

# The Alaskan Wild Salmon Industry: Fighting to Survive

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## *Nature, Quality vs. Volume, and Fixed Cost Absorption*

The last three years have been highly challenging for the Alaskan wild salmon industry, bringing its very survival into question. Suppliers (fishermen) blame processors; processors blame foreign competition; consumers aren't sure who to blame, but are disappointed in quality; and everyone is reaching out to government to help. To understand how this came to pass, it is worthwhile to understand the lay of the land.

### Nature

There are two primary species of salmon that dominate the Alaskan commercial salmon industry: pink and sockeye. Salmon of all species originate in Alaskan rivers where they grow from an egg, to a small fry, to smolt (adolescents) that venture into the open ocean.

Upon maturation, the adult fish return to their river of origin to spawn and create the next generation of salmon. Lay of the land is a relevant term, as rivers north of the Alaskan Peninsula are dominated by sockeye, whereas pink salmon generally migrate south of the peninsula and continue east to Prince William Sound and Southeast Alaska.

To get to the fishermen's nets, those fish take an incredible journey, aided and guided by forces we don't really understand.

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While pink salmon usually return home after a single year at sea, sockeye frolic around the ocean feeding and growing for anywhere from two years up to four or even five years. Mother Nature either has a grand plan we don't yet understand, or is just plain mean-spirited, as she mixes up the return route sufficiently to confound the commercial businesses awaiting the returning fish. Any industry in the world benefits from consistency and predictability of supply, and in this case, the fish just flat refuse to cooperate. (We previously described this and some other challenges two years ago, in [Wild Alaskan Salmon: An Industry in a Crunch.](#))



The frustration should be worth it, though. Salmon is considered to be one of the world's most desirable proteins because of its omega-3 fatty acid, B-vitamin, and selenium profile. Consumers have choices, not only among many seafood species, but among salmon species, as well. Aquaculture advances have resulted in consumers having year-round access to consistent quality Atlantic salmon in grocery stores and restaurants.

Wild-caught Alaskan salmon is a superior product to aquaculture-grown salmon in flavor and nutrient profile, but—because of its seasonal harvest and imperfect supply chain to the consumer—it has proven to be a product with a meaningful degree of variation in quality. We will come back to this later.

### Quality vs. Volume

It is important to understand something about quality. The simplest way to think about quality of salmon to the consumer is as a function of heat and time. Upon capture, the salmon is perfect: its quality never improves from that moment. But the longer salmon is exposed to temperatures above freezing, bacteria grow that soften

the flesh and change its texture. Controlling the cold chain to bring the salmon to the consumer with the least deterioration from its live state drives the highest quality. The aquaculture industry has done a good job with this, which is why the consumer receives a relatively consistent product.

**This is where fixed cost absorption raises its ugly head. The incentive is to harvest and process the greatest volume possible to lower unit costs in hopes of making a positive margin.**

The cold chain is comparatively much harder to manage when catching wild salmon in remote geographic regions that require a complex cold chain to bring this product to the consumer, and as a result, the wild salmon industry doesn't do as good of a job. The supply chain for salmon to get from remote fisheries in Alaska to the consumer requires lots of handling and a diverse cold chain, with every segment rewarded for volume. The supply chain starts with individual fishermen harvesting salmon, delivering them to tender vessels that ferry the product to shore-based processors, conversion of the raw whole salmon into final form (fillets, portions, cans) at a shore plant, and loading into containers that are shipped by vessel to markets, where product is stored in cold storage, and finally shipped to retail and food service outlets to meet consumer demand.



## Fixed Cost Absorption

The processor is the central figure in the cost equation. All processing activity happens within a short six-week period in the summer, so mobilization of fishing fleets, process workers, equipment, and supplies occur prior to knowing what Mother Nature is going to deliver in terms of a salmon run. To add to the processors' challenge, everyone in the supply chain has prices set before knowing the volume, the preferred finished product forms, or market prices. This is where fixed cost absorption raises its ugly head. The incentive is to harvest and process the greatest volume possible to lower unit costs in hopes of making a positive margin.

It doesn't always work out. Fish volumes regularly vary 20-30% from year to year and market prices are far from stable. As an example, in 2022, 75 million sockeye and 80 million pink salmon returned to their homes, two of the highest volume years on record. Two years later in 2024, approximately 51 million sockeye and 37

million pink salmon returned. Very few industries have to deal with optimizing their fixed assets for supply that varies this extremely; even fewer have to do so when the supply can't be known in advance of its six-week harvest period.

