



COMPAÑÍA PESQUERA CAMANCHACA S.A. AND SUBSIDIARIES

Quarterly Earnings Report on the Consolidated Financial Statements For the period ended December 31, 2019

Information on Camanchaca

The Company currently operates three business divisions:

- 1. Salmon Farming: Its subsidiary Salmones Camanchaca operates in the 8th, 10th and 11th regions. It covers genetics and egg production; a freshwater recirculation hatchery for Atlantic salmon and other fresh water species; 74 sea water concessions in 14 neighborhoods; two primary processing plants in the 10th region and a value-added processing and freezing plant in the 8th region.*
- 2. Industrial Fishing: Its industrial fishing takes place in Chile's northern and central-southern areas. Catches are intended for human consumption, such as fish oils high in omega 3, canned and frozen Jack mackerel and Langostino lobster; and protein for animal consumption in fishmeal and fish oil from small pelagic fish.*
- 3. Other Seafood: Operations in Chiloé focus on purchasing spawn and farming mussels in three owned farming sites, and a processing and freezing plant located in Rauco that focuses on products for human consumption. A farm in the Atacama region produces abalone spawn and grows them for human consumption.*

Camanchaca is vertically integrated throughout its supply and distribution chain and exports its products to over 50 countries using its 7 offices and commercial agents in its main markets. The company has approximately 3,500 employees.

Highlights for the period

- A **record salmon harvest volume** in the fourth quarter reached 24,100 tons WFE, which was 72.8% higher than in Q4 2018, bringing the harvest volume for 2019 to 58,033 tons WFE, an increase of 19.7% over 2018.
- The **Atlantic salmon harvest volume** was 20,288 tons WFE, compared to 13,944 tons WFE in Q4 2018, an increase of 45.5%. Total **Atlantic salmon** harvest volumes for the year were 53,731 tons WFE, 10.8% higher than 2018, with an average harvest weight of 5.6 kilos WFE, which reflects appropriate sea lice control. **The Pacific salmon harvest volume** was 4,302 tons WFE in its first year of production at Camanchaca, and this cycle will be complete when 760 tons are harvested during the first quarter of 2020.
- **The average price for Atlantic salmon** was US\$ 6.26/kg WFE for 2019, 2.4% lower than US\$ 6.41/kg WFE for 2018.
- **Atlantic salmon live fish (ex-cage) costs** were US\$3.02/Kg in Q4 2019, 6.7% higher than in Q4 2018, but in line with the Company's long-term target of US\$3/Kg. This cost for the whole of 2019 was US\$3.22/Kg, which is 16 US cents higher than in 2018, mainly due to harvesting two low density sites (8 US cents), and algae and oxygen problems during the summer in 2019, which negatively affected growth and costs in the first half of the year.
- **Atlantic salmon processing costs** for Q4 2019 were US\$0.7/Kg WFE, 12.5% lower than in Q4 2018 and 30% lower than our long-term target of US\$ 1/Kg WFE, due to processing a higher volume than in previous quarters, and higher average harvest weights. Processing costs for the year were US\$0.9/Kg WFE, 10% lower than the long-term target, due to higher volume and efficiency investments that enabled more value-added products to be processed at a lower cost.
- **EBIT/Kg WFE for Atlantic salmon was US\$ 1.71** in the fourth quarter, 7.1% higher than in Q4 2018, while for the full year it was similar to that of 2018, at US\$ 1.32.
- **Jack mackerel catches in 2019 increased by 6.6%** to 74,000 tons, compared to the previous year. This matched the Company's entire annual quota and its purchased international quotas of 17,652 tons, reflecting a significant recovery of this resource in the South Pacific. Accordingly, 37,000 tons of frozen Jack mackerel were produced, 23% higher than in 2018, and over 1.2 million cans, similar to 2018. Consequently, sales of frozen Jack mackerel increased by 49.9% to 40,000 tons, although the price of this product fell by 11.1% to US\$ 848/ton in 2019.
- **Catches of anchovy and its accompanying fauna in northern Chile in 2019 fell by 27.2% to 92,000 tons** compared to the previous year, due to restrictions on catches owing to the presence of juvenile fish, but in a high biomass environment.
- **Fishmeal and oil prices fell in 2019 by 10.8% and 11.8% respectively**, due to higher catch quotas in Peru and lower consumption in China, the latter attributable to lower demand caused by pig population reductions affected by "African swine fever".

- **Total revenue¹ was similar** to 2018, at US\$ 620 million (-1%), due to lower revenue from the Industrial Fishing and Other Seafood divisions, offset by higher revenue from the Salmon Farming division. Lower catches from the northern fishing area affected the production and sale of fishmeal and fish oil, while revenue from the Other Seafood division was affected by lower mussel yields.
- **Administrative expenses for 2019 decreased by 38% compared to 2018**, and fell from representing 5.0% of total revenue in 2018, to 3.1% in 2019, a clear reflection that the efficiency plans introduced by the support departments in 2018 have generated benefits. Distribution expenses remained the same at 4.6% of total revenue. Therefore, total administration and distribution costs represented 7.7% of revenue in 2019, a reduction from 9.6% in 2018. If the 2018 percentage was applied in 2019, this would represent a favorable effect on financial performance of US\$ 12 million, or 2% of revenue of US\$ 620 million.
- **EBITDA for the year was US\$ 96.3 million**, a decrease of 3.1% compared to 2018. The EBITDA margin was 15.5%, slightly lower than in the previous year when it was 15.9%. EBITDA before Fair Value Adjustments (FVA) for the Salmon Farming division increased by 4.2% to US\$ 82.4 million, while it decreased by 45.3% to US\$ 12.4 million in the Industrial Fishing division, mainly due to catch volumes in the north and falling prices for its principal products. The EBITDA for the Other Seafood division was US\$ 1.6 million, an increase of US\$ 3.9 million compared to 2018.
- **After-tax profits decreased by 40% to US\$ 20.6 million**, which were affected by a US\$ 13.9 million extraordinary loss associated with the sale and disposal of unrequired assets in the Industrial Fishing and Salmon Farming divisions of US\$ 9.2 million, a US\$ 2.2 million loss from extraordinary mortalities not covered by insurance, and a US\$ 2.5 million loss from the trout joint venture.
- **Net financial debt increased by US\$ 55.7 million**, and it was mainly used to finance increased salmon biomass (US\$ 12.3 million) and the Company's investments (US\$ 64 million), which are aligned with its 2018-2019 plan totaling US\$ 107 million as of December 31, 2019.

¹ The financial performance for 2019 reflects a change in accounting policy with respect to the trout joint venture, which is now in Other Income and described in Note 33 to the financial statements, to the application of IFRS 16, and to improvements to the fair value calculation for biological assets under IAS 41. Further details can be found in Note 3 to the financial statements - Changes in accounting policies and estimates. For comparative purposes these effects were applied retrospectively to 2018.

Key Figures

		Q4 2019	Q4 2018	Δ%	2019	2018	Δ%
Operating revenue	ThUS\$	200,961	147,599	36.2%	620,030	626,480	(1.0%)
Gross margin	ThUS\$	38,592	36,945	4.5%	115,256	134,714	(14.4%)
EBITDA before fair value adjustments	ThUS\$	36,112	27,972	29.1%	96,314	99,365	(3.1%)
EBIT before fair value adjustments	ThUS\$	27,657	21,743	27.2%	67,456	74,934	(10.0%)
EBIT margin %	%	13.76%	14.73%	(6.6%)	10.88%	11.96%	(9.0%)
Fair value adjustments	ThUS\$	(9,433)	2,728	(445.9%)	311	2,327	(86.6%)
Net income for the period attributable to owners of the parent company	ThUS\$	3,525	9,140	(61.4%)	20,620	34,438	(40.1%)
Earnings per share	US\$	0.00085	0.00220	(61.4%)	0.00497	0.00830	(40.1%)
Pelagic catches	tons.	47,422	63,162	(24.9%)	247,763	261,313	(5.2%)
Northern Fishing Area	tons.	26,406	40,899	(35.4%)	95,219	127,440	(25.3%)
Southern Fishing Area	tons.	21,017	22,263	(5.6%)	152,545	133,873	13.9%
Fishmeal price	US\$/ton	1,270	1,520	(16.4%)	1,403	1,572	(10.8%)
Atlantic salmon harvest	Tons WFE	20,288	13,944	45.5%	53,731	48,496	10.8%
Company farmed Atlantic salmon sales	Tons WFE	20,268	15,285	32.6%	51,151	50,670	0.9%
Atlantic salmon ex cage cost	US\$/Kg live fish	3.02	2.84	6.6%	3.22	3.06	5.2%
Processing cost	US\$/Kg WFE	0.70	0.80	(12.5%)	0.90	0.89	0.9%
Atlantic salmon price*	US\$/Kg WFE	6.02	6.30	(4.4%)	6.26	6.41	(2.4%)
Atlantic salmon EBIT/Kg WFE**	US\$/Kg WFE	1.71	1.60	7.1%	1.32	1.33	(0.9%)
Pacific salmon EBIT/Kg WFE**	US\$/Kg WFE	(0.25)	-	-	(0.31)	-	-
Financial Debt	ThUS\$				148,503	81,712	81.7%
Net Financial Debt	ThUS\$				106,630	50,964	109.2%
Equity ratio	%				62%	68%	

*Billing in US\$ divided by tons of product sold, excluding salmon supplied by third-parties

**Excludes salmon supplied by third-parties

Summary Statement of Net Income by Division

ThUS\$	Industrial Fishing		Salmon Farming		Other Seafood		Total	
	Q4 2019	Q4 2018	Q4 2019	Q4 2018	Q4 2019	Q4 2018	Q4 2019	Q4 2018
Operating revenue	41,080	33,064	156,193	109,165	3,687	5,369	200,961	147,599
Gross Margin	(3,502)	5,046	40,874	31,443	1,219	456	38,592	36,945
EBITDA	(2,470)	1,340	38,134	27,478	448	(845)	36,112	27,972
EBITDA margin (%)	(6.0%)	4.1%	24.4%	25.2%	12.2%	(15.7%)	18.0%	19.0%
Net income for the period attributable to owners of the parent company	(8,391)	(1,551)	11,610	11,439	306	(746)	3,525	9,140

ThUS\$	Industrial Fishing		Salmon Farming		Other Seafood		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Operating revenue	157,621	163,166	435,576	433,406	26,833	29,908	620,030	626,480
Gross Margin	17,618	35,533	91,578	95,191	6,060	3,992	115,256	134,714
EBITDA	12,370	22,629	82,384	79,047	1,560	(2,311)	96,314	99,365
EBITDA margin (%)	7.8%	13.9%	18.9%	18.2%	5.8%	(7.7%)	15.5%	15.9%
Net income for the period attributable to owners of the parent company	(10,330)	3,494	30,543	33,325	408	(2,381)	20,620	34,438

Financial Performance

Results for the year ended December 31, 2019

Net income for 2019 was US\$ 20.6 million, US\$ 13.8 million lower than net income of US\$ 34.4 million for 2018, mainly due to the Industrial Fishing division, which had a net loss of US\$ 10.4 million, compared to net income of US\$ 3.5 million for 2018.

EBITDA before fair value adjustments was US\$ 96.3 million, 3.1% lower than US\$ 99.4 million for 2018, but with a Q4 2019 result that was higher than Q4 2018 in the Salmon Farming and Other Seafood divisions. The Industrial Fishing division was affected by lower catches in the north and lower prices for almost all its products. The decrease in EBITDA of US\$ 3.1 million was due to a decrease in the Gross Margin of US\$ 20 million concentrated mainly in the Industrial Fishing division, due to lower catches in the north and smaller fish, which resulted in lower fishmeal production and sales (-5.7% vs 2018), and reductions in fishmeal and fish oil prices of 10.8% and 11.8%, respectively.

