Geo-Markets

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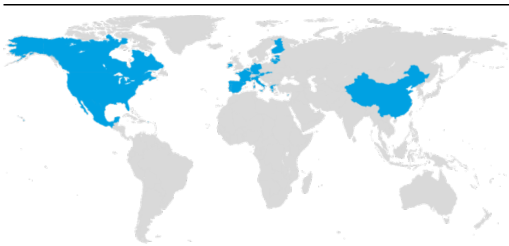


On Trade

We review the current state of global trade, and describe potential scenarios moving forward.

The biggest and most profitable companies in the world are the most vulnerable to disruptions in global trade which, in turn, create great uncertainty in the global financial markets. We look at the current trade environment, walk through some of the issues and analyze the disputes.

The US imported nearly $3 trillion worth of goods last year, equivalent to almost 20% of total economic output. Assessing the cost of trade disputes often focuses on the impact of tariffs on US or global GDP, but another round of US escalation introduces new risks should tariffs on China exceed $170 billion. US tariffs have so far been matched in a symmetrical fashion globally. Further escalation raises the risks of asymmetric responses to the multitude of trade disputes. Anything shy of full escalation has a nominal impact on GDP, given the magnitude relative to the size of the global economy. There is risk to sentiment, where trade disputes dampen corporate expansion and investment.

The US has initiated trade negotiations on three fronts simultaneously. Consistent with campaign promises, the White House is trying to renegotiate the North American Free Trade Agreement (NAFTA). There have also been confrontations over US auto tariffs in Europe. Both are discussions about free and fair trade. The third dispute is fundamentally different. The US-China trade discussions are less about trade and more about national security. That may make resolution far more difficult.

The State of Play

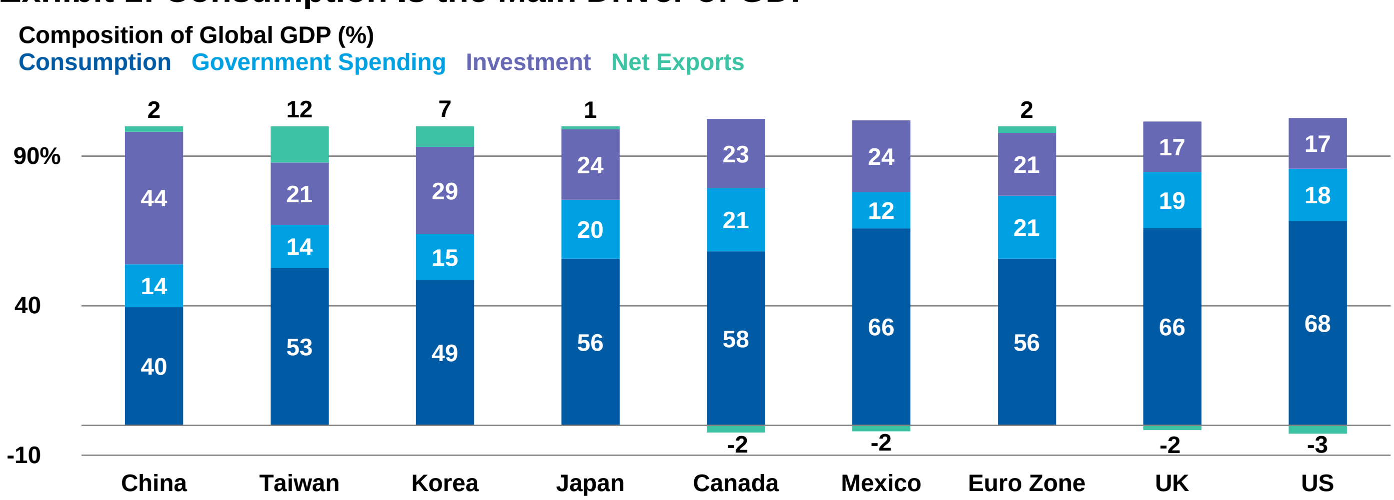
In 1947, the General Agreement on Tariffs and Trade (GATT) created the foundation of global trade. Superseded by the World Trade Organization (WTO) in 1994, GATT established as a goal the reduction of trade barriers worldwide. On the whole, this reduction has taken place—average US tariffs on imports have fallen to 2.1% today from 6% in 1948.[1] A similar reduction has taken place globally, and tariffs in much of the developed world sit below 3%. The difference between the average US tariff and the global tariff partially sets the stage for the current dispute. The age of the current trade regime has also left some important issues like intellectual property unresolved.

