



The War in Ukraine and its Long-Term Impact on Global Supply Chains

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Background

Supply chain leaders were just beginning to get to grips with the disruptions & change that was brought about by COVID-19 and looking to secure continuity of supply. Economies had just started the recovery process and now the war in the Ukraine has added further complexities to global trade and will have a range of short and long-term implications on global supply chains.

Introduction

The fragility of today's global supply chains is not new. Even before the arrival of Covid-19 and the war in Ukraine, Professor Mike Wilson of The PARC Research Institute at Cardiff University, highlighted as early as 2018 that the elongated, take-make-dispose supply chains that have dominated supply chain design over the last decades, were fragile and in need of a major overhaul (1). It was noted even then that the move to National Protectionism at the expense of globalization, exacerbated by trade wars between East and West, technological advances allowing greater freedom of manufacturing locations, and the push for more sustainable and circular supply chains was threatening a move away from centralized manufacturing and transportation of finished goods to more localised supply chain set-ups.

Covid-19 proved to be a huge catalyst for change and whilst we have seen some aspects of global trade increase as we see a huge buffering of inventory as a reaction to supply chain disruptions, many people, organisations and governments are questioning the fragility of the traditional supply chain and looking for active ways to mitigate disruptions and protect continuity of supply. Now, the war in Ukraine is yet another potential disruption that brings into question the elongated and overexposed supply chain. It also brings into context the relationship of the rest of The World with Russia and its relationship with China and indeed how will China eventually react to the war?

Russia and The Ukraine

Russia and Ukraine play an important part in the global interconnected supply chain, not only are the skies closed over both countries and border transportation also being shut down, according to a recent report published by Dun & Bradstreet, more than 350,000 business worldwide rely on Russian suppliers and more than 240,000 businesses relay on Ukrainian suppliers (2). As well as the importance of Russia as an energy supplier (41% of Europe's natural gas and 34% of Europe's crude oil comes from Russia), Ukraine and Russia are also important sources of agricultural resources and leading providers of industrial metals such as aluminum, nickel, copper and iron ore. Russia and Ukraine provide 90% of the neon used for lithography, a critical step in the chip making process and therefore influential in an already constrained hi-tech supply chain (3). The direct supply chain impacts will be shortages of the key exports out of Russia and Ukraine not just agriculture, energy and raw materials but supply chains will be affected with all content coming out of the conflict zone. For example, 20% of German manufactured cars use wiring harnesses manufactured in the Ukraine. The knock-on effect is that manufacturers must look for alternative sources of supply both for short-term emergencies, and longer-term ensuring security of the supply base to protect against further unforeseen disruptions. We are already seeing a movement to multi-sourcing and further localization of supply; the conflict adds to the pressure to do this quicker (4).

What about China?

As well as being central to material supplies, Russia and Ukraine's geographical location also make it of strategic importance to the movement of goods across global supply chains. Located between Asia and the large markets of Europe and crucially, both are located on key transport corridors within the \$26 trillion dollar Belt and Road Initiative (5), which Ukraine and Russia have both signed up for.

Critically, how will China react to the conflict and its relationship with Russia, but equally as important is how will the rest of the world react to China?

China has a strong bond with Russia. Putin and Jinping have a partnership that has 'no limits' (4) which was the outcome of their meeting shortly before Russia invaded Ukraine. Russia trades minerals, grain and raw materials with China; China has technology and other commodities that Russia relies on. Notwithstanding the long border that they share and with Russia, China has a nuclear ally. Both Russia and China have had a stormy relationship with the US and its economic and military power. The China/US relationship has been fractious for many years, in 2010 China surpassed Japan as the World's second largest economy (5), the US retaliated by agreeing the Trans-Pacific Partnership aimed at countering China's growth. We saw the trade wars initiated under the Trump administration being carried on with Biden, a deep-rooted insecurity of the growth of China's military ambitions prompted by escalations in The South China Sea and the open Chinese ambition to bring Taiwan under China control. This led to the alliance between US, Australia and UK to cooperate on cyber capabilities and nuclear submarine acquisition and deployment by Australia (6). The US has been highly critical of China for its Human Rights Policies, manipulation of currency, intellectual property theft and government subsidisation of industries such as steel to allow unfair competitive advantages in global markets.

The invasion of Ukraine puts China in a difficult position. A quick, swift victory for Russia would have suited China and may have even led them to see Taiwan as a potential take-over opportunity. However, the Russian military machine's inefficiency has been exposed with dogged and courageous Ukrainian resistance and it has shown its confused coordination of military resources and lack of tactical initiative. The united stand by NATO and allies with hard economic sanctions has hurt Russia and China cannot fail to notice. If China supports Russia openly, it risks secondary sanctions and boycott of Chinese exports. If indeed this scenario develops, it would have a massive impact on some of the World's busiest trade lanes and many Western companies who rely on China for manufactured goods. But, even if this situation is unthinkable, it is being spoken about, and it makes organisations think about having the exposure to overextended supply chains and their dependence on centralized manufacturing in China. Larry Fink, Founder of BlackRock Inc, with over \$10 trillion dollars of investments within their portfolio, in his recent shareholder letter comments that, "The Russian invasion of Ukraine has put an end to the globalization we have experienced over the last three decades (7). Russia's aggression in Ukraine and its subsequent decoupling from the global economy is going to prompt companies and governments world-wide to re-evaluate their dependencies and re-analyse their manufacturing and assembly footprints – something that Covid had already spurred many to start doing. ``

Underlying tensions between East and West are not new

Even before the war or the pandemic there was the underlying tension between an East/West economic decoupling, the war in Ukraine is making the concept more real. However, the move to two economic, technological and distinct business models dependent upon two independent supply chains would have seemed totally unthinkable, even illogical, but today we are reading more about government protectionism, economic security, geopolitical agendas and anti-trust legislation being discussed as reality even before the conflict in Ukraine. If the fraught relationship between the US and China breaks down and the world moves to economic decoupling, then what happens to Europe and the rest of the World?

What does this mean for the rest of the world?

The war in Ukraine has solidified the west in a collective stand against Russia, even the neutral Switzerland were quick to align with NATO and impose sanctions including adding the Swiss Franc to

the Euro and Dollar currency restrictions. It would be difficult for European countries not to align with the US, the security that the US provides is a decisive factor - Japan, Australia and New Zealand likewise. The contentious areas are The Middle East, Africa, Latin America and Eastern Asia. The BRI countries have a dilemma...in Latin America, Panama, which is highly US influenced and even uses the dollar as currency has signed up to the BRI and the Brazilian President, Jair Bolsonaro is an active supporter of Putin. There are many countries around the World who have Direct Foreign Investment and long-term loans from China...what happens if the World fragments? Will countries have to pick sides?

Is this the end of global supply chains?

We all hope that this, the economic fragmentation protagonist stance is fanciful pessimism, and it will never happen, but then again, we didn't expect the pandemic or the situation in Ukraine to happen. The war in Ukraine only throws more doubt and speculation onto already fragile supply chains still reeling from the Covid disruptions – is a separation of East and West supply chains really beyond the realms of possibility?

Disclaimer

The views expressed in this publication are those of the author, and do not purport to reflect the opinions or views of DSV or Cardiff University.

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