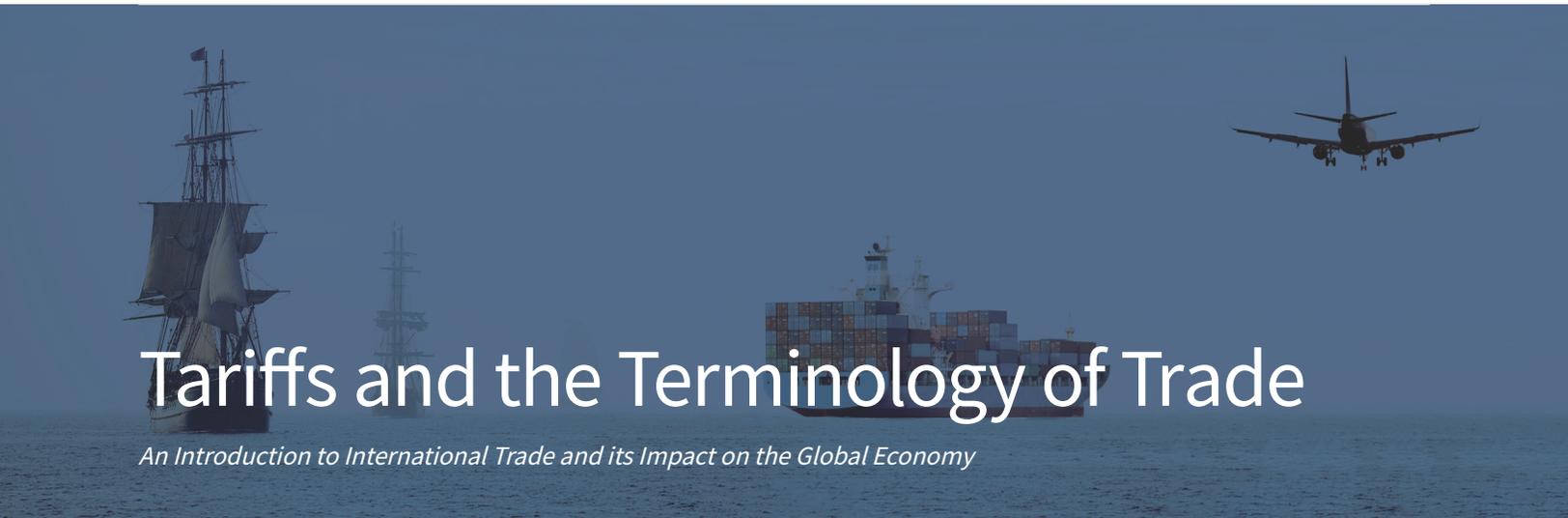


RAYMOND JAMES

Tariffs and the Terminology of Trade

An Introduction to International Trade and its Impact on the Global Economy

FOREWORD

From its earliest days, trade has been integral to human history and the evolution of society. The fortunes of empires, kingdoms, and modern nation states have often revolved around trade and its revenues. In short, trade is a fundamental and crucial cornerstone of economics. As a result, there has and continues to be a preoccupation with trade and its potential to enrich the economies of nations and the world as a whole. However, the prevailing views toward trade as well as the perception of its advantages and disadvantages have evolved over the centuries.

HISTORY

While its effects were always an object of interest, trade became a focal point of governments in the 16th and 17th centuries with the advent of ‘mercantilism.’ This doctrine held that the prosperity and efficacy of the state were dependent upon its ability to maximize its exports, limit its imports, and, by doing so, maximize its accumulation of gold and silver. In other words, mercantilism extolled the benefits of a positive ‘balance of trade’ with other nations. In order to effect a positive balance of trade, the state would place high ‘tariffs’ on imported goods, provide ‘subsidies’ on domestic exports, and prohibit trade between its colonial possessions and foreign nations.

Mercantilism and its policies remained the prevailing economic theory throughout Europe until the end of the 18th century when it was famously disputed by English economist Adam Smith. In his

KEY TAKEAWAYS

According to the theories penned by Adam Smith and David Ricardo, free trade and specialization enhance the efficiency and aggregate output of the economy.

Tariffs cause costs to rise for consumers and companies, increasing prices and reducing profitability.

Global consensus over the past two centuries has generally favored freer trade and fewer tariffs. Both the volume and value of global trade have grown exponentially as tariffs and barriers to trade have fallen.

If a nation imports more goods than it exports, it will incur a trade deficit. A trade deficit, in and of itself, is not inherently detrimental to the economy.

