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Disintermediation: Post War Reality Priorities

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DISINTERMEDIATION: POST WAR REALITY PRIORITIES

24 February 2022 marked the end of 78 years of *Pax Europaea* (Santos, 2022). The international community's path for peace loving nations based on a pledge "never to wage a war again" (Abe, 2013) was decimated. Too many political leaders failed the test for making 'the permanence of peace' (Wilson, 1917) an international structure. Peace came under stress and once more we face that reality of war.

The immediate impact offers a cornucopia of sanctions undertaken in our world of fake news (Poole, 2019), political unreality (Freedman, 2019), 'strategic deterrence' (Freedman, 2020), and a significant absence of strategic autonomy (Shapira, 2020). The post war realities that we now face come in the context of

- post pandemic adjustment,
- rising commodity prices,
- soaring inflation,
- a rush back to geopolitical boundaries,
- and war continuing, with no apparent expiration date, in Europe.

The purpose of this paper is first to identify the disintermediation of our past peace economy – the already visible system breakdowns and the new realities which accompany and must follow the Ukrainian crisis.

POST PANDEMIC SUPPLY CHAIN ADJUSTMENT

Established supply chain networks of Fortune 500 companies have already "been disrupted by Covid-19" (Accenture, 2022). Post-war repurposed supply chains of the future herald an end to peacetime globalization (Zheihan, 2022). Established patterns of supplier networks are being challenged.

Worldwide indexes, compiled from a variety of indicators, confirm that supply chain disruptions "are historically high," and "uncertainty lies ahead." (Economist, 2022). Flexport Research (2022) maintain records of ocean-going freight, both FarEast-Westbound and Transpacific-Eastbound. This January 2022 Flexport Research found for their ocean timeliness indicator that the days taken from 'cargo ready' to 'destination port departure' have doubled from under 50 days to over one hundred days. Similar delays have occurred in the three other types of freight transportation (Mach1, 2022).

An extended period of reliable logistics has meant that “relatively little slack had been built into global supply chains” (Spence, 2021). Then, quite unexpectedly, the Covid pandemic introduced a plethora of deviations from the then normal. In the absence of much history “on low-probability, high-impact events” (Simchi-Levi et al, 2014) traditional methods for managing supply chain risk lacked appropriate strategy and so for global supply chains “disaster is real” (Lillo, 2022).

Overland, by road, rail, or other means, from cargo ready to customer delivery, Covid-19 caused crises in supply. A perfect storm of waiting and delay, missed scheduled places, federally mandated workday hours, and mandated Covid-19 restrictions (Smith, 2021) seriously weakened the transport and trucking industry worldwide. So, despite environmental benefits from reduced traffic (Mohn, 2020) overland delivery delays increased during the pandemic (Heilweil, 2021).

Flexport’s new ocean timeliness indicator (Friedman, 2021) and other freight forwarding, and customs brokerages confirm “how much longer containers are taking to reach their destination” explaining port snarl-ups seen the world over (Chambers, 2022). So, the Covid-19 slowdown in manufacturing activity (impact of traffic congestion, material, and labor shortages) looked to air cargo growth with significant growth in cargo tonne-kilometres (CTKs) to satisfy businesses’ “need to rapidly transfer goods” (Air Cargo Market Analysis, 2021).

While adding to the inflating cost of shipped goods “to offset pandemic-driven supply chain issues” (Popken, 2022) corporations recognize their supply chains have too many links. The focus is on disintermediation, removing or replacing supply chain links. There is a new focus on future results which minimize disruption risk.

RISING COMMODITY PRICES

The Covid-19 crisis continues to have a “serious negative impact on global commodity prices (CEIC, 2022). The global situation has been exacerbated by the war in Ukraine, “particularly agriculture and energy commodities have made headline price increases” (Kadziolka, 2022). The World Bank’s Food Commodity Price Index “is 80 per cent higher than it was two years ago” (Baffes & Temaj, 2022).

