Norwegian farmed salmon prices likely to remain buoyant

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We expect Norwegian farmed salmon prices to remain strong for the next three years, mainly as a result of low supply growth, although any appreciation of the Norwegian krone could have a negative impact on producers' revenues. Historically, prices have proven resilient to adverse economic conditions (with the notable exception of the COVID-19 pandemic). However, political risk has increased since the installation of the new US administration due to threats of increased import tariffs.

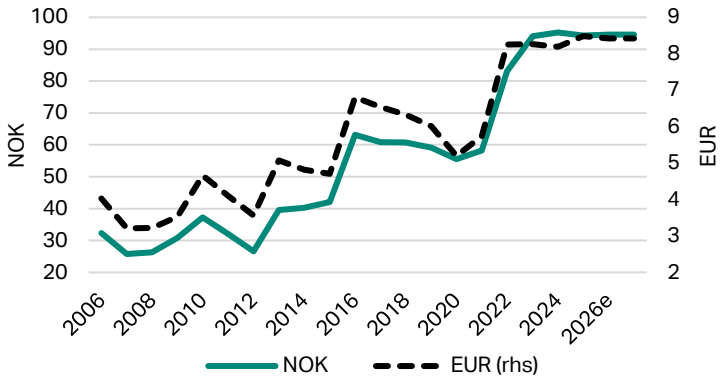
We take a through-the-cycle perspective and normalise margins when we assess salmon farmers' creditworthiness. Higher prices will, all else being equal, lead to stronger cash flows, theoretically allowing a reduction in net interest-bearing debt and improved credit metrics. However, we believe that higher prices could trigger more investment in new farming methods such as offshore and land-based farming, potentially offsetting the benefits of higher profitability.

SUPPLY DRIVES PRICE CYCLICALITY

In forecasting prices, we used a regression model based on data from the past 10 years which focuses on projected changes in global supply. The salmon market has become less sensitive to changes in supply than before and if we had used a longer time series (see Figure 2), the model would likely have overestimated the price change. We exclude economic growth, due to its low impact and significance. We also exclude data from 2020 and 2021 due to the extraordinary effect of restaurant closures during the early part of the COVID-19 pandemic. Prices in our modelling are based on the Fish Pool Index. This tracks changes in both spot and export prices, which we deem more representative of changes in realised prices for salmon farmers than either in isolation.

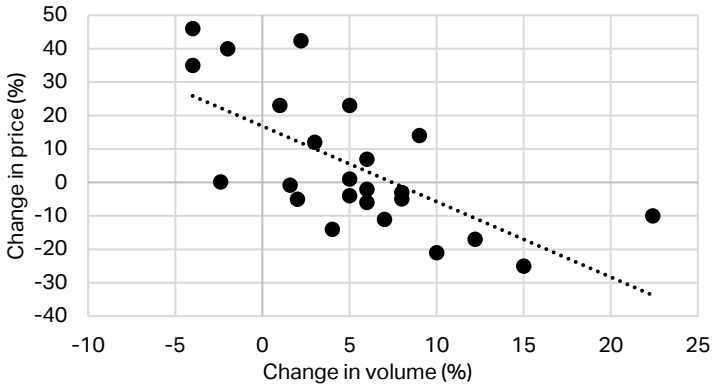
Our model predicts a salmon price of NOK 99 per kg through 2027, given supply growth of 3.6%-4.8% over the same period. However, we expect to be more conservative in our forecast of salmon farmers' profitability due to increased risk of knock-on impacts from increased import tariffs.

Figure 1. Atlantic salmon prices in NOK and EUR, 2006–2027e



Based on data from Fish Pool and NCR estimates. Head on gutted. e-estimate.

