

Surimi Paste, Supply Track

Prepared by Urner Barry Consulting for the Genuine Alaska Pollock Producers, GAAP

The following report is only an executive summary of all the data points analyzed. Because of the many ways the data analyzed can be presented, these summaries only provide a general overview of each data series. However, the data requested by the members is available in many ways in the excel files provided. All data can be relatively easily manipulated to fit each member's presentation preference, whether in tables, charts, or raw data.

The nuances for many calculations are many, as these vary widely from species to species, origins, destinations, etc. The methodologies for many species are relatively simple since trade data can be assumed to be a function for its production in many cases. However, this is not always the case for specific countries and species. Also, some calculations with limited data and rudimentary methods had to be used to arrive at a "best estimate." Please contact the analyst directly to make changes, suggestions, or corrections for details on each species or market. We firmly believe that after exhausting most options available to obtain reliable data, the estimates presented here are a good approximation of the species, origins, and destinations requested.



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Alaska Pollock Surimi Production

Alaska pollock surimi production in 2020 decreased by 11 percent compared to 2019, totaling 177.5 thousand MT, which is the lowest figure since at least 2017. Production in July marked the most significant decrease on a relevant monthly basis since production between July and August should peak seasonally. Production during this month was only 18 thousand MT, well below the 3-year average of about 34 thousand MT.

US Production, Alaska Pollock Surimi (MT)									
	2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19	2021	'21 vs. '20
Q1	71,352	78,451	+ 9.9%	86,026	+ 9.7%	73,647	-14.4%	22,453	-73.9%
Q2	16,763	26,448	+ 57.8%	13,639	-48.4%	14,912	+ 9.3%		
Q3	111,827	86,666	-22.5%	82,858	-4.4%	69,935	-15.6%		
Q4	7,392	4,653	-37.1%	16,928	+ 263.8%	19,048	+ 12.5%		
Total	207,334	196,218	-5.4%	199,451	+ 1.6%	177,542	-11.0%		
YTD	71,352	78,451	+ 9.9%	86,026	+ 9.7%	73,647	-14.4%	22,453	-73.9%

Table 1. Alaska Pollock Surimi Production by Quarter. Source: NOAA Fisheries, Urner Barry. *Q1 2021 data through week 7 only.

US Production

Alaska Pollock Surimi

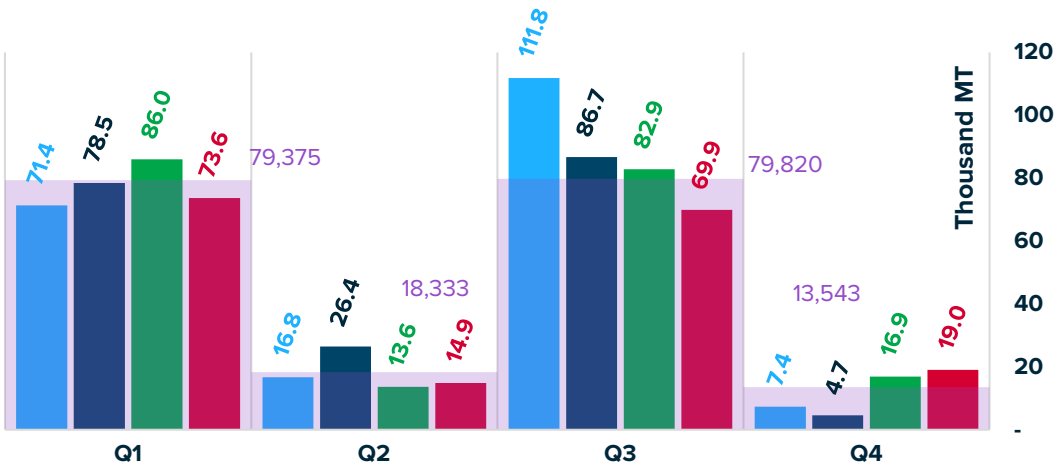


Figure 1. Alaska Pollock Surimi Production by Quarter. Source: NOAA, Urner Barry. Data for all years shown is complete.

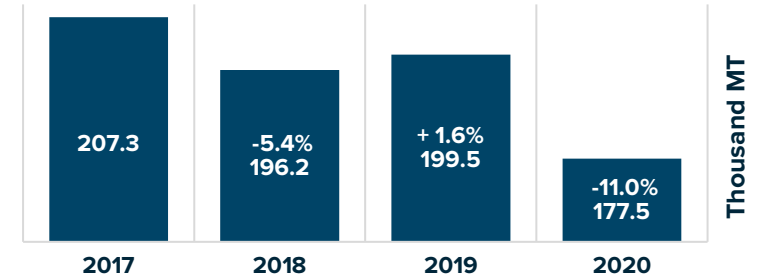
Production during the first seven weeks of 2021 is down by nearly 20 percent compared to 2020. We believe that this still shows that the constraints of the pandemic continue to place pressure on production to a large degree.

We suspect that the hotel, restaurant, and institutional industries' gradual recovery should improve demand and thus production.

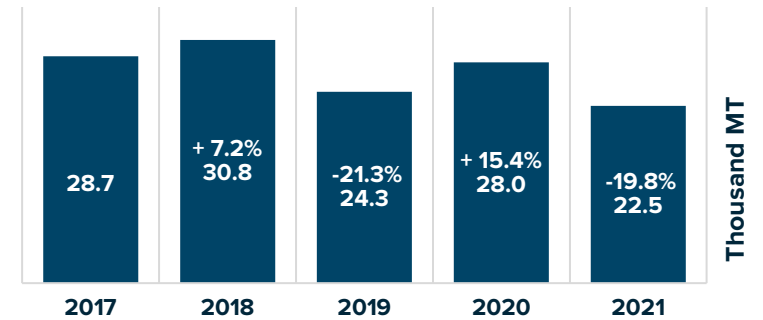
Figure 2. Total Alaska Pollock Surimi Production and YTD through week 7. Source: NOAA Fisheries, Urner Barry Consulting.

US Production

Total



Alaska Pollock Surimi from week 1 to week 7



US Production

Alaska Pollock Surimi

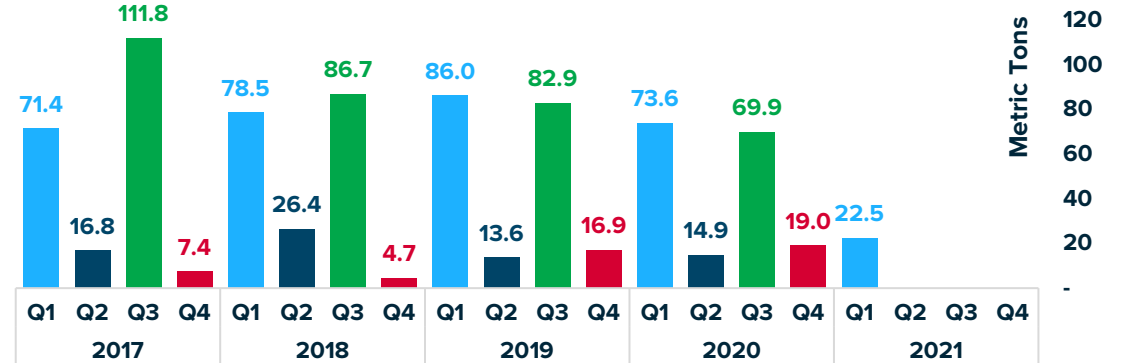


Figure 3. Alaska Pollock Surimi Production by Quarter, linear. Source: NOAA Fisheries, Urner Barry. *Q1 2021 data through week 7.

Alaska Pollock Trade (Imports)

Countries declaring imports of Alaska pollock surimi ended 2020 about 8 percent below 2019. This marks at least the third consecutive year in which countries importing this product reported a significant decrease, which for the most part is led by declines from the largest importer, Japan.

Alaska Pollock Surimi Imports							
*YTD from (Q1 to Q4)							
All Countries							
	2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Q1	26,600	24,350	-8.5%	18,724	-23.1%	15,322	-18.2%
Q2	61,411	56,802	-7.5%	57,760	+1.7%	53,632	-7.1%
Q3	50,596	42,552	-15.9%	34,795	-18.2%	30,660	-11.9%
Q4	53,832	53,110	-1.3%	47,665	-10.3%	46,336	-2.8%
Total	192,439	176,814	-8.1%	158,944	-10.1%	145,950	-8.2%
*YTD	192,439	176,814	-8.1%	158,944	-10.1%	145,950	-8.2%

Table 2. Alaska Pollock Surimi Imports. Aggregate by declaring countries' customs.

However, there were noticeable increases in purchases from other countries, like France, Thailand, Spain, Lithuania, Taiwan, and Belarus. Still, these increases were not enough to offset an overall decline.

Alaska Pollock Surimi Imports							
(Q1 to Q4)							
By Declaring Country							
	2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Japan	130,412	114,973	-11.8%	106,268	-7.6%	83,715	-21.2%
South Korea	26,213	25,404	-3.1%	21,781	-14.3%	22,731	+4.4%
France	12,655	15,206	+20.2%	14,749	-3.0%	17,953	+21.7%
Thailand	9,795	8,173	-16.6%	4,309	-47.3%	4,814	+11.7%
Spain	4,604	4,832	+5.0%	4,542	-6.0%	6,040	+33.0%
Lithuania	3,880	2,845	-26.7%	2,991	+5.1%	5,941	+98.6%
Taiwan	1,728	2,100	+21.5%	1,520	-27.6%	2,128	+40.0%
Poland	1,399	1,197	-14.4%	974	-18.6%	881	-9.5%
Belarus	756	956	+26.5%	1,010	+5.6%	1,315	+30.2%
Ukraine	426	593	+39.2%	516	-13.0%	278	-46.1%
Norway	571	535	-6.3%	284	-46.9%	154	-45.8%
Total	192,439	176,814	-8.1%	158,944	-10.1%	145,950	-8.2%

Table 3. Alaska Pollock Surimi Imports by declaring country.

Alaska Pollock Surimi Imports

All Countries

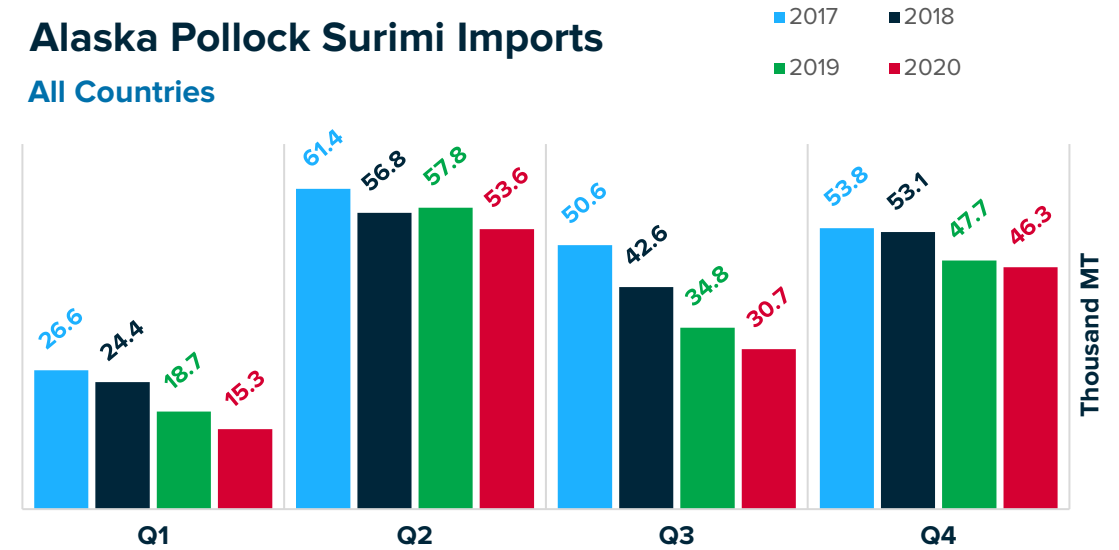


Figure 4. Alaska Pollock Surimi Imports. Aggregate of declaring countries by quarter.

Alaska Pollock Surimi Imports

By Declaring Country

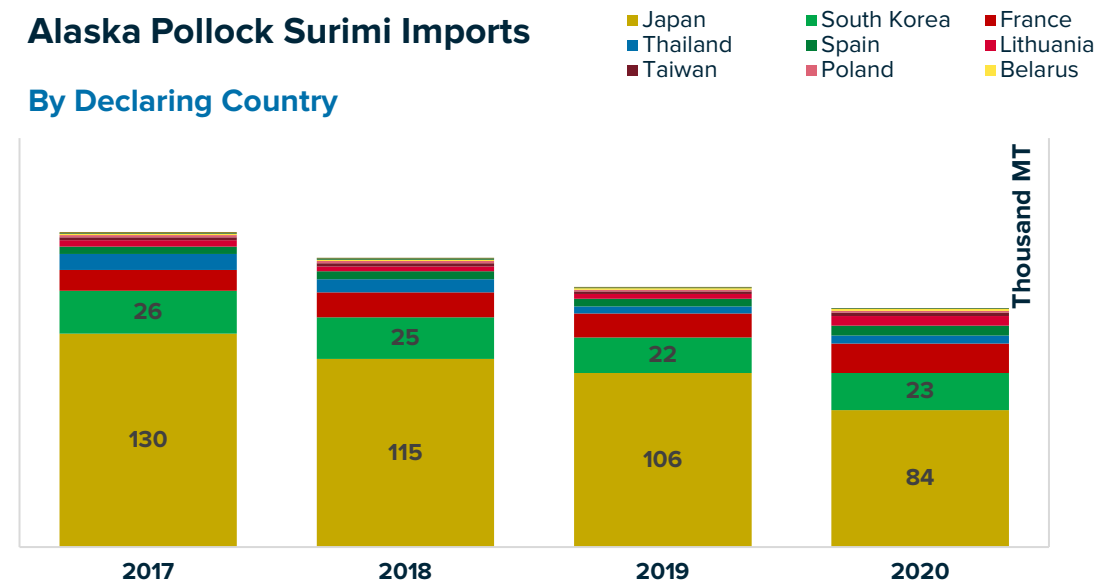


Figure 5. Alaska Pollock Surimi Imports by declaring country.