This free flow of goods has led to an ever more-connected world. In 1960, international trade represented less than 20% of global GDP. Today, more than 50% of world GDP crosses a border as trade. In the US, trade as measured by combined imports plus exports, has risen to nearly 20% from less than 7% of total output. In this complex system of global exchange, approximately 20% flows through just four major hubs: China, the Euro Zone, the US and "emerging Asia"—Bangladesh, Cambodia, India, Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam. These four blocks form a core around which the rest of the world procures goods.

Economies expand through four channels. Consumption is the largest component, comprising 56% of total global output. Investment, government spending and net exports (imports less exports) provide the rest of the growth. At more than $11 trillion, US consumption exceeds the next two largest consumers combined (see Exhibit 1). The US imported nearly $3 trillion in goods and services in 2017, primarily from China, Canada and Mexico. The US imports more goods from China than any other country, the bulk of which are capital goods such as semiconductors, industrial wire and computer servers; or consumer goods such as cell phones, toys and clothing. As much as 54% of all imports from China are classified as capital goods, and more than 40% of all imports of capital goods are from China.

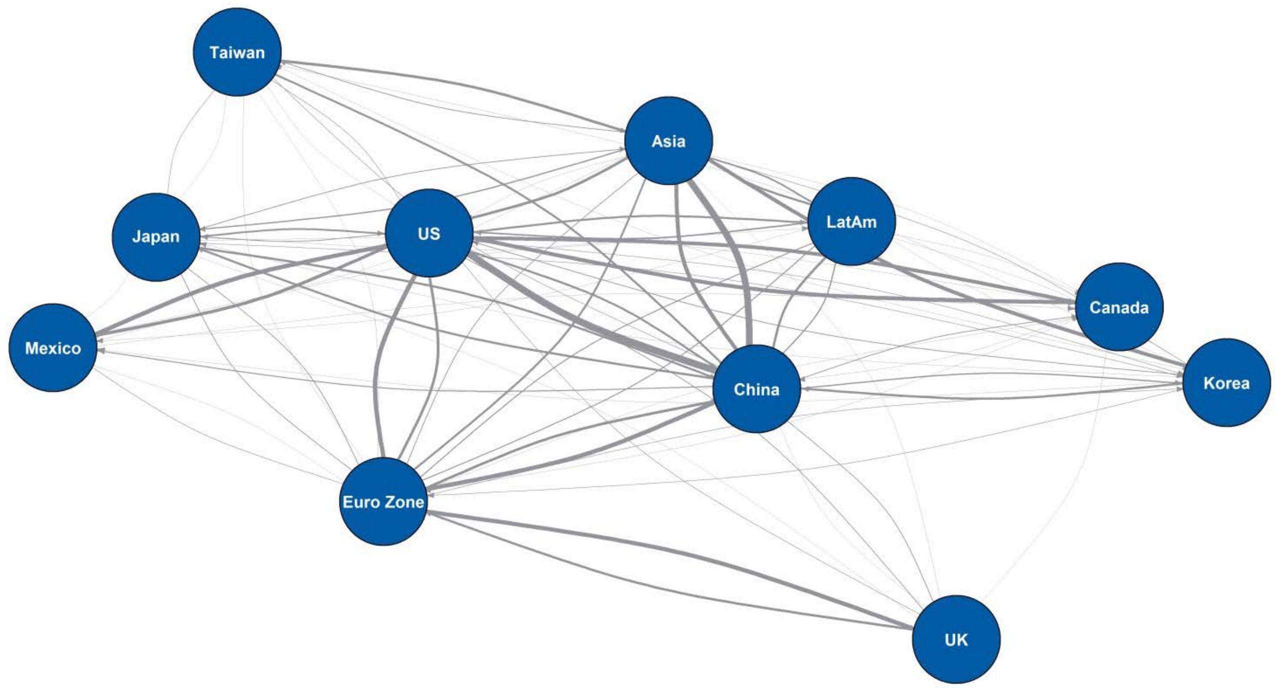
International trade is most commonly characterized by statistical tables showing the amount of goods flowing into or out of a country. We find it helpful to build a picture and use a basic network analysis where countries are "nodes" or dots and the volume of trade is a line or "edge" (see Exhibit 2, page 3). We can see how global trading relationships are highly interdependent with the "clustering coefficient." This metric identifies how connected a network is, usually calculated by looking at the number of times two nodes are linked with a third. Our network of global trade is characterized by a high degree of concentration, exhibiting a clustering coefficient of 0.85. Even removing the US-China link entirely only reduces the network's overall clustering coefficient to 0.78.[2] The deep cohesion underscores the extent to which the US economy relies on the capital goods imported from China as well as imports from Japan, Mexico and Europe. In comparison, a network of the 500 busiest US airports with edges weighted by the number of seats on the flights between the two nodes or cities has a weighted clustering coefficient of 0.48.

