

The Takeaway

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COVID-19 No Match for the Forces of Global Trade

It Is Too Early to Declare the End of the Current Era of Globalization

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COVID-19 is not only causing worldwide economic decline, it is also feeding the world-view of those who favor more isolationist policies. While de-globalization captures more than trade, economic integration is at its core. In this article, the not-so-well-known operational underpinnings of trade globalization are explored. The basic reasons why international trade has skyrocketed in the recent past point to our economic future as well.

The advantages of trade between nations has been known for several hundred years. Columbus made his voyage west from Spain in search of a new trade route, not adventure or conquest. Ricardo formulated the theory of “comparative advantage” in international trade in 1817.¹ Unlike most of the 20th century, we are currently in a globalization era. The percentage of world GDP involving foreign trade rose from only 27% in 1970 to 59% in 2018. For the United States in particu-



WHAT'S THE TAKEAWAY?

There have always been advantages to international trade, but now the operational advantages are overwhelming.

Public policies encouraging domestic industry protection, or use of tariffs to change behavior, need to consider the magnitude of the operational costs.

US Tariffs on one country may drive supply chains to source from another, but not back to the United States.

lar, foreign trade was 11% of GDP in 1970, but was 28% in 2018.² The question before us now is the future: Has COVID-19 tipped some balance? Will the economic interdependence of nations be reversed?

My answer: No.

The purpose of this article is to illuminate some of the fundamental operational causes of the recent burst in international trade. These basic causes show that we are on a train headed in one direction. Possible political decisions (e.g., tariffs, treaty withdrawals, declaring nationally protected industries) need to be considered with business realities in mind, or they will either backfire or fail.

To demonstrate how the transition from national/regional economies to a global economy took place, first let us look at international wage rates. Then we will chart the changes that have taken place in cutting international transportation costs for goods and the near elimination of cost in getting electronic service done internationally.

DIFFERENTIAL WAGE RATES ACROSS NATIONS

There are alluring non-wage reasons for international trade: Brazil has a shortage of reindeer meat, and the coffee grown in Norway has limitations. But, the simplest reason is to exploit wage differentials. Consider the comparative minimum hourly wages in the selected countries shown in Table 1.

In the early 1990s, T-shirts for sale in the United States were made in Tennessee. Production moved to low cost Western Hemisphere locations in the mid-1990's (e.g.,

Honduras). In 2020, they are made in Bangladesh. Bangladesh now exports \$37 billion/year in apparel.³ Adding an 100% T-shirt tariff would double the cost for consumers, but still be equivalent to only a \$0.72/hour labor cost in Bangladesh. The industry started from zero in Bangladesh in the late 1970s.⁴ Why did it grow from nothing to \$37 billion in such a short time? We'll get to that.

In information intensive services, US back-office work moved to Ireland and the Caribbean (note the wages in Barbados) in the 1990s to 2000s. Physical documents were loaded onto ships and sailed there to be processed. Now those services are provided by India, and transportation is over the web.

Table 1 shows legal minimum wages. But, in many export categories, workers around the world are paid far less. The World Bank estimates 100 million people worldwide are paid for piece-work often at one-half or one-quarter minimum wage.⁵

Wage differentials between countries have existed since the dawn of trade. For the past millennium, transportation and logistics costs were so high that they prevented ac-

Table 1: Differential Wage Rates

Selected Countries	Minimum Wage Per Hour
Bangladesh (higher for garment workers)	\$ 0.09 (\$ 0.36)
Barbados	\$ 3.13
China	\$ 0.85
Honduras	\$ 1.08
India	\$ 0.31
USA	\$ 7.25

Source: WageIndicator.org (2019)

cess to differential labor rates for nearly all industries. We divide the discussion as to why that was, and why it is no longer so, between the making of goods and the provision of services

THE RISE OF THE CONTAINER SHIP

By volume 90% of the world's manufactured products travel by ship. In recent years shipping costs have radically declined. In 1959, 25% of the cost of many products were accounted for by shipping.⁶ But now, transportation costs have become almost trivial for some products. Space in a trans-Atlantic ship can be had for \$40/ton.

