Alaska Seafood COVID-19/Inflation/War in Ukraine Briefing Paper

Fall 2022 Edition

McKINLEY RESEARCH GROUP, LLC

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Prepared on behalf of the Alaska Seafood Marketing Institute by McKinley Research Group, this series of briefing papers provides information on the depth and breadth of the pandemic's effects on Alaska's seafood industry.

This series of briefing papers was originally intended to provide timely information about how rapidly changing pandemic conditions are influencing the Alaska seafood industry. This paper addresses not only the pandemic but also impacts to the industry of another external world event: the Russian invasion of Ukraine in February 2022.

This is the tenth and final briefing paper in this series. Previous editions, as well as the seafood processor and harvester surveys conducted as part of this project, can be accessed here on the Alaska Seafood Marketing Institute's website.

COVID Isn't Over: Continued Operational Challenges to Seafood Industry Caused by the Pandemic

Many aspects of American life went back to "normal" in 2022 as governments and other institutions relaxed many COVID-19 precautions such as quarantine and mask rules.

The Alaska seafood industry eased restrictions to a lesser extent than society in general. Some early pandemic precautions, such as keeping workers in hotels for pre-season quarantines were no longer needed in 2021 as COVID vaccines and treatments began to emerge and medical recommendations changed. However, Alaska seafood processing plants were by no means back to operating as they did in 2019. Several COVID precautions remained in widespread use to keep the virus from spreading across processing plants and work bunkhouses. According to industry interviews, common COVID precautions that remain in effect in many Alaska seafood plants include:

- Worker vaccine requirements
- Chartered airplanes to transport workers (in 2022 this has sometimes been a COVID precaution and sometimes a logistical solution to disruptions in scheduled commercial plane service)
- Enhanced cleaning procedures
- Closed campuses to limit the flow of people in and out of processing plants (sometimes with more flexibility than 2020/2021 closed campus restrictions)
- Mask mandates (sometimes only required for the first days after workers enter closed campuses)

State of Alaska COVID-specific workplace regulations expired in 2021, so policies vary between companies and plants.

Prevention costs and disruption caused by COVID cases within plants remained an issue this year, although at a different scale than in 2020 and 2021, when the industry faced outbreaks that closed entire facilities and spent heavily on air travel and quarantine hotel room rentals in efforts to arrest the spread of the virus.

The highest periods of COVID spread for the industry so far have been in the summer of 2020, early 2021, and early 2022, periods when busy fish processing seasons (summer salmon season and Alaska pollock "A" season) coincided with periods of high virus transmission in Alaska. Nonresident infection data from the Alaska Department of Health and Human Services suggest that seafood industry COVID case counts have generally been low since the spike associated with Omicron in January 2022.

Winter is a challenging season for containing a virus that spreads most easily among people indoors. But the industry has a new tool as it prepares for the January 2023 pollock "A" season, the bivalent vaccine that specifically protects against COVID variants that emerged in the last year.

Effects of Inflation: Production Costs and Final Product Prices

In addition to the direct effects of the virus, the industry continues to face secondary challenges caused by higher production costs and volatile final markets for Alaska seafood products.

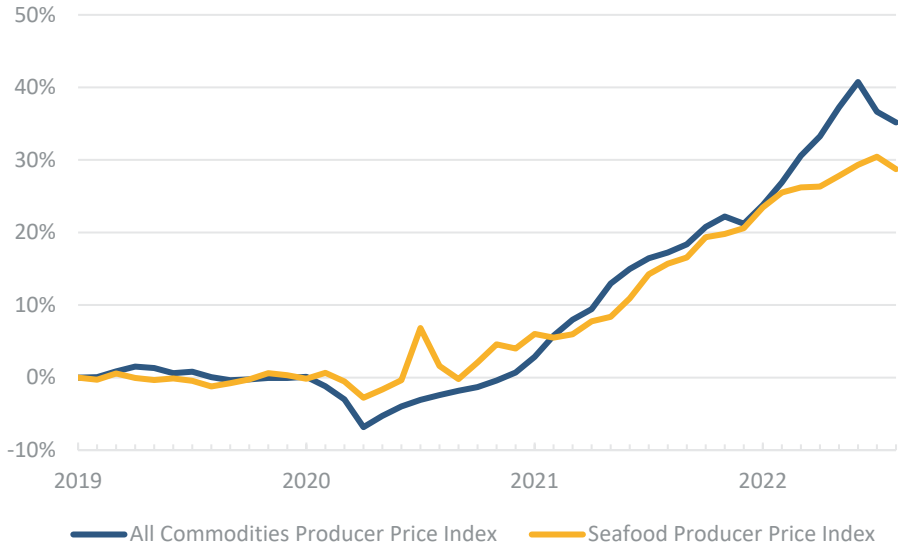
Production Cost Inflation

The challenge of higher prices for shipping, labor, and other key seafood industry inputs was addressed in ASMI's November 2021 COVID briefing paper. Prices have continued to rise, driven by the COVID-related forces behind previous increases and rising fuel costs caused by the war in Ukraine.