We knew that primary commodity prices “are going up” (Hailue, 2021). The post-pandemic resurgence in demand for agriculture and energy resources is gradually adjusting to changes in the economic environment. Supply chain distribution of these resources disrupted by Covid-19 is now facing post-war geopolitical pressures which further disorder not only distribution networks but also barriers in geopolitical boundaries. The war situation, already the cause of so much disruption, foretells new future emerging demand and supply hazards for traded commodities.

For example, the Ukraine invasion threatens global supplies of seed oils, corn, and wheat (Swanson, 2022). Significant interference in this year’s harvesting foretells a reduction of investment in future years of wheat and other crops. The “breadbasket of Europe” (Knox, 2022) once with the ability “to provide enough food for half a billion people” is at risk. Critical exports “sit in storage” and there are “few ways out of the country” (Kirby, 2022) for Ukraine’s exports.

Energy policy today is trying hard to turn from global supplies and the focus is “all at once domestic” (Kaesar, 2022). Inevitably changes to energy policy impact the links in

energy supply chains. There is a return for the importance of nuclear power and recognition of the absence of pipelines linking alternative energy outlets.

This redirection of energy resources coupled with reduced output of agricultural production combines to ensure rising commodity prices. In practice as Nikkei Asia reported in February 2022 “global commodity prices soared 50 per cent, the fastest pace in 27 years.” And we know that “rising commodity prices also “intensify global inflationary pressures” (Igan, 2022).

SOARING INFLATION

So, the prices of a broad range of commodities are on the rise. The demand for energy is also linked to the global post pandemic return to work. We also know that supply and demand for natural gas, in particular in Europe, is being disordered by the war in Ukraine and there is disintermediation of the gas supply pipelines: the pipelines from Russia to Europe closing down while the Siberia 2 pipelines to flow gas from Russia to China are not expected to go online until 2030 (Tsafos, 2022).

Demand for petrol has also increased while investment in supply has been “held back by the move to decarbonize economies” (Hama and Hiruta, 2022). Readers of this paper will be all too well aware of the increasing cost of petrol at the pump.

Supply chain disruptions and labor shortages contribute to cutbacks in production and production costs rise. Soaring prices of energy contribute in myriad ways to inflation. For example, a rise in the cost of ammonia, a byproduct of natural gas, pushes up the price of fertilizer which in turn pushes up grain prices. We know that by March 2022 fertilizer prices were at “record highs” (Smith, 2022). Then sanctions on potash supply, a critical ingredient in maintaining crop yields, disintermediates the production of so many industrial applications including glass, soap, and ceramics.

The World Economic Outlook (July 2022) noted “gloomy developments” this year, shocks including downturns in production and consumer spending and tighter financial conditions all contributing to inflation. The developments, reflecting post pandemic and Ukraine war spillovers, have set back global recovery. The Outlook’s conclusion is that the future looks “gloomy and more uncertain.”

A RUSH BACK TO GEOPOLITICAL BOUNDARIES

Globalization, the era of a growing interdependence of world economies, cultures and populations experienced an early slowdown in 2018 when the United States imposed sanctions on China in response to unfair trade practices. The geopolitical environment changed further as sanctions on China were put in place for their interference in Hong Kong and their treatment of the Uyghurs.

Then trading across borders slowed further as the pandemic took hold. “Slowbalization” became the new globalization” (PwC, 2022). The trend for economic spheres, where supply and tech chains were insulated from geopolitical concerns, “has myriad potential market implications.” Now, post pandemic and amid war sanctions, geopolitical concern challenges the idea of open markets and free trade. There is quite evidently “a backlash against global trade integration” (Bekkers, 2022). Sanctions, recent tensions between China and the United States, and the impact of historic levels of inflation together provide the context for an “acceleration of slowbalization” (Zezas, 2022).

So, the pandemic supply chain disruptions and the recent Covid-19 based shutdowns slowed production of many goods and services which Americans did not associate with US-China trade. These items include the manufacture of

- Electronics (e.g., chips for telephones, cars, white goods, etc.)
- Pharmaceuticals (e.g., Acetaminophen, core components of penicillin, etc.)
- Machinery (e.g., air-conditioners, TVs, domestic appliances).

