

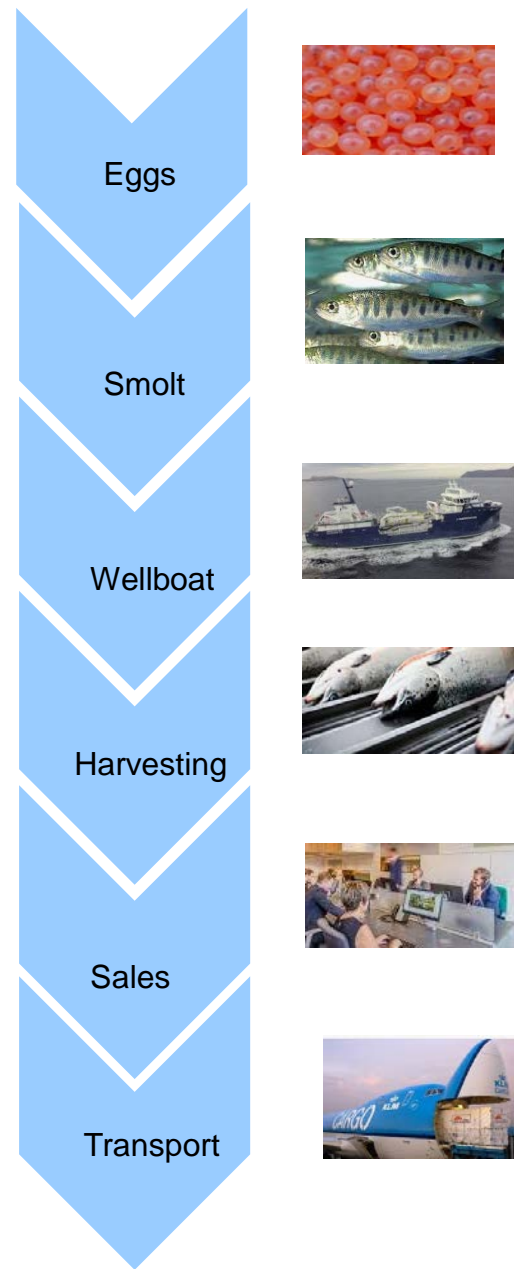
Risk and resilience assessment in the salmon supply chain

Kolbjørn Giskeødegård
Director and sector coordinator for Food, Beverages and Ingredients

5 June 2019



The Value Chain

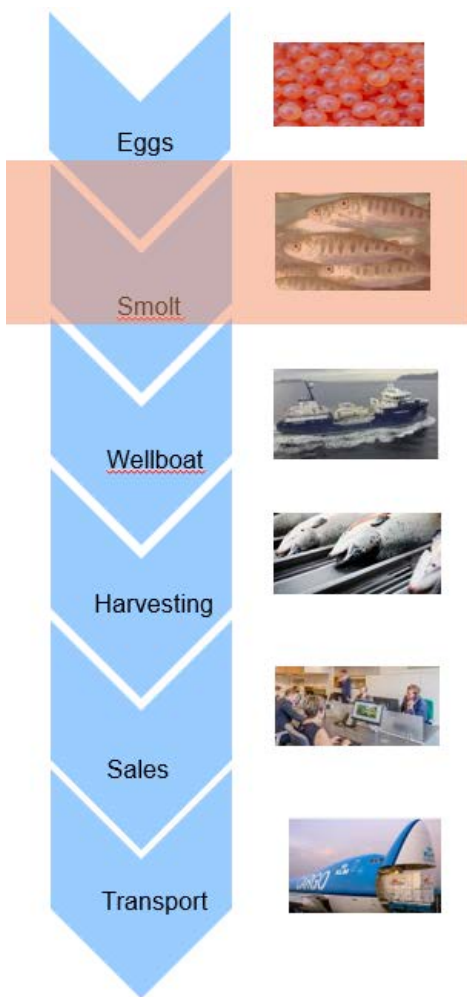


Eggs and smolt

- Genetics and strains
- Variety in suppliers
- Control of water, water quality
- Replacement of lost smolt
- Massive investments in keeping fish on land longer, payback?
- Risk and cost with higher weights



