

Strategic Planning for Global Supply Chains in a Fragmented World

By Larry Lapide

EXECUTIVE SUMMARY | There is currently a trend away from global free trade as more countries impose tariffs on imports. The World Trade Organization (WTO) has expressed concern because it is seeing a bifurcation of trade into two geographically divided blocs. It is estimated that were this to happen, it would result in a loss of 6.4% in global GDP. Previously, as part of the findings from the MIT Supply Chain 2020 Project, I postulated there might even be three or four major trading blocs in the future. This column discusses a strategic planning approach based on “Decision-Making Under Uncertainty”. It recommends using three future scenarios developed by the SC2020 project team as the basis for strategic scenario planning projects aimed at aligning a company’s future global supply chains to the trading blocs that might arise.



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(This ongoing column in the Journal is intended to give a brief view on a topic of potential interest to practitioners of business forecasting and planning. Suggestions on topics that you would like to see covered should be sent via email to llapide@mit.edu.)

On a recent episode of the *Global Public Square* show on CNN, host Fareed Zakaria conducted an interesting interview from the Davos 2025 event. The annual meeting of the World Economic Forum is where leaders from over 130

countries discuss global economic challenges and opportunities that might lie ahead. Since the majority of the discussions dealt with the so-called Trump Tariffs, he interviewed the Director General of the World Trade Organization (WTO), Ngozi Okonjo-

Iweala, about their impact on global trade. Here are major points I took away:

- The WTO’s “Most-Favored-Nation” principle requires [member] countries to generally treat all trading partners equally, per a ‘free-trade’

approach. About 80% of today's trade among members is conducted in this way. She stated that global free trade has been very resilient over the past several decades. From 1995 to 2023 total trade in goods & commercial services grew to \$30.4 trillion dollars (growing an average of almost 6% annually). However, for the past 5 years protectionism among several members has started to rear its ugly head.

- Many members are currently worried about trade wars. She noted we've seen this "movie" before during the Great Depression. So, the WTO has been advocating greater transparency among members to foster a more mature dialogue than what took place then – essentially tit-for-tat tariffs.
- In 1929 the U.S. Congress passed the Smoot-Hawley Tariff Bill that "aimed to protect U.S. industries by raising tariffs on thousands of goods". It had a negative outcome, worsening the effects of the Great Depression.
- Right now, it appears that global trade is moving towards two geographically divided trading blocs. The Director General estimated that if this happened, it would result in a loss of 6.4% in global GDP.

The interview reminded me that I needed to update my *Supply Chain Management Review* (SCMR) column titled "Flat' Future? Don't Bet On It" (September 2008). It was inspired by a book titled, *The World Is Flat: A Brief History of the Twenty-First Century*, a 2005 book by American political commentator Thomas L. Friedman. It painted quite a rosy picture regarding seamless, global supply chains. He interviewed technology and supply chain professionals. However, they generally love solving problems in

logistics and are especially bullish in the knocking down of borders to get products to customers faster and more efficiently. Per the column's title, I didn't believe we would see a perfectly "flat" world. I recommended that supply chain managers needed to hedge their long-term bets on some "non-flat" possibilities, e.g., protectionism, happening as well.

In 2004 I began working at MIT's Center for Transportation & Logistics to launch their Supply Chain 2020 Project. The project was tasked with assessing future excellent supply chains in the year 2020. The project used a Scenario Planning approach in which a flat world was just one of three possible future scenarios. I then followed up the September SCMR column with one titled, "Scenario Planning for a Successful Future" (October 2008).

In this column I will summarize recent news over the past several years that is leading to worries about a trend away from free trade and towards protectionism. This will be followed by reintroducing the three future scenarios developed during the SC2020 Project and what you might need to do with them.

GLOBALIZATION IS IN THE NEWS

The following six publications and quotes paint a free-trade picture that many are concerned about.

