

# AGRI-BULK TRADE AND THE COVID-19 RECESSION

## 2020/1 is not 2008/9

Despite their different origins, the economic fallout of the current pandemic is frequently compared with the recession of 2008/9, with most observers anticipating a more prolonged and severe outcome this time round. But one sector of the world's trading system that appears relatively unscathed and is currently out-performing its 2008/9 predecessor, which experienced price spikes, shortages and trade restrictions is trade in agri-bulks. The complex supply chains underpinning trade in foodstuffs have, despite worries about panic stockpiling, travel prohibitions on immigrant crop pickers, withdrawal of credit facilities to farmers and mass closures of restaurants and cafes, so far remained robust in the face of mass shut-downs elsewhere in the global economy.

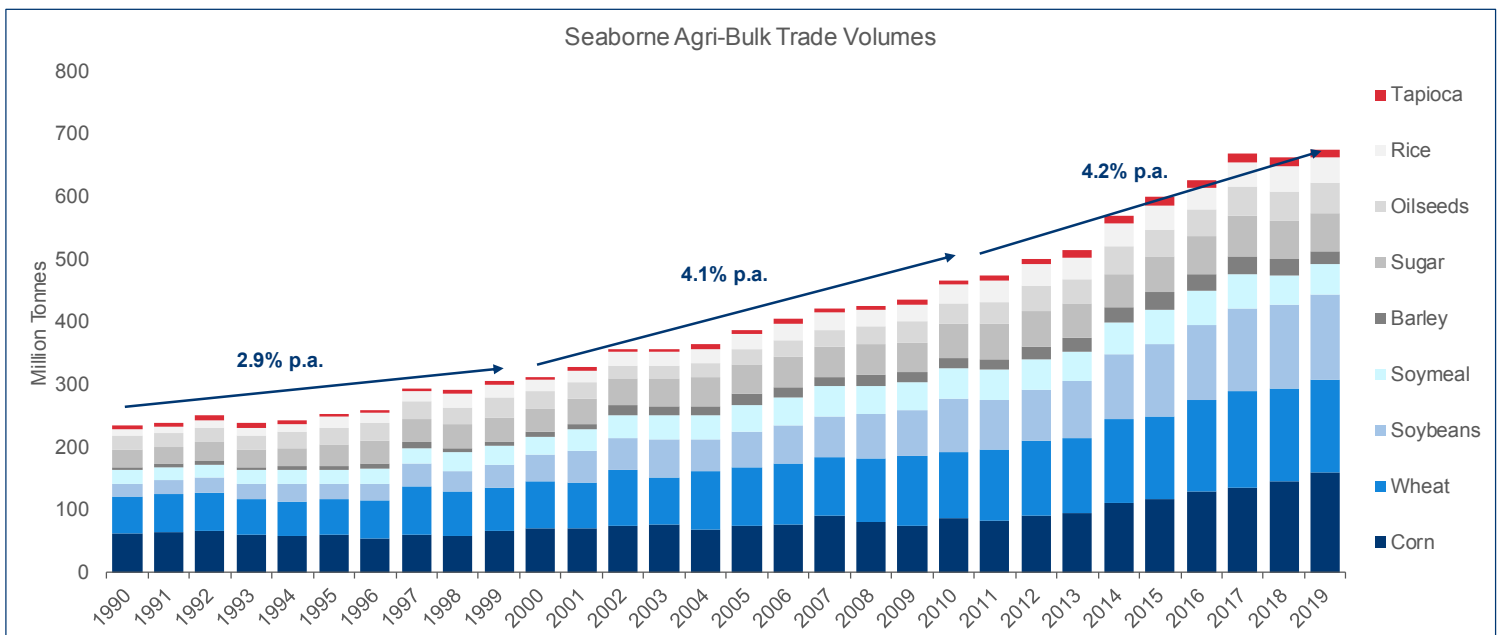
According to the Economist Magazine:

"The global supply of food has nearly tripled since 1970, as the population has doubled to 7.7bn. At the same time, the number of people who have too little to eat has fallen from 36% of the population to 11%, and a bushel of maize or cut of beef costs less today than 50 years ago in real terms."

