Mississippi MarketMaker Newsletter

U.S. Catfish Production and Imports, Farm-gate and Wholesale Prices

Abstract

This issue describes the long-term trends in catfish production and farm-gate values, farm-gate and wholesale prices, and catfish imports in the U.S. Simple economic models were developed to measure the potential impacts of the current public health crisis on production, farm-gate values and prices and wholesale prices. In 2020, the global pandemic disrupted sales to seafood restaurants and other foodservice venues which purchase about 70 percent of fishery products. Processing demand for foodfish catfish is disrupted by the severe decline in purchases of catfish products by seafood restaurants and other foodservice businesses. Most of the imported catfish products are sold at less than one-half the prices of domestic catfish products.

Suggested citation:

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Economic Impacts of the Global Pandemic on Seafood Sales

The COVID-19 pandemic was declared a national emergency in the U.S. on March 13, 2020. With the severe disruptions in seafood sales to eating and dining places, producers are forced to hold inventory longer subject to storage capacity and costs, cut back if not shut-down operations, or develop ways to sell directly to consumers. Globally, restaurants will lose 25 to 30 percent of total restaurant sales compared to 2019 (Seafood Source, 2020). U.S. consumers spent an estimated $102.2 billion on fishery products in 2017, including $69.6 billion at restaurants and other foodservice venues, and $32.5 billion at retail. (Intrafish, 2020). U.S. restaurants had sales of $450 billion during the 12 months ending in January. Just over 48 percent of this is from off-premise dining, such as takeout or delivery (Intrafish, 2020). Recently, it was projected that 35 percent of U.S. restaurant purchases evaporate in 2020 (Seafood News, 2020).

Economic Model

This economic analysis attempts to measure the direct economic impacts of COVID-19 pandemic on the catfish production, farm-gate values, farm-gate and wholesale prices, and imports. The benchmark period used in estimating the direct economic losses was the years 2015-19. Available data starting in 2020 were compared to the benchmark period. Economic losses are expressed in percent change with respect to the benchmark period.

Catfish data were retrieved from USDA-NASS (https://quickstats.nass.usda.gov/). Wholesale prices of catfish products were compiled from Urner Barry Comtell (https://www.comtell.com/). Data of catfish imports were downloaded from NOAA Fisheries Foreign Fishery Trade Data (https://www.fisheries.noaa.gov/national/sustainable-fisheries/foreign-fishery-trade-data).

Catfish Production

Catfish farmers produced an average of 347 million pounds per year during the past decade. The annual production fluctuated from the mean by 48 million pounds per year, indicating covariation by 14 percent. Mississippi is the largest catfish producing state accounting for 54 percent of total production.

The average productivity of catfish farms had been remarkably rising during the past decade. Catfish farmers adopted improved production technology and pond management practices. Mississippi catfish farms' productivity rose to 5,700 pounds per acre in 2019 from 3,100 pounds per acre in 2011.