Data below from the U.S. Bureau of Labor Statistics show that the producer price index for seafood processors rose more than 30% from January 2020 (before the pandemic) to a peak in July 2022, before decreasing slightly in August. The data show seafood producer expenses rose especially quickly in the summer of 2020 when processors had to make major changes to prepare their facilities and workforces for operating during a pandemic. Seafood producer prices have risen steadily since 2021, although not quite as quickly as the general producer price index for all commodities.

These are national statistics, and therefore do not represent the often-higher costs paid by Alaska seafood producers for operating expenses including wages, fuel, and equipment.

Figure 1. Percent Change from Jan. 2019 of Seafood Producer Price Index and All Commodities Producer Price Index (January 2019-August 2022)



Source: U.S. Bureau of Labor Statistics, via Federal Reserve Bank of St. Louis.
Note: Both indices are national, not specific to Alaska.

Although producer prices have increased dramatically in the last year, one key price indicator has been decreasing: ocean freight. Container freight spot prices have dropped in recent months despite high fuel prices, potentially indicating softer demand for shipping. Backlogs of anchored ships waiting outside U.S. ports, a key symptom of recent supply chain disruptions, have also gone down.

Seafood Product Price Inflation and Effects on New U.S. Appetite for Seafood

One silver lining of the pandemic for the seafood industry was the surge in U.S. retail seafood sales. The large increases in retail sales helped soften the impact of closed restaurants early in the pandemic (although it did not make up for it) and introduced many consumers to preparing seafood at home. This opportunity to introduce retail seafood to American consumers was key because the lack of consumer knowledge of seafood preparation has long been seen as an obstacle to increased domestic retail sales.

Will retail seafood sales volumes remain at an elevated plateau as more consumers resume eating seafood outside the home again? Early indicators pointed to yes, but higher prices may be changing that. A recent 210 Analytics review of U.S. grocery store sales for August 2022 found that seafood sales volumes were below August 2021 levels, down 12.9% for fresh seafood and down 3.9% for frozen seafood.

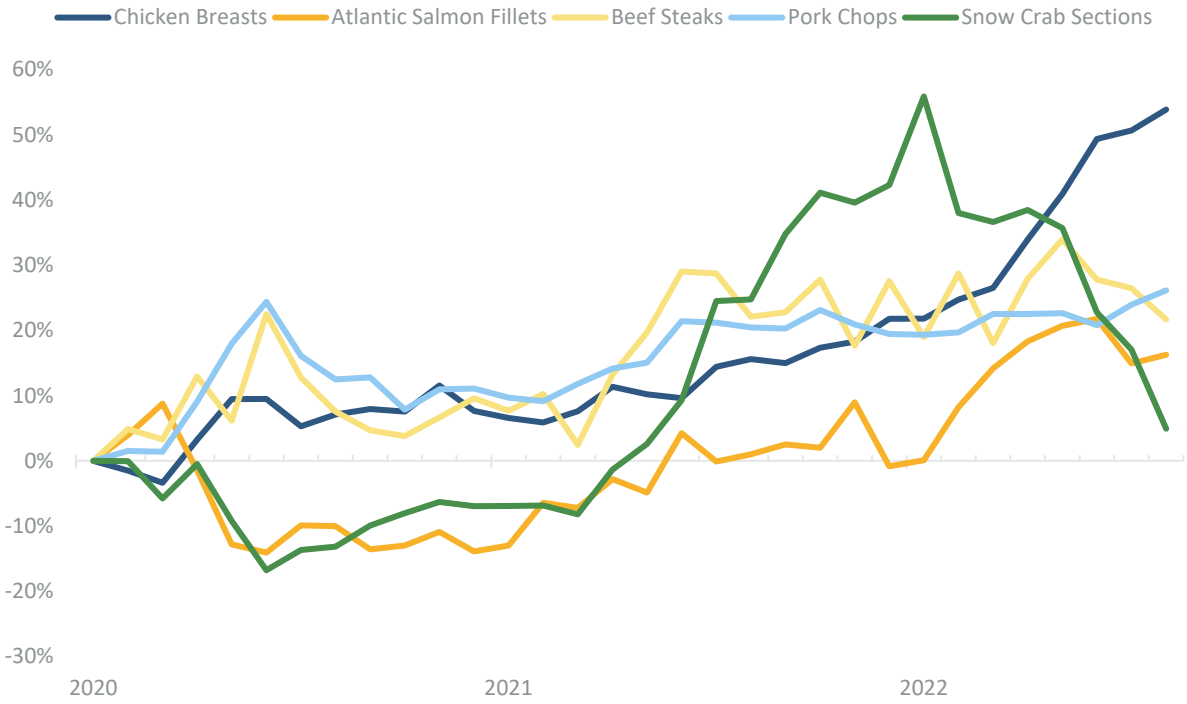
Rising prices for seafood products are generally good for the industry, to a point. However, if prices rise too quickly compared to alternative protein products such as beef or chicken there is a risk of pricing some consumers out of the market and losing long-term market share as consumers get out of the habit of eating seafood.

