

Investment Insight

SCALE AND RESILIENCE: THE REALIGNMENT OF THE GLOBAL SUPPLY CHAIN

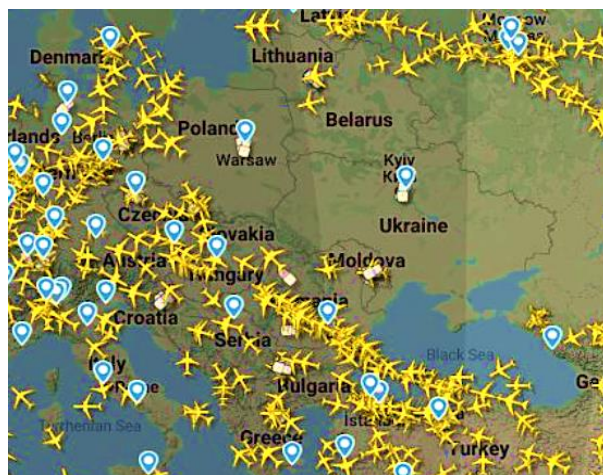
We are at a critical moment of transition. We have been warning of a dramatic realignment of the global supply chain since the pandemic dramatically forced companies to rethink their manufacturing footprint, just-in-time inventory practices and global supply chain structures.

Now, Russia's invasion of Ukraine will significantly accelerate this realignment. It has significantly impacted the supply of commodities like oil and gas, grains, fertilizers and non-ferrous metals. Some of these commodities continue to be supplied and if and when the conflict is settled as we fervently hope, some of these constraints will improve. While the conflict is ongoing, the impact will clearly lead to shortages of those commodities and will be inflationary in the short-term.

Our investment horizon, however, is long-term. Against the background of an otherwise robust global economy, recovery from the pandemic, strong growth in demand for goods and services, and an enormous need for investment in the public and private capital base and infrastructure, the global supply and demand for commodities, goods and services will only grow. What will change are the flows. This is the realignment we see.

The global economy has weathered many crises, as have the global companies we invest in. While there are great challenges ahead, we think that the conflict is a call on the global powers to step up and face their responsibility to further peace and prosperity in our interdependent and multipolar world, and that the realignment should ultimately make the global economy more, not less, robust.

[As we wrote last year](#), fundamental principles of the global economy have been increasingly put into question, including the globalisation of supply chains and the maintenance of just-in-time inventory levels. Even before the pandemic, key parts of the global supply chain were tested by trade disputes between China and the US. The pandemic itself exposed the risks of extended supply chains and has made agility, resilience, localisation and diversification of supply chains an increasing area of focus for global companies.



Source: Flightracker

The Russia/Ukraine conflict and the sanctions imposed by the United States and Europe will not only aggravate existing issues but broaden pressure to global commodities. One of the biggest issues is Russia's status as one of the largest global suppliers of oil and gas, in particular because of Europe's dependence on Russian pipeline gas. Russian and Ukrainian grain is critical to global food supplies. Russia is also one of the world's largest producers of a number

of key specific commodities with mission-critical functions in components for catalytic convertors or for lasers for semiconductor chips. Closure of airspace means flights are rerouting adding travel time and increased usage of fuel, at a time when the price of oil is at record highs. Alternative ways of transport take longer and will increase pressure on ports already affected by pandemic-related blockages over the past two years.

Transportation Challenges	Commodity Challenges
<p>\$6 trillion, a third of world trade shipped by air each year</p> <p>\$900 million, average bunker rate at new high</p> <p>8% longer flight time on Russian airspace closure</p> <p>80% rise in air cargo rates from China to Europe</p> <p>25% amount of increase by FedEx on peak</p>	<p>40% of world's palladium from Russia</p> <p>39% of platinum from Russia</p> <p>90% of world's neon supply from the Ukraine</p> <p>40% of Europe's natural gas imports are from Russia</p> <p>25% of global wheat exports from Russia and Ukraine</p>

The Three Cs: Components, Commodities and Consumer Products

Distances, logistics and reliability matter. We believe that a realignment of the global supply chain will accelerate and impact three key areas: components, commodities and consumer products.