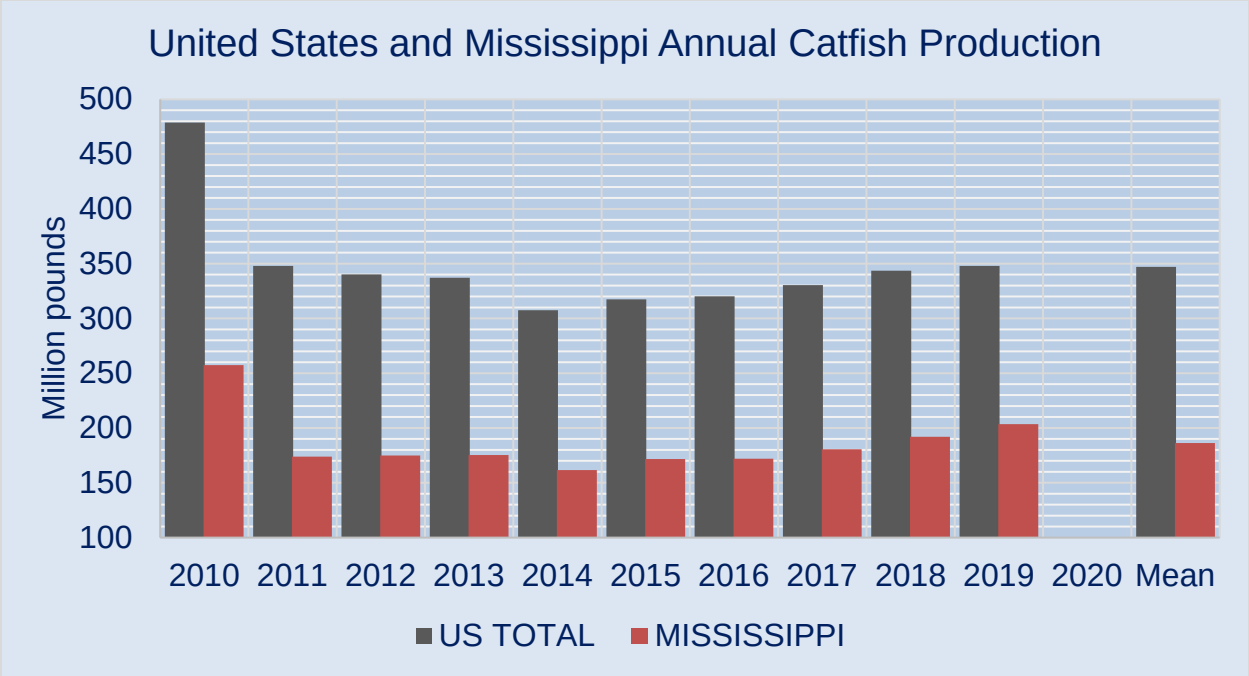

Figure 1 shows the yearly production of catfish in the U.S. and Mississippi from https://quickstats.nass.usda.gov/.

Catfish Farm-gate Values

The annual foodsize catfish sales averaged $374 million. Mississippi sold 55 percent of total farm-gate sales. The average farm-gate sales of catfish farmers rose during the past decade. Mississippi catfish farms' average farm-gate sales rose from $3,400 in 2010 to $6,300 per acre in 2019.

Catfish farm-gate prices fluctuated from $0.78 per pound in 2010 to $1.14 per pound in 2016. The farm-gate price averaged $1.02 per pound since 2010. The standard deviation was $0.11 per pound. The coefficient of covariation was 10 percent.