The following figure shows how prices for two key seafood commodities – farmed salmon and snow crab – in the U.S. retail market have moved in relation to competing protein products.

Snow crab experienced a historic rise in value in 2021 and spiked in early 2022 with retail prices growing much more quickly than other protein products during that time. Other premium seafood products including king crab, Dungeness crab, lobster, and scallops have had a similar price trajectory. Later in 2022, retail snow crab prices fell just as abruptly as they rose, dropping to near pre-pandemic levels in fall 2022.

Atlantic (farmed) salmon prices were low early in the pandemic but increased in 2021 and especially the first half of 2022. Despite the recent jump in prices, retail Atlantic salmon fillet prices have increased less during the pandemic than other protein products including beef steaks, pork chops, and chicken breasts.

Figure 2 . Percent Change from Jan. 2020 of U.S. Retail Prices for Common Protein Products



Source: Urner Barry.
Note: Atlantic salmon fillets are used in this figure rather than Alaska salmon products because of availability of retail price data that is comparable with other non-seafood price data. Wild sockeye salmon prices have historically followed similar trajectories as Atlantic salmon, although the price premium for wild Alaska sockeye salmon varies.

Early Effects of the War in Ukraine on the Alaska Seafood Industry

The war in Ukraine has been devastating to the people of Ukraine and has had ripple effects around the world. Three current or potential future impacts of the war on the Alaska seafood industry include:

1) Immediate damage to Ukraine's ability to purchase Alaska seafood both for reprocessing and final sale. In 2021, Ukraine was the 10th largest direct importer of Alaska seafood in the world by value, just behind the United Kingdom, and ahead of Vietnam. In March and April of 2022, it was the 21st largest, between Hong Kong and Ecuador.

2) Market effects of the U.S. ban on Russian seafood that went into effect in June. This will likely have the largest effect on markets for king crab and snow crab, the main Russian seafood products the U.S. directly imported before the war.

3) Potential additional seafood market changes that could occur if the U.S. ban on Russian seafood imports were expanded to include Russian products processed in China or other third-party nations.

Loss of Ukraine Reprocessing and Consumer Market

Much of the seafood trade press coverage of the war in Ukraine has focused on the Russian market and the consequences of sanctions imposed by the United States and allies. For Alaska's largely export-driven seafood industry, the most consequential effect of the war has arguably been on the Ukrainian side of the border, where the Russian bombardment has all but halted what had been a modest but growing Alaska seafood import business.

Ukraine is a much smaller country than Russia but was a larger market for Alaska seafood exports even in the 2010's before Russia imposed an embargo on U.S. seafood imports in 2014.[1]

Table 1. Alaska Seafood Exports to Ukraine and Russia, 2013 to 2022

	Alaska Seafood Exports to Ukraine ($millions)	Alaska Seafood Exports to Russia ($millions)
2013	$70	$61
2014	$29	$25
2015	$13	$0
2016	$21	$0
2017	$32	$0
2018	$32	$0
2019	$39	$0
2020	$31	$0
2021	$45	$0
2022*	$6	$0

Source: National Marine Fisheries Service, Compiled by McKinley Research Group. *2022 data is through July.

