Special Topic: Supply Chain Disruptions and Inflation

Previous editions of this briefing paper have addressed direct impacts of the COVID-19 pandemic to the Alaska seafood industry: the expense of keeping the virus from spreading on fishing boats and at processing facilities, as well as the challenge of selling seafood in a world economy with few open restaurants or cafeterias.

This edition addresses secondary impacts of COVID-19, specifically how inflation and supply chain disruptions caused by the pandemic have affected the industry. Just as 2020 was marked by falling prices for many products from fuel to salmon fillets as large sections of the world economy went into hibernation, 2021 was marked by rising prices as the world economy started to wake up and disruptions from the previous year’s unusual economic activity magnified. In particular, the Alaska seafood industry is facing rising prices for labor and shipping. The industry is also benefiting from consumers that have been willing to pay higher prices for seafood.

International Shipping Costs Fly Up; Domestic Shipping Costs Step Up

Ocean freight shipping costs and chronic delays remain a persistent challenge for the Alaska seafood industry well into the second year of the pandemic. Most of these challenges are in international shipping, but some of the cost increases and logistical challenges have also spilled into domestic shipping, albeit at a different order of magnitude.

As reported in previous editions of these briefing papers, the international ocean freight industry faces a crisis triggered by homebound consumers early in the pandemic buying large volumes of physical goods instead of services like travel and eating out. Cascading secondary consequences of this disruption have included long backups at ports, a shortage of shipping containers, and larger orders from customers anticipating delays.

In China, the seafood industry has faced added shipping complications from time-consuming COVID-19 food packaging inspection protocols. According to the U.S. Food and Drug Administration and Department of Agriculture, these inspections are “not consistent with the known science of (the virus’) transmission.”

Globally, the Freightos Baltic Index’s Global Container Freight Index of spot prices has gone up more than 600% since the start of the pandemic, most of it in the last nine months.

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Rates have risen most quickly on routes from East Asia to the United States, with rates to the U.S. West Coast up more than 1,000% and reaching highs of more than $20,000 per containerload in September 2021.

Spot prices on routes from the U.S. West Coast to East Asia have gone up 113%, a major cost increase despite being dwarfed by the cost spike on Asia-to-U.S. freight.

**Figure 1. Spot Pricing for Key International Shipping Routes, November 2019-October 2021**

($/container and % change over time period)

Most Alaska seafood is exported and relies on international shipping to get to market. Long-term shipping contracts have protected the seafood industry somewhat from the volatility of the spot shipping market. However, the seafood industry faces challenges in a market where shipping containers are in short supply: international shipping containers for seafood have to be pre-staged at remote fishing ports in advance of fishing seasons, taking them out of circulation.

Domestic shipping from Alaska to the Lower 48 has not been as disrupted by the pandemic economy as international shipping. Domestic shipping companies operate their own freight terminals in Puget Sound and have been able to run their usual schedules even while lines of international ships wait at anchor for their turn to unload. However, interviewed domestic shippers did mention facing logistical challenges from a shortage of trucks and drivers.

Domestic shippers that serve Alaska have so far this year announced rate increases of between 5 and 8 percent. These shippers have cited a need to increase rates because of increasing costs of labor and equipment. These rate increases are in addition to fuel surcharges, which have also risen.
H-2B Prevailing Wage Data Suggests Significant Processor Wage Growth

H-2B visa guest workers are an important part of Alaska’s seafood processing workforce. The U.S. Department of Labor requires these workers to be paid a minimum wage based on what the department determines is the “prevailing wage” in the industry. The prevailing wage becomes a de-facto minimum wage for the industry due to the dynamics of a very competitive labor market.

In the federal fiscal year 2022, which started October 1, the prevailing wage increased 28% from FY 2021 to $15.85 per hour – the largest percent increase in at least the last decade.

<table>
<thead>
<tr>
<th>Federal Fiscal Year</th>
<th>Prevailing Hourly Wage, AK Seafood Processors</th>
<th>% Change From Previous Year</th>
<th>Number of Alaska Seafood H-2B Visas Certified*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>$9.75</td>
<td>-3%</td>
<td>493</td>
</tr>
<tr>
<td>2014</td>
<td>$9.36</td>
<td>-4%</td>
<td>443</td>
</tr>
<tr>
<td>2015</td>
<td>$9.11</td>
<td>-3%</td>
<td>1,385</td>
</tr>
<tr>
<td>2016</td>
<td>$9.47</td>
<td>4%</td>
<td>3,026</td>
</tr>
<tr>
<td>2017</td>
<td>$10.22</td>
<td>8%</td>
<td>3,388</td>
</tr>
<tr>
<td>2018</td>
<td>$10.58</td>
<td>4%</td>
<td>3,054</td>
</tr>
<tr>
<td>2019</td>
<td>$10.87</td>
<td>3%</td>
<td>4,838</td>
</tr>
<tr>
<td>2020</td>
<td>$12.19</td>
<td>12%</td>
<td>6,759</td>
</tr>
<tr>
<td>2021</td>
<td>$12.36</td>
<td>1%</td>
<td>Not Available</td>
</tr>
<tr>
<td>2022</td>
<td>$15.85</td>
<td>28%</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Source: U.S. Department of Labor.
*The number of H-2B workers employed can be significantly smaller than the number of visas certified.