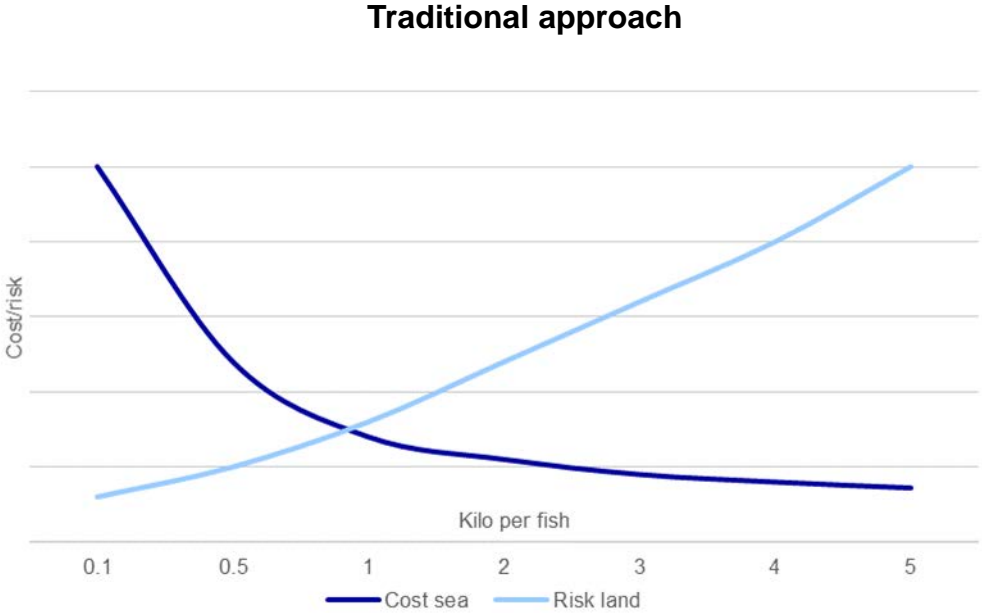
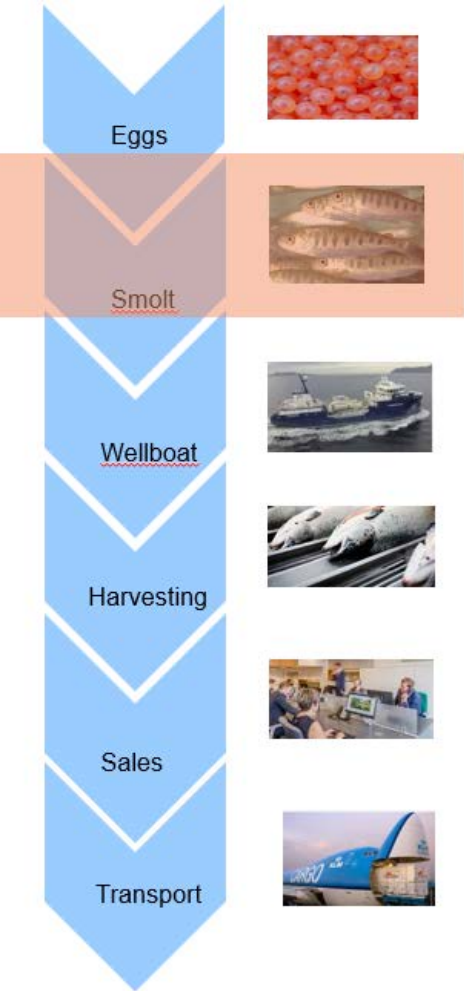
What is the optimal size on land? (0.1, 0.5, 1, 5 kilos ?)



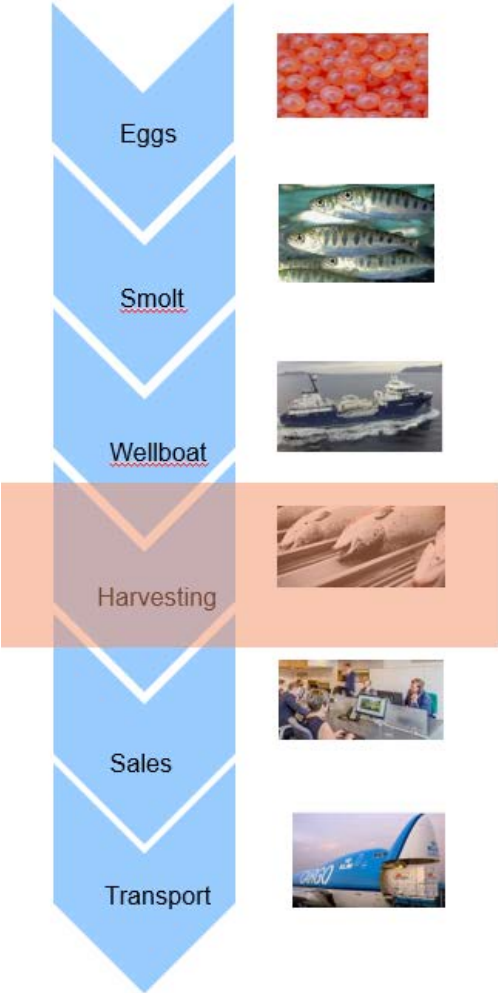
Size of smolts	100	200	300	400	500	600
Growth (gram per day)	11,0	12,0	13,2	14,3	15,5	16,6
No of mths to 6 kg	17,6	15,8	14,2	12,8	11,6	10,7

AVRIK
Benchmarking

What is the optimal size on land? (0.1, 0.5, 1, 5 kilos ?)

