



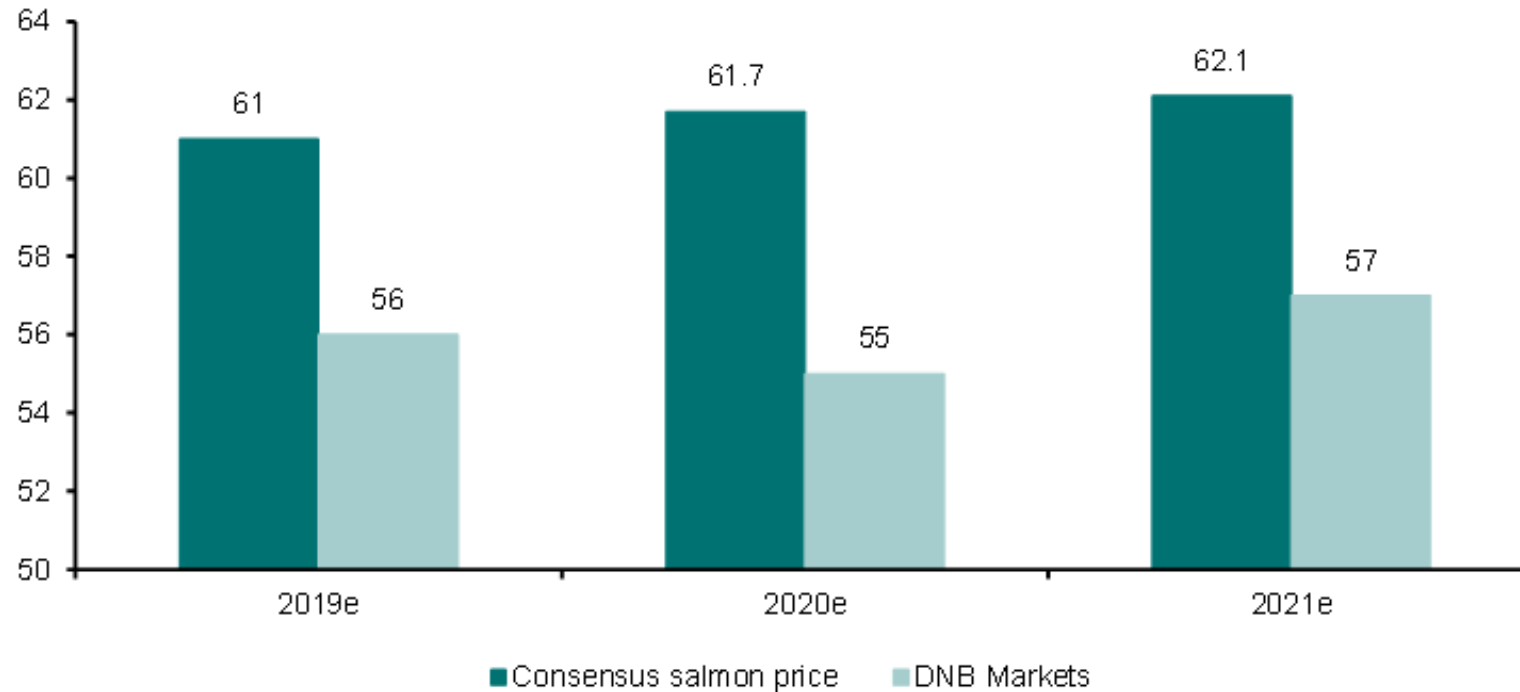
Why we see spot at NOK55-57/kg in 2019-2021e

Brussels, 6 May 2019

Alexander Aukner, Analyst +47 24 16 90 79

Our salmon price estimates are NOK5–7/kg below consensus

Figure 5: Salmon price estimates - DNB Markets vs consensus (NOK/kg, HOG)

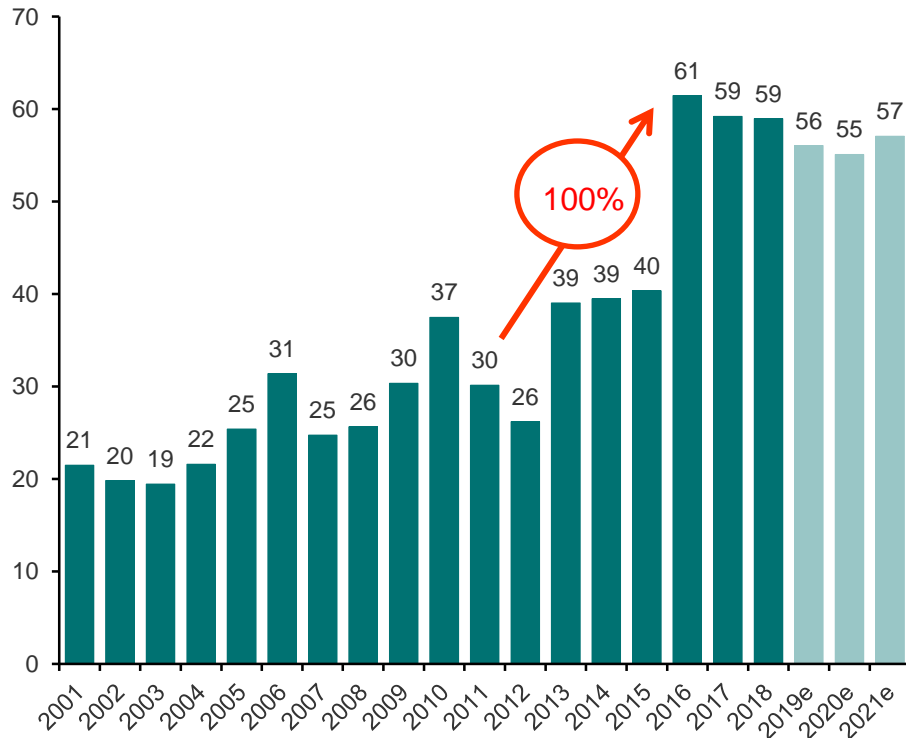


Source: DNB Markets (forecasts), Inquiry 25 Feb 2019 (Forecast)

Historical and forecast salmon prices (NOK/kg, EUR/kg, HOG)

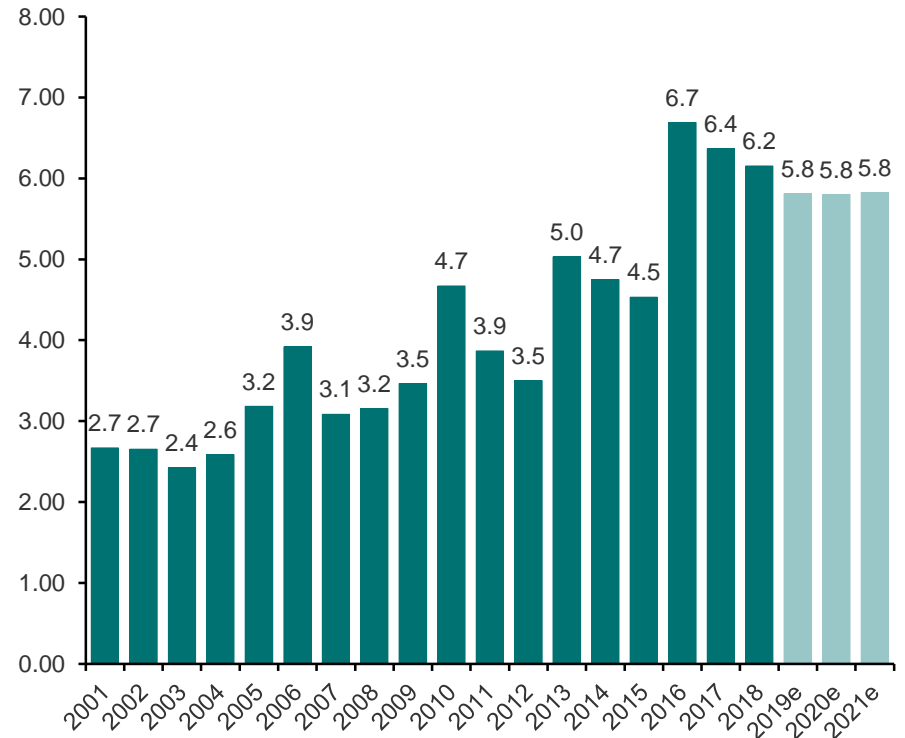
Prices set to ease off from high levels and stabilise in the mid-NOK50s

NSL/NOS/NQSALMON (NOK)



Source: DNB Markets (forecasts), Fishpool (historical)

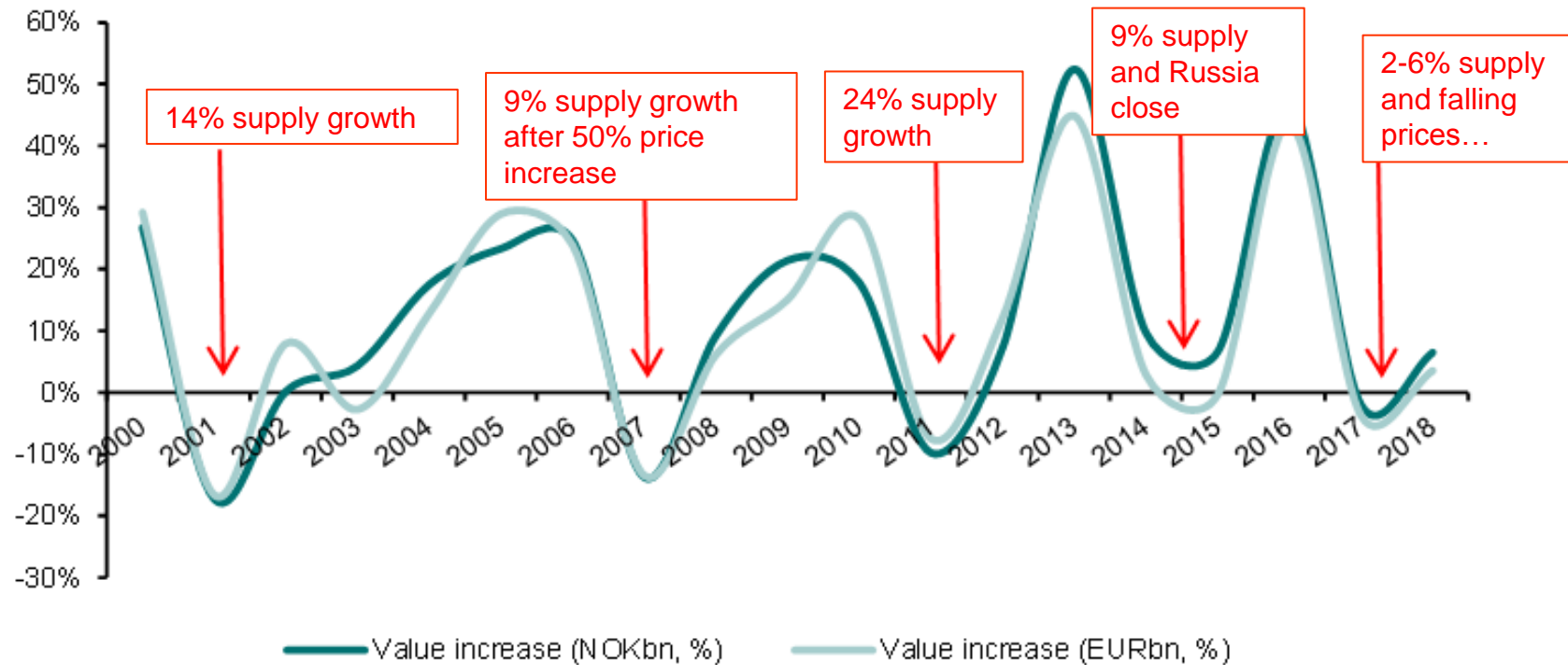
NSL/NOS/NQSALMON (EUR)



Source: DNB Markets (forecasts), Fishpool (historical)

What is up with demand?

