



Professional Construction Estimators Association Orlando, FL

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President's Letter

Welcome to PCEA Orlando and the first newsletter of my term as President. I want to thank you for your interest in PCEA and for allowing me to represent this chapter. Some amazing things happened last year under Christina Kanhai Presidency, and I wanted to do a quick recap for anyone new and for those that have not been able to make every meeting. We set a membership record for the Orlando Chapter, at 145 members. Second, we set a scholarship amount record and gave away \$17,000 through our three scholarship options, Randy Welch, Student Member, and Member Professional. With the help of those two items, we were able to win the Bill Helms PCEA Chapter of the Year award at the National Convention in May.

I have four main goals that the 2019-2020 Board of Directors will accomplish during my term as President - to give away more scholarship money, break last year's membership record, expand our contributions to the community, and defend our status as Chapter of the Year and recipients of the Bill Helms award this year. You can read more about these goals on the following page.

If you are not a member, and would like more information about becoming one, please reach out to me or any of the other Board Members listed in each newsletter.

Thank you,

Tim McLaughlin
PCEA Orlando, Chapter President



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**2019 - 2020
PCEA ORLANDO
CHAPTER GOALS**

DEFENDING CHAPTER OF THE YEAR

PCEA Orlando's 2019-2020 Board of Directors has four main goals:

1. Raise more money for scholarship programs.
2. Break last year's membership record.
3. Expand our community contribution efforts.
4. Win Chapter of the Year, AGAIN!

UPCOMING EVENTS:

Be sure to register on the PCEA Orlando website for the following events:

- STEAK ON THE LAKE:

September 26, 2019, 4:00 - 8:00 PM

Orange County Sportsman's Association
9020 Kilgore Road, Orlando, FL 32863

- PCEA MEMBERSHIP MEETING:

October 22, 2019, 5:30 PM - 7:30 PM

Speaker: Richard Forbes, AIA
Packing District Development

Sign up for Meetings and Events at:
www.pcea-orlando.org

The Effects of Escalating Tariffs on Construction

By Daniel Groves, CURT and CLMA; and Ralph Gentile, Ph.D., CLMA

The past year has witnessed escalating rounds of a trade war. In January 2018, the skirmishes began when the Trump Administration imposed duties on solar panels and washing machines, aimed primarily at China and South Korea. Subsequently, President Trump added \$ 34 billion in tariffs on steel and aluminum, targeting Mexico, Canada and the European Union. Another \$16 billion came soon after, and all targets responded in-kind.

Further rounds have been focused on the Peoples Republic of China. In September, the Trump Administration began taxing \$200 billion in Chinese goods with tariffs starting at 10 percent and expected to rise to 25 percent in 2019. This dispute has the potential to become a bruising trade war that could recast the international trading system.

When / if these conflicts come to an end, the United States, by some combination of its own choices and the disgruntlement of its trading partners, could potentially find itself estranged from the international trading system. Membership in the World Trade Organization (WTO) generally entitles countries to "most favored nation" trade status, meaning they enjoy the lowest tariffs imposed on any trade partner.

Any outcome in which the U.S. is partially estranged from the international trading system could have unfortunate effects. U.S. manufacturers would both buy and sell less abroad, U.S. consumers would pay higher prices for goods, and decreased levels of competition would slow the development of new products and the growth of new industries.

In the near term, the uncertainties surrounding an escalating trade war are likely to lead to a slowdown in investment because of the perception of increased risk. But the subsequent adjustment of supply chains and relocation of foreign facilities to produce basic and intermediate products domestically could, for a time, lead to higher industrial construction. On the other side, U.S. tariffs will raise the price of commodities, intermediate and final goods to American firms and households, and to the rest of the world, which will decrease total demand even if the U.S. share of that total increases.

For the construction stakeholder focused on the skilled trades, the most important question remains: "What does the U.S. shift toward protectionism mean for construction activity, particularly for industrial and heavy construction along the Gulf Coast?"

Construction consequences of tariffs

The Gulf Coast economy comprises a network of industries and subsectors that ship commodity, intermediate and final goods among themselves. These shipments are both domestic and cross-border, dictated by supply chain networks. For example, Texas imports insulated wiring sets for vehicles, ships and aircraft, and exports compression ignition and combustion systems, along with parts and accessories for motor vehicles.

These complicated flows are typically built on personal relationships, small cost advantages or any one company's willingness to produce specialized products for another. A group of metal fabrication firms may rely on each other's output to create a finished good, but the mutual dependence also means changing course is difficult and costly.

This analysis considers three types of impacts from imposing tariffs:

1. Input Cost Effects: Domestic tariffs imposed on imported goods will lift their prices, raising their costs to American households and businesses, and encouraging substitution away from those goods. Note: Higher input prices may force some companies to close their doors, reducing any demand for construction activity.
2. Supply Chain Effects: The imposition of the tariffs may force companies to revamp their supply chains, finding domestic suppliers, and reducing or eliminating cross border trade. The need for new production facilities in (domestic) locations may stimulate construction activity.
3. Overall Market Demand: The ultimate effect an market demand depends on whether the U.S. is a net exporter of the industry's final goods. The imposition of retaliatory tariffs will raise prices of a nation's exports, reducing the growth in foreign demand even as domestic tariffs on foreign goods lift the prices of U.S. goods.

Key Gulf Coast industries

Key Gulf Coast industries include building transportation equipment, fabricating metal products, synthesizing chemical products and supplying liquefied natural gas to international and domestic markets. Others refine crude petroleum, generate electric power and transport crude and refined petroleum.