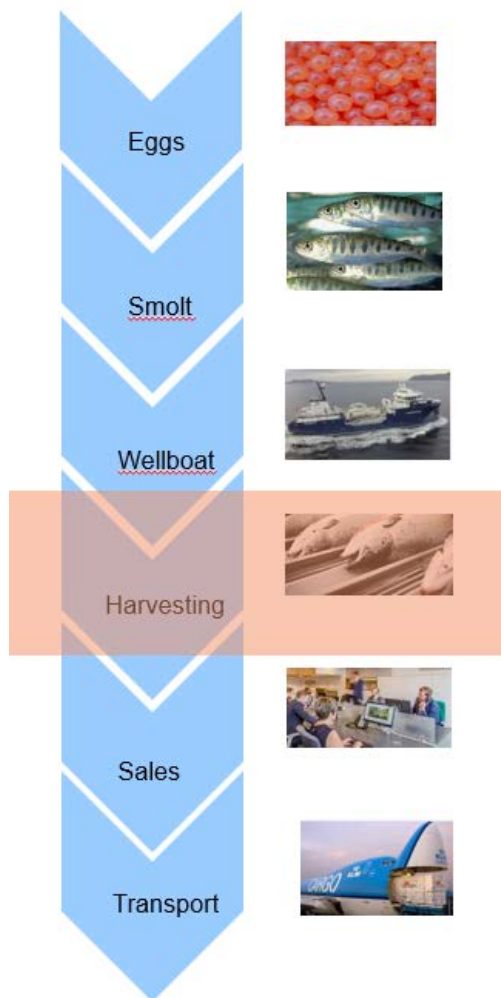


Harvesting - supply



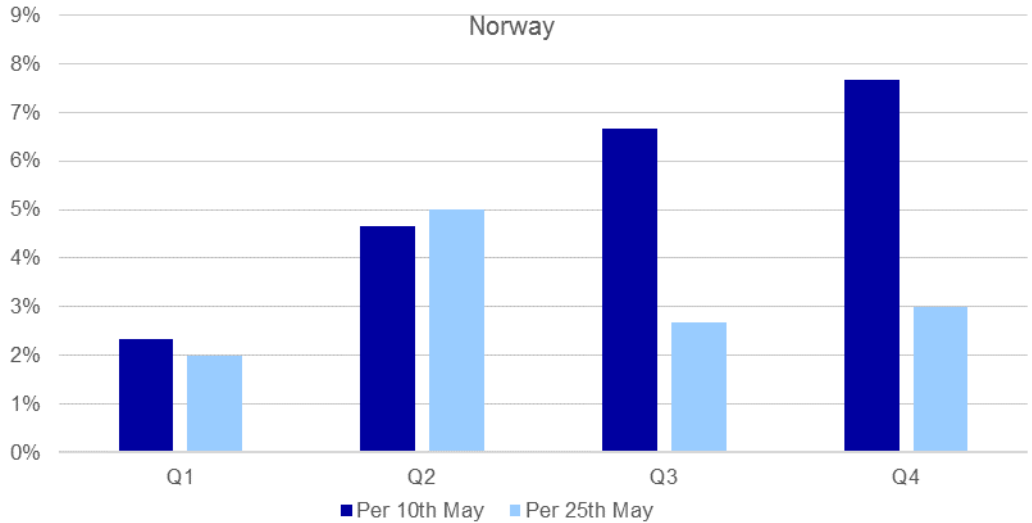
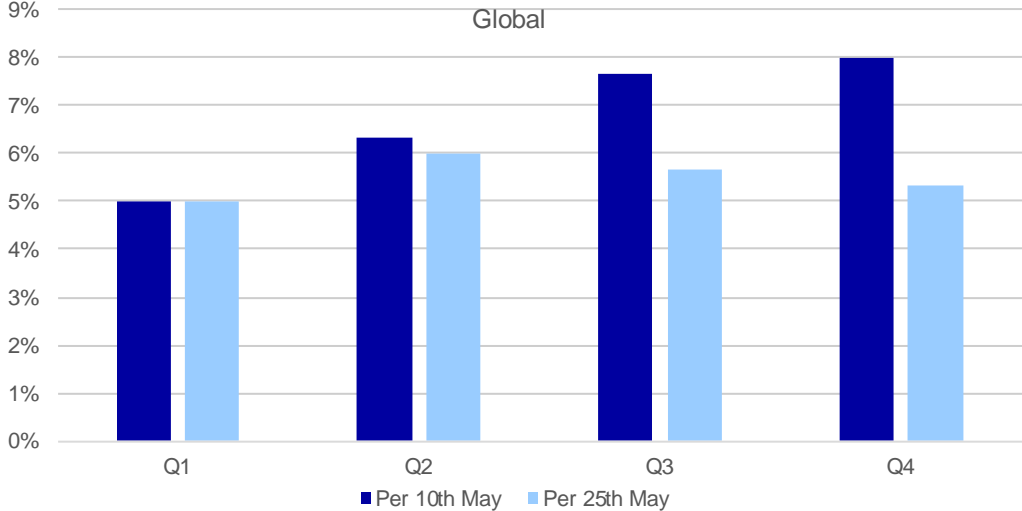
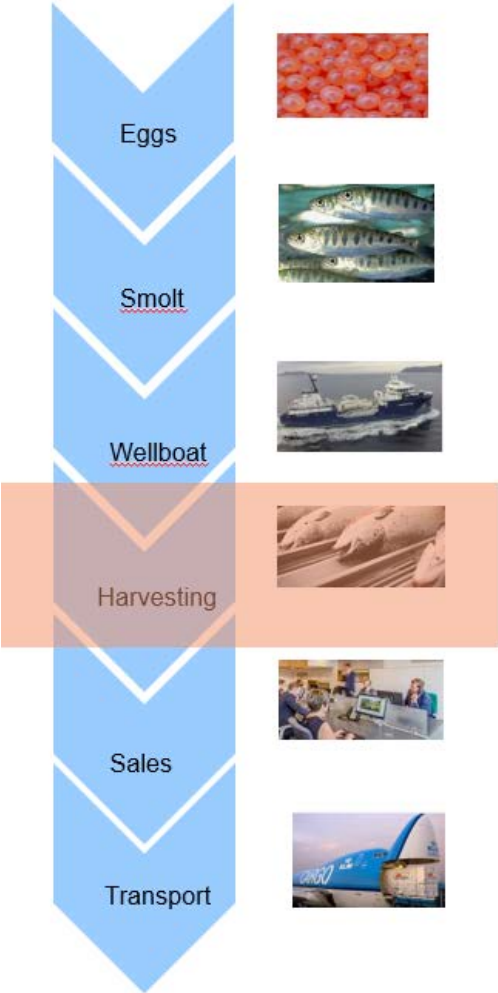
Source: Nordea