Exhibit 1: Consumption Is the Main Driver of GDP



Source: Haver Analytics, Morgan Stanley Wealth Management Investment Resources as of December 2017

Exhibit 2: International Trade Is Highly Interdependent



Source: International Monetary Fund; Morgan Stanley Wealth Management Investment Resources; Csardi, Gabor, and Tamas Nepusz. "The Igraph Software Package for Complex Network Research." InterJournal, Complex Systems, 2006, p. 1695., igraph.org., accessed Aug. 27, 2018.

Tariffs

The first tariffs, on solar panels and washing machines, were implemented in January, and then wide-ranging tariff threats came with the announcement of a Section 232 investigation into steel and aluminum. Section 232, little used outside of the energy sector, enables presidential action on imports that are determined critical to national security. These more aggressive tariffs took full effect on June 1. Traditional US allies and trading partners like the EU and Canada found themselves embroiled in trade actions and retaliated with their own tariffs. A meeting between European Commission President Jean-Claude Juncker and President Donald J. Trump in late June helped to calm markets, but little has been done to resolve the underlying issues. Section 232 tariffs remain in effect on steel and aluminum, with no specific talks on the topic scheduled.

The US has threatened and implemented tariffs specifically targeting China. Under Section 301 of the Trade Act of 1974, the US Trade Representative (USTR) investigated and recommended tariffs in response to alleged trade barriers such as forced technology transfer for companies operating in China. Identifying these practices as violations of WTO agreements, the Section 301 tariffs are ostensibly intended to compel China to change its behavior. As of Aug. 23, a total of $50 billion of tariffs on both sides has been implemented, with an additional $200 billion threatened by the US.

The Section 301 action on forced technology transfer follows an intelligence assessment presented to Congress last year by Dennis C. Blair, a former director of National Intelligence, and Keith Alexander, a former director of the National Security Agency. They asserted that China is responsible for an estimated $600 billion in costs associated with intellectual property theft. That sum exceeds the current US trade deficit with China, suggesting that the costs associated with intellectual property theft may even supersede concerns about open markets.

With imports of $505 billion and exports of $170 billion, the US has a large trade deficit with China. Based on a trade-weighted average, and applying all currently implemented and threatened levies, average tariffs in the US are set to increase to an estimated 6.8% from 2017's 2.1% average (see Exhibit 3, see page 4).

Exhibit 3: Average US Tariffs on Imports By End Use Category

End Use Category	2015	2016	2017	Maximum Threatened
Automotive Vehicles, Parts and Engines	3.69%	3.82%	3.83%	22.90%
Capital Goods, except Automotive	0.59	0.53	0.53	3.37
Consumer Goods	4.27	4.11	4.15	5.97
Foods, Feeds, and Beverages	1.90	1.91	2.38	3.14
Industrial Supplies and Materials	1.91	1.98	1.88	5.10
Weighted Average	2.14	2.14	2.10	6.81

Source: Haver Analytics, US International Trade Commission, Morgan Stanley Wealth Management Investment Resources, World Trade Organization Dec. 31, 2017