Alaska Pollock Trade (Imports)

While the trend of both countries declaring imports and U.S. exports official data is downward in terms of volume, prices have been trending higher as a result. Despite the pandemic, prices in 2020 remained relatively high—or at least flattened out—but oscillated around historical highs now for over two years.

Declaring Countries, imports

Alaska Pollock surimi

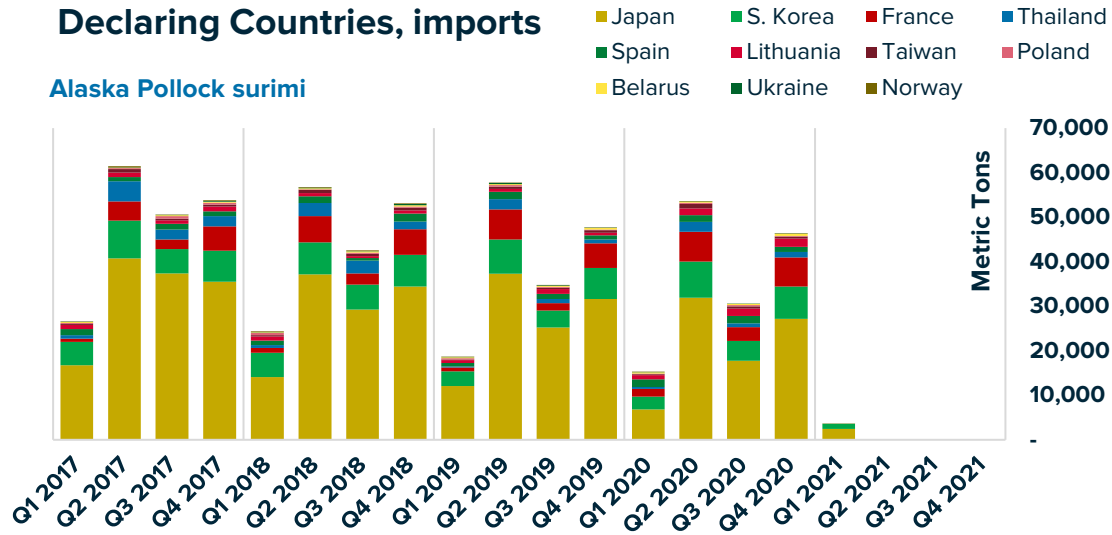


Figure 6. Alaska Pollock Surimi Imports. Linear imports by declaring countries. *Naturally, Q1 data is not complete.

In terms of U.S. exports, figures in 2020 show a decrease of about 13 percent compared to 2019.

Declaring Countries, imports vs. U.S. Exports

Alaska Pollock surimi

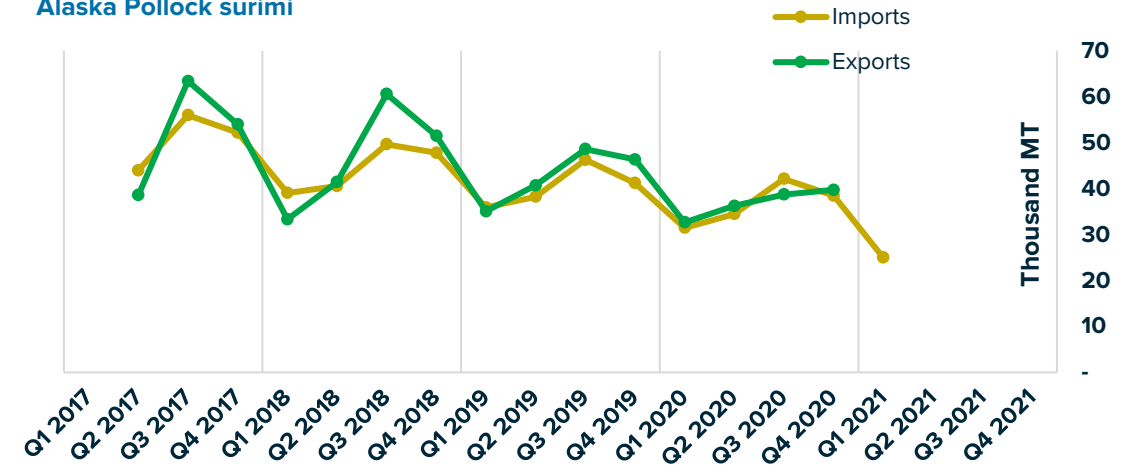


Figure 7. Alaska Pollock Surimi Imports vs. U.S. Alaska Pollock Surimi Exports. Smoothed average.

Declaring Countries, imports

Alaska Pollock surimi

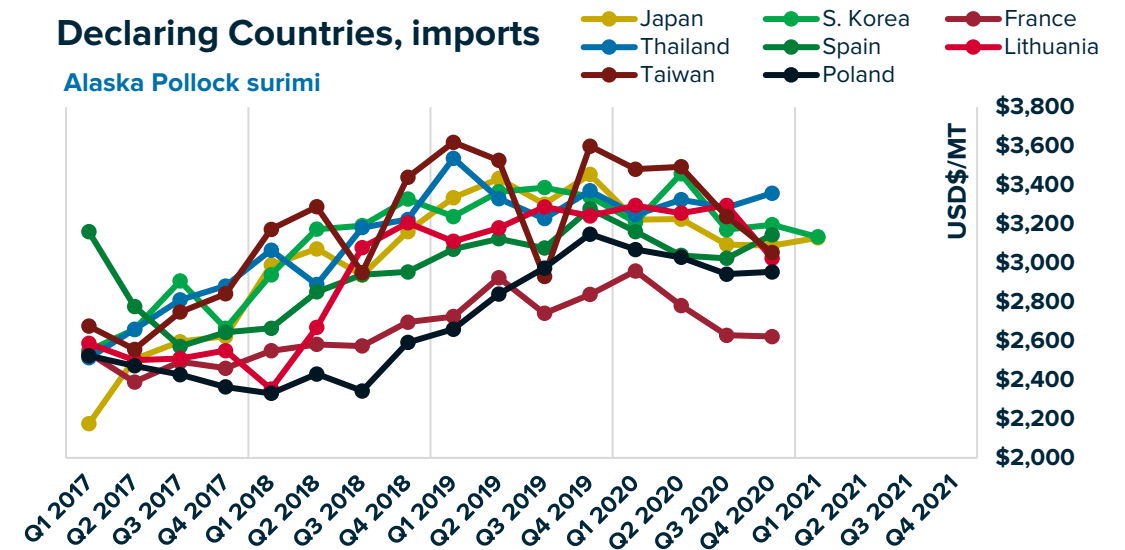


Figure 8. Alaska Pollock Surimi Import Price per MT by declaring country.

Alaska Pollock Trade (U.S. Exports)

In terms of U.S. exports, figures in 2020 show a decrease of about 13 percent compared to 2019. What is important to note here is that exports in Q4 increased by 38 percent compared to a year ago, possibly making up for volume not produced and shipped during the summer for obvious reasons. These numbers should be reflected in increasing importing countries' figures within the next few months, through Q1 mainly.

U.S. Alaska Pollock Surimi Exports *YTD from (Q1 to Q4)							
All Countries							
	2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Q1	39,557	47,864	+ 21.0%	53,297	+ 11.4%	41,809	-21.6%
Q2	37,616	35,071	-6.8%	28,123	-19.8%	30,700	+ 9.2%
Q3	89,238	86,177	-3.4%	69,145	-19.8%	46,755	-32.4%
Q4	18,826	16,887	-10.3%	23,562	+ 39.5%	32,703	+ 38.8%
Total	185,237	185,999	+ 0.4%	174,127	-6.4%	151,967	-12.7%
*YTD	185,237	185,999	+ 0.4%	174,127	-6.4%	151,967	-12.7%

Table 4. Alaska Pollock Surimi Exports (U.S.) by quarter. U.S. Customs, Urner Barry. *Q2 is complete.

U.S. Alaska Pollock Surimi Exports (Q1 to Q4)							
By Declaring Country							
	2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Japan	74,555	74,871	+ 0.4%	71,113	-5.0%	48,549	-31.7%
South Korea	71,526	67,434	-5.7%	64,307	-4.6%	59,000	-8.3%
France	11,767	12,793	+ 8.7%	13,555	+ 6.0%	15,005	+ 10.7%
Thailand	3,715	4,813	+ 29.6%	6,352	+ 32.0%	7,918	+ 24.7%
Lithuania	7,746	6,858	-11.5%	4,069	-40.7%	3,908	-4.0%
Netherlands	5,118	5,434	+ 6.2%	3,435	-36.8%	3,964	+ 15.4%
Spain	2,802	5,430	+ 93.8%	3,618	-33.4%	5,729	+ 58.3%
China	3,281	3,915	+ 19.3%	3,216	-17.9%	2,791	-13.2%
Germany	2,781	1,453	-47.8%	1,984	+ 36.5%	1,527	-23.0%
Taiwan	1,066	2,044	+ 91.7%	1,433	-29.9%	2,013	+ 40.5%
India				113		1,049	+ 828.3%
Total	185,237	185,999	+ 0.4%	174,127	-6.4%	151,967	-12.7%

Table 5. Alaska Pollock Surimi Exports (U.S.) by destination declared.

U.S. Alaska Pollock Surimi Exports

All Countries

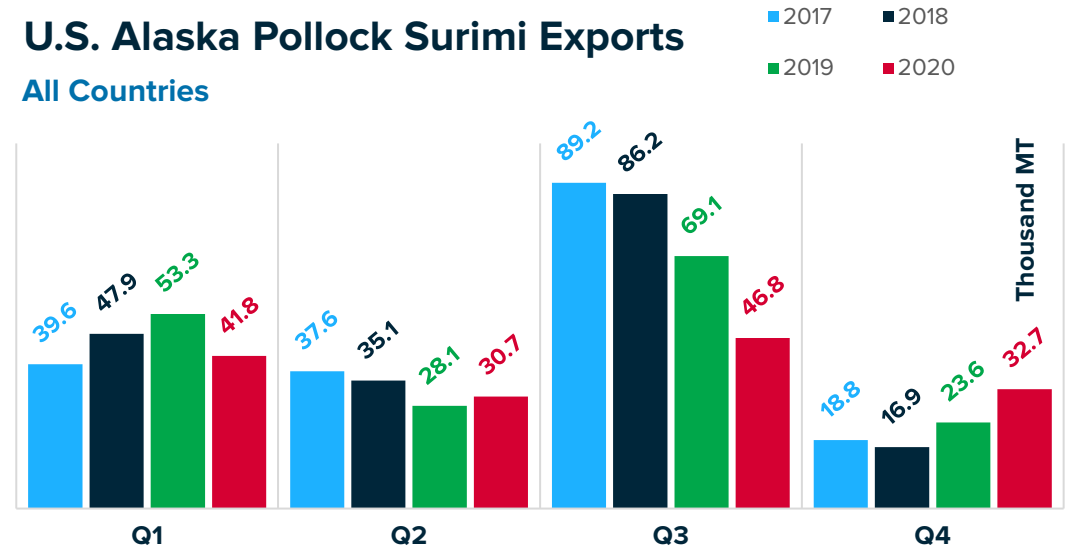


Figure 9. Alaska Pollock Surimi Exports. Aggregate of destination countries by quarter.

U.S. Alaska Pollock Surimi Exports

By Declaring Country

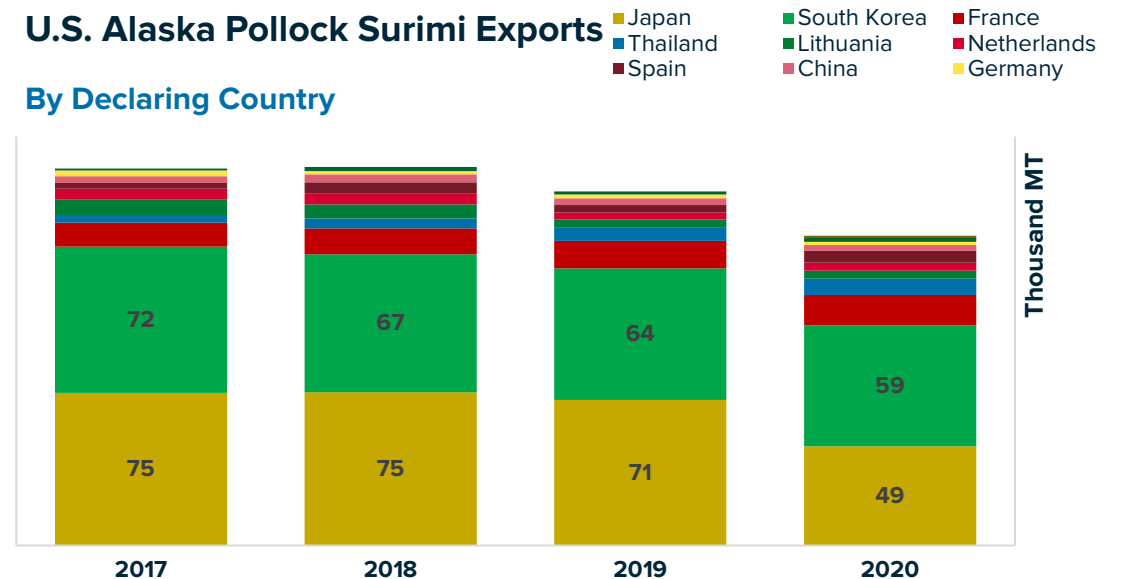


Figure 10. Alaska Pollock Surimi Exports by destination country, through Q2.

Japanese Pollock Surimi

Official figures from FAO and the Japanese Ministry of Fisheries reveal steady production figures at about 30 thousand metric tons after 2016. However, some estimates reveal a potential increase in 2020 as a result from lower production in the U.S. However, that remains to be seen, as the current pandemic is throwing all estimates to the side.