A substantial reduction in the trade deficit would require either a decrease in consumption, an increase in savings, or a decrease in investment, causing the economy to contract.

If a nation does not save a sufficient portion of its overall income to meet the demand of its economy, foreign capital must make up the deficit.

seminal work *The Wealth of Nations*, Smith challenges the validity of mercantilist theory and contends that it is counterproductive to economic growth, impoverishing rather than enriching the nations which perpetuated such policies. Instead, Smith maintains that nations would benefit from freer, rather than more restrictive trade. By engaging in trade free from the artificial distortions of tariffs and subsidies, the efficiency of the economy would be enhanced and its aggregate output would be increased. This increased output, Smith argues, is the true ‘wealth’ of a nation, not its stores of gold or silver. Indeed, aggregate output, or ‘gross domestic product’ (GDP), has become the primary metric of national prosperity rather than stores of metallic wealth.

Building upon the theories Smith established in *The Wealth of Nations*, David Ricardo articulated the notion of ‘comparative advantage’ in his work *On the Principles of Political Economy and Taxation*. According to Ricardo, all nations stand to benefit by specializing in goods they produce most efficiently and trading with one another, irrespective of whether a nation possesses an ‘absolute’ advantage in the production of all goods.

To substantiate his claim, Ricardo utilizes an example of wine and cloth production in England and Portugal. While Portugal possesses an absolute advantage in the production of both goods, it stands to benefit by specializing in the production of wine and trading with England, which possesses an advantage in the production of cloth relative to Portugal (see chart). In this way, both nations collectively reap rewards greater than those which would have been possible without trade and specialization.

While there have been many other contributors, the theories of Smith and Ricardo form the foundation of classical economics and the basic framework for modern trade. The international community, by and large, has viewed trade through this lens for the better part of two centuries. The resulting global consensus has been one that generally favors freer trade and fewer tariffs (see chart).

TRADE TERMINOLOGY

A wide array of metrics are used to assess trade and its impact upon the economy. Given the fact that many of these metrics are often misunderstood or misinterpreted, it is helpful to understand how each metric is calculated.

The ‘balance of trade’ is the net value of a nation’s exports less its imports. If a nation exports more goods than it imports, it is said to have a ‘trade surplus.’ On the other hand, if a nation imports more goods than it exports, it is said to have a ‘trade deficit.’

Comparative Advantage

Ricardo’s Example

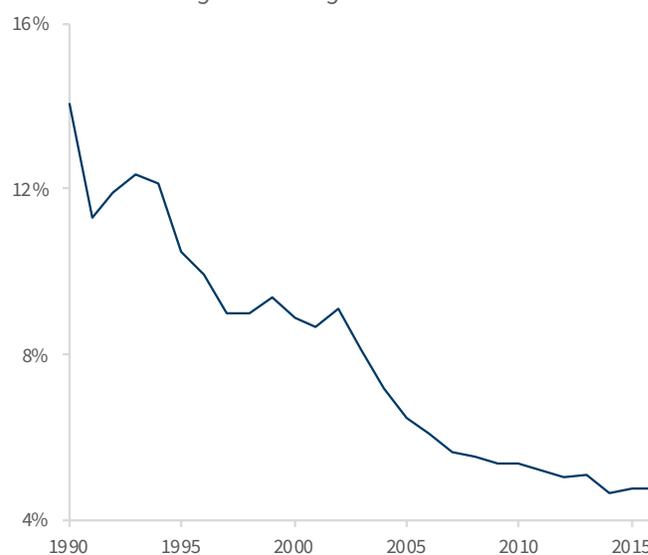
	Cloth	Wine
England	100 hrs	120 hrs
Portugal	90 hrs	80 hrs

In the table above, Portugal possesses an ‘absolute’ advantage in the production of both cloth and wine relative to English production. Portugal can produce both goods in fewer hours than England can. However, England possesses a ‘comparative’ advantage in the production of cloth relative to Portugal. In other words, it takes England less time to produce cloth than wine, whereas it takes Portugal more time to produce cloth than wine.

If Portugal specializes in the production of wine and England specializes in the production of cloth, more wine and cloth can be produced in aggregate. Both nations can therefore benefit by specializing and trading with each other.

