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Scoring the Trump Economic Plan:

Trade, Regulatory, & Energy Policy Impacts

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I. Introduction

Donald Trump's economic plan proposes tax cuts, reduced regulation, lower energy costs, and eliminating America's chronic trade deficit. Trump's goal is to significantly increase America's real GDP growth rate and thereby create millions of additional new jobs and trillions of dollars of additional income and tax revenues.

Hillary Clinton's economic plan will inhibit growth. It proposes higher taxes, more regulation, and further restrictions on fossil fuels that will significantly raise energy and electricity costs. Clinton will also perpetuate trade policies and trade deals she has helped put in place that have led to chronic trade deficits and reduced economic growth.

In considering how to score these competing plans fiscally, it is important to note that the Trump plan generates positive and substantial tax revenue offsets from its synergistic suite of trade, regulatory, and energy policy reforms. Any analysis that scores the Trump tax cuts in isolation is incomplete and highly misleading.

Separately from this report, the non-partisan Tax Foundation has released its analysis of the Trump tax plan. It dynamically scores a $2.6 trillion reduction[1] in revenues relative to the current tax policy baseline as of the end of a 10-year budgeting horizon. However, as is the typical practice within the modeling community, the Tax Foundation does *not* score other elements of the Trump economic plan that are growth-inducing and therefore revenue-generating.

This report fills this analytical gap. Specifically, we provide our own fully transparent scoring of the Trump economic plan in the areas of trade, regulatory, and energy policy reforms based on conservative assumptions. Along with tax reform, these areas represent the four main points of the Trump policy compass. Each works integratively and synergistically with the others and in conjunction with proposed spending cuts.

We believe it is essential that third parties view this analysis in conjunction with the Tax Foundation report. The tax cuts of the Trump plan have been criticized for significant reductions in Federal revenues. However, the Trump economic plan is much more than just about taxes.

As this report demonstrates, the overall plan is fiscally conservative and approaches revenue neutrality in the baseline Tax Foundation scenario.[2] The Trump plan also grows the economy much faster than Hillary Clinton's plan to raise taxes, increase regulation, stifle our energy sector, and continue the trade deficit status quo.

Table One provides a summary of the additional Federal tax revenues generated as a result of Trump's trade, regulatory, and energy policy reforms. These revenues represent a significant offset to the revenue reductions forecast by the Tax Foundation from the Trump tax cuts.[3]

Table One: Tax Revenue Offset Under Trump Trade, Regulatory and Energy Policy Reforms

	Cumulative Federal Tax Revenue Increases (2017-2026, Nominal Dollars, Trillions)
Trade Policy Reforms	$1.740
Regulatory Policy Reforms	$0.487
Energy Policy Reforms	$0.147
Total	$2.374

At $1.74 trillion, trade policy reforms provide the largest revenue gain. This is followed by regulatory reforms at $487 billion and energy policy reforms at $147 billion.

This total positive revenue offset of $2.374 trillion dollars approaches the $2.6 trillion of tax reductions calculated by the Tax Foundation.[4] With proposed spending cuts, the overall Trump economic plan is revenue neutral.

In the remainder of this report, we explain in detail each of these calculations. Our approach is fully transparent. To facilitate third party analysis, we provide the assumptions and calculations in appendices.

II. There Is Nothing Normal About The "New Normal"

From 1947 to 2001, the nominal US gross domestic product (GDP) grew at an annual, rate of 3.5% a year.[5] However, from 2002 to today, that average has fallen to 1.9%.[6] This loss of 1.6% real GDP growth points annually represents a 45% reduction of the US growth rate from its historic, pre-2002 norm.

Just why did the US growth rate fall so dramatically? Many left-of-center economists – and the Obama Administration – have described this era of slower growth as the "new normal." They blame this plunge at least in part on demographic shifts such as a declining labor force participation rate and the movement of "baby boomers" into retirement.