International trade in food products has been a major factor in this success story: it supplies some 80% of the calories consumed globally and 80% of the global population is wholly or partly dependent on food imports. The trade has grown six-fold over the last three decades and tripled in value over the last two from \$0.5 to \$1.5 trillions, growing over 5 times faster than world GDP.

Seaborne agricultural cargoes in bulk, primarily soya and grains plus minor bulk cargoes of sugar, oil seeds, rice and tapioca, form only a small part (under 12%) of this trade by value. Soya, wheat and corn, the three largest commodities traded in bulk amount to only around \$130 Bn in value. Nor is it the fastest growth sector of food trade. Nevertheless seaborne agri-bulk cargoes have more than doubled in volume during the last two decades from 300 to 675 Mn tonnes per annum.

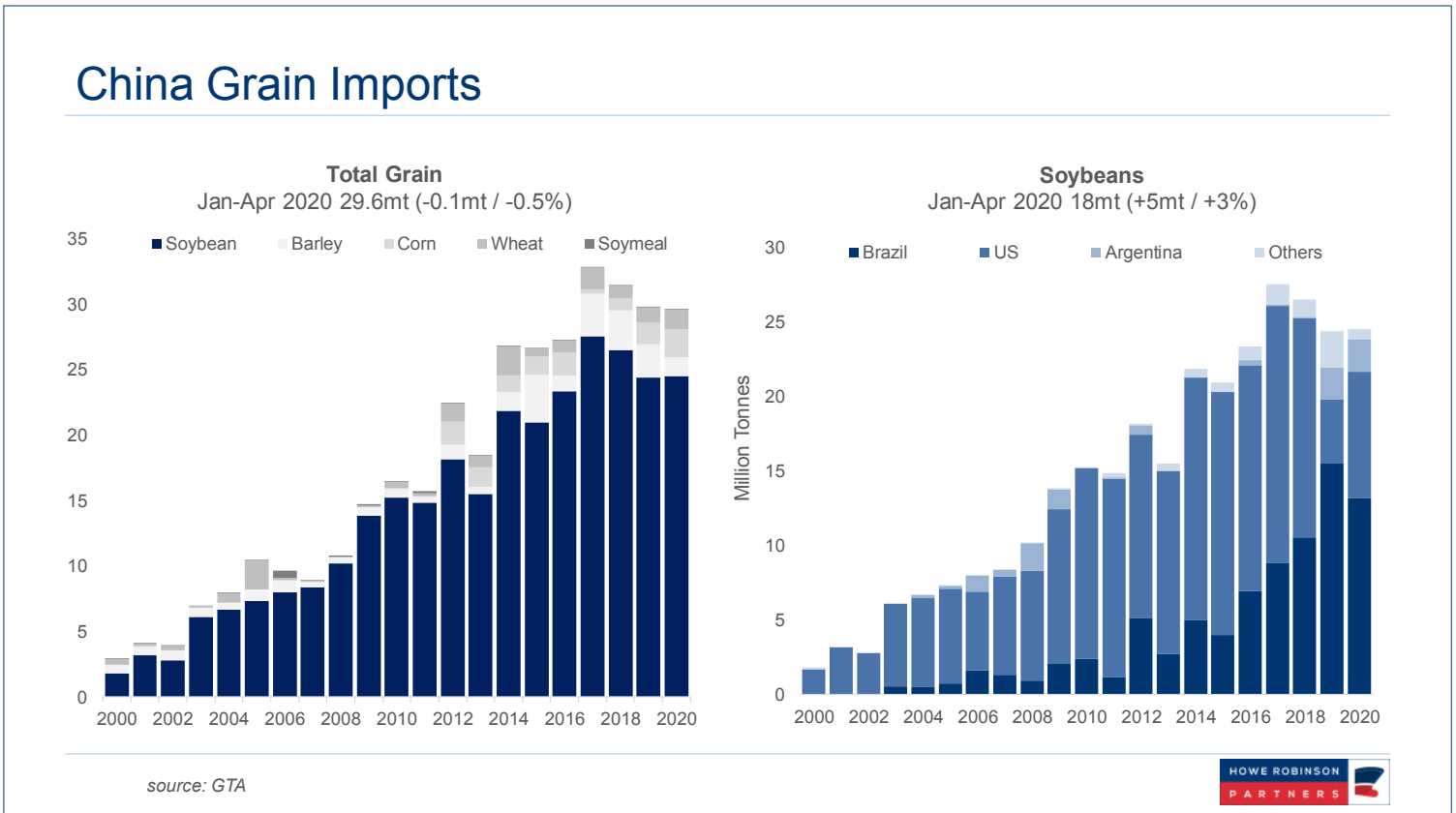
Chart 1



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Despite the recent effects of swine flu' in China, its trade spat with the US, two of the largest agri-bulk importers and exporters, and a trade slowdown in 2018/9 (see CHART 2), it is striking is that in

Chart 2



contrast to most other cargoes, agri-bulks have enjoyed accelerating growth since the last financial crisis. On average growth, especially for wheat and coarse grains, has been higher since 2010 than before (see TABLE 1).

TABLE 1: Average Annual Growth Rates for Agri-Bulk and Other Seaborne Cargoes (1990-2019)