Japanese Pollock Surimi Production

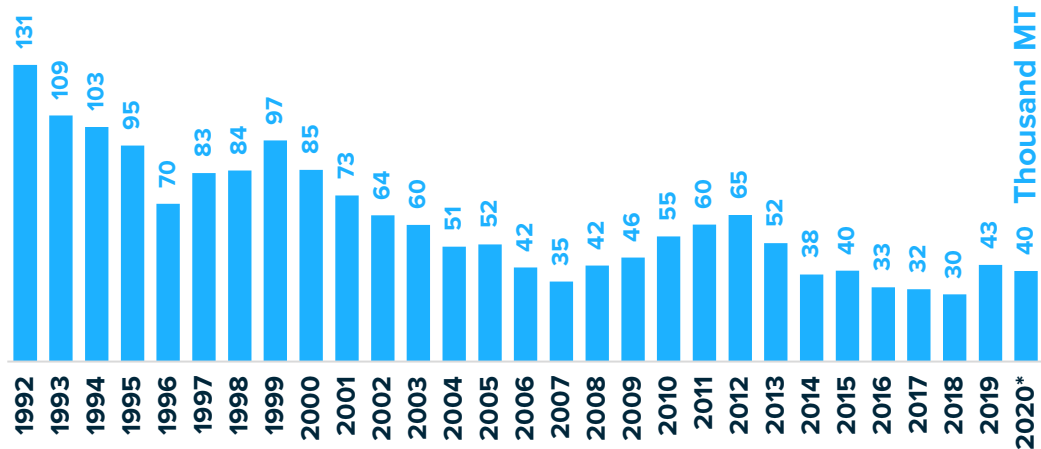


Figure 11. Japanese surimi production. FAO, Japan MOF, Tom Asakawa, TA Pacific Co., and Kambako News, Urner Barry.

The Hokkaido Japanese pollock surimi production figures for 2020 revealed a nearly 4 percent decline compared to 2019, from 12.2 thousand metric tons to 11.8 metric tons. The decreases were noticeable in Q3 and Q4, starting in July and thus breaking the growing linear trend over the last couple of years.

According to Japan's MOF end-of-month inventory data, surimi inventory appears comparatively low with a downward linear trend. Alaska pollock inventory looks steady at about 4 thousand MT as of November 2020.

Japanese Pollock Surimi Production

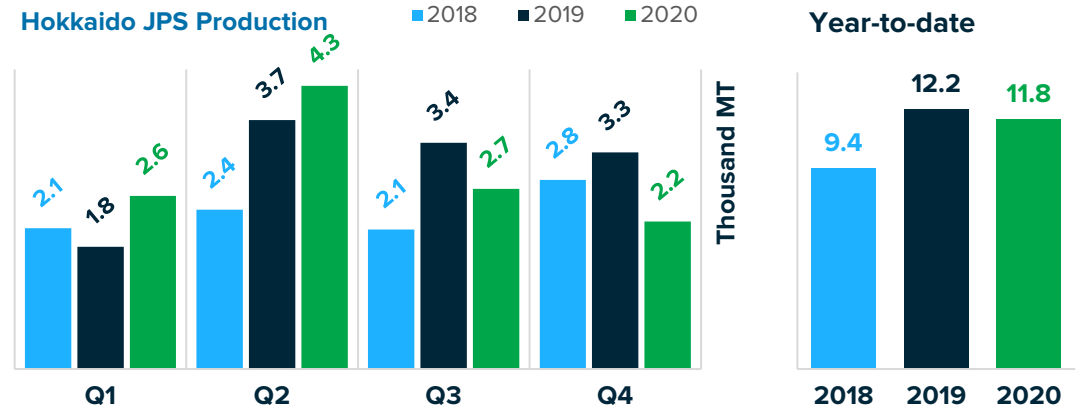


Figure 12. Hokkaido, Japanese pollock surimi production, Tom Asakawa, TA Pacific Co., and Kambako News, Urner Barry.

All Surimi Inventory Japan

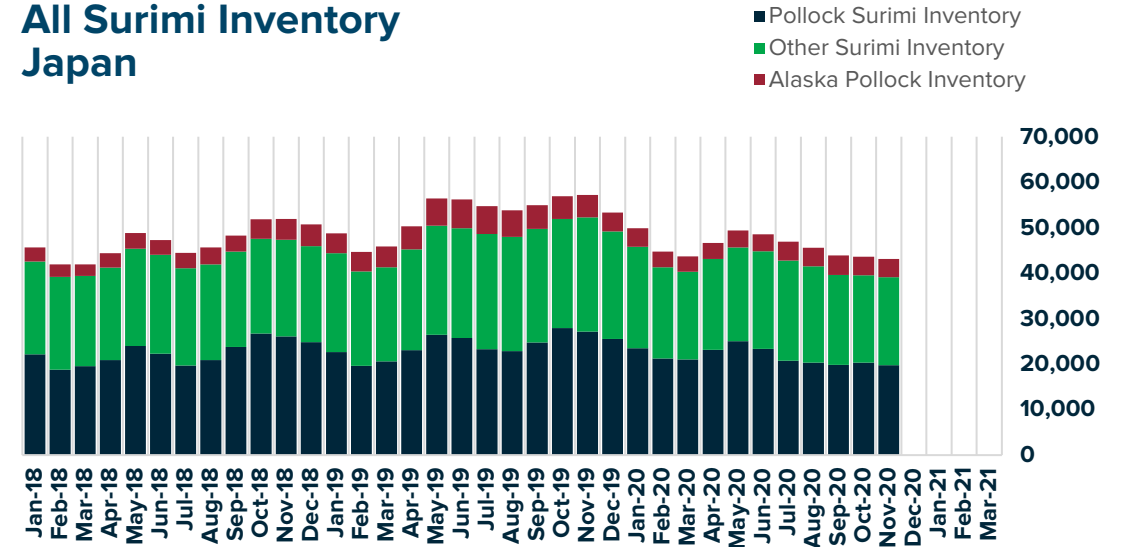


Figure 13. All surimi inventory in Japan. Tom Asakawa, TA Pacific Co., Japan MOF. Urner Barry. Monthly through November 2020.

Pacific Whiting Surimi Production

Recently published data by NOAA's Northwest Fisheries Science Center for 2019 was incomplete due to one sector not complying with the confidentiality requirements. Although shore-based figures were suppressed before, total production figures were available, making it easy to calculate for the remaining variable. However, "All" was also suppressed and therefore made it difficult to estimate.

Pacific Whiting Surimi Production

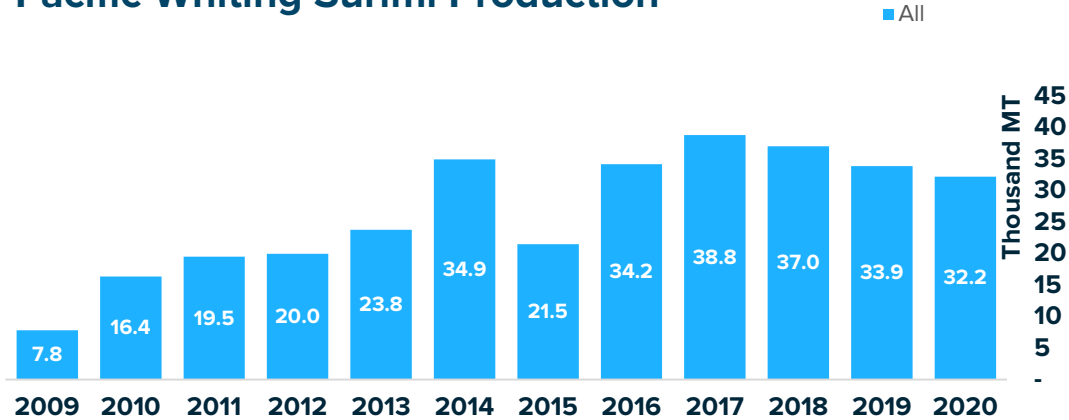


Figure 14. Pacific Whiting Surimi Production. NOAA Fisheries, Northwest Fisheries Science Center.

Pacific Whiting Surimi Production

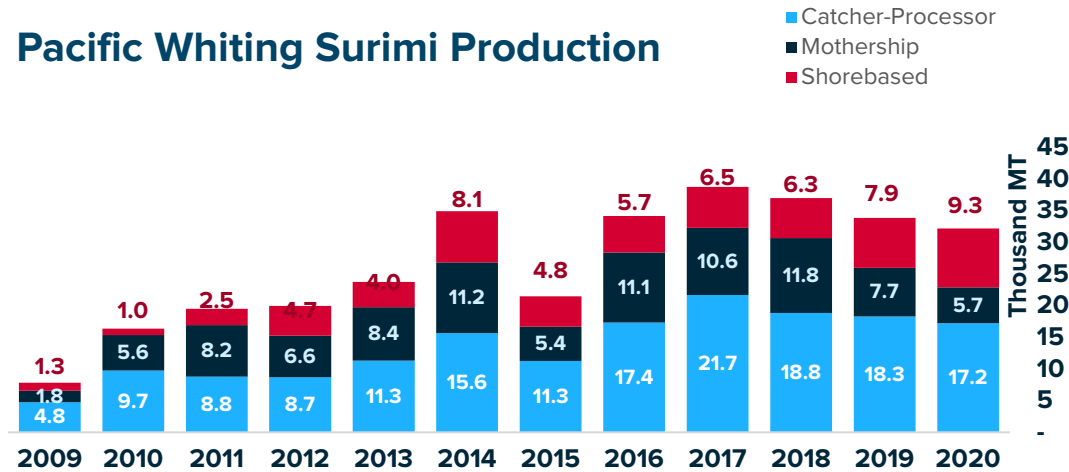


Figure 15. Pacific Whiting Surimi Production by processor type. NOAA Fisheries, Northwest Fisheries Science Center.

As a result, we had to estimate this figure by using a similar method used previously. Although this method is relatively rudimentary due to the lack of available data, we feel this approximation is a decent "best estimate" given the limitations.

When taking the official numbers for 2019 calculated by this regional office and our own estimates, we estimated total production of about 34.4 thousand MT of Pacific whiting from all sources. If the figures are correct, it would have signaled that a significant portion of production moved from mothership-produced surimi to shore-based surimi. We would still need to corroborate these figures with the working group from GAPP.

Figures from our estimate for 2020 that rely on Pacific whiting catches suggest that production in 2020 fell by about 4 percent compared to 2019. It also suggests more production in shore-based facilities compared to motherships. We must consider that the nearly 8 thousand MT of Pacific whiting surimi production processed in motherships in 2019 is a NOAA estimate.

UB Estimated Production, Pacific Whiting Surimi (Q1 to Q4)		2016	2017	'17 vs. '16	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Q1										
Q2		15,057	15,425	+ 2.4%	18,359	+ 19.0%	23,914	+ 30.3%	19,376	-19.0%
Q3		6,747	10,566	+ 56.6%	6,094	-42.3%	2,167	-64.4%	4,678	+ 115.9%
Q4		10,924	12,956	+ 18.6%	12,416	-4.2%	7,287	-41.3%	8,160	+ 12.0%
Total (UB Est.)		32,728	38,946	+ 19.0%	36,869	-5.3%	33,367	-9.5%	32,215	-3.5%
Total (Official)		34,169	38,784	+ 13.5%	37,010	-4.6%	33,856	-8.5%		
YTD		32,728	38,946	+ 19.0%	36,869	-5.3%	33,367	-9.5%	32,215	-3.5%

Table 6. Estimated Production from Pacific Whiting Monthly Landings. NOAA Fisheries, Northwest Fisheries Science Center, Urner Barry Consulting.

PW Surimi Production Estimate

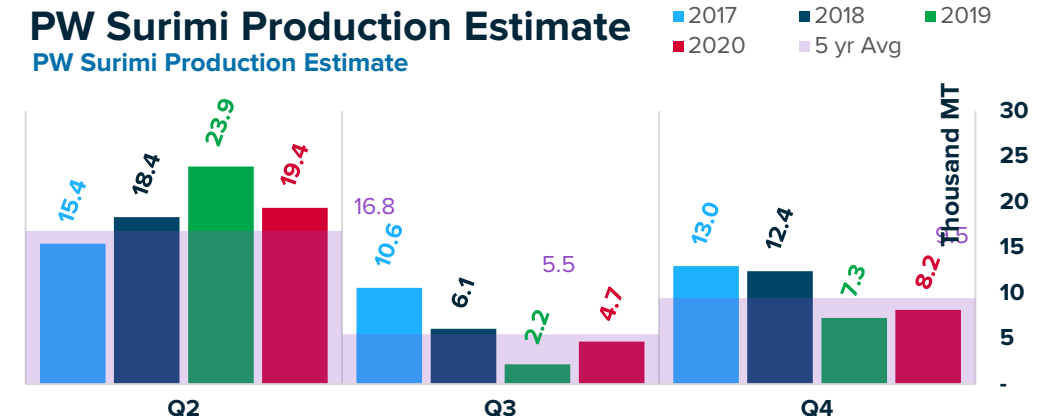


Figure 16. PW Surimi Production Estimate. NOAA, Northwest Fisheries Science Center, Urner Barry Consulting. *Q3 is incomplete

Pacific Whiting Surimi Trade (Imports)

As suspected due to the pandemic, imports of PWS remain considerably below the figures recorded a year ago. The steep decrease in Q3 makes perfect sense, and the data will show disruptive trends possibly through Q4 when comparing imports and exports, assuming some normalcy to trade is restored. All main destinations are down on a year-to-date basis.

Pacific Whiting Surimi Imports		*YTD from (Q1 to Q4)						
All Countries		2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Q1		3,557	5,428	+ 52.6%	6,573	+ 21.1%	4,172	-36.5%
Q2		3,650	6,224	+ 70.5%	4,598	-26.1%	3,553	-22.7%
Q3		3,542	6,593	+ 86.1%	5,028	-23.7%	5,229	+ 4.0%
Q4		4,330	5,768	+ 33.2%	6,287	+ 9.0%	4,056	-35.5%
Total		15,079	24,013	+ 59.2%	22,486	-6.4%	17,010	-24.4%
*YTD		15,079	24,013	+ 59.2%	22,486	-6.4%	17,010	-24.4%

Table 7. Pacific Whiting Surimi Imports, all declaring countries, from the U.S.—each country's customs, Urner Barry Consulting.

The previous pages' production figures should be a better barometer of what we could be seeing ahead for the time being. If production figures' estimates are somewhat accurate, we should see U.S. exports recover into Q4 and possibly into Q1 of 2021. What we mean by 'recover' is relative to the current pandemic situation and not previous years per se.