This view of America's economic malaise is incomplete – and unnecessarily defeatist. It ignores the significant roles higher taxes and increased regulation have played in inhibiting US economic growth since the turn of the 21st century as well as our ability to fix the problems.

This new normal argument also ignores the self-inflicted negative impacts from poorly negotiated trade deals and the failure to enforce them. One need look no further than the lengthy list of transgressions detailed in the National Trade Estimate for examples. These bad deals include most notably NAFTA, China's entry into the World Trade

Organization in 2001 – a critical catalyst for America's slow growth plunge – and most recently Hillary Clinton's debilitating 2012 South Korea trade deal.

China's 2001 entry into the WTO, negotiated by President Bill Clinton, opened America's markets to a flood of illegally subsidized Chinese imports, thereby creating massive and chronic trade deficits. China's accession to the WTO also rapidly accelerated the offshoring of America's factories and a concomitant decline in US domestic business investment as a percentage of our economy.

As David Dollar of Brookings notes, US direct investment flows to China were "fairly stable at about $1.6 billion per year in the period 1999-2003" but "jumped in the period 2004-2008 to an annual average of $6.4 billion."[7]

Justin Pierce of the Federal Reserve Board of Governors staff and Yale School of Management's Peter Schott attribute most of the decline in US manufacturing jobs from 2001 to 2007 to the China deal. David Autor of MIT, David Dorn of the University of Zurich, and Gordon Hanson of UC-San Diego have described a "China trade shock" that has raised the unemployment rate, depressed wages and the labor participation rate, and reduced the lifetime income of workers in American manufacturing most "exposed" to the shock.

Most recently, the 2012 South Korea trade deal was negotiated by Secretary of State Hillary Clinton – she called it "cutting edge." It was sold to the American public by President Obama with the promise it would create 70,000 jobs. Instead, it has led to the loss of 95,000 jobs and roughly doubled America's trade deficit with South Korea.

Corporate America does not oppose these deals. They both allow and encourage corporations to put their factories anywhere. However, Mr. and Ms. America are left back home without high-paying jobs.

There is nothing inevitable about poorly negotiated trade deals, over-regulation, and an excessive tax burden – this is a politician-made malaise. Therefore, nothing about the "new normal" is permanent.

Donald Trump's tax, trade, regulatory, and energy policy reforms deal with the root causes of this problem. Trump understands that our economic problems are long run and structural in nature and can only be addressed by fundamental structural reforms.

This is a key distinction between Donald Trump and an Obama-Clinton strategy that has relied so heavily – and futilely – on repeated fiscal and monetary stimuli. All we have gotten from tilting at Keynesian windmills is a doubling our of national debt from $10 trillion to $20 trillion under Obama-Clinton and the weakest economic recovery since World War II – combined with depleted infrastructure and a shrunken military.

The analytical questions, of course, are: (1) What is the specific nature of America's structural economic problems? and (2) How will the Trump economic plan in the areas of trade, regulation, and energy help solve these structural problems and thereby create more growth and job and generate more income and tax revenues? It is to answering this questions we next turn.

III. How Nations Grow and Prosper

The growth in any nation's gross domestic product (GDP) – and therefore its ability to create jobs and generate additional income and tax revenues – is driven[8] by four factors: consumption growth, the growth in government spending, investment growth, and net exports. When net exports are negative, that is, when a country runs a trade deficit by importing more than it exports, this subtracts from growth.

The structural problems driving the slow growth in the US economy over the last 15 years have primarily been the investment and net exports drivers in the GDP growth equation.

The national income accounts divide investment into three categories: residential fixed investment, the change in private inventories, and the category we are most concerned with in this report, *nonresidential fixed investment.* We focus on nonresidential fixed investment in this analysis because it specifically measures capital investment in new plant and equipment (and intellectual property).

To the extent unfavorable tax, trade, energy, and/or regulatory policies "push" capital investment offshore or discourage onshore investment, nonresidential fixed investment is reduced in the GDP equation, and this "offshoring drag" subtracts directly from GDP growth.