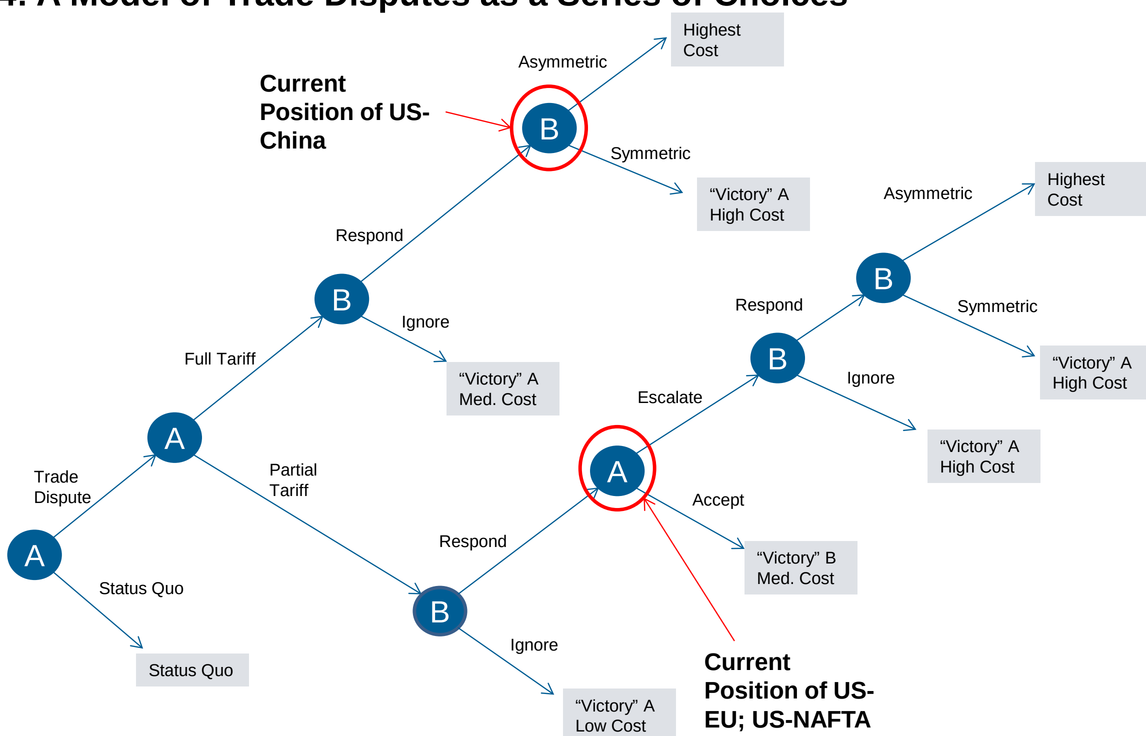
Despite the potential of returning to the highest average tariff rate since World War II, markets have been relatively calm. Analyzing a range of scenarios reveals that, especially due to the underlying asymmetry of US trade relationships, the trade conflict outcome may be more costly than investors realize.

Scenarios

The US has opted into a multilevel strategic interaction, which makes scenario planning and forecasting difficult. There are three distinct theaters of trade conflicts with NAFTA, Europe and China. On the first level, each country participates in a bilateral negotiation, which we model as a binomial decision tree (see Exhibit 4). On the second level, the US will have to decide how many simultaneous bilateral choices it wants to execute. The resulting matrix of possibilities serves as a starting point for an exploration of the risks facing global investors.

Each individual trade dispute is simplified to a series of choices. Country A, the US, initiates the process by engaging in a trade dispute, choosing to implement a partial or full tariff. Country B can then respond with retaliation or acceptance. If Country A implements a full tariff, Country B is faced with a second choice, and this is where investors may be miscalculating risk. Since the US imports more than any of its partners, no country can match a full tariff. For example, China can only impose tariffs on $170 billion relative to the $500 billion that the US can impose. The targeted Country B therefore has to decide whether its policy response is constrained to the economic arena or extends beyond. The decision to remain in the economic realm is considered a symmetric response. A response with a mixture of tariff and nontariff policies is considered asymmetric. This outcome of full