1. "How the Coronavirus Will Reshape World Trade" (Wall Street Journal [WSJ], June 2020: "In the post-pandemic world, more economic activity will be designated vital to national security, accelerating pressures on globalization."
2. "The Messy Unwinding of the New World Order" (WSJ, November

2022): "The post-Cold War promised a globe stitched together by markets and cooperation among nations. That system has fallen into disorder, and left the world with rising inflation, trade conflict, military confrontation, and gnarled supply chains."

3. "Supply Chains Ready for New Global Era" (April 2023): "Companies adapt their operations to changing market pressures, geopolitics".
4. "Companies Try to Navigate Woes In Supply Chains" (WSJ, October 2024): "A new generation of strategies and technologies to manage risk is growing as the strains in supply chains persist following the upheaval during the Covid-19 pandemic that left many companies scrambling to plug gaps simply to remain in business."
5. "The Waning Power of Globalization" (Bloomberg Businessweek, November 2024): "Manufacturing, long the world's economic engine, is no longer driving miracle growth".
6. "Is Deglobalization Even Possible?" (Bloomberg Businessweek, February 2025): "That prevailing metaphor that the world is getting smaller and flatter, that borders will open and free trade will grow – has been under assault for the past decade. Over the last few months, it may have collapsed for good."

Frankly, the supply chain failures during the Covid-19 pandemic cast a long, dark shadow with the too-lean just-in-time global chains that my generation developed. During the pandemic, countries found themselves lacking in the basic supplies of everyday living: food, clothing, shelter and health services! See 'Maslow's Hierarchy of Needs' in my JBF column titled: "Covid-19 Has Revealed Severe

Figure 1 | Future Scenarios of the World



Source: MIT Center for Transportation & Logistics Supply Chain 2020 Project

Shortcomings In U.S Supply Chains—Crucial Learnings from The Pandemic “(Fall 2020).

Prior to the pandemic, globalization since 1980 was touted as relieving the economic plight of ‘extremely poor people’ (those living on less than \$1 a day). This population declined by 375 million people—for the first time in history (improving the lives of millions of people in China alone). Thus, efficient supply chains before the pandemic were viewed positively. Certainly, shortages were largely responsible for the current negative view. Also exposed were risks to national security.

GLOBAL TRADING BLOCS

The WTO’s Director General mentioned that it appears that global trade is moving towards two geographically divided trading blocs. I suggest there may be more than that. For example, in my “Flat World” SCMR column, I posited three or four trading blocs centered on economic powerhouses such as the U.S., the European Union, China and Japan. During the 2023 APEC CEO Conference, President Biden “made America’s case to national

leaders and CEOs attending ... that the United States is committed to high standards in trade and to partnerships that will benefit economies across the Pacific”. “We’re not going anywhere,” he declared. So, my educated guess is that Asia/Pacific might have one for powerhouse China affiliates as well as for US & Japan partners.

I’m optimistic that the blocs might form around the concept of goods flowing primarily North-South, and not the traditional East-West flows. Africa would form part of the EU-centered bloc; South America would form part of the U.S.-centered bloc; and Asia-Pacific would form part of the China and/or U.S. & Japan-centered blocs. Today’s East/West global supply chains have too many long-supply routes due to outsourcing. North-South chains would be shorter and contain more near-shoring supply routes. This would be good for sustainability and climate change. In addition, it would foster greater ‘real-time’ collaboration among trading partners in adjacent time zones.

Each bloc would have its own rules and regulations regarding free trade *vis a vis* protectionism. For example, free trade might exist for basic human

needs inside a trading bloc. Countries outside a bloc might be subject to substantial tariffs on these goods and services. I suspect oil, natural gas, coal, and other commodities—such as copper and steel—would be closer to freely traded. In addition rare earth elements used in high tech would garner stiffer tariffs, especially for non-member countries.

Should the world wind up with multiple trading blocs, companies will need segmented global supply chains comprised of multiple chains, each one tailored to serve a bloc. This may force companies to begin strategy projects envisioning these segmented chains in advance.