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Transportation equipment

The Gulf Coast states have significant facilities devoted to fabricating transportation equipment, including automobiles, ships and airplanes. The largest segment of transportation is the automobile industry. Supply chains for automobiles are significantly cross-border. The cross-border patterns established during the maquiladora program have created a network of extensive trade flows between North American nations, suggesting that modifications to supply chains will be needed since higher tariffs will encourage companies to relocate facilities to the U.S. (higher construction). At the same time, the large amount of steel in automobiles suggests higher input costs, raising both U.S. and international prices.

Finally, the negative trade balance in auto indicates that the combination of domestic and foreign tariffs would lift overall demand for U.S. vehicles, lifting the need for domestic capacity. The effects of retaliatory tariffs on U.S. automobile exports would raise international prices and reduce U.S. sales abroad (lower construction). On net however, the construction effects are likely to be positive.

Metal fabrication

The metal fabrication sector includes nine industries ranging from forging and stamping through architectural and structural metals manufacturing to machine shops, turned products, and screw, nut and bolt fabrication. Its employees comprise primarily machinists and welders. The increases in production costs due to U.S. tariffs on imported steel lift prices all along the supply chain, reducing demand and suggesting that some small metal working shops could become unviable. Higher U.S. prices for fabricated metal products due to retaliatory tariffs also suggests a loss of international competitiveness, reducing demand for U.S. products. On the other hand, given the many metal fabricators already located in the U.S., there will likely be little construction activity due to relocation to the U.S. So, in the end, the net effects on construction are probably negative.

Commodity chemicals

The chemical industry includes five subsectors: basic chemicals; specialty chemicals, like adhesives, sealants and additive; agricultural chemicals, including fertilizers; pharmaceuticals; and consumer products like soaps. The U.S. has a negative trade balance in pharmaceuticals, but more favorable balances among the other sectors. Gulf Coast firms are champion producers of commodity chemicals, benefitting from low feedstock costs for natural gas. Large oil and gas companies have been adding chemical plants along the Texas-Louisiana Gulf Coast and have plans to add more. The chemical industry's input cost vulnerabilities are small since most raw natural gas and crude oil production for the chemical industry is domestic. Further, since processing occurs domestically, there would be no need to revamp supply chains by relocating facilities from abroad.

However, the situation is different with respect to international markets. American industry exports commodity chemicals to much of the rest of the world, and margins for commodity products are typically slim. Industry sales abroad will be sensitive to the higher prices resulting from foreign tariffs on American goods. In the end, demand for U.S. chemical exports would likely be reduced, lessening demand (and construction) for U.S. commodity chemicals.

Liquefied natural gas

The boom in U.S. natural gas production has put downward pressure on natural gas prices, providing opportunities for LNG exports from the United States. Export terminals are technically part of the chemical industry, since they process natural gas, transforming it into liquids for transport to U.S. cities or overseas. Since natural gas is domestically produced and in plentiful supply, neither U.S. nor foreign tariffs are likely to substantially influence domestic supply chain costs.

Of more concern is that retaliatory tariffs could lift the

price of U.S. liquefied natural gas to foreign buyers, giving commercial advantages to producers in other countries. The United States is just one source of very significant new supplies. With the effects on both input costs and supply chains as negligible, the negative effects of retaliatory tariffs would predominate.

Refined petroleum products

While the trade in petroleum is international, there is little trade in intermediate petroleum products so the opportunities to relocate foreign facilities to the U.S. are limited. While the U.S. imports millions of barrels of crude oil per day, the imposition of tariffs on those quantities seems unlikely for multiple reasons. The effects of high foreign tariffs on U.S. refined petroleum exports are another story. Refining margins for petroleum products are slight. Foreign tariffs on U.S. production could eliminate the U.S. pricing advantage, shifting demand to foreign producers.

Electric power stations

Electric power generation and consumption is primarily domestic; international flows are confined to New England (with Canada), the Pacific Northwest (with Canada) and Southern California (with Mexico). There is essentially no significant foreign participation in the electricity generation supply chain. The exception is solar generation, where President Trump placed tariffs on foreign photovoltaic panels in early January 2018, which has raised U.S. prices for photovoltaic panels. However, these effects are likely modest. In other words, domestic and retaliatory tariffs will likely have little effect on input prices, supply chains or export volumes.

Oil and natural gas transmission

The oil and gas transmission industry would be affected by rising tariffs in ways quite similar to the refining

industry. There is little in the way of intermediate oil and natural gas products produced outside the country, so there would be little need to relocate facilities. Foreign tariffs on U.S. oil and gas would, however, reduce the international competitiveness of U.S. energy industries, slowing demand growth.

Final comments

A summary of the expected effects of domestic and retaliatory tariffs on construction for selected Gulf Coast industries suggests the overall effects of increased protectionism will be negative. For transportation products, the combination of higher input costs, high foreign participation in the supply chain, and higher output prices leads to positive results for industrial construction, primarily because the current trade balance is unfavorable. Where the U.S. has competitive advantage, however, or where U.S. industries are insulated from foreign forces, the results are different.

In the case of metal fabrication companies, the U.S. has many firms that produce significant intermediate goods for domestic markets, so higher input prices plus tariff enhanced prices for final goods would hurt demand for their products and services. For commodity chemicals, liquefied natural gas, refined petroleum products, and pipelines, the construction impacts are negative because retaliatory tariffs would raise the prices of U.S. products abroad, reducing the competitiveness of U.S. products and slowing demand growth, where the U.S. already enjoys some competitive advantages. Finally, the electricity generation industry is insulated from direct impacts since its inputs, supply chains, and output markets are primarily domestic.

This article stems from a longer, more in-depth version. Email dgroves@curt.org to receive the most current version.

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