Russia's Alaska seafood imports before the 2014 embargo consisted mainly of salmon roe (Russia was the second- largest buyer in the world after Japan), and to a lesser extent Alaska pollock surimi.

In Ukraine, the most imported Alaska seafood products before the February 2022 invasion were headed-and-gutted Alaska pollock and salmon roe, as seen in the table below. Ukraine was the world's largest market for

[1] Russia's 2014 embargo on U.S. food products, including seafood was in retaliation for U.S. sanctions on Russia for the invasion of Ukraine's Crimean Peninsula. The embargo does not cover all Alaska seafood products (canned salmon is one exception to the list of officially embargoed products). However, Alaska exports to Russia have essentially fallen to zero since the ban was enacted. The U.S. did not impose a corresponding ban on Russian food imports until 2022. For more information on Russia's seafood embargo, see USDA Foreign Agricultural Service, 2014. "Russia Announces Ban on Many US Agricultural Products."

pink salmon roe from Alaska, according to industry interviews. Ukraine also imported moderate volumes of headed-and-gutted pink salmon in recent years.

Ukraine's headed-and-gutted Alaska pollock and salmon products went mostly to a reprocessing sector that was seen as a growing opportunity for Alaska products. Reports from Ukraine indicate several of the country's largest seafood processing facilities were directly impacted by the conflict and are not operational or operating in a limited capacity.[2]

Table 2. Top Alaska Seafood Products Exported to Ukraine by Value, 2017-2021 Annual Average

	Value ($millions)	Volume (mt)
H&G Alaska pollock	$12	5,607
Frozen Salmon Roe	$10	767
H&G Pink Salmon	$6	1,895
Prepared Roe Products	$3	136
All Other Products	$5	1,380
All Alaska Seafood Exports to Ukraine	**$36**	**9,786**

Source: National Marine Fisheries Service, Compiled by McKinley Research Group.
Note: In addition to Alaska Seafood, Ukraine has been a large buyer of Pacific whiting from Oregon and Washington in recent years (not shown in this table).

In addition to being a market for Alaska seafood, Ukraine has also been an important source of labor in Alaska for the seafood industry. In recent years the Alaska processing sector has employed as many as 3,000 Ukrainians (along with workers from other countries) through the H-2B seasonal, non-immigration visa category. In 2020, Ukrainian International Airlines operated chartered aircraft that brought workers directly from Kyiv to Alaska, helping make the summer Bristol Bay salmon fishery possible in a year when the pandemic made the logistics of getting workers to remote processing plants especially difficult.[3]

Alaska's seafood industry has responded with seafood donations to Ukrainian refuges and worker-to-worker support efforts.

U.S. Ban on Russian Seafood Imports

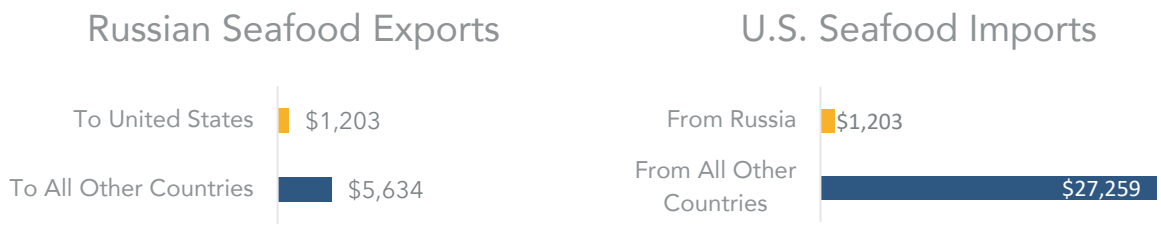
Russia is a major producer of many seafood products that compete with Alaska products, including king and snow crab, salmon, pollock, and Pacific cod. Sanctions on Russian imports imposed by the U.S. and allied nations have the potential to affect markets for Alaska seafood, although the specific ways the sanctions are implemented will influence how markets will be impacted.

The Biden administration announced the ban with an executive order on March 11, 2022, although the order allowed shipments that had already been agreed to in writing before March 11 to be imported through June 23, 2022.

[2] SeafoodSource, 2022. "Ukraine-based Universal Fish Company continuing production despite setbacks from war"
[3] IntraFish, 2022. "Guest Commentary: Alaska seafood processing relies on Ukraine. Let's make sure they can rely on us."