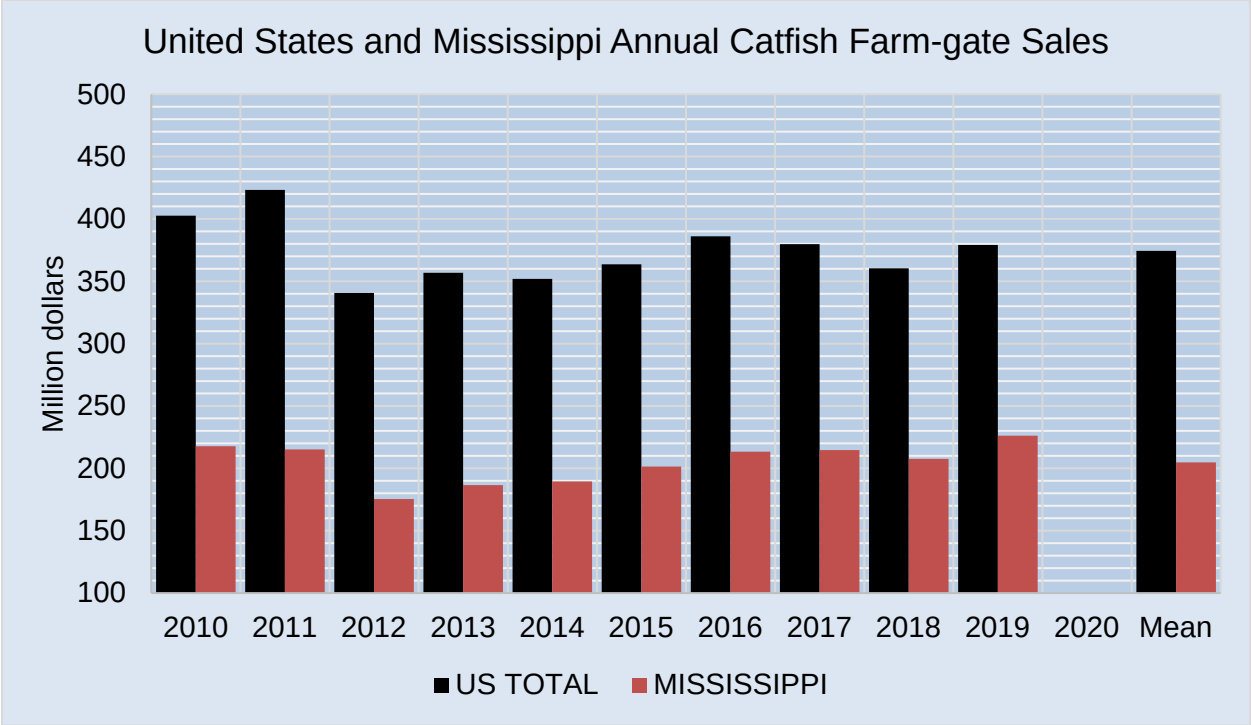

Figure 2 shows the yearly farm-gate values of catfish in the U.S. and Mississippi from https://quickstats.nass.usda.gov/.

Potential Losses in Farm-gate Sales and Prices

The total water acreage devoted to catfish production continued to decline from 115,000 acres in 2010 to 61,000 in 2020. Remarkable improvements in productivity enabled farmers to stabilize production and sales. Is the decline in acreage a signal that catfish farmers are holding off on stocking ponds? This declining trend has long started since the domestic catfish industry faced very stiff competition from cheaper imported catfish products.

During the past decade, catfish sales to processing plants consisted of 95 percent of total sales. About 70 percent of U.S. seafood sales went to restaurants and other foodservice venues. The remaining 30 percent of U.S. seafood sales were sold at retail. Of the total restaurant seafood sales, 48 percent were from off-premise dining such as takeout or delivery. Recent estimates, however, indicate that 35 percent of restaurant sales evaporate in 2020. These statistics point to a greatly reduced total market demand for processed catfish products by restaurant and other foodservice businesses and the fish and seafood markets.

Wholesale Prices of Fresh and Frozen Catfish Fillets

The wholesale selling prices of catfish by fillet size were compiled from proprietary data reported by Urner Barry Comtell (UBC). Four fillet sizes reported in the UBC wholesale market reports were included in the analysis. Differences in the benchmark prices (Jan-Dec 2015-19) and Jan-Aug 2020 were estimated for both the fresh and frozen catfish fillets. The direct price impacts on wholesale prices are reported in percent change over the benchmark period averages.

The red bars show that wholesale prices of 3-5 oz fresh fillets in Jan-Aug 2020 were higher by 1.5 percent over the 2015-19 prices. The green bars show that wholesale prices of 5-7 oz fillets in Jan-Aug 2020 were higher by 0.3 percent over the 2015-19 prices. The purple bars show that wholesale prices of 7-9 oz fresh fillets in Jan-Aug 2020 were lower by 3.6 percent below the 2015-19 prices. The blue bars show that wholesale prices of 9-11 oz fresh fillets in Jan-Aug 2020 were lower by 3.9 percent below the 2015-19 prices.