Supply (2019 prior to algae bloom Norway)

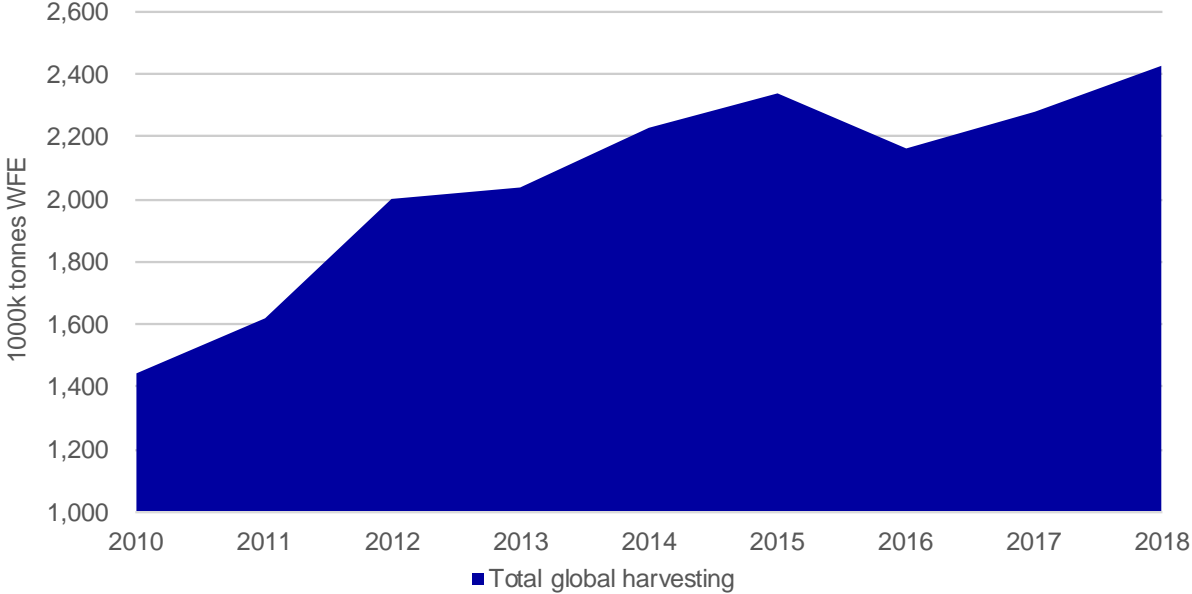
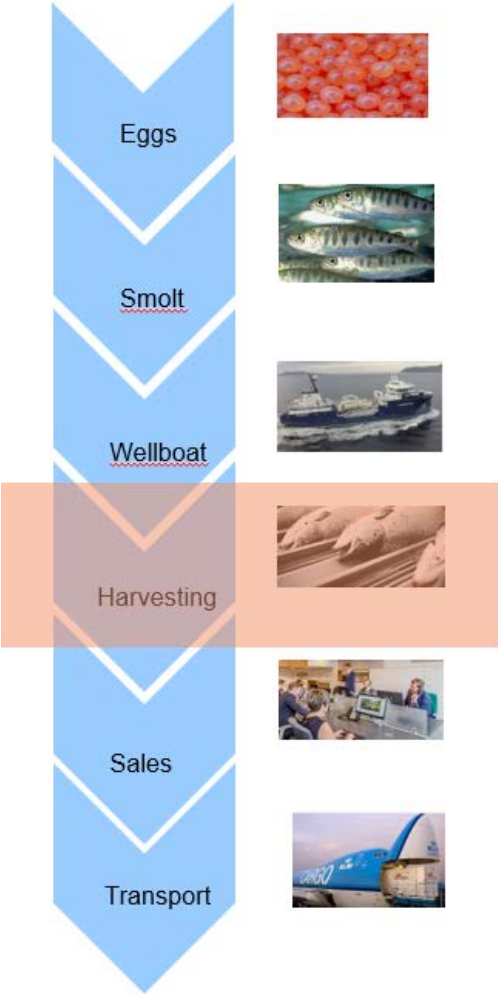


(1000 tonnes WFE)	2016	2017	2018	2019E	2020E	2021E	2022E
Norway	1,171	1,208	1,253	1,327	1,413	1,469	1,535
UK	158	177	152	177	178	175	180
Faroe Islands	77	78	76	80	90	100	100
Ireland	16	16	14	15	16	16	16
Iceland	8	10	12	17	25	35	50
Europe	1,430	1,489	1,507	1,616	1,722	1,795	1,881
Annual growth	-4 %	4.1%	1 %	7 %	7 %	4 %	5 %
Chile	504	562	677	710	740	770	800
Canada	143	144	145	147	145	160	170
USA	22	18	18	16	16	16	16
Australia	51	55	61	60	60	60	60
Others	10	11	15	35	45	60	75
Total Other	730	790	916	968	1,006	1,066	1,121
Annual growth	-13 %	8 %	16 %	6 %	4 %	6 %	5 %
Total global harvesting	2,160	2,279	2,423	2,584	2,728	2,861	3,002
Harvesting growth%	-7.6 %	5.5 %	6.4 %	6.6 %	5.6 %	4.9 %	4.9 %