Total consolidated revenue for 2019 decreased slightly (1%) compared to the previous year, at US\$ 620 million, but when the extraordinary effect of revenue from the purchase and sale of salmon from third parties during the previous year is extracted, revenue actually increased by 3.5% compared to the previous year.

Salmon Farming Division

EBITDA before fair value adjustments was US\$ 82.4 million for 2019, 4.2% higher than the US\$ 79.0 million for 2018. The first half of 2019 was difficult for salmon farming due to oceanographic conditions already mentioned in previous analyses and low density sites being harvested, but offset during the last quarter by historical harvest volumes for the Company, and lower costs aligned with the long-term objective, which generated 46% of the year's EBITDA.

An accounting policy was changed in 2019 with respect to the treatment of the Company's joint venture in a trout farming business, whereby it contributes six farming sites and receives a third share of the results. These are now presented as "Other income" and excluded from EBITDA. The share in the joint venture produced net income of US\$ 2.9 million in 2018, while in 2019 it produced a net loss of US\$ 2.5 million.

The price of Atlantic salmon harvested and sold by Camachaca was slightly lower than in 2018, at US\$ 6.26/kg WFE, which was 15 US cents lower, or -2.4%. Accordingly, the EBIT/Kg WFE was US\$ 1.32, only 1 US cent less than for 2018. Despite lower prices and higher costs this year, this achievement was due to savings in administrative expenses that offset higher costs in the first half of the year, and better results in the second half of the year due to higher harvest volumes processed and sold. The harvest of 20,288 tons in Q4 2019 represented 38% of the annual harvest. Furthermore, Camachaca harvested 4,300 tons WFE of Pacific salmon in its first year of production, bringing the Salmon Farming division's annual harvest to 58,000 tons WFE.

Industrial Fishing Division

The performance of the Industrial Fishing Division in the north was not the same as in the south. The northern area had lower than historical catches due to the high volume of juveniles and extensive spawning conditions in the second half of the year. This reduced anchovy catches to 59% of the annual quota. The central-southern area enjoyed favorable conditions as the quotas for Jack mackerel, sardine and Langostino lobster were all caught. The prices of its main products fell during 2019, and consequently the results of the Industrial Fishing division were as follows.

- The northern area generated a net loss of US\$ 7.0 million in 2019, compared to net income of US\$ 5.6 million in 2018. This reduction was caused by catches falling by 27%. This result includes operating expenses totaling US\$ 15.3 million for assets that were non-operational and were not included in product costs, compared to US\$ 13.7 million in 2018. Furthermore, the biomass continued to produce very low oil yields, which fell from 2.7% to 0.8%, and directly affected results. Finally, fish meal prices fell by 7%.
- The southern area.
 - This area is operated by the subsidiary Camachaca Pesca Sur, which generated a net loss of US\$ 1.4 million, compared to net income of US\$ 0.8 million in 2018. This result was affected by a non-recurring loss of US\$ 7.1 million from the sale of a vessel and assets associated with a fishmeal and fish oil plant in Talcahuano that are not operational and no longer required by the Industrial Fishing division. Operating expenses for assets that were non-operational for a few days due to seasonal closures were US\$ 23.7 million in 2019, a reduction over the costs of US\$ 27.1 million in 2018. Excluding the loss on the sale of the subsidiary's unrequired assets, the Industrial Fishing division improved its net income by US\$ 4.9 million in 2019.

- The company's 70% share in the results of its subsidiary Camanchaca Pesca Sur was a net loss of US\$ 1.0 million. This subsidiary's result was reduced by US\$ 2.4 million due to other items assigned to the southern area, but not included in the Camanchaca Pesca Sur result, mainly financial costs and unrealized margins on the transfer of finished products, such as Langostino lobster, to the parent company's subsidiary in the United States, which has not yet been delivered to final customers. Thus, the southern area generated a net loss of US\$ 3.4 million, compared to net income of US\$ 2.2 million in 2018.

Corporate Support Departments

Consolidated administrative expenses for Compañía Pesquera Camanchaca as a percentage of revenue fell from 5.0% in 2018 to 3.1% in 2019, while distribution costs remained the same at 4.6%. Administrative and distribution expenses in aggregate fell from 9.6% of revenue in 2018 to 7.7% in 2019. Administrative expenses decreased from US\$ 31.2 million to US\$ 19.3 million, while distribution expenses remained at around US\$ 21.5 million.

The decrease in Administrative expenses was around US\$ 12.0 million and these savings were generated by a detailed efficiency and effectiveness review of the support departments in 2018, covering accounting, technology, human resources, logistics, distribution, and other departments, which suggested various improvements that were implemented in the first quarter of 2019.

Financial costs were US\$ 8.1 million in 2019, compared to US\$ 10.2 million in 2018. This reduction was the result of i) the loss of US\$ 3.2 million on exchange rate hedging transactions in the previous year, ii) a reduction in the Libor reference rate, and iii) an improvement in the debt spread as a result of complying with financial covenants in the financing agreement.

Other income (expense) produced a loss of US\$ 13.9 million, which was attributable to the Company's share of the trout joint venture result for the Salmon Farming division being a net loss of US\$ 2.5 million, to extraordinary fish mortality and expenses not covered by insurance during the first half of the year, due to oxygen deficiencies (US\$ 2.3 million), and to the accounting loss on the sale and disposal of unrequired assets (US\$ 9.3 million) including the vessels and fishmeal plant equipment mentioned above.

The net fair value adjustment (FVA)² for 2019 was positive US\$ 0.3 million, lower than the positive US\$ 2.3 million for 2018. The FVA does not affect EBITDA, taxes, nor net distributable income. The latter was US\$ 20.5 million for 2019.

² Improvements were made to the fair value calculation of biological assets with effect from 2019 and on a comparative basis for 2018, in accordance with the definition in IAS 41. All biomass in the sea is now valued at fair value and not just fish weighing over 4kg for Atlantic salmon and over 2.5kg for Pacific salmon. Further details can be found in Note 3 to the financial statements - Changes in accounting policies and estimates.

Cash flow for the year ended December 31, 2019

Net cash flow from operating activities in 2019 was positive US\$ 27.2 million, compared to positive US\$ 60.6 million in 2018. The decrease is mainly due to an increase in year-end receivables as a result of the high volume of sales in the last quarter of the year that will be collected in Q1 2020, and an increase in working capital associated with an increase in biological assets comprising Atlantic and Pacific salmon. The unfavorable results from the Industrial Fishing northern area also affected cash flow.

Net cash flow from financing activities was US\$ 49.5 million in 2019, compared to US\$ 10.1 million in 2018, due to short-term bank loans borrowed in Q4 2019 to finance working capital required for biomass and inventories, as well as for investments. Net cash flow in 2019 was due to drawing down a syndicated revolving credit facility and short-term credit lines of US\$ 66.6 million. Dividends paid by Camanchaca and its subsidiaries were US\$ 17.1 million.

Net cash flow used in investing activities was US\$ 64 million in 2019, compared to US\$ 49 million in 2018. These investments were improvements to processing plants and automation, improvements to the fishing fleet and equipping new salmon farming sites, in accordance with Salmones Camanchaca's growth plans.

Total net cash flow for the year left a cash balance as of December 31, 2019 of US\$ 41.9 million.

Financial position as of December 31, 2019

Assets

The Company's total assets increased by 14.5% or US\$98.9 million to reach US\$782.7 million in 2019. This growth was mainly due to a sharp increase in biological assets and inventories driven by the 2019-2020 harvest plan, an increase in receivables due to the high volume harvested and sold in Q4 2019, and an increase in property, plant and equipment due to investments.

Total current assets reached US\$388 million, a 19.7% increase over December 31, 2018, attributable to higher inventories (US\$21.4 million) and biological assets (US\$12.3 million), consistent with the 2019-2020 harvest plan, an increase in trade receivables (US\$18.4 million), and positive net cash flow of US\$11.1 million.

Non-current assets increased by 9.7% or US\$ 35 million to reach US\$ 395 million, mainly due to an increase of US\$ 32 million in net investments in property, plant and equipment, in accordance with the Company's investment plan.

Inventories were US\$ 77 million as of December 31, 2019, higher than the US\$ 55.3 million as of December 31, 2018, with increases in all divisions. The Industrial Fishing division increases were mainly fish meal, fish oil and canned products. The inventory of Atlantic salmon was higher than at the close of 2018 with a significant mix of added value products.

Liabilities and Equity

The Company's total liabilities increased by 36.5% or US\$ 79.1 million, from US\$ 217 million as of December 31, 2018 to US\$ 296 million. Accordingly, they financed 80% of the increase in assets.

Current liabilities increased by 23.5% or US\$ 27.9 million, mainly due to increases in current financial liabilities of US\$ 30.3 million, to finance working capital requirements. However, current liabilities reduced following the payment of US\$ 6.5 million in income taxes.

The Company has committed long-term bank finance facilities of US\$ 140 million at the date of this report, of which it had drawn down US\$ 124 million as of December 31, 2019. It also has US\$ 67 million of uncommitted short-term facilities, of which it has drawn down US\$ 38 million. Therefore, the Company has unused available lines of credit in excess of US\$45 million.

Consequently, Camanchaca's equity has increased by US\$ 19.8 million or 4.2%, to reach US\$ 487 million during 2019, due to retained earnings for the year net of dividends paid and provisioned.

Divisional Operating Performance

Salmon Farming Division

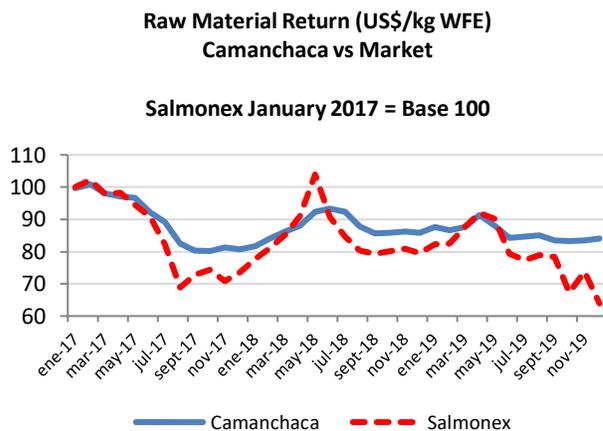
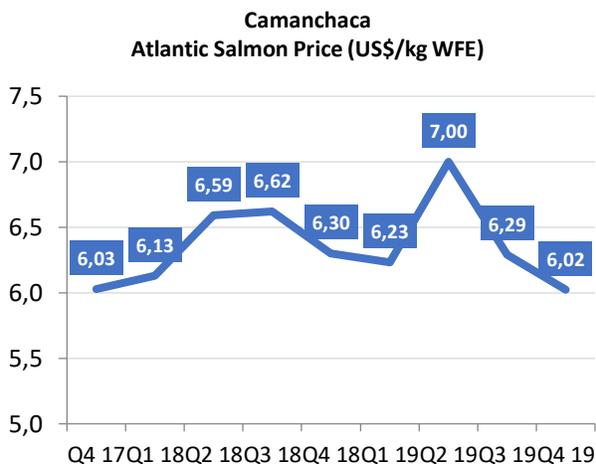
The financial performance of the salmon farming division is closely related to three key drivers:

1. The **price of Atlantic salmon**, which is very sensitive to Norwegian and Chilean supply conditions, and the exchange rates of its main trading partners;
2. **Sanitary conditions for Atlantic salmon**, which affect conversion factors, the use of pharmaceutical and mechanical means to improve fish health and welfare, and the final biomass to which costs are allocated.
3. **Feed costs**, which accounts for about half the unit live fish (ex-cage) cost.

