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Implications of the Tax Cuts & Jobs Act for Industrial Construction

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Table of Contents

Summary

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Several decades have passed since the U.S tax code was revised, despite a long-held belief among federal legislators, business executives, financial analysts, and tax payers that tax reform was overdue. The last major change to the tax code was *The Tax Reform Act of 1986*, passed by the ninety-ninth Congress during the Ronald Reagan presidency. That act was revenue neutral, cutting individual rates by shifting burdens to corporations. More recently, changes to the tax code have led to large federal budget deficits, which in turn have required painful efforts to restore a semblance of balance between federal revenues and expenditures.

In contrast to the mostly piecemeal changes of the recent past, the U.S. Congress engaged in a strenuous effort at substantive reform the U.S. tax code during calendar year 2017. Passage of *The Tax Cuts and Jobs Act* on December 15, 2017 along with its subsequent enrollment on December 22, 2017 represents a very serious effort to reduce the marginal rates at which individuals and households are assessed as well as embodying an historic, multipronged attempt to encourage business investment in American industry. It is supportive of economic growth with provisions designed to ensure its benefits remain primarily domestic. The Tax Cuts and Jobs Act addresses many long-standing provisions in the tax code believed to be unwise and inequitable. Overall the new legislation is a very credible effort, though it raises questions and concerns that need to be addressed.

The first focus of discussion is the magnitude of what the tax act will add to U.S. sovereign debt. This concern stems from budgetary shortfalls built into the new law. According to estimates by the Congressional Budget Office and the staff of the Joint Committee on Taxation, the new legislation reduces federal revenues by $1.65 trillion over the decade 2018 through 2027. The decrease in revenues comes at a time when the U.S budget is already expected to suffer large deficits. Further, the CBO forecasts federal indebtedness will continue to rise, projecting that it will eventually exceed 100% of the United States GDP.

The second subject of concern is whether the legislated changes to the tax laws will lead to increased investment. Key reforms include sharply reducing business tax rates and allowing accelerated cost recovery. However, not all the new legislation's provisions aim at lifting investment. Some provisions to *the Tax Cuts and Jobs Act* increase restrictions on certain business deductions and exclusions. Others restrict executive pay. Still others cut tax preferences that help health and casualty insurance companies and reduce tax benefits for renewable energy firms.

The third topic that needs to be discussed is the timing of the new incentives for investment. Is there currently a shortfall in either business investment in general or industrial investment in particular? Is U.S. capital spending on industrial construction already too high? This worry stems from observing that additions to industrial capacity have been rapid in recent years, leading to a surplus for many basic industrial products. If oversupply is already a problem, then encouraging additional investment could come at the wrong time, leading to additional malinvestment and overcapacity, which in turn would lead to even lower product prices.

Though these risks may be manageable given an accelerating world economy and a rosy outlook of rising demand for industrial commodities and basic products, they still need to be investigated. Our tentative conclusions are…

- The *Tax Cuts and Jobs Act* does not add enough additional debt to the federal government to, on its own, represent a serious threat to prosperity.
- Changes to the tax code are likely catalysts for investment in that the *Tax Cuts and Jobs Act* provides multiple, reinforcing incentives for investment, i.e. most investment is likely to occur as a result
- The risk of overbuilding industrial infrastructure is present, but so far, investment decisions vis-à-vis many very large industrial projects appear to be on-hold, waiting for stronger demand growth and higher product prices. However, increased incentives to invest in plant and equipment could alter companies' decisions leading them to choose to risk investing too early rather than being too late to market.

The final point is the most difficult and uncertain, yet the most salient: "What will large industrial companies decide in light of changes to the tax code?"

Contributions to the Federal Debt

The magnitude of federal government debt is substantial. The Congressional Budget Office, which is responsible for analyzing the consequences of proposed and enacted legislation, also issues a ten-year prospective of federal revenues, federal expenditures, and federal debt. According to its last biennial report, *An Update to the Budget and Economic Outlook 2017 to 2027*, the CBO expects federal debt to increase from $14.2 trillion to $25.5 trillion over ten years, rising from 76.7% of real Gross Domestic Product in 2017 to 91.2% in 2027. The CBO noted that the increases in federal debt would be driven by a combination of slow labor force growth, lagging productivity, and rising federal payments for social programs[1].

The consequences of increased federal debt levels are serious. The CBO believes its increase will lower total savings, reduce capital stock, and raise interest rates. In addition, CBO sees a greater likelihood of fiscal crises[2]. It is in the context of federal debt growth that revisions to the U.S. tax code stemming from *The Tax Cuts and Jobs Act* should be viewed.