	1990-2000	2000-2010	2010-2019
Wheat	2.7%	3.3%	3.9%
Coarse Grains	1.2%	3.0%	6.5%
Soya	5.2%	6.5%	3.6%
Minor Agri-Bulks	2.9%	3.4%	3.0%
<b>Total Agri-Bulks</b>	<b>2.9%</b>	<b>4.1%</b>	<b>4.2%</b>
All Other Dry Bulk Cargoes	3.4%	6.4%	3.7%
All Other Non-Dry Bulk Cargoes	5.1%	3.0%	1.6%
<b>Total Seaborne Cargoes</b>	<b>4.3%</b>	<b>3.9%</b>	<b>2.5%</b>

Sources: Maritime Strategies International, International Grain Council, UN Food and Agriculture Organisation

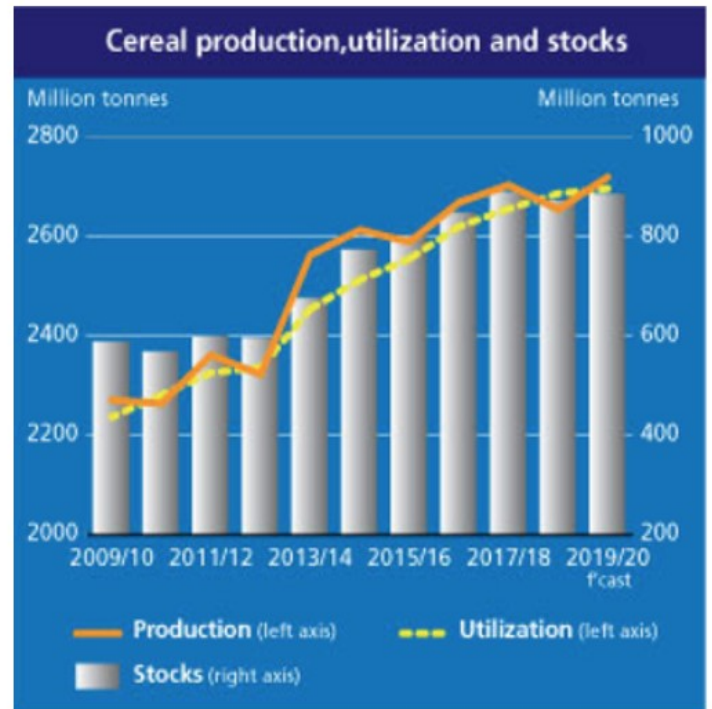
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One reason is that in contrast to most manufactured goods and industrial raw materials, trade in foodstuffs is largely constrained by supply volatility rather than demand cycles. These include both physical factors (harvest yields, droughts, floods etc) and political ones (quotas, embargoes, government stockpiling and price fixing, food standards and non-tariff barriers). CHART 3 shows how the utilisation of cereals follows a fairly stable trend, whereas their production is far more volatile, with stocks and prices taking the adjustment burden of supply / demand imbalances.

So, despite the pandemic's economic severity, the UN's Food and Agriculture Organisation (FAO) has cut its forecast for global cereal utilisation by only 24.7 Mn tonnes (or less than 1%) and growth is still expected to remain positive in 2019/20. (Interestingly the FAO attributed over 90% of this reduction to falls in animal feed and industrial demand for corn mostly in the USA and China.)