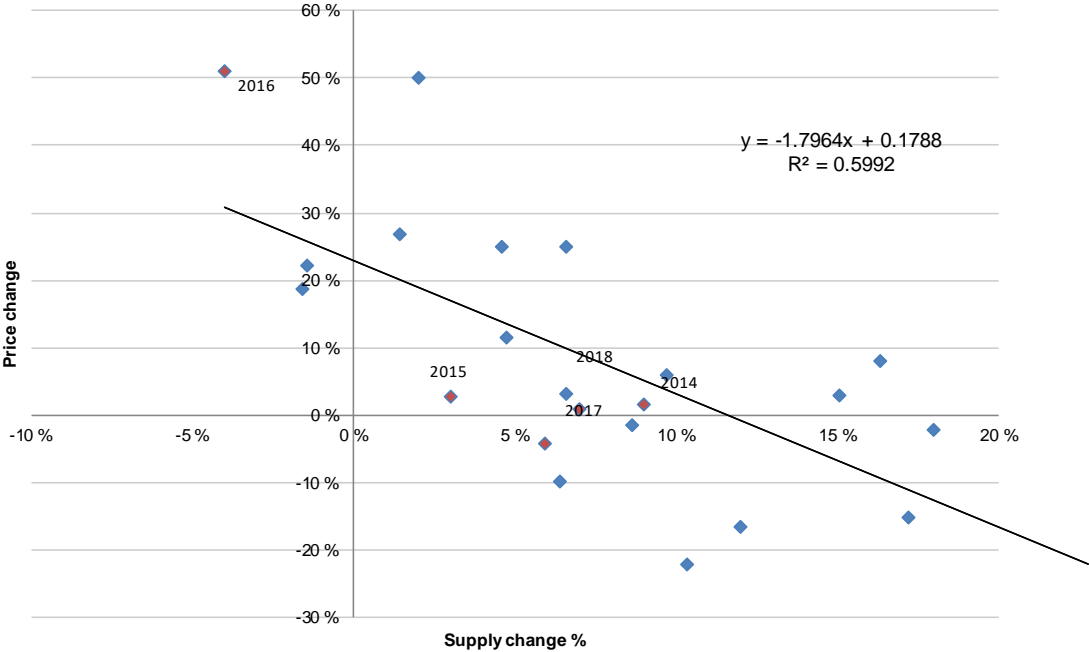
Supply growth revised after algae bloom Norway



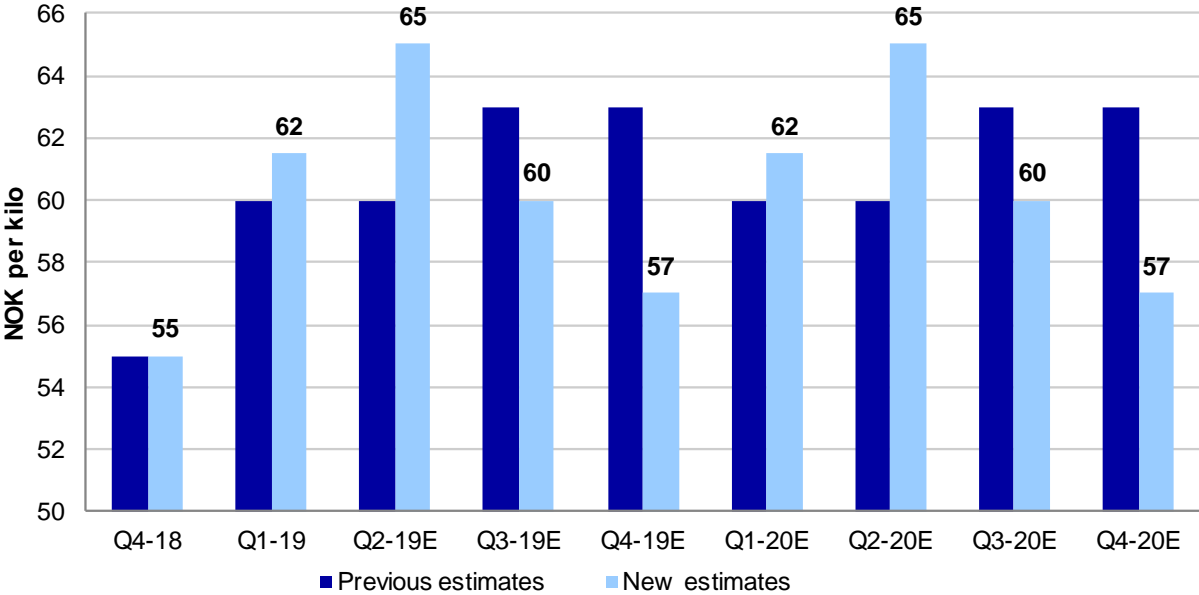
Supply since 2010 up 1 million tonnes (67%), prices up 30%



