JUNE2019

U.S. CHINA TARIFFS: DANCING ON THE LEDGE

FREIGHTWAVES FREIGHTINTEL RESEARCH

Executive Summary

For two sides with trillions of dollars to lose in a trade war, the U.S. and China seem to like dancing on the edge. The trade imbalance between the two countries is so large it brings to mind the J. Paul Getty quote, “if you owe the bank $100, it is your problem, but if you owe the bank $100 million it’s the bank’s problem.”

The U.S. imported $540 billion of Chinese goods and exported $120 billion in 2018. To put this volume into perspective this is 10 times what India (the second-largest Asian trade partner of the U.S.) exports to the U.S. annually. While the buzz in corporate and political circles emphasizes the need for U.S. corporations to either: 1) bring manufacturing jobs back to the U.S.; or 2) source suppliers from countries where intellectual property (IP) theft and national security issues are lower. However, the glaring fact is this path will be a long and painful journey for both the U.S. and China. Much like companies who lose a materially significant customer or vendor, the transition period will most likely be long, painful and destabilizing.

In the following report, FreightWaves examines how 25 percent tariffs on virtually all $540 billion of Chinese imports will affect freight volumes and rates over the coming months. Will there be a repeat of a rush of ocean imports into the West Coast like the buzzer-beaters in the third and fourth quarters of 2018? Will warehousing issues force products on rail to warehouses further inland? Will truck load volumes pick up as inventory is moved to the shelf?

These questions depend largely on when and if the next round of tariffs are placed on virtually all remaining Chinese imports. The timing is key for the freight markets. As for the tariff rates, whether it is the full 25 percent or only 10 percent will make a significant difference when it comes to any pull-forward demand. For timing, if tariffs are implemented as soon as the policy review and approval process is finished in late June, then the probability of front-loading diminishes greatly. However, if tariffs are used as a bargaining chip, then front-loading should continue to occur at some levels until the risks of tariffs passes one way or another.

Next, FreightWaves provides a macro analysis of a trade war with China. FreightWaves staff try to answer if either country will win a trade war, or more accurately, who will lose the least. What further levers are available to the U.S. and China? Will there be more bans on Chinese companies like Huawei based on national security concerns? Could China actually use its “nuclear option” of selling treasuries? What about restrictions on rare earth materials?

Last but certainly not least, FreightWaves has put together a thorough financial analysis of which companies and industries have the most to lose in a trade war with

China. This includes those with the greatest cost and revenue exposure to China. This group includes many household names from the retail, consumer products, technology and manufacturing industries.

Key Highlights

The next list of proposed tariffs extends 25 percent tariffs to an additional $300 billion of Chinese imports. If implemented, these tariffs would cover 94 percent of all Chinese imports. The timeline from comments to review to implementation could be as early as late June. After this, tariffs could be immediately implemented or used as stick in negotiations.

While the first round of tariffs ($200 billion) focused on industrial and agricultural goods, the next round ($300 billion) will hit consumers hard. The $300 billion list includes a wide range of consumer products like electronics, apparel and household items. These tariffs will likely be passed along to consumers.

Over the past 12 to 18 months, importers have been implementing new sourcing strategies outside of China, though options are often limited. Alternative Asian countries lack the manufacturing facilities, logistics infrastructure and workforce to scale up new production quickly. This is at best a five- to 10-year strategy.

It all depends on timing of implementation along with tariff rates. The full 25 percent could be applied in late June, or held as a bargaining chip for further negotiations. Another option is to enact 10 percent tariffs and threaten 25 percent tariffs, much like the strategy in 2018.

If the next round of tariffs are used as bargaining chips, then expect ocean shipping to accelerate its traditional seasonal demand patterns. This should correlate highly to the pull- forward demand the markets saw in the third and fourth quarters of 2018.

Inventory levels are still elevated on the West Coast from the rush to beat the original tariff deadline on January 1, 2018. Pull-forward demand in 2018 filled Southern California warehouses. These surplus inventories are just now being worked down. This will limit capacity for any further pull-forward demand.

Air freight from China should remain normal until within 30 days of a tariff deadline, or when marine vessel space becomes sold out. When either of these scenarios occurs, expect air freight to accelerate. Volumes could bring the normal November/December tight capacity into August/September.

Any pull-forward demand is highly unlikely to cure the current imbalances in volume and capacity. With extra truck capacity flooding a market with similar tender volumes to 2018, any short-term push of freight may help stabilize spot rates that have dropped 20 percent year-over-year. Unless that occurs, spot rates will continue to be weak.

What happens if the risk of 25 percent tariffs on all remaining Chinese imports comes to fruition? Trade demand will plunge as shippers either: 1) work through excess inventories; or 2) delay new orders until inventory levels hit rock-bottom in hopes that a trade agreement is reached.

Figure 1 - Decision tree for possible short-term scenarios for tariffs

		June 24th Outcome	90 Day Extension?	Result
	Trade Agreement Reached (i.e. 0% on $300 Billion)	Yes	No	No pull-forward; inventory drawdown normal and imports back to pre-Trade War conditions
Bargaining Chip	0-10% on $300 Billion	Yes	Threat of increase to 25% if no deal	Possible Pull-Foward; inventories build higher
	25% on $300 Billion	Yes	No	No pull-forward; drawdown of existing inventories and decrease in new orders in hopes of trade agreement in future

FreightWaves Contacts

Kevin Hill, Market Expert, Freight Intel
(646) 731-4735, khill@freightwaves.com

Seth Holm, Senior Research Analyst, Freight Intel
(404) 840-2064, sholm@freightwaves.com

Henry Byers, Market Expert, Maritime
(828) 429-5307, hbyers@freightwaves.com

Jesse Cohen, Market Expert, Air Freight
(224) 423-0052, jcohen@freightwaves.com

Mike O'Brien, Market Expert, Intermodal & Rail
(423) 667-2185, mobrien@freightwaves.com

Table of Contents

Table of Contents

List of Figures

List of Tables

Part 1 - The Impact of Tariffs on the Freight Markets

Table 1 – Top 15 U.S. trading partners

The Top 15 U.S. trade partners represent 78 percent of all 2018 U.S. imports. The top developing nation located in Asia is India with $54 billion of imports, which represents only 10 percent of China's market share. Table 2 includes the next 200-plus importers to the U.S. This group's total U.S. imports were $540 billion in 2018, which equals China almost to the dollar.

Top Trading Partners - 2018

Rank	Country	Exports	Imports	Total Trade	% of Total Trade
---	Total, All Countries	$1,664	$2,543	$4,207	100.00%
---	Total, Top 15 Countries	$1,184	$1,970	$3,154	75.00%
1	China	$120	$540	$660	15.70%
2	Canada	$299	$319	$617	14.70%
3	Mexico	$265	$347	$612	14.50%
4	Japan	$75	$143	$218	5.20%
5	Germany	$58	$126	$184	4.40%
6	Korea, South	$56	$74	$131	3.10%
7	United Kingdom	$66	$61	$127	3.00%
8	France	$36	$53	$89	2.10%
9	India	$33	$54	$88	2.10%
10	Italy	$23	$55	$78	1.90%
11	Taiwan	$30	$46	$76	1.80%
12	Netherlands	$49	$25	$74	1.80%
13	Brazil	$40	$31	$71	1.70%
14	Ireland	$11	$58	$68	1.60%
15	Switzerland	$22	$41	$63	1.50%

Data Source: US Census Bureau

*Data are goods only, on a Census Basis, in billions of dollars, unrevised.