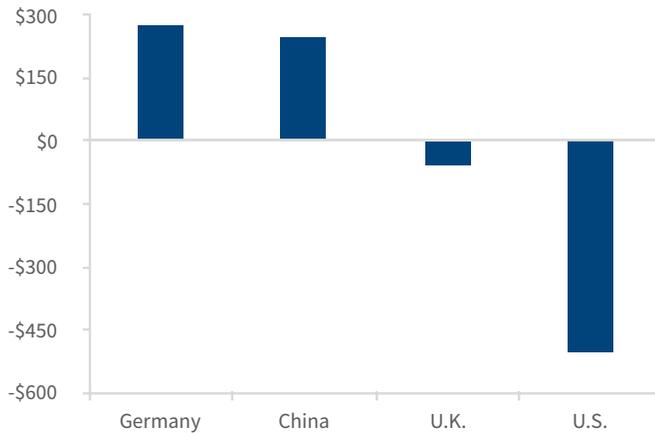
Global Effective Tariff Rate

Weighted Average - All Products

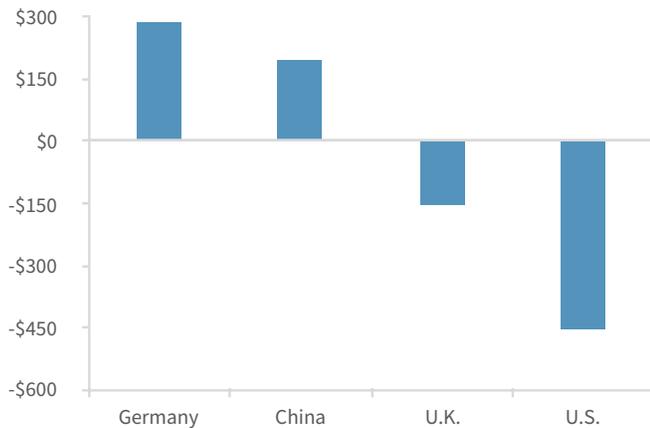


Source: World Bank Group, World Integrated Trade Solution, United Nations Conference on Trade and Development as of 06/19/2018

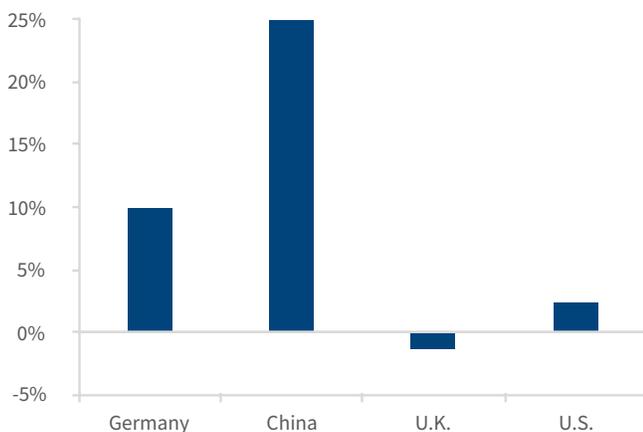
Balance of Trade
Billions (USD)



Current Account Balance
Billions (USD)



Adjusted Net National Savings
Percent of Gross National Income



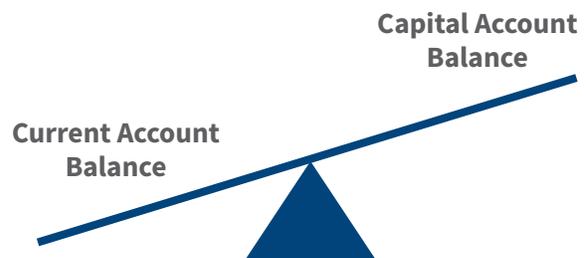
Source: International Monetary Fund, Balance of Payments and Statistics, World Bank Group, as of 06/19/2018

The balance of trade is an outsized component of a nation's 'current account,' which is used in conjunction with a nation's 'capital account' to calculate a nation's overall 'balance of payments.' The current account captures the net value of all national transactions, including trade. The capital account captures the net value of all national investment, including financial assets purchased by foreigners. As with other accounting conventions, the balance of payments equation is structured such that it theoretically 'balances' to zero.

While it may appear complex at first glance, the reasoning behind this relationship is relatively straightforward. If a nation consumes more than it produces, it will require financing from other nations to make up the shortfall. If a nation produces more than it consumes, its surplus capital must be invested abroad. That is to say that a country with a current account deficit will need to incur a capital account surplus in order to finance its demand for capital. On the other hand, a country with a current account surplus will need to incur a capital account deficit in order to invest its surplus capital.