Prices and supply change



Prices per quarter

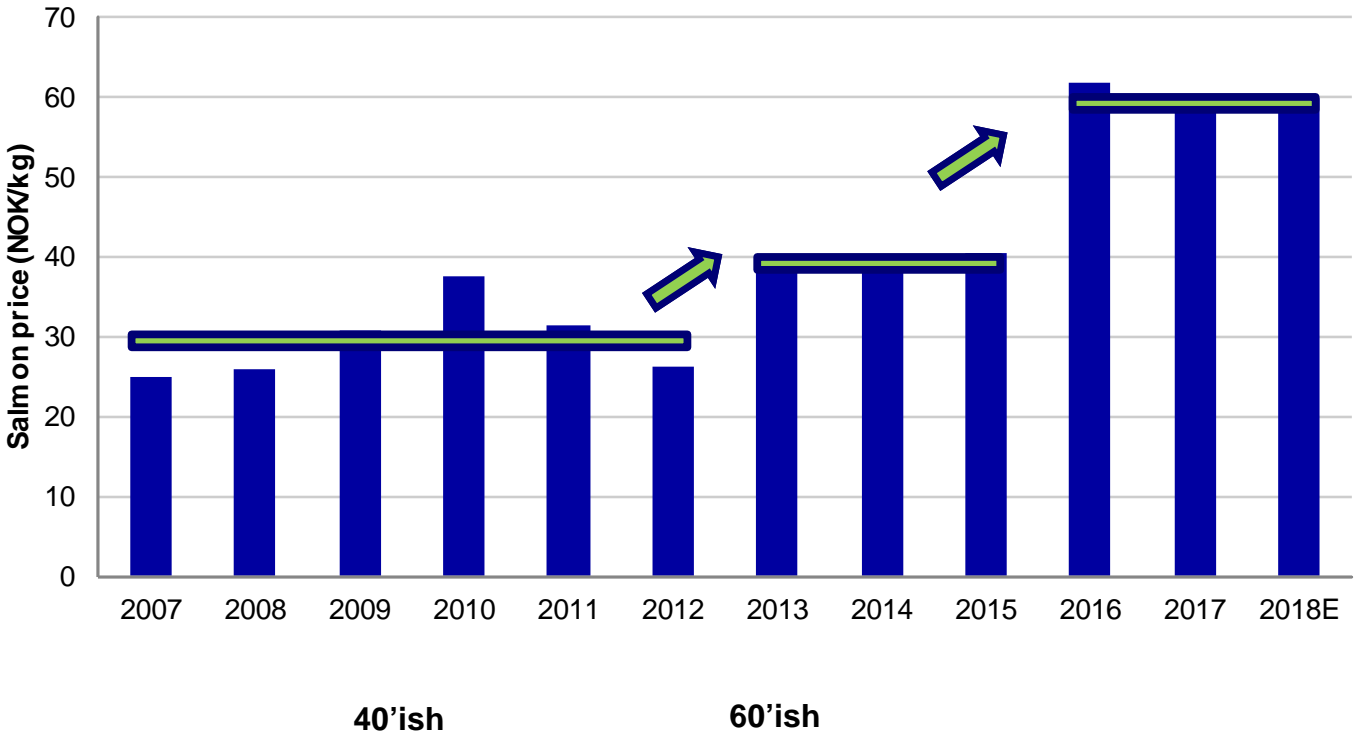


Prices and demand



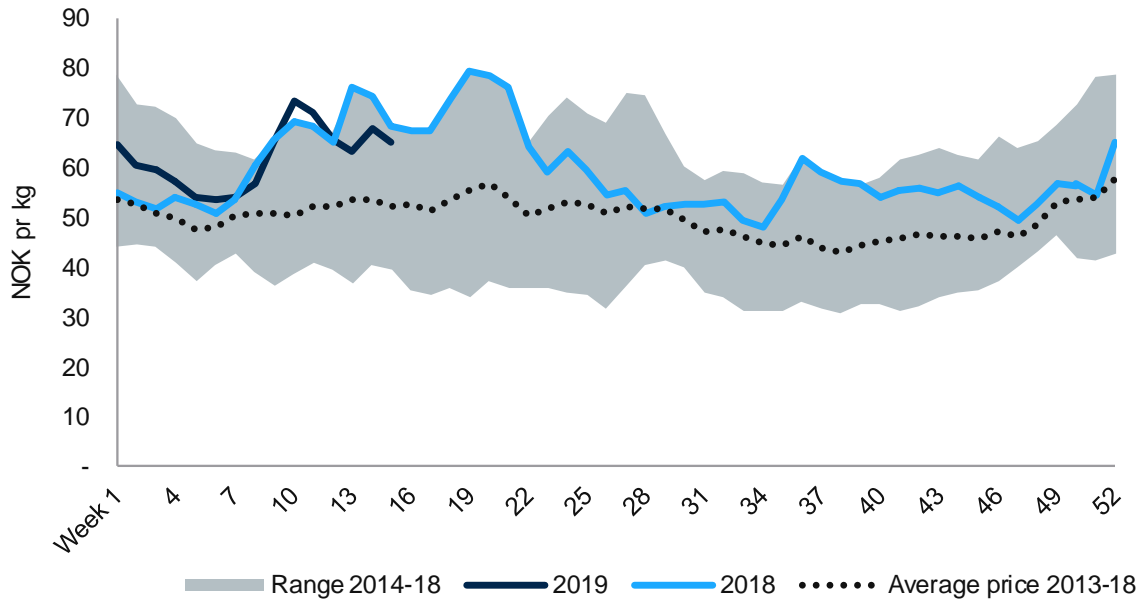
