

Responding to the Global Supply Chain Crisis

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Introduction

- ◆ The global supply chain crisis is supposedly unexpected.
- ◆ Question: If the global supply chain crisis were expected, what would one have done differently ahead of time?
- ◆ What are some of the possible responses? Maintaining excess inventories, purchasing insurance, diversification, and second-sourcing.
- ◆ In addition to being a crisis, the disruption of the global supply chains should also be regarded as an opportunity.

Maintaining Excess Inventories and Purchasing Insurance

- ◆ Maintaining excess inventories runs against the prevailing philosophy of “Just-in-time” inventory management. It can only be a temporary solution. It just mitigates the cost, but does not reduce the risk, of the disruption of the supply chains.
- ◆ Purchasing insurance against the disruption of the supply chain (for example, business interruption insurance) can compensate for the financial losses resulting therefrom. However, the compensation is only one-off. The insurance premium will be raised in the subsequent year(s). And it does not really help to sustain the operation of the enterprise.

Diversification

- ◆ Both the Covid-19 epidemic and the Russia-Ukraine conflict demonstrate the potential benefits of diversification.
- ◆ For example, some European economies should probably have had more diverse supplies of oil and gas. Some of them have been relying on Russia predominantly.
- ◆ China, which imports the bulk of its oil and gas, is appropriately diversified by country (for example, Angola, Russia, Saudi Arabia and the United States) and by transportation route.
- ◆ However, a prerequisite for diversification is the existence of at least a second source of supply.

Second Sourcing

- ◆ The world market is large enough to accommodate more than one or even two global supply chains for any product or service.
- ◆ Second sourcing means finding a second source for the supply of a product or a service, either domestically or through imports from a third country.
- ◆ Second-sourcing is a natural response to potential disruption of a supply chain. With a second source of supply, the economy is basically protected from the disturbances resulting from unexpected events such as various kinds of natural disasters (earthquakes, tornadoes, tsunamis and volcanic eruptions), epidemics such as the COVID-19, wars, revolutions, and other geo-political conflicts.

Second Sourcing

- ◆ Actually, a significant customer will often demand that the supplier manufactures in two separate and independent locations, sometimes even in two countries to avoid a total disruption of supply. For example, Nike would insist that its contractor make the shoes in China, Indonesia and Vietnam.
- ◆ While second-sourcing may be initially less convenient and possibly more costly, it will eventually pay off as the monopolistic market power of the initial sole supplier is reduced by the competition.
- ◆ Second-sourcing is like purchasing insurance, but insurance that is more durable.

Second Sourcing

- ◆ Second sources do not always arise naturally. In fact, the current monopolist will try to do what it can to prevent the rise of a second source, through patenting, other restraints of trade, and strategic price-cutting, unless stopped by the government regulators.
- ◆ Sometimes, the government has to intervene directly to create a competitive alternative supply. For example, the U.S. Government is currently considering the subsidization of Intel so that it can potentially supplant Taiwan Semiconductor Manufacturing Corporation (TSMC) in the operation of semiconductor foundries.
- ◆ The government must also enforce anti-monopoly and anti-trust laws to preserve competition and to encourage innovation. The visible hand, meaning the government, must also act to counter the invisible hand when the free market turns out not to be monopolistic and non-competitive.

Second Sourcing

- ◆ Second sourcing reduces monopoly power and enhances competition. It should eventually result in a lowering of the price of the product or service.
- ◆ The world is much better off with both Airbus and Boeing manufacturing large long-range passenger aircrafts. Air travel would have been much more expensive if there were only one supplier.
- ◆ The world is also much better off with both MasterCard and Visa credit card services (and now also UnionPay from China). Otherwise, consumers will pay much higher prices and interest rates and retailers will pay much higher commissions.
- ◆ The potential benefits that may result from the existence of a second source can apply to operating systems for computers (e.g., the Mac versus the Windows), mobile telephones (iPhone versus the Android operating system), and email platforms.

Second Sourcing

- ◆ Another example may be taken from cross-border payment systems. It is probably good for the world to have one or more viable alternative to SWIFT (The Society for Worldwide Interbank Financial Telecommunication), so that it cannot be weaponised.

Second Sourcing

- ◆ Second-sourcing may be necessary even within the same country if it is large enough.
- ◆ For example, the recent breakout of the COVID-19 epidemic in Shanghai disrupted the supply chains for many enterprises in China that have been relying on Shanghai. Perhaps China needs a second centre of the supply chains—maybe Chongqing?

Second Sourcing

- ◆ There is a school of thought that argues that because of economies of scale, many industries are natural monopolies. Breaking up a natural monopoly into two or more units will increase the average cost of the product or service and diminish consumer welfare.
- ◆ This argument is correct as far as it goes. However, it is important to realise that there are actually two kinds of economies of scale: technological economies of scale and market economies of scale. The first kind is based on the physical technology of production. The second kind is based on domination of the market. Given the sizes of the world and individual country markets, the limits of technological economies of scale have already been reached a long time ago. What we are dealing with is market economies of scale which is based on monopoly power. Reducing monopoly market power always enhances consumer welfare.
- ◆ There is also learning by doing, the reduction of unit cost through repetitive production of the same product. This cost advantage can also create a supplier with monopoly power. This is similar to a natural monopoly and government regulation is necessary.

Second Sourcing

- ◆ De-coupling of the Chinese and U.S. economies in some form appears inevitable, partly because of the COVID-19 epidemic and the possibility of the emergence of other viruses in the future, and partly because of the increasing strategic competition between the two countries. For various reasons which we shall not go into, China-U.S. strategic competition is the new normal for the coming decade.
- ◆ De-coupling can be thought of as economic de-globalisation, or reverse economic globalisation, which will clearly result in a loss of economic welfare for all participants in the global economy, because everyone will face a reduced set of possible economic choices. Just as economic globalisation increases the welfare of all countries in the world, economic de-globalisation decreases the welfare of all countries in the world.

Second Sourcing

- ◆ While de-coupling in itself is disruptive and costly in the short run, it will accelerate the seeking of second sources. And with a potential second source, the monopoly powers of individual suppliers are significantly reduced (assuming that they can be prevented from collusion), the market becomes more competitive, the prices decline, and the consumers and users everywhere will be better off.
- ◆ It will also make efforts to weaponise economic policies much less effective.
- ◆ In addition, redundancy can be considered a kind of insurance against complete system failure. It is not a totally bad development.

Concluding Remarks

- ◆ Second sourcing reduces monopoly power and enhances competition.
- ◆ The reduction of monopoly power should increase economic and financial stability of the world because it makes weaponisation meaningless.
- ◆ In addition, with two or more sources for each product, service and supply chain, the world is also protected from the possibility of a catastrophic total system failure. The existence of second sources for critical products and services can significantly enhance the resilience and stability of the global economy against all risks.