Figure 25: Value increase (YoY, %, see comments below figure)

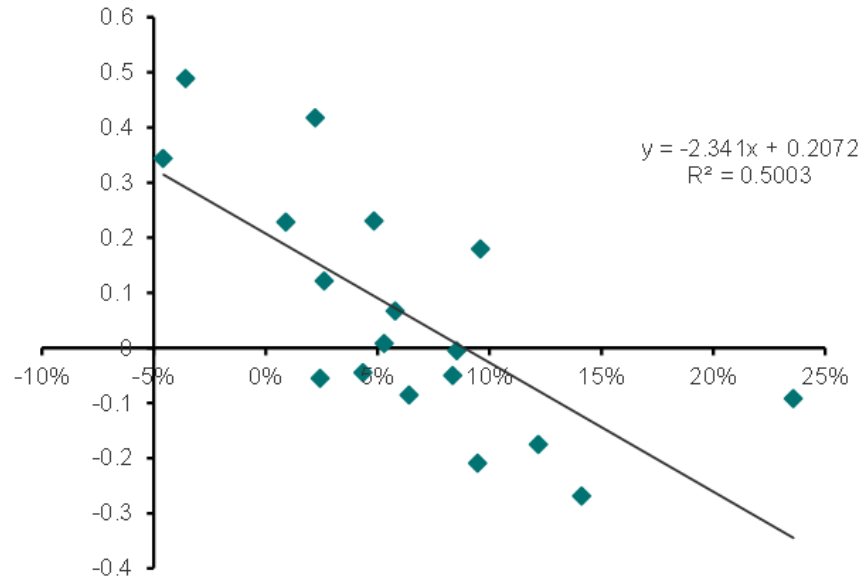


Source: Kontal (historical) Fishpool (historical) DNB Markets (further calculations)

Previous demand drops can easily be explained, while 2017–2018 is different

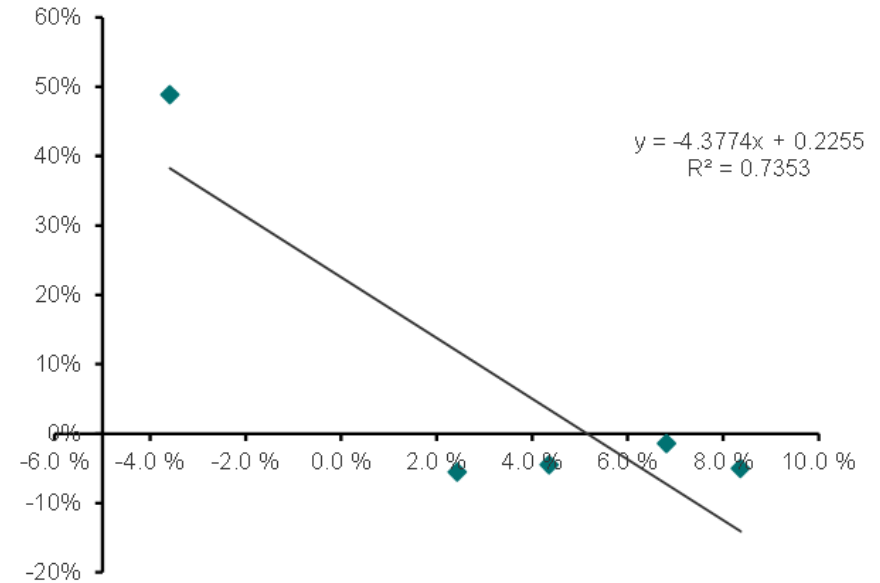
Demand - Not what it used to be

Figure 53: Supply price correlation (EUR, 1999-2017)



Source: DNB Markets (forecasts), Kontali (historical data), Fishpool (historical data)

Figure 54: Supply price correlation (EUR, 2014-2018e)

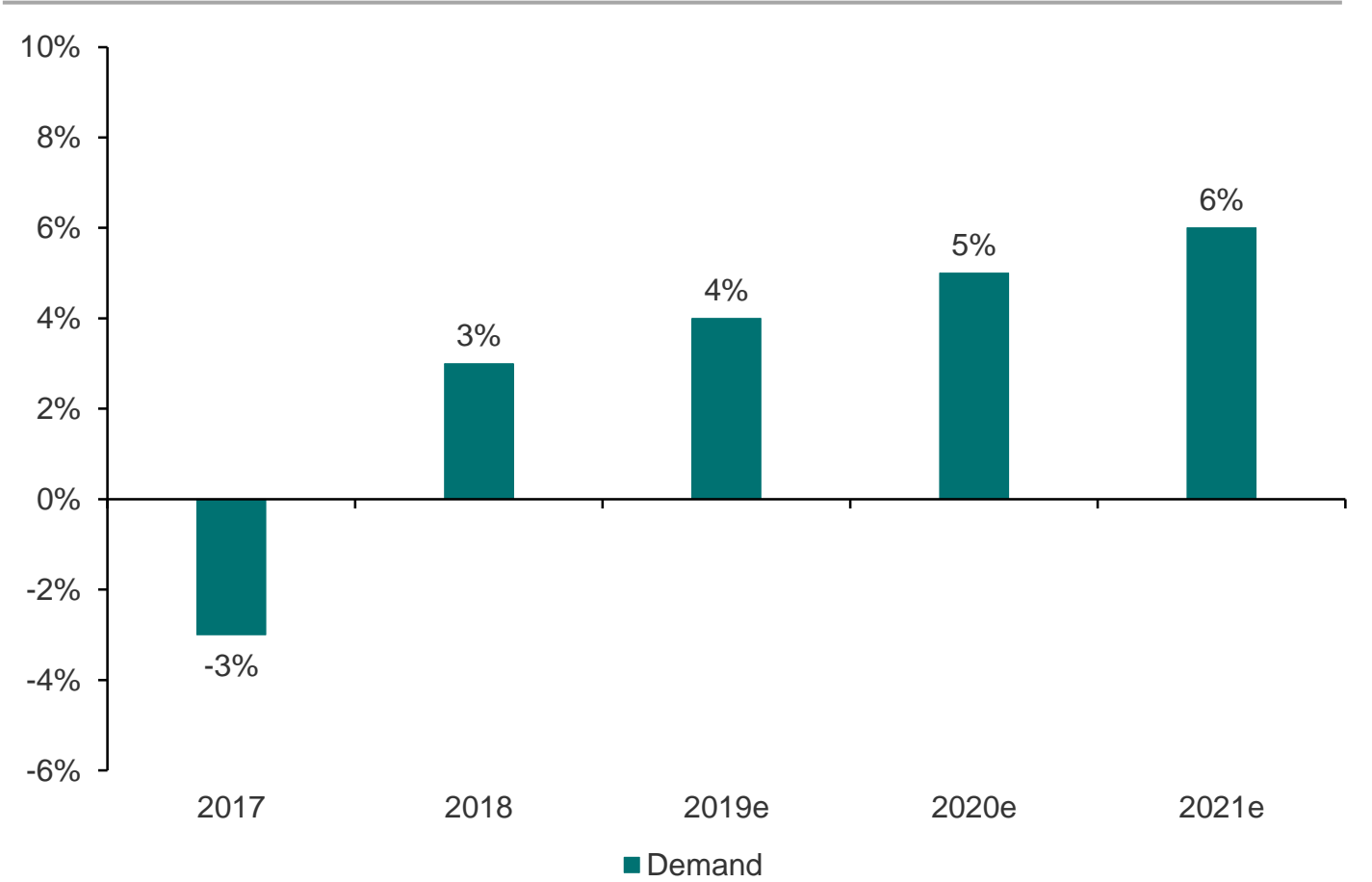


Source: DNB Markets (forecasts), Kontali (historical data), Fishpool (historical data)

We believe demand will balance at a lower supply point than in the past due to the higher price point

We model for gradual demand recovery (4-6% in 2019-2021e)

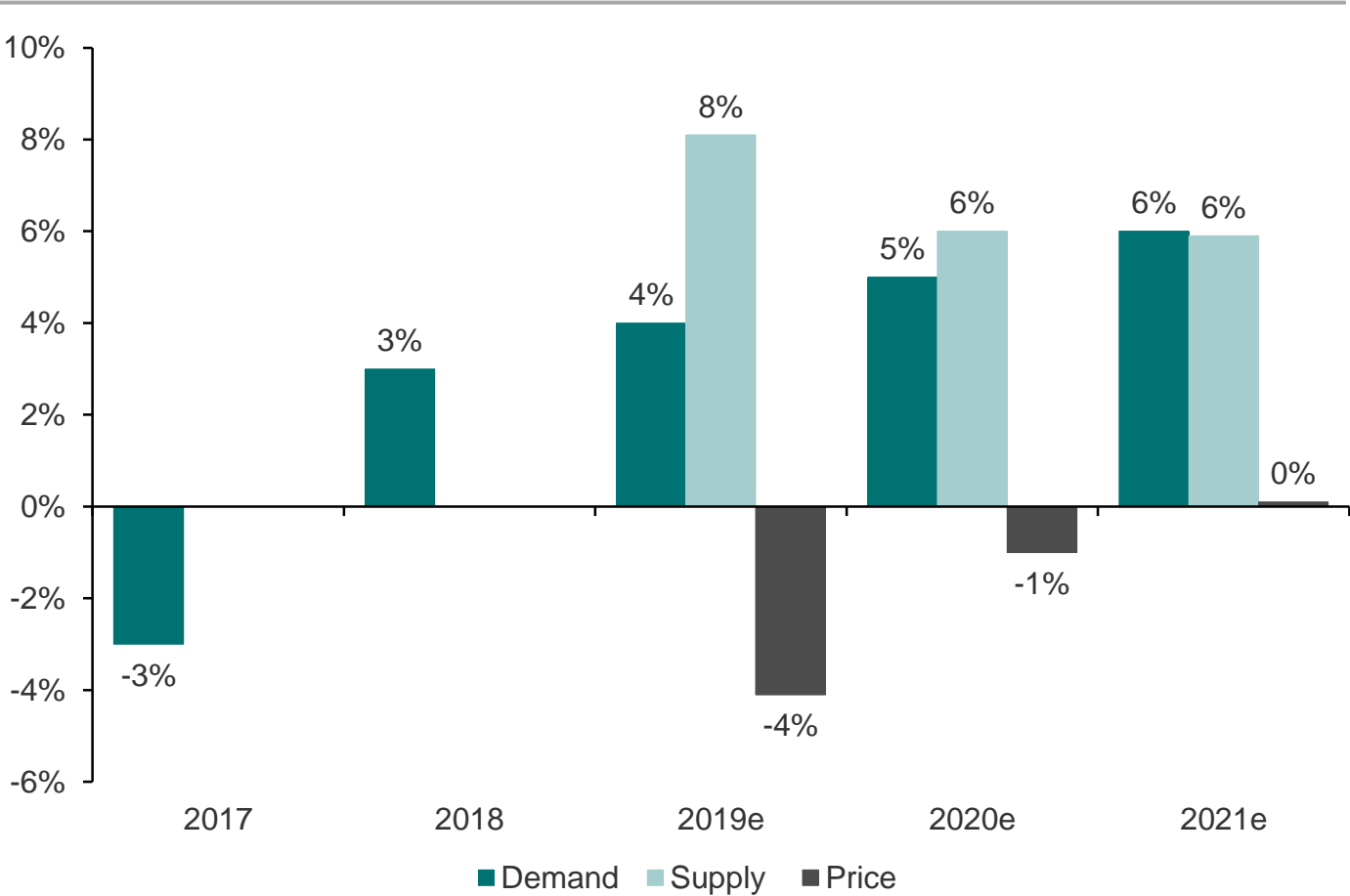
Supply / Demand balance (YOY change)