Figure 2. Regression changes in global salmon volumes and prices, 2001–2024



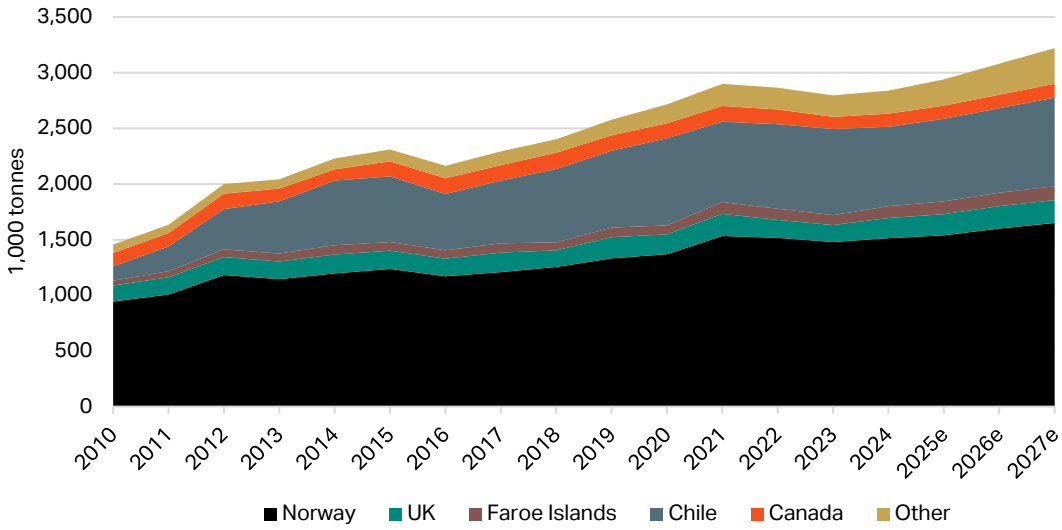
Based on data from Mowi and Fish Pool.

Seasonal effects from warmer sea temperatures, causing faster growth, are likely to increase supply and result in lower prices in the second half of any given year. The average salmon price in January 2025 was NOK 109 per kg, while the forward price for 2025 is NOK 93.5 per kg. Realised prices can also be affected by seasonality, forced harvesting due to disease, and quality downgrades.

The supply of farmed Atlantic salmon grew by an annual average of 10% between 1995 and 2012 but average annual growth since then has slowed to 3%. Just over half of the global salmon supply is farmed in Norway, while Chile is the second-largest producer (25% in 2024). Although Chile has more optimal salmonid growth temperatures and shorter production cycles, it has suffered from greater biological challenges than other producing regions, which has led to greater production volatility. On

the basis of available estimates, we expect average annual supply growth of 4.3% globally through 2027 (3% in Norway and 3.6% in Chile). We expect that strongest growth in the Faroe Islands (5.6%) and "other" (15.4%), where Iceland is a major contributor.

Figure 3. Global salmon harvest, 2010-2027e



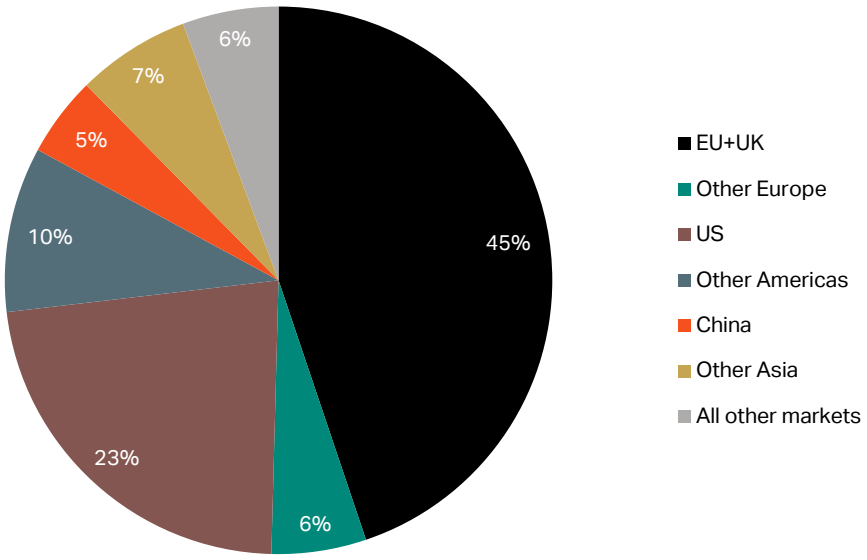
Based on data from Kontali Analyse, Mowi, and NCR estimates. e-estimate.

CHANGING CONSUMPTION PATTERNS DRIVE DEMAND

Global demand for Atlantic salmon has been increasing, supported by growing demand for healthy food and an expanding middle class in developing countries. Global fish consumption has doubled since 1998, and a further 80% increase is projected by 2050. The trend appears to have been bolstered by increased interest in healthy eating triggered by COVID-19. The market for Atlantic salmon has been particularly strong in the US, boosted by a strong dollar. Europe, however, remains the main market for Norwegian salmon.

While we have identified only a low correlation between global economic growth and international salmon prices, low prices in the early phases of the COVID-19 pandemic suggest that an external shock could have a significant impact.

Figure 4. Global salmon demand, 12 months to 30 Sep. 2024



Source: Mowi.