Table 2 – U.S. trading partners below the Top 15

2018 US Import Trade Partners Below Top 15

Trade Stats Below Top 15	US Importers
16 to 50 (Thailand to Argentina)	$447
51 to 100 (Honduras to Lesotho)	$85
101 to 234 (Belarus to Gambia)	$8
Total Imports 16 to 234	**$540**

Data Source: US Census Bureau
*Data are goods only, on a Census Basis, in billions of dollars, unrevised.

Table 3 – Top 15 Year-Over-Year Change in Imports by Country YTD 2019 vs. YTD 2018

First quarter 2019 Chinese imports are down almost 14 percent compared to the same period in 2018. Canada and Malaysia are the only other two importers who are also down year-over-year, though only slightly at 3.5 percent and 2.2 percent. Five countries are up double digits, led by Vietnam, which has increased imports to the U.S. by 40 percent year-over-year.

Top 15 - Y/Y Change in Imports by Country - YTD 2019 vs 2018

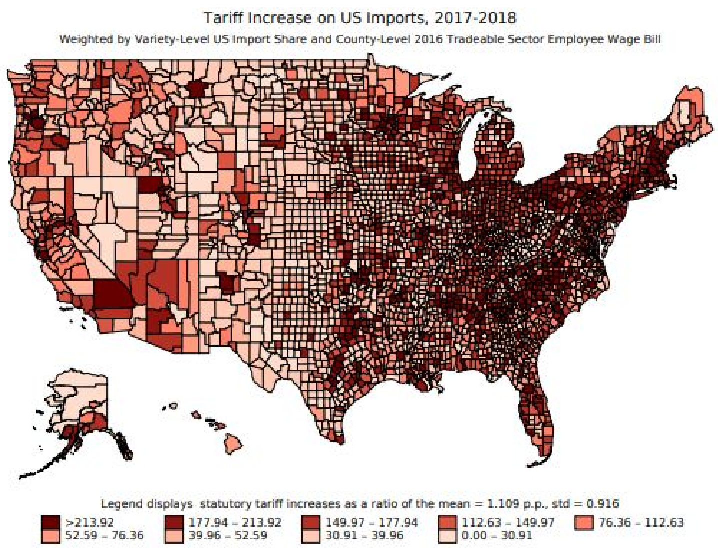
Country	2019	2018	Y/Y
China	$ 106	$ 123	-13.89%
Mexico	$ 87	$ 82	5.35%
Canada	$ 74	$ 77	-3.51%
Japan	$ 36	$ 35	2.86%
Germany	$ 31	$ 31	0.98%
Korea, South	$ 20	$ 17	18.45%
Vietnam	$ 16	$ 11	40.35%
United Kingdom	$ 15	$ 15	2.04%
India	$ 15	$ 13	15.75%
Ireland	$ 14	$ 14	1.42%
France	$ 14	$ 12	16.53%
Italy	$ 14	$ 13	7.09%
Taiwan	$ 13	$ 10	22.12%
Switzerland	$ 10	$ 10	9.47%
Malaysia	$ 9	$ 9	-2.15%

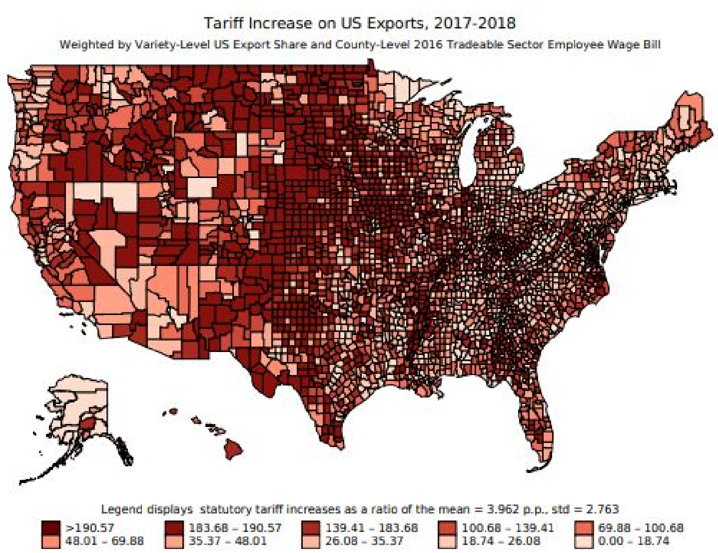
Data Source: US Census Bureau
*Data are goods only, on a Census Basis, in billions of dollars, unrevised.

Figure 2 – County-level negative impacts of 2018 tariffs

The top map indicates the most populous counties in the U.S. were impacted the most by the 10 percent tariffs enacted in 2018. The bottom map shows the counties impacted the most by China's retaliatory tariffs on roughly 50 percent of all U.S. exports to China.

The differences between the negative effects of the import and export tariffs follow closely to urban consumer importers and rural agricultural exporters. These divisions are also highly correlated with U.S. politics on a county by county basis.





*Data Source: *The Return to Protectionism*, NBER Working Paper No. 25638.

A brief history of the U.S.-China Trade War

Unofficially, the trade war can be traced back many years as President Trump has long lamented both publicly and politically that the U.S. has been unfairly taken advantage of in trade by China for decades. There is certainly some data to support this argument, with most agreeing that China plays by its own rules when it comes to trade.

The trade war officially started in July 2018 when the U.S. implemented 25 percent tariffs on imported steel and aluminum from China. On September 24, 2018, the U.S. passed the first $200 billion tranche of 10 percent tariffs on Chinese imports, which was followed by a 20 percent stock market correction for the S&P 500 in the fourth quarter of 2018. On December 31st, 2018, President Trump announced a 90-day extension to the previously planned year-end increase to 25 percent tariffs on the $200 billion in tariffs.

Following the announcement of the 90-day extension, trade tensions eased and stock markets recovered sharply. However, in early May, just as global markets began to price in a high likelihood of the U.S. and China being extremely close to inking a deal, the Chinese walked away from the proposal that was on the table. As a result, President Trump subsequently announced on May 5 that the tariff rate on $200 billion of Chinese imports would increase to 25 percent from 10 percent beginning on May 10.

In addition, President Trump also threatened to implement an additional 25 percent in tariffs on the remaining $300 billion in Chinese imports if the Chinese didn't come back to the table in short order to strike a deal.

To complicate matters, following the raising of tariffs on the first $200 billion as well as the verbal threat of placing tariffs on the other $300 billion, China retaliated on May 13th with its own $60 billion in tariffs on U.S. imports at 25 percent (effective on June 1st).

President Trump then responded the following day (May 14th) by announcing that the U.S. would be moving forward with the $300 billion in tariffs at 25 percent. This is where the tariff situation stands today.

Figure 3 – Timeline of the U.S. - China trade war

US - China Trade War Timeline

	US	China
7/6/2018	$34B	$34B
8/23/2018	$16B	$16B
9/17/2018	$200B @ 10%	$60B @ 10%
December 2018 - March 2019	US and China agree to start negotiation and temporarily pause new tariff	
5/10/2019	$200B @ 25%	
6/1/2019		$60B @ up to 25%
6/17/2019	$300B @ 25%*	

Public comment until 6/10/19 w/ public comment hearing on 6/17/19

Source: BBC.com

Corporate strategies to mitigate tariffs

The primary options available for companies to offset 25 percent tariffs include: negotiating cost reductions from vendors; lowering the quality/size of goods; diverting manufacturing to other markets; front-loading goods; delaying new orders; and passing through price increases to consumers.