Source: DNB Markets (forecast)

We model for gradual demand recovery (4-6% in 2019-2021e)

Supply / Demand balance (YOY change)



Source: DNB Markets (forecast)

Demand – Not what it used to be

Significant change in drivers in salmon demand

(Measured in EUR)



	Volume	Price (EUR/kg)	Value
CAGR 1996-2012:	-9%	-1%	-10%
CAGR 2012-2016:	-0%	-20%	-20%
2017 Norway:	-3%	-2%	+5%
2018 Norway	-4%	-2%	-2%



**Demand/
value 2-5%?**

Source: Lerøy Seafood (NASF 2019 Presentation)

We expect supply growth of 8.1% in 2019

Atlantic salmon supply (whole fish equivalent - wfe)	2012	2013	2014	2015	2016	2017	2018	2019e	2020e	2021e
Norway	1,183	1,144	1,196	1,236	1,171	1,208	1,253	1,328	1,395	1,464
UK	159	158	171	166	157	177	153	184	189	199
Ireland	16	11	12	16	16	17	14	19	20	21
Faroes	70	73	83	76	77	81	73	80	80	92
Iceland	3	3	4	4	8	12	14	20	28	39
Total Europe	1,432	1,388	1,466	1,497	1,430	1,495	1,507	1,631	1,712	1,815
Chile	364	468	581	591	504	564	681	719	754	792
Canada	137	115	101	135	143	140	145	151	170	177
USA	20	20	25	20	23	22	19	23	35	36
Total Americas	520	604	707	746	669	726	845	893	959	1,005
Australia/Other	48	50	57	68	63	73	70	95	105	120
Total Atlantic (Harvest volumes)	2,000	2,042	2,230	2,311	2,163	2,294	2,422	2,619	2,776	2,941
Change frozen salmon inventory	-9	-6	-24	-9	57	-30	-8			
Total supply Atlantic	1,991	2,036	2,206	2,302	2,220	2,264	2,414	2,619	2,776	2,941

Delta tonnes

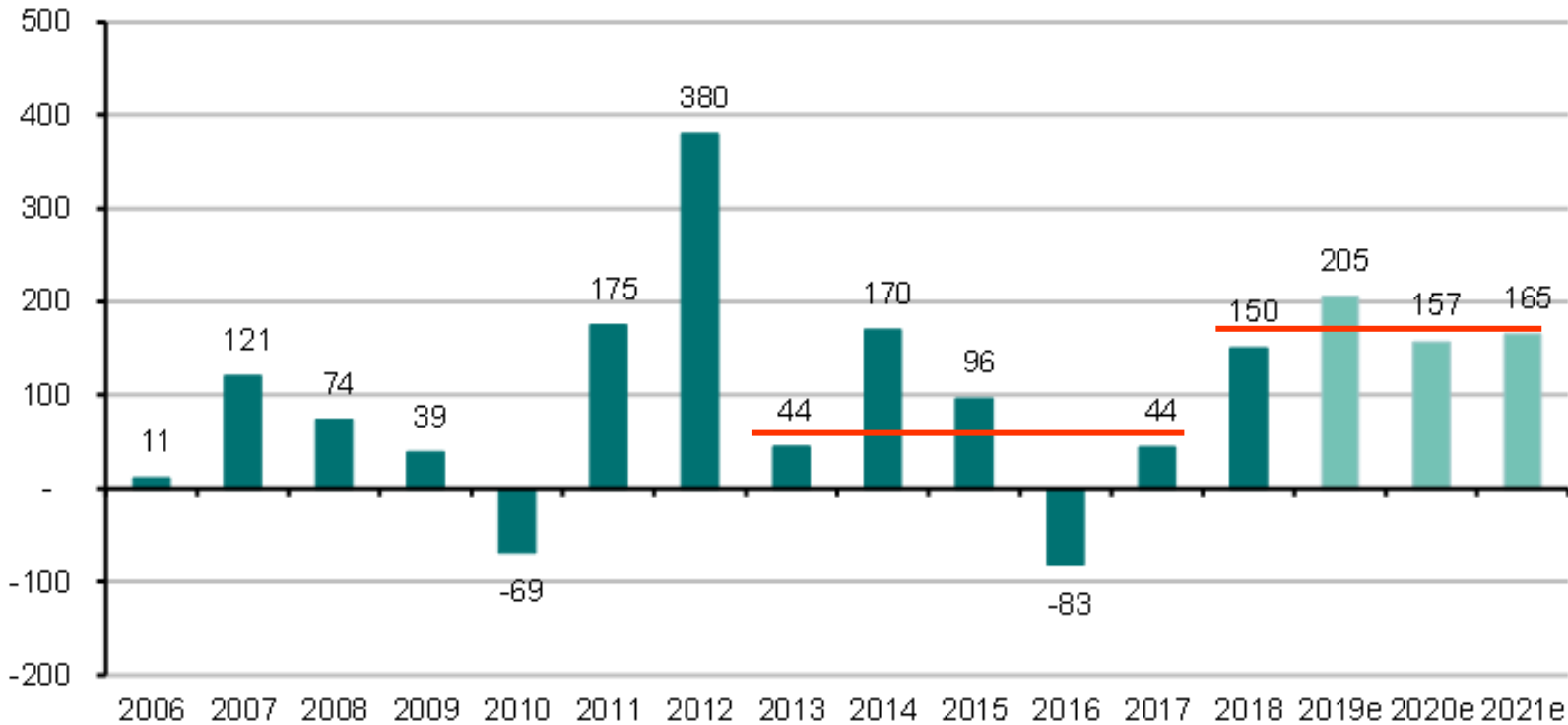
Atlantic salmon supply growth y/y

Atlantic salmon supply growth y/y	2012	2013	2014	2015	2016	2017	2018e	2019e	2020e	2021e
Norway growth		-3%	5%	3%	-5%	3%	4%	6%	5%	5%
UK growth		-1%	8%	-2%	-5%	12%	-14%	20%	3%	5%
Ireland		-34%	16%	28%	1%	9%	-19%	36%	5%	5%
Faroes growth		3%	14%	-9%	2%	4%	-9%	10%	0%	15%
Iceland		3%	31%	-18%	125%	47%	18%	43%	40%	40%
Total Europe		-3%	6%	2%	-5%	5%	1%	8%	5%	6%
Chile growth		29%	24%	2%	-15%	12%	21%	6%	5%	5%
Canada growth		-16%	-12%	33%	6%	-2%	4%	4%	13%	4%
USA		4%	21%	-18%	11%	-4%	-12%	21%	50%	4%
Total Americas		16%	17%	5%	-10%	8%	16%	6%	7%	5%
Australia/Other		4%	14%	19%	-7%	15%	-4%	36%	10%	15%
Total Atlantic (Harvest volumes)		2.1%	9.2%	3.6%	-6.4%	6.1%	5.6%	8.1%	6.0%	5.9%
Change frozen salmon inventory										
Total supply Atlantic growth		2.2%	8.4%	4.4%	-3.6%	2.0%	6.6%	8.5%	6.0%	5.9%

Source Kontali (historical data) DNB Markets (forecast)

We expect supply growth of 8.1% in 2019

Figure 5: Absolute volume growth (tonnes)



Source: DNB Markets (forecasts), Kontali (historical data)

Estimates for Chile missed by a large margin last year...



Atlantic salmon – Supply in tons WFE

	2012	Change 11-12	2013	Change 12-13	2014	Change 13-14	2015	Change 14-15	2016	Change 15-16	2017	Change 16-17	2018	Change 17-18
Norway	1 183 100	17,7 %	1 143 600	-3,3 %	1 199 000	4,8 %	1 234 200	2,9 %	1 171 100	-5,1 %	1 205 900	3,0 %	1 299 400	7,8 %
United Kingdom	159 400	3,0 %	157 800	-1,0 %	170 500	8,0 %	166 300	-2,5 %	157 400	-5,4 %	174 800	11,1 %	176 400	0,9 %
Faroe Islands	70 300	24,9 %	72 600	3,3 %	82 700	13,9 %	75 600	-8,6 %	77 300	2,2 %	82 100	6,2 %	82 400	0,4 %
Ireland	15 600	-2,5 %	10 600	-32,1 %	12 300	16,0 %	15 700	27,6 %	15 800	0,6 %	18 000	13,9 %	17 500	-2,8 %
Iceland	3 250	170,8 %	3 350	3,1 %	4 400	31,3 %	3 600	-18,2 %	8 100	125,0 %	13 100	61,7 %	20 000	52,7 %
Total Europe	1 431 650	16,0 %	1 387 950	-3,1 %	1 468 900	5,8 %	1 495 400	1,8 %	1 429 700	-4,4 %	1 493 900	4,5 %	1 595 700	6,8 %
Chile	364 000	64,7 %	468 100	28,6 %	582 900	24,5 %	598 200	2,6 %	504 400	-15,7 %	551 500	9,3 %	599 600	8,7 %
Canada	136 500	14,2 %	115 100	-15,7 %	95 000	-17,5 %	135 200	42,3 %	142 500	5,4 %	137 800	-3,3 %	146 000	6,0 %
USA	19 600	7,1 %	20 300	3,6 %	24 000	18,2 %	20 200	-15,8 %	22 000	8,9 %	22 300	1,4 %	21 000	-5,8 %
Australia	40 000	11,1 %	39 000	-2,5 %	42 000	7,7 %	54 400	29,5 %	50 900	-6,4 %	59 000	15,9 %	59 500	0,8 %
Others	8 100	62,0 %	11 200	38,3 %	15 200	35,7 %	13 700	-9,9 %	12 500	-8,8 %	12 100	-3,2 %	13 600	12,4 %
Total Others	568 200	42,1 %	653 700	15,0 %	759 100	16,1 %	821 700	8,2 %	732 300	-10,9 %	782 700	6,9 %	839 700	7,3 %
Total World-wide	1 999 850	22,4 %	2 041 650	2,1 %	2 228 000	9,1 %	2 317 100	4,0 %	2 162 000	-6,7 %	2 276 600	5,3 %	2 435 400	7,0 %

Nov 2017 - Kontali and DNB Markets expect <9% growth from Chile in 2018, while the result was 21%...