A major reason why foodstuffs trade has prospered better in this recession than in 2008/9 is that governments have not resorted to food protectionism. Apart from recent Chinese tariffs on Australian barley exports, related export restrictions from the Black Sea region (mostly on wheat); Ukraine claims corn exports are running at record levels), there has been little government interference so far with international food shipments. By contrast in 2007/8 poor harvests, food shortages and high grain and fuel prices added to the financial crisis in causing governments to restrict 19% of their food exports (by calorie) as compared to only 5% today<sup>1</sup>.

Chart 3



Source: UN Food and Agriculture Organisation

<sup>1</sup> "Some 40 countries, including Cambodia, China, India, Egypt and Viet Nam imposed bans or restrictions on exports of food. Others imposed price controls, broke contracts, and halted trading to make food available in domestic markets and to contain food price inflation. Such moves came under much criticism and were held responsible for further increasing prices, by decreasing supply to international markets. However, such moves sought to protect national populations, including the poor and vulnerable, against the global agricultural price shocks by ensuring national food availability below world prices before allowing exports to other countries." The 2008 Food Price Crisis: Rethinking Food Security Policies Anuradha Mittal G-24 Discussion Paper No. 56 June 2009.

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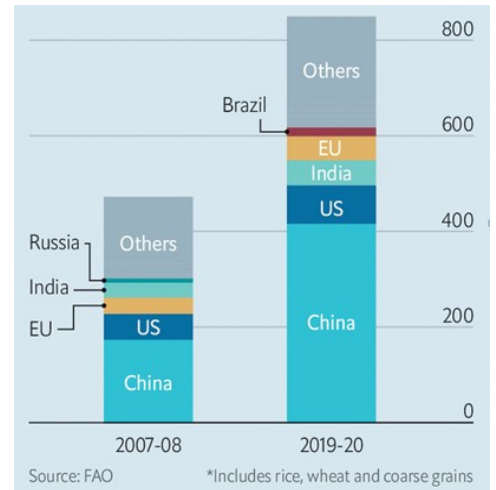
The reason for government forbearance this time is that COVID-19 hit the world, when global supply/demand balances for cereals were in good shape with end year inventories forecast to be 3.5 months of use or 75% higher than in 2007/8 (Table 2). And if rice is included, total cereal stock volumes are expected to be almost double their equivalent in 2007/8 (Chart 4).

**TABLE 2: World Cereal\* Supply/Demand Balances in two Recessions**

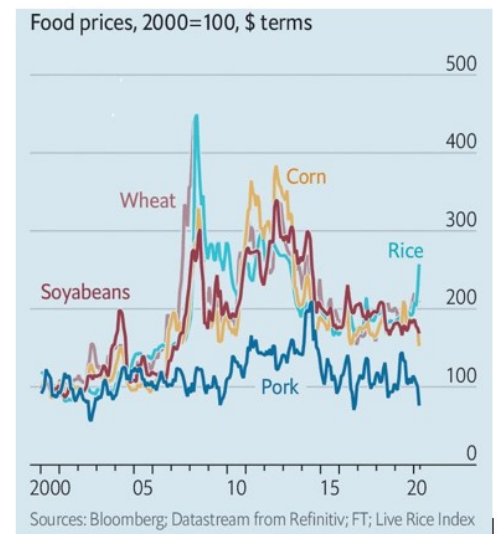
Mn Tonnes	2007/8	2019/20	% Change
<b>Production</b>	1,913	2,572	34.5%
<b>Use</b>	1,905	2,548	33.8%
<b>Exports</b>	295	536	82.1%
<b>End Year Stocks</b>	324	743	129.2%
<b>Month Use</b>	2.0	3.5	