PROSPECTIVE US TARIFFS COULD HAVE NEGATIVE IMPACT

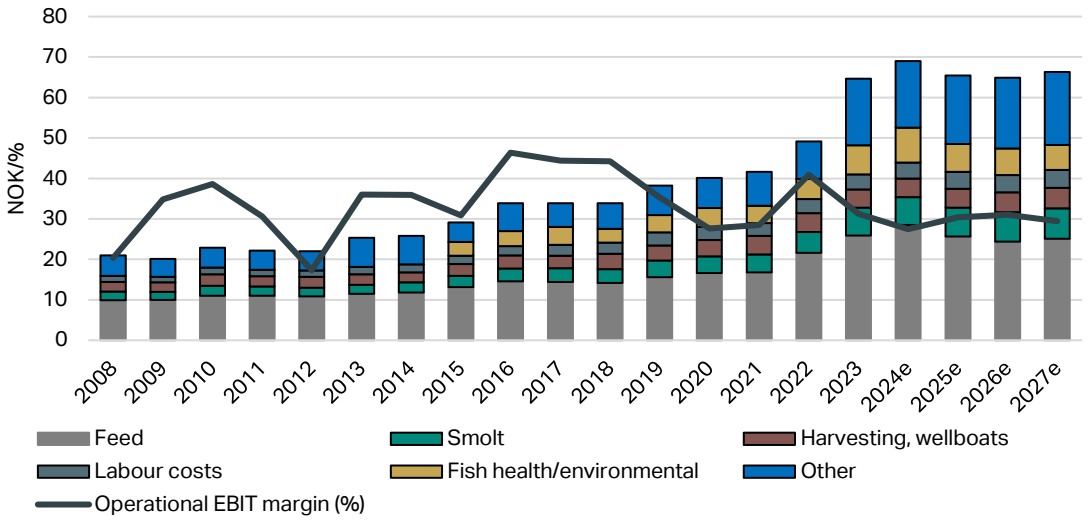
Norwegian salmon farmers face uncertainty in view of threats by the new US administration to impose significant tariffs on imports of foreign goods. At the time of writing, it was unclear if the US will impose tariffs on imports from Europe. Positively, demand for farmed salmon is not highly price sensitive. In addition, the global nature of the salmon market means that tariffs could lead to rerouting of trade flows, with exporters redirecting their products to alternative markets and US importers seeking other suppliers. At this point, Chilean salmon farmers appear unlikely to be affected by US tariffs, which could mean a relatively neutral impact on any readjustment of trade flows.

The US, which consumes more than 20% of farmed Atlantic salmon, has no significant domestic salmon farming industry of its own. As of end-2024, Norwegian salmon had a US market share of about 20%. The implications for Norwegian salmon farmers could be severe if the EU responds to US tariffs with countermeasures that have a direct knock-on impact on exports from Norway. However, the EU itself has a relatively small salmon farming industry based mainly on the Faroe Islands (see Figure 3).

COST INFLATION TO BE PASSED ON TO CUSTOMERS

In addition to volatile product prices, the main risk facing salmon farmers is biological, primarily in the form of disease and sea lice. In Norway, disease outbreaks often lead to premature culling of salmon stocks, entailing lost revenues. Sea lice treatment is a significant cost factor, not least because it stresses the fish. Antibiotics are rarely used in Norwegian salmon farming due to extensive vaccination programmes for treatable diseases. In 2023, Norwegian salmon farmers incurred higher mortality and loss of revenues due to early harvesting and downgrades due to wounds caused by string jellyfish. Significant outbreaks have been recorded only twice before (1997 and 2001), and despite limited occurrences in 2024, we expect no significant costs related to string jellyfish in the immediate future.

Figure 5. Norway salmon producers' operating costs and normalised EBIT* per kg, 2008-2027e



Based on data from the Norwegian Directorate of Fisheries and NCR estimates. *EBIT will likely be impacted by actual price realisations and incident-related costs, among other factors.