Pacific Whiting Surimi Imports		*(Q1 to Q4)						
By Declaring Country		2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Spain		7,085	11,612	+ 63.9%	10,401	-10.4%	6,827	-34.4%
Lithuania		4,539	7,731	+ 70.3%	7,269	-6.0%	6,134	-15.6%
Poland		1,327	1,720	+ 29.6%	1,988	+ 15.6%	1,337	-32.7%
France		718	860	+ 19.8%	1,232	+ 43.3%	1,737	+ 41.0%
S. Korea		339	982	+ 189.7%	742	-24.4%	391	-47.3%
Taiwan		534	683	+ 27.9%	342	-49.9%	103	-69.9%
Canada		343	414	+ 20.7%	433	+ 4.6%	343	-20.8%
Latvia			11		68	+ 518.2%	133	+ 95.6%
Netherlands		194			11		5	-54.5%
*Total		15,079	24,013	+ 59.2%	22,486	-6.4%	17,010	-24.4%

Table 8. Pacific Whiting Surimi Imports, by declaring country, from the U.S.—each country's customs, Urner Barry Consulting.

It is worth mentioning again that trade, in general, should not be used as a proxy for production but rather as highly influential to production

Pacific Whiting Surimi Imports

All Countries

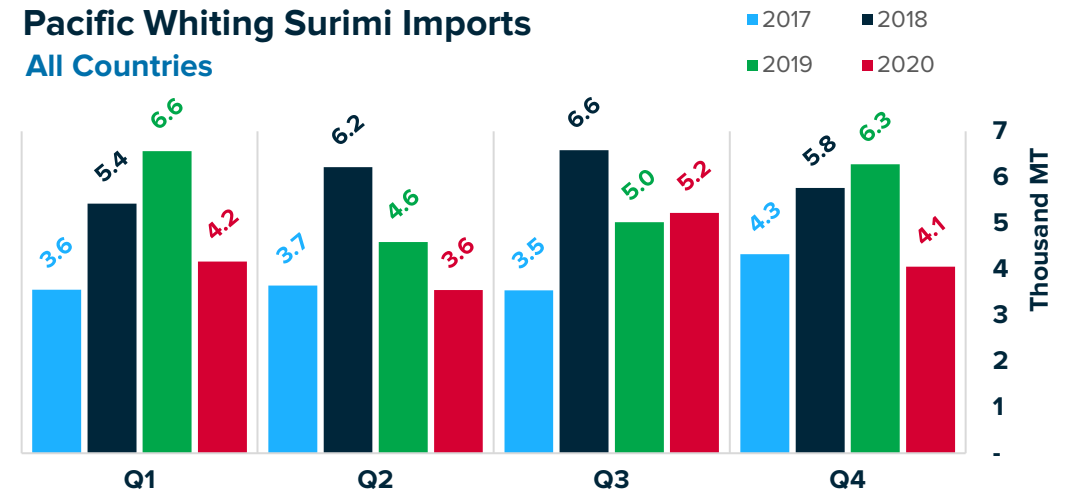


Figure 17. PW surimi imports, all countries by quarter from the U.S.—each country's customs, Urner Barry Consulting.

We performed a similar exercise to AKP Surimi to assess imports and exports—delaying production by one quarter and smoothing out the data through a 2-quarter moving average.

Declaring Countries, Imports vs. U.S. Exports

Pacific Whiting Surimi

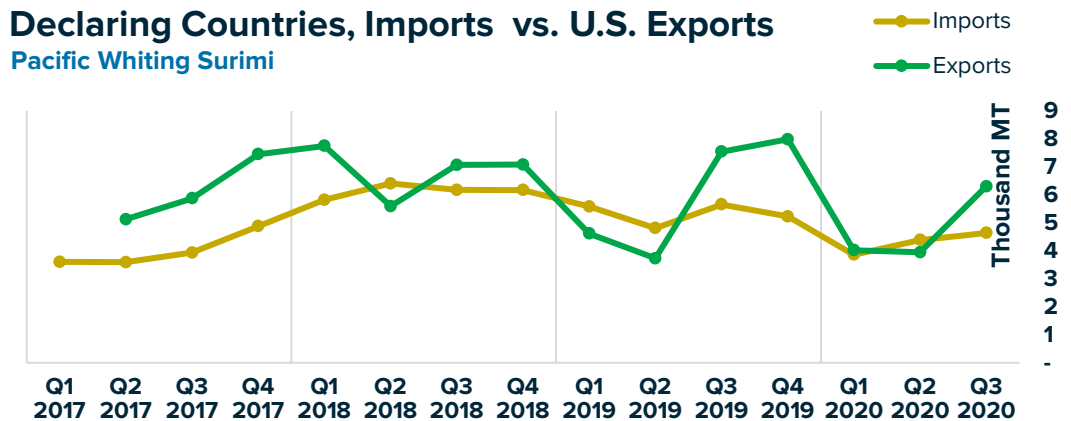


Figure 18. PW surimi imports and exports—each country's customs, Urner Barry Consulting.

Pacific Whiting Surimi Trade (Exports)

Export data also suggests a significant decrease in Pacific whiting surimi to most destinations. Exports to the leading destination, Spain, decreased by about 16.2 percent compared to 2019. When we consider the combined data for meat and surimi, we also noticed a significant decrease of about 18 percent.

Pacific Whiting Surimi and Meat Exports *YTD from (Q1 to Q4)							
All Countries							
	2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Q1	2,162	4,246	+ 96.4%	2,255	-46.9%	1,966	-12.8%
Q2	8,094	6,948	-14.2%	5,203	-25.1%	5,931	+ 14.0%
Q3	3,652	7,192	+ 96.9%	9,887	+ 37.5%	6,678	-32.5%
Q4	11,253	6,975	-38.0%	6,080	-12.8%	4,601	-24.3%
Total	25,161	25,361	+ 0.8%	23,425	-7.6%	19,176	-18.1%
YTD	25,161	25,361	+ 0.8%	23,425	-7.6%	19,176	-18.1%

Pacific Whiting Surimi Exports *YTD from (Q1 to Q4)							
All Countries							
	2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Q1	1,441	1,915	+ 32.9%	782	-59.2%	477	-39.0%
Q2	2,192	4,487	+ 104.7%	2,349	-47.6%	1,780	-24.2%
Q3	2,940	2,310	-21.4%	4,016	+ 73.9%	841	-79.1%
Q4	9,508	3,420	-64.0%	1,116	-67.4%	2,346	+ 110.2%
Total	16,081	12,132	-24.6%	8,263	-31.9%	5,444	-34.1%
*YTD	16,081	12,132	-24.6%	8,263	-31.9%	5,444	-34.1%

Tables 9 and 10 Pacific Whiting meat and surimi Exports. All countries. U.S. Customs, Urner Barry Consulting.

Pacific Whiting Surimi Exports							
Spain							
	2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Q1	440	726	+ 65.0%				
Q2	766	1,767	+ 130.7%	1,360	-23.0%	781	-42.6%
Q3	41	344	+ 739.0%	916	+ 166.3%		
Q4	3,299	1,999	-39.4%	120	-94.0%	1,228	+ 923.3%
Total	4,546	4,836	+ 6.4%	2,396	-50.5%	2,009	-16.2%
YTD	4,546	4,836	+ 6.4%	2,396	-50.5%	2,009	-16.2%

Table 11. Pacific Whiting surimi exports to Spain. Source: U.S. Customs, Urner Barry Consulting.

Pacific Whiting Surimi Exports *(Q1 to Q4)							
By Reported Destination Country							
	2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Spain	4,546	4,836	+ 6.4%	2,396	-50.5%	2,009	-16.2%
Lithuania	5,148			1,655		977	-41.0%
S. Korea	3,266	2,205	-32.5%	1,845	-16.3%	440	-76.2%
Netherlands	1,250	1,505	+ 20.4%	819	-45.6%	1,276	+ 55.8%
Japan	575	2,152	+ 274.3%	279	-87.0%	134	-52.0%
Canada	566	550	-2.8%	834	+ 51.6%	483	-42.1%
Thailand	23	559	+ 2330.4%	22	-96.1%	56	+ 154.5%
China	219	197	-10.0%			48	
India				212			
*Total	16,081	12,132	-24.6%	8,263	-31.9%	5,444	-34.1%

Table 12. Pacific Whiting surimi exports by country U.S. Customs, Urner Barry Consulting.

Pacific Whiting Surimi Exports

By Reported Destination Country

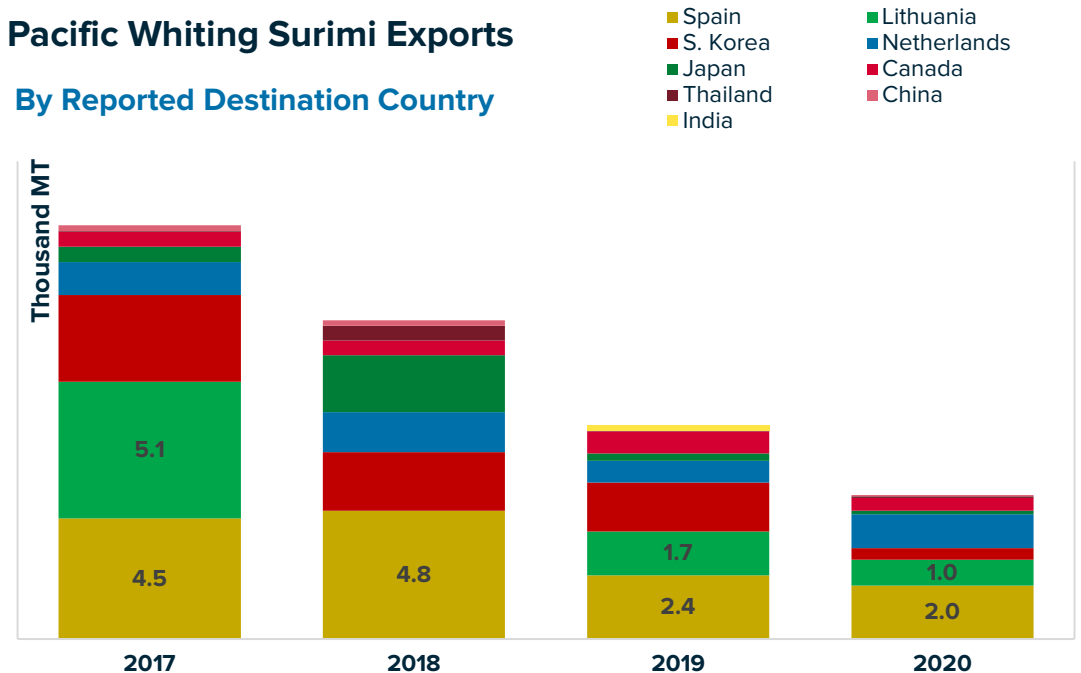


Figure 19. Pacific Whiting surimi exports by country. U.S. Customs, Urner Barry Consulting →

Southern Blue Whiting and Hoki Surimi Production

Southern blue whiting (SBW) surimi production was assumed as a function of trade. There was consensus in which domestic markets for the three leading producers—Argentina, Chile, and New Zealand—were too small to be significant. As such, we utilized the following methodology:

- Use recipient countries' volumes of surimi from Argentina and assume a 60/40 percent split between Hoki and SBW surimi, respectively
- Use Chilean exports as declared, which are divided by species.
- Use New Zealand exports as declared, which are also divided by species.

Total production looks as follows for SBW surimi.

Southern Blue Whiting Surimi Production		*YTD from (Q1 to Q4)						
All Countries		2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Q1		1,083	767	-29.2%	952	+24.2%	933	-2.0%
Q2		839	696	-17.0%	1,004	+44.2%	865	-13.9%
Q3		851	463	-45.6%	823	+77.6%	690	-16.1%
Q4		1,438	2,117	+47.2%	1,635	-22.8%	1,119	-31.5%
Total		4,211	4,044	-4.0%	4,415	+9.2%	3,608	-18.3%
*YTD		4,211	4,044	-4.0%	4,415	+9.2%	3,608	-18.3%

Table 13. Southern Blue Whiting surimi estimated production.

Southern Blue Whiting Surimi Production (Q1 to Q4)		Production by Country					
	2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Argentina	2,263	2,754	+21.7%	3,236	+17.5%	2,917	-9.9%
Chile	1,321	898	-32.0%	813	-9.5%	204	-74.9%
New Zealand	627	392	-37.5%	366	-6.6%	487	+33.1%
Total	4,211	4,044	-4.0%	4,415	+9.2%	3,608	-18.3%

Table 14. Southern Blue Whiting surimi estimated production by country, year-to-date.

Production of southern blue whiting declined by approximately 18 percent in 2020 compared to 2019. The most significant decreases came from Argentina and Chile, while New Zealand increased its production by 33 percent or over 100 MT. The production declines from Argentina and Chile were steeper in Q3 and Q4.

Southern Blue Whiting Surimi

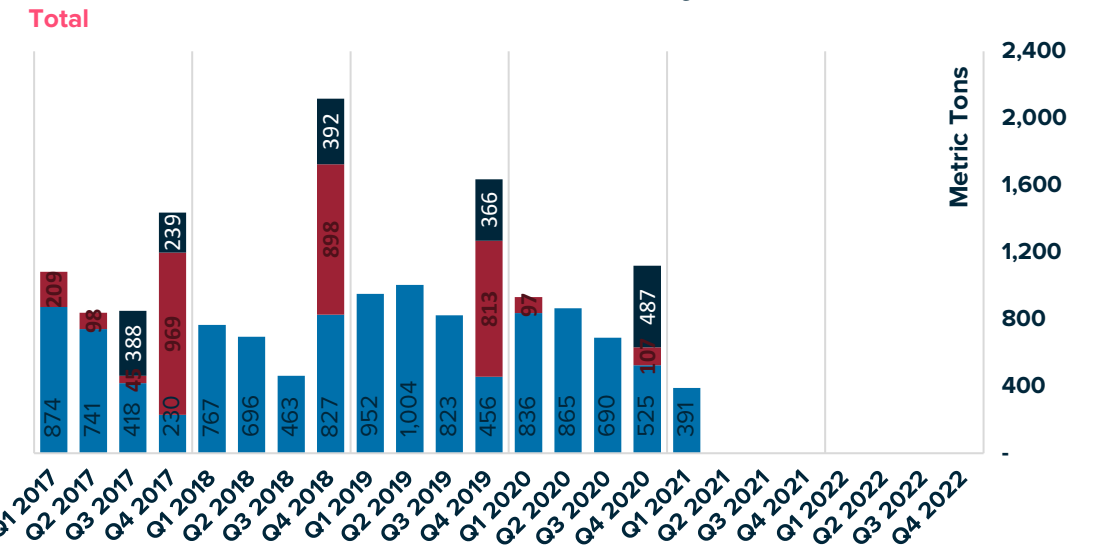


Figure 20. Southern Blue Whiting surimi estimated production by country.