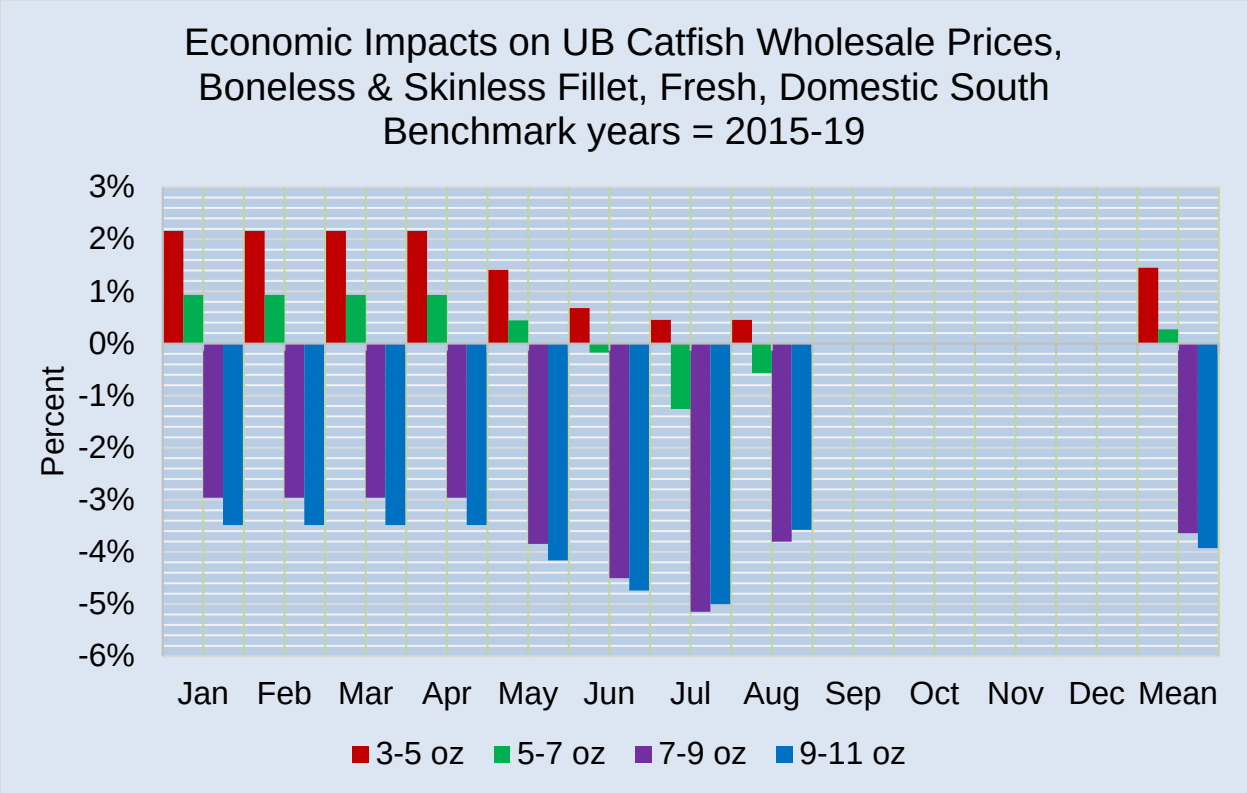

Figure 3 shows the direct economic impacts on UBC catfish wholesale prices, boneless & skinless fillet, fresh, domestic south with benchmark years = 2015-19. The source of raw data is Urner Barry Comtell at **https://www.ubcomtell.com/**.

The red bars show that wholesale prices of 3-5 oz frozen fillets in Jan-Aug 2020 were higher by 0.7 percent over the 2015-19 prices. The green bars show that wholesale prices of 5-7 oz frozen fillets in Jan-Aug 2020 were higher by 1.5 percent over the 2015-19 prices. The purple bars show that wholesale prices of 7-9 oz frozen fillets in Jan-Aug 2020 were lower by 5.2 percent below the 2015-19 prices. The blue bars show that wholesale prices of 9-11 oz frozen fillets in Jan-Aug 2020 were lower by 5.8 percent below the 2015-19 prices.