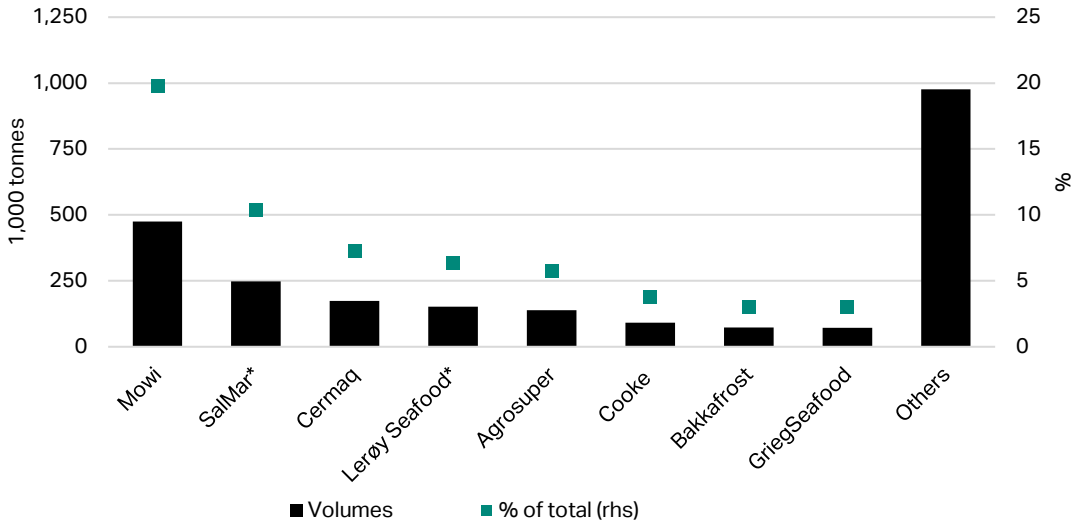
Industry operating costs per kg of harvested salmon increased by an average of about 10% annually over the decade ended 2023. Feed accounts for 40% of operating costs, which have increased significantly in recent years. However, prices for feed ingredients (fishmeal, fish oil, vegetable meal and vegetable oil) have decreased by about 30% since 2023 and we expect this to contribute to lower operating costs in 2025 and 2026. Fish health and biological costs (11% of total costs) also drive costs, which most likely have peaked, not least due to lower sea lice levels and low levels of infectious anaemia and pancreas disease in the past 12 months.

Positively, we note that salmon farming has been less affected by raw material inflation than farmed alternatives due to its higher feed conversion ratio. In salmon farming, one kg of feed yields 0.56 kg of edible flesh, compared with 0.39 kg for poultry, 0.19 kg for pork, and 0.07 kg for beef.

HIGH MARGINS SUSTAINABLE FOR TIME BEING

Barriers to entry are increasing due to restrictions on the number of licences in regions suitable for salmon farming and limits on the maximum biomass permitted per licence. Moreover, large investments are required to scale up production, while positive cash flows usually take about three years to emerge. These barriers, partly biological, partly regulatory, and partly financial, explain the sector's high profitability. We believe that the increasing costs and investments needed to satisfy environmental requirements and improve salmon welfare (the sea lice problem in particular) will lead to increasing consolidation in the sector.

Figure 6. Largest global Atlantic salmon farmers, 2023



Source: Mowi (Salmon farming industry handbook 2024). *Including Scottish Sea Farms (50%).

The global salmon market is relatively efficient in that volumes tend to move where prices are higher, and major markets in both Asia and North America can be served by air freight. Transport costs to these destinations from Chile and Norway are broadly similar.

Atlantic salmon dominates the global market. Other salmonids, such as rainbow trout and coho, are farmed and other species are caught wild, but cannot compete in terms of volume, quality, and stability of supply. Negative media reports about biological issues (disease and sea lice), pollution and escapes by farmed salmon leading to genetic changes in wild salmon have had a limited effect on demand. However, these issues are leading to regulations and constraints in farmed volumes and are among the drivers for development of new farming methods and technologies aimed at reducing the biological impact on supply. We expect higher volume growth when offshore and land-based farming can compete with traditional salmon farming methods, most likely over a 10-year time frame. This could lead to lower prices, but also lower biological costs.

Most large salmon farmers engage in processing as part of the value chain. Secondary processing (filleting, portioning, slicing, marinating, and coating) adds little value to the bottom line due to the fragmented and competitive nature of the international processing industry but increases flexibility in production and offers some protection against low prices. Moreover, it reduces a producer's environmental footprint by reducing the volumes transported to end-customers by 30-40%. The broad and fragmented customer base of secondary processors, hospitality customers, and retailers means that individual customers generally act as price takers.

Figure 7. NCR ratings on Norwegian seafood companies

Issuer	Primary industry	Long-term issuer rating	Outlook
Austevoll Seafood ASA	Salmon farming/Pelagic	BBB-	Stable
Lerøy Seafood Group ASA	Salmon farming	BBB+	Stable
Mowi ASA	Salmon farming	BBB+	Stable
SalMar ASA	Salmon farming	BBB+	Stable

See NCR's company reports for details.

RELEVANT RESEARCH

(i) Norway salmon farms face sharp tax hike, 29 Mar. 2023.

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