Hoki production also declined by double digits in 2020 compared to 2019. Production from Argentina declined by nearly 10 percent, while New Zealand's production decreased by almost 20 percent. However, it is essential to mention that production managed to increase in Q4 by 14 percent.

Hoki Surimi Production		*YTD from (Q1 to Q4)						
All Countries		2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Q1		1,611	1,636	+1.6%	2,432	+48.6%	1,726	-29.0%
Q2		1,315	1,558	+18.4%	1,733	+11.2%	1,680	-3.0%
Q3		1,639	1,156	-29.5%	1,858	+60.8%	1,572	-15.4%
Q4		1,092	1,955	+79.0%	1,229	-37.1%	1,400	+13.9%
Total		5,657	6,304	+11.4%	7,251	+15.0%	6,377	-12.1%
*YTD		5,657	6,304	+11.4%	7,251	+15.0%	6,377	-12.1%

Table 15. Hoki surimi estimated production by country, year-to-date.

Southern Blue Whiting and Hoki Surimi Production cont...

Hoki Surimi Production (Q1 to Q4)							
Production by Country							
	2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Argentina	3,394	4,130	+ 21.7%	4,853	+ 17.5%	4,375	-9.9%
Chile	600	147	-75.5%	101	-31.3%	136	+ 34.7%
New Zealand	1,663	2,027	+ 21.9%	2,297	+ 13.3%	1,866	-18.8%
Total	5,657	6,304	+ 11.4%	7,251	+ 15.0%	6,377	-12.1%

Table 16 . Hoki surimi estimated production by country. Each country's customs, Urner Barry Consulting.

Figures for 2020 reveal a similar volume to that in 2018, which hovered around 6,400 MT. Production out of Chile is still small compared to Argentina and New Zealand. Data for 2021 is becoming available, but naturally, Q1 data is not complete.

Hoki Surimi

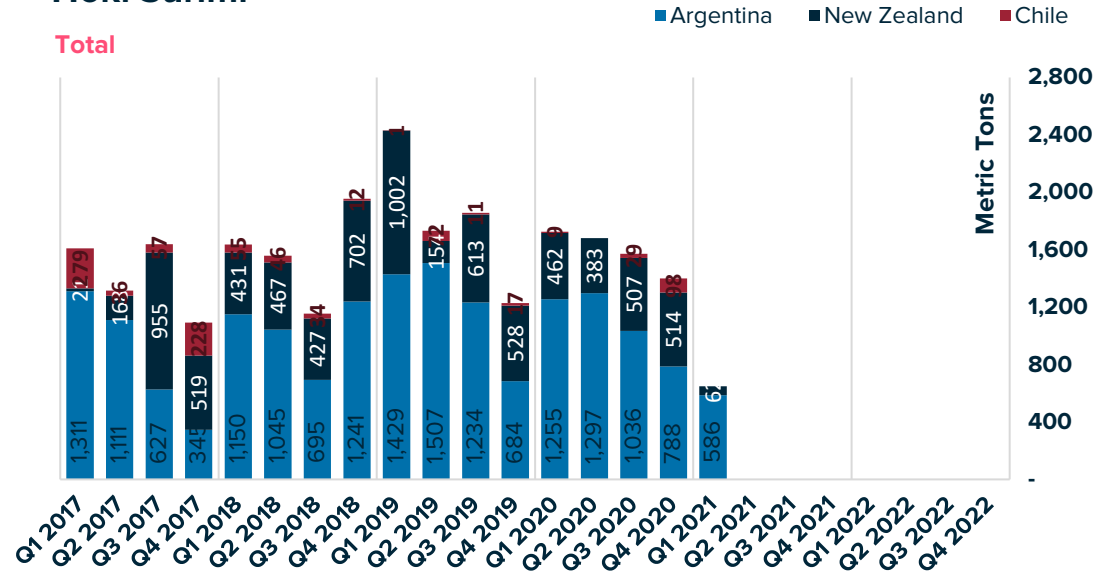


Figure 21. Hoki surimi production estimates. Each country's customs, Urner Barry Consulting. *Q1 data through January only.

SBW and Hoki Surimi Trade

Countries importing from Argentina declared a decline in 2020 of nearly 10 percent compared to a year ago, from 8.1 thousand MT to 7.3 thousand MT. Japan's surimi imports from Argentina were 13 percent lower while Russian imports increased by about 15 percent.

Countries importing from Argentina All Surimi

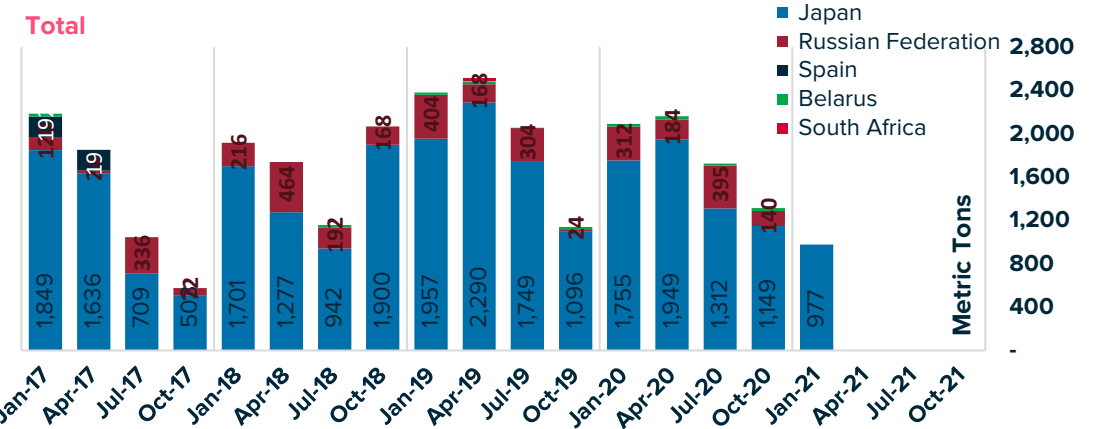


Figure 22. SBW and Hoki Surimi imports from Argentina.

Surimi Imports from Argentina *(Q1 to Q4)							
Countries Importing from: Argentina							
	2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Japan	4,697	5,820	+ 23.9%	7,092	+ 21.9%	6,165	-13.1%
Russian Federation	552	1,040	+ 88.4%	900	-13.5%	1,031	+ 14.6%
Spain	384						
Belarus	24	24	-	72	+ 200.0%	96	+ 33.3%
South Africa				25			
*Total	5,657	6,884	+ 21.7%	8,089	+ 17.5%	7,292	-9.9%

Table 17. Surimi imports from Argentina by country.

SBW and Hoki Surimi Trade

Similarly, countries importing surimi from Chile—which do not match Chilean exports—suggest a decrease of 30 percent, with Japanese imports declining by 28 percent from 2.8 thousand MT to 2 thousand MT.

Surimi Imports from Chile		*(Q1 to Q4)						
Countries Importing from: Chile		2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Japan		3,866	3,148	-18.6%	2,845	-9.6%	2,039	-28.3%
Russian Federation			66		163	+147.0%	43	-73.6%
Spain		11						
Belarus			25					
*Total		3,877	3,239	-16.5%	3,008	-7.1%	2,082	-30.8%

Table 18. Surimi imports from Chile by country.

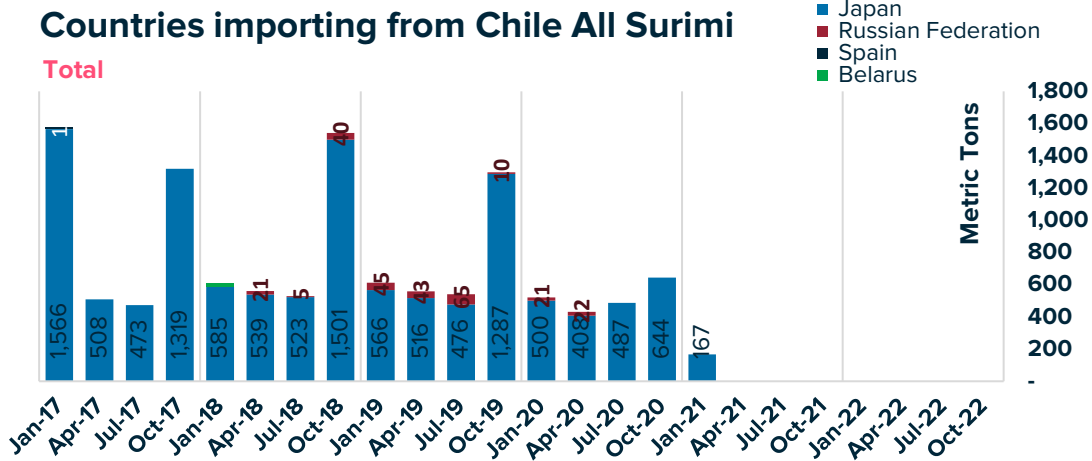


Figure 23. Surimi imports from Chile by country.

Countries declaring imports from New Zealand, which is basically only Japan, declined by about 8 percent compared to 2019, totaling about 750 MT.

Countries importing from Chile All Surimi

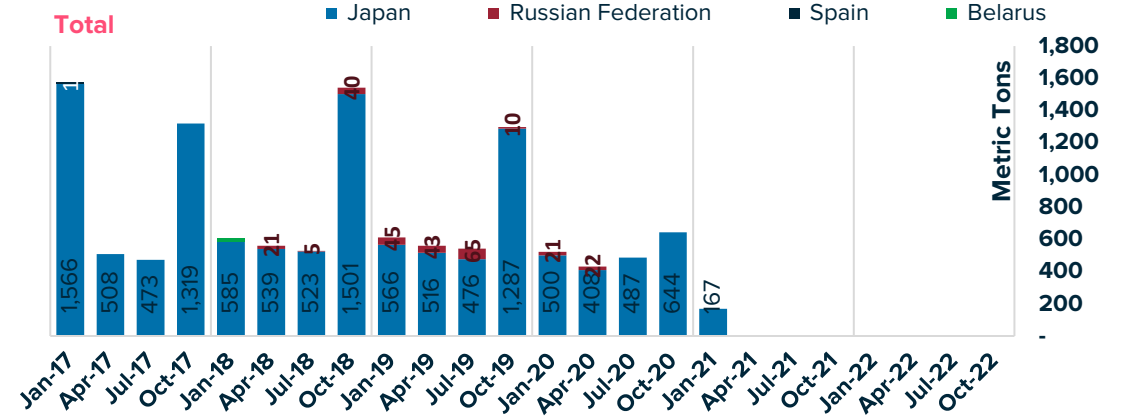


Figure 24. Surimi imports from New Zealand by country.

Surimi Imports from New Zealand		*(Q1 to Q4)						
Countries Importing from: New Zealand		2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Japan		1,035	420	-59.4%	781	+86.0%	754	-3.5%
South Africa		20			40			
*Total		1,055	420	-60.2%	821	+95.5%	754	-8.2%

Table 19. Surimi imports from New Zealand by country.

The data for these two species might be confusing depending on which series used. That is why we include all the tables after carefully filtering the data to its best approximation by the destination country, species, or declaring country data.

SBW and Hoki Surimi Trade ... cont.

If we take exports by reporting country, which in this case we only looked at exports from Chile and New Zealand, the figures look as follow:

All Surimi Exports from New Zealand		*(Q1 to Q4)						
Destination Countries for: New Zealand		2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Spain	160	143	-10.6%	131	-8.4%	247	+88.5%	
Germany	640	722	+12.8%	1,236	+71.2%	723	-41.5%	
France	78	179	+129.5%	207	+15.6%	362	+74.9%	
Australia	701	848	+21.0%	679	-19.9%	532	-21.6%	
Sweden	43	105	+144.2%					
Cook Islands								
Estonia	40							
Wallis and Futuna						1		
Russia		28						
New Caledonia	1	2	+100.0%	1	-50.0%	1		
French Polynesia								
Belarus				22				
South Africa				21				
Japan	627	392	-37.5%	366	-6.6%	487	+33.1%	
China								
*Total	2,290	2,419	+5.6%	2,663	+10.1%	2,353	-11.6%	

Table 20. New Zealand surimi exports by country.

Since we assumed that exports from New Zealand and Chile serve as a proxy for production, we bundled both figures into one to show a clear picture of the overall destinations. Only shipments to Japan are declared as SBW surimi, while the remainder of the reported exports were hoki surimi.

Chilean exports were the same, with nearly all SBW surimi exports going to Japan while the rest were hoki surimi.

All Surimi Exports from Chile		*(Q1 to Q4)						
Destination Countries for: Chile		2017	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Japan	1,613	898	-44.3%	819	-8.8%	230	-71.9%	
Brazil	258							
Spain	49	62	+26.5%	95	+53.2%	110	+15.8%	
S. Korea	1	12	+1100.0%					
Germany		48						
Belarus		25						
*Total	1,921	1,045	-45.6%	914	-12.5%	340	-62.8%	

Table 21. Chilean surimi exports by country.

Tropical Surimi Production

India

Surimi production estimates out of India suggest **production from this country declined 16 percent compared to 2019, from 95.1 thousand MT to 79.7 thousand MT.

Year	Itoyori	Eso	Bigeeye	Goatfish	Croaker	Ribbon	Other	Total
2015	11,255	14,780	7,591	2,724	#N/A	24,873	4,692	65,915
2016	8,918	16,212	8,277	2,988	#N/A	28,868	7,198	72,461
2017	14,322	25,622	11,769	4,246	#N/A	39,484	7,517	102,960
2018	18,142	20,772	11,403	4,245	#N/A	40,710	8,674	103,946
2019	8,937	23,785	10,627	3,901	#N/A	38,376	9,514	95,140
2020	3,519	19,525	10,455	4,395	#N/A	34,676	7,144	79,713

Table 22. Yearly estimated surimi production from India by species.