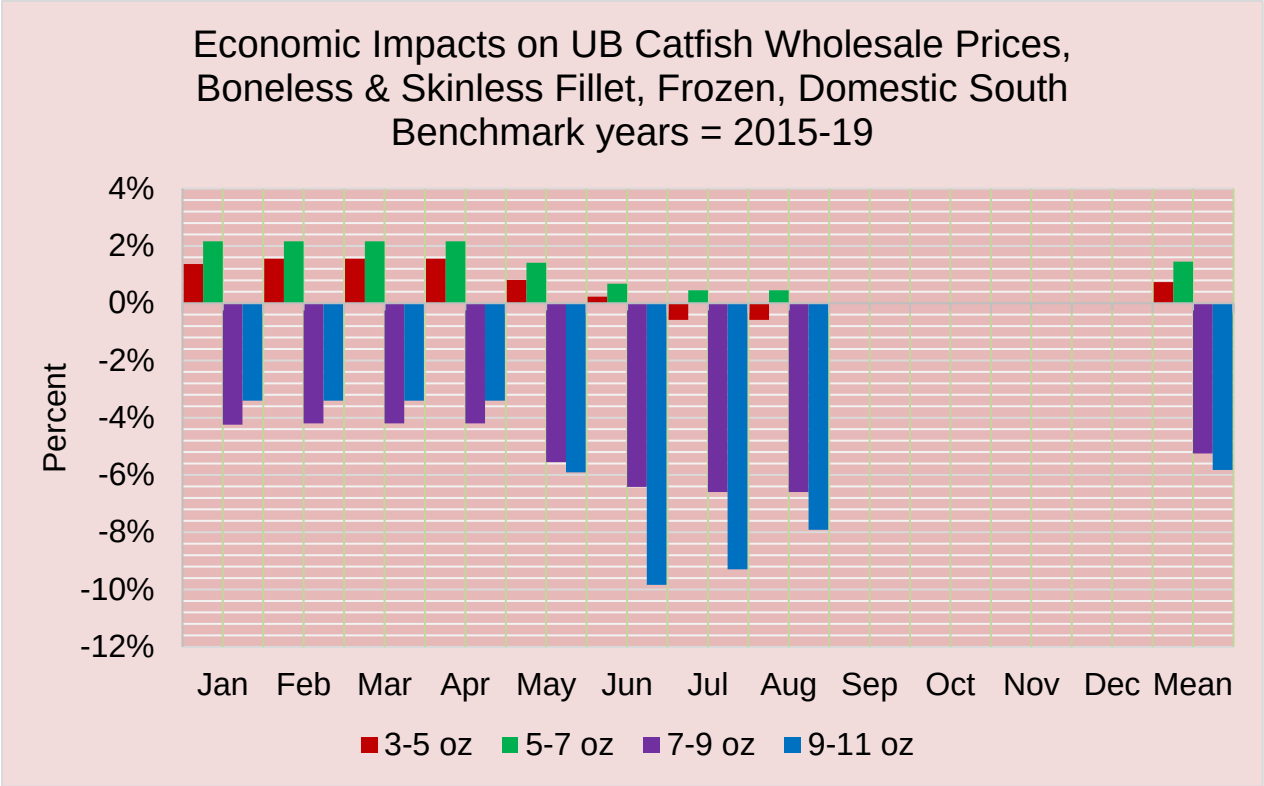

Figure 4 shows the direct economic impacts on UBC catfish wholesale prices, boneless & skinless fillet, frozen, domestic south with benchmark years = 2015-19. The source of raw data is Urner Barry Comtell at **https://www.ubcomtell.com/**.

The most likely explanation to these downward trends in wholesale prices is the continued decline in the domestic demand by large institutional buyers due to the mandatory closure of their business operations arising from the ongoing public health crisis. There is also continuous but declining supply of frozen catfish fillets imported from Asia.

Economic Losses on Imports

U.S. seafood imports create sales, jobs, income, value-added, and tax impacts to the economy. The imported frozen catfish fillets mostly from Vietnam (*Pangasius*) and some from China (*Ictalurus*) increased domestic supply by 20 million pounds per month in 2015-19. In Jan-Jun 2020, the average catfish imports fell to 15 million pounds per month.