As the office responsible for putting a price tag on legislation and forecasting federal deficits, the CBO has estimated the long-run effects of the final-version tax code rewrite on revenues and expenditures. Its methodology for those estimates is a conservative "static analysis", which in this context means individuals and corporations are expected to respond no differently than in the past. According to its mid-December 2017 analysis, the Congressional Budget Office projects that the *Tax Cuts and Jobs Act* will reduce revenues by $1.65 trillion during the decade 2018 through 2027 and decrease outlays by $194 billion, lifting the combined deficits by $1.46 trillion on net. That estimate brings total federal debt at the close of 2027 to a total $27.0 trillion, 6% higher than federal debt would have been without the

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[1] During the decade 2017 through 2027, real U.S. GDP rises 46% from $19.12 trillion to $27.99 trillion, while Social Security increases 78%, Medicare increases 98%, while Medicaid and related programs increase 70%.

[2] Please see .2017. An Update to the Budget and Economic Outlook: 2017 To 2027, Congressional Budget Office, Congress of the United States. pp. 6-7.

changes to the tax code. Whether 6% is "just another drop in the bucket" or "the straw that breaks the camel's back" depends upon one's own judgment and risk tolerance. However, conventional wisdom considers a sovereign debt ratio – the ratio of government debt to GDP – in the dangerous range when it nears 100%, and 120% is deemed unsustainable. Such debt-to-GDP ratio situations can quickly go from bad to desperate causing financial crisis which reduces foreign lending – the inflows of capital – previously sustaining on-going payments deficits.

But the CBO is not the only credible organization that projects the fiscal consequences of federal legislation. Another is the Tax Foundation, whose analysis is "dynamic", incorporating shifts over time in how households work and how firms invest. Their findings are more positive.

> Our model results indicate the plan would be pro-growth, boosting long-run GDP 1.7% and increasing the domestic capital stock by 4.8%. [Real] Wages, long-stagnant, would increase 1.5%, while the reforms would produce 339,000 jobs. These economic effects would have substantial impacts on revenues as well, indicated by the plans significantly lower revenue losses under dynamic scoring[3].

How does the Tax Cut and Jobs Act deliver these improved results? The reduction in tax rates for individuals and households provided under the Act increases domestic incomes, lifting demand for goods and services, and giving an initial impetus to real GDP. Increased demand in turn improves prices for products and services, giving domestic companies reason to invest in additional capacity. These incentives to invest are further reinforced by the reduction in corporate tax rates from a maximum of 35% to a maximum of 20%, which by lifting the bottom-line profitability of companies, making it easier for them to raise the capital needed to finance their expansions.

It is the reinforcing effects that can change the behavior of "economic agents", leading them to view their opportunities in a more optimistic light. This "dynamic scoring" allows for changed behaviors which presumably leads to optimism and takes these potential changes in behavior seriously, thereby assuming an increased responsiveness to economic incentives. The result is a virtuous cycle *par excellence* in which the U.S. economy "outperforms" expectations. In the Tax Foundation's Analysis[4], this improved performance is almost large enough to eliminate the cumulative deficits created by the *Tax Cuts and Jobs Act's* cuts to individual and corporate rates.

Tax Act Provisions Encouraging Domestic Investment

Of the Act's five major sections, Title III, Business Tax Reform, includes nine subtitles that detail changes to U.S. tax law designed to lift and focus investment spending by business enterprises. Along with these incentives are provisions that remove tax preferences that appear outsized or unnecessary. The various subtitles are listed below, followed by commentary.

The first three subtitles of Title III focus on incentives for increased capital spending. Reducing corporate taxes increases the profitability of the individual firm, lifting useable cash and raising valuations. Higher valuations in turn make it easier to raise money externally, meaning via equity offerings or borrowing. Higher profitability also changes breakeven rates of return, reducing hurdle rates, no matter how the

[3] See .2017. "*Preliminary Details and Analysis of the Tax Cuts and Jobs Act*", The Tax Foundation. Retrieved January 26, 2018, pp 1-14. https://taxfoundation.org/final-tax-cuts-and-jobs-act-details-analysis/.

[4] How the Tax Foundation's adjusts the behavioral equations in its model is not clear.

capital investment is funded. Allowing accelerated depreciation decreases the bottom line cost of new plant and equipment, increasing cash flow while improving productivity.

a. *Tax Rate Changes – reduce the corporate tax rate to 20% (25% for personal service corporations).*
b. *Cost Recovery – allows 100% expensing of the costs of qualified production property, and expands the definition of qualified properties. Also lifts certain auto deductions to $16,000.*
c. *Small Business Reforms – increases the maximum amount a taxpayer may expense to $5 million before January 1, 2023, increasing the phase-out threshold to $20 million, indexing those amounts for inflation, includes qualified energy efficient heating and air conditioning property, and increases business permitted cash accounting to $25 million.*