Based on a recent survey by UBS and conversations with freight forwarders, FreightWaves believes the principal strategies for shippers will be front-loading product in the short-term and passing along price increases in both the short- and long-term. Shippers aren't going to take a hit to margins if they do not have to and the only immediate fixes are a combination of passing on price increases, front-loading and delaying new orders. All the other options take time.

Figure 4 – UBS Survey of Corporate Sentiment for Tariff Strategies

% of respondents	Been done/ in process	Being considered	Not being considered	Cannot say/ Don't know
Shifting supply chains	32%	47%	18%	3%
Substituting products	35%	39%	24%	2%
Moving production facilities	31%	41%	25%	3%
Frontloading imports	32%	40%	23%	4%
Frontloading exports	35%	38%	22%	4%
Raising prices to offset tariff costs	35%	42%	19%	4%

Source: UBS Evidence Lab

In regard to passing on price increases, Walmart announced on its latest earnings call that it would simply be passing on the increased tariffs to consumers in the form of higher prices. It is really as simple as that. Companies that can pass on price increases will do so in FreightWaves' view. And companies that make up enough of their suppliers' business to give them leverage in negotiations will likely ask their vendors to share the increased costs.

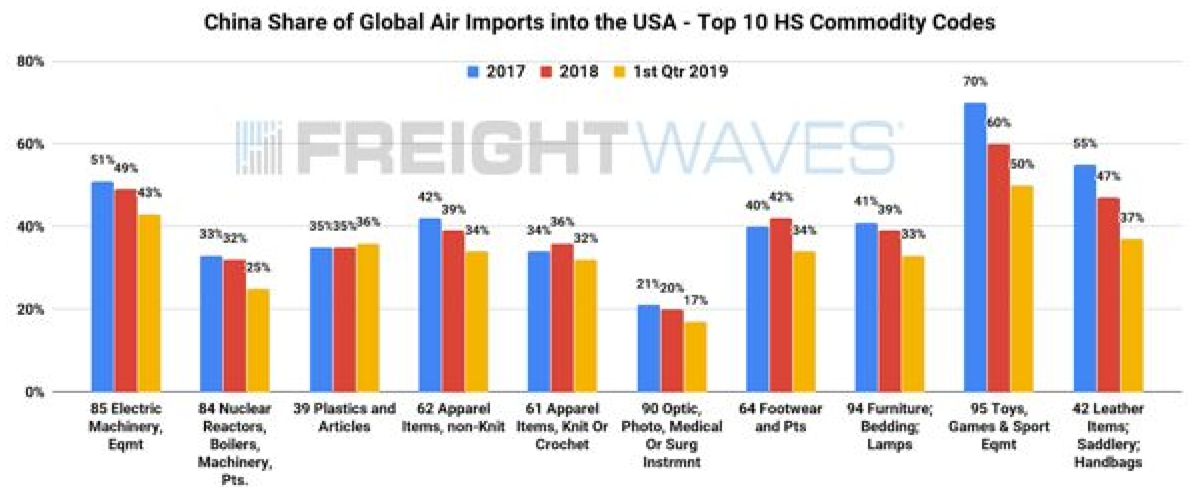
Shippers are always looking to reduce costs in their supply chain and are continuously exploring and testing these options as a normal course of business. But, once again, this is a complex and drawn-out process.

As far as reducing the size and quality of inputs, FreightWaves staff believes this is a last-ditch option because you risk alienating your customers if they are smart enough to catch on and they usually are.

Moving production facilities sounds great in theory and is the Trump Administration's preferred avenue. The core concept seems ideal – just take the business from China and give it to one of its Southeast Asian neighbors. It's a win-win; China loses while the U.S. and China's rivals win.

However, in reality, there are many complications in shifting production out of China. China is simply too big of a supplier to displace rapidly or entirely because excess and greenfield capacity in substitute markets simply does not exist in necessary quantities to offset. Neither does equivalent or adequate logistics infrastructure. Tables 1 to 3 earlier in this report highlight this quandary. Therefore, alternative sourcing is likely to be a very long-term phenomenon that slowly occurs over time.

Figure 5 – China share of Global Air Imports into the U.S.A – Top HS Commodity Codes



Data Source: U.S. Census Bureau, USA Trade Online database

Long-term alternative sourcing is not a new phenomenon and is already happening because China is no longer the low-cost producer in most industries. This is especially true with high-value goods that are normally shipped by air. Figure 4 highlights the slipping market share over the past two years when it comes to Chinese imports in electric machinery, footwear, apparel, toys and leather goods.

Will it be deja vu all over again for the freight markets?

Freight markets should expect to experience some form of deja vu with front-loading in 2019.

While the threat of 25 percent tariffs that caused the original front-loading event late in 2018 has now been realized, another list of tariffs has been set in motion that could be worth $300 billion. Many of the products on this new list that are facing 25 percent tariffs are consumer products that would normally have been imported by September for the holidays.

Figure 6 – Maritime rates from China to North American West – October 2018 vs October 2017

Data Source: SONAR

The amount of front-loading depends on a few variables – with some changing on a daily or even hourly basis. These include:

Timing of tariffs - 25 percent tariffs could make it through the policy and review process and be ready for implementation by late June. This does not mean the tariffs will be implemented. It is entirely up to the Executive Branch to give the green light at anytime, or not at all.

President Trump could continue using the threat of tariffs as a bargaining chip for trade negotiations. He could also choose to apply any tariff rate up to 25 percent. This means he could start at 10 percent and then work his way up to 25 percent as he did with the original $200 billion tariff list.

If the full 25 percent is carried out in late June, then the possibility of front-loading disappears almost entirely. In fact, the opposite reaction would most likely occur. Shippers would delay new orders until inventories reach rock-bottom levels. This strategy gives shippers the flexibility to wait out the negotiations and avoid paying duties until a settlement is reached or it becomes absolutely necessary to ship the goods.

Inventory Levels – Assuming President Trump uses the new 25 percent tariffs as a bargaining chip, then companies will have the time and motive to front-load as much inventory as they can before the threat of tariffs turns into reality again.

This option depends on how much inventory can be absorbed on the West Coast as well as other ports throughout the U.S. Inventory levels on the West Coast are still elevated from the front-loading that occured in 2018. While some inventory has been worked down over the past 60 days, it is still unclear how much appetite importers have for carrying excess inventory going forward.

For those importers that were not affected by the $200 billion list, but are at risk with 25 percent tariffs on the remaining $300 billion, it is imperative to make the decision to either front-load product (and in turn build up inventories) or to delay and wait it out.

Holiday Orders – A rule of thumb for lead times on landed goods from China is 90 to 120 days. This is especially true for holiday orders, which must be shipped by September to reach store shelves by November. These orders are only now being placed with Chinese vendors. By the time the orders are ready to ship in August and September, the tariff landscape might be much better or much worse for importers.

This uncertainty will feed into decisions. For those shippers that are already dealing with 25 percent tariffs, then it is likely they will order less holiday merchandise as sales forecasts will almost certainly be lowered due to passing along increased costs.

For those facing the uncertainty of 25 percent tariffs, most will likely wait until at least the last week of June when the new tariffs have made it through the approval process. Once approved, shippers will then have a better understanding whether tariffs are imminent or if they will be used as a bargaining chip.