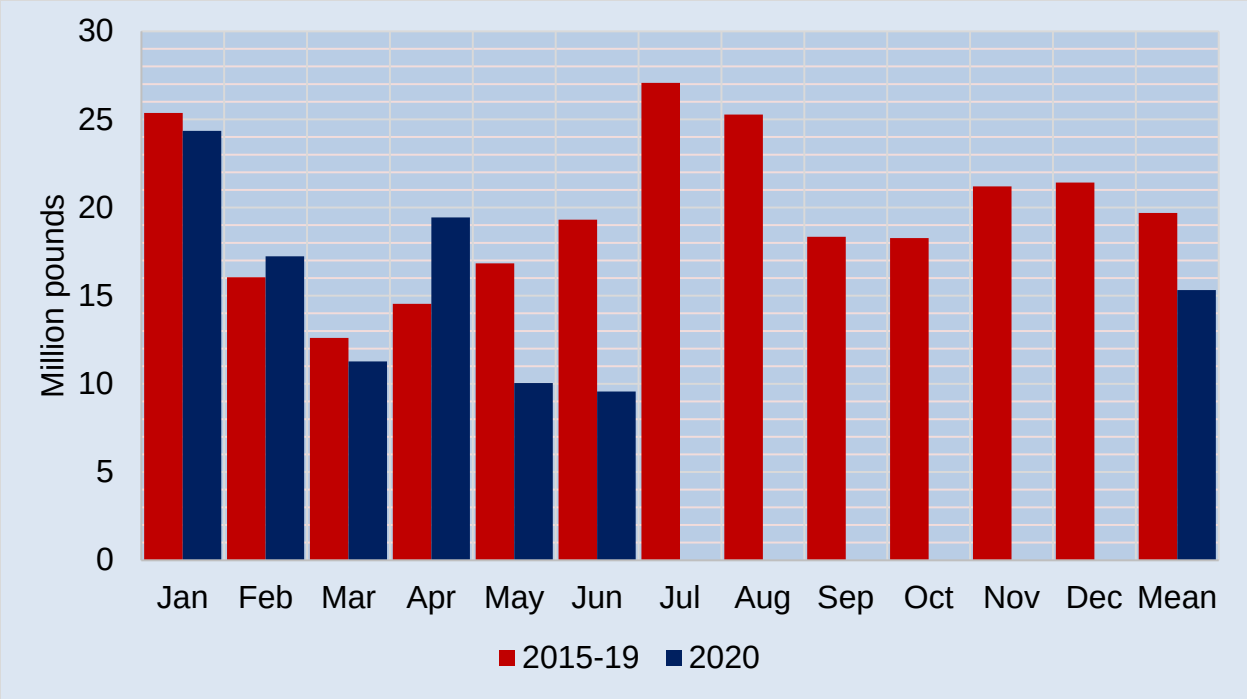

Figure 5 shows the some catfish imports from China and mostly from Vietnam from NOAA Fisheries Foreign Fishery Trade Data **(https://www.fisheries.noaa.gov/national/sustainable-fisheries/foreign-fishery-trade-data).**

These catfish imports from Asia applied so much pressure on the wholesale prices of these products sold in the domestic market. The wholesale prices of imported frozen catfish fillets from Vietnam (*Pangasius*) were 48 percent of the wholesale prices of domestic frozen catfish fillets in 2015-19. In Jan-Jun 2020, wholesale prices of imported frozen catfish fillets from Vietnam (*Pangasius*) were 41 percent of the wholesale prices of domestic frozen catfish fillets.

The wholesale prices of imported frozen catfish fillets from China (*Ictalurus*) were 82 percent of the wholesale prices of domestic frozen catfish fillets in 2015-19. In Jan-

Jun 2020, wholesale prices of imported frozen catfish fillets from China (*Ictalurus*) were 84 percent of the wholesale prices of domestic frozen catfish fillets.

