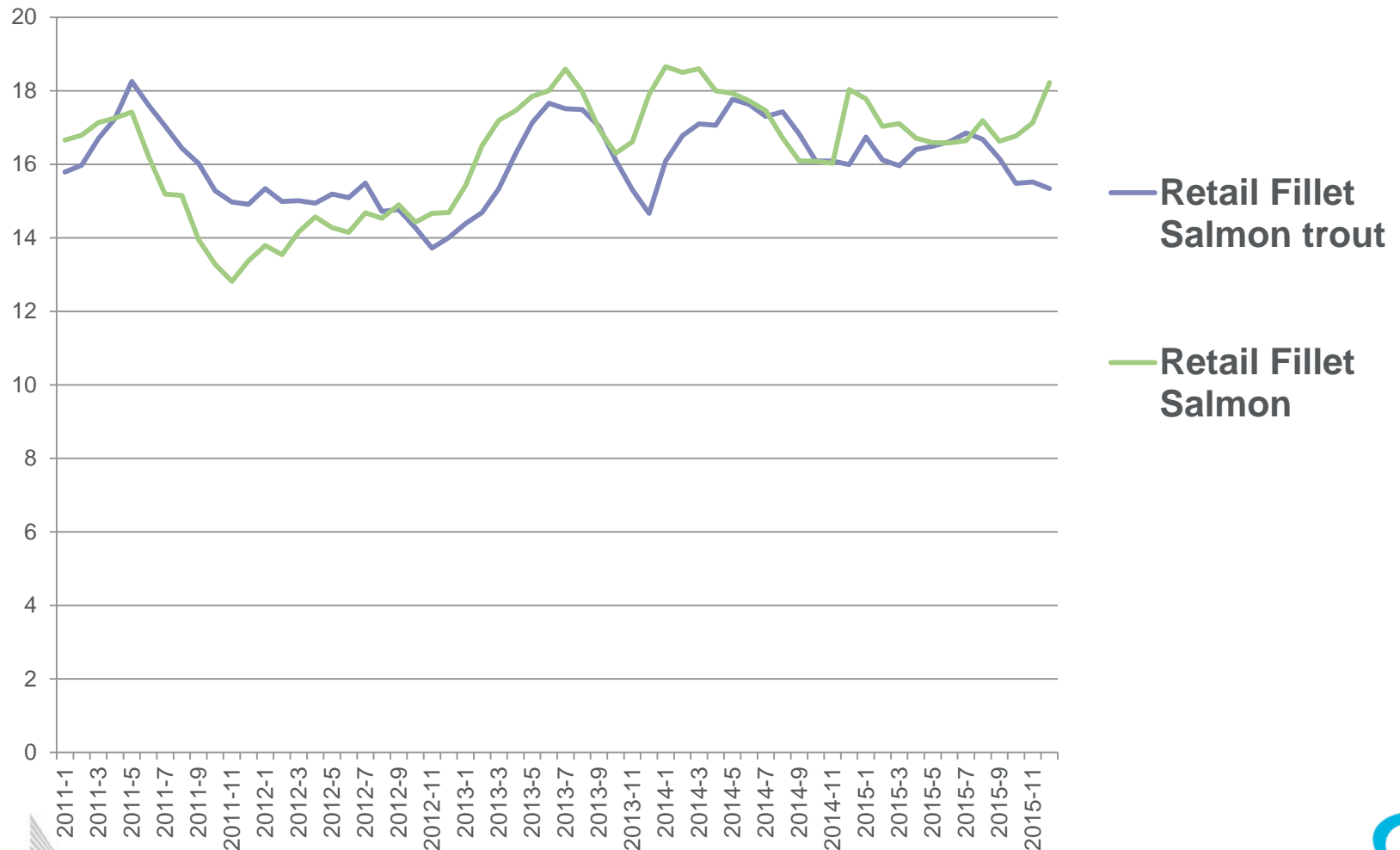
# The marketing chain: stages of analysis