\*Includes Wheat, Coarse Grains, Soybeans

**Chart 4: Total Cereal\* Stocks (Mn Tonnes)**



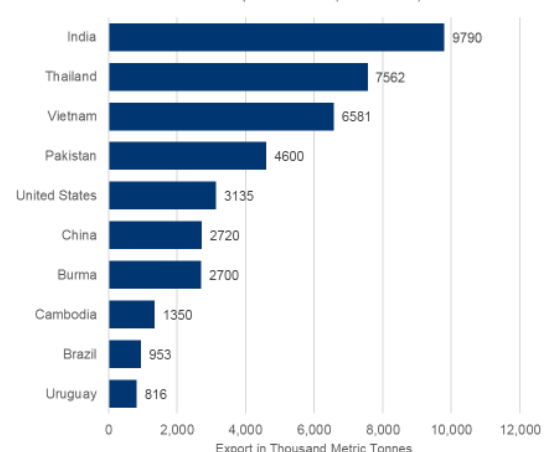
**Chart 5:**



So far this year prices for food grains have continued to decline to low levels rather than spike as in 2007/8, strong proof that supply shortages and bottlenecks have not been a problem in this recession. In fact USDA is forecasting a record supply of world wheat in 2020-21 of 1,063.61 million tonnes, the second consecutive year in which it has exceeded 1 billion tonnes. World coarse grain production is similarly forecast to rise by 2% in 2020-21, due primarily to higher corn production in the United States. Overall the FAO expects wheat and coarse grain production to rise by 3.2% in 2019/20 and end year stocks by 2.0%. Although the Soyabean outlook is less rosy for 2019/20 with a 5.5% reduction due to overall reduced expectations in Brazil and Argentina, stocks are adequate.

The interesting exception is rice. Its price, in contrast to this general trend, recently increased sharply. The rice trade is highly concentrated. Only five countries produce more rice than they consume and six countries contribute over 85% of the global rice exports. The third largest of these, Vietnam recently imposed restrictions on its exports, thanks to fears of domestic shortages. Whether price spikes are a cause or consequence of government intervention is a moot point but invariably export controls lead to private stockpiling thereby causing a vicious circle of price rises. Fortunately for bulk shipping rice transported in bulk is a small proportion (around 40 Mn tonnes or 6% by volume) of its agri-business of which soya (27%), corn (24%) and wheat (22%) are much the most important.

**Chart 6: Rice Exports 2018/19 ('000 Tonnes)**



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## Trend Growth in Agri-Bulk Trades

But while cereals make up the biggest part of crop production and remain the most important direct food source for human consumption, this is not the cause of the recent acceleration in grain trade growth. With the exception of wheat and rice, direct food use of grains constitutes a small minority of end use. In the case of maize, a mere 14% and for grains overall only a third. Much the same is true for soya. Only about 6% of the soya crop is directly consumed as food whereas 70-75% is used as animal feed and most of the rest as veg oils and biodiesel. Even in the case of wheat the share of animal feed in end use is increasing and in some areas such as the EU up to 40% of the wheat crop is fed to animals.