Mother Nature even threw two additional curves in 2024. First, for some unknown reason, pink salmon just didn't come home to Prince William Sound, yielding the second-lowest volume in the last 50 years. Try and plan for that kind of volatility. Second, and more complex, was the average size of returning sockeye salmon. Mother Nature told a bunch of 2-year ocean fish (sockeye that had spent two years at sea) to head home, but held back the 3-year ocean fish to keep eating (either that, or they died en masse and there weren't very many 3-year fish left to return). Either way, the mix of sockeye returning was wildly out of proportion in favor of 2-year fish than is normally expected. Since 2-year fish are



smaller than 3-year fish, the average fish size for the entire run was dragged down to close to 4.3 lbs., nearly a full pound lower than the previous year's average size. The net effect was that the 2024 season yielded roughly half of the harvested pounds of sockeye compared to the 2022 peak season.

Since most of the in-season operating costs are committed in advance, they are largely fixed, which all else equal implies a benefit from more volume. In that regard, both fishermen and processors are aligned. Fishermen are paid on poundage so once delivered, their revenue cycle is complete. The condition of the fish is somewhat irrelevant. Processors, on the other hand, may not be able to quickly process everything delivered. Remember that equation on quality: hours multiplied by degrees over freezing equals degradation? Fish may have to sit for hours, or sometimes days, or may even have to be tendered to other plants that have capacity in order to be processed. In 2022, it was not uncommon for fish to be

out of the water for 2-3 days before being processed.

**To survive, the industry needs to figure a way to reliably deliver to the consumer the quality that Alaskan wild salmon embodies. At the same time, processors need to find a way to remove some of the operating leverage of the way they operate their businesses.**

Unit costs were low, but so was quality; flooded with volume and lower perceived

quality, the processors experienced a double whammy on market prices. The equation cuts the other direction, too: in 2024, the pink salmon run was so low, processors couldn't process enough fish to offset all the costs incurred to be ready for the season. Huge losses resulted despite improving prices.

Processors lost money in 2022 and 2024 and had small profits in 2023. Fishermen had one of the best years ever in 2022 because of the high volume and prices, followed by one of the worst in 2023 because of very low prices, and somewhere in the middle in 2024. The swing in prices to fishermen by processors was viewed as a necessity given the conditions, but the drop by more than 50% in 2023 was viewed by fishermen as offensive. A lack of trust of being treated "fairly" has led to clamors for transparency and government intervention.

## The Solution

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To survive, the industry needs to figure a way to reliably deliver to the consumer the quality that Alaskan wild salmon embodies. At the same time, processors need to find a way to remove some of the operating leverage of the way they operate their businesses. Ultimately, the industry needs to be able to produce a reliable, higher-quality product so that it can earn a higher price in the marketplace and to do so at a profit margin that can healthily sustain all the constituent segments. The processor industry has approached the "profitability" problem from the cost side through consolidation. Whether an outright sale, a joint venture, or some other form of collaboration, the purpose is to better utilize facilities to drive lower unit costs of producing finished product. Over the last five years, Peter Pan Seafoods operations have exchanged hands twice, North Pacific

Seafoods has been absorbed by Canfisco, and Trident has sold four plants to various other industry participants. Consolidation is not yet done, and more plants will not operate in the future. We are coming close to the end of any benefit from consolidation to reduce costs.

The real challenge is to address quality. Better use of cold (ice or refrigerated seawater), better handling, shorter water-to-finished product time, and deeper, faster freezing needs to be attacked. Incentives need to be aligned throughout the value chain so that quality affects each party. Once alignment is gained, improvements in the process can be tackled.

## A Modest Proposal to Achieve Alignment

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Our suggestion is that the salmon industry take a page from the way the Alaska quota fisheries operate. Suppliers of quota most often are paid on a royalty basis: a percentage of revenue. This aligns suppliers and processors on timing of benefit and market pricing. As applied to the salmon industry, fishermen would be paid a percentage of what their fish earn in the market. Because fishermen also have operating costs, a deposit can be advanced towards the ultimate sale. At

first look, fishermen might think they are disadvantaged as it will take longer to get paid, but the offsetting benefits are knowing that they are getting the advantage of the ultimate market value of the product. For example, fishermen could earn X% of h&g (headed and gutted) sales, Y% of canned sales, and Z% of fillet sales (or as detailed of a product SKU list as desired).

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That knowledge of the relationship between quality and price would incent fishermen to take better care of their product, using refrigerated seawater holds and/or ice, demanding the same from tenders, and being willing to accept occasional limits to avoid creating bad product. For the processor, some of its

costs get converted from fixed to variable and takes away some of the market price risk. With its supply chain more aligned on quality, it should be better able to deliver more consistent quality and demand the price that quality deserves. In that case, everyone wins.

## There Might Not Be an Alternative

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Our proposal is delivered with the understanding that the status quo may not be viable. The last three years have been catastrophic to Alaska's salmon processing industry, the result being the rapid consolidation of major processors in a desperate pursuit of economies of scale. But even if a single company controlled the entire Alaskan wild salmon industry, the mechanics do not yet exist to incentivize quality, expand the total value of the catch, and create more margin for the industry (both fishermen and processors) to share.

Salmon are too good of a product to lose. Quality is the way.

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