## Horizontal analysis: salmon and salmon trout



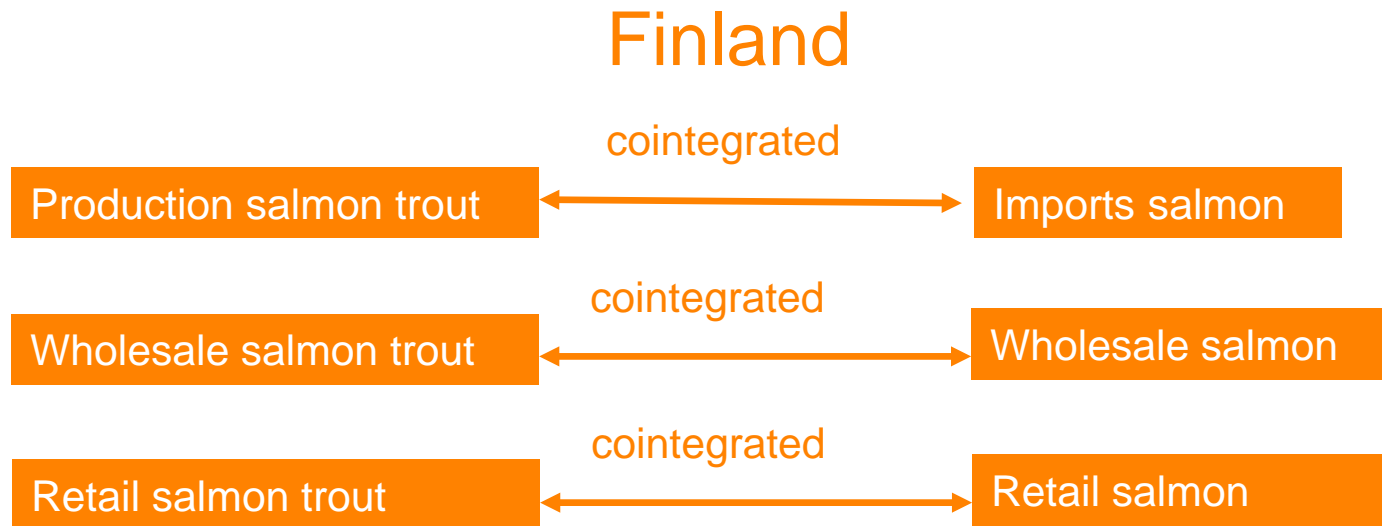
# The marketing chain: stages of analysis