A second set of subtitles focuses on eliminating tax preferences of questionable economic value, like entertainment and lobbying. These subtitles also address provisions that increase risks to the stability of the U.S. economy, like the deductibility of interest expense (which increases incentives for leveraging balance sheets), or just eliminating some that are no longer fully justified, like *some* credits for investing in renewables.

d. *Reform of Business-related Exclusions and Deductions – focuses on limiting business deductions for interest expenses, entertainment, lobbying, research and experimentation expenses, oil and gas production, and net operating losses. It requires a contribution of capital in exchange for an ownership interest. It tightens the rules for terminating partnerships, and the timing of the deductibility of expenses for contingency law suits.*
e. *Reform of Business Credits – repeals business tax credits for drug test clinicals, employer provided child-care, rehabilitation of buildings, creating work opportunities and new markets, small business compliance under ADA.*
f. *Energy Credits – reduces the electricity credit for wind facilities and pares the investment credit for investing in a broad group of renewable technologies. In addition, it extends and reduces the credit for residential credit for fuel, small scale wind, and geothermal, while repealing credits for enhanced oil and gas recovery and the production from marginal wells. Finally, it increases the usefulness of tax credits for advanced nuclear power.*

A final set of subtitles aims at removing other questionable tax preferences. These subtitles include tightening up accounting rules for the insurance industry, further reducing the tax deductibility of interest expense, and discouraging outsized executive compensation.

g. *Bond Reforms – focuses on eliminating interest preferences for (qualified) private activity bonds and for the advanced refunding of bonds, in addition to repealing the use of tax exempt bonds to finance sport stadiums.*

h. Insurance – tightens how life insurance companies can account for losses, eliminates deductions for small insurance companies, provides a way to tax accumulated reserves, and imposes an additional 8% tax on income. It also modifies in multiple ways how property and casualty companies deduct losses, and it repeals the special insurance company rules for making estimated tax payments.

i. Compensation – limits the tax deductibility of annual compensation over $1 million for high salary corporate employees, repealing exceptions for incentive pay and tightening the definitions of "covered employee" and "public corporation". It imposes similar restrictions of executives of non-profits, including an excise tax, but allows some deferrals of income from stock transfers.

Impacts of the *Tax Cut and Jobs Act* on Industrial Construction

The effects of the *Tax Cut and Jobs Act* are notably positive with changes that will likely make taxation simpler, fairer, and more transparent, while at the same time encouraging capital investment. The new legislation favors equity over debt financing, which should decrease leverage in the economy [5]. However, just because the *Tax Cuts and Jobs Act* will benefit the U.S. economy by encouraging increased business investment; there is no guarantee all sectors will benefit equally, or that the changes in investment behavior it encourages will produce stability in the short-run. The principal drawback lies not in how business taxes are reduced and simplified, but because there is no counter to the potential decline in revenues with increased taxes elsewhere – there is an expectation that fundamental changes in individual behavior due to tax law changes can eliminate the shortfalls.

Individual companies face a conumdrum. On one hand exists the danger of malinvestment. On the other hand there is the possibility of undersupplying the market and missing opportunities to lift company output and revenues.

The risk of overbuilding, in particular, is real. Financiers have demonstrated a willingess to fund capital investments for a wide range of industries – from iron and steel fabrication to refined petroleum products, to chemicals and fertilizers, to natural gas liquefaction. The latter is particularly notworthy as there is a long queue of liquefied natural gas plants and export facilities in the project pipeline, whether in the Middle East, Australia, Russia, or the United States.

So where are markets for industrial commodities headed? The demand outlook appears somewhat promising._The world economy appears to have entered a period of sustained growth that will lift demand for industrial products for at least the near term. In the past year, growth has accelerated in the European Union, developing economies, and in parts of Asia, with the U.S. economy likely to continue expanding. Additionally, CLMA® research indicates many major U.S. projects currently under construction are nearing completion, with a possible ramping down of demand for the skilled construction trades expected in early 2021. While not certain, this evidence supports the notion that over investment will not be a serious problem in the near future.

[5] Missing from the legislation are provisions that prevent "carried interest". Carried interest allows hedge fund managers to treat certain payments for performance from their investors as capital gains rather than as ordinary income.

Export price trends are also promising. Fuels, iron and steel products, plastics and chemicals appear to have stabilized after declines during 2016. Liquefied natural gas presents a different picture with export prices down in 2017 despite higher spot prices at the Henry Hub. Indeed, the weakness lies with international prices for liquefied natural gas, likely due in part to rapidly rising supply from the U.S. But low prices usually stimulate increased volumes, which would occur in concert with substantial increases in Chinese demand as authorities there attempt to reduce air pollution in its cities.