If tariffs are imminent, then orders will be adjusted based on new sales and profitability forecasts. If tariffs are used as a bargaining chip, shippers will need to analyze the risk of what the tariff environment will be in 60 to 90 days when their orders are ready to ship.

Given these variables, freight markets will only see front-loading from China if President Trump uses the next round of 25 percent tariffs as a bargaining chip. If this scenario plays out, then conditions will be similar to the announcement of 10 percent tariffs in September 2018. Shippers will need to move inventory to the U.S. before trade talks deteriorate further and the threat of 25 percent tariffs on all Chinese goods become a reality.

Of course, if President Trump enacts 25 percent tariffs as soon as late June, then there will be no incentive to front-load any goods. In fact, it is more likely that shippers will delay new orders hoping that a trade agreement gets worked out before their inventories hit rock-bottom.

In the sections that follow FreightWaves bases its analysis of how tariffs will affect the freight markets if President Trump uses the tariffs as a bargaining chip much like what happened in 2018. If tariffs are enacted in late June or early July, then the effects to the freight markets should be in line with the overall effects it has on the general economy.

The last boat out of China – a rush for space on ocean vessels

The import volumes in Figure 7 below show how much of an outlier 2018 was for Chinese imports compared to the previous 10 years. The difference with the first peak in October is normal seasonality. The second peak consists of almost entirely pull-forward demand from the original 25 percent tariff deadline of January 1, 2019.

Figure 7 – Annual China maritime imports in TEUs 2008 to 2018

Data Source: Panjiva

This same process may unfold again if ocean shippers have the time to order, produce and move goods before any new tariffs are enacted. Even for those with goods ready to ship, the timeline between securing space, pushing off from port and landing in the U.S. is a long process.

As Henry Byers, FreightWaves' Market Expert for Maritime Shipping, stated:

"It is important to remember that in order for U.S. shippers to move goods early, it requires a great deal of effort from all parties involved (suppliers/warehouses/logistics providers). This typically takes 10 to 15 days minimum. When this reaction time is added to ocean transit of 14 to 16 days, it creates an initial lag of over 30 days for the first wave of ocean vessels to hit the West Coast.

The first wave of tariff-driven containers, which includes 206 vessels which were on the water on May 10th, should have unloaded between May 27th and 31st.

Based on this, FreightWaves believes June 1, 2019 will mark the beginning of an upward trend in rates from China to the West Coast that will likely shorten the traditional peak season this year. Below are our rate predictions in the spot market for a 40' container from China to the U.S. West Coast through the remainder of the year."

Figure 8 – 2019 forecast for maritime rates – China to North American West Coast

Data Source: SONAR

Warehousing space and the intermodal option

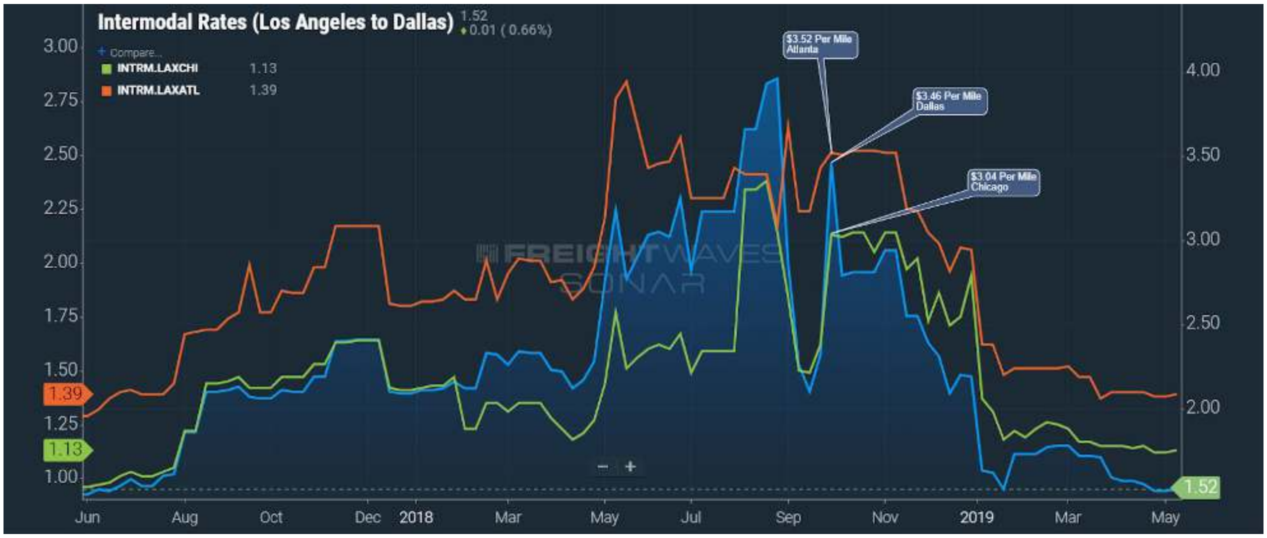
Intermodal likely missed most of the disruption of the pull-forward demand in the fourth quarter of 2018. This is mostly because the vast majority of front-loaded products from China were surpluses that were not needed in the interior of the country for holiday sales.

These excess inventories were parked in warehouses near the ports. As several freight forwarders have told FreightWaves (along with news reports from the *Wall Street Journal* and *American Shipper*), inventories in the first quarter of 2019 were nearing the limits of full capacity. Over the past 60 days or so, these inventories have been slowly worked down and shipped out to regional distribution centers and store shelves.

If another round of front-loading becomes a reality, the West Coast should hit a ceiling on warehousing space sooner rather than later. If this were to happen, an alternative would be to move products to the interior of the country by rail, where warehousing is available closer to the freight's final destinations.

Figure 8 below shows door-to-door intermodal rates from Los Angeles to Dallas, Chicago and Atlanta as an example. The highlighted peaks are per mile rates from the pull-forward demand seen in 2018.

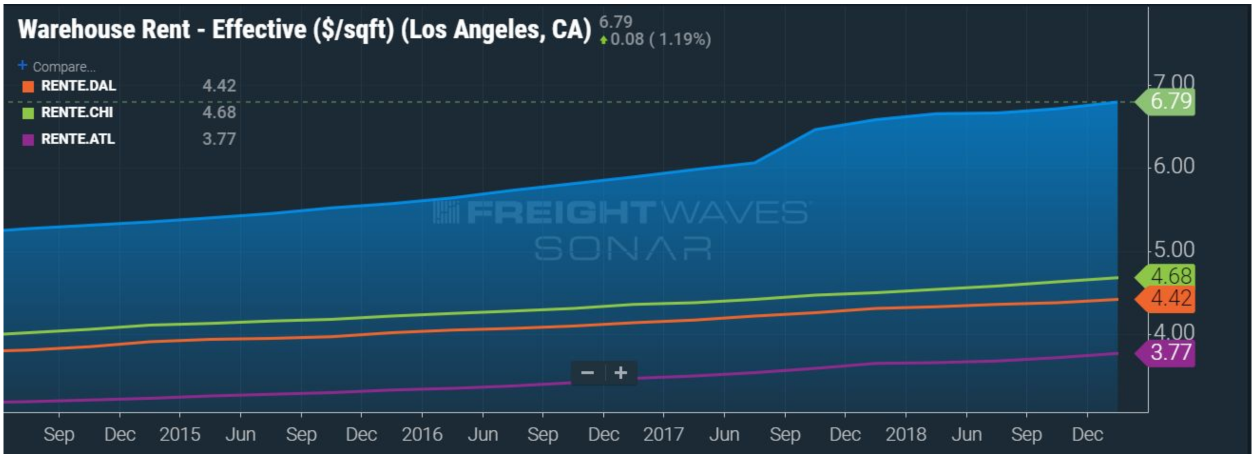
Figure 9 – Intermodal rates for Los Angeles to Dallas, Chicago and Atlanta



Data Source: SONAR

If you add intermodal rates to warehousing rates (Figure 10) for the same destinations, then each individual shipper can evaluate this cost structure compared to the alternative of sticking near the ports.