In 2015, the US trade deficit in goods was a little under $800 billion while the US ran a surplus of about $300 billion in services. This left an overall deficit of around $500 billion.[9] Reducing this "trade deficit drag" would increase GDP growth.

These trade-related structural problems of the US economy have translated into slower growth, fewer jobs, and a rising public debt. For example, each additional point of real GDP growth translates into roughly 1.2 million jobs.[10] When the US economy grows at a rate of only 1.9% annually instead of its historic norm of 3.5%, we create almost 2 million fewer jobs a year. To put this number in perspective, consider the problem of "missing workers."

Missing workers are defined as potential workers who are neither employed nor actively seeking a job." The Economic Policy Institute estimates that there are more than 2.2 million workers "missing" from the accounting by the Bureau of Labor Statistics in the calculation of the unemployment rate.[11] If these workers were actually counted, the US unemployment rate would be at 6.2%, significantly higher than the official rate of 4.9%. Increasing real GDP growth from 1.9% to 3.5% would put almost all of these missing workers back to work a year.

IV. Regulatory Effects on Growth

The Business Roundtable has frequently complained about the steady expansion of America's regulatory state. According to its survey:

> *Nearly three-quarters of Business Roundtable CEOs list regulations as one of the top three cost pressures facing their businesses. ... Fifty-six percent believe pending regulations will negatively affect their hiring and capital spending over the next two years. And 68 percent indicate that if existing regulatory costs were reduced by 20 percent, the money saved would be invested in increased research and development.*

Excessive regulation drives ups costs, drives down both R&D and hiring, and contributes to the "push" offshore of domestic business investment. Notes the Business Roundtable survey in connecting these dots: "82 percent of Business Roundtable members said they find the U.S. regulatory system more burdensome than those of other developed countries."

In 2015, the Federal Register lists over 3,400 final rules issued. According to the Heritage Foundation:

> *The number and cost of federal regulations increased substantially in 2015, as regulators continued to tighten restrictions on American businesses and individuals. The addition of 43 new major rules last year increased annual regulatory costs by more than $22 billion, bringing the total annual costs of Obama Administration rules to an astonishing $100 billon-plus in just seven years.*

Excessive regulation is even more burdensome on the 28 million small businesses that have provided two-thirds of our post-recession job growth.

The Heritage Foundation and National Association of Manufacturers (NAM) have estimated[12] regulatory costs to be in the range of $2 *trillion* annually – about 10% of our GDP. NAM finds that "small manufacturers face more than three times the burden of the average US business." According to the Competitive Enterprise Institute, this "hidden tax" of regulation amounts to "nearly $15,000 per US household" annually.

Hillary Clinton has promised to continue Obama's regulatory agenda, particularly in the area of energy. Neither of these career politicians, each lacking any business experience, seem to understand the real costs this increasing regulatory burden imposes on the US economy and how this regulatory burden is restricting economic growth.

In theory, all major new rules undergo a thorough cost analysis. In practice, the White House's Office of Information and Regulatory Affairs is woefully understaffed. The results, as the Heritage Foundation has pointed out, are not just low quality analyses but also long delays. Many new rules never are adequately quantified – or quantified at all.

The Trump Regulatory Reform Plan

We assume the Trump plan seeks to reduce the current regulatory burden by a minimum of 10% or $200 billion annually. It proposes a temporary pause on new regulations not compelled by Congress or public safety and a review of previous regulations to see which

need to be scrapped. Each Federal agency will prepare a list of all of the regulations they impose on American business, and the least critical regulations to health and safety will receive priority consideration for repeal.

To attack those regulations that "inhibit hiring," the Trump plan will target, among others: (1) The Environmental Protection Agency's Clean Power Plan, which forces investment in renewable energy at the expense of coal and natural gas, thereby raising electricity rates; and (2) The Department of Interior's moratorium on coal mining permits, which put tens of thousands of coal miners out of work.

Trump would also accelerate the approval process for the exportation of oil and natural gas, thereby helping to also reduce the trade deficit. Numerous other low-level rules that are individually insignificant but important in the aggregate will also be reviewed.