The concept of “containerization” completely altered the economics of trade in goods. Prior to shipping goods in cargo containers, longshoreman with strong backs manually stacked and shifted small quantities of goods on ships. When unloaded from a ship, the cargo had to be re-transformed for intermodal travel by rail or truck. Widespread containerization has only taken place since 1990. The operating cost of a containership only doubles as the ship volume triples, so bigger is cheaper, and ships keep getting bigger. The largest container ships can each carry 21,000 TEUs (Twenty Foot Equivalent Units, the standard measure of a container). There are roughly 170 such ships in the world. In 1968 world-wide capacity was only 50,000 TEUs. In 1990, the 20 largest container ports in the world handled 31 million TEUs combined. The total in 2003: 144 million. In the “old days” of the 1980s, the loading/unloading process of a large merchant ship could take weeks. Cranes can now unload ships in less than a day.

THE COST OF PROVIDING ELECTRONICALLY TRANSMITTED SERVICES

Many services are protected from international competition due to the need for customer contact—but that list was larger in 1990. Now, suddenly, some services are “electronically transmissible” that never were before: reading an X-ray, handwritten receipts for tax preparation—the list is endless. From 1990 to now, the costs associated with electronic transmission of voice and documents went through the floor.

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The world-wide capacity for international service provision was previously limited by the communications equipment capacity. In the mid-1960s, it was only possible to have 128 simultaneous calls between North America and Asia.⁷ Fiber-optic cable carries modern communications. In 1992, there was one GBPS (gigabyte per second) of cable capacity at the bottom of the Atlantic Ocean. By 1996, there were 11 GBPS. In 2014, there was 16,000 GBPS in the Atlantic and 14,000 GBPS of capacity in the Pacific.⁸ A US-Europe telephone call cost \$1/minute in 1990. Now a zoom conference is free.

As a consequence of this thousand-fold increase in capacity, US tax returns are now completed in India, New York City traffic tickets are entered into computer systems in

Ghana, and radiologists residing in Israel take the night shift (day for them) at Iowa hospitals.

WHICH WAY IN THE FUTURE?

The point is that the “friction” in trade—logistics costs—has drastically lowered fairly recently, changing the world. It cannot go backwards. Politics can cause tariffs to rise, but containerized ships and the internet will not go away. A US tariff on China will drive supply chains to source in Vietnam, or perhaps Africa, but not back to the United States.

The costs of international trade are destined to decrease further. New ports being built all handle containerized traffic. Intermodal technology continues to drive down costs of delivering goods from the boat to the store. In the provision of services, 5G cell service and the continuing improvement in computing power will just enlarge the amount of services that can be rendered internationally. COVID-19 is getting us used to telemedicine. When “seeing” a doctor on a computer

screen, why bother with a US physician who makes \$200,000/year and can see you in a month when an Indian doctor making \$6,000/year can see you today?

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Notes:

¹ Ricardo, D. (1817). *On the principles of political economy and taxation*. London: John Murray, Albermarle-Street.

² The World Bank. (2020). <https://data.worldbank.org/indicator/NE.TRD.GNFS.ZS>

³ Staff correspondent (2019, June 30). Bangladesh to set apparel export target at \$37.42 billion for FY20. *Textile Today*. <https://www.textiletoday.com.bd/bangladesh-set-apparel-export-target-37-42-billion-fy20/>

⁴ US Commercial Service, US Department of Commerce. (2018, December 10). Bangladesh - Garment and textile machinery and equipment. <https://www.export.gov/apex/article?id=Bangladesh-Textiles-and-Textile-Machinery-and-Equipment>

⁵ The World Bank. (2011). *World Development Report 2012: Gender equality and development*. <http://hdl.handle.net/10986/4391>

⁶ Levinson, M. (2006). *The box: How the shipping container made the world smaller and the world economy bigger*. Princeton University Press.

⁷ Submarine Cable Networks, 2019. <https://www.submarinenetworks.com>

⁸ Visual Capitalist. (2017). <https://www.visualcapitalist.com/wp-content/uploads/2017/08/submarine-cables-full.html>.

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