Figures as per 03.11.2017

Source: Kontali

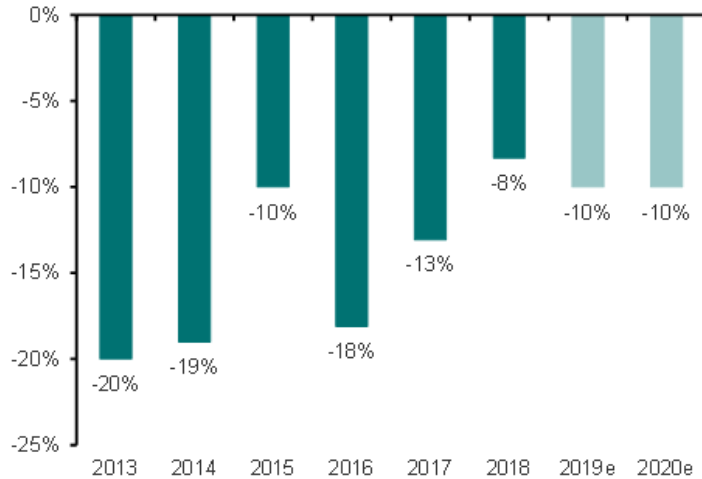
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Source Kontali (historical data) DNB Markets (forecast)



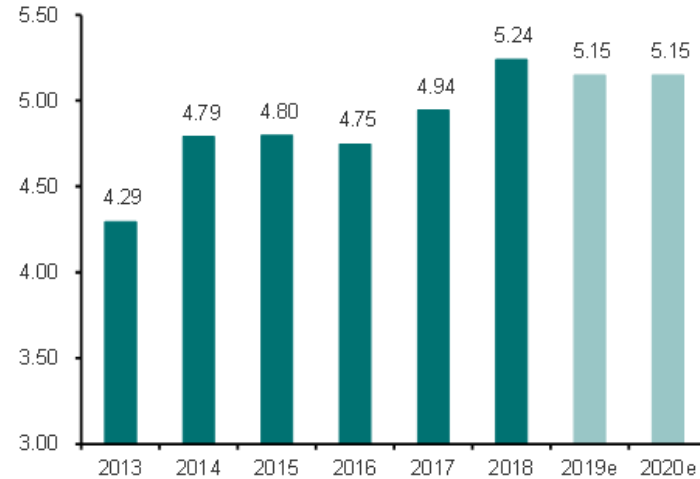
Driven by low mortality and high harvest weights

Figure 17: Mortality (%)



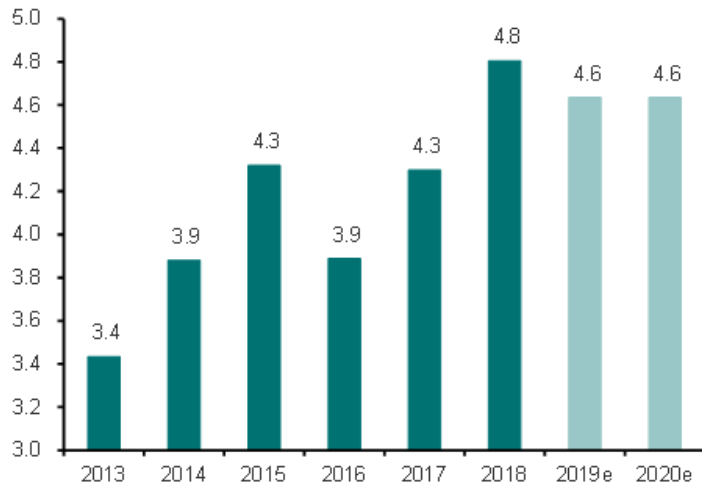
Source: Aquabench (historical) DNB Markets (estimates and further calculations)

Figure 18: Harvest weight (wfe, kg)



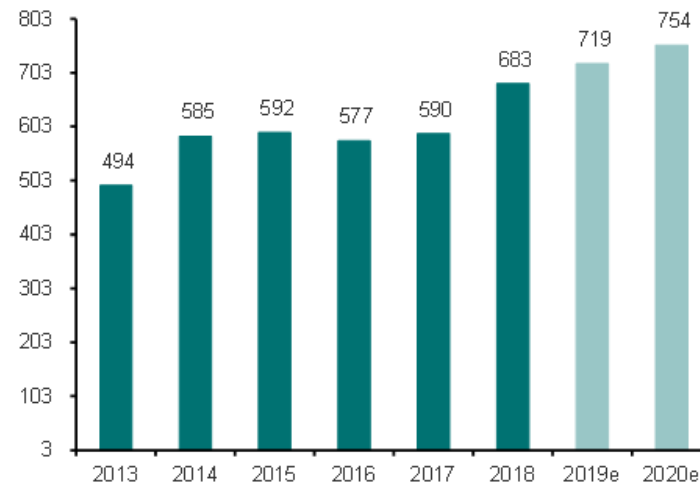
Source: Aquabench (historical data) DNB Markets (estimates)

Figure 19: Smolt yield (harvest vs smolt release)



Source: Aquabench (historical data) DNB Markets (further calculations)

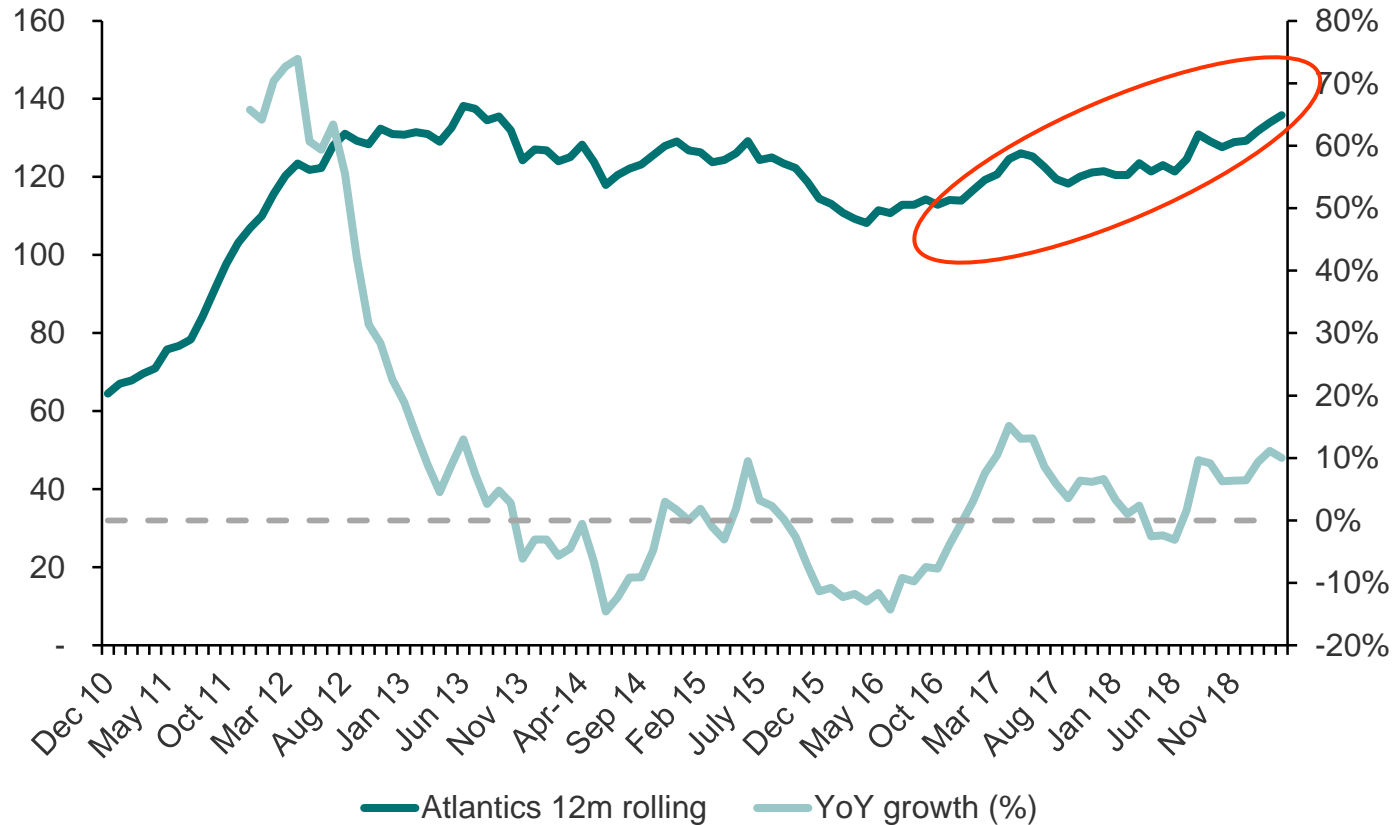
Figure 20: Harvest estimates (wfe, kt)



Source: Aquabench (historical data) DNB Markets (estimates)