United States disclosure rules allow the countries of origin to be concealed when final assembly of goods takes place in the United States. This is why so many domestic consumers remain, as yet, unaware of the origin of so many of their consumer purchases. The impact of Americans' discovery of the origin of everyday generic purchases is a matter for concern. Will Americans want to purchase drugs like Ibuprofen (over 93 per cent of imports sourced in China) once the origin becomes well known, or must the "stolen US capacity to make drugs" (Cotton, 2022) be taken back?

Corporations are looking at disintermediation. Many are considering a return to domestic production of critical goods and materials. The process, known as "onshoring" or "reshoring," takes advantage of "new opportunities and incentives to locate facilities within the United States" SmithGambrellRussell (2021). Intel, for example, "is committed" to spending more than \$100 million on "new manufacturing capacity" in Arizona, New Mexico, and Ohio (Intel, 2022). More than 1.3 million manufacturing jobs have already been reshored to the United States since the start of the pandemic (Reshorenow, 2022). The recent CHIPS Act of 2022 provides \$52.7 billion of incentives for expansion of semiconductor production in the United States.

Reshoring also "opens the door to smart factory opportunities" (Burke, 2021). Nike, for example, is expanding its United States manufacturing footprint with a new factory in Arizona (Wright, 2019). Zentech, a company in Baltimore Maryland is an example of a new breed of high-tech manufacturing companies which have replaced customer offshore manufacturing with domestic facilities for high-tech manufacturing. General Electric has brought back refrigeration and appliance assembly from South Korea. General Motors is moving their Electronic Vehicle battery production from Europe to Michigan (GM, 2022)

Reshoring also provides the opportunity to update technology and thereby cut costs and improve quality. When GE "did the math" in the context of rising overseas wages and escalating transportation costs, they "decided to bring production back to the U.S" (Northam, 2014). The benefits of bringing business back home being "a skilled workforce, local tax incentives, improved innovation and product differentiation" (Newburgh, 2021).

WAR CONTINUING, WITH NO APPARENT EXPIRATION DATE, IN EUROPE

The longer the Ukraine conflict continues the greater the need for recognition of the "evolving (nature of) civil and political patterns" post war (Cordesman, 2022). The immediate end of war appears to depend on the cost burden in terms of lives and equipment and a time when an agreement can be recognized by both sides that it makes no sense to continue.

But the costs of war will then extend beyond a ceasefire. These costs inevitably include rebuilding physical infrastructure, repairing communal trauma, and the costs of other social and economic readjustment. In short remarkable changes are underway. The impact of the changes is yet to be determined but here are the current trends in

- Work from Home
- Disintermediation Technology
- The population implosion

Work from home:

“The Great Recognition” (Fieldman, 2022) is a “critical thinking” moment for business where employers and employees have learned to accept the advantages of “flexibility, ‘gig’ work, and remote activity”. The outcome of the impact of Covid-19 workforce solutions is yet to be determined. A new focus on “working people” one that better recognizes “workers’ humanity” is expected (Cage, 2021).

“Greater productivity, happier and healthier workers and lower emissions” (Nauta, 2021) demonstrate the resilience of the workforce and the products of the “work-from home” practices brought on by the pandemic. But the pandemic’s disruption of the workplace has also broken-down traditional workplace design initiating current trends which are still in their infancy and confirm the need to “stay on top of these trends” to understand their potential outcomes (Gartner, 2022).

The pandemic has “for the first time” demonstrated the importance of “the physical dimension” of work and research. McKinsey (2022) estimates that “more than one hundred million workers” in the eight countries they studied “may need to switch occupations.” Balancing operational goals in the context of shifting employee expectations (PwC, 2022) means companies need a cutting-edge strategy to take advantage of this “tremendous opportunity to transform” the commuter workplace. Cities will need to face up to a sell by date for the taxes from commuter lunches and transport revenues.