I. Product Prices

The average price of Atlantic salmon sold by Camanchaca during Q4 2019 was US\$ 6.02 per kilo WFE, down 4.4% from the same period in 2018. Prices in Q4 2019 were influenced by a higher proportion of value-added sales, attributable to the condition of its raw materials and to market demand, which resulted in higher sales of fillets and portions to the United States and frozen whole salmon sales to Russia.

Camanchaca achieved an average raw material return (RMR)³ from Atlantic salmon 97 US cents higher than the Salmonex index during Q4 2019, which is its reference market⁴, which reversed the situation encountered in Q2 2019 when this index rose sharply. This behavior reflects the sale of value-added products under medium-term contracts, which secure greater stability than the spot market.



³ Raw Material Return is the final product price less distribution and specific secondary processing costs. It is a price measurement before selecting the final destination for harvested fish and provides a homogeneous aggregate indicator for the Company's products.

⁴ The market index or "Salmonex" is a conceptual indicator based on the price of fresh fillet trim D exported by Chilean companies, net of the same processing and distribution costs used for Camanchaca's fresh trim D. It provides a comparable index to Camanchaca's Raw Material Return.

Volume

Company-farmed Atlantic Salmon		Q4 2019	Q4 2018	Δ	Δ %	2019	2018	Δ	Δ %
Harvest volume	tons WFE	20,288	13,944	6,344	45.5%	53,731	48,496	5,235	10.8%
Production	tons WFE	20,553	13,952	6,601	47.3%	53,549	48,333	5,216	10.8%
Sales	tons WFE	20,268	15,285	4,983	32.6%	51,151	50,670	481	0.9%
Average sales price	US\$/Kg WFE	6.02	6.30	(0.28)	(4.4%)	6.26	6.41	(0.15)	(2.4%)

Company-farmed Pacific Salmon		Q4 2019	Q4 2018	Δ	Δ %	2019	2018	Δ	Δ %
Harvest volume	tons WFE	3,813	0	3,813	-	4,302	0	4,302	-
Production	tons WFE	3,806	0	3,806	-	4,295	0	4,295	-
Sales	tons WFE	2,504	0	2,504	-	2,504	0	2,504	-
Average sales price	US\$/Kg WFE	4.69	0	4.69	-	4.69	0	4.69	-

Camanchaca harvested 20,288 tons WFE of Atlantic salmon in Q4 2019, making it the largest quarterly harvest in the Company's history, 45.5% higher than in Q4 2018. Sales were 20,268 tons WFE in Q4 2019, 32.6% higher than for the same quarter in 2018. The volume harvested in the last quarter of the year represented 38% of the annual harvest volume.

Camanchaca stocked 1.4 million Pacific salmon smolts in 2018, to make better use of the estuarine sites in the Tenth region and to complement the trout joint venture. Subsequently, it harvested 3,813 tons WFE during 2019, and the cycle will be complete when it has harvested the final 760 tons in early 2020. This initiative will provide the Company with specific experience in producing and marketing this species, which the Company considers a beneficial step when the trout joint venture comes to an end. Pacific salmon production in 2019 represents around 2.4% of Chilean production, according to Aquabench. Camanchaca expects negative margins during the first two production cycles in 2019 and 2020, due to smolt stocking densities permitted by the regulations. The margin during 2019 was slightly negative at US\$ 0.2 million, with sales of 2,504 tons WFE at an average price of US\$ 4.69 / Kg WFE.

Operating revenue

The Company's marketing and sales strategy is to build its capacity and flexibility in order to diversify its products and target markets, and focus on the most attractive markets for its raw material, based on medium-term conditions in those markets, and preferring stable customer relationships.

Sales by market segment for 2019

Product or Species	USA	Europe + Eurasia	Asia, except Japan	Japan	LATAM, except Chile	Chile	Others	TOTAL
	ThUS\$	ThUS\$	ThUS\$	ThUS\$	ThUS\$	ThUS\$	ThUS\$	ThUS\$
Atlantic salmon	115,922	60,498	24,685	29,817	69,375	15,066	4,684	320,047
Pacific salmon	1,173	1,995	117	8,096	352	0	0	11,733
Others	91,926	0	0	0	0	11,870	0	103,796
TOTAL	209,021	62,493	24,802	37,913	69,727	26,936	4,684	435,576

Sales by market segment for 2018

Product or Species	USA	Europe + Eurasia	Asia Except Japan	Japan	LATAM, except Chile	Market Chilean	Others	TOTAL
	ThUS\$	ThUS\$	ThUS\$	ThUS\$	ThUS\$	ThUS\$	ThUS\$	ThUS\$
Atlantic salmon	98,091	97,376	28,188	14,982	74,037	9,244	2,897	324,816
Pacific salmon	0	0	0	0	0	0	0	0
Others	96,250	0	0	1,518	0	10,821	0	108,590
TOTAL	194,341	97,376	28,188	16,500	74,037	20,065	2,897	433,406

Camanchaca has had a 25% share in "New World Currents" (NWC) since 2013, a company formed with other Chilean producers to market Atlantic salmon in China. There has been a significant increase in air shipments of fresh products to this important market. During the second half of the year, one of NWC's partners reported its intention to withdraw from the company.

The Company defines its value-added products as those containing some degree of secondary processing, including freezing, which accounted for 88.3% of sales in 2019, higher than the 83.3% achieved in 2018. The remaining volume is sales of head-on gutted whole fresh salmon for the South American and Chinese markets.

Fresh Atlantic salmon fillets and portions are preferred by the North American market, while Europe favors frozen Atlantic salmon fillets and portions. Japan prefers to receive frozen fillets, while China receives both fresh and frozen salmon. The rest of Latin America prefers frozen fillets.

The percentage of total revenue from North American markets rose from 44.8% to 48.0% in 2019, while Europe and Eurasia (mainly Russia) fell from 22.5% to 14.3%, explained by a decline in the attractiveness of the Russian market during the first half of the year. Access to the Russian market and its relative attractiveness is more volatile when compared to other markets, where the Company seeks to take advantage of opportunities that arise by planning to allocate no more than 10% over the medium and long term. Asia excluding Japan (mainly China) fell from 6.5% to 5.7%, while Japan rose from 3.8% to 8.7%. Latin America excluding Chile fell from 17.1% to 16.0%, due to a decrease in the Brazilian market, offset by an increase in the Mexican market. Therefore, as a result of less attractive conditions in Russia and Brazil, product was transferred to traditional markets in the USA, Japan and Mexico.

Other income is mainly the sale of salmon and other seafood by our US subsidiary, Camanchaca Inc., smolt sales, third party processing and services by the primary processing plant, and leased farming sites on the Chilean market.

Other Businesses

As of December 31, 2019 seven of Camanchaca's sea farming concessions were being leased out for trout farming in the Reloncaví Estuary (Tenth Region). These leases are the Company's contribution to the trout joint venture. The neighborhood where these concessions are located has a mandatory fallow period in the first quarter of odd-numbered years when harvest volumes are smaller, as in 2019 when 2,958 tons WFE of trout were harvested, compared to 17,405 tons harvested in the previous year. Camanchaca's one-third share in the joint venture results was a loss of US\$2.5 million in 2019, compared to a profit of US\$2.9 million in 2018, which is presented in the statement of net income under Other income. This decrease is due to the smaller operating scale, to trying to produce this species throughout the year using sites outside the Reloncavi estuary, which increased costs, and to problems with fish maturity, which affected sales prices. These conditions have not applied to production since Q2 2019.

The assumptions used to develop the trout joint venture business have not varied to date, and the operator, Caleta Bay, continues to estimate average annual harvests of 12,000 tons through to 2022 when the agreement ends, with more in even years and less in odd years.

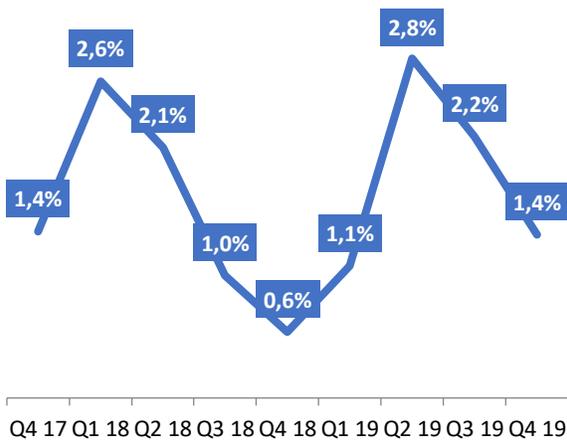
The Company's other businesses, such as selling third party products at its sales offices, processing services for third parties, leasing farm sites and selling byproducts, resulted in operating margins of US\$ 9.8 million for 2019, 34% higher than in 2018.

I. Sanitary and Productive Conditions

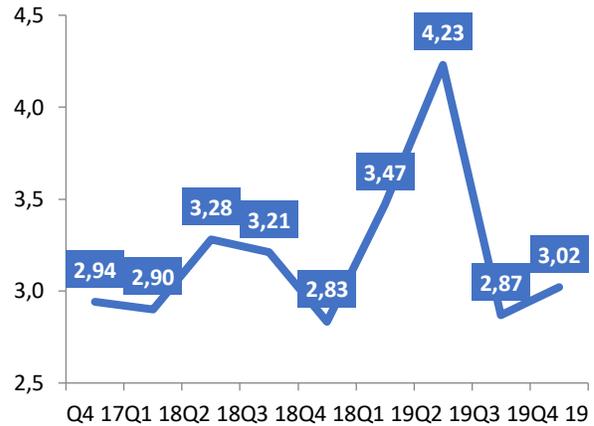
The total open cycle biomass mortality of the Atlantic salmon population during Q4 2019 was 1.4%, similar to mortality in Q4 for the previous cycle (2017), which was affected by isolated oxygen deficiency events, sea-lion attacks and damage during transport. The accumulated mortality at sites that completed their cycle in Q4 2019 (five sites) was 11.4%, which was significantly influenced by the closure of a site affected by oxygen deficiency during H1 2019 (Marilmo).

Live weight ex-cage costs for fish harvested during Q4 2019 were US\$3.02/Kg, which is 19 US cents higher than in Q4 2018, and 8 US cents higher than the previous cycle (Q4 2017) for similar neighborhoods, but in line with the Company's long-term target. The higher cost compared to the previous comparable biological cycle (Q4 2017) was due to higher smolt sanitary costs, such as live vaccines and lufenuron, and general costs associated with risk mitigation measures, such as oxygen platforms and algae bloom mitigation equipment. The higher cost compared to Q4 2018 was due to higher feed costs as a result of the higher biological conversion factor at specific sites in Q4 2019.

Atlantic Salmon Mortality* (%)



Atlantic Salmon live weight ex-cage cost (US\$/kg)



* Total quarterly mortality (number of fish) including both closed and open sites. The closed sites affected by the HAB are included.

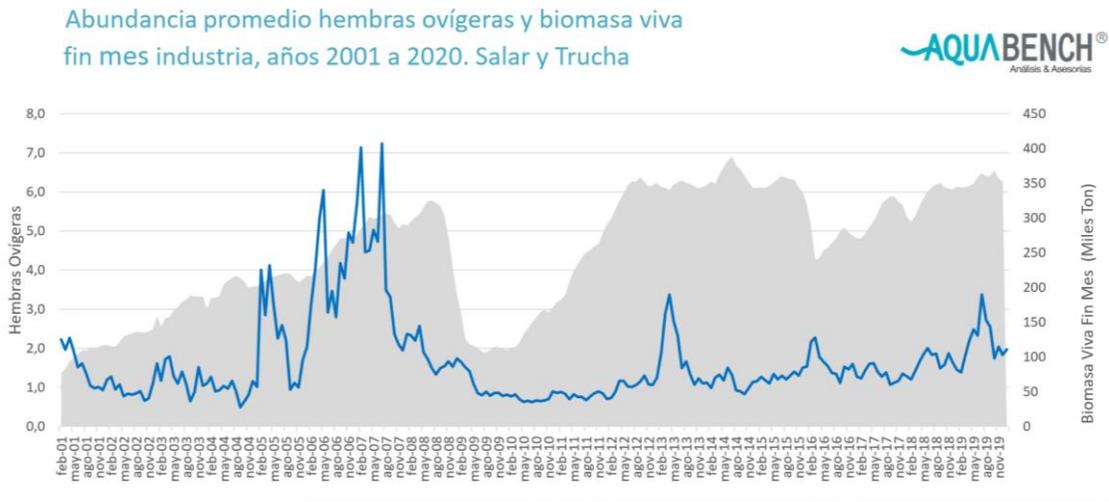
The following table shows the trends in the principal closed circuit production and sanitary variables for Q4 2019.