Note that the Trump regulatory reform plan will disproportionately – and quite intentionally – help the manufacturing sector. This is the economy's most powerful sector for driving both economic growth and income gains. These income gains will, in turn, disproportionately benefit the nation's blue collar workforce.

According to the National Association of Manufacturers (NAM), "for every one worker in manufacturing, there are another four employees hired elsewhere." In addition, "for every $1.00 spent in manufacturing, another $1.81 is added to the economy" and this is "the highest multiplier effect of any economic sector." (In the calculations below for trade effects, we will conservatively assume a discounted multiplier of 1.0 based on this 1.81 NAM multiplier.)

This high multiplier effect is precisely why the Trump Trade Doctrine and overall economic plan seek to strengthen the US manufacturing base – and regulatory reform is a key structural reform. Right now, as Mark and Nicole Crain calculate: "The cost of federal regulations fall disproportionately on manufacturers…. Manufacturers pay $19,564 per employee on average to comply with federal regulations, or nearly double the $9,991 per employee costs borne by all firms as a whole." According to the Manufacturing Institute:

> *More than any other sector, manufacturers bear the highest share of the cost of regulatory compliance. … Manufacturers spend an estimated $192 billion annually to abide by economic, environmental and workplace safety regulations and ensure tax compliance—equivalent to an 11 percent "regulatory compliance tax."*

Scoring The Effects of Regulatory Reform

Hillary Clinton's economic plan proposes an increasing regulatory burden – and slower GDP growth from the Clinton regulatory agenda. Donald Trump's strategy will trim a minimum of $200 billion from America's annual regulatory burden. This is roughly one-tenth of the $2 trillion consensus estimate of that burden.

This reduction in regulatory drag would add $200 billion of pre-tax profit to businesses annually. Taxing that additional profit at Trump's 15% rate would yield $30 billion more in annual taxes. This would leave businesses with an additional $170 billion of post-tax earnings.

Businesses typically pay out one third of increased post-tax earnings so on this $170 billion of increased post-tax earnings, $56.67 billion more would be paid in dividends and taxed at an 18% percent effective rate. This would leave $113.33 billion of investible extra cash flow, and add $10.2 billion of personal income tax revenues to the Federal treasury each year.

This is an *intermediate* calculation because businesses would also earn a return on the $113 billion more in cash flow each year to invest. Assuming they only earn a very conservative 5% pretax per year on their investments and reinvest the profits, the cumulative pretax earnings on the reinvestment would be $256.86 billion over 10 years.

These pretax earnings would be taxed at 15% for another $37.51 billion of taxes. This brings the total taxes generated by regulatory relief to $439.51 billion in 2016 dollars over 10 years. Taxes are paid in nominal dollars so we have added a 1.1082 inflation factor for total taxes of $487.1 billion over the ten-year forecasting period.

V. Energy Policy Growth Effects

Some benefits of the Trump regulatory reform plan would accrue to the energy sector. In contrast, Hillary Clinton's restrictions on oil production and refining could significantly drive up energy and electricity prices. Columbia Business School Professor Geoffrey Heal found that the Obama-Clinton plan to cut US carbon emissions by 80% by 2050 would cost the US economy a staggering $5.3 trillion over 30 years.

As an example of the kind of effects that should be considered and scored by those modeling the Clinton vs. Trump plans, the Clinton plan could easily drive up the price of the 19.4 million barrels of oil we consume per day in the US by $10 per barrel. This would raise the US oil cost burden by $194 million a day or $70.8 billion per year – almost one half of a percent of the US economy.

The Obama-Clinton "clean power plan" will similarly drive up electricity prices. According to National Economic Research Associates, this plan will have "virtually no effect on climate change" but it will add as much as $39 billion to America's annual electricity bill. That's roughly a quarter of a percent of the US economy.

Trump proposes to lift restrictions on all sources of American energy. This will undoubtedly make more projects available to exploration, production, and distribution companies. It will also result in more opportunities to develop properties that are economical at today's prices. This expansion of the energy sector, in turn, will reduce our needs for imports.