As seen in the figure below, the U.S. is a relatively large seafood export market for Russia, but Russia is not an especially large source of seafood imports to the United States, in terms of total value. Almost a fifth of Russia's $6.8 billion in seafood exports in 2021 went to the United States. From the perspective of the U.S. market, Russian imports were a small (4%) source of total seafood import value, which totaled more than $27 billion from all countries.

Figure 3. Relative Importance of Russia as Source of U.S. Seafood Versus U.S. as Export Market for Russian Seafood, 2021 ($millions)



Source: NMFS, Trade Data Monitor.

While Russia is not a key producer of seafood imported to the United States in terms of total value, it is an especially important producer for one product in particular: king crab. Russia is the world's largest king crab-producing nation, catching about three-quarters of the global harvest.

As seen in the table below, more than 91% of the value of U.S. imports of Russian seafood in 2021 was crab, predominately king crab. The value of Russia's exports rose rapidly in 2021 because of the record high prices for both king crab and snow crab.

Table 3. Top 10 U.S. Seafood Direct* Imports from Russia, 2021

Product	2021 Import Value ($millions)	2021 Import Volume (mt)
Snow Crab	$509	18,799
Red King Crab	$420	8,486
Blue King Crab	$86	2,795
Golden King Crab	$80	1,625
Frozen Cod Fillets	$33	4,037
Minced Groundfish	$9	3,687
Frozen Sockeye Salmon	$8	880
Frozen Halibut	$8	639
Frozen Cod	$6	1,827
Frozen Salmon Fillets	$6	799
All Other	$39	6,324
All Direct U.S. Imports from Russia	$1,203	49,898

Source: National Marine Fisheries Service.
Note: Rows may not sum because of rounding.
*This table includes only products imported directly from Russia. Estimates for imports of Russian-origin products imported from China are provided in the next section.

Market forces would suggest that reduced supply of crab to U.S. markets will lead to higher prices for crab products (ultimately leading to higher prices paid to Alaska crabbers), but other factors complicate the crab price dynamics.

First, consumer prices for king and snow crab were at particularly high levels in February 2022. Dipping consumer demand made wholesalers with existing inventories (paid for at high prices) extremely reluctant to buy more until prices hit bottom.

Because Russia is by far the world's largest producer of king crab, in the long term the U.S. ban on Russian king crab will likely lead to less volume available in the U.S. and higher prices. But in the short term the six-month delay between the announcement of the ban and its implementation may have had the opposite effect as importers had time to bring Russian crab into the country before the June 23 deadline. U.S. imports of Russian king crab products in the first six months of 2022 totaled more than 9,000 mt, which is 27% higher than U.S. imports during the same period in 2021. While this was a large volume for the first half of the year, it's well less than the usual full calendar-year volume of about 12,000 mt reported in recent years.

In addition to crab, Russia is a major producer of several other species that compete with Alaska seafood products including salmon and Alaska pollock. But unlike Russian crab, many of these products are processed in China before being imported to the United States and are therefore not subject to the ban.

U.S. Imports of Russian Seafood Reprocessed in China

Much of the Russian seafood that ultimately enters the U.S. market first undergoes processing in China. Product processed in China is designated as a "product of China" rather than a "product of Russia." Currently, the U.S. ban on the importation of Russian seafood does not apply to Russian-origin products that are altered into new products in China.

It is difficult to know the exact volume of Russian-origin seafood that enters the United States through China. However, totals can be estimated for fish for which China is a major secondary processor including Alaska pollock, salmon, and cod (Atlantic and Pacific).

The table below shows the estimated volume of Russian-origin Alaska pollock, salmon, and cod imported into the U.S. via China. The estimates are based on the assumption that the proportion of Russian fish in Chinese imports is the same as the proportion of Russian fish in processed fish products China exports to the United States.

This estimated indirect import of Russian seafood to the U.S. amounted to about 61,000 mt in 2021, which is more than the direct import volume of 50,000 mt. The value of indirect imports is estimated to be about $250 million, which is far less than the $1.2 billion in seafood the U.S. imported directly from Russia in 2021 (as seen in Table 3). As noted before, the value of direct Russian seafood imports is high (despite the relatively low volume) because crab is highly valuable.

Table 4. Estimated Volume and Value of Seafood Imported to the U.S. from China Made from Russian Raw Materials, 2021

	Value ($millions)	Volume (mt)
Cod	$154	23,000
Salmon	$94	15,000
Pollock	$69	23,000
Pollock, Cod and Salmon	$248	61,000

Source: Trade Data Monitor, Compiled by McKinley Research Group.