	Biological Indicators					Sustainability Indicators				
	FCRb (Live fish)	Productivity (Kg WFE/smolt)	Average harvest weight (Kg WFE)	Antibiotic use (Gr/Ton)	Antiparasitic drug use (Gr/Ton)	FIFO Ratio	Cycle duration / Fallow periods	Number of escapes	Medicinal treatments (baths) (gr API per ton)	Number of antibiotic treatments
2016	1.17	5.7	5.9	455.3	0.5	0.68	17/7	0	0.0	2.3
2017	1.14	4.7	5.3	568.8	4.0	0.65	17/7	0	4.0	2.4
2018	1.12	4.9	5.3	462.3	0.5	0.61	16/8	0	0.5	2.4
2019	1.15	5.1	5.6	511.1	7.8	0.57	16/8	0	7.8	1.9

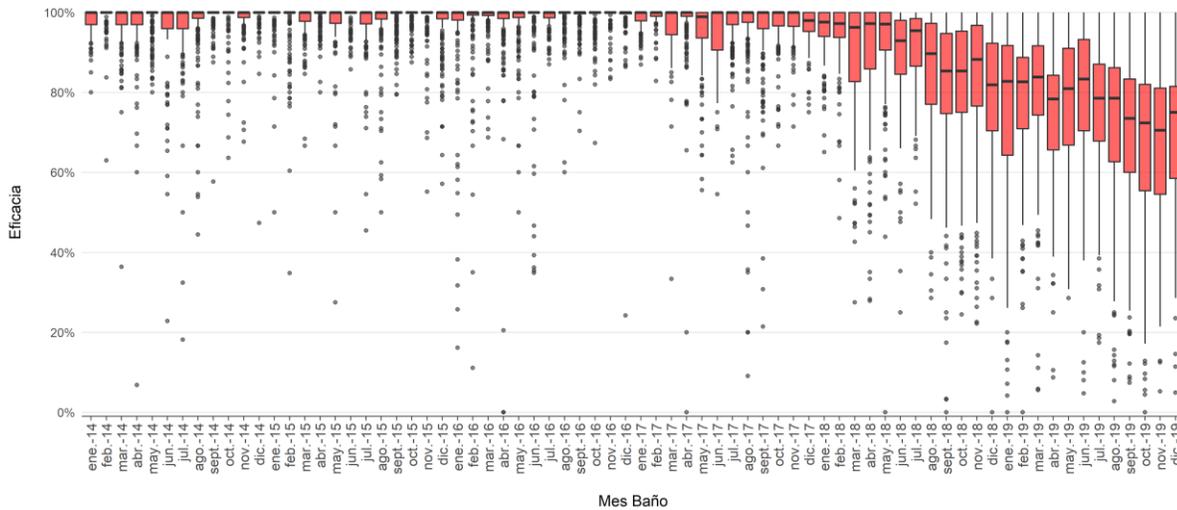
Smolt productivity (biomass harvested in Kg/number of stocked smolts) reached 5.1 kg WFE per smolt in Q4 2019, higher than in previous years, mainly due to the 6.6% increase in average harvest weights that reached 5.6 kg WFE.

Sea lice concentrations have increased since March this year, especially in certain extra saline areas, due to a downward trend in the effectiveness of the most widely used antiparasitic in Chile, Azamethiphos. Accordingly, the treatment frequency was increased and alternative treatments were incorporated, which brought the spread of this parasite under control from the third quarter of 2019.

Sea lice concentrations on incubating females during the period 2014 to 2019 for the industry.



Azamethiphos efficiency during the period 2014 to 2019 for the industry.



Parasites are applying greater pressure to the industry and traditional treatments are losing efficacy, which has led Camanchaca to seek alternative treatments that provide more effective solutions. These include peroxide, a new antiparasitic treatment called Alfaflux, and mechanical treatments such as Optilizer and FLS. Nevertheless, the Company has not yet felt the need to bring harvests forward at fish weights lower than originally expected, as shown by the Q4 2019 average harvest weight statistics.

To date, Camanchaca has three farming sites classified as High Propagation Sites (HPS), where more than 3 incubating females on average have been spotted. These sites are located in two neighborhoods (ACS) and currently represent 18% of the Company's total live fish in week 10. One of these sites is harvesting at an average weight of 5.1 kg and has reached category HPS 2, while the other two have reached category HPS 1 with average weights of 4.9 kg and 3.8 kg.

The Chilean fish health authority, Sernapesca, changed the sea-lice control regulations during Q4 2019, by introducing more inspections, greater treatment flexibility and more effective control measures, including voluntary preventive harvests and incentives for non-pharmacological treatments.

There was a 10% reduction in antibiotic use during Q4 2019 compared to the previous cycle in the same neighborhoods, mainly due to better sanitary practices and live vaccine use. The consumption increase compared to Q4 2018 is mainly due to Q4 2018 harvests coming mainly from a farming site in a privileged neighborhood with excellent biological and sanitary conditions and mostly ASC production.

The costs of Atlantic salmon were:

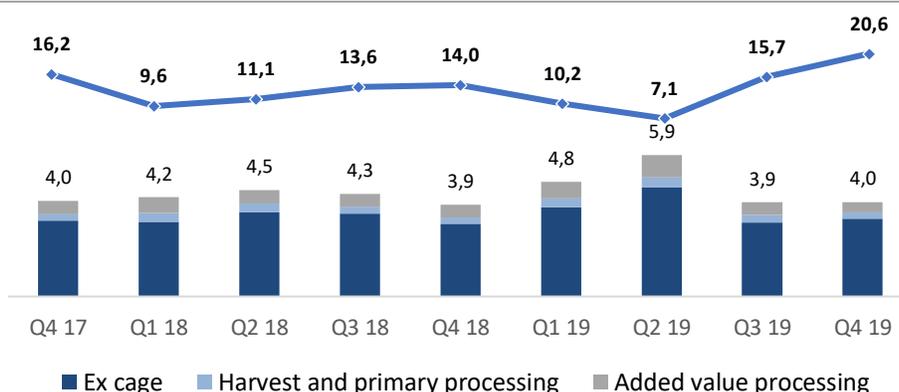
Atlantic salmon costs (US\$/Kg WFE)	Q4 17	Q4 18	Q4 19
Ex cage	3.16	3.05	3.25
Harvest and primary processing	0.28	0.26	0.27
Added value processing	0.56	0.54	0.43
Total cost of finished product	4.00	3.85	3.95

The ex-cage WFE cost in Q4 2019 was US\$ 3.25 per kg, 6.7% higher than in Q4 2018. This increase is mainly due to higher smolt sanitary costs, such as live vaccines and lufenuron, general costs associated with risk mitigation measures, such as oxygen deficiency and algae bloom risks, and higher feed costs due to the higher biological conversion factor of Q4 2019 sites.

Primary and secondary processing costs were US\$0.70/Kg WFE, 12.5% lower than in Q4 2018 and 16.7% or 14 US cents lower than Q4 2017 (-16.7%), due to the higher processing volumes.

The total cost of the finished product per kg WFE was 10 US cents higher than in Q4 2018. The cost for the same neighborhoods covering the sites harvested was 5 US cents lower than for the previous cycle in 2017.

Total cost of Atlantic salmon finished product (US\$/Kg WFE) and volume processed (M Ton WFE)

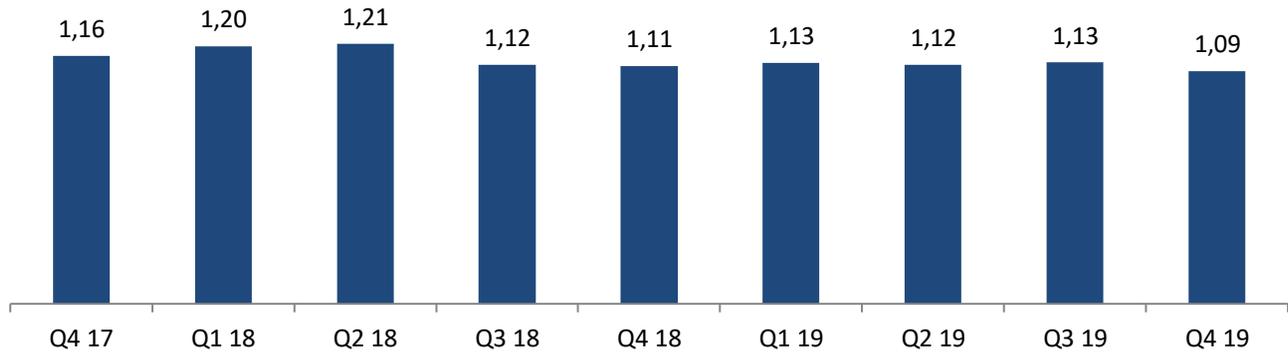


II. Feed Cost

Prices of the main ingredients remained stable during 2019, except for fishmeal and fish oil, which were volatile. The price of fishmeal fell 14% in Q4 2019 compared to Q4 2018, while the price of fish oil rose 22% during the same period. The price of soybeans fell by 25%, comparing Q4 2019 with 2018.

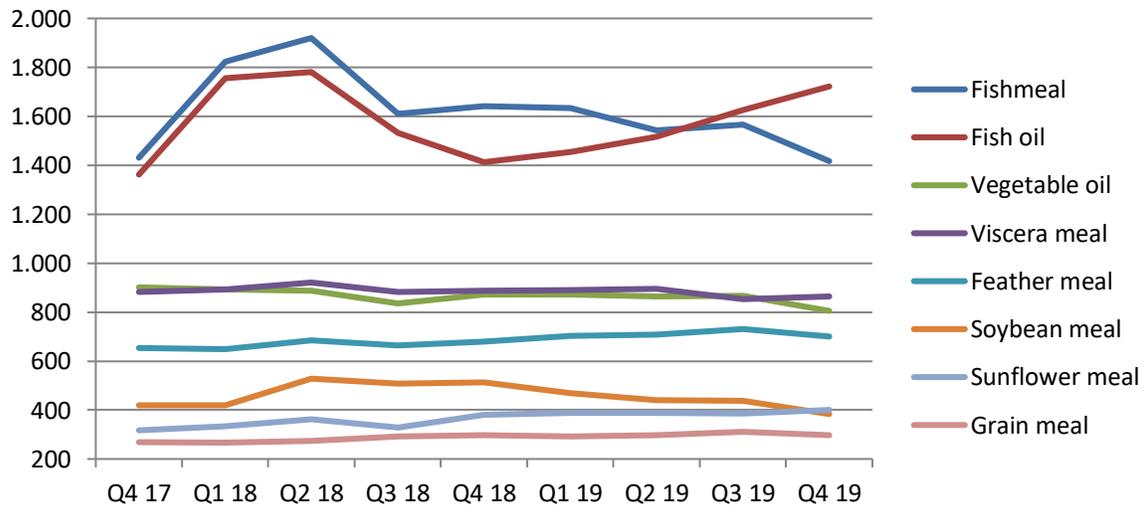
The price of feed for fish weighing more than 2.5 kg, which represents close to 40% of the Company's total feed cost, remained stable in Q4 2019, at US\$ 1.09 per kg, 3.6% or 4 US cents lower than in the previous quarter, due to the fall in fishmeal and soybean prices.