While there are countless inputs that factor into these equations, one of the most crucial and oft overlooked factors is the collective savings rate of a nation. In short, if a nation as a whole does not save a sufficient portion of its overall income to meet the demand of its economy, foreign capital must make up the deficit. On the other hand, if a nation saves more of its overall income than its economy demands, its surplus capital can only be invested abroad. In fact, national savings rates and current account balances are loosely correlated. A high national savings rate generally corresponds to a current account surplus, while a low national savings rate generally corresponds to a current account deficit (see charts).

Balance of Payments



Nations with current account deficits will need to incur a capital account surplus. Conversely, nations with current account surpluses will need to incur a capital account deficit.

U.S. TRADE

A cognizance of these facts makes it easier to understand the current state of trade in the U.S. While many would point to its burgeoning trade deficit as evidence that the U.S. is at an inherent disadvantage relative to countries with trade surpluses, the reality is more complex.

The fact of the matter is that the U.S. has a propensity to consume more than it produces, a habit which has been facilitated by the dominance of the U.S. dollar as the world's preeminent currency, as well as the sizable and consistent demand for U.S. financial assets. Furthermore, a concurrent decline in national savings has further exacerbated the U.S. trade deficit (see charts). Foreign countries, to a greater or lesser degree, have essentially financed the expansion of U.S. consumption and its decline in savings by purchasing U.S. financial assets and investing in its economy. While the U.S. has had to pay interest and dividends to foreign countries in return for their investments, the arrangement has, on the whole, greatly benefited the U.S. economy. An abundance of foreign capital has enabled the U.S. economy to expand to a greater extent than would have otherwise been possible with domestic capital alone. Therefore, the trade deficit is not necessarily a negative, per se.

It bears mentioning that trade agreements and policies generally have little influence on the overall trade deficit. By virtue of the aforementioned accounting relationships, national consumption, savings, and investment comprise the lion's share of a nation's balance of trade and current account, which are generally impervious to trade policies with foreign countries. A substantial reduction in the trade deficit would necessitate either a decrease in consumption, an increase in savings, or a decrease in investment. Pursuing any of these options would in turn decrease both national output and income. In short, they would cause the economy to contract.

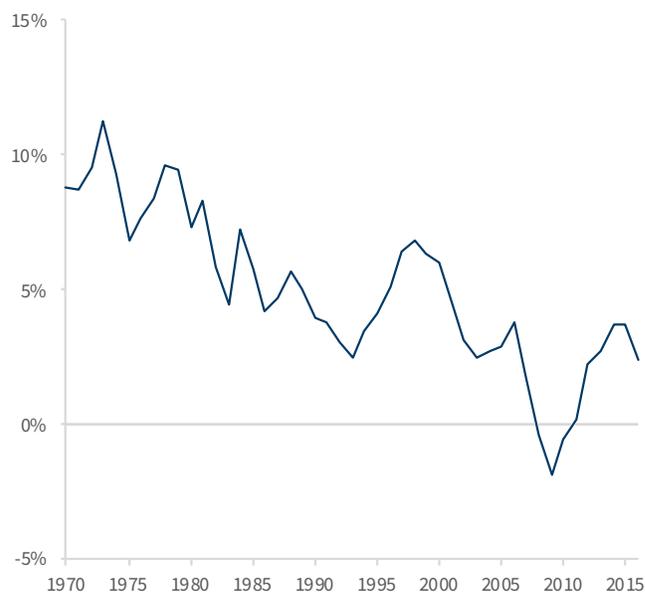
However, in the event that sources of foreign capital were to suddenly dry up, a trade deficit would indeed be unsustainable. In lieu of foreign capital, domestic saving would need to increase to fill the gap or domestic investment would need to decrease. Barring such an occurrence, a trade deficit is not inherently detrimental to the economy in and of itself.

THE EFFECTS OF TARIFFS

A 'tariff' is a tax assessed on foreign imports. Historically, tariffs have been enacted to generate tax revenue or protect domestic producers from competition in the form of cheaper foreign goods. In essence, tariffs artificially make domestically produced goods more competitive by making foreign imports more expensive.