Figure 10 - Effective warehouse rates in Los Angeles, Dallas and Atlanta



Data Source: SONAR

Last-minute air freight options

The next round of 25 percent tariffs on $300 billion of Chinese imports would hit consumers much harder than the previous rounds. This list covers everything from tennis shoes (Nike and Adidas Letter to the President Trump) to laptops, tablets, cell phones, etc.

Table 4 – Top air freight imports from China to the U.S.

Top 3 Imports by Air from China to USA

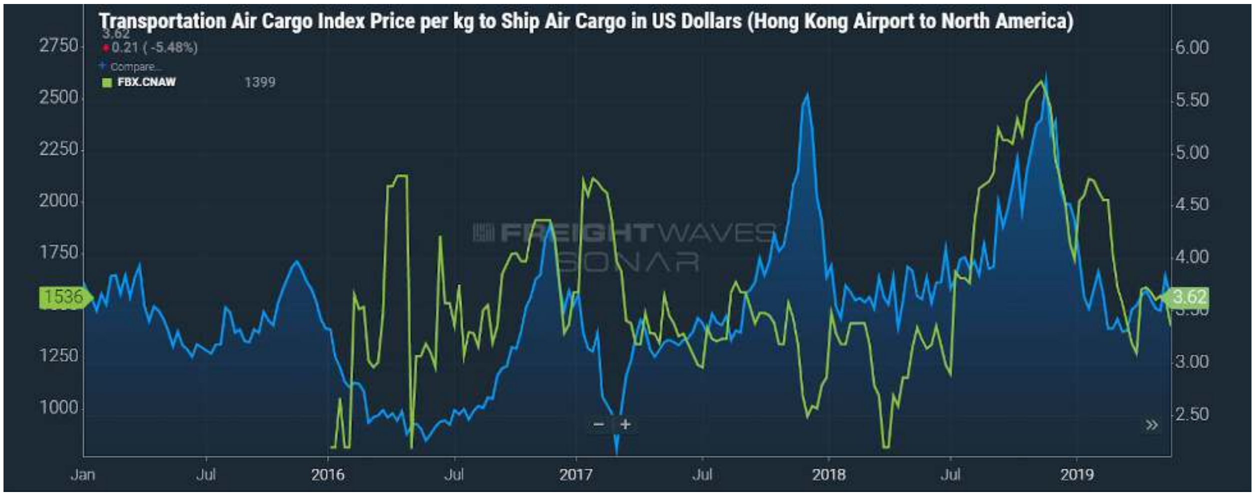
	2018 kilos	1Q2019 kilos
Laptops and Tablets	111,372,980	21,096,688
Mobile Phones	69,714,328	13,352,924
Routers, Modems, Telecommunications Equipment	76,167,528	10,058,808

Data Source: U.S. Census Bureau, USA Trade Online database

High-value consumer electronics are routinely moved by air. Imports by air should accelerate through the end of May and until at least the latter half of June when the next round of proposed tariffs are finalized and ready for implementation.

If President Trump uses the new tariffs as a bargaining chip, then expect air freight rates and volumes to soften for a short period before ramping up again within 30 days of any deadline(s) when ocean transport is no longer viable. This 30-day window could expand if ocean vessel space is limited and at a premium. This will in turn drive up freight rates even sooner as shippers who normally ship via ocean begin competing for air cargo space.

Figure 11 - China to U.S. air cargo rates compared to Freightos Baltic Index China to American West (2015 to present)



Data Source: SONAR

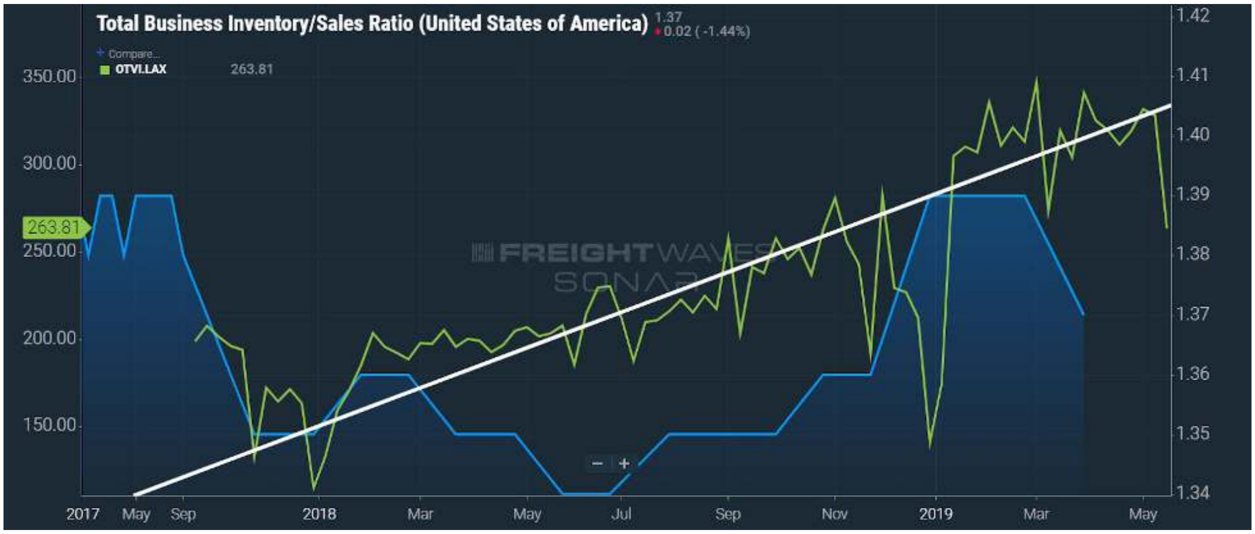
This rush of activity of front-loading will pull forward the normal seasonal air freight patterns in 2019. As you can see above, air freight rates (in blue) normally peak later than maritime shipments (in green) in the fourth quarter as last-minute shipments of holiday goods are flown in for the holiday season.

No cure for the excess capacity in the trucking market

Trucking should see a short-term burst of volume that will inject excess demand into the system. This will help marginally with the excess truck capacity that has flooded the market over the past 12 months.

Over the past 60 days, inventories have been slowly emptying out of warehouses on the West Coast. This can be seen below (Figure 12) with the plateau and drop in the business inventory to sales ratio as of March 2019. When compared to outbound tender volumes from the Southern California market, outbound volumes increased 38 percent since the announcement of 10 percent tariffs on the $200 billion list. That is true until the recent drop in outbound volumes, which coincided with the most recent tariff announcements.