## Horizontal analysis: salmon and salmon trout



# Results 1

## Horizontal analysis: salmon and salmon trout

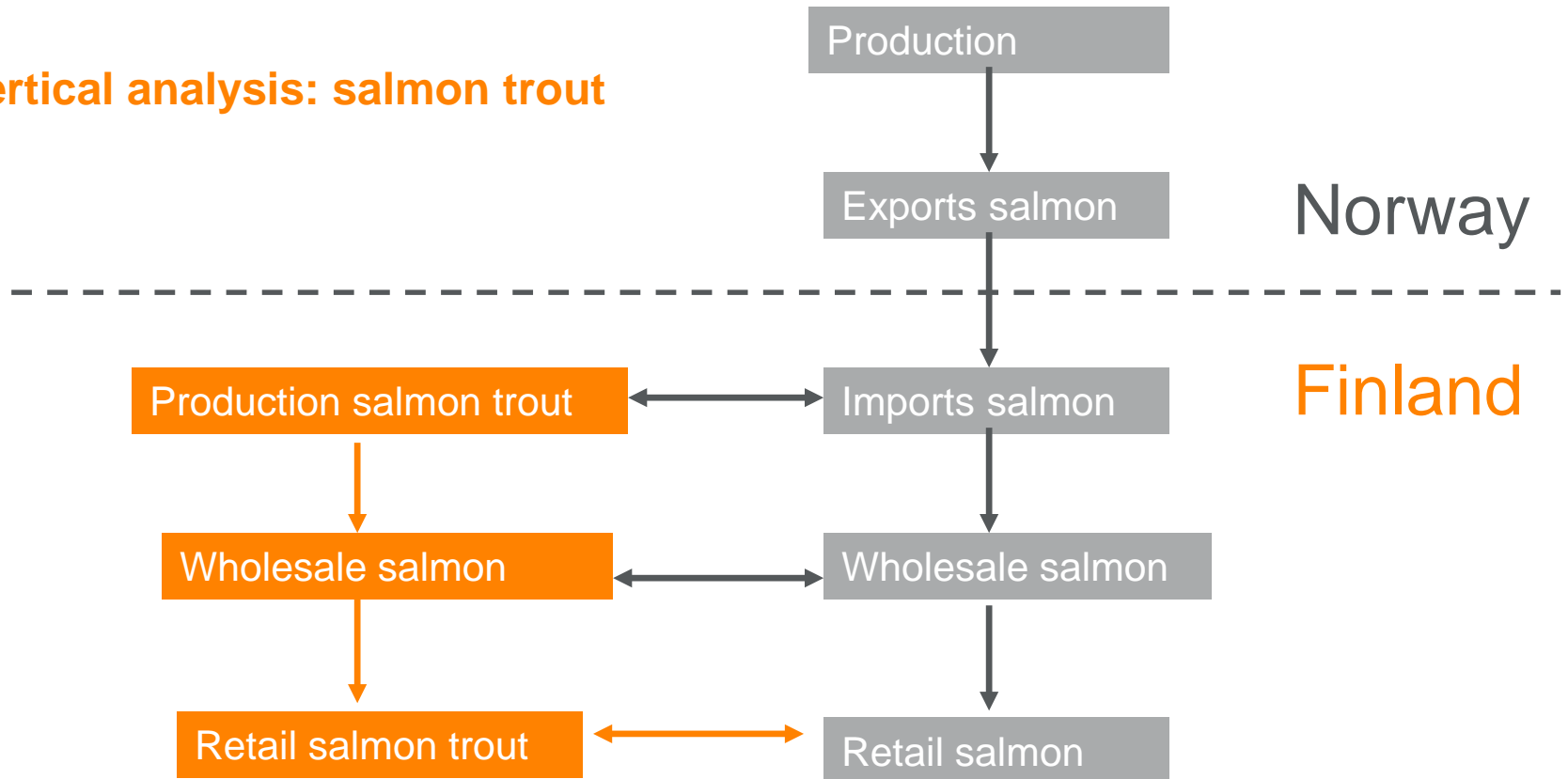


- Prices for salmon and salmon trout at the same point in the marketing chain are cointegrated
- This confirms that the two species compete in the same market and are substitutes.