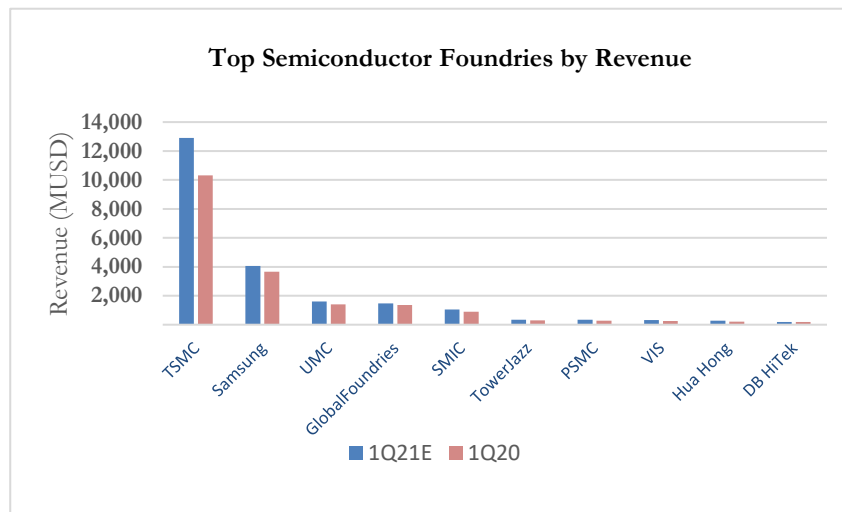
Components: Reshoring the Supply Chain

The latest disruptions compound component supply shortages that have been ongoing for two years as manufacturing bases shut at the height of the pandemic. These supply constraints coincided with an increase in demand for consumer electronics in particular as people bought new televisions, laptops and screens for both work and play in their homes during the pandemic. The increase in demand for semiconductors (and related components) together with a reduction in supply has caused an inventory imbalance that is still ongoing.

The renewed Covid outbreak in China will cause disruption given the lockdown of its tech hub, Shenzhen. Most companies will have enough inventory to manage this current outbreak, but if there are repeated shutdowns and circuit breakers, then greater inventory will be required on hand to meet the demand.

The closure of Russian airspace due to the Russia/Ukraine conflict and the sanctions will impact the e-commerce supply chain, particularly for European companies who source their products in China and would normally receive them by air cargo over Russian airspace. This will cause even further delays and disruption to supply chains, exacerbated by higher costs due to high oil prices.

The imbalance has not just affected the consumer electronics sector. Semiconductor chips are used in many other products. Two years ago, people might have expected to wait just a few weeks for a new car. Today they have to wait for several months before their new car arrives in the showroom. This supply issue has in turn pushed up the prices of used cars by [more than 50%](#). Some of these components cost very little in US dollar amounts but cause costly shortages for manufacturers unable to sell expensive cars.



The semiconductor manufacturing process is not conducive to fixing the imbalance any day soon. It can take up to six months to produce a finished chip so big swings in demand are difficult to cater for. This is causing issues, notably in the US where the semiconductor manufacturing sector has declined markedly over the past 30 years. US share has fallen from ~40% to ~12% of the global market. Asia and Taiwan in particular now account for 80% of the market.

But change and a realignment are afoot. The US recently approved the CHIPS Act (Creating Helpful Incentives to Produce Semiconductors for America), with the goal of reshoring manufacturing back to the US. There have been similar calls for a European CHIPS act, which would create a three-region production base and lower reliance to a single geography.

The Covid pandemic and the recent war have placed greater focus on the technology component supply chain. We expect that there will be greater reshoring of technology manufacturing and infrastructure and the building of more localised hubs.

Technology has historically developed in local centres of excellence. Sharing of expertise and best practices, as well as nearby high-class university research all contribute towards clusters for technology development. Silicon Valley is, of course, the most obvious example, but other local clusters have developed in places like Silicon Fen in the UK, Hsinchu Science Park in Taiwan or Shenzhen in China. There will be a push for more as governments recognise the strategic and economic importance of domestic or regional technology hubs.

Commodities: Not just Oil and Gas

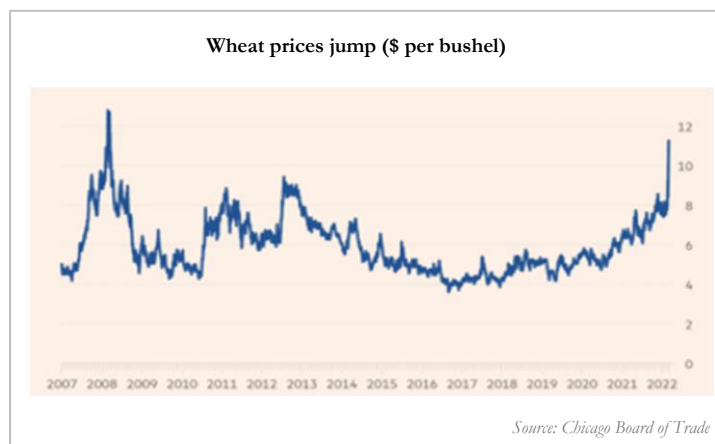
The Russia/Ukraine conflict has affected key commodities like oil and gas, grains, fertilizers, and metals like titanium, platinum, nickel and palladium where Russia is a top-three producer. This has not only impacted energy prices, which have risen sharply but also the ability of other industries dependent on these metals to produce, most notably for aerospace, catalytic converters and EV batteries.

The conflict has significantly increased pre-existing supply pressures in these commodities. For oil and gas, the Covid pandemic has led to a mismatch between supply and demand for

oil and gas. Costs were slashed as the pandemic hit in the first quarter of 2020 and the industry is now struggling to catch up as demand has surged back with the reopening of the global economy. This short-term constraint has come on top of longer-term underinvestment due to low commodity prices and ESG considerations, incentives and regulations that have limited the development and access to finance for fossil fuels and other commodities.