Chile – 10% increase in smolt release

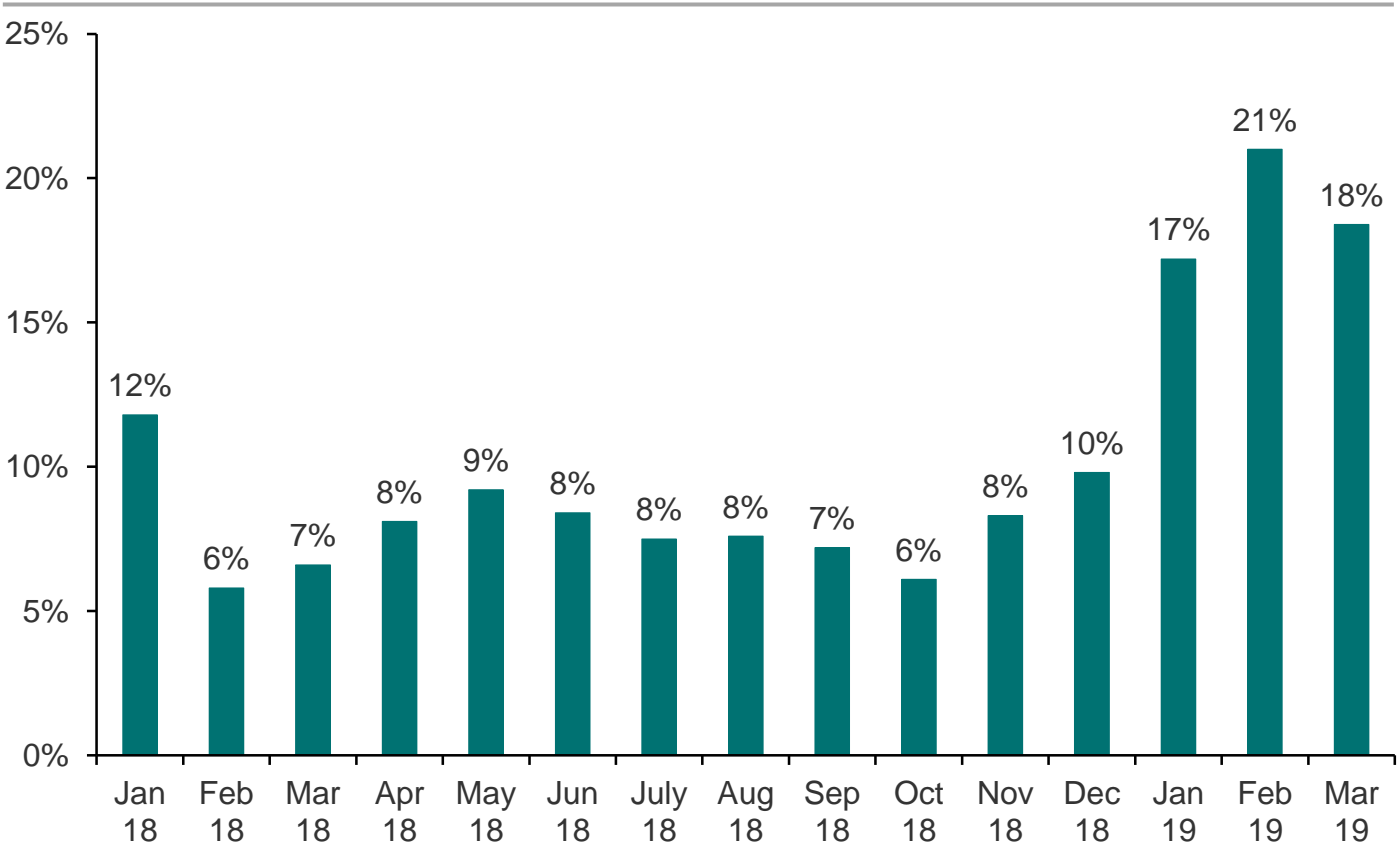
Smolt release on 12month rolling basis (Atlantics, YoY %)



Source: Aquabench (historical data)

Chile - More fish and biomass in the sea

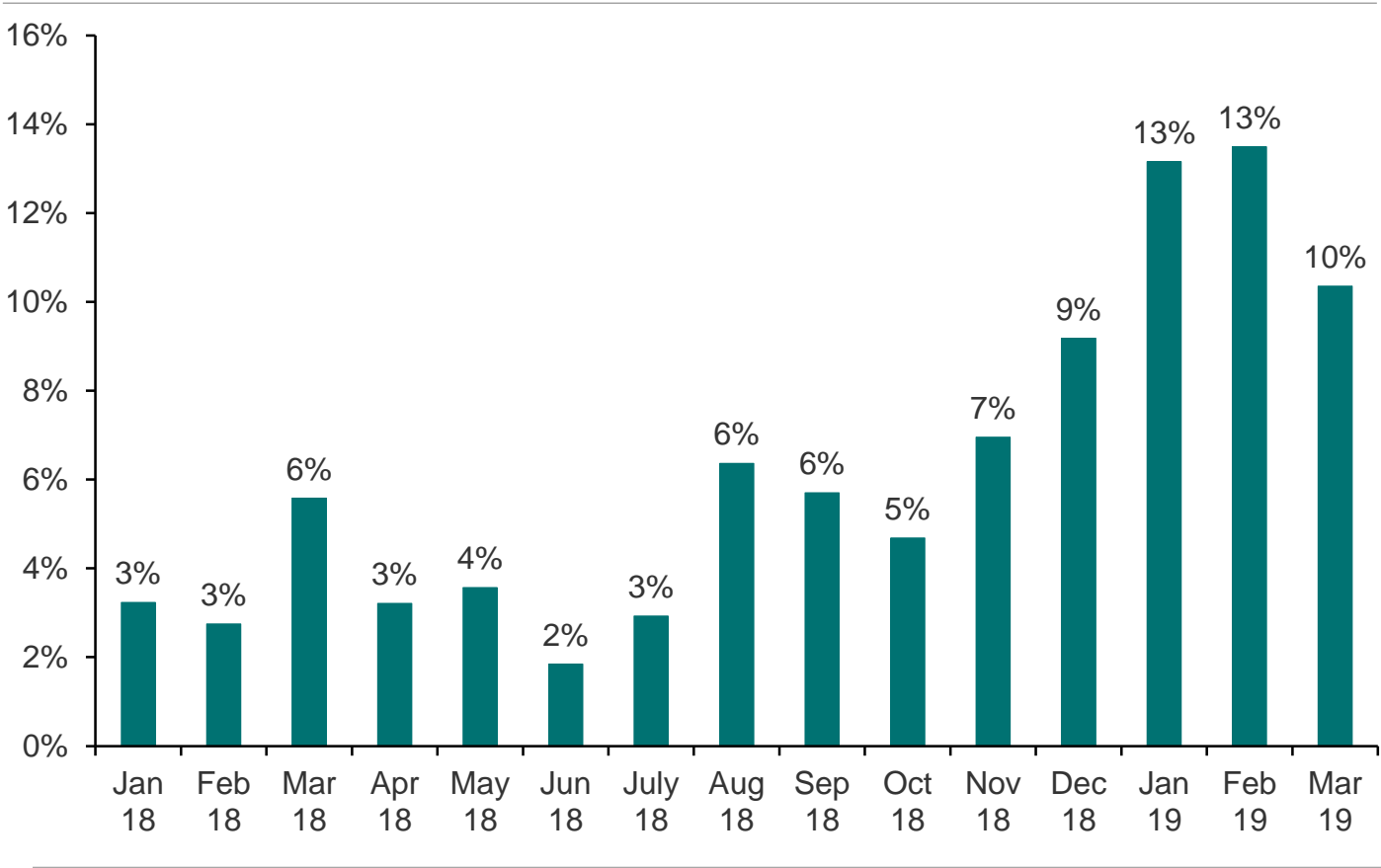
Live biomass in Chile (All species, YoY %)



Source: Aquabench (historical data)

Chile - More fish and biomass in the sea

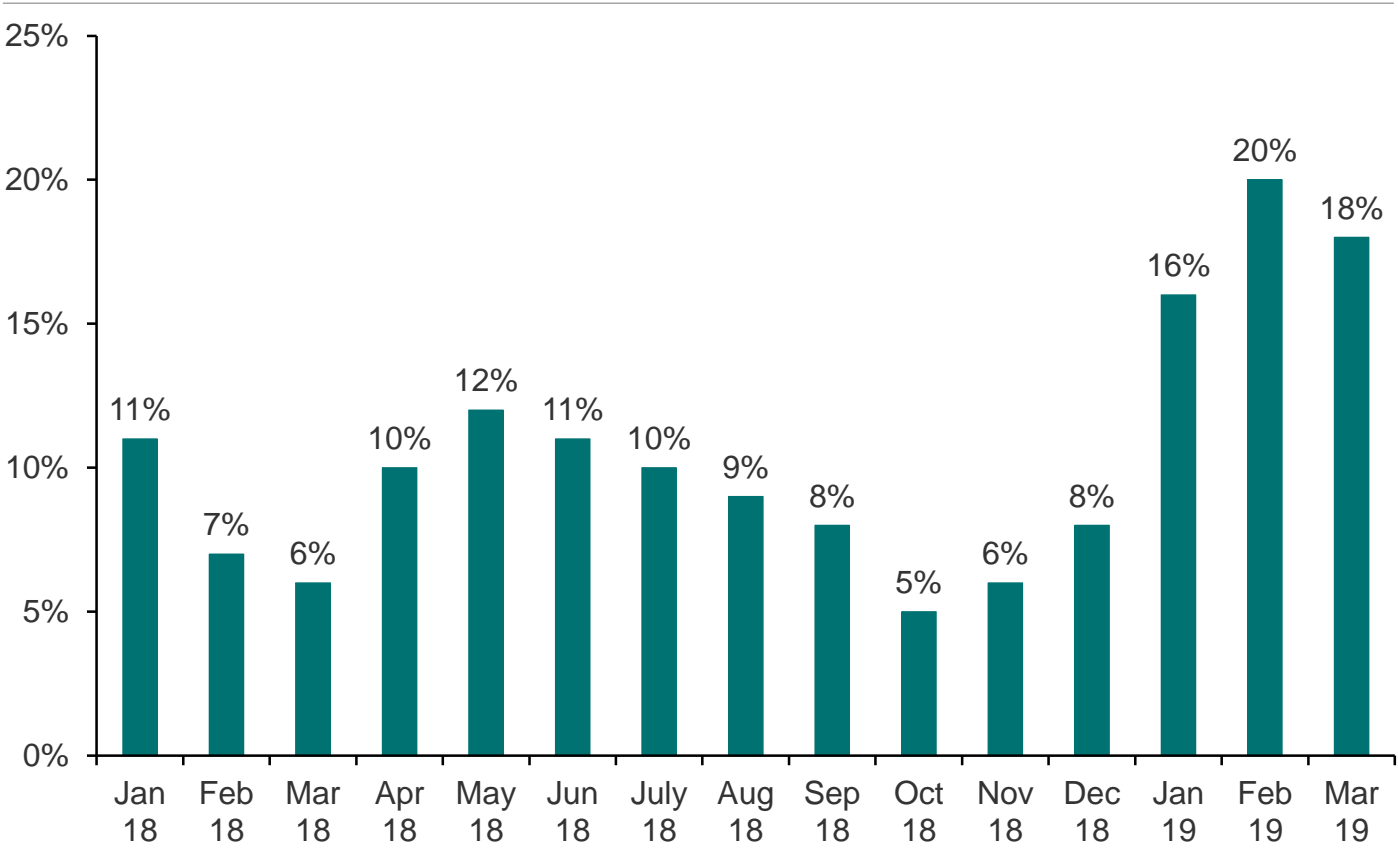
Number of fish in the sea (All species, YOY %)



Source: Aquabench (historical data)