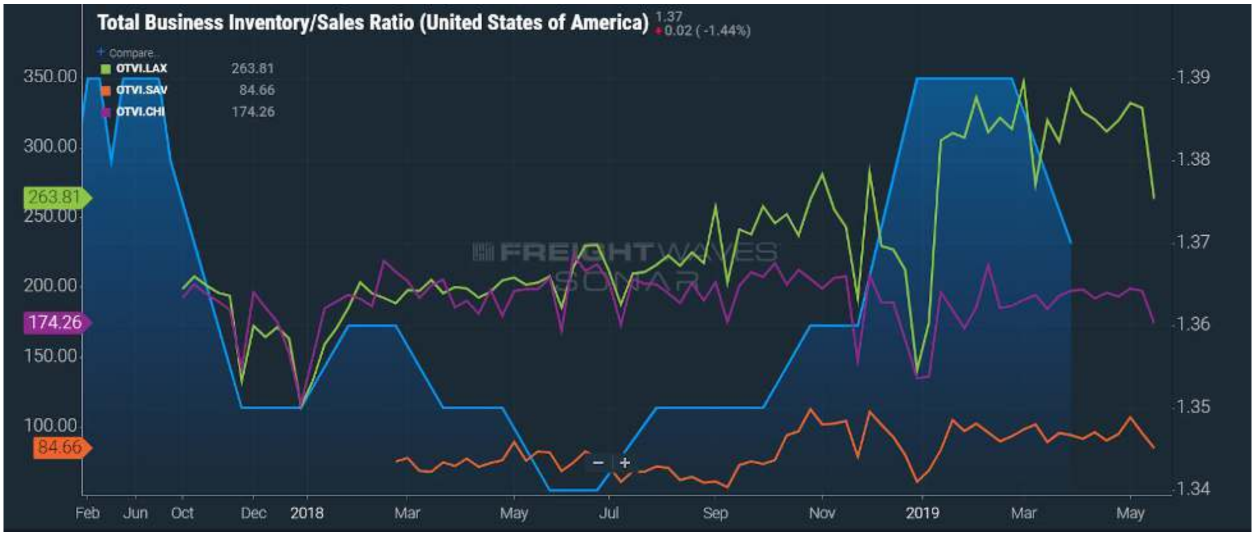
Figure 12 - Total Business Inventory/Sales Ratio compared to Outbound Tender Volumes in the Los Angeles, California market



Data Source: SONAR

Comparing outbound tender volumes in the Los Angeles market with Savannah and Chicago shows the relative strength of activity in Southern California compared to the rest of the country. These volumes have kept the trucking market from drowning in excess truck capacity for the past six months.

Figure 13 – Total business inventory/sales compared to outbound volumes for Los Angeles, Savannah and Chicago



Data Source: SONAR

Any front-loading that does occur should help marginally with this excess trucking capacity on the market. However, it is likely to be short-term in nature, ending via a trade deal with China or a deadline passing and 25 percent tariffs enforced on all Chinese imports in the coming months.

Alternative scenario – 25 percent tariffs become a reality in late June

If President Trump enforces tariffs as early as late June when the policy review and approval process is finished, then there will be no front-loading.

The opposite of front-loading will be the most likely scenario as U.S. shippers will be incentivized to delay orders. Existing inventories will be worked down to rock-bottom levels before orders for new products are placed. During this time, shippers will examine their options and how best to pass along tariff costs to customers.

Concurrently, shippers will explore moving production to other Asian countries. This will create bidding wars as shippers compete for limited production facilities and skilled labor overseas.

What this ultimately means for the freight markets is lower import volumes in the short- and medium-term. This will hit all modes of freight (ocean, rail, trucking and air freight) very hard.

While trucking will see lower volumes, moving current inventories out of warehouses to distribution and retailers will likely put a floor on the drop.

Freight Summary

What's next for the freight markets once front-loading is finished and/or 25 percent tariffs are implemented?

Either scenario creates considerable headwinds and is bearish for the freight markets as strategies for both involve delaying future orders for new product.

One of the most significant of these headwinds is peak seasonal patterns will most likely shift forward by 60 days in 2019. This will happen if shippers pull-forward demand to avoid tariffs, creating another build up of inventories that will need to be worked down and sold through before new orders are again placed to replenish stock.

On the flip side, an immediate implementation of tariffs in late June would create an incentive for shippers to delay any new orders until inventories are well below normal. Even if shippers source new suppliers outside of China, they will be cautious with quality and costs during the first few cycles of ordering.

Freight markets can adjust to these scenarios in the short-term, but if tariffs stay in place over the long-term, then difficult structural shifts in the freight markets will be in order.

Part 2 - Economic and Financial Implications of the U.S.-China Trade War

Will anyone win in a trade war?

No one will win but it's likely to hit China far worse than it hits the U.S. for various reasons. When FreightWaves states "no one will win," it means that the trade war is likely to be a drag on economic growth for both China and the U.S. FreightWaves staff are hesitant to throw out any concrete figures as far as explicit impacts to U.S., China or global GDP because they are nearly impossible to forecast and negotiations are fluid and changing on a daily basis.

Why does FreightWaves staff think China is likely to be hit harder?

First, as previously mentioned, just in terms of revenue/GDP at risk, China has more to lose given $540 billion of exports to the U.S. compared to U.S. exports to China of just $120 billion.

In addition to greater absolute dollar exposure, China's economy has been weak for several quarters, giving it less negotiating power relative to the U.S., where economic growth has been strong, unemployment is at a 50-year low and stock markets are at or near all-time highs.

For example, China's economy grew 6.6 percent in 2018, its lowest growth rate in almost 30 years. While this may sound like a high growth rate (it is on a relative basis), it represents an ongoing deceleration for China. Debt levels have also been growing at a far faster pace than Chinese GDP for many years now, risking a future credit crisis. And there are always valid questions surrounding China's reported economic statistics, meaning GDP growth could be substantially lower than officially published figures.

That being said, China does have the upper hand in a few respects. China has a distinct advantage from a political perspective of being able to play the long game and not having to respond to the whims and opinions of its citizens. It also controls the media and therefore can directly influence public opinion in a filtered manner.

China's biggest risk is the permanent loss of dedicated manufacturing for the U.S. The tariffs incentivize U.S. companies to move production out of China. Given China is already no longer the low-cost producer it once was (because other southeast Asian countries have much cheaper labor), this is even more true.

China does hold a so-called "nuclear option" in the form of its ~$1 trillion holdings of U.S. Treasury bonds. The option that has often been bantered about in the media is that China could potentially choose to stop buying U.S. Treasuries and/or reduce its existing ~$1 trillion in Treasury holdings, which would in theory lead to much higher interest rates in the U.S. and hurt the nation's economy. However, this option is likely to hurt China as much as the United States given that the higher movement in interest rates would significantly reduce the value of China's bond holdings and could devalue the U.S. dollar relative to the Yuan (making the U.S. more competitive).

Given the much smaller economic exposure from trade imbalances, the primary risks to the U.S. include the devastation of certain Midwest farming interests (e.g. soybeans) and, of course, the largest risk is that the trade war spills over into a full-fledged global economic slowdown and stock market crash.

Is the juice worth the squeeze?

Total U.S. equity market capitalization currently sits at more than $30 trillion. This compares to total U.S. tariff revenue of ~$50 billion in 2018, which was up 41 percent from ~$35 billion in 2017 before the trade war began. This means the U.S. has so far taken in $15 billion in incremental tariff revenue since the trade war with China began.