Exhibit 4: A Model of Trade Disputes as a Series of Choices



Source: Morgan Stanley Wealth Management Investment Resources

Exhibit 5: Noneconomic Responses Are Wide Ranging in an Asymmetric World

	Impact of Tariffs	
	Symmetric	Asymmetric
China	$85 billion net increase in cost of goods	Currency manipulation, intellectual property, tighter regulation; market-share restrictions and closed borders
European Union	$106 billion net increase in cost of goods	NATO, restrictions to tourism, stronger euro, tougher tech/privacy regulation particularly aimed at US companies
NAFTA	$89 billion net increase in cost of goods	Immigration, stress policy implications from like of allies for North America, coordination with EU (could happen with Canada but unlikely for Mexico)

Source: Morgan Stanley Wealth Management Investment Resources

tariff and asymmetric response results in the highest cost to the system and, depending on the asymmetric policy tools used, potentially greater ramifications beyond business and finance.

Exhibit 5 shows that the negotiations between US-NAFTA, US-Europe, and US-China are quite different. Both are at critical junctures that will define the nature of the respective outcomes. The US opted to initiate trade disputes in North America and Europe with modest or limited tariffs. In contrast, China has been threatened with a full tariff, potentially being forced to decide between symmetric or asymmetric response.

The total cost of trade disputes could add up if the US continues to push all three disputes simultaneously. The permutations are illustrated in Exhibit 6 (see page 6), with the associated potential costs if symmetrical tariffs of 25% are levied on all US exports to the three regions, as well as an equal value of US imports. The gross impact on the costs of goods is not insignificant, resulting in an increase of $454 billion in Scenario 1. The costs on the asymmetric side of the table, however, are potentially greater and worth considering here.

North American partners likely have the least amount of asymmetric leverage, but there are a number of important options available. The most potent tool in Mexico's bag is centered on the flow of Central American migrants to and through Mexico. Both the previous and current Mexican administrations have made Central American immigration a top priority, partially in response to demands from the US to stem some flow reaching the US-Mexico border. For instance, in April 2018, Mexico took steps to turn back refugee flow. If Mexico chose to respond asymmetrically, changing policy around the flow of people to the US border could be politically challenging given White House policy on immigration.

Europe's asymmetric policy choices are more expansive, though perhaps less politically sensitive. The US has taken a hard line on requirements for defense spending among North Atlantic Treaty Organization (NATO) members. With relations already strained, changing or challenging NATO would be the most serious risk. Taken as a collective, the EU is the world's largest owner of US Treasury securities (second largest if the UK is excluded). Though it would have potentially disastrous implications for European monetary policy, the EU could introduce extreme volatility in interest rates by selling their Treasuries. A more likely policy response would be a significant increase in the scrutiny and regulatory response to the favorable tax treatment of US firms in Europe, using the 2017 case against Apple as a blueprint. US tech firms are particularly vulnerable to regulatory scrutiny. The rift between the US and Europe has already taken a toll on the industrial sector, with auto and parts companies selling off on negative sentiment.

A potential asymmetric policy response from China represents the greatest risk. Like Europe, China could impact the US Treasury market, given its $1 trillion in holdings. China could also allow the renminbi to devalue even further against the dollar, which has already been telegraphed. Other moves could negatively impact the returns of many US-based multinational corporations (MNC) through direct intervention in the market. The policy response to the South Korean installation of a missile defense system could serve as a blueprint—China could actively challenge US MNCs. Closing the Chinese market to further expansion is another option. Approximately 5% of revenue for the S&P 500 comes from mainland China, but even that number understates the importance of China to the index, serving as a key means of anticipated revenue growth in the future.

Asymmetric policy responses outside of the economic or financial realm represent a bigger threat as the US and China compete globally. Central to the current dispute is China's Made in 2025 program providing billions of dollars for research in areas like quantum computing, artificial intelligence and advanced communication systems. Increasing efforts in either cyberattacks or intellectual property appropriation would represent a dangerous turn. Similarly, China could try to leverage North Korea and the nuclear threat, or challenge US freedom of navigation in the South China Sea. Both measures would move the dispute from the economic to the military realm.