Past patterns of employment are challenged because greater productivity, happier and healthier workers, lower emissions targets shine a new focus on ‘the physical dimension’ of work. WFH (Work from home) is certainly ‘here to stay.’ Forbes projects that 25 per cent of all professional jobs in North America will be remote by the end of this year. The Wall Street Journal has compared the WFH as a shift as monumental as “the shift of workers into factories during the Industrial Revolution” (Mims, 2020)

Disintermediation Technology:

When looking for reductions in the links to supply chains a key factor is the impact of manufacturing technology advances that have been made since offshoring took place. Innovative technology applications have advanced the manufacturing process in many industries. Replacing dated facilities particularly in the apparel, food and beverage, industries is reducing the labor content cost and offering cost-effective incentives to relocate manufacturing. Conversation about moving manufacturing into the U.S. “is happening across all product types” (Parker, 2021).

The MIT Center for Transportation and Logistics has identified the impact of supply chain strategy and coordination and made recommendations for transferability of Wal-Mart and Amazon.com logistic practices to other industries (Colby and Dau, 2005). The impact of these and other studies demonstrates the disintermediation and integration of Wal-Mart and Amazon supply chains. Air Hubs reduce the links in the movement of goods from supply at origin to consumer delivery. Supply/value chain revolutions are in the planning testing stages, patterns for the future will take a little longer. The weaponizing of advanced supply chain monitoring technology, the trend back recognizing geopolitical concerns confirm that deceleration of globalization is well underway.

Modern technology means reshoring of the apparel, food, and beverage industries and demonstrates industrial “ability to adapt well in the face of threat, adversity, or significant stress” (Akins, 2022). Predictive control strategy (Perea et al, 2003), still in its infancy, with other modelling and optimization techniques brings strategic autonomy to our post pandemic post war future ensuring future supply chains will have fewer links.

CONCLUSION

This paper set out to identify the disintermediation of our past peace economy. Already visible supply chain disintermediation is reported in the context of five key factors initiating changes that are taking place and the many that are underway.

This analysis provides clues to new strategic autonomy in global supply and value chains: pointers to the changes that are with us and those likely to be on the way.

There are three key indicators:

- Movement of the workplace
- Movement of the market
- Movement of the mind

Movement of the workplace:

There is confusion caused by the pandemic’s apparent need for absence and how that absence has identified a far too “traditional” concept of required presence at the workplace. This “tradition” has been mitigated with the Zoom of technology and technological upgrades in business communication. “Many new methods of electronic communication” (Fenell, 2022) have seen the introduction of innovative methods of social networking and video conferences. Zoom, Google chat, Blue jeans, Teams, 247 meeting and others (Gartner, 2022) are accelerating the existing trends to remote work. Forbes magazine estimates that 70 per cent of the workforce will be working remotely at least five days a month” by 2025 (Castrillon, 2021). After Milton we may conclude that soon “every workplace will have a silver lining.”

Movement of the market:

Recognition of geopolitical barriers means “we’re in a New Cold War” (Gaston, 2022). We have seen how companies in the apparel and grocery markets are reskilling workforces and choosing to “invest more in artificial intelligence and robotics” (Cooper, 2022). Post pandemic markets were moving production and service locations. Already the impact of the war has forced companies to recalibrate and “wholly reconsider long-standing supply chain and partner ecosystems” (Stackpole, 2022).

The market is also witness to technological innovations which disintermediate the production process. My generation are witness to the transition of recorded music from 78 rpm shellac discs, via tapes, to Apple music; the telephone from Nanna’s wall telephone to the iPhone; computers from column cards to laptop and iPad; medical discovery that extends our lifetimes. Our grandchildren grow up ready to enjoy the accelerating change technology has yet to bring. The cartoons of our youth are the realities of today and tomorrow. Movement, advances, in technology, are so many in hand and post war come the opportunity to take risks and change old habits.

Movement of the Mind:

As at the end of the Antonine period of the Roman Empire, a remarkable post-war period of peace and American-led world order (Kagan, 2021) has ended. Globalization is

seen to have been a power grab by global elites at the expense of those who produce goods and services, those who ‘do the work.’

Now the pandemic and the war in Ukraine have triggered a “once-in-a-generation reimagining of global capitalism” (Economist, 2022). A library of books on transforming supply chains have been published, buffer stocks levels are changing, much production is on the move. The need for security is overtaking the need for efficiency.

There is a new emphasis on trust, on doing business with dependable partners. Post-war the priority will be trust and practice will follow the Russian proverb *Доверяй, но проверяй* (trust but verify).

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