Source: Nordea

Prices in NOK doubled in ten years



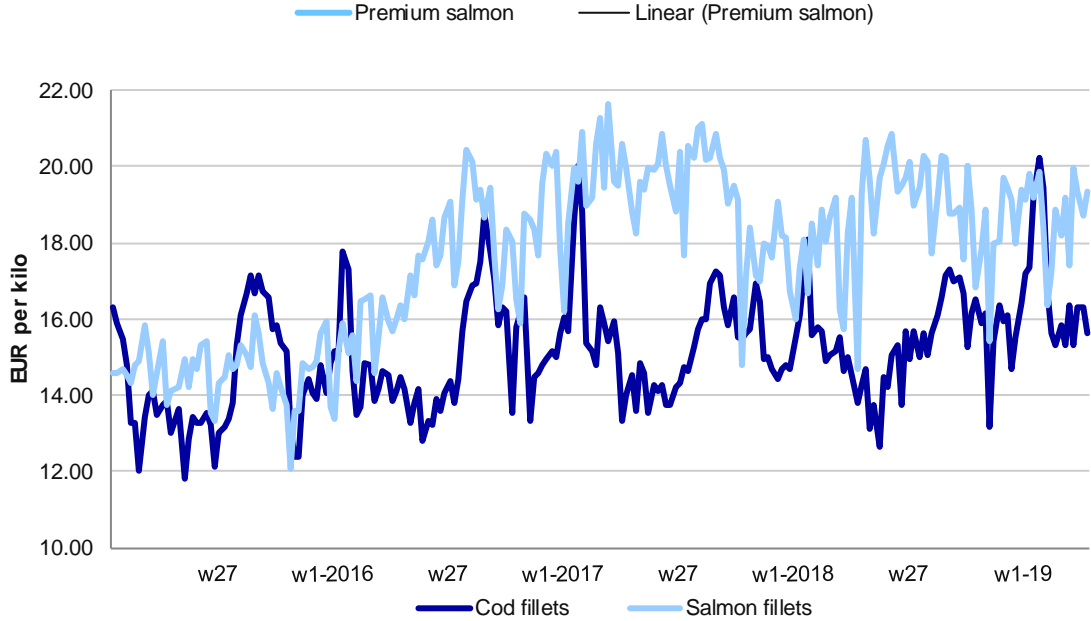
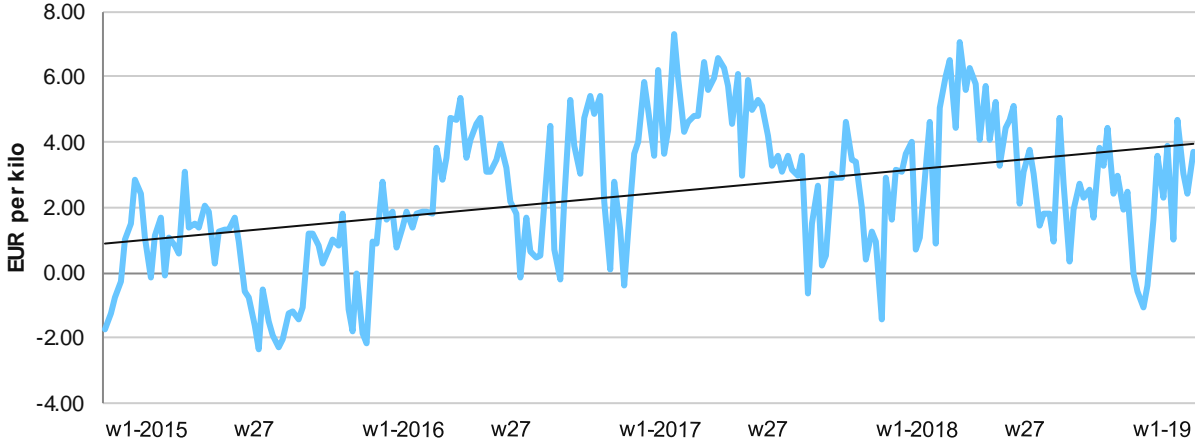
Kilde: FishPool og Nordea est