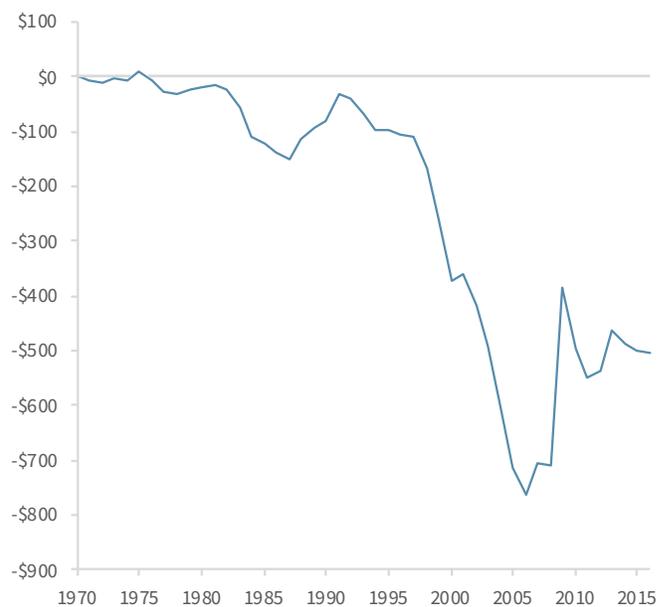
U.S. Adjusted Net National Savings

Percent of Gross National Income



U.S. Balance of Trade

Billions (USD)



Source: International Monetary Fund, Balance of Payments and Statistics, World Bank Group, as of 06/19/2018

While tariffs had been utilized heavily in the past, both their usage and rates have fallen considerably over the past half century, especially amongst advanced economies. In an apparent validation of Smithian and Ricardian economics, both the volume and value of global trade have grown exponentially as tariffs and barriers to trade have fallen. This has coincided with the growth of the global economy over the same time period, which is, on average and in aggregate, more prosperous than at any time in human history (see charts).

While it is readily apparent that emerging economies have reaped outsized rewards as a result of freer trade, developed economies as a whole have benefited as well. The availability of cheaper goods imported from abroad has enabled consumers in developed economies to retain a larger share of their income for consumption, saving, or investment. The same holds true for companies, which benefit from lower input costs and higher profit margins when there are fewer barriers to trade.

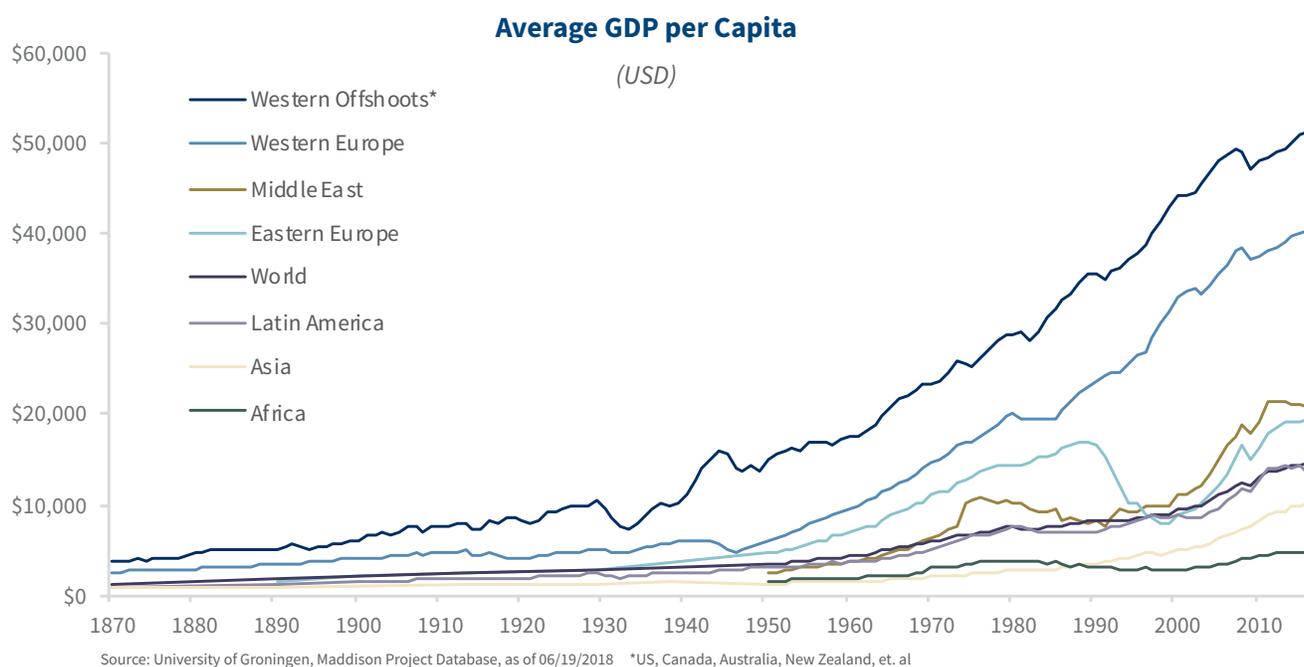
On the other hand, when tariffs are raised and other protectionist measures are enacted, costs rise. Goods become more expensive to consumers and inputs become more expensive to companies, reducing both income and profitability, respectively. That is to say that the aggregate impact to the entire economy at large would be negative. In the event that nations engage in a 'trade war' wherein each nation retaliates with higher and more extensive tariffs, the negative economic effects would be amplified drastically. In short, the inefficiencies induced by tariffs are tantamount to 'deadweight loss' and the effects upon the global economy, on average and in aggregate, are negative.