Price for 2500 caliber (Camanchaca) US\$/Kg



Price includes pigment. Does not include medicated feed, nor feed additives or supplements

Price of main ingredients US\$/ton



⁵ Feed for fishes with an average weight over 2.5 kg.

Industrial Fishing Division

The performance of the industrial fishing business is closely related to three factors:

1. The volume of industrial fishing catches, which impacts the scale of production and unit costs.
2. **The price of fishmeal**, which is highly correlated with Peru's catches, and **the price of frozen Jack mackerel**, which is heavily influenced by the international price of crude oil;
3. Fuel prices, which impact industrial fishing costs as well as raw material processing costs.

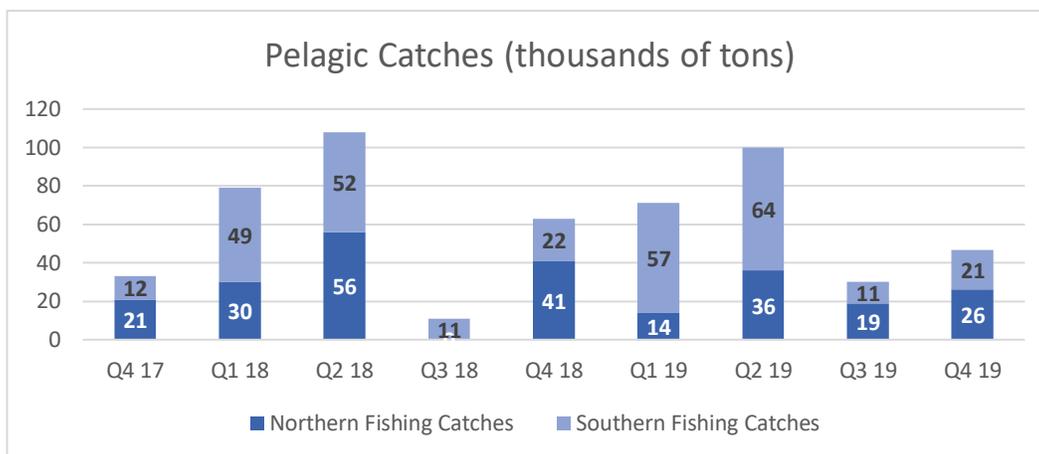
I. Catches and production

Anchovy catches in the north were 74,000 tons in 2019, a decrease of 41% compared to 2018, mainly due to extraordinary restrictions on catches owing to the presence of juvenile fish, a measure that aims to preserve favorable conditions for the biomass. However, Jack mackerel and Atlantic mackerel catches increased totaling 18,242 tons, compared to 1,051 tons in 2018. Therefore, the total catch was 92,038 tons, 27% less than in 2018. As a result, fishmeal production fell by 27% to 22,745 tons, while oil yields fell from 2.7% to only 0.8% in 2019, which caused production to fall by 78% from 3,380 to 740 tons. The lower oil yield is attributed to undersized fish, and resulted in a decrease of approximately US\$ 2.5 million in gross margin in the northern area.

Catches of Jack mackerel in the central-southern area were 74,000 tons, 7% higher than the 69,000 tons caught in 2018, where 17,652 tons were covered by quota purchased from other RFB member countries on international markets, which was 4,188 tons of additional quota compared to 2018. These catches were complimented by Atlantic mackerel catches, which totaled 4,981 tons in 2019 compared to 8,088 tons in 2018. The large pelagic fish catches of Jack mackerel and Atlantic mackerel are preferable for human consumption (80%) and totaled 76,000 tons. These fish produced 37,000 tons of frozen Jack mackerel compared to 30,000 tons in 2018 and 1.2 million cans compared to 1.1 million in 2018.

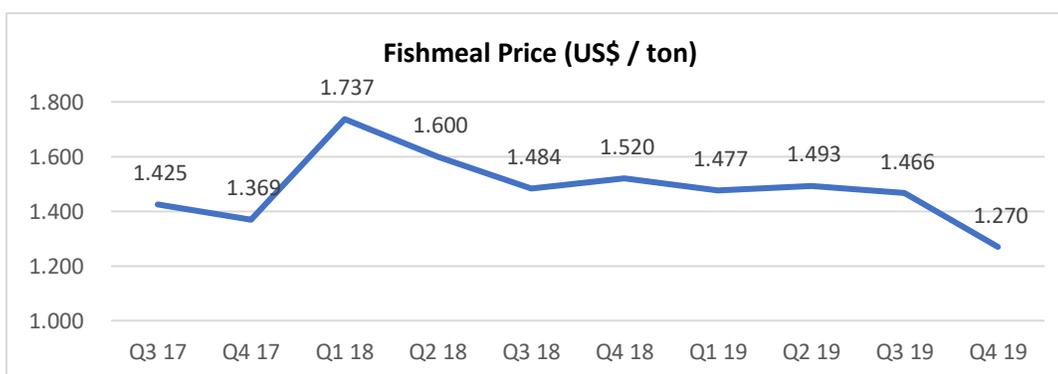
The industrial and local independent catches of sardines in the central-southern area were 20% higher and reached 54,000 tons in 2019, which positively increased the production of southern fish meal and fish oil by 9% and 21%, respectively, with yields of 20.9% and 8.2% respectively.

Langostino lobster catches matched the entire quota of 4,723 tons in 2019, down 1% compared to 2018, and 608 tons were produced compared to 595 tons in 2018, with a yield of 12.9%, slightly higher than the 12.5% achieved in 2018.



II. Prices and sales

Peruvian anchovy catches have matched the entire quota for the last three seasons, which were 3.3 million tons for the first season in 2018, 2.1 million for the second season and 2.1 million for the first season in 2019. This kept fishmeal prices steady during the first 9 months of 2019, at around US\$ 1,500/ton. However, the Peruvian anchovy quota for the second season was 2.8 million tons, which was believed to be high, as it is 108% higher than the second season average over the last 5 years. Together with the decrease in Chinese demand, due to mortality among pigs affected by African swine fever, the result has been a fall in the price of prime Chilean fishmeal to US\$ 1,250/ton during Q4 2019. The total catch to date during the second season in Peru was only 36% of the quota, which helped the price to recover, and already in January 2020 it had reached US\$ 1,680/ton.



Consolidated fishmeal sales decreased by 5.7% in 2019 to 42,000 tons, and fish oil sales decreased by 24%, to 7,045 tons in 2019. Although inventories of fishmeal and fish oil fell in Q4 2019, they were still around 6,700 tons.

Frozen Jack mackerel is mainly sent to Africa. Sales increased by 13,000 tons in 2019 to 40,000 tons, which was 50% higher than in 2018, but at a price of US\$ 848, which was 11% lower. Inventories of frozen Jack mackerel were 4,293 tons in 2019, which is 21% higher than in 2018, due to higher Jack mackerel catches in Q4 2019, up 23% compared to Q4 2018.

The average price for canned fish during 2019 was US\$ 21.6 per box, which was 2% lower than the previous year. Sales were 1.1 million boxes in 2019, an increase of 2% compared to 2018. Camanchaca's canned inventory was 584,000 boxes as of December 31, 2019, at a cost close to US\$ 11.4 per box. This inventory was up 25% compared to December 31, 2018, due to higher Jack mackerel and Atlantic mackerel catches during 2019.

Langostine lobster sales increased by 13% to 691 tons in 2019, at an average price of US\$ 25.2/kg, an increase of 0.5% compared to 2018.

Revenue by market segment for 2019

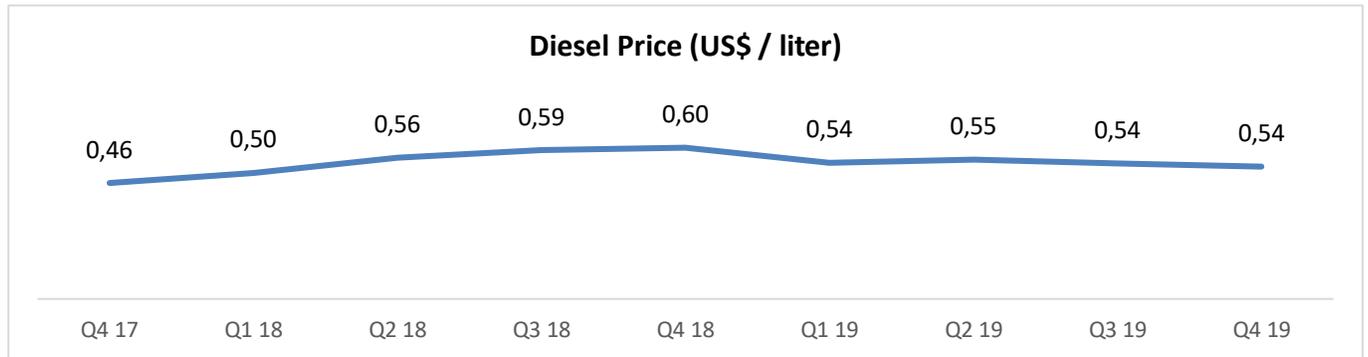
Product	USA ThUS\$	Europe + Eurasia ThUS\$	Asia, except Japan ThUS\$	Japan ThUS\$	LATAM, except Chile ThUS\$	Chile ThUS\$	Others ThUS\$	TOTAL ThUS\$
North								
Fishmeal	0	0	22,834	6,651	0	0	0	29,485
Fish oil	0	202	135	0	0	491	0	827
South								
Fishmeal	0	0	9,809	2,116	117	17,130	0	29,172
Fish oil	0	2,233	672	0	0	7,241	0	10,146
Canned fish	909	368	3,011	0	6,930	9,254	3,009	23,480
Frozen fish	0	573	0	0	2,154	438	30,612	33,776
Langostino	15,912	16	24	53	0	354	0	16,360
Others	0	0	0	0	0	14,375	0	14,375
TOTAL	16,822	3,391	36,485	8,820	9,201	49,283	33,620	157,621

Revenue by market segment for 2018

Product	USA ThUS\$	Europe + Eurasia ThUS\$	Asia, except Japan ThUS\$	Japan ThUS\$	LATAM, except Chile ThUS\$	Chile ThUS\$	Others ThUS\$	TOTAL ThUS\$
North								
Fishmeal	0	0	41,408	3,823	0	0	0	45,231
Fish oil	0	4,985	447	0	771	650	0	6,853
South								
Fishmeal	0	0	9,699	1,980	0	13,246	373	25,299
Fish oil	0	0	767	0	0	8,528	0	9,296
Canned fish	948	492	1,253	0	6,130	8,413	6,438	23,675
Frozen fish	0	243	0	0	2,093	247	22,778	25,361
Langostino	14,637	0	0	243.4	0	412	0	15,292
Others	0	0	0	0	0	12,161	0	12,161
TOTAL	15,584	5,721	53,574	6,047	8,994	43,658	29,589	163,167

III. Fuel costs

The cost of diesel oil acquired by Camanchaca was 54 US cents per liter in Q4 2019, 10% lower than Q4 2018.