Countries declaring surimi imports from India Total														
Reporter Name	Species	2015	'15 vs. '14	2016	'16 vs. '15	2017	'17 vs. '16	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19	
Japan	Itoyori	6,535	▼ 24.6%	4,057	▼ 37.9%	5,411	▲ 33.4%	6,839	▲ 26.4%	3,601	▼ 47.3%	1,444	▼ 59.9%	
	Other	31,652	▲ 25.1%	29,268	▼ 7.5%	33,005	▲ 12.8%	32,598	▼ 1.2%	35,946	▲ 10.3%	31,216	▼ 13.2%	
	Sardine, Other							10		67	▲ 570.0%			
Taiwan	All	11,734	▲ 14.3%	13,019	▲ 11.0%	14,890	▲ 14.4%	17,432	▲ 17.1%	15,477	▼ 11.2%	14,882	▼ 3.8%	
Russia	All	2,340	▼ 21.9%	6,885	▲ 194.2%	8,383	▲ 21.8%	9,695	▲ 15.7%	6,695	▼ 30.9%	3,802	▼ 43.2%	
S. Korea	All	4,236	▲ 61.9%	3,328	▼ 21.4%	6,249	▲ 87.8%	7,020	▲ 12.3%	6,306	▼ 10.2%	5,894	▼ 6.5%	
Thailand	Gogies	218	▼ 20.7%	627	▲ 187.6%	5,099	▲ 713.2%	5,277	▲ 3.5%	6,896	▲ 30.7%	8,173	▲ 18.5%	
	Other	419	▼ 78.9%	520	▲ 24.1%	455	▼ 12.5%	273	▼ 40.0%	157	▼ 42.5%	416	▲ 165.0%	
Belarus	All	2,780	▲ 3.4%	3,134	▲ 12.7%	4,304	▲ 37.3%	4,839	▲ 12.4%	4,713	▼ 2.6%	5,085	▲ 7.9%	
Malaysia	All	630		1,061	▲ 68.4%	5,336	▲ 402.9%	4,963	▼ 7.0%	2,769	▼ 44.2%	4,104	▲ 48.2%	
China	All	1,718	▼ 10.4%	1,532	▼ 10.8%	4,541	▲ 196.4%	4,038	▼ 11.1%	3,643	▼ 9.8%	2,935	▼ 19.4%	
Singapore	All	25		75	▲ 200.0%	1,303	▲ 1637.3%	1,732	▲ 32.9%	3,014	▲ 74.0%	2,905	▼ 3.6%	
Lithuania	All	1,066	▼ 10.8%	2,538	▲ 138.1%	1,774	▼ 30.1%	1,478	▼ 16.7%	1,286	▼ 13.0%	658	▼ 48.8%	
Spain	All	164	▲ 13.9%	1,242	▲ 657.3%	1,100	▼ 11.4%	655	▼ 40.5%	535	▼ 18.3%	492	▼ 8.0%	
Indonesia	All	130	▲ 73.3%	120	▼ 7.7%	1,125	▲ 837.5%	250	▼ 77.8%	50	▼ 80.0%	325	▲ 550.0%	
Other		434		576	▲ 32.7%	593	▲ 3.0%	625	▲ 5.4%	819	▲ 31.0%	1,348	▲ 64.6%	
Total		64,081	▲ 9.5%	67,982	▲ 6.1%	93,568	▲ 37.6%	97,724	▲ 4.4%	91,974	▼ 5.9%	83,679	▼ 9.0%	

Table 23. Countries declaring surimi imports from India. Source: each country's customs, authority, UB Consulting

UB Estimates Production India

■ Ribbon ■ Eso ■ Itoyori ■ Bigeye
■ Croaker ■ Other ■ Goatfish

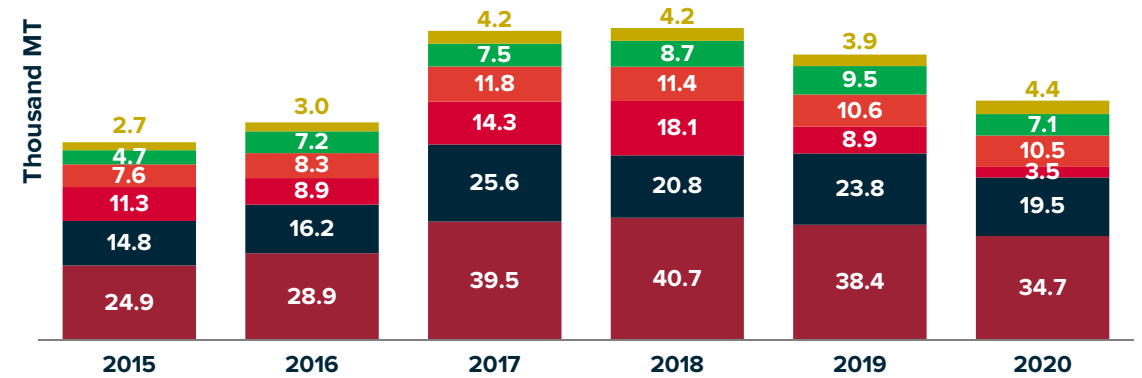


Figure 25. Yearly estimated surimi production from India by species

A significant reduction in shipments of itoyori to Japan suggests that production of this species declined considerably in 2020. However, shipments to Thailand increased by about a similar tonnage. Other countries like Malaysia and Belarus also increased their purchases from India by double digits. Countries declaring imports from India declined by about 9 percent.

**UB Consulting developed a model to estimate total production figures. Thereafter, production estimates by species use an internal working group approximation that was then calculated using an in-house non-linear model. The estimates provided by the working group were collected in 2020.

Tropical Surimi Production

Thailand

We had to reassess the model presented previously for Thailand and arrived at the following figures. We used the rate of decreasing exports and increasing imports as a function of **production, which yielded good statistical results.

Year	Itoyori	Eso	Bigeye	Goatfish	Croaker	Ribbon	Sea Bream	Other	Total
2010	36,590	11,811	9,384	5,493	3,595	3,723	576	4,939	76,110
2011	31,705	11,015	8,751	4,818	3,414	3,475	538	7,267	70,983
2012	23,748	10,518	8,357	7,290	3,196	4,106	3,142	7,425	67,783
2013	21,914	8,023	5,817	4,716	2,488	1,577	2,175	4,992	51,703
2014	21,971	8,364	6,645	3,491	2,597	3,397	2,205	5,230	53,901
2015	17,975	6,750	5,363	4,678	2,090	1,294	1,164	4,185	43,497
2016	15,268	6,312	5,015	3,623	1,920	2,996	2,392	3,149	40,675
2017	12,073	4,853	3,856	3,364	1,503	246	1,954	3,426	31,275
2018	10,295	4,692	3,728	3,252	1,428	1,111	2,419	3,312	30,237
2019	11,423	4,820	3,830	3,341	1,446	508	2,292	3,403	31,062
2020	13,026	5,030	4,058	3,022	1,564	1,051	1,560	3,606	32,918

Table 24. Yearly estimates of Thailand's surimi production by species.

Thailand's estimated Production by Species (Imports and Exports)

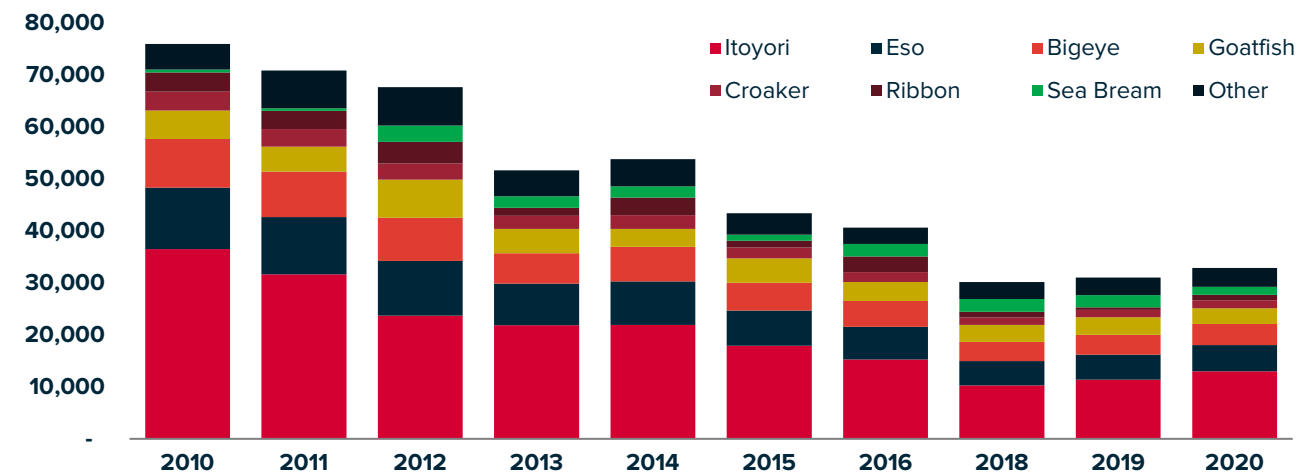


Figure 26. Yearly estimates of Thailand's surimi production by species.

Countries declaring surimi imports from Thailand Total													
Reporter Name	Species	2015	'15 vs. '14	2016	'16 vs. '15	2017	'17 vs. '16	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Japan	Barrac, Sea Breams, Kingclip	62	▼ 49.6%	61	▼ 1.6%	37	▼ 39.3%	26	▼ 29.7%	14	▼ 46.2%	21	▲ 50.0%
	Itoyori	11,507	▼ 14.0%	10,511	▼ 8.7%	8,031	▼ 23.6%	7,251	▼ 9.7%	8,320	▲ 14.7%	8,591	▲ 3.3%
	Other	18,841	▼ 9.3%	18,793	▼ 0.3%	14,399	▼ 23.4%	14,644	▲ 1.7%	15,035	▲ 2.7%	13,310	▼ 11.5%
	Sardine, Other			34		2	▼ 94.1%	3	▲ 50.0%				
Russia	All	5,084	▼ 7.5%	2,711	▼ 46.7%	1,406	▼ 48.1%	2,133	▲ 51.7%	2,841	▲ 33.2%	3,541	▲ 24.6%
S. Korea	All	3,104	▼ 6.4%	2,779	▼ 10.5%	1,824	▼ 34.4%	1,464	▼ 19.7%	1,147	▼ 21.7%	1,627	▲ 41.8%
Malaysia	All	474		536	▲ 13.1%	529	▼ 1.3%	573	▲ 8.3%	1,021	▲ 78.2%	978	▼ 4.2%
China	All	618	▼ 2.5%	532	▼ 13.9%	229	▼ 57.0%	504	▲ 120.1%	348	▼ 31.0%	846	▲ 143.1%
France	All	538	▲ 3.5%	380	▼ 29.4%	520	▲ 36.8%	470	▼ 9.6%	307	▼ 34.7%		
Taiwan	All	367	▼ 30.0%	227	▼ 38.1%	96	▼ 57.7%	91	▼ 5.2%	306	▲ 236.3%	702	▲ 129.4%
Hong Kong	All	230	▲ 16.8%	163	▼ 29.1%	146	▼ 10.4%	174	▲ 19.2%	344	▲ 97.7%	487	▲ 41.6%
New Zealand	All	990	▼ 19.1%	279	▼ 71.8%	79	▼ 71.7%	61	▼ 22.8%	82	▲ 34.4%	68	▼ 17.1%
Lithuania	All	14	▼ 97.3%			54		379	▲ 601.9%	442	▲ 16.6%	256	▼ 42.1%
Australia	All	143	▼ 16.4%	114	▼ 20.3%	138	▲ 21.1%	137	▼ 0.7%	58	▼ 57.7%	70	▲ 20.7%
Philippines	All							200		324	▲ 62.0%	92	▼ 71.6%
Other		290		444	▲ 53.1%	100	▼ 77.5%	135	▲ 35.0%	357	▲ 164.4%	368	▲ 3.1%
Total		42,262	▼ 11.3%	37,564	▼ 11.1%	27,590	▼ 26.6%	28,245	▲ 2.4%	30,946	▲ 9.6%	30,957	▲ 0.0%

Table 25. Countries declaring surimi imports from Thailand. Source: each country's customs, authority, UB Consulting.

Still, given the absence of more observations, these estimates could be revised again in the future.

If we go by these figures, we can confidently say that Thailand's production increased in 2020 compared to 2019 by nearly 2 thousand MT, totaling about 41 thousand MT. Japanese imports of itoyori from Thailand increased 3.3 percent compared to 2019. Further, Russian imports of Thai surimi also increased considerably, from 2.8 thousand MT in 2019 to 3.5 thousand MT in 2020. In terms of trade, it appears like countries declaring imports of Thai surimi remained flat at about 30 thousand MT.

**UB Consulting developed a model to estimate total production figures. Thereafter, production estimates by species use an internal working group approximation that was then calculated using an in-house non-linear model. The estimates provided by the working group were collected in 2020.

Tropical Surimi Production

Vietnam

What appears to be the clear largest producer and exporter, Vietnam's **production estimates were purely a function of countries reporting imports since Vietnam does not report export data.

	Itoyori	Eso	Bigeye	Goatfish	Croaker	Ribbon	Seabream	Flying Fish	Other	Total
2015	30,992	18,509	23,049	17,585	20,357	9,023	13,703	9,339	7,832	150,390
2016	21,670	20,772	16,619	14,871	22,243	13,773	10,428	12,599	10,291	143,267
2017	24,606	23,175	19,841	13,638	16,815	10,570	12,842	12,459	7,872	141,818
2018	25,060	21,256	19,262	23,506	21,763	13,692	14,169	12,069	12,061	162,839
2019	31,017	21,752	20,055	23,445	22,726	15,800	13,248	11,024	13,820	172,887
2020	32,490	17,829	21,840	23,291	22,752	11,974	13,788	9,221	8,893	162,078

Table 26. Example table of constraints used per species for Thailand (except itoyori).