However, it bears mentioning that free trade is not without its drawbacks. Though free trade is beneficial on the whole, it can certainly cause dislocations in local industries as uncompetitive producers are undermined and replaced by their more competitive counterparts. As with all creative destruction, there is often a degree of collateral damage. In developed economies, this collateral damage has been directed toward industries which have been rendered uncompetitive by their emerging counterparts. The reintegration of these displaced industries and their workers within the broader economy is often a lengthy process in the short run. Nevertheless, the availability of cheaper goods facilitates income growth over the long run as a smaller share of income is spent on those same goods.

THE EFFECTS OF CURRENCY

The value of a nation's currency has a direct impact upon both the relative value of a nation's imports and exports, as well as its balance of trade. When the value of a nation's currency rises relative to foreign currencies, foreign imports become relatively cheaper while domestic exports become more expensive. On the other hand, when the value of a nation's currency falls relative to foreign currencies, foreign imports become relatively more expensive while domestic exports become relatively cheaper.

The reasoning behind this relationship is fairly straightforward. If the U.S. dollar rises in value relative to the British pound, dollars now purchase more pounds and pounds now purchase fewer dollars. As a result, U.S. consumers can purchase more imports from Britain with the same number of dollars, whereas British



consumers can purchase fewer exports from the U.S. with the same number of pounds. The opposite holds true if the U.S. dollar were to fall in value relative to the British pound.

As a result, currency valuation can become a point of contention, especially when a nation's currency is 'pegged.' That is to say its value is based upon the value of another nation's currency, and the rate of exchange between the two currencies is 'fixed.' This is in contrast to currencies which have a free or 'floating' exchange rate. Due to the fact that currency has an outsized influence on trade, the valuation of a pegged currency directly impacts the valuation of a nation's imports and exports.

CONCLUSION

Trade is often viewed as a 'zero-sum game', which is a term used in the economic discipline of game theory. In a zero-sum game, the payoffs for each player sum to zero. That is to say the game is binary, and each player's gain or loss corresponds to the other player's loss or gain, respectively (see chart). A nation's trade deficit or surplus with other nations is often viewed as a proxy for payoffs. By this logic, a nation with a trade deficit must be at an inherent disadvantage to a nation with a surplus.

However, the reality is more complex. As discussed above, trade deficits and surpluses do not necessarily denote whether a nation is at an inherent economic advantage or disadvantage. In this sense, trade is more like a 'non-zero-sum game' with a variety of possible payoffs (see chart). Generally speaking, all nations stand to benefit by 'cooperating' in an environment of free trade. On the other hand, tariffs and protectionist measures cause disruptions to supply global supply chains, increasing costs and reducing profitability. In other words, nations stand to be harmed by 'defecting' from free trade and engaging in trade wars.

Zero-Sum Game

1	0
0	-1

In a zero-sum game, the payoffs for each player sum to zero. That is to say the game is binary, and each player's gain or loss corresponds to the other player's loss or gain, respectively. If one player completes the game with a positive payoff (1), the other player will have completed the game with a negative payoff (-1).

Non-Zero-Sum Game

Prisoner's Dilemma

C, C	C, D
D, C	D, D

In a non-zero-sum game, payoffs for each player do not sum to zero. In other words, each player can receive positive payoffs or negative payoffs, regardless of whether his opponent has received a positive or negative payoff. The matrix above shows a classic 'prisoner's dilemma' where each player has the opportunity to cooperate (C) or defect (D). If both player's cooperate (C,C), they will receive the best possible, or 'Pareto Optimal', payoff. However, if both player's defect (D,D), they will receive the worst possible payoff.

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