For modeling purposes, it is difficult to forecast the effect that increased supply will have on prices. However, the Institute for Energy Research (IER) has estimated that America's GDP will increase by $127 billion annually for the first seven years and by $450 billion annually for the subsequent 30 years as a result of the expansion of our energy sector.[13]

In view of the prospect for continued price volatility (and to ensure that our scoring estimates are indeed conservative), we discount the IER $127 billion estimate by 25% to

$95.25 billion for the purposes of our calculations and ignore any step-up in years eight through ten. From this $95.25 billion estimate, we can use our income statement approach to score the Trump energy plan. We have modeled only the impacts of implicit profits and wages, not any other economic aspect of the increased activity.

Running The Energy Policy Numbers

We assume that wages are 44% of revenues,[14] or $41.9 billion per year. They are taxed at a 28% effective rate (including a withholding tax rate of 21% and a trust tax rate of 7%). Therefore, $11.73 billion will be paid in personal taxes.

We assume that the pre-tax profit margin on incremental sales will be 15%, or $14.29 billion. Applying the 15% business tax rate, this results in $2.15 billion in taxes paid, leaving $12.14 billion in post-tax earnings.

We also assume that energy companies will pay out only 20% of their incremental post-tax earnings in dividends or $2.43 billion. This yields additional tax revenues of $440 million at a tax rate of 18%.

At this point, the $12.14 billion in post-tax earnings minus the $2.43 billion in dividends paid leaves producers with $9.71 billion of post-tax, post-dividends earnings. We assume these producers will reinvest these $9.71 billion of earnings back into their businesses along with the additional earnings as they accrue after 15% taxes. To ensure our estimate is conservative, we again assume a subpar 5% pretax return on that reinvestment and on the resultant cash flows as they cumulate, adding $4.11 billion of taxes for a total of $147.3 billion in 2016 dollars. As further conservatism, we did not apply an inflation factor.

VI. The Role of Offshoring In The GDP Growth Process

Just as there are those who argue that a "new normal" means the US economy is now permanently stuck in a lower gear, there are those, including Hillary Clinton, who insist that US manufacturing is destined to move offshore. Their "solution" is to convert the US to a "service sector" economy – yet service sector jobs tend to be of lower pay.

This point of view shows a fundamental lack of understanding of: (1) the role of domestic manufacturing in the process of economic growth and income creation, (2) how corporate strategy guides locational and investment decisions, (3) why high taxation and over-regulation help "push" US corporate investment offshore, and (4) how the "pull" of poorly negotiated trade deals and the unfair trade practices of America's trading partners help transform what would otherwise be growth-inducing domestic investment into growth-inhibiting outbound Foreign Direct Investment (FDI).

The Role of Manufacturing in Economic Growth

As previously noted, manufacturing jobs are a critical part of the American economy. They provide some of the highest wages for our labor force, especially for blue collar workers.

When auto companies like GM or Ford build new factories in China or Mexico rather than in Michigan or Ohio, additional jobs are also lost throughout the economy. As the National Association of Manufacturers notes, for every one manufacturing job in the US auto industry, many more jobs are created downstream in industries ranging from aluminum, plastics, rubber, and steel to glass, rubber, textiles, and computer chips."

Since the era of globalization, manufacturing as a percent of the labor force has steadily fallen from a peak of 22% in 1977 to about 8% today. To those who would blame automation for the decline of manufacturing, one need only look at two of the most technologically advanced economies in the world, those of Germany and Japan, each of which is a worldwide leader in robotics. Despite declines in recent years, Germany still maintains almost 20% of its workforce in manufacturing while Japan has almost 17%.

To be clear, when we are talking about manufacturing, we are not just talking about cheap tee shirts and plastic toys. We are talking about aerospace, biomedical equipment, chemicals, computer chips, electronics, engines, motor vehicles, pharmaceuticals, railroad rolling stock, robotics, 3-D printing, resins, ship building, and more.