Chile - More fish and biomass in the sea

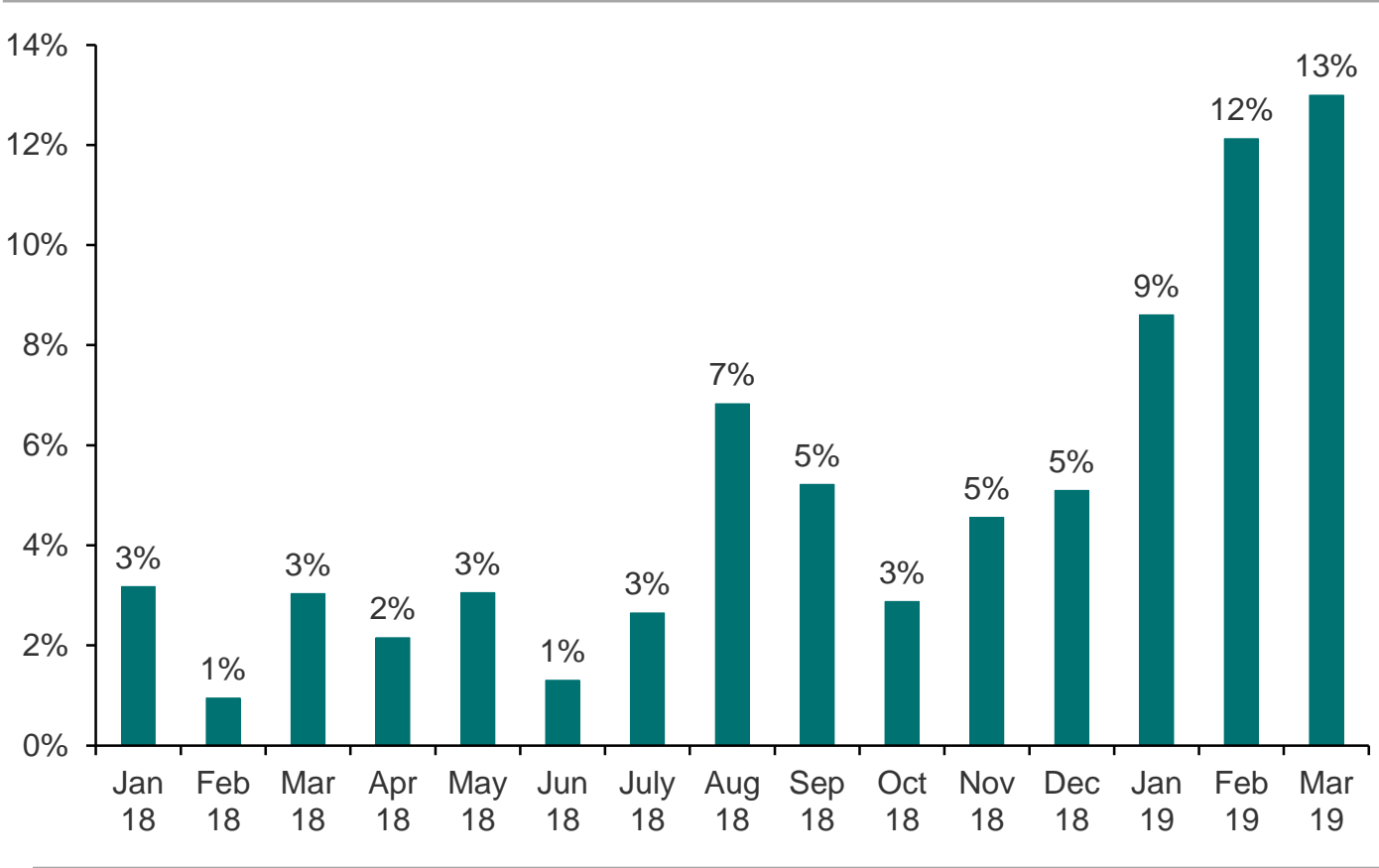
Live biomass in Chile (Atlantics, YOY %)



Source: Aquabench (historical data)

Chile - More fish and biomass in the sea

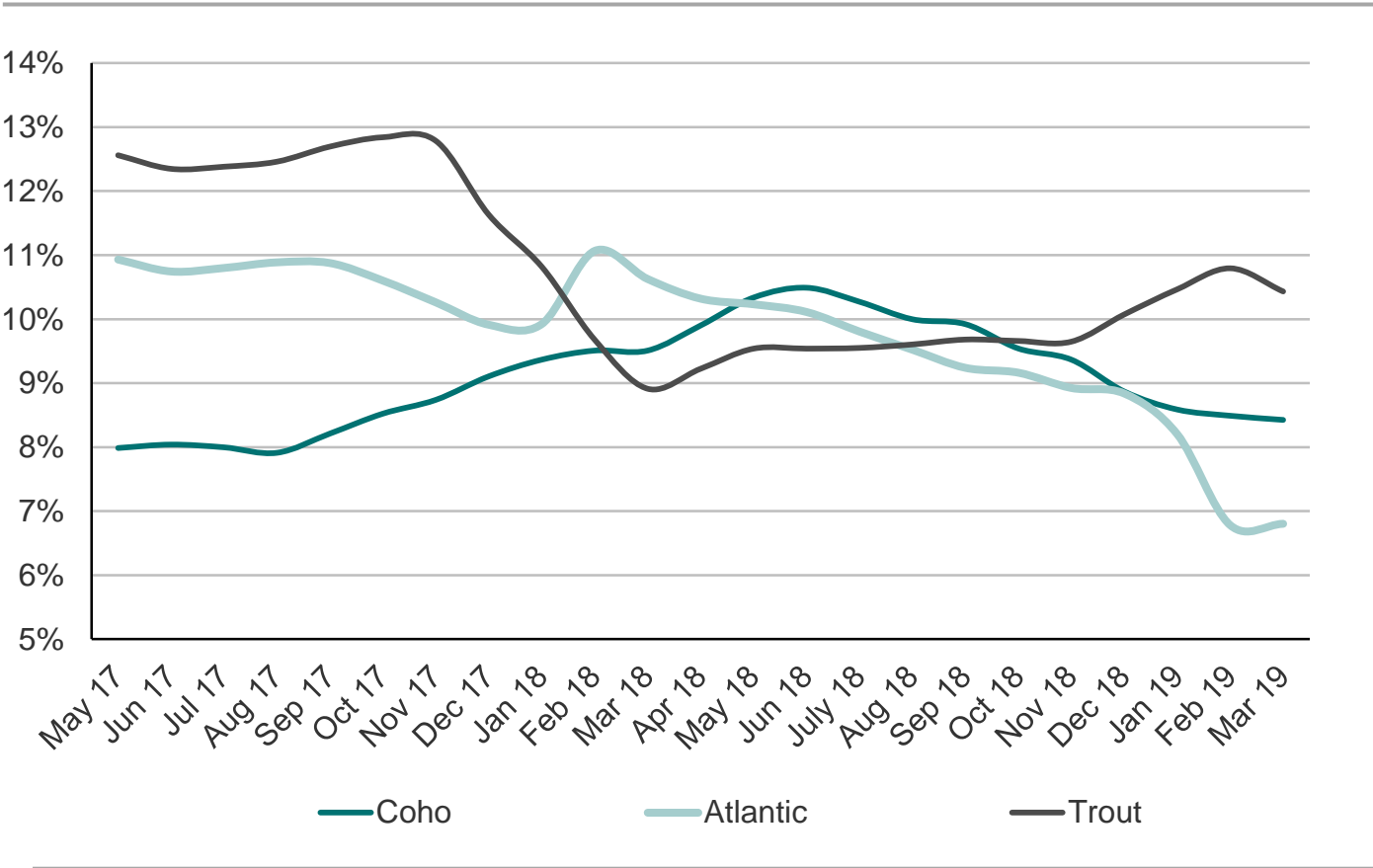
Number of fish in the sea (Atlantics, YOY %)



Source: Aquabench (historical data)

Chile – Biological performance – Low mortality

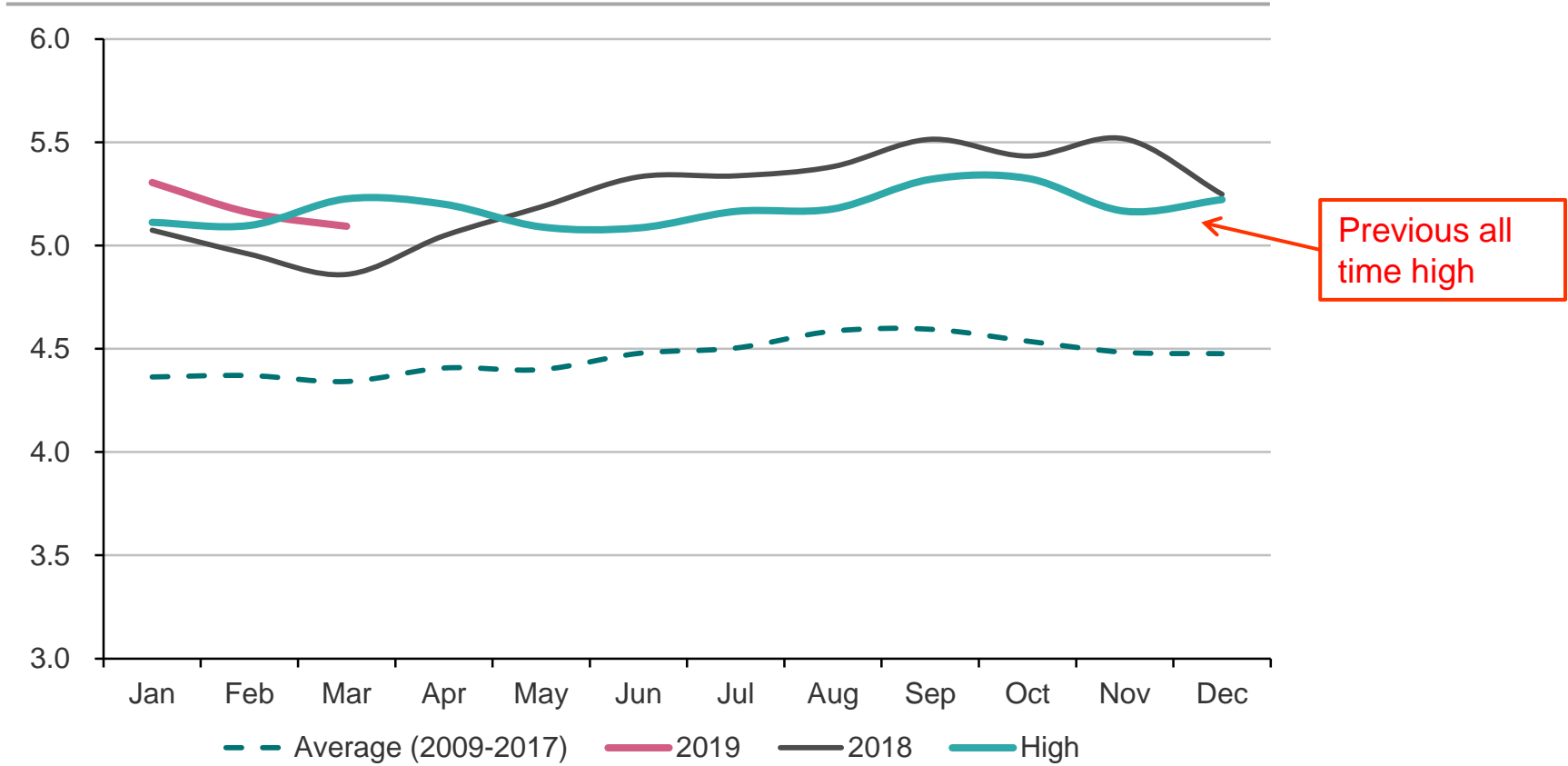
Mortality 12-month rolling basis (All species, YOY %)