# The marketing chain: stages of analysis

## Vertical analysis: salmon trout

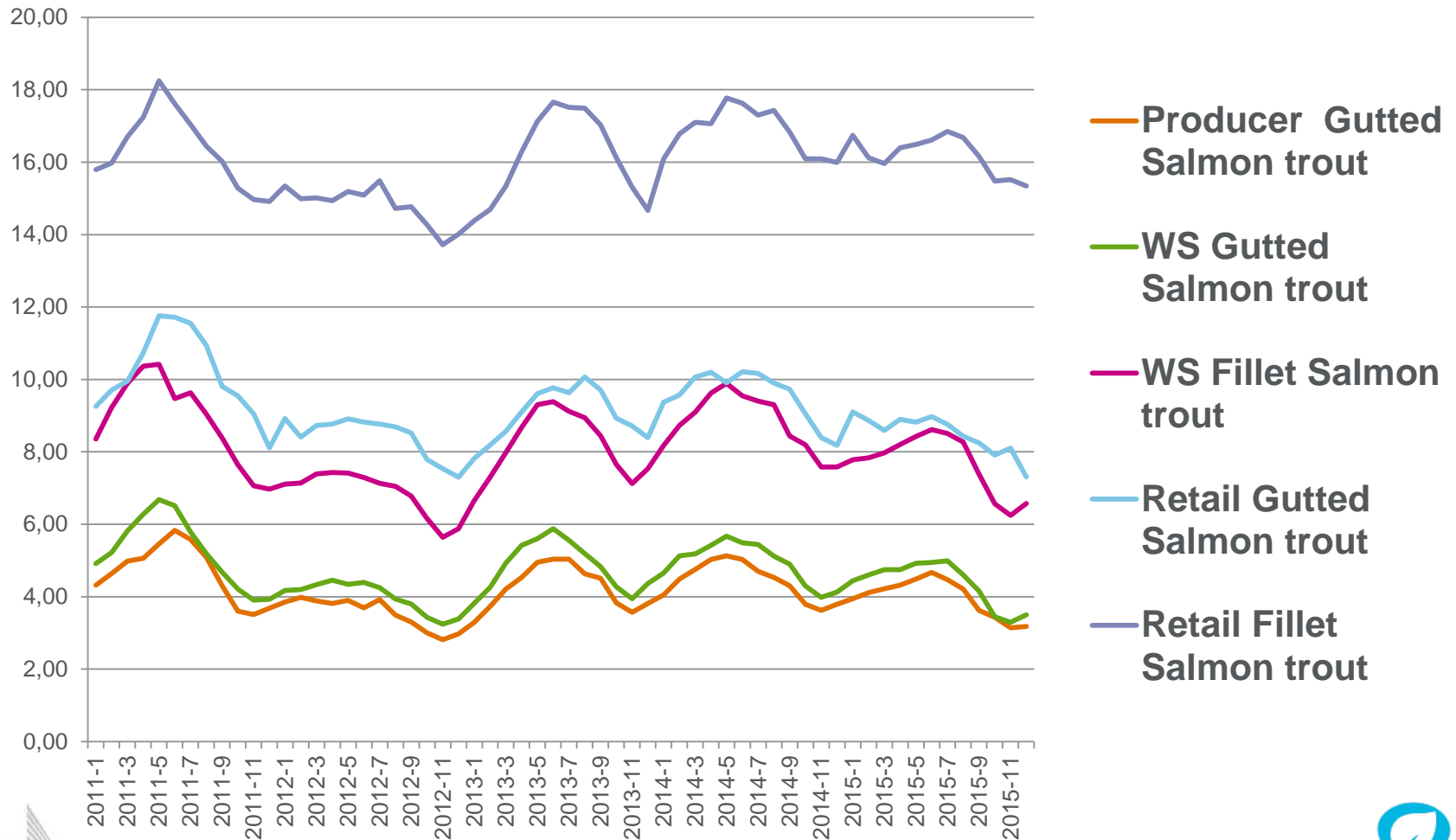
### Vertical analysis: salmon trout





# The marketing chain: stages of analysis

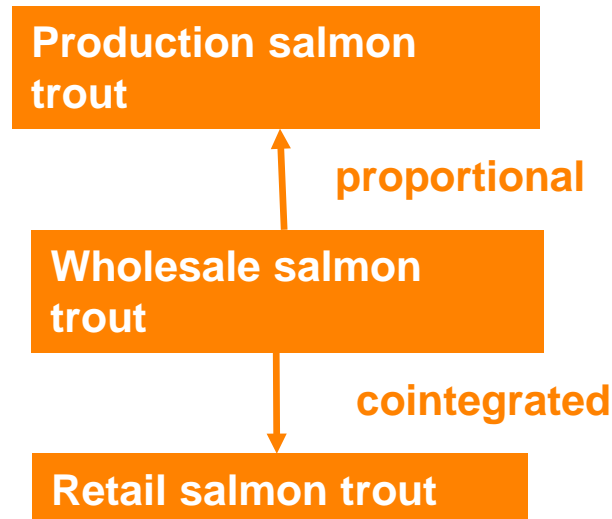
## Vertical analysis: salmon trout



# Results 2

## Vertical analysis: salmon trout

### Finland

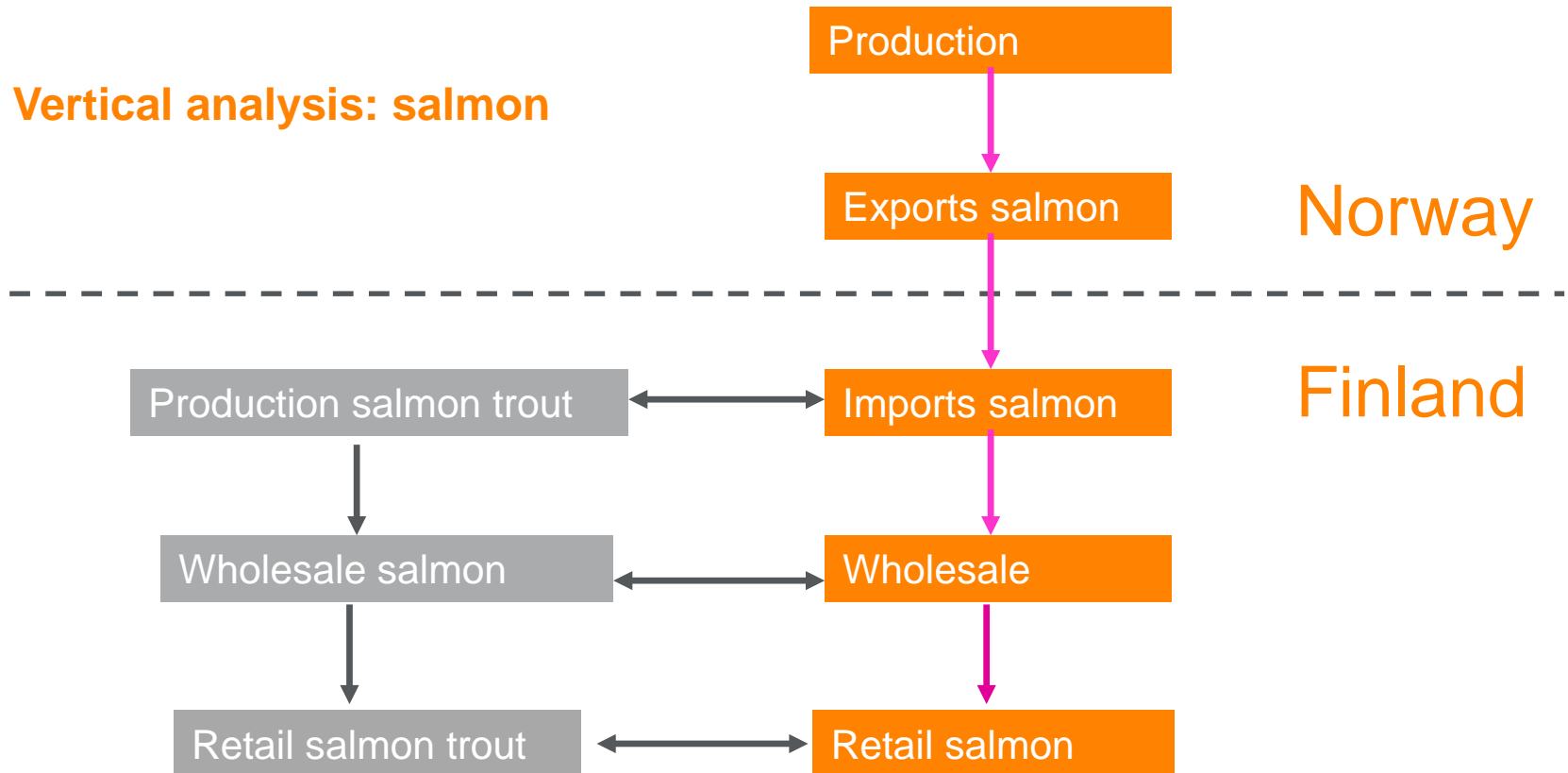


- Prices are cointegrated at all points along the marketing chain for salmon trout.
- Prices are proportional between production and wholesale.
- The wholesale price of salmon trout was found to be exogenous to both the retail and production price.