The US will become more competitive in each of these sectors if our businesses are not being pushed offshore by high taxes and a heavy regulatory burden or pulled offshore by unfair trade practice like the lure of undervalued currencies and the availability of illegal export subsidies.

The Offshore "Push" of Unfavorable Tax and Regulatory Policies

Every day, American corporations face a binary choice in allocating capital investment to new plant and equipment: These corporations can either expand or locate new facilities on US soil or move to foreign locations around the world.

If such investment stays home, these dollars show up in the national income accounts as nonresidential fixed investment and provide a net contribution to growth. Offshore investment shows up as outbound foreign direct investment (FDI) that subtracts directly from our economy and contributes to the GDP growth of the recipient countries.

While these are complex investment decisions driven by factors such as market location, resource availability, and the configuration of the supply chain, this is also true: Corporate executives seeking to maximize profits will be far more inclined to produce not in the US but in countries where the tax burden is lower and the regulatory environment is less burdensome. Reducing the US tax will help close the current offshoring gap.

Lowering the Federal Corporate Income Tax

At 35%, the U.S has the highest federal tax rate of the 34 industrialized nations of the Organization for Economic Cooperation and Development and the third highest of the world's 196 nations. The only countries with higher rates are Chad and the United Arab Emirates.

America's high business tax rate helps to transform what would otherwise be *domestic* investment that would increase the GDP into *outbound* FDI that instead generates more growth, jobs and tax revenues in foreign countries.

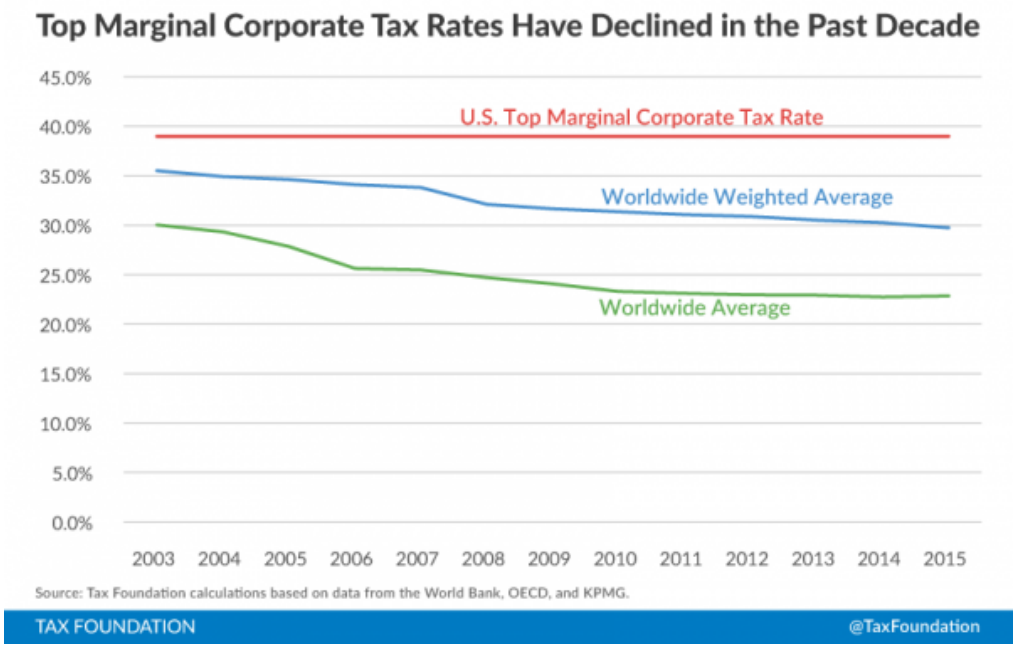
This high business tax rate means businesses currently carry down only 65% of pre-tax earnings to their post-tax net. In contrast, at Trump's proposed 15% rate, businesses would carry down 85% of pre-tax earnings, and this 30% increase in post-tax return on investing would greatly improve the attractiveness of domestic investment.