**TABLE 3: Grains by End Use (Million Tonnes) 2018/2019**

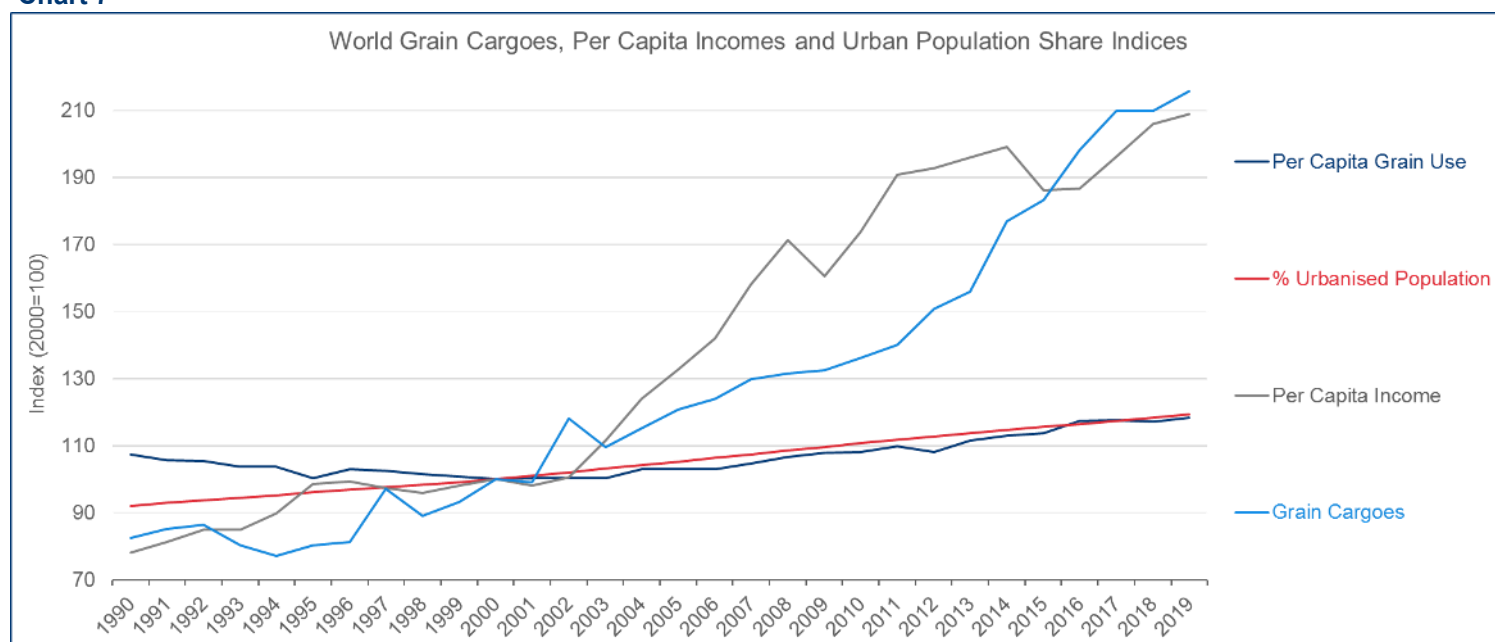
	Food	Industrial	Feed	Other*	Total
<b>Wheat</b>	<b>517.4</b>	<b>23.1</b>	<b>140.1</b>	<b>58.9</b>	<b>739.5</b>
Share of Total	70.0%	3.1%	18.9%	8.0%	100.0%
<b>Maize</b>	<b>117.8</b>	<b>222.5</b>	<b>499.3</b>	<b>28.9</b>	<b>868.5</b>
Share of Total	13.6%	25.6%	57.5%	3.3%	100.0%
<b>Other</b>	<b>80.5</b>	<b>120.7</b>	<b>325.7</b>	<b>31.1</b>	<b>557.9</b>
Share of Total	14.4%	21.6%	58.4%	5.6%	100.0%
<b>All Grains</b>	<b>715.7</b>	<b>366.3</b>	<b>965.1</b>	<b>118.9</b>	<b>2,165.9</b>
Share of Total	33.0%	16.9%	44.6%	5.5%	100.0%

\*Includes Seed and Waste

Source: International Grain Council

The rapid expansion of non direct food crops, such as maize and soya, have been driven by rising per capita incomes and urbanisation which are causing diets to become higher in protein, fats and sugar. Consumption by both livestock and biofuels have grown faster than overall crop production and this is causing a shift away from direct food crops such as wheat and rice, towards coarse grains and oilseeds to meet demands for animal feed and biofuels. Global grain use has moved closely in line with the growth of the urban population during the last two decades. But seaborne trade has grown far faster reflecting the growing import dependency, particularly of industrialising countries. On a global scale seaborne grain trade has followed much the same trend as per capita incomes although, as mentioned above, short term deviations from this trend are unrelated to demand/income variations, as they are generated principally by supply/production factors.