Trade, Investment and Market Risk

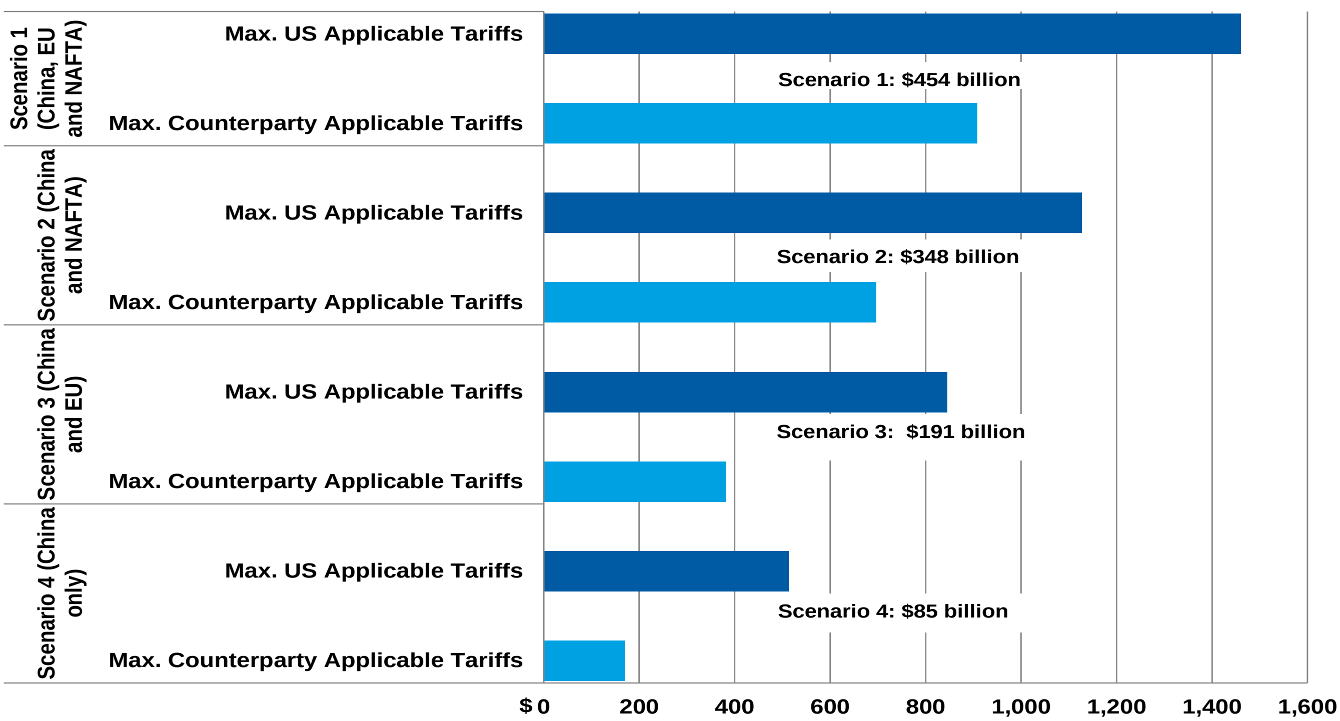
Thirteen years ago, *The New York Times* columnist Thomas Friedman published *The World Is Flat*, a best-seller that thrust globalization into the limelight. Many of the global supply chains today were set up before then, and may be ossifying. These “zombie” supply chains have been sustained by 10 years of cheap capital due to the unprecedented monetary policies implemented during the financial crisis. The end of Quantitative Easing, coupled with the increased marginal costs associated with the tariffs, could lead to a realignment of supply chains. Potential beneficiaries include emerging Asia and Latin America. Trade disputes could also increase the already large $148 billion flow of goods from China to Europe as both look to diversify away from the US.

While asymmetric escalation represents the largest risk, the impact on investment and “animal spirits” should concern investors. The US embarked on a $1 trillion tax reduction program aimed at promoting business investment. Aside from the $100 billion that companies received in tax savings, the US also moved to make business investment immediately tax deductible as opposed to depreciable over five years. We continue to believe that business investment is critical to elongating the economic expansion, but the trade dispute introduces new uncertainty.