Volume

		Q4 2019	Q4 2018	Δ	Δ %	2019	2018	Δ	Δ %
CATCHES									
North	tons.	26,406	40,899	(14,493)	(35.4%)	95,218	127,441	(32,223)	(25.3%)
Owned	tons.	26,396	40,899	(14,503)	(35.5%)	92,037	126,453	(34,416)	(27.2%)
Third parties	tons.	10	0	10	-	3,181	988	2,193	221.9%
South	tons.	21,017	22,263	(1,247)	(5.6%)	152,546	133,873	18,673	13.9%
Owned	tons.	3,459	13,048	(9,590)	(73.5%)	79,280	82,741	(3,462)	(4.2%)
Third parties	tons.	17,558	9,215	8,343	90.5%	73,266	51,132	22,134	43.3%
Total	tons.	47,422	63,162	(15,740)	(24.9%)	247,763	261,314	(13,551)	(5.2%)
PRODUCTION									
Fishmeal	tons.	10,322	13,120	(2,798)	(21.3%)	42,162	48,816	(6,654)	(13.6%)
Fish oil	tons.	1,402	843	559	66.3%	8,371	9,700	(1,329)	(13.7%)
Canned fish	Boxes	53,944	0	53,944	-	1,222,684	1,082,699	139,985	12.9%
Langostino lobster	Kg.	85,040	89,444	(4,404)	(4.9%)	608,040	595,217	12,823	2.2%
Frozen Jack mackerel	tons.	393	3,527	(3,134)	(88.9%)	36,753	29,889	6,864	23.0%
SALES									
Fishmeal	tons.	15,483	10,163	5,320	52.3%	42,303	44,866	(2,563)	(5.7%)
Fish oil	tons.	1,250	1,365	(115)	(8.4%)	7,045	9,261	(2,216)	(23.9%)
Canned fish	Boxes	228,638	239,656	(11,018)	(4.6%)	1,096,471	1,076,375	20,096	1.9%
Langostino lobster	Kg.	270,884	156,900	113,984	72.6%	691,313	609,362	81,951	13.4%
Frozen Jack mackerel	tons.	4,208	2,952	1,256	42.5%	39,821	26,571	13,250	49.9%
PRICES									
Fishmeal	US\$/ton	1,270	1,520	(250)	(16.4%)	1,403	1,572	(169)	(10.8%)
Fish oil	US\$/ton	1,525	1,426	99	6.9%	1,539	1,744	(205)	(11.8%)
Canned fish	US\$/box	20.6	21.9	(1.3)	(6.1%)	21.6	22.0	(0.4)	(1.9%)
Langostino lobster	US\$/Kg	24.5	24.3	0.2	1.0%	25.2	25.1	0.2	0.6%
Frozen Jack mackerel	US\$/ton	796	871	(75)	(8.6%)	848	954	(106)	(11.1%)

Other Seafood Division

Revenue from this division decreased by 10.3% to US\$ 26.8 million in 2019, but despite this decrease, gross margin increased from 13.3% of revenue in 2018 to 22.6% in 2019. Administrative and distribution expenses decreased by 30.4% and 17.7%, respectively, which is reflected in savings of US\$ 1.8 million in administrative and selling expenses, mainly due to lower refrigeration costs associated with higher inventory turnover and 11% higher mussel prices. Thus, EBITDA was US\$ 1.6 million in 2019, which is US\$ 3.9 million higher than in 2018, generating net income of US\$ 0.4 million, which compares favorably with a net loss of US\$ 2.4 million in 2018.

Mussel production by the subsidiary Camanchaca Cultivos Sur was 7.1% higher in 2019, at 9,107 tons of finished products from 29,111 tons of processed raw material, 38% of which was purchased from third party growers (35% in 2018). Revenue fell by 11.6% to US\$ 24 million, due to a 15% decrease in sales volumes associated with lower raw material yields, leaving 1,267 tons of finished product in inventory. These factors generated a positive EBITDA of US\$ 1.7 million compared to negative US\$ 1.5 million in 2018, and net income of US\$ 0.6 million compared to a net loss of US\$ 1.7 million in 2018. Despite this improvement, the business was affected by lower yields from its own farms, due to reductions in available nutrients at its marine farming sites. This required purchasing greater volumes of raw material from local independent fisherman at a higher cost, in order to efficiently use the plant's processing capacity. However, there has been a significant recovery in raw material yields during the first two months of 2020.

The abalone business had a small net loss of US\$ 0.2 million in 2019, compared to a net loss of US\$ 0.7 million in 2018, and a negative EBITDA of US\$ 0.2 million, compared to negative US\$ 0.8 million in 2018. The improvement is associated with lower raw material costs at US\$ 13.2/Kg compared to US\$ 15.6/Kg.

Volume

		Q4 2019	Q4 2018	Δ	Δ %	2019	2018	Δ	Δ %
PRODUCTION									
Abalone	tons.	46	68	-22	-31.8%	209	156	53	34.2%
Mussels	tons.	1,484	1,142	342	29.9%	9,107	8,505	602	7.1%
SALES									
Abalone	tons.	49	66	-17	-25.4%	173	142	31	22.0%
Mussels	tons.	937	1,472	-535	-36.3%	8,483	9,981	-1,498	-15.0%
PRICES									
Abalone	US\$/Kg	13.5	20.8	-7.3	-35.0%	77.3	80.0	-2.7	-3.4%
Mussels	US\$/Kg	3.4	2.8	0.6	21.0%	11.7	10.5	1.2	11.3%

Subsequent Events

The creation of a new business unit called the Rocuant Logistics Center (RLC) was announced in February. Its objective will be to use real estate assets on Rocuant Island near Talcahuano for export logistics, land transportation to support primary and secondary logistics, and export storage and cargo services. The assets assigned to this business unit were old assets recovered from fishing facilities that were rehabilitated between 2017 and 2019.

The first cases of Coronavirus began to appear in China during January 2020, but to date, it had spread to almost the entire world and over 200 cases had been detected in Chile. This situation has affected Camanchaca's target export markets, leading the Company to implement measures that reduce the health risks for its employees that secure operational continuity for its production facilities and that open up new target markets. So far there are no Camanchaca employees diagnosed with the virus, nor has the operation of any of its production facilities been suspended. Its supply of consumables and export chains have continued to function, although under new sanitary protocols. However, as the pandemic is still spreading, there are risks that production or logistics could yet be disrupted.

During February, the Russian authority imposed export restrictions on many Chilean processing plants, including the two Camanchaca processing plants that had been previously authorized. This will require diverting product to other markets in successive months. The Russian market represents around 5% of world consumption of farmed Atlantic salmon, and it purchased 8% of Chilean Atlantic salmon exports in 2019. (Source: Kontali). The Russian market received 18% of Salmenes Camanchaca S.A.'s Atlantic salmon sales in 2019. The Company believes that it can divert these sales to other markets, as it usually does when relative conditions change, so does not expect to change any of its farming or investment plans.

On February 28, 2020, Compañía Pesquera Camanchaca extended the repayment schedule of its long-term credit line (tranche B), which totals US\$ 40 million, by 2 years. To date it has drawn down US\$ 30 million from this facility from Rabobank, DNB and Santander banks. Consequently, repayments originally scheduled to begin in May 2020 will now begin in May 2022, and originally scheduled to end in November 2022 will now end in November 2024.

Main Risks and Uncertainties

External variables might materially impact the Company's annual performance. The principal variables affecting revenue are pelagic fishing catches and the biological condition of Atlantic salmon harvests, as well as market conditions and prices of its main products, fishmeal and Atlantic salmon. The most critical cost factors are the environmental conditions at farming sites, the health status of the salmon biomass, biological feed conversion, pelagic catches that defines the scale of production, and the costs of diesel, energy and salmon feed.

Consequently, fishing and aquaculture companies are exposed to various risks, which require Camanchaca to use a risk matrix that directs and prioritizes the Company to i) review and update the critical risk inventory and generate a map that helps manage risks; ii) assess these risks on the basis of impact and probability parameters that helps with prioritizing; iii) implement an internal audit and control plan based on the risk map that focuses resources on the most vulnerable areas; iv) generate strategies to mitigate their probability and impact, including insurance wherever this is financially feasible and attractive. These risk maps guide management to continuously manage and mitigate each risk and establish the corresponding responsibilities, as well as the frequency and depth of internal controls to validate the effectiveness of mitigating measures.

The factors used to detect and manage not only critical risks when events occur, but also operational management are the Company's mission, vision and values; short and long-term strategic planning; known risks inherent to the business; the knowledge and experience of key employees; and other factors.

a) Phytosanitary Risks

The Company is exposed to risk of disease or parasites that can affect the biomass, increasing mortality or reducing growth of specific species, and thereby, production and sales volumes. Furthermore, salmon farming faces risks associated with harmful algal blooms and low levels of oxygen at farm sites, especially in summer when greater sun-light and higher temperatures encourage these situations.

Camanchaca has adopted strict control standards to minimize these risks, and comply with the Authority's requirements with respect to coordinated fallow periods for the concessions in each neighborhood, maximum fish density in cages, constant monitoring and reporting of the biomass and its biological status and health, the smolt stocking process in closed recirculation sites fed by under-ground water, transport of breeders and fish for harvest in wellboats, coordinated antiparasitic washing by neighborhoods, frequent net cleaning, oxygen plants to supplement pronounced oxygen deficits in the water, vaccinations at the freshwater stage, and other standards. The risks associated with increased concentrations of parasites can result in early harvests, under certain circumstances, with the consequent lower harvest weights. In the extreme, they can result in unusable products. The Company is mitigating these risks by rigorously applying current treatments, diversifying the anti-parasitic treatments it applies to sites affected by higher concentrations. Despite these mitigating measures, sea lice cannot be eradicated as a source of phytosanitary risks in the foreseeable future.

Oceanographic and climatic conditions are among the variables that affect the condition and location of suitable shoals of pelagic fish.

b) Natural Risks

The Company is exposed to natural risks that may affect normal operations, such as volcanic eruptions, tidal waves and tsunamis, earthquakes, harmful algae blooms, natural predators, pollution and other factors that may threaten the biomasses, fish catches and production infrastructure. Furthermore, it is exposed to contagious diseases or pandemics that may affect its production or its intermediate or subsequent logistics chains, leading to an interruption in production and sales. The Company is constantly monitoring these variables using the latest technologies available in Chile, in addition to having appropriate insurance coverage for these risks, where available.

c) Sales Price Risks

The Company mainly exports its products to numerous markets and evaluates the prices it obtains, for which it has a wide commercial network. The Company adjusts the speed of its sales in accordance with production and market conditions, which are constantly in flux. However, it does not operate a policy of accumulating inventory in order to speculate on a better sale price in the future.

- Industrial Fishing Division Despite short-term price volatility, global supply restrictions and sustained growth in demand for protein, driven primarily by developments in aquaculture and increased availability of products for human consumption, have kept prices trending positively in recent years.
- Salmon Farming Division Prices are highly dependent on supplies from Norway and Chile and on fluctuations in exchange rates used by the Company's major trading partners, which affects demand in these markets. Camanchaca has sought to safeguard against this risk through diversifying its commercial network and flexing its products to enable its raw material to be sent to any market.
- Other Seafood Division Mussel and abalone prices have experienced a stable trend on international markets in recent years, without large inter-annual fluctuations. The Company has mitigated these risks by optimizing costs, strengthening commercial ties with offices in various parts of the world, creating high-quality products and launching products in other formats.

d) Purchase Price Risks

The Company is exposed to changes in the price of commodities such as diesel and bunker oil. The Company does not use financial derivatives to mitigate this risk, as the size of future catches is uncertain. However, historically there has been some correlation between the price of fishmeal and other commodities, which reflects the state of the global economy.

The Company is exposed to changes in the price of salmon feed, which represents about half the cultivation cost. Camanchaca ensures its diets achieve a balance between feed cost and nutritional quality at each fish development stage. The Company aims to produce a final product that contains the same amount of Omega 3 as wild salmon, as well as keeping the ratio of marine sourced feed to farmed fish (the fish in-fish out ratio), to no more than 1.0. The Company has feed contracts with prices adjusted quarterly, on a cost-plus basis.