Countries declaring surimi imports from Viet-Nam Total													
Reporter Name	Species	2015	'15 vs. '14	2016	'16 vs. '15	2017	'17 vs. '16	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
S. Korea	All	56,273	▲ 1.5%	53,020	▼ 5.8%	52,190	▼ 1.6%	62,953	▲ 20.6%	57,246	▼ 9.1%	53,116	▼ 7.2%
Thailand	Gogies	25,674	▲ 41.7%	24,852	▼ 3.2%	28,221	▲ 13.6%	35,193	▲ 24.7%	31,064	▼ 11.7%	31,086	▲ 0.1%
	Other	3,194	▲ 22.4%	2,851	▼ 10.7%	2,880	▲ 1.0%	1,804	▼ 37.4%	438	▼ 75.7%	119	▼ 72.8%
China	All	14,352	▼ 24.0%	11,543	▼ 19.6%	14,613	▲ 26.6%	18,874	▲ 29.2%	25,185	▲ 33.4%	27,967	▲ 11.0%
Japan	Breams, Kingclip	903	▼ 4.8%	537	▼ 40.5%	434	▼ 19.2%	772	▲ 77.9%	366	▼ 52.6%	392	▲ 7.1%
	Itoyori	3,366	▼ 7.2%	2,390	▼ 29.0%	2,641	▲ 10.5%	2,604	▼ 1.4%	3,077	▲ 18.2%	2,864	▼ 6.9%
	Other	12,965	▼ 1.2%	13,499	▲ 4.1%	12,720	▼ 5.8%	14,306	▲ 12.5%	14,385	▲ 0.6%	11,235	▼ 21.9%
	Sardine, Other	395	▲ 464.3%	80	▼ 79.7%	20	▼ 75.0%	4	▼ 80.0%	20	▲ 400.0%	30	▲ 50.0%
Russia	All	6,937	▲ 52.2%	8,062	▲ 16.2%	6,743	▼ 16.4%	6,313	▼ 6.4%	9,612	▲ 52.3%	7,427	▼ 22.7%
Malaysia	All	6,165	▲ 45.9%	5,441	▼ 11.7%	6,810	▲ 25.2%	7,311	▲ 7.4%	8,916	▲ 22.0%	8,788	▼ 1.4%
Taiwan	All	6,396	▼ 1.7%	5,340	▼ 16.5%	3,698	▼ 30.7%	4,566	▲ 23.5%	5,712	▲ 25.1%	5,945	▲ 4.1%
France	All	6,884	▲ 32.2%	4,898	▼ 28.8%	1,444	▼ 70.5%	564	▼ 60.9%	781	▲ 38.5%	637	▼ 18.4%
Indonesia	All	1,869	▲ 1.1%	3,323	▲ 77.8%	2,298	▼ 30.8%	968	▼ 57.9%	1,948	▲ 101.2%	1,373	▼ 29.5%
Ukraine	All	880	▼ 0.9%	1,218	▲ 38.4%	1,544	▲ 26.8%	1,742	▲ 12.8%	2,550	▲ 46.4%	2,275	▼ 10.8%
Lithuania	All	730	▼ 31.0%	1,819	▲ 149.2%	2,060	▲ 13.2%	713	▼ 65.4%	2,140	▲ 200.1%	1,534	▼ 28.3%
Other		3,407		4,394	▲ 29.0%	3,502	▼ 20.3%	4,152	▲ 18.6%	9,447	▲ 127.5%	7,290	▼ 22.8%
Total		150,390	▲ 6.3%	143,267	▼ 4.7%	141,818	▼ 1.0%	162,839	▲ 14.8%	172,887	▲ 6.2%	162,078	▼ 6.3%

Table 27. Countries declaring surimi imports from Vietnam. Source: each country's customs, authority, UB Consulting

UB Estimates Production Vietnam

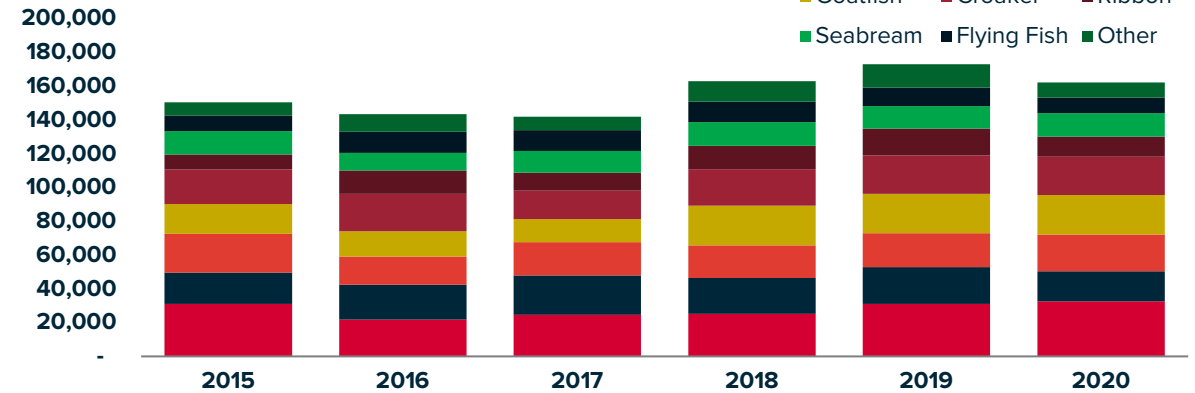


Figure 27. Yearly estimates of Vietnam's surimi production by species.

Imports declared by Thailand—from Vietnam—were flat at 31 thousand metric tons compared to a year ago. China, the third-largest importer, reported an increase of 11 percent from 2019, from 25 thousand MT to 28 thousand MT in 2020. Relevant declines came from the largest importer for Vietnamese surimi, South Korea, declining 7.2 percent compared to 2019. There was a minor decrease of about 200 MT in Japanese imports of itoyori from Vietnam.

**UB Consulting developed a model to estimate total production figures. Thereafter, production estimates by species use an internal working group approximation that was then calculated using an in-house non-linear model. The estimates provided by the working group were collected in 2020.

Tropical Surimi Production

Indonesia

The data for Indonesia appears to be reliable for both exports and imports. However, we still believe that countries declaring imports might be a better indicator of trade. Even when cross-examined with exports, the figures appear to be close.

For Indonesia, similar to India, we use total exports as a function for **production, and we believe we arrived at relatively decent results. Surimi production out of Indonesia decreased by about 4 percent compared to 2019.

	Itoyori	Eso	Bigeye	Goatfish	Croaker	Ribbon	Seabream	Flying Fish	Other	Total
2015	10,106	3,322	2,572	916	3,047	3,226	1,108	2,422	3,479	30,198
2016	11,203	3,635	2,644	661	3,304	3,672	1,222	2,711	3,992	33,044
2017	7,479	2,416	1,826	1,191	2,196	2,152	795	1,676	2,230	21,960
2018	9,030	2,935	2,135	534	2,668	2,971	987	2,192	3,230	26,683
2019	12,134	3,768	2,740	685	3,425	3,623	1,248	2,723	3,905	34,251
2020	10,730	3,759	2,789	1,433	3,435	3,565	1,331	2,238	3,552	32,831

Table 28. Yearly estimates of Indonesia's surimi production by species.

Countries declaring surimi imports from Indonesia from Q1 to Q4															
Reporter Name	Species	2015	'15 vs. '14	2016	'16 vs. '15	2017	'17 vs. '16	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19	2021	'21 vs. '20
Japan	Itoyori	3,750	▲ 7.4%	2,472	▼ 34.1%	2,761	▲ 11.7%	1,766	▼ 36.0%	1,425	▼ 19.3%	1,217	▼ 14.6%	204	
	Other	4,971	▲ 26.4%	4,885	▼ 1.7%	3,373	▼ 31.0%	3,988	▲ 18.2%	2,963	▼ 25.7%	1,833	▼ 38.1%	138	
	Sardine, Other	5	▼ 44.4%	16	▲ 220.0%	45	▲ 181.3%	29	▼ 35.6%	4	▼ 86.2%				
Malaysia	All	6,714		6,701	▼ 0.2%	3,431	▼ 48.8%	4,223	▲ 23.1%	5,263	▲ 24.6%	8,198	▲ 55.8%		
S. Korea	All	6,312	▲ 10.0%	6,391	▲ 1.3%	4,459	▼ 30.2%	3,810	▼ 14.6%	5,005	▲ 31.4%	5,647	▲ 12.8%	389	
China	All	1,974	▼ 32.9%	2,426	▲ 22.9%	2,179	▼ 10.2%	3,478	▲ 59.6%	5,792	▲ 66.5%	7,257	▲ 25.3%		
Taiwan	All	3,850	▼ 27.5%	2,901	▼ 24.6%	1,986	▼ 31.5%	2,437	▲ 22.7%	2,574	▲ 5.6%	2,629	▲ 2.1%		
Thailand	Gogies	1,712	▲ 1131.7%	2,522	▲ 47.3%	644	▼ 74.5%	1,233	▲ 91.5%	3,745	▲ 203.7%	2,703	▼ 27.8%	299	
	Other	330	▲ 189.5%	152	▼ 53.9%	61	▼ 59.9%	16	▼ 73.8%	49	▲ 206.3%	12	▼ 75.5%		
Hong Kong	All	184	▲ 64.3%	288	▲ 56.5%	132	▼ 54.2%	178	▲ 34.8%	268	▲ 50.6%	288	▲ 7.5%	60	
Australia	All	281	▲ 16.1%	228	▼ 18.9%	88	▼ 61.4%	112	▲ 27.3%	91	▼ 18.8%	91	▲ 0.0%		
Singapore	All	198		64	▼ 67.7%	227	▲ 254.7%			76		104	▲ 36.8%		
Philippines	All							164		249	▲ 51.8%	140	▼ 43.8%		
Canada	All	41	▼ 33.9%	72	▲ 75.6%	61	▼ 15.3%	50	▼ 18.0%	25	▼ 50.0%				
#N/A															
Other		30	▼ 90.8%	87	▲ 190.0%	60	▼ 31.0%	58	▼ 3.3%	5	▼ 91.4%	9	▲ 80.0%		
Total		30,352	▲ 35.4%	29,205	▼ 3.8%	19,507	▼ 33.2%	21,542	▲ 10.4%	27,534	▲ 27.8%	30,128	▲ 9.4%	1,090	

Table 29. Countries declaring surimi imports from Indonesia. Source: each country's customs, authority, UB Consulting

UB Estimates Production Indonesia

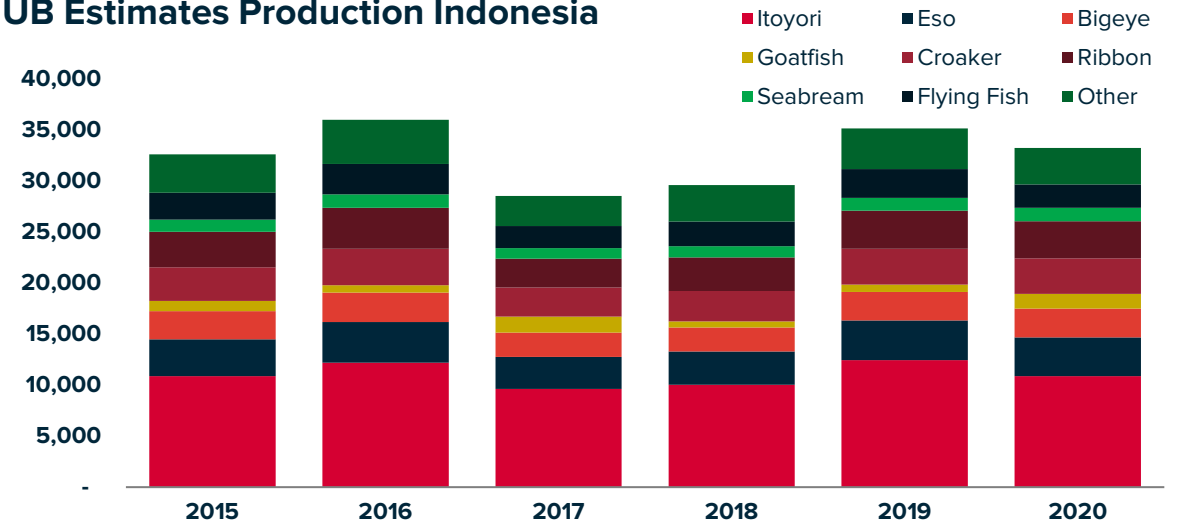


Figure 28. Yearly estimates of Indonesia's surimi production by species.

In terms of trade, countries declaring imports from Indonesia increase by about 10 percent, from 27.5 thousand MT in 2019 to 30 thousand MT in 2020. Japanese imports of itoyori and other species declined significantly from a year ago. However, imports from the largest markets, Malaysia, China, and South Korea, increased significantly compared to 2019.

**UB Consulting developed a model to estimate total production figures. Thereafter, production estimates by species use an internal working group approximation that was then calculated using an in-house non-linear model. The estimates provided by the working group were collected in 2020.

Tropical Surimi Production

Malaysia

Trade data for Malaysia seems to match at times between countries declaring imports and official domestic data exports. Again, similar to India and Indonesia, we use total export figures as a function for **production and use countries declaring imports mainly for trade—although both sets of data are included for all analyzed countries.

	Itoyori	Eso	Bigeye	Goatfish	Croaker	Ribbon	Seabream	Flying Fish	Other	Total
2015	2,056	2,165	1,127	2,165	1,075	790	394	216	835	10,823
2016	1,970	2,073	1,079	2,073	1,030	756	378	207	800	10,367
2017	1,515	1,595	830	1,595	792	582	291	159	615	7,973
2018	1,602	1,687	878	1,687	838	615	307	169	651	8,434
2019	2,107	2,218	1,155	2,218	1,102	809	404	222	856	11,092
2020	1,725	1,816	945	1,816	902	662	331	182	700	9,078

Table 30. Yearly estimates of Malaysia’s surimi production by species.