The express goal of the Trump tax reforms is to realign corporate incentives and thereby encourage more onshoring and reshoring of investment while discouraging offshoring. The *Wall Street Journal* has offered this Aesop's-style tax tale to further illustrate the need for such a realignment of incentives:

> *The US system of world-wide taxation means that a company the moves from Dublin, Ohio to Dublin, Ireland, will pay a rate that is less than a third of America's. A dollar of profit earned on the Emerald Isle by an Irish-based company becomes 87.5 cents after taxes, which you can then invest in Ireland or the US or somewhere else. But if the company stays in Ohio and makes the same buck in Ireland, the after-tax return drops to $.65 or less if the money is invested in America.*

It's not just that the US has the highest business tax rate in the world. It is also that top marginal business tax rates have significantly fallen around the globe since 2003 – as is apparent in Figure One.[15]

Figure One: Top Corporate Marginal Tax Rates Over Time



Over time, the average top marginal corporate tax rate in Asia has fallen from 31% in 2003 to 20.6 by 2015. In Europe, that rate has fallen from nearly 30% to under 20%. This fall in global tax rates relative to the US is no accident.

Indeed, America's trading partners long ago figured out that lowering corporate tax rates increases competitiveness. The US has yet to respond. This is a politician-made failure perpetuated by Obama-Clinton that a Trump presidency would immediately address.

Donald Trump will also firmly address the trillions of corporate dollars now parked overseas to legally avoid the high corporate tax. The plan provides for "a deemed repatriation held offshore at a one-time tax rate of 10 percent. This incentive will spur considerable additional investment on domestic soil."

Ending the Unequal Value-Added Tax Treatment Under WTO Rules

In addition to the obvious problem of relatively high corporate tax rates pushing American capital offshore, there is a more subtle tax problem pulling US corporations offshore. It relates to the unequal treatment of the US income tax system by the World Trade Organization (WTO).

The WTO consists of 164 members and officially began its oversight of the global trading order in 1995. America helped negotiate and agrees to its trading rules, but in a "one country, one vote" system, the US has effectively surrendered its sovereignty to a group of countries that do not always (or often) have America's interests at heart. While the US is the largest economy in the world, it has the same WTO voting rights as countries like Albania with economies a tiny fraction of that of the US.

Here is the key unequal tax treatment issue: While the US operates primarily on an income tax system, all of America's major trading partners depend heavily on a "value-added tax" or VAT system. Under current rules, the WTO allows America's trading partners to effectively create backdoor tariffs to block American exports and backdoor subsidies to penetrate US markets. Here's how this exploitation works:

VAT rates are typically between 15% and 25%. For example, the VAT rate is 25% in Denmark, 19% in Germany, 17% in China and 16% in Mexico.

Under WTO rules, any foreign company that manufactures domestically and exports goods to America (or elsewhere) receives a rebate on the VAT it has paid. This turns the VAT into an implicit export subsidy.

At the same time, the VAT is imposed on all goods that are imported and consumed domestically so that a product exported by the US to a VAT country is subject to the VAT. This turns the VAT into an implicit tariff on US exporters over and above the US corporate income taxes they must pay.

Thus, under the WTO system, American corporations suffer a "triple whammy": foreign exports into the US market get VAT relief, US exports into foreign markets must pay the VAT, and US exporters get no relief on any US income taxes paid.

The practical effect of the WTO's unequal treatment of America's income tax system is to give our major trading partners a 15% to 25% unfair tax advantage in international transactions. (While in principle, exchange rates should adjust over time to offset border adjustment, in the near term, exchange rate manipulation leads to major effects on trade flows.)

It is thus not surprising that US corporations want to move their factories offshore and then export their products back to the US and to the rest of the world. An American subsidiary located overseas gets the VAT benefits on its exports *back* to the US. Of course, such exports to America from the offshored production facility add to the US trade deficit. Such offshoring of capital investment also subtracts from GDP growth.