Source: Aquabench (historical data)

Chile – Biological performance – high harvest weight

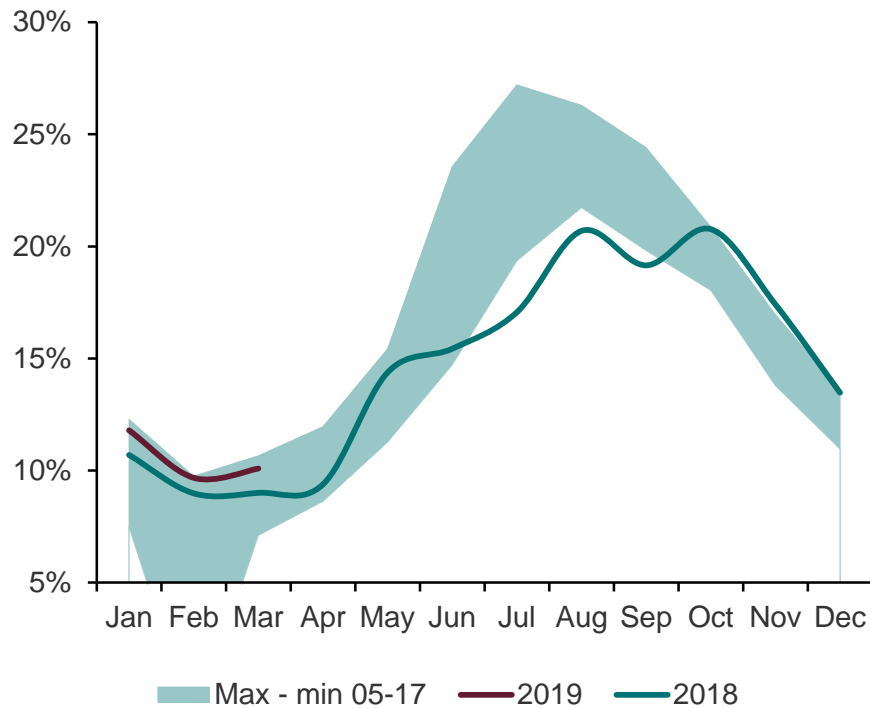
Average harvest weight (WFE, kg)



Source: Aquabench (historical data)

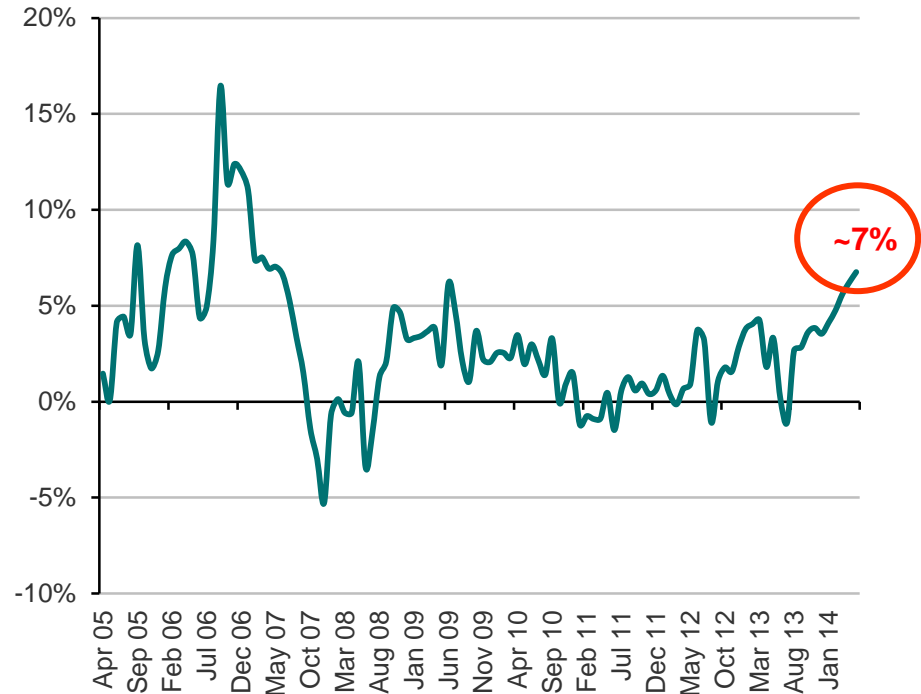
Norway likely to have turned a corner

Monthly biomass growth (% YOY)



Source: Kontali (historical data)

Number of fish in the sea (% YOY)

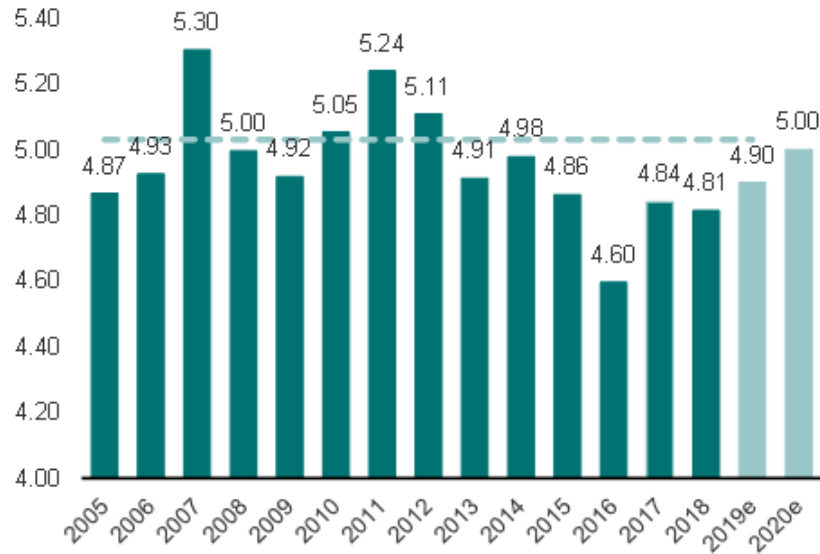


Source: Kontali (historical data)

2019 - Solid biomass growth after a mild winter
Increased number of individuals in the sea

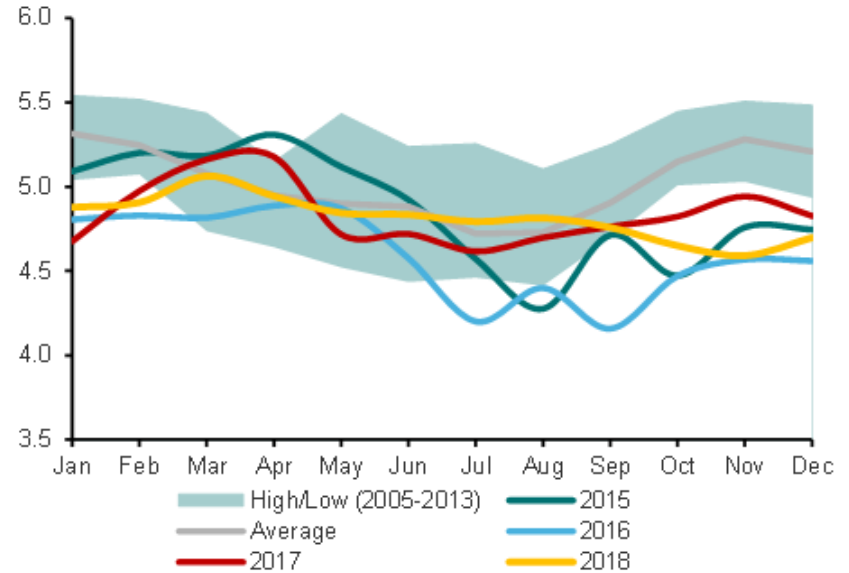
Norway likely to have turned a corner

Figure 21: Average annual harvest weight (wfe, kg)



Source: Directory of Fisheries (historical data) DNB Markets (forecasts)

Figure 22: Average harvest weights (wfe, kg)

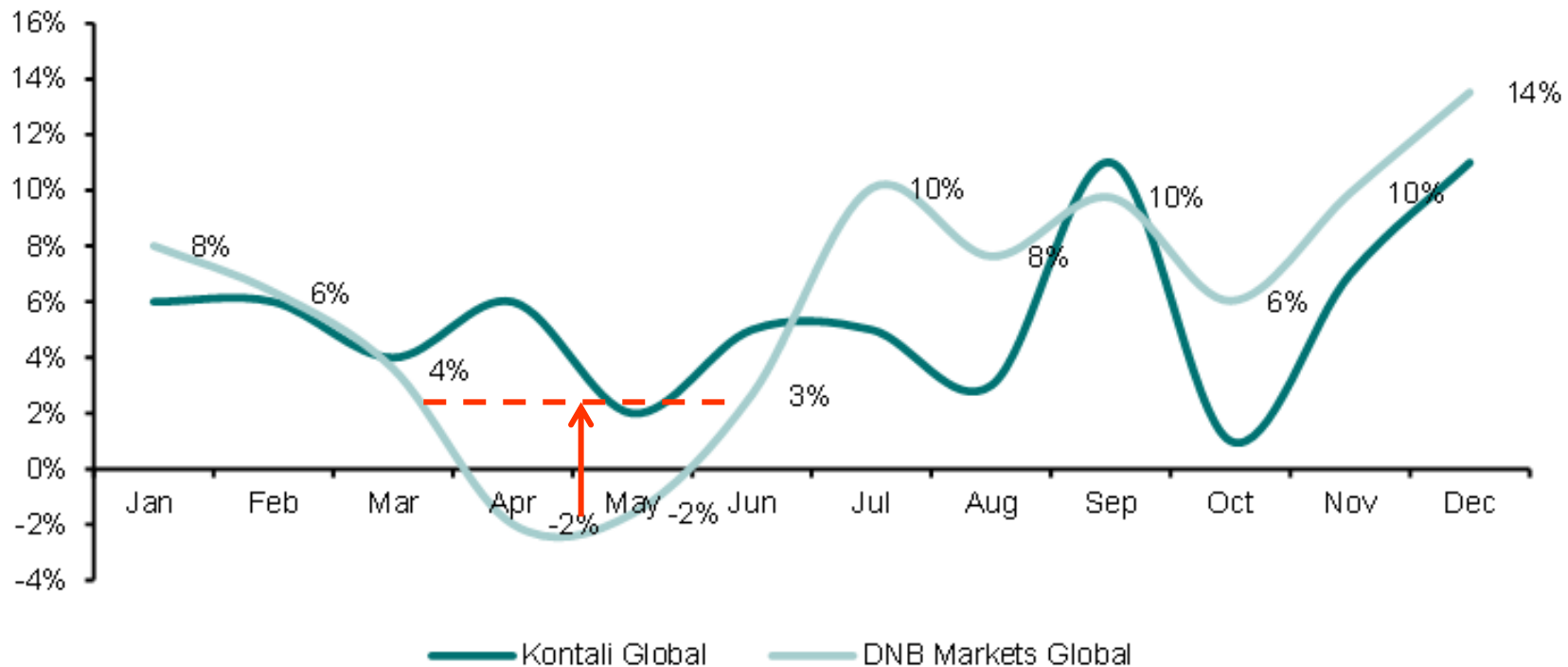


Source: Fishpool (historical data)