UB Estimates Production Malaysia

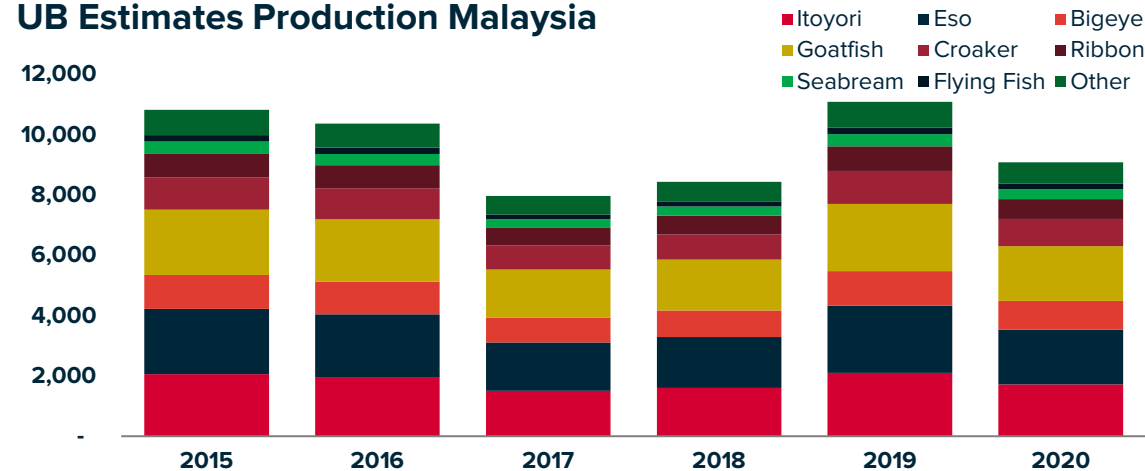


Figure 29. Yearly estimates of Malaysia’s surimi production by species.

Countries declaring surimi imports from Malaysia Total													
Reporter Name	Species	2015	'15 vs. '14	2016	'16 vs. '15	2017	'17 vs. '16	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Japan	Itoyori	24	▼ 90.1%			48						36	
	Other	8,251	▼ 0.7%	6,485	▼ 21.4%	5,489	▼ 15.4%	4,546	▼ 17.2%	4,734	▲ 4.1%	4,661	▼ 1.5%
	Sardine, Other									44		57	▲ 29.5%
China	All	956	▲ 4.4%	918	▼ 4.0%	898	▼ 2.2%	973	▲ 8.4%	936	▼ 3.8%	929	▼ 0.7%
S. Korea	All	280	▼ 30.0%	456	▲ 62.9%	268	▼ 41.2%	300	▲ 11.9%	251	▼ 16.3%	1,106	▲ 340.6%
Thailand	Gogies	279	▼ 29.9%	96	▼ 65.6%			24		574	▲ 2291.7%	25	▼ 95.6%
	Other			19									
Canada	All	151	▲ 331.4%	43	▼ 71.5%	161	▲ 274.4%	151	▼ 6.2%	176	▲ 16.6%	210	▲ 19.3%
Taiwan	All	202	▲ 17.4%	122	▼ 39.6%	164	▲ 34.4%	25	▼ 84.8%	91	▲ 264.0%	78	▼ 14.3%
Hong Kong	All	80	▲ 196.3%	29	▼ 63.8%			10		127	▲ 1170.0%	315	▲ 148.0%
Singapore	All	65	▼ 59.4%	92	▲ 41.5%	66	▼ 28.3%	114	▲ 72.7%	48	▼ 57.9%	40	▼ 16.7%
Philippines	All							41					
Malaysia	All							11					
Australia	All	1		4	▲ 300.0%					5			
#N/A													
Other				52								75	
Total		10,289	▼ 3.5%	8,316	▼ 19.2%	7,094	▼ 14.7%	6,195	▼ 12.7%	6,986	▲ 12.8%	7,532	▲ 7.8%

Table 31. Countries declaring surimi imports from Malaysia. Source: each country’s customs, authority, UB Consulting

In terms of **production volumes, Malaysia declined by about 2 thousand MT, or 18 percent, which is significant. However, in terms of trade, countries declaring imports from Malaysia increased by nearly 8 percent compared to 2019. Imports from South Korea jumped from 250 MT to 1.1 thousand MT. Japanese imports of Malaysian surimi remained flat at about 4.7 thousand MT.

**Production estimates by species use an internal working group approximation that was then calculated using an in-house non-linear model. The estimates provided by the working group were collected in 2020.

Tropical Surimi Production

Pakistan

For Pakistan, we included the table that includes Pakistan exports by destination and the production table. Again, exports are a function of **production. Still, since we are assuming that nearly 100 percent of production is exported out of this country, we could not cross-examine countries reporting imports and this country's exports before 2020. Still, they are a decent indicator to see, but we only included exports in this report.

	Itoyori	Eso	Bigeye	Goatfish	Croaker	Ribbon	Seabream	Flying Fish	Other	Total
2015	2,084	417	208	208	417	#N/A	208	208	417	4,168
2016	1,669	334	167	167	334	#N/A	167	167	334	3,337
2017	5,342	1,068	534	534	1,068	#N/A	534	534	1,068	10,684
2018	5,276	1,055	528	528	1,055	#N/A	528	528	1,055	10,552
2019	4,999	1,000	500	500	1,000	#N/A	500	500	1,000	9,997
2020	3,541	708	354	354	708	#N/A	354	354	708	7,082

Table 32. Yearly estimates of Pakistan's surimi production by species.

UB Estimates Production Pakistan

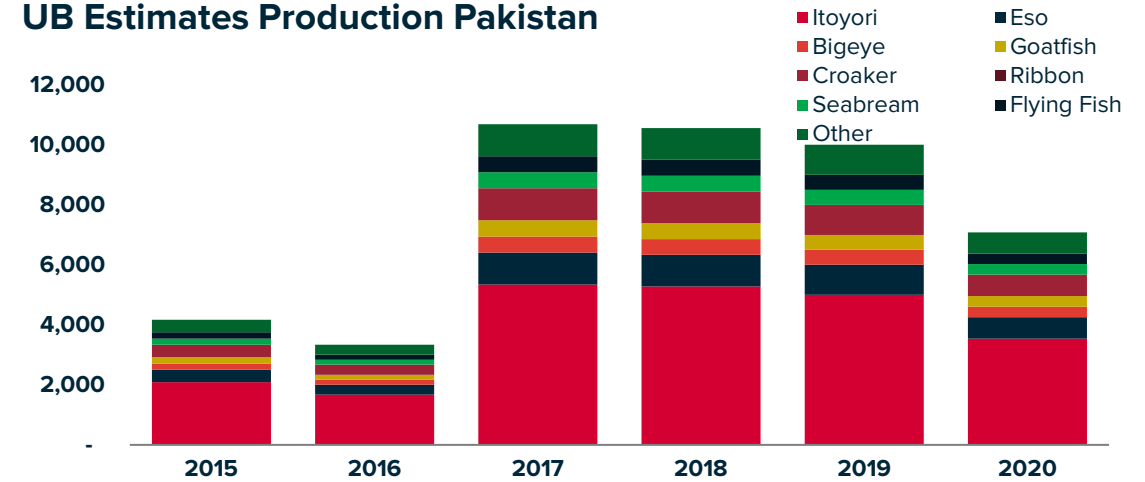


Figure 30. Yearly estimates of Pakistan's surimi production by species.

Pakistan exporting All surimi to ALL Countries												
*YTD from (Q1 to (Q4)												
	2015	'15 vs. '14	2016	'16 vs. '15	2017	'17 vs. '16	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Thailand	621	▲ 184.9%	248	▼ 60.1%	2,473	▲ 897.2%	5,081	▲ 105.5%	4,393	▼ 13.5%	2,508	▼ 42.9%
S. Korea	2,477	▲ 29.8%	1,930	▼ 22.1%	4,751	▲ 146.2%	2,014	▼ 57.6%	2,278	▲ 13.1%	1,784	▼ 21.7%
Japan	170	▼ 77.5%	189	▲ 11.2%	790	▲ 318.0%	1,367	▲ 73.0%	1,514	▲ 10.8%	768	▼ 49.3%
China			71		224	▲ 215.5%	432	▲ 92.9%	1,043	▲ 141.4%	1,200	▲ 15.1%
Viet-Nam	487	▼ 45.4%	448	▼ 8.0%	1,042	▲ 132.6%	485	▼ 53.5%	53	▼ 89.1%	235	▲ 343.4%
Malaysia	335	▼ 13.0%	370	▲ 10.4%	1,202	▲ 224.9%	976	▼ 18.8%	298	▼ 69.5%	220	▼ 26.2%
Singapore	10	▼ 47.4%	25	▲ 150.0%	25	▲ 0.0%	81	▲ 224.0%	290	▲ 258.0%	274	▼ 5.5%
Hong Kong					75		64	▼ 14.7%	104	▲ 62.5%	90	▼ 13.5%
Bangladesh	4		56	▲ 1300.0%								
Indonesia	35	▼ 87.8%			19		52	▲ 173.7%				
Other	29		0	▼ 100.0%	83		0	▼ 100.0%	24		3	▼ 87.5%
Total	4,168	▼ 11.1%	3,337	▼ 19.9%	10,684	▲ 220.2%	10,552	▼ 1.2%	9,997	▼ 5.3%	7,082	▼ 29.2%

Table 33. Pakistan exports by species. Source: Pakistan's customs, authority, UB Consulting

When we look at the data, we can see that production fell by nearly 30 percent in 2020, and it is the third straight year in which production declined compared to the previous year. It appears that production out of Pakistan reached a plateau in 2018 and 2019, only to see figures drop in 2020. The most significant decrease came from shipments to Thailand, which adjusted lower from 4.3 thousand MT in 2019 to 2.5 thousand in 2020.

**Production estimates by species use an internal working group approximation that was then calculated using an in-house non-linear model. The estimates provided by the working group were collected in 2020.

Tropical Surimi Production

Myanmar

Like Vietnam, Myanmar's production is calculated using import data from declaring countries as Myanmar does not publish trade data. **Production out of this country remained generally flat in 2020 compared to 2019. In terms of trade, Japanese imports from Myanmar fell for all species. Taiwan declared an increase of 50 percent, which translates into nearly 100 MT more compared to 2019. Thai imports also increased, but only slightly.

	Itoyori	Eso	Bigeeye	Goatfish	Croaker	Ribbon	Seabream	Flying Fish	Other	Total
2015	299	75	63	133	826	25	33	33	165	1,652
2016	384	94	79	160	1,039	31	42	42	208	2,078
2017	388	96	80	164	1,056	32	42	42	211	2,111
2018	400	100	84	176	1,103	33	44	44	221	2,206
2019	415	103	86	179	1,135	34	45	45	227	2,269
2020	458	78	85	150	1,118	34	45	45	224	2,236

Table 34. Yearly estimates of Myanmar's surimi production by species.

Myanmar estimated Production by Species

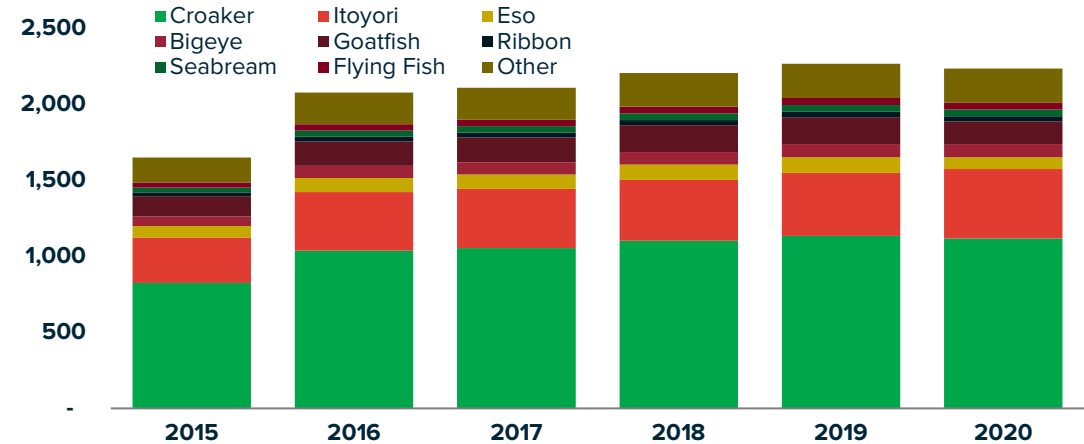


Figure 26. Yearly estimates of Thailand's surimi production by species.

Countries declaring surimi imports from Myanmar Total													
Reporter Name	Species	2015	'15 vs. '14	2016	'16 vs. '15	2017	'17 vs. '16	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19
Japan	Barrac, Sea Breams, Kingclip					32		65	▲ 103.1%	54	▼ 16.9%	50	▼ 7.4%
	Itoyori	514	▼ 2.3%	584	▲ 13.6%	604	▲ 3.4%	583	▼ 3.5%	575	▼ 1.4%	528	▼ 8.2%
	Other	362	▼ 44.1%	400	▲ 10.5%	490	▲ 22.5%	663	▲ 35.3%	625	▼ 5.7%	495	▼ 20.8%
S. Korea	All	466	▲ 261.2%	863	▲ 85.2%	675	▼ 21.8%	573	▼ 15.1%	511	▼ 10.8%	506	▼ 1.0%
Thailand	Gogies			131		111	▼ 15.3%	176	▲ 58.6%	277	▲ 57.4%	57	▼ 79.4%
	Other	83										257	
Taiwan	All							63		157	▲ 149.2%	247	▲ 57.3%
China	All	173	▼ 57.2%			55		63	▲ 14.5%	50	▼ 20.6%	19	▼ 62.0%
Malaysia	All	46		78	▲ 69.6%	112	▲ 43.6%			9		64	▲ 611.1%
Other		8		22	▲ 175.0%	32	▲ 45.5%	20	▼ 37.5%	11	▼ 45.0%	13	▲ 18.2%
Total		1,652	▼ 4.3%	2,078	▲ 25.8%	2,111	▲ 1.6%	2,206	▲ 4.5%	2,269	▲ 2.9%	2,236	▼ 1.5%

Table 35. Countries declaring surimi imports from Myanmar. Source: each country's customs, authority, UB Consulting

**Production estimates by species use an internal working group approximation that was then calculated using an in-house non-linear model. The estimates provided by the working group were collected in 2020.

Thank you

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