Like many countries, Mexico has shrewdly exploited the VAT backdoor tariff to further its competitive advantage. While Mexico's VAT existed prior to NAFTA, the Mexican government increased its VAT by 50%, from 10% to 15%, shortly after the NAFTA agreement was signed in 1993 and in the same year the WTO commenced. With the Mexican VAT now raised again to 16%, this discourages US exports to Mexico, encourages US manufacturers to offshore to Mexico, and has helped to increase our annual trade deficit in goods with Mexico from nearly zero in 1993 to about $60 billion. This is yet another case in which Corporate America wins, but Mr. and Ms. America lose.

Barack Obama and Hillary Clinton have failed to act on this problem. It's not even on Clinton's radar screen.

Donald Trump would deal swiftly and firmly with the unequal treatment of corporate income taxes that heavily penalizes American corporations under the rules of the World Trade Organization.

The WTO's VAT Rules Are A Poster Child of Poorly Negotiated US Trade Deals

The WTO's unequal tax treatment of US exports is a prime example of how US trade representatives often fail to recognize the consequences of the bad deals they negotiate on behalf of the American people. Our negotiators were naive at best in failing to protect the US against the adverse effects of the VAT – they very well should have seen such strategic "VAT gaming" coming.

At the bargaining table, US representatives should have demanded, in no uncertain terms, equal tax treatment for US exports. Since the WTO would be meaningless without the presence of the world's largest importer and third largest exporter, we had the leverage then – and have the leverage now – to fix this anomaly and loophole. In contrast, sophisticated foreign countries bargained hard to achieve what is effectively a border tax adjustment loophole. They have repeatedly refused to give that loophole up.

As a further nuance, no WTO rule effectively prevents state-controlled banks from propping up big exporters like steel companies that are losing money. Since VAT is paid to foreign governments and since those governments are typically the health care delivery systems, US exporters end up paying both for the health care of America's own workers and for a portion of the healthcare costs of these other countries through the VAT payments they make on the exports they sell – because of America's naïve trade negotiators. The US Congress has already passed three different pieces of legislation to try to eliminate this unequal tax treatment. However, each time the WTO – led by heavily exporting countries – has rejected the American proposal.

Donald Trump understands that the only way to correct this unfair tax treatment is for the US to use its status as the world's largest economy, the world's largest consumer, and the world's largest importer to put pressure on the WTO to change this unequal treatment. Without the US as a member, there would not be much purpose to the WTO,

but prior occupants in the White House have been unwilling to lead on this issue despite its significant negative impacts.

Hillary Clinton did nothing as Secretary of State to address any of these issues and has no plan to end this unfair treatment.

Corporate Strategy and the "Push" and "Pull" of Tax, Regulatory, and Trade Policies

In the next section of this analysis, we will turn to the role of trade deficits in the growth process. For now, let us end this section with a brief observation on how bad trade deals and unfair trade practices have also contributed to the "pull" of domestic investment offshore.

Consider, for example, the rules of the WTO. They provide no specific dispute resolution mechanisms or relief against the use of either sweatshop labor or lax environmental regulations. Nor do the rules of the WTO prevent countries from undervaluing their currency to gain competitive advantage.

The dispute resolution mechanisms that do exist within the WTO make it a lengthy and uncertain process to obtain relief against even the most egregious behavior. Examples include the dumping of steel into global markets by countries ranging from China, India, and Italy to Korea and Taiwan and the use of non-tariff barriers to offset lower tariffs required under WTO rules.

As another problem, it takes a long time to adjudicate trade cases. In the interim, American companies go bankrupt, cheaters take over the market, and the court ruling becomes moot. This happened a few years ago to Bethlehem and 30 other steel companies that went bankrupt waiting for relief.

Finally, there is this very real "gaming of the system" problem: When the US files legitimate cases based on demonstrable violations, our trading partners often retaliate with bogus countervailing trade claims designed to clog up and slow down the dispute resolution process while obfuscating the underlying issues.

In these ways, bad