

**“Globalization, Salmon Farming,
and the Future of the Alaska Salmon Industry” Revisited**

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Note: I gave this short talk as part of a panel of four speakers for a 60th anniversary celebration of the Alaska World Affairs Council. The panelists were asked to reflect on earlier presentations which they had given to the World Affairs Council: what they had said and what had changed in subsequent years. Each talk was limited to just ten minutes—so my talk was a very brief and simplified review of a complex topic, which necessarily left out many important details. The text in *italics* is from the Powerpoint which I showed for my 2002 presentation.

In 2002 I gave a talk for the Alaska World Affairs Council on “Globalization, Salmon Farming, and the Future of the Alaska Salmon Industry.”

I wrote in my daily journal that I had joked that the issues faced by our salmon industry were “very complicated and difficult, but I’m sure we can address them in a timely way, just like subsistence and the fiscal gap.” Almost 17 years later, that last statement at least probably still applies.

Here’s how I summarized my conclusions in that talk:

The Alaska salmon industry is caught up in some of the most profound and sweeping changes of our time:

- *The transition from common property to rights-based management of fisheries*
- *The transition from wild fisheries to aquaculture*
- *The globalization of the world economy*
- *Global climate change*

In 2002 the Alaska salmon industry was facing an economic crisis. Salmon prices and the value of Alaska’s salmon harvests had fallen drastically. In my talk I tried to summarize the causes of the crisis and how I thought the industry should respond. I argued that:

Very rapid growth in farmed salmon production has glutted farmed salmon markets and severely depressed prices for farmed (and wild) salmon. . . The farmed industry faces a difficult period of adjustment to overproduction. How or when prices will rise to more profitable levels is uncertain. The world salmon industry now faces classic overproduction problems similar to those affecting

many agricultural products. One of the biggest factors affecting the future of the wild salmon industry is the extent to which the world farmed salmon industry will be able or not able to control production to avoid periodic low price cycles.

I also argued that globalization of the world economy had profound implications for Alaska's salmon industry, as did the potential for changing ocean conditions, *possibly exacerbated by global climate change, to significantly change future harvests.*

I predicted that if the industry didn't make significant changes:

Prices will continue to trend downwards over time.

I noted that the industry also faced new opportunities:

As processors and fishermen leave fisheries where they can't make money, there will be more fish for those who remain, allowing their operations to become more efficient and profitable.

Opportunities in higher-end niche markets will grow. A limited number of processors and fishermen will be able to take advantage of these.

At that time there was a major debate in Alaska's salmon industry and government about how to respond to the crisis. One argument was to just let market forces work to allow consolidation. I said that:

This is the standard way in which competition forces adjustment in an inefficient, overcapitalized industry. But just letting the market take care of it is a painful process for those being forced out of the salmon industry.

More controversially, I argued that the most fundamental challenges faced by the Alaska salmon industry, and limiting its ability to adjust to a changing world, had to do with how we manage our salmon resources:

Under the current management system, market forces alone can't and won't allow the Alaska salmon industry to achieve its full economic potential, or in some areas to even survive at all. Fishermen are limited to specific kinds of gear, and are not allowed to change to gear which could lower costs or increase quality. The current management system forces fishermen to race each other for fish, which adds to costs and lowers value.

I argued that:

To survive and prosper, we need a management system:

- *that allows for continuous change and adaptation to changing natural and economic conditions*
- *that allows for continuous innovation using new technologies*

- *that creates internal incentives for producing fish at the lowest possible cost*
- *that creates internal incentives for producing fish of the highest possible quality*

I argued that we could create those conditions by allowing for rights-based management of salmon: where the fishermen have clearer rights to the fish than under the current limited entry system, and fewer restrictions on how, where and when they catch them.

What has happened since then?

So what has happened since I gave that talk almost 17 years ago? First I have to caution you the Alaska salmon industry is extremely diverse and complex—so it's very difficult to generalize about it.

But overall, although the Alaska salmon industry has faced difficult challenges and changes, it is doing much better than I had worried it might. Total catches remain generally strong, though returns of some species in some areas in some years have been alarmingly low—such as for sockeye in southcentral Alaska this year. Salmon prices have risen significantly, rather than trending downwards as I predicted—although prices remain well below levels of the 1980s. The average value of Alaska's salmon harvest for the five-year period ending in 2018 was 30% higher than the average for the five-year period ending in 2001—but still only half of the average for the five-year period ending in 1990.

Why have prices and value improved?

So why have our salmon prices and value improved? The answers—as with so many of the changes in Alaska's economy over time—lie partly in global factors beyond our control, and partly in changes we have made in Alaska.

The most important global factor beyond our control was dramatic growth in global salmon demand—because salmon farmers worked aggressively to develop new geographic markets and to develop convenient new products which you can now find in any supermarket in the United States and Europe and Russia. The demand growth allowed world markets to absorb more than a doubling of world farmed salmon production since 2001, with prices trending upwards rather than falling.

In Alaska, the industry made important changes that significantly strengthened the industry, including:

Significant consolidation in both salmon harvesting and processing—which was painful but which made the industry more efficient and resilient

Very strong marketing by the Alaska Seafood Marketing Institute (ASMI) as well as processors and fishermen.

Very significant diversification of markets and products from our earlier dependence on the Japanese market and canned salmon markets

Significant improvements in quality

One change that the salmon industry did not make was the adoption of the kind of rights-based management I had suggested was necessary for the industry to survive and prosper. There was little enthusiasm in the industry or the legislature for these kinds of changes, which among other things might have required constitutional amendments.

The Future of the Alaska Salmon Industry

So what do I think now about the future of the salmon industry?

That's a big and complicated question. The future of our salmon industry is very closely linked to that of the global seafood industry—both farmed and wild. Seafood production will continue to grow—but that growth will come from aquaculture, which already produces half the fish eaten globally and more than half the fish eaten in America. The issues have to do with how Alaska salmon will compete in a much larger and very different global seafood industry.

I summarized my thoughts on this in a recent presentation on “The Future of the Seafood Industry” which you can read on my website (<https://gunnarknapp.com/>).

My main points are that the future of the global seafood industry—and with it the Alaska salmon industry—will primarily be driven by four broad factors which are mostly beyond our control: Nature, Technology, Economics and Politics. I'll close with brief observations about the first two of these: Nature and Technology.

Nature—including climate change—will drive uncertain but potentially dramatic changes in our salmon fisheries—in ways we can neither control nor predict. This uncertainty and lack of control will remain a fundamental constraint to our salmon industry. It increases risk, increases market volatility, complicates marketing, and reduces incentives for investment. The unexpectedly low sockeye salmon runs in southcentral Alaska this summer are an example of what may lie ahead.

Technology may be an equally important factor in the future of the industry. Look around! Rapid and dramatic technological innovations are occurring throughout every industry—including the entire seafood industry supply chain—and the rate of change is accelerating. I've seen amazing technological advances in the seafood industry since I gave that talk in 2002—but the bad news is that I've seen most of these advances in other countries, and on salmon farms, rather than here in Alaska. But these are only the very beginning of the innovations which will transform the seafood industry over the next two decades.

The future of our Alaska salmon industry will depend on the extent to which we can keep pace with and take advantage of technological innovation. And I continue to worry that our salmon industry is hugely hampered in its ability to innovate because of the rigidities in our management system which I talked about 17 years ago.