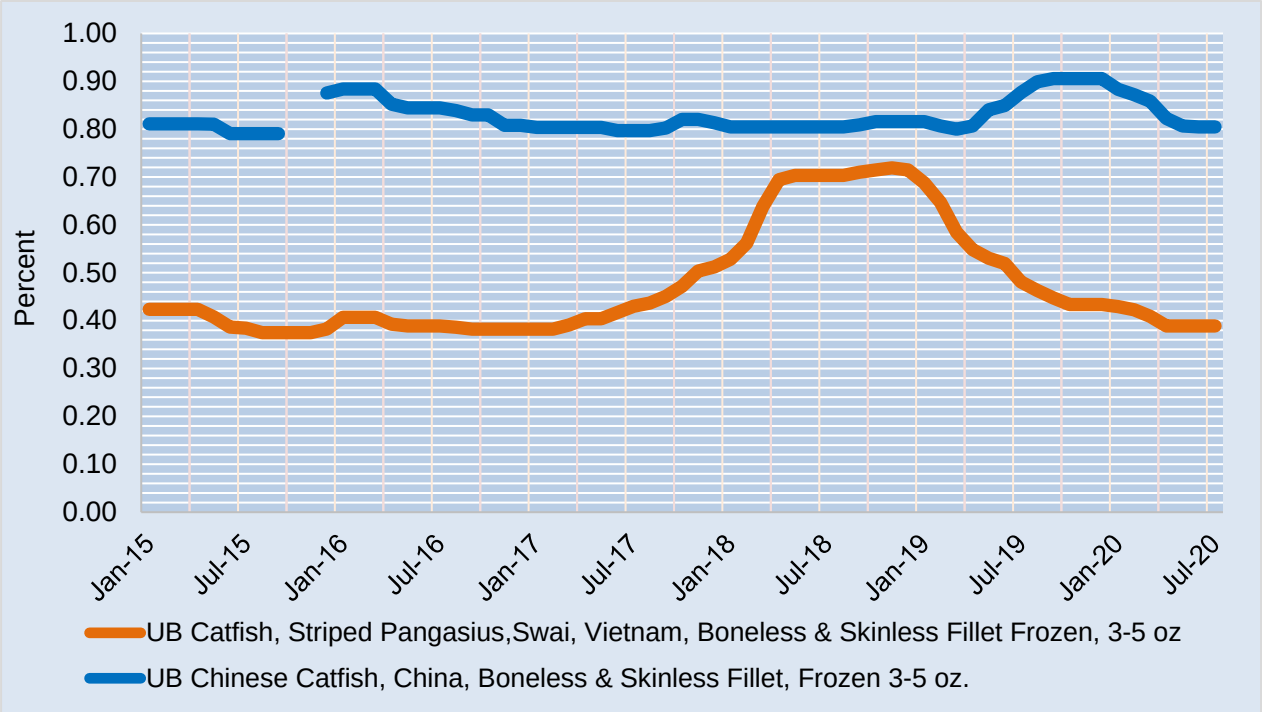

Figure 6 shows the percent of ub wholesale prices, imported to domestic boneless & skinless fillet, frozen 3-5 oz Urner Barry Comtell at **https://www.ubcomtell.com/**.

MarketMaker Seafood Businesses

More than 12,000 businesses that catch, process, and sell seafood products are registered in MarketMaker nationwide. There are more than 200 businesses that promote their seafood products and services in Mississippi MarketMaker. To search for seafood businesses in MarketMaker, perform the following procedures:

1. Go to **https://ms.foodmarketmaker.com/main/mmsearch/**
2. Click "search" and type "**Fish/Seafood/Shellfish**" in the product box.
3. You can sort the search results by relevance and name.
4. You can also limit online searches by state and type of business

My Catfish Economics Publications

1. Posadas, Benedict C. 2020. U.S. Catfish Production, Farm-gate and Wholesale Prices, and Imports**.** Mississippi MarketMaker Newsletter, Vol. 10, No. 8. http://extension.msstate.edu/newsletters/mississippi-marketmaker.

2. Posadas, Benedict C. 2020. Economic Impacts of Covid-19 On Catfish Production, Farm-Gate Values, Farm-Gate and Wholesale Prices, and Import. Horticulture, Marine, and Disaster Economics Outreach. Mississippi State University Coastal Research and Extension Center, Biloxi, Mississippi. https://youtu.be/OMF0tkkPNkg

3. Posadas, Benedict C. 2020. U.S Domestic Surimi Markets and Potential Supply of Mississippi Catfish Processing Byproducts. Horticulture, Marine, and Disaster Economics Outreach. Mississippi State University Coastal Research and Extension Center, Biloxi, Mississippi. https://www.youtube.com/watch?v=JVgQTFra0z4

4. Peterman, Mark, and Benedict C. Posadas. 2019. Direct Economic Impacts of Fish Diseases on East Mississippi Catfish Farming**.** North American Journal of Aquaculture published by Wiley Periodicals, Inc. on behalf of American Fisheries Society. ISSN: 1522-2055 print /1548-8454 online DOI: 10.1002/naaq.10090. https://afspubs.onlinelibrary.wiley.com/doi/epdf/10.1002/naaq.10090.

5. Posadas, Benedict C. 2017. Commercial Catfish Production in the United States Mississippi MarketMaker Newsletter, Vol. 7, No. 12. http://extension.msstate.edu/newsletters/mississippi-marketmaker.

6. Posadas, Benedict C. 2001. Comparative Economic Analysis of Using Constructed Wetlands in Recirculating Catfish Pond Production. Journal of Applied Aquaculture, 11(3): 1-20.

7. Posadas, Benedict C. 2000. Costs and Returns of Catfish Pond Production in the Mississippi Black Belt Area. Technical Bulletin 226. Mississippi Agricultural and Forestry Experiment Station, Mississippi State, Mississippi. https://www.mafes.msstate.edu/publications/technical-bulletins/tb226.pdf