Significant upside in harvest potential from improved smolt yield

2019 growth set to be back-end loaded

Figure 6: Global supply growth 2019e (YoY)

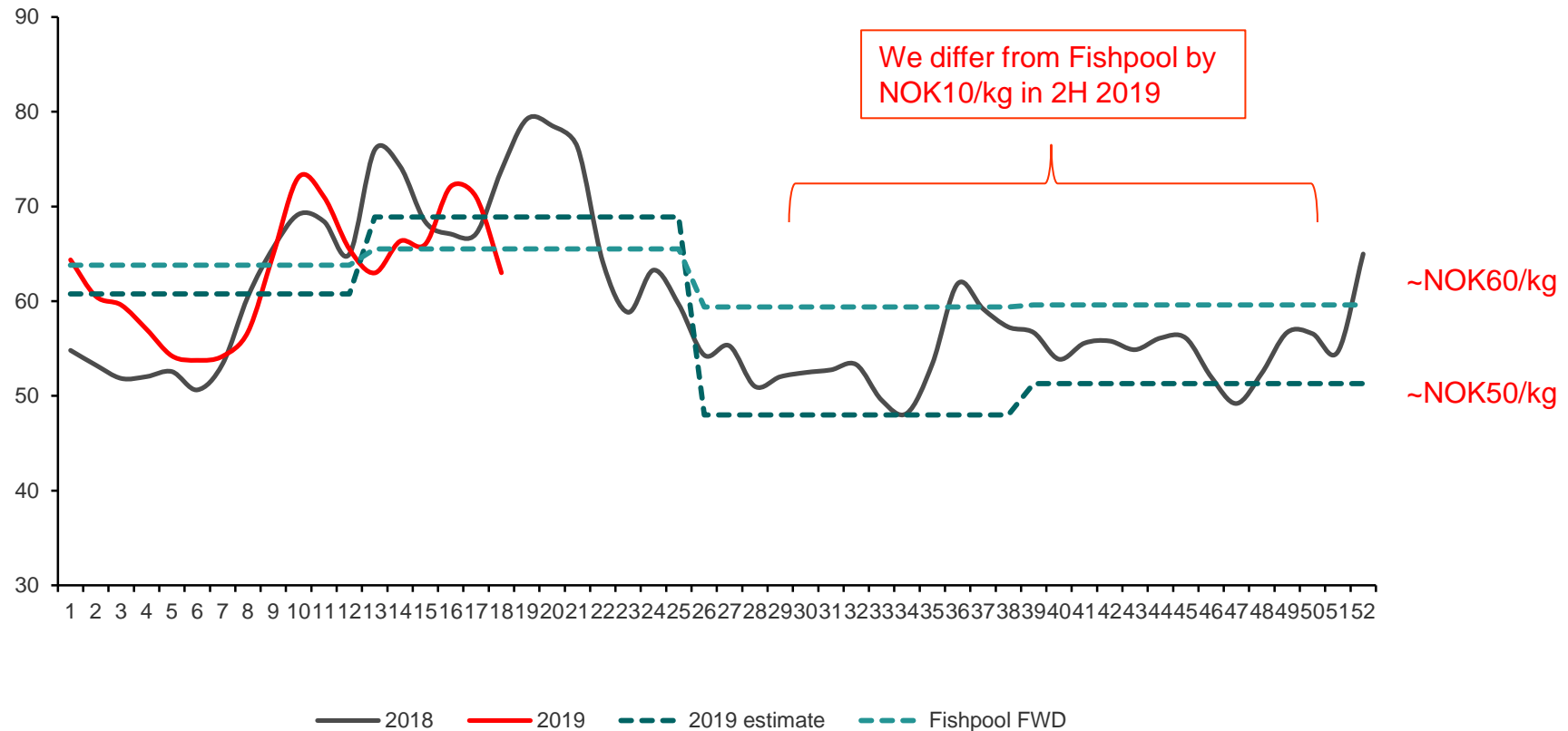


Source: DNB Markets (forecasts), Kontali (forecast)

Q1 2019: 10% biomass growth, 5% harvest growth = +++Vol in H2 2019

Salmon price forecast versus expectations (NOK/kg)

Norwegian reference price development (NOK/kg, HOG, NASDAQ less NOK0.75/kg)

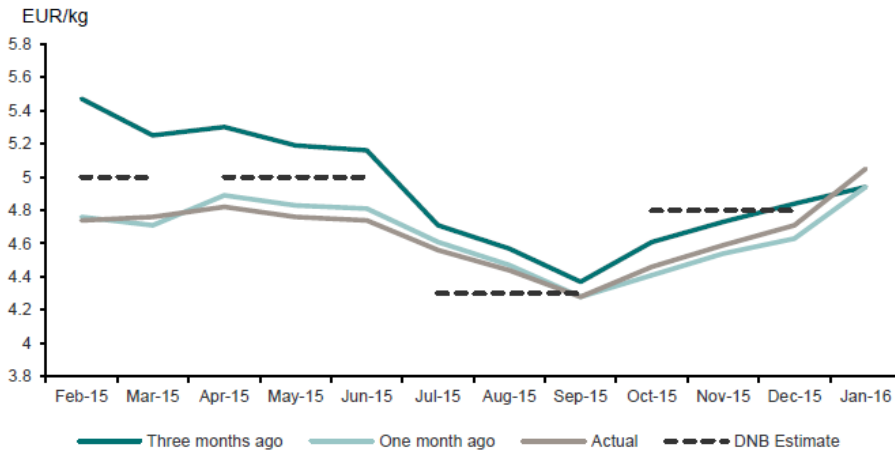


Source: DNB Markets (forecasts)

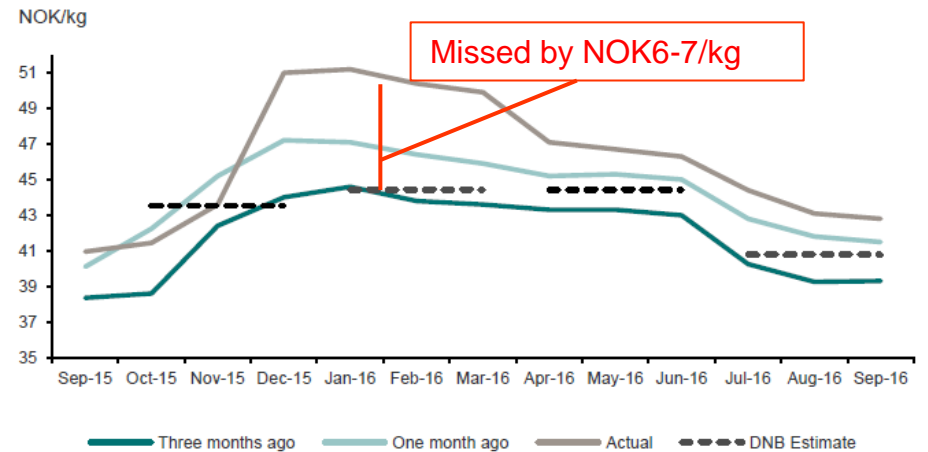
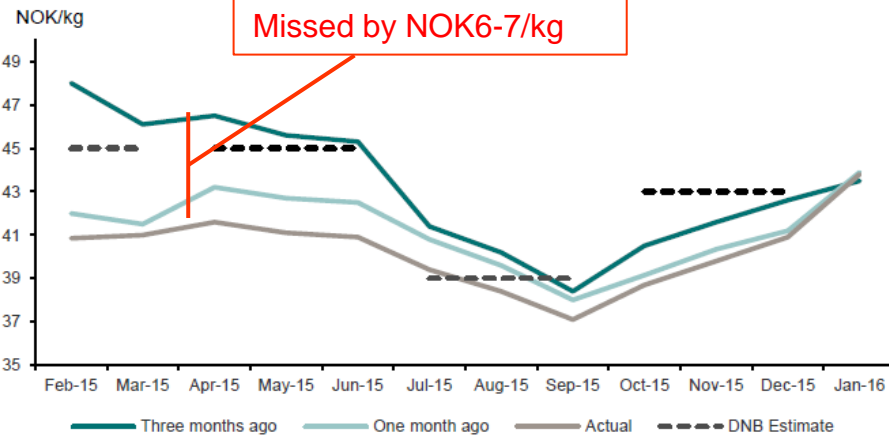
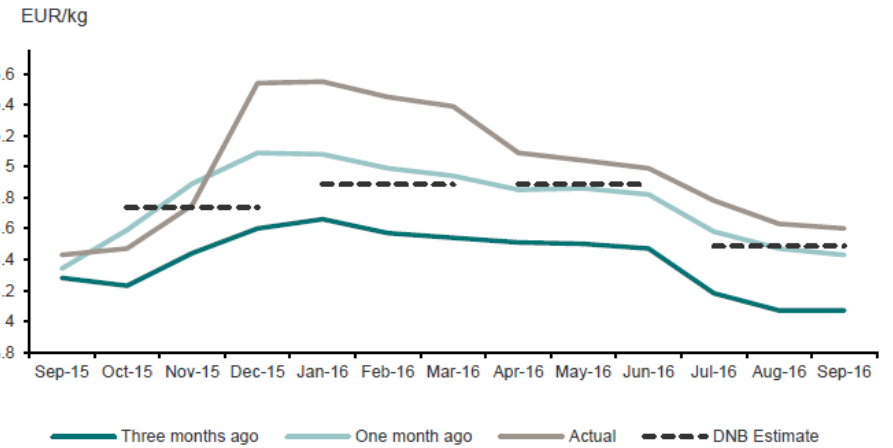
Is the forward market good at forecasting change?

The forward market completely missed the Russia effects, both on the downside and the upside
 Although information is publicly known does not mean it is always properly reflected in the FWD price

Fat Trout Weekly 06 March 2015



Fat Trout Weekly 27 November 2015



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