THE SC2020 PROJECT SCENARIOS

This can be done using the scenario planning approach espoused by the MIT SC2020 project, including the three scenarios developed by it: Synchronicity, Spin City, and Alien Nation (see Figure 1).

‘Synchronicity’ is a world that very much resembles the flat world. It is

a world in which globalization and democratization are the norms, as are trustworthiness and integrity. In essence, it's a future world everyone hopes to be living in. 'Alien Nation' is the opposite. It's one in which people think and act locally with a high level of mistrust and security concerns. Global trade is restrained by nationalistic pride, protectionism, and limited immigration. Europeans often said it was "the old Europe".

Lastly, 'Spin City' lies between these two worlds. It is one in which governments intervene on a selective basis, through a web of conflicting regulations designed to protect some industries, while leaving others open to free trade. Globalization exists, but it is highly regulated. This resembles, for example, times in which governments intervene during economic hard times and when unemployment rises. Additionally, the future might be a composite of the three worlds with blocs following different trading scenarios.

APPLYING SCENARIO PLANNING

As I wrote in my October 2008 SCMR column, Scenario Planning involves two major steps. The first involves assessing how to be successful while living in each of the future scenarios. What achieves success in one future world, such as 'Synchronicity', may not turn out to be successful should another unfold, such as 'Alien Nation'. It is important to understand when successful strategies for one scenario might turn out to be detrimental in another.

This step involves thinking about winning supply chain strategies for each future scenario for important aspects. Start off with the demand side by thinking about implications

for future products and services. This entails assessing what products will be successful, how to foster future innovation, and the extent to which Intellectual Property (IP) can be protected. For example, protecting IP might be harder under 'Alien Nation' and easier under 'Synchronicity'. Also consider to what extent global (versus regional) brands will be successful, and what types of product customization and services will be needed to be competitive.

From the demand-side strategies, one moves on to assess the implications for the supply network needed to support and enhance these winning products and services. An assessment might include successful deployment of vertical *versus* outsourcing strategies, which place greater reliance on suppliers. Coupled with this is the extent to which international suppliers can be counted on in a future world where global trade might be somewhat constrained.

Next, think about the investments that are needed to develop the capabilities required to achieve success. Investments in training, technology and infrastructure will differ depending upon winning products and services, and the supply network. Lastly, this is followed by assessing the implications for organization and culture. For example, the extent to which a scenario limits open global trade will affect the type of organization, culture and capabilities that are needed.

Once winning supply chain strategies have been developed for each scenario, the second step in planning for an uncertain future involves assessing how each winning strategy will fare in the other scenarios. For example, how successful will a strategy developed for 'Synchronicity' be in the 'Alien Nation' scenario?

RECOMMENDATIONS

Deciding on what supply chain strategies to deploy for each trading bloc is considered long-term 'Decision-Making Under Uncertainty' (see my winter 2020/2021 JBF column titled "Understanding the Concepts of Uncertainty & Risk: Making Decisions with a Payoff Matrix"). Thus, a Payoff Matrix might need to be developed for each trading bloc, which shows the payoffs (e.g., revenues, market shares, or profitability) for each alternate strategy to be deployed when each of the three future scenarios occurs. This type of strategy planning project will take a long time to do and involve a lot of resources.

I discussed an illustrative, fictitious example of this type of corporate planning in my JBF column, "Optimizing Decision-Making Under Uncertainty" (Spring 2022). It deployed a Payoff Matrix that facilitates effective decision-making in uncertain environments according to the amount of risk a company was willing to undertake. A hypothetical COVID-19 analysis was provided with three decision styles that might help demand and supply planning during the Covid-19 pandemic and for any disruptions the future may hold.

Will this type of planning be worth the effort for your company? Probably, because as posited by the WTO Director General, two global trading blocs are estimated to result in a loss of 6.4% in global GDP. Three or four blocs would likely result in significantly more GDP losses. If your company does nothing about it competitively, it stands to lose a significant amount of global business. I recommend supply chain managers start helping it cut its losses, while there is still time to do so!

—Send comments to JBF@ibf.org.