On average, 30% of total fishing catches come from local independent fishermen. The Company has long-term agreements with them in relation to volumes, pricing systems and additional guarantees. Therefore, Camanchaca is protected as purchase prices are indexed to fishmeal sales prices. The Company provides boat construction financing to local independent fisherman with whom it holds fish purchasing agreements, allowing boat owners to pay off the loan as the Company purchases fish.

e) Regulatory Risks

Our business relies on laws, standards and regulations issued by fishing authorities, and significant changes could have an impact on our performance. Such as the Fisheries Act published on February 9, 2013 that replaced individual fishing quotas with transferable fishing licenses. The regulations governing seafood farming are mainly established by the General Law on Fisheries and Aquaculture, and its associated regulations, which assign concessions, manage the biomass, establish preventive sanitary regulations, and other regulations. The Company is constantly monitoring any potential changes in regulations in order to anticipate and mitigate any potential impacts.

The regulations governing salmon farming densities were changed with effect from Q4 2016, and a smolt stocking reduction program was introduced (SRP) as an alternative to the general density regime. This program requires stocking and farming densities to be reduced when sanitary performance has fallen, or when smolt stockings are expected to grow in the area. The SRP mechanism gives producers the option to replace a reduction in density, when appropriate, with a smolt stocking plan that considers growth containment with respect to the previous cycle, so maintaining densities at maximum permitted levels.

Since the Company's policy has been to use its assets to provide services to third parties/producers, it has routinely leased out several farming sites. Regulations attribute the history of concession use to the concession owner, allowing the Company to use the history of smolt stocking at farming sites leased to third parties in its smolt stocking plans, without affecting the growth of smolt stocking in the areas involved. Therefore, as lease contracts expire beyond 2020, the Company estimates Atlantic salmon harvests of 60,000 tons WFE at its own farming sites, plus another 15,000 to 16,000 tons WFE of other species.

Most of the concessions held by Camanchaca for farming fish are of indefinite duration. However, in order to retain the concession, the current regulation requires a minimum amount of use. If minimum use is not achieved, the concession may be revoked. This has led the Company to operate some of its farm sites at minimum capacity for a minimum period where they are at risk of revocation, which results in additional expense. This situation generates a regulatory contradiction between an obligation to use the concession, and legislation that prefers smolt stocking growth containment, in order to preserve a healthy sanitary situation.

The financial statements could be affected by changes in economic policies, specific regulations and other standards introduced by authorities.

f) Social and Political Risks

Specific social conditions and/or political situations, such as riots, violence or protests, can generate temporary operational interruptions that affect the continuity of processing plants, primary and/or secondary logistics at export ports, access to specific public services, such as customs or health authorities, availability of labor or security of onshore facilities when faced with strikes, protests, etc. These situations can affect and delay catches, harvests, production or shipments of products to target markets. The Company continuously monitors these situations to ensure that its staff, facilities and products are safe, and regularly evaluates mitigating measures, including whether insurance policies are cost-effective.

g) Liquidity Risks

Liquidity risk is the risk of potential mismatches between the funds needed for investments in assets, operating expenses, finance costs, repayment of debt as it matures and dividend payments, and funding sources such as product sales revenue, collections from customers, disposal of financial investments and access to financing.

Camanchaca conservatively and prudently manages this risk by maintaining sufficient liquidity and access to third-party financing facilities, while carefully ensuring that it complies with all its financial obligations.

h) Interest Rate Risks

The Company is exposed to interest rate risk since its long-term financing includes a variable interest rate component, which is adjusted every six months. The Company evaluates its hedging options, depending on market conditions, but has not used them during the last five years.

i) Exchange Rate Risks

A substantial proportion of Camanchaca's revenue arises from contracts and commercial agreements set in US dollars. However, given the diversity and importance of markets other than the North American market, which have historically represented more than 30% of total exports, any devaluation of the US dollar against these markets' currencies and/or the Chilean Peso, could have an impact on market demand and consequently on prices, which would affect the financial performance of the Company.

Corporate policy is to agree income, cost and expenses in US dollars whenever possible. When that is not possible, expenses in Chilean pesos are converted to US dollars, which may appear higher if the Chilean peso appreciates. The Company occasionally evaluates exchange rate hedging instruments for its Chilean peso-denominated expenses, based on market conditions, which results in non-operating income or loss, respectively, for any operational loss or income produced.

The Company borrows from financial institutions in U.S. dollars.

j) Credit Risk

j.1) Surplus Cash Investment Risks

The Company has a highly conservative policy for investing cash surpluses. This policy covers the quality of both financial institutions and their financial products.

j.2) Sales Operations Risks

Camanchaca has credit insurance policies covering most sales that do not require immediate payment. The remaining sales are backed by letters of credit, advance payments, or are sales to customers with good payment performance.

Operational stoppages at ports or by customs or other institutions, as well as protests, marches or road blockages, may affect and delay shipments of our products to the markets where they are sold. Therefore, the Company continuously monitors these variables in order to anticipate any issues and identify alternatives to minimize the impact.

Financial Statements

Consolidation

The consolidated financial statements as of December 31, 2019 and December 31, 2018 include Camanchaca S.A., Salmones Camanchaca S.A., Camanchaca Pesca Sur S.A., Camanchaca Cultivos Sur S. A., Camanchaca SpA, Transportes Interpolar Limitada and Aéreo Interpolar Limitada.

Cía. Pesquera Camanchaca S.A. operates fishmeal and fish oil processing plants in northern Chile. Abalone farming and processing takes place in Caldera, in the third region.

The subsidiary Camanchaca Cultivos S.A. has marine farming concessions located at Chiloé Island in southern Chile, and a processing plant that produces mussels with shell, whole and unshelled.

Salmones Camanchaca S.A. produces, farms and processes salmon and includes Fiordo Blanco S.A. and Fiordo Azul S.A., who own salmon farming concessions.

Camanchaca Pesca Sur S.A. catches, produces and markets pelagic fish in central southern Chile. It includes Cannex S.A., which markets canned food.

Camanchaca SpA owns the foreign companies Camanchaca Inc., (USA), Camanchaca Ltd. (Japan), and Inmobiliaria Camanchaca S.A. (Chile).

The statements of financial position are presented as of December 31, 2019. They are compared with these statements as of December 31, 2018. The statements of net income and cash flow are presented for the year ended December 31, 2019, and compared to the year ended December 31, 2018.

Consolidated Statement of Net Income (ThUS\$)

	Q4 2019	Q4 2018	2019	2018
Operating revenue	200,961	147,599	620,030	626,480
Cost of sales	(162,369)	(110,654)	(504,774)	(491,766)
Gross margin	38,592	36,945	115,256	134,714
Administrative expenses	(4,018)	(8,440)	(19,272)	(31,230)
Distribution expenses	(6,917)	(6,762)	(28,528)	(28,550)
EBIT before fair value adjustments	27,657	21,743	67,456	74,934
EBITDA before fair value adjustments	36,112	27,972	96,314	99,365
Net fair value adjustments to biological assets	(9,433)	2,728	311	2,327
EBIT after fair value adjustments	18,224	24,470	67,767	77,261
EBITDA after fair value adjustments	26,678	30,700	96,625	101,692
Financial costs	(2,783)	(3,204)	(8,081)	(10,172)
Share of net income (losses) of equity method associates	360	358	1,654	1,650
Exchange differences	(805)	(1,387)	(3,074)	(2,993)
Other income (losses)	(7,853)	(1,298)	(13,923)	1,722
Financial income	13	0	37	53
Net income before taxes	7,156	18,939	44,380	67,522
Income tax expense	(1,341)	(6,215)	(11,460)	(18,087)
Net income for the period	5,815	12,723	32,920	49,435
Non-controlling interest	(2,290)	(3,583)	(12,300)	(14,997)
Net income for the period attributable to owners of the parent company	3,525	9,140	20,620	34,438

EBITDA: Gross profit before fair value adjustments + depreciation - administrative expenses - distribution costs

EBITDA after fair value adjustments: EBITDA + Gain (loss) on fair value of biological assets - Fair value adjustment to biological assets harvested and sold

Statement of Net Income - Salmon Farming Division (ThUS\$)

	Q4 2019	Q4 2018	2019	2018
Operating revenue	156,193	109,165	435,576	433,406
Cost of sales	(115,319)	(77,722)	(343,998)	(338,215)
Gross margin	40,874	31,443	91,578	95,191
Administrative expenses	(2,160)	(3,538)	(9,332)	(13,929)
Distribution expenses	(3,929)	(3,443)	(13,125)	(13,664)
EBIT before fair value adjustments	34,786	24,462	69,122	67,598
EBITDA before fair value adjustments	38,134	27,478	82,384	79,047
Net fair value adjustments to biological assets	(9,433)	2,728	312	2,326
EBIT after fair value adjustments	25,352	27,190	69,433	69,924
EBITDA after fair value adjustments	28,700	30,205	82,384	81,373
Financial costs	(1,450)	(2,082)	(4,901)	(6,470)
Share of net income (losses) of equity method associates	315	337	1,604	1,629
Exchange differences	(39)	(185)	(1,082)	(1,310)
Other income (losses)	(2,082)	(1,464)	(6,716)	1,820
Financial income	13	0	37	49
Net income before taxes	22,110	23,796	58,375	65,642
Income tax expense	(5,663)	(7,176)	(15,126)	(17,546)
Net income for the period	16,446	16,620	43,249	48,096
Non-controlling interest	(4,836)	(5,182)	(12,706)	(14,771)
Net income for the period attributable to owners of the parent company	11,610	11,439	30,543	33,325

EBITDA: Gross profit before fair value adjustments + depreciation - administrative expenses - distribution costs

EBITDA after fair value adjustments: EBITDA + Gain (loss) on fair value of biological assets - Fair value adjustment to biological assets harvested and sold

Statement of Net Income - Industrial Fishing Division (ThUS\$)

	Q4 2019	Q4 2018	2019	2018
Operating revenue	41,080	33,064	157,621	163,166
Cost of sales	(44,582)	(28,019)	(140,003)	(127,635)
Gross Margin	(3,502)	5,046	17,618	35,533
Administrative expenses	(1,286)	(3,968)	(7,426)	(13,688)
Distribution expenses	(2,498)	(2,679)	(12,307)	(11,125)
EBIT	(7,285)	(1,601)	(2,115)	10,721
EBITDA	(2,470)	1,340	12,370	22,629
Financial costs	(1,276)	(1,078)	(2,969)	(3,513)
Share of net income (losses) of equity method associates	45	21	50	21
Exchange differences	(732)	(1,272)	(2,103)	(2,108)
Other income (losses)	(5,772)	159	(7,200)	(110)
Financial income	0	0	0	5
Net income before taxes	(15,019)	(3,771)	(14,337)	5,016
Income tax expense	4,082	621	3,601	(1,295)
Net income for the period	(10,937)	(3,150)	(10,736)	3,720
Non-controlling interest	2,546	1,598	406	(227)
Net income for the period attributable to owners of the parent company	(8,391)	(1,551)	(10,330)	3,494

Statement of Net Income - Other Seafood Division (ThUS\$)

	Q4 2019	Q4 2018	2019	2018
Operating revenue	3,687	5,369	26,833	29,908
Cost of sales	(2,468)	(4,913)	(20,773)	(25,916)
Gross Margin	1,219	456	6,060	3,992
Administrative expenses	(572)	(935)	(2,515)	(3,615)
Distribution expenses	(491)	(640)	(3,096)	(3,761)
EBIT	156	(1,119)	449	(3,384)
EBITDA	448	(845)	1,560	(2,311)
Financial costs	(58)	(44)	(211)	(188)
Share of net income (losses) of equity method associates	0	0	0	0
Exchange differences	(34)	70	111	424
Other income (losses)	1	7	(6)	11
Financial income	0	0	0	0
Net income before taxes	65	(1,086)	343	(3,137)
Income tax expense	240	339	65	755
Net income for the period	306	(746)	408	(2,381)
Non-controlling interest	0	0	0	0
Net income for the period attributable to owners of the parent company	306	(746)	408	(2,381)