# The marketing chain: stages of analysis

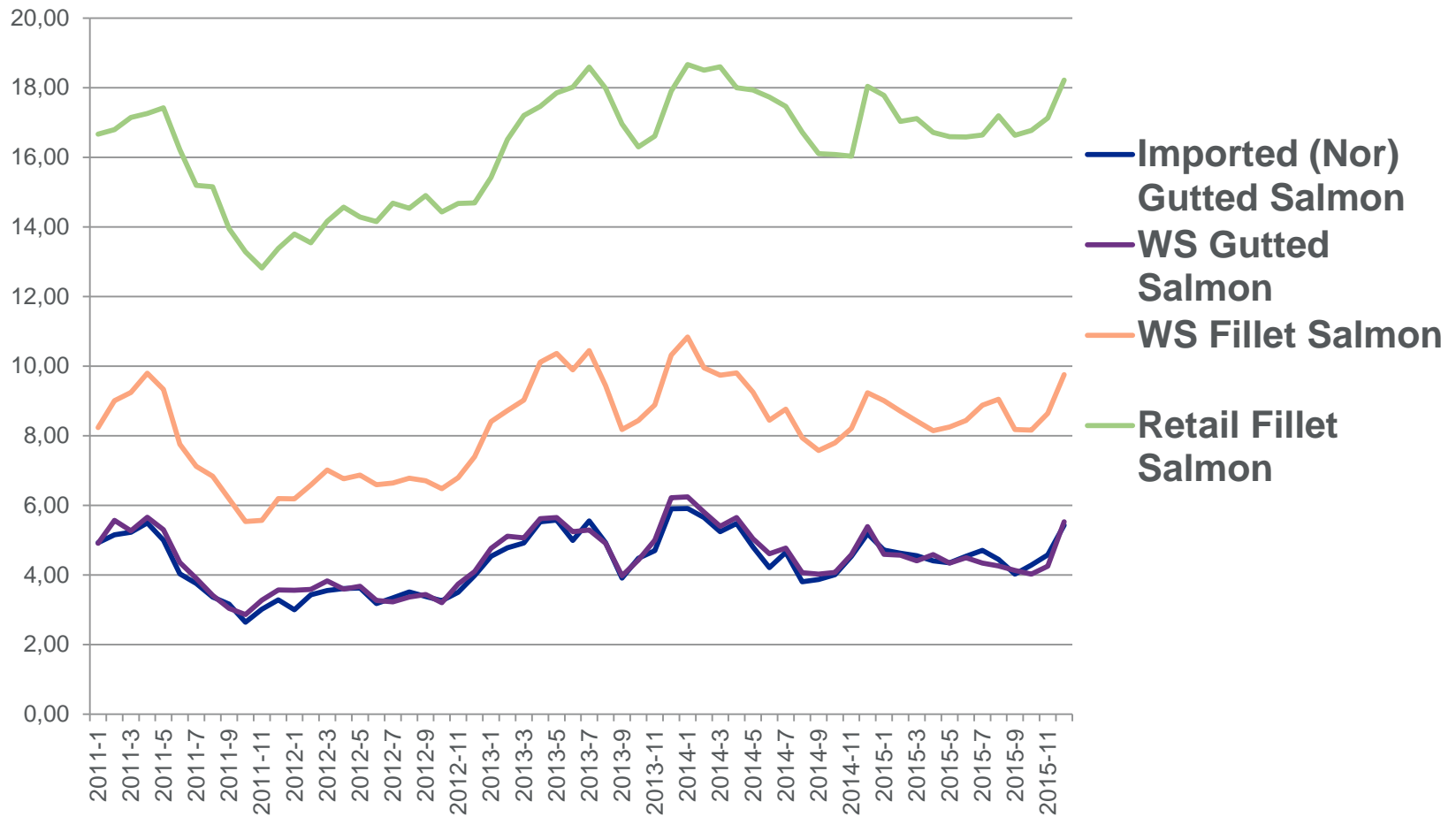
## Vertical analysis: salmon

### Vertical analysis: salmon



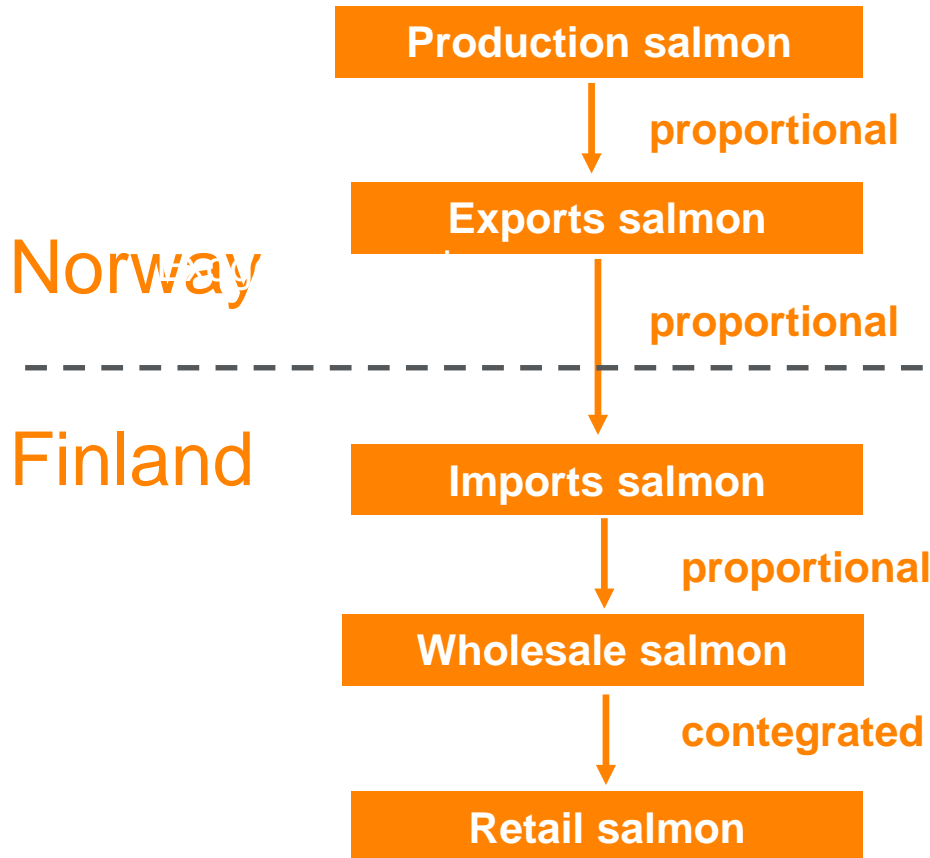
# The marketing chain: stages of analysis

## Vertical analysis: salmon



# Results 3

## Vertical analysis: salmon



Prices are cointegrated at all stages along the marketing chain for salmon.

Export prices are exogenous to production prices in Norway, while import prices are exogenous to wholesale prices in Finland.

# Conclusions

- Preliminary results suggests that salmon and salmon trout markets are highly integrated. The marketing chains for both fish species are competitive from the production to the retail level.
- The role of fish wholesalers in Finland is central in the salmon marketing chain. They operate as auctioneers between producers and retailers.
- Wholesale prices are the leading prices in transmitting market information to other levels of the marketing chain for salmonids.

Thank you!