In exchange for this $15 billion in incremental tariff inflows, the U.S. is risking $1.5 trillion in market cap losses for every 5 percent correction in the stock market. So, in a 20 percent stock market crash as occurred in the fourth quarter of 2018, what would occur is an exchange of $6 trillion in stock market losses for just $15 billion in tariff inflows. FreightWaves acknowledges that there were other reasons that led to the sell-off, including a hawkish/aggressive Federal Reserve and slowing economic growth, but it was mainly attributable to the trade war in the view of FreightWaves' economists and market analysts. Even if it is assumed that the U.S. will soon take in the full ~$130 billion of total potential tariffs ($525 billion of Chinese imports at 25 percent), it still would not come close to making up for stock market losses. Furthermore, the U.S. is wiping out much of these incremental tariff inflows via direct subsidies to midwestern farmers.

This is clearly not rational and makes little economic sense, particularly when one factors in the additional inflation (and "price" of the tariffs) that is likely to be borne by the U.S. consumer. Given that the tariffs are nearly impossible to defend from a numbers standpoint, President Trump and his Cabinet would likely argue privately that the trade war is important for geopolitical and balance of power purposes (including the previously mentioned rampant IP theft), which are more intangible to measure but critical nonetheless.

Despite these clear negatives, the percentage impact to Chinese stocks has typically been two to three times worse than the negative impact to U.S. stocks historically speaking (there is about a year of data to go by). Therefore, if the U.S. is looking for a pyrrhic victory, then it may indeed hold an advantage. But even then, when measured on a dollar basis, the U.S. has far more to lose as total Chinese stock market capitalization is just a fraction of the U.S. at ~$8 trillion in U.S. dollars.

Is a trade war with China likely to be inflationary or deflationary?

FreightWaves staff believe the trade war will be inflationary in the short-term as the majority of tariffs are simply passed on to the U.S. consumer. In the medium- to longer-term, we would argue this is deflationary policy as it is likely to be a material drag on global economic growth via protectionists trade policies. Furthermore, if FreightWaves staff are right about the tariffs being inflationary in the short-term, they could cause the Federal Reserve to hike interest rates at a faster or more aggressive pace, which could serve as a further drag and negative catalyst for growth.

Will a trade war be a new normal even if a short-term deal is reached?

FreightWaves' analysts think the answer to this question is "yes." As long as Donald Trump is in office, that means the trade war is likely to drag on for another year at minimum, and potentially five more years if he is reelected.

And, setting aside President Trump, FreightWaves' analysts believe a Cold War of sorts between the U.S. and China may have already begun, where geopolitical relations are likely on the cusp of prolonged tensions. And by prolonged, the timeline is decades.

All that being said, with a 2020 re-election campaign soon to heat up, FreightWaves analysts believe there is scope for improvement in near-term relations as President Trump is likely to try to strike a mutually beneficial deal before the damage to the stock market and the economy become too great or irreversible. As evidence of this, note that he has developed a fairly well-conditioned response in which he is known to send out positive tweets and to ease the pressure whenever the Dow sells off significantly.

Tariff impacts on publicly traded companies and stocks

There are two big buckets of U.S. stocks and companies that will be hit by the Trade War: 1) companies that derive a material portion of their revenue from China; and 2) companies that source a material portion of their input costs/goods from China.

The second category of stocks is then subdivided again by: a) stocks that will be hit by the $200 billion in tariffs increasing from 10 percent to 25 percent; and b) stocks that could be hit if the additional $300-$325 billion in tariffs at 25 percent is enacted.

Looking at what has actually happened to the Dow Jones Industrial Average since President Trump announced a step-up in tariffs in early May, the Dow Jones Index (30 stocks) is down over 5 percent with four stocks down double-digits or more (Intel -13 percent, Apple -12 percent, Caterpillar -10 percent and Boeing -10 percent).

Companies that derive a material portion of their revenue from China

From historical observation, the hardest hit stocks as a result of the trade war have proven to be those that derive a high percentage of their revenue from China. This revenue risk could come in the form of either boycotts by Chinese consumers or tariffs making American products more expensive in the marketplace (or both).

Per FactSet and Marketwatch, two tables are included below showing which companies have the most revenue at risk in terms of both dollars and percent of sales from China. There is significant overlap across both lists but it is important to examine risk exposure from both angles.

The first table is a list of 20 U.S. companies with the highest *dollar* exposure in terms of revenue derived from China.

In terms of dollar sales derived from China, no one is even close to Apple's ~$45 billion, with the second-highest being Intel with ~$15 billion. However, China as a percentage of revenue for Apple is just 20 percent, which may seem high on the surface (and it is), but as can be seen in the following table, this figure pales in comparison to Skyworks in terms of percent of sales derived from China at 83 percent.

Table 5 – Top 20 U.S. companies with the highest revenue exposure to China (in U.S. dollars)

Company	Ticker	'China' sales ($mil)	Total revenue - most recent reported fiscal year ($mil)	Share of sales in 'China'
Apple Inc.	AAPL, -5.70%	$44,764	$228,572	19.6%
Intel Corp.	INTC, -2.99%	$14,796	$62,761	23.6%
Qualcomm Inc.	QCOM, -2.32%	$14,579	$22,291	65.4%
Boeing Co.	BA, -4.54%	$11,911	$93,392	12.8%
Micron Technology Inc.	MU, -4.39%	$10,388	$20,322	51.1%
Broadcom Ltd.	AVGO, -4.90%	$9,466	$17,636	53.7%
Cisco Systems Inc.	CSCO, -4.09%	$7,650	$48,005	15.9%
Texas Instruments Inc.	TXN, -4.16%	$6,600	$14,961	44.1%
Procter & Gamble Co.	PG, -0.34%	$5,205	$65,058	8.0%
Starbucks Corp.	SBUX, -2.90%	$4,512	$22,384	20.2%
Western Digital Corp.	WDC, -6.04%	$4,271	$19,093	22.4%
Nike Inc. Class B	NKE, -1.87%	$4,237	$34,254	12.4%
3M Co.	MMM, -1.27%	$3,255	$31,657	10.3%
Skyworks Solutions Inc.	SWKS, -6.30%	$3,018	$3,651	82.7%
Applied Materials Inc.	AMAT, -4.29%	$2,746	$14,537	18.9%
TE Connectivity Ltd.	TEL, -2.99%	$2,414	$13,113	18.4%
Corning Inc	GLW, -4.09%	$2,230	$10,115	22.0%
Abbott Laboratories	ABT, -1.66%	$2,146	$27,390	7.8%
Cummins Inc.	CMI, -4.32%	$2,137	$20,428	10.5%
Amphenol Corp. Class A	APH, -3.09%	$2,067	$7,011	29.5%

Source: FactSet

Data Source: FactSet

The second table contains a list of 20 U.S. companies with the highest *percentage* share of revenue from China. This list is littered with semiconductor companies as can be seen below.