Statement of Financial Position (ThUS\$)

Consolidated (ThUS\$)	2019	2018
Cash and cash equivalents	41,873	30,748
Other financial assets, current	361	327
Other non-financial assets, current	15,798	19,301
Trade and other receivables, current	95,777	77,339
Related party receivables, current	116	92
Inventories	76,669	55,297
Biological assets, current	150,741	138,416
Tax assets, current	6,726	2,673
Total current assets	388,062	324,191
Other financial assets, non-current	701	701
Other non-financial assets, non-current	17,149	18,869
Rights receivable, non-current	1,252	1,349
Related party receivables, non-current	2,208	2,314
Investments accounted for using the equity method	4,871	4,699
Intangible assets other than goodwill	50,314	50,314
Intangible assets	1,214	1,214
Property, plant and equipment	287,683	255,462
Long-term deferred taxes	29,202	24,645
Total non-current assets	394,593	359,567
Total assets	782,655	683,758
Other financial liabilities, current	31,575	1,306
Operating lease liabilities, current	2,964	0
Trade and other payables, current	100,953	99,823
Related party payables, current	375	784
Other provisions, current	7,129	7,459
Current tax liabilities	346	6,874
Employee benefit provisions, current	3,520	2,708
Total current liabilities	146,862	118,954
Other financial liabilities, non-current	116,928	80,406
Operating lease liabilities, non-current	10,299	0
Trade and other payables, non-current	671	302
Related party payables, non-current	0	0
Deferred tax liabilities	20,188	16,126
Employee benefit provisions, non-current	1,027	1,108
Total non-current liabilities	149,113	97,943
Total liabilities	295,975	216,897
Share capital	284,134	284,134
Share premium	0	0
Retained earnings	35,210	20,728
Other reserves	50,527	50,784
Non-controlling interests	116,810	111,215
Total equity	486,681	466,861
Total equity and liabilities	782,655	683,758

Statement of Cash Flow (ThUS\$)

	Q4 2019	Q4 2018	2019	2018
CASH FLOW FROM (USED BY) OPERATING ACTIVITIES				
Net cash flow from (used by) operating activities	28,463	24,575	27,171	60,588
CASH FLOW FROM (USED BY) FINANCING ACTIVITIES				
Net cash flow from (used by) financing activities	3,152	(20,873)	49,482	10,056
CASH FLOW FROM (USED BY) INVESTING ACTIVITIES				
Receipts from sales of property, plant and equipment	135	284	1,640	533
Purchases of property, plant and equipment	(16,759)	(9,167)	(65,672)	(49,216)
Other receipts (payments)	0	(139)	0	(339)
Net cash flow from (used by) investing activities	(16,624)	(9,022)	(64,032)	(49,022)
Effects of changes in exchange rates on cash and cash equivalents	(716)	(592)	(1,496)	(1,079)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	14,275	(5,912)	11,125	20,543
CASH AND CASH EQUIVALENTS AT THE START OF THE PERIOD	27,598	36,660	30,748	10,205
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD	41,873	30,748	41,873	30,748

Statement of Changes in Equity (ThUS\$)

	Share capital	Share premium	Foreign currency conversion reserve	Cash flow hedge reserve	Other reserves	Total other reserves	Retained earnings (losses)	Equity attributable to the parent company	Non-controlling interest	Total equity
Opening balance as of January 1, 2018 (restated)	217,742	155,006	(1)	8		7	(93,949)	278,806	55,821	334,627
Capitalization of earnings	66,392	(155,006)					88,614			
Changes in equity										
Dividends accrued							(9,974)	(9,974)	(4,279)	(14,253)
Comprehensive income										
Net income for the period							34,438	34,438	14,997	49,435
Other comprehensive income (loss)			(419)	(40)	51,236	50,777		50,778	(100)	50,678
Increase (decrease) for changes in interests in subsidiaries that do not involve loss of control							1,599	1,599	44,775	46,374
Closing balance as of December 31, 2018	284,134		(420)	(32)	51,236	50,784	20,728	355,646	111,215	466,861
Opening balance as of January 1, 2019	284,134		(420)	(32)	51,236	50,784	20,728	355,646	111,215	466,861
Changes in equity										
Dividends accrued							(6,138)	(6,138)	(6,644)	(12,782)
Comprehensive income										
Net income for the period							20,620	20,620	12,300	32,920
Other comprehensive income (loss)			(319)	62		(257)		(257)	(62)	(319)
Closing balance as of December 31, 2019	284,134		(739)	30	51,236	50,527	35,210	369,871	116,809	486,680

Additional Information

Key Financial Indicators

This section compares the Company's key financial indicators based on its consolidated financial statements as of December 31, 2019, compared to December 31, 2018.

	2019	2018
Liquidity Indicators		
Current Liquidity	2.64	2.73
Acid Test Ratio	1.09	1.10
Working Capital (US\$ million)	241	205
Debt Indicators		
Net Debt Ratio	0.52	0.40
Current Liabilities / Total Liabilities	0.50	0.55
Non-Current Liabilities / Total Liabilities	0.50	0.45
Profitability Indicators		
Return on Equity (ROE)	4.24%	7.38%
Return on Assets (ROA)	14.73%	19.70%

Notes:

- 1) Current Liquidity Current Assets / Current Liabilities
 - 2) Acid Ratio Current Assets Net of Inventory and Biological Assets / Current Liabilities
 - 3) Working Capital Current Assets - Current Liabilities
 - 4) Net debt ratio Total Liabilities - Available Cash / Total Equity
 - 7) Return on Equity Net income (loss) attributable to owners of the parent company / Total equity
 - 8) Return on Assets Gross margin before fair value adjustment / Total assets
-

The decrease of 0.08 in current liquidity is mainly caused by an increase of US\$ 27.9 million in current liabilities and an increase of US\$ 63.9 million in current assets, as explained in the statement of financial position analysis. Consequently, working capital increased by US\$ 36 million.

The acid ratio remained stable at 1.09, mainly due to the aforementioned movements, and to increases in inventories and current biological assets of US\$ 33.7 million. These changes have already been explained in the financial position analysis.

The net debt ratio increased from 0.40 to 0.52 mainly due to total liabilities increasing by US\$ 79.1 million, while equity increased by US\$ 19.8 million. These changes have already been explained in the statement of financial position analysis.

The proportion of long-term liabilities increased from 0.45 to 0.50 as of December 31, 2019 due to an increase in non-current liabilities of US\$ 51.2 million. These changes have already been explained in the statement of financial position analysis.

Return on equity and return on assets can be explained mainly by the Company's margins and the financial performance for the respective periods.

Cumulative Indicators for the Salmon Farming Division

	As of 12/31/2019	As of 12/31/2018
a. Atlantic Salmon harvested in the period (tons WFE) / Site	3,838	4,041
b. Atlantic Salmon farming density (kg/m3)	8.5	7.0
c. Atlantic Salmon group survival rate in sea water by harvest	90.4%	91.6%
d. Pacific Salmon farming density (kg/m3)	2.1	n/a
e. Pacific Salmon group survival rate in sea water by harvest	90.3%	n/a
f. EBIT before fair value adjustments (US\$ million)	69.1	67.6
g. EBIT/Kg WFE before fair value adjustments	1.32	1.33

Notes:

a. Harvests for the period, expressed in ex-cage tons / number of sites harvested, expressed in ex-cage tons per site.

b and d. Average farming density, expressed in kg per cubic meter for sites harvested during the corresponding period.

c and e. Survival rate, expressed as harvested fish groups compared to smolt stocking. A harvest group is fish of a similar origin and strain.

f. Gross margin before fair value adjustment - administrative expenses - distribution costs for the salmon farming division

g. Gross margin before fair value adjustment - administrative expenses - distribution costs – net income from interest in trout business / kg WFE of own Atlantic salmon sold

Biomass Fair Value

Fair Value for the period ended December 31 (ThUS\$)

	Gain (loss) on fair value of biological assets		Fair value adjustment to biological assets harvested and sold	
	As of 12/31/2019	As of 12/31/2018	As of 12/31/2019	As of 12/31/2018
Salmonids	81,490	95,299	(81,179)	(92,972)

The net effect of the fair value adjustment of the salmon biomass is reflected in two accounts:

- a. "Gain (loss) on fair value of biological assets" records the estimated gain or loss for the period from valuing the biomass of live and harvested fish at the end of each month that will be sold in future periods. It can be positive or negative based on changes in the biomass, its cost, the quality of concessions and the market price. A gain of US\$81.5 million was recorded for the fair value adjustment of the live and harvested biomass as of December 31, 2019, compared to a gain of US\$95.3 million as of the same date in the previous year.

- b. "Fair value adjustment of biological assets harvested and sold" records the realized gain or loss on the live biomass, and the biomass harvested in current and prior periods that was sold in the current period. This account reverses the estimated gain or loss for the current and prior periods and the result of the transaction is recorded in operating revenue and cost of sales. The net effect of the biomass sold as of December 31, 2019 was a loss of US\$81.2 million, which reversed a positive margin estimated in prior periods, in contrast to a loss of US\$93.0 million as of December 31, 2018.

The net effect of the FVA of the salmon biomass for the year ended December 31, 2019, is a positive US\$0.3 million, compared to a positive US\$2.3 million for the year ended December 31, 2018.

Differences between the market and book values of principal assets

Biological assets include the following.

Biological assets include groups of breeders, eggs, smolts and fish at marine grow-out sites. They are valued at initial recognition and subsequently.

Live fish inventories at all their freshwater stages, which are breeders, eggs, fry and smolts. These are valued at accumulated cost at the reporting date.

The fair value valuation criteria for fish at marine grow-out sites includes the value of the concession as a component of the farming risk, in accordance with the definition in IAS 41. Therefore, a valuation model has been adopted that calculates the Fair Value Adjustment (FVA) by applying a risk factor to the expected biomass margin at each marine grow-out site.

The estimated fair value of fish biomass is based on the volume of fish biomass, average biomass weights, cumulative biomass costs for each site, estimated remaining costs and estimated sales prices.

Volume of fish biomass

The volume of fish biomass is an estimate based on the number of smolts in the sea, an estimate of their growth, identified mortality in the period, average weights, and other factors. Uncertainty with respect to the volume of biomass is normally lower in the absence of bulk mortality events during the cycle, or if the fish catch acute diseases.

The biomass is the weight when it is calculated for each farming site. The target harvest weight depends on each site.

Cumulative Costs

Cumulative costs for farming sites at the date of the fair value calculation are obtained from the company's accounts.

Remaining Costs

Estimated remaining costs are based on the forecast direct and indirect costs that will affect the biomass at each site through to final harvest.

This estimate is refined at each calculation, and uncertainty reduces as the harvest approaches.

Operating revenue

Revenue is calculated using several sales prices forecast by the company for each month based on future price information from public sources, adjusted to historical price behavior from the main destination market for our fish. This is reduced by the costs of harvesting, processing, packaging, distribution and sale.

A Fair Value Adjustment is applied to all fish at marine grow-out sites, under the current model.

Changes in the fair value of biological assets are recorded in the statement of net income for the period.

All biological assets are classified as current biological assets, as they form part of the normal farming cycle that concludes with harvesting the fish.

The gain or loss on the sale of these assets may vary in comparison to their calculated fair value at the reporting date.

The Company uses the following method.

Stage	Asset	Valuation
Fresh water	Eggs, fry, smolts and breeders	Direct and indirect cumulative costs at their various stages.
Sea water	Salmon, Mussels and Abalone	Fair Value, as there is a market with reference prices and companies that sell these assets. If no market can be identified, then cumulative cost is used.