**Chart 7**



Sources: World Bank, Maritime Strategies International

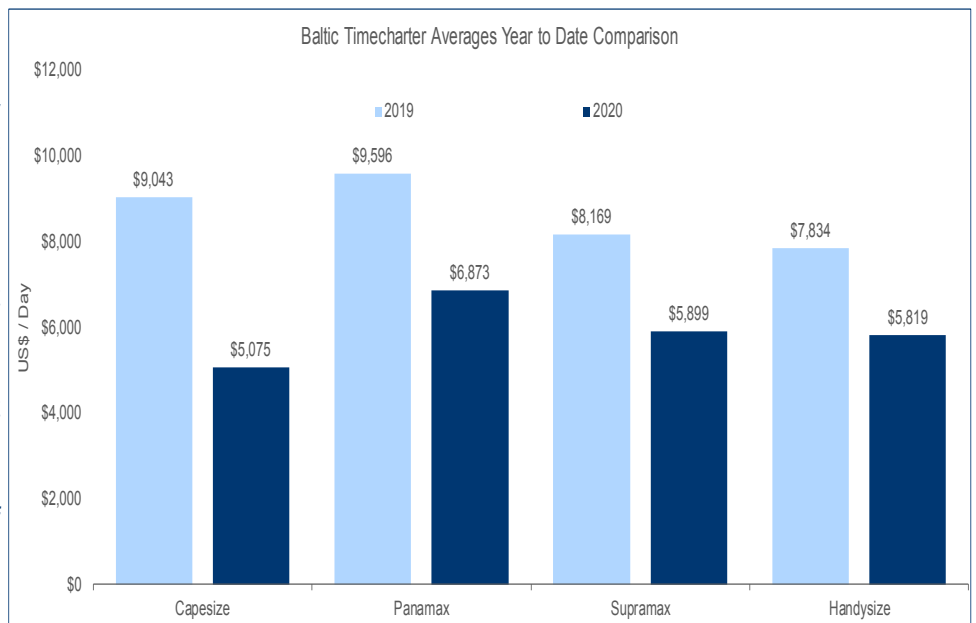
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## The Outlook: So Far So Good. But...

Thanks in part to low prices, good harvests, abundant stocks and little government protectionist intervention, the food trading and distribution system has adapted almost seamlessly to the economic shock of COVID-19. Each link in the supply chain has managed to accommodate the sudden, unexpected and radical shifts in eating habits away from restaurants, cafés and institutional cafeterias (which accounted for 30% of all calories consumed) to home cooking and take-away deliveries. Given the size of the food industry which, field to fork, employs around 1.5 bn workers and contributes 10% of world GDP this has been no mean feat.

Moreover, seaborne agri-bulk trade, and particularly wheat and coarse grains, have fared well compared to high value perishable air cargoes and this may help explain why year-to-date time charter rates for Panamaxes, 55-60% of whose cargoes are grain, now exceed all other bulker size segments. However, the story is not over yet. Notwithstanding the effectiveness of globalised management of distribution, the technical and automation improvements to production yields and an overall decline in government food protectionism, the threats posed by climate change and economic nationalism remain. Short term the full impact of COVID-19 may not be felt until the next planting seasons. The world was fortunate to enter the current pandemic with full barns and record harvests. Low energy prices have also been a major boon in reducing transport and fertiliser costs and reducing demand for biofuel feedstocks. Low interest rates have equally helped farmers to navigate their cash flow between planting and harvest.

**Chart 8**



But the shift in food demand has also had dire effect, particularly on waste. Trade in perishable foods, especially those relying on air transport have been particularly badly hit. There have been reports of gluts of fish in France, avocado in Australia, milk in Ontario, keg beer and potatoes in the EU. In this respect cereals have been relatively fortunate, although animal feed demand has been hit by gluts and bottlenecks in the meat industry, with for instance disruption to packing plants in USA that have become hotspots for Covid-19. All of this, together with low cereal prices, will have long term repercussions on farm incomes and so potentially on activity levels in the forthcoming planting seasons.

There are other risks which could mean that the effects of the pandemic on future farm output and agri-bulk trades have yet to be felt. Restrictions on the 1 million migrant workers from N.Africa, E.Europe and Mexico that are required to bring in the European and American harvests is less likely to affect cereal production than fruit and green vegetables. But some capital intensive grain producers may fail, particularly those in Latin America facing higher interest rates than elsewhere and higher debt to equity ratios. Yet another potential threat would be a credit drought, particularly in the light of falling cereal prices, as so much of the industry relies on the value of the crop as collateral for bridging loans to finance the interval between planting, production and sale. And finally there is the ever-present risk that declining per capita incomes will panic governments into stock-piling grain and restricting its export.

COVID-19 has undoubtedly caused major distortions to demand and prices in the world food industry, which may well affect both its future short term supply response and its long term productive capacity. However, these will probably not become clear until long after the pandemic has passed away.