For Europe in particular, the decision by Germany and other countries to reduce their dependence on Russian gas will accelerate the transition away from fossil fuels and lead to higher levels of investment in renewables and green hydrogen. In the short-term, however, it will require a higher utilization of coal that will affect the ability to achieve the climate change targets the EU has only just implemented with significant effort and commitment. It will also re-open the nuclear debate. The EU originally omitted nuclear and gas-fired power generation from its Taxonomy Regulation, which is intended to provide companies, investors and policymakers with appropriate definitions for which economic activities can be considered environmentally sustainable, but steps have now been taken to include them as a transitional activities.

The Russia/Ukraine conflict is also disrupting agricultural commodities. Together they account for 30% of global wheat exports and 20% of global corn, with even larger shares of global barley (31%) and sunflower oil (78%).



Other countries in the region are being impacted too. With fertilisers, for instance, Belarus continues to seek alternative routes to export c10 million tonnes of potash due to an inability to transit through Lithuania, its usual route to the 53 million tonne global export market. This represents c20% of global export supply and, together with supply restrictions associated with Russian fertiliser producers, could mean potentially 40% of the world's supply is out of the market for an indeterminate amount of time.

Consumer Products: Boycotts and Bottlenecks

Much of the attention on consumer products has focused on the decision of many global luxury brands to suspend their sales in Russia. Designer brands including Louis Vuitton, Hermès, Kering, Chanel and Prada have all closed their stores and suspended e-commerce. More recently, the EU and the UK have banned luxury goods exporting to the country too.

Consumer staples companies have more difficult decisions to make. We believe that companies should make a distinction between essential goods like basic foods or infant nutrition, and more discretionary ones. [As we recently told The Financial Times](#) in a portrait of Nestlé's CEO Mark Schneider and his handling of the crisis, it is a difficult line to draw. There are significant reputational risks that consumer-facing companies have to take into consideration if they continue operating in Russia. From the companies' perspectives, they have to do the right thing in line with their values and their responsibilities towards their employees, shareholders and other stakeholders. As the biggest global food company Nestlé's decisions about what to sell in Russia matters, but it also matters what they do in Ukraine. Nestlé is using its significant operations in Ukraine, Poland and Romania to keep food supply going and support the millions of displaced people and refugees.

Within the consumer products sector, supply chain issues like bottlenecks and cost inflation so far lie with logistics (shipping cost of product), rising raw material costs and wage inflation pressure. For example, luxury goods with a short supply chain because the product is made and sourced locally (such as in France and Italy) face rising shipping costs. The elevated cost pressure has resulted in greater price increases but so far these have been accepted by consumers and we have not seen any volume impact as a result. Increasing prices is a constant and normal practice in the luxury industry. Buyers of luxury are less sensitive to prices and higher prices tend to be associated with the exclusivity and perceived scarcity which luxury brands thrive on, and if all luxury good companies raise prices they will continue to compete on an equal footing.

The cosmetics sector, which relies on natural ingredients like coconut oil and palm oil could see margins come under pressure in the first half of 2022 as prices rise. The price of palm oil, for instance, had already doubled over the past two years to more than USD 1,200 a metric ton in light of increasing ESG scrutiny and the pandemic. It is now more than USD 1,500 a ton with markets looking for alternatives to sunflower oil amid the ongoing Ukraine crisis; around two-thirds of the world's supply comes from the Black Sea region.



As with the luxury sector, price increases are one way to offset cost inflation. But there are other ways to protect profit margins, like product innovation and different packaging. Those changes will take time to work through so we expect some pressure on operating margins in the next six months. The pressure should subside as the year progresses and as these changes work through the system.

Spirits markets have experienced a significant impact from Covid-related on-trade restrictions and lockdowns, and have not yet returned fully in many parts of the world. Key supply challenges include logistics costs (rising freight costs) as well as shortages of glass partly due to billions of vials of Covid vaccines which used up significant volumes of glass production.

However, demand for spirits has remained strong. It has benefitted from both recovery in the on-trade and continued resilience in the off-trade. Premiumisation is a big ongoing trend,

where consumers drink less but drink better. Many drinks companies have been exploring the possibility of moving to different packaging such as cardboard and using thinner glass, which will help alleviate supply bottlenecks and reduce carbon footprints over time.

Impact on our Portfolios

We invest for the long-term and remain convinced that our portfolios are well-positioned to overcome the current crisis and the realignment of global supply chains that is taking place as a result.

Companies like *Eaton*, a global technology leader in electrical systems, have proactively modified their supply chains by multi-sourcing, embracing digital logistics planning solutions and redesigning products. *Amphenol*, a major company in the connector and sensor industry, is a flexible, decentralised supplier across 130 individual business units. This means it can shift production and procurement. Much of our technology exposure has a strong focus on software and internet companies (*Amazon, Alphabet, Meta*) which do not have the same semiconductor issues associated with hardware companies.

Price increases by consumer companies will contribute to higher and longer inflation, which could in turn affect consumer sentiment and pinch wallets. However, so far there has been little indication of a slowdown while many share prices are still much lower than they were at the beginning of this year.

Our portfolio companies are leaders in the markets they operate in and have strong balance sheets to weather near-term adversity. They are more likely to gain market share from weaker companies in uncertain times as they did in the last two years during the Covid pandemic and to emerge from the current crisis even stronger than before.

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March 2022

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