In the early 2000s, guest workers came mainly through the J-1 cultural exchange program, but a change in 2012 closed this option to manufacturers, leading to increased use of the H-2B program.

H-2B workers have comprised about one-third of the seasonal processing workforce in recent years. While company to company reliance varies, the industry generally relies on temporary foreign workers because of the challenges of recruiting seasonal domestic workers interested in remote seafood processing in Alaska.

The pandemic exacerbated recruiting challenges, transforming the nature of seafood processing work with the introduction of strict safety and quarantine rules to prevent the spread of COVID-19. In many cases, workers had to stay on closed campuses to mitigate risk to communities and operations.

The availability of the vaccine in mid-2021 helped reduce the risk of transmission and more serious health complications from COVID-19. However, in most cases, quarantine procedures and closed campus mitigation measures stayed in effect at Alaska seafood processing plants.

Consequences of processors not being able to hire enough workers at peak times of the harvest can spill into the harvesting sector if processors are forced to process lower value products that require less labor or impose limits on how much fish fishermen can deliver at one time.
U.S. Bureau of Labor Statistics data for all Alaska seafood processing workers shows that the peak (July) workforce declined 21% between 2019 and 2020. Total wages paid, however, only dropped 7% ($439 million) while average monthly wages increased by 5%.

In summer 2021, newly published data by the Alaska Department of Labor and Workforce Development indicated that peak seafood processing employment was still down from pre-pandemic levels, but had recovered roughly half of the losses seen in 2020.

Table 2: Alaska Seafood Processing Wages and Employment Totals, 2013-2021

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Average Monthly Wages</th>
<th>Peak Employment</th>
<th>Total Wages ($millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>$3,121</td>
<td>20,367</td>
<td>$392</td>
</tr>
<tr>
<td>2014</td>
<td>$3,139</td>
<td>20,788</td>
<td>$399</td>
</tr>
<tr>
<td>2015</td>
<td>$3,619</td>
<td>21,279</td>
<td>$445</td>
</tr>
<tr>
<td>2016</td>
<td>$3,751</td>
<td>21,048</td>
<td>$442</td>
</tr>
<tr>
<td>2017</td>
<td>$3,939</td>
<td>19,940</td>
<td>$446</td>
</tr>
<tr>
<td>2018</td>
<td>$4,155</td>
<td>19,571</td>
<td>$439</td>
</tr>
<tr>
<td>2019</td>
<td>$4,312</td>
<td>20,244</td>
<td>$471</td>
</tr>
<tr>
<td>2020</td>
<td>$4,508</td>
<td>15,954</td>
<td>$439</td>
</tr>
<tr>
<td>2021</td>
<td>n/a</td>
<td>~17,900*</td>
<td>n/a</td>
</tr>
</tbody>
</table>


Prices are Up for Key Alaska Seafood Products in 2021

While the cost of harvesting, processing, and shipping Alaska seafood is up in 2021, so too is the market price for the resource compared to 2020, or at least for key high-volume species and products.

This contrasts with early 2020, when prices dropped for key seafood products as markets anticipated declining demand due to pandemic-caused closures of foodservice businesses. In 2021, demand for seafood products was strong, as retail consumers continued to buy seafood at higher-than-usual rates and the foodservice sector re-opened.

While fishing and processing is ongoing, the 2021 value of Alaska’s seafood harvest (at both the ex-vessel and first wholesale level) is expected to return to the normal range after the 20-30% drop seen from 2019 to 2020. Key factors behind increased values expected in 2021 include:

1) The natural two-year pink salmon run volume fluctuations, amplified by the contrast between above average 2021 runs, and particularly poor 2020 runs.