Europe – prices for Norwegian salmon



Source: Kontali

Cod and salmon in France

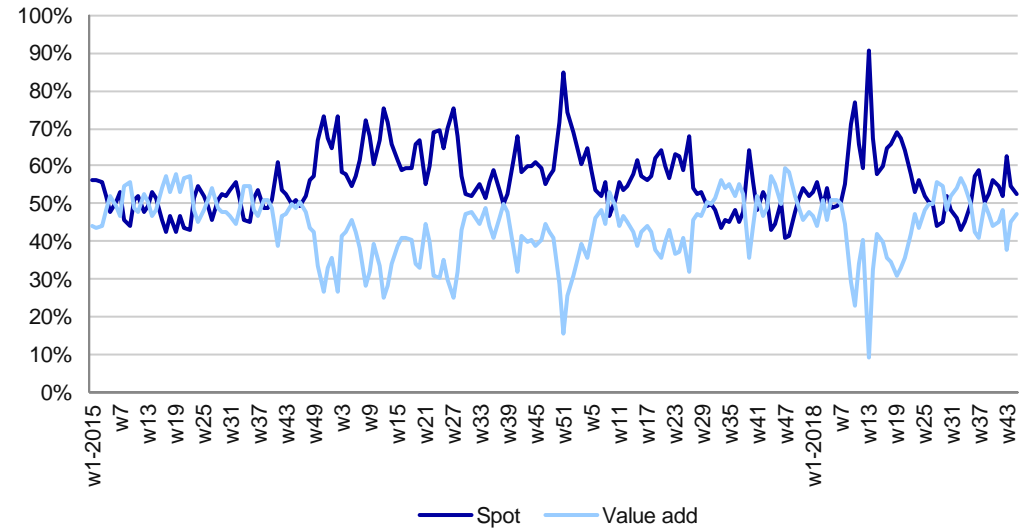
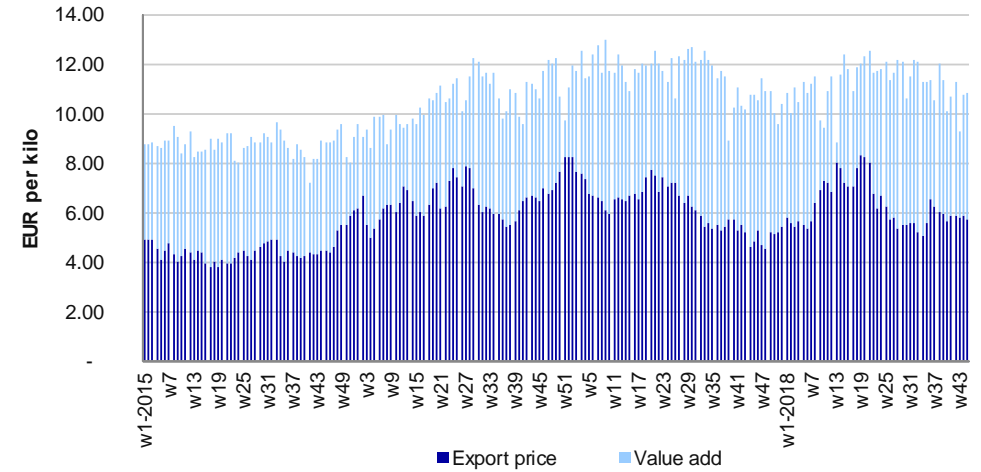


Split in the value chain – who takes the biggest chunk?

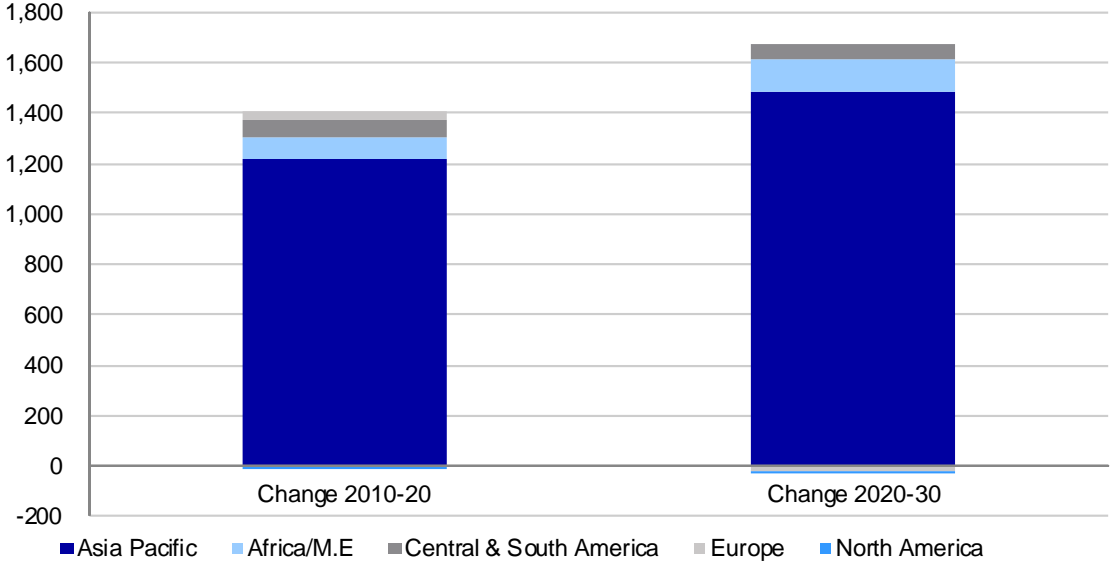
- Whole cake = price to consumer (observed)
- Norwegian part = Export price
- Difference = «Value add»



4 years ago – 50/50 distribution of total value, now back to the same



The market potential is “unlimited”



Source: World Bank

Takk!

Kolbjørn Giskeødegård, Director
kg@nordea.com

Nordea Bank AB (publ), filial i Norge, Essendrops gate 7, PO box 1166 Sentrum, 0107 Oslo, Norway, 983258344 MVA (Norwegian Register of Business Enterprises)
Nordea Bank AB (publ), Stockholm, Sweden, 516406-0120 (Swedish Companies Registration Office)
Nordea Markets is the name of the Markets departments of Nordea Bank AB (publ).

The information provided herein is intended for the sole use of the intended recipient. The views and other information provided herein are the current views of Nordea Markets as of the date of this document and are subject to change without notice. The views have been provided solely based on the information made available to Nordea Markets and for the purposes of presenting the services made available by Nordea Markets. This notice does not substitute the judgement of the recipient.

Nordea Markets is not and does not purport to be an adviser as to legal, taxation, accounting or regulatory matters in any jurisdiction. Relevant professional advice should always be obtained before making any investment or credit decision. This document may not be reproduced, distributed or published for any purpose without the prior written consent from Nordea Markets.

Web: [For disclosures and disclaimers, please click this link](#)