The quintile of the S&P 500 that is most vulnerable to trade, taking into account both revenue and cost, is also disproportionately large. The most international companies represent 35% of the market cap of the S&P 500 (see Exhibit 7, page 7), suggesting that the US large-cap index is vulnerable to continued trade disputes. That same group of companies is also the most profitable, which is an important consideration when analysts are worried that higher labor costs could mean that profit margins have peaked. The most globalized firms have profit margins approximately 4% higher than the next most profitable quintile (see Exhibit 8, page 7).

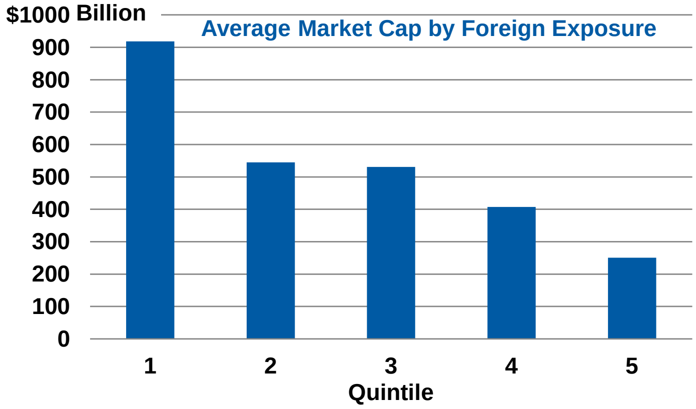
These companies, the most vulnerable to trade disputes, also have higher capital expenditures than peers (See Exhibit 9, page 7), meaning that these firms would be candidates to lead in the next round of business expansion and investment. Unfortunately, the trade dispute creates uncertainty around both supply chains and future sales. The relationship between trade growth and investment globally is relatively strong going back to 1981 (Exhibit 10, see page 7). As trade has grown, companies have generally invested to take advantage of globalization.

Exhibit 6: Gross Impact of 25% Levy on Value of Maximum Counterparty Tariffs*



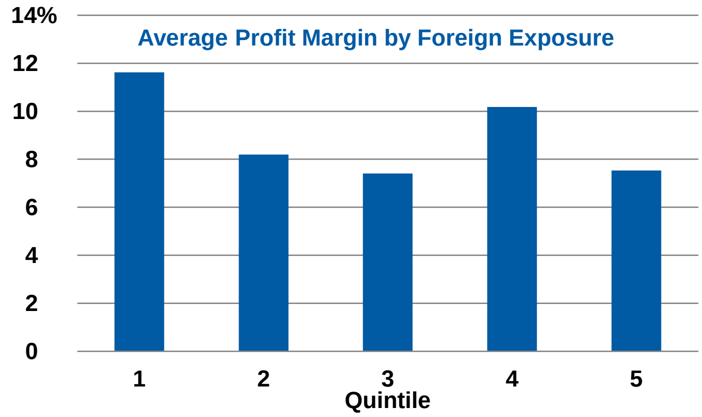
*Gross impact assumes that tariffs are 25% and is calculated as 25% as twice the US dollar value of counterparty exports.
Source: Haver Analytics, IMF, Morgan Stanley Wealth Management Investment Resources as of December 2017

Exhibit 7: The Largest Companies Have the Most Foreign Exposure



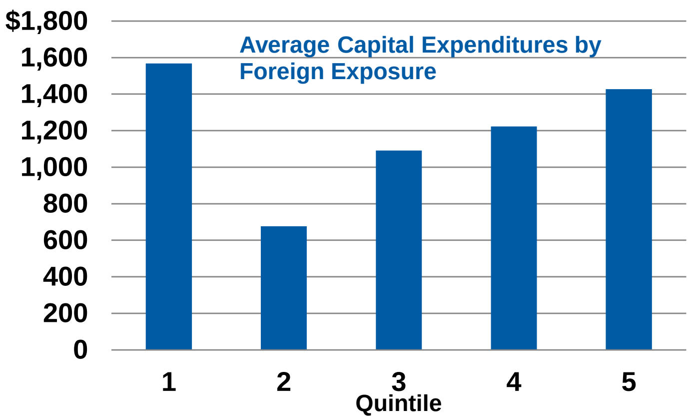
Source: Bloomberg, FactSet, Morgan Stanley & Co. Research as of Aug. 24, 2018