Table 6 – Top 20 U.S. companies with the highest percentage share of revenue from China

Company	Ticker	'China' sales ($mil)	Total revenue - most recent reported fiscal year ($mil)	Share of sales to 'China'
Skyworks Solutions Inc.	SWKS, -6.30%	$3,018	$3,651	82.7%
Qualcomm Inc.	QCOM, -2.32%	$14,579	$22,291	65.4%
Qorvo Inc.	QRVO, -5.10%	$1,880	$3,033	62.0%
Broadcom Ltd.	AVGO, -4.90%	$9,466	$17,636	53.7%
Micron Technology Inc.	MU, -4.39%	$10,388	$20,322	51.1%
Texas Instruments Inc.	TXN, -4.16%	$6,600	$14,961	44.1%
IPG Photonics Corp.	IPGP, -6.39%	$621	$1,409	44.1%
Advanced Micro Devices Inc.	AMD, -5.97%	$1,747	$5,329	32.8%
Microchip Technology Inc.	MCHP, -6.58%	$1,090	$3,408	32.0%
Amphenol Corp. Class A	APH, -3.09%	$2,067	$7,011	29.5%
Xilinx Inc.	XLNX, -5.11%	$597	$2,349	25.4%
Intel Corp.	INTC, -2.99%	$14,796	$62,761	23.6%
Western Digital Corp.	WDC, -6.04%	$4,271	$19,093	22.4%
Corning Inc	GLW, -4.09%	$2,230	$10,115	22.0%
Starbucks Corp.	SBUX, -2.90%	$4,512	$22,384	20.2%
Agilent Technologies Inc.	A, -4.91%	$900	$4,472	20.1%
Avery Dennison Corp.	AVY, -2.23%	$1,300	$6,614	19.7%
Apple Inc.	AAPL, -5.70%	$44,764	$228,572	19.6%
Nvidia Corp.	NVDA, -5.27%	$1,896	$9,714	19.5%
Applied Materials	AMAT,	$2,746	$14,537	18.9%

Data Source: FactSet

There is a legitimate question around what is and what isn't true China revenue because a significant portion of semiconductor exposure is chips that are sold to China and then manufactured into finished products that are then exported/sold back. In any event, the trade war is a big negative for semiconductor companies if China imposes stiff tariffs on these chips and could be even worse if it causes a global economic slowdown.

Companies that source a material portion of their goods from China

When it comes to the impact of sourcing inputs from China, it is helpful to start by noting that there will be a Goods vs. Services company and stock dichotomy. Services companies have virtually no physical goods that they import from China (or anywhere else for that matter) and thus have very limited tariff exposure and will outperform in FreightWaves' view.

So, it will be Goods companies that will be hurt. And, in particular, Goods companies that import a high percentage of their input costs from China.

Finally, Goods companies are separated into those subject to the $200 billion tariff today and those that are potentially susceptible should the remaining $300-$325 billion of imports from China also be tariffed at the 25 percent rate. This is a critical distinction if you are looking at the stock market. FreightWaves analysts believe the first group will sell off hard immediately, while the latter group is likely to gradually price in the potential negative outcome as news unfolds and developments transpire.

One other very important thing to remember – tariffs can be walked back and cancelled just as fast as they are implemented. Therefore, even in the event of a full escalation to $525 billion at 25 percent (i.e. 100 percent of Chinese imports), which looks likely at this point: a) there will be a phase-in period; and b) if a deal ends up being struck in the future, everything can be completely eliminated or instantly reversed.

Stocks that will be hit by the $200 billion in tariffs increasing from 10 percent to 25 percent

When examining which companies are likely to be hit hardest from the U.S. raising tariffs on $200 billion of Chinese goods from 10 percent to 25 percent, while somewhat self-evident, he same/original list that was hit hardest on the first $200 billion at 10 percent will be immediately hit again but even harder this time around.

The primary categories included in this group are capital goods, agricultural and industrial in nature. These were the worst performing industries in the big stock market correction in the fourth quarter of 2018 and are likely to suffer a similar fate.

Stocks that could be hit if the additional $300-$325 billion in tariffs at 25 percent passes

The additional $300-$325 billion of Chinese imports would primarily hit consumer goods, retailers and technology companies that were mostly spared from the original $200 billion list but are featured prominently in the remaining imports from China. However, this is likely to take a significant amount of time to implement as it will need to progress through a period of public comment and be phased in over time.

What happened to the U.S. stock market after the first round of $200B tariffs?

The U.S. stock market (as measured by the SPDR S&P 500 ETF) hit an all-time high of ~$295 in mid-September before President Trump announced the first round of 10 percent tariffs on $200 billion in Chinese imports on September 17, 2018. The S&P 500 subsequently crashed by 21 percent peak to trough in the fourth quarter of 2018.

Figure 14 - S&P 500 Index 1-Year Chart

Data Source: FinViz.com

What happened to the Chinese stock market in the first round of $200 billion tariffs?

China's stock market had already been performing very poorly prior to the onset of the trade war because the Chinese economy was slowing dramatically as the aggressive government stimulus measures of 2015-2016 waned. But it can clearly be seen here how the market [as measured by the GXC (SPDR S&P China ETF)] took a big hit in September, recovered and has once again begun to sell off violently again in the wake of the latest tariff announcements.

Figure 15 - SPDR S&P China ETF 1-Year Chart

Data Source: FinViz.com

Caterpillar – a good example of a trade war exposed stock

Caterpillar's shares were a poster-child victim of the trade war heating up in the fourth quarter of 2018. While China represents just 5 percent of revenue for Caterpillar, its costs are heavily tied to China. Much of their input costs were hit by the imposition of the 10 percent tariffs, resulting in hundreds of millions of additional costs. On top of that, a trade war between China and the U.S. (the two biggest countries in the world by GDP) is also bad for revenues as well because it has the potential to severely weaken demand for global capital spending.

Figure 16 – Caterpillar 1-Year Chart

Data Source: SONAR

Apple – a final example of a trade war stock

Given its iconic American brand, Apple proved to be an easy target for Chinese consumers to boycott. Apple's smartphone market share in China peaked at just under 30 percent in late 2017/early 2018 but has fallen precipitously to 18 to 19 percent today. Apple's revenue from China (20 percent of total revenues) fell 22 percent in the first quarter of 2019! Just as demand for its products appeared to have bottomed and stabilized, the new tariff announcements risk reversing this trend once again.

Figure 17 – Apple 1-Year Chart

Data Source: SONAR

Recommended Reading

FreightWaves, May 21, 2019, Port Report: Trans-Pacific outlook worsens on U.S.-China trade tiff

FreightWaves, May 13, 2019, Port Report: U.S.-China tiff to keep shippers on edge through June

FreightWaves, May 22, 2019, Conditions for fleets are deteriorating and it will get bloody

FreightWaves, May 14, 2019, How an escalating trade war could play out for ocean shipping

The National Retail Federation Blog Post, May 10, 2019, Who pays for tariffs? American businesses and consumers

Flexport Blog, May 8, 2019, Ahead of Formal Notice, Flexport Found Tariff Hikes on Chinese Goods

Hellenic Shipping News, May 25, 2019, Chinese export growth may see short-term boost as trade war restarts

South China Morning Post, May 23, 2019, U.S.-China trade war tariffs wreak havoc on Christmas orders with Chinese manufacturers thrown into disarray

MIQ Logistics, May 10, 2019, Retail Imports Rising Ahead of Expected Higher Tariffs

The Wall Street Journal, February 17, 2019, Import Wave Jams California Warehouses

NBER Working Paper, The return to protectionism
Pablo Fajgelbaum, Pinelopi Goldberg, Patrick Kennedy, Amit Khandelwal

Business Insider, December 27, 2018, Fretful over incoming tariffs, retailers are ordering 'unprecedented volumes' to West Coast warehouses

American Shipper, December 18, 2018, Warning issued about West Coast port congestion

Pacific Merchant Shipping Association (PMSA), West Coast Trade Report, April 2019

Pacific Merchant Shipping Association (PMSA), West Coast Trade Report May 2019

Farmers for Free Trade Website