2) Higher market prices for key Alaska species including salmon and Alaska pollock. Dynamics of these two markets are detailed below. As described in the July 2021 COVID Impacts briefing paper, price increases have been especially dramatic this year for Alaska crab species, although low harvest quotas for king and snow crab in Alaska in 2021/22 will limit the industry’s ability to take advantage of these high prices.
**Farmed Salmon Index Prices**

Although Alaska’s wild salmon generally sells at a premium over the typical farmed Atlantic salmon product, farmed salmon prices influence prices in the far smaller market for wild salmon.

As discussed in the [October 2020 COVID-19 briefing paper](#), farmed salmon prices hit a six year low in 2020 as restaurants and cafeterias closed and surplus supply flooded into grocery stores. This pattern reversed itself in 2021 as foodservice opened while retail sales remained strong.

On the supply side, farmed salmon prices were helped in 2021 by a year-over-year decrease in farmed salmon production in Chile, the second largest salmon producing country and the largest producer of salmon for the U.S. market. Early in 2020, Chilean producers reduced smolt stocking because of pandemic uncertainties, reducing the harvest this year. But Chilean salmon production is forecast to start increasing again in the second quarter of 2022, which may put downward price pressure on wild Alaska salmon.²

While the price of farmed salmon influences the price of wild salmon, the gap between the two has grown during the pandemic. The price premium for wild Alaska sockeye salmon (over farmed Atlantic salmon) is currently as large as it has been since at least 2010, according to the Bristol Bay Regional Seafood Development Association’s October sockeye market commentary.³

**Figure 2. Urner Barry Fresh Farmed Salmon Index, 2019, 2020, and 2021 Year-to-Date ($/lb.)**

Source: Urner Barry.

**Pollock Block Prices**

Compared to salmon, prices have been less volatile for Alaska pollock. As seen in the figure below, the prices paid by European processors for single-frozen pinbone-out pollock fillet blocks dipped slightly at the start of the pandemic and have grown slowly including in the 2021 “B” season, which recently ended. The current average price of $3,850 per metric ton is a 10-year high.

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Factors that have influenced pollock fillet block prices include demand, the producer price cost inflation discussed in this report, and a pollock product mix this year that has included more surimi and mince at the expense of pollock fillets. This product mix is attributed to a pollock harvest with smaller fish than usual, a trend seen in recent years. These smaller fish are not as suited for filleting and are more likely to be processed into surimi or mince.

**Figure 3. Undercurrent News Price Data for Alaska Pollock PBO Fillet Blocks, 2008-2021 ($ per metric ton)**

Source: Undercurrent News.

Note: Price of for Marine Stewardship Council-certified pinbone-out single-frozen fillet blocks. Prices listed for A and B season each year.

**Government Aid Update**

The Pacific States Marine Fisheries Commission (PSMFC) has not yet disbursed Alaska’s share of fisheries relief funds ($50 million) from Section 12005 of the March 2020 CARES Act. November is the target timeframe for disbursement.

The Alaska Department of Fish & Game (ADF&G) issued a spend plan on February 18, 2021 for Alaska’s share of the program. Commercial harvesters, sport fishing charter operators, seafood processors, aquaculture businesses (salmon hatcheries are not eligible), and subsistence users applied for these Round 1 relief payments in April and May 2021. ADF&G’s spend plan, which NOAA reviewed and approved, defined an allocation formula by sector using revenue information and the scale of loss. The spend plan went through two public comment periods and multiple revisions of the allocation formula.

Congress allocated an additional $40 million for the Section 12005 program in Alaska through the Dec. 2020 Consolidated Appropriations Act. The spend plan for this Round 2 funding was approved October 26, 2021. The Pacific States Marine Fisheries Commission will release the application in November.

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4 ADF&G. October 7, 2021. [Final Spend Plan](#).
The federal 12005 program criteria required a revenue loss of 35% or more between March 1, 2020 and November 30, 2020 which meant it is not applicable for many businesses that had smaller dips in revenue and poor profit margins due to large COVID mitigation expenses. Seafood processing, for example, is a high revenue, low margin industry, so ‘revenue loss’ criteria are not aligned with COVID-19 relief needs.

**SEAFOOD PROCESSORS PANDEMIC RESPONSE AND SAFETY (SPRS) BLOCK GRANT PROGRAM**

An additional $30 million in COVID-related federal funding is expected to be available to Alaska seafood processors, including at-sea processors, through the Seafood Processors Pandemic Response and Safety (SPRS) Block Grant Program.\(^5\) The program is through the U.S. Department of Agriculture but will be administered by state agencies. Funding for the block grant program came from the December 2020 Consolidated Appropriations Act.

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\(^5\)U.S. Department of Agriculture. [Seafood Processors Pandemic Response and Safety (SPRS) Block Grant Program](https://www.fsa.usda.gov)