Exhibit 8: The Most Profitable Companies Have the Most Foreign Exposure



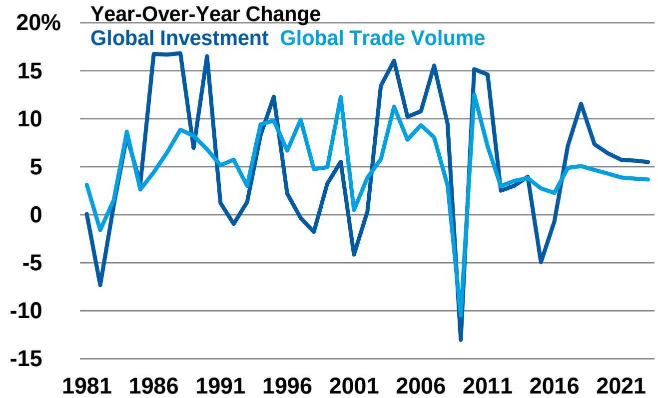
Source: Bloomberg, FactSet, Morgan Stanley & Co. Research as of Aug. 24, 2018

Exhibit 9: Companies With the Most Capital Spending Have the Most Foreign Exposure



Source: Bloomberg, FactSet, Morgan Stanley & Co. Research as of Aug. 24, 2018

Exhibit 10: Global Investment Is Tied to the Pace of Global Trade



Note: Numbers for 2018 and beyond are estimates.
Source: Haver Analytics, International Monetary Fund as of April 17, 2018

Conclusion

Despite recent progress in negotiations with NAFTA partners, there remain substantial systemic risks from trade tensions. First, there is potential for a long overdue global realignment of supply chains. US exporters, faced with a self-inflicted competitive disadvantage, could move production offshore. Second, a sentiment-driven global slump in investment growth could threaten the cycle that has already looked vulnerable.

Investors and policy makers should understand the range of risks from deepening trade disputes. With the US economy set to grow at just under 3% this year, markets may look past these decisions. Should US economic growth slow next year as many economists are forecasting, trade headwinds may prove to stifle the 10-year expansion. ■

Endnotes

[1]2.1% is a weighted average based on the ad valorum tariff rate per principal end use category, weighted by the volume of imports for that category in 2017
[2]Weighted clustering coefficient uses concepts and algorithms described in Opsahl, T., Panzarasa, P., 2009. "Clustering in weighted networks". *Social Networks* 31 (2), 155-163

Index Definitions

S&P 500 Index: The Standard & Poor's (S&P) 500 Index tracks the performance of 500 widely held, large-capitalization US stocks.

Risk Considerations

Investing in foreign markets and emerging markets entails greater risks than those normally associated with domestic markets, such as political, currency, economic and market risks. **Investing in currency** involves additional special risks such as credit, interest rate fluctuations, derivative investment risk, and domestic and foreign inflation rates, which can be volatile and may be less liquid than other securities and more sensitive to the effect of varied economic conditions. In addition, international investing entails greater risk, as well as greater potential rewards compared to U.S. investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economies.

Bonds are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which is the risk that the issuer will redeem the debt at its option, fully or partially, before the scheduled maturity date. The market value of debt instruments may fluctuate, and proceeds from sales prior to maturity may be more or less than the amount originally invested or the maturity value due to changes in market conditions or changes in the credit quality of the issuer. Bonds are subject to the credit risk of the issuer. This is the risk that the issuer might be unable to make interest and/or principal payments on a timely basis. Bonds are also subject to reinvestment risk, which is the risk that principal and/or interest payments from a given investment may be reinvested at a lower interest rate.

Bonds rated below investment grade may have speculative characteristics and present significant risks beyond those of other securities, including greater credit risk and price volatility in the secondary market. Investors should be careful to consider these risks alongside their individual circumstances, objectives and risk tolerance before investing in high-yield bonds. High yield bonds should comprise only a limited portion of a balanced portfolio.

Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets.

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