Export Prices and Price Indexes

						precent change			
Natural Gas Prices & Exports	**2013**	**2014**	**2015**	**2016**	**2017**	**2014**	**2015**	**2016**	**2017**
Henry Hub Natural Gas Spot Price ($)	3.73	4.39	2.63	2.52	2.99	18%	-40%	-4%	19%
Liquefied Natural Gas - U.S. Export Price ($ per tsf))	12.29	14.47	10.80	5.00	4.75	18%	-25%	-54%	-5%
Liquefied Natural Gas - Asia Price ($ per mill btu)	17.34	17.00	10.96	7.44	6.51	-2%	-36%	-32%	-13%
U.S. Liquefied Natural Gas Exports (bills cubic feet)	0.24	1.35	2.37	15.57	54.49	456%	75%	558%	250%
Export Price Indexes									
Mineral fuels, oils and residuals	298	292	186	153	194	-2%	-36%	-18%	27%
Iron and steel	189	188	157	142	159	-1%	-17%	-9%	12%
Polymers of ethylene, in primary forms	244	261	226	208	214	7%	-13%	-8%	3%
Plastics and articles thereof;	150	150	142	136	138	0%	-6%	-4%	1%
Organic chemicals	165	163	143	132	134	-1%	-12%	-8%	1%

Source: Bureau of Labor Statistics, Thompson-Reuters, International Monetary Fund

Capacity utilization also appears to be mildly supportive, even if recent rates remain low. Total capacity utilization ticked higher in 2017, up almost one percent with chemical plants and terminals, crude refining, and iron and steel products higher. The only declines in were for natural gas distribution and electric power generation.

U.S. Capacity Utilization

(Percentage)

	2011	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Total Capacity Utilization	76.3	77.2	77.3	78.6	76.8	75.7	76.5
Selected Industries							
Chemical Plants and Terminals	73.0	71.4	68.9	69.9	72.8	74.1	74.6
Refining - Crude Processing	84.8	86.0	85.9	88.3	81.8	78.7	82.5
Electric Power Generation	81.2	78.8	79.3	79.9	79.3	77.7	76.1
Natural Gas Distribution	81.0	75.5	83.8	85.7	80.2	77.4	77.0
Iron & Steel Products	75.5	75.9	77.2	77.9	70.5	69.0	73.4

Source: U.S. Federal Reserve

Final Comments

This analysis of the construction implications of the *Tax Cuts and Jobs Act* is largely optimistic and suggests the new law will spur capital investment, supporting heavy construction. Viewing recent data and acknowledging underlying dangers, multiple hopes appear well-founded that the current expansion will continue for at least the near term, that demand for industrial commodites will improve, and that corporate restraint for adding new capacity will continue. This confidence stems from the knowledge that international markets for industrial products, including energy and chemicals, are currently well-supplied, and higher investment in U.S. production facilities will keep U.S. capacity utilization low, placing downward pressure on prices.

However, markets for industrial commodities – whether chemicals, fuels, construction materials or other products – are often tricky. Any weakness that evolves in product pricing will eventually flow through to asset prices. So while it seems safe to pursue projects that can be completed and come on-line during the next few years, caution is recommended for the timing of the next round of major projects. The current queue of potential projects is large, the current economic expansion is among the longest of the post-WWII period, and construction can both go on for years and be difficult to manage. Also, the history of heavy industry construction is replete with examples of project delays, labor challenges, poor productivity and more, leading to project completions that come just before the beginning of a steep downturn.

It's also important to note that recent news suggests the balance of risk and reward may be changing. President Trump has announced his plan to impose a 25% tariff on imported steel and a 10% tariff on imported aluminum, with only Canada and Mexico exempted while the Administration seeks to renegotiate the North American Free Trade Agreement (NAFTA). While it may be argued that the U.S has unjustly borne the weight and unfairly shared in the gains from international trade expansion, higher tariffs pose the risk of triggering a trade war. Additionally, it is almost certain higher tariffs will reduce demand for industrial products worldwide, the consequences of which are not good for industrial product prices as reduced demand is negative for pricing, revenues, and profits.

It may also be argued that the President's actions are partly tactical, designed to be one piece in a carefully calculated negotiating strategy to address global trade imbalances; however, higher tariffs raise questions about what benefits the *Tax Cuts and Jobs Act* can deliver in such an environment.

As clever as economists may be in their analyses, they do not always foresee the future clearly, nor do they have their ears to the ground in the same way as industry stakeholders. From this perspective, rather than "go-for-it", the best advice for industry stakeholders considering additional major capital investments is to keep a check on project scope, keep construction time horizons short-term, and use robust analytics and intelligence to stay alert to what is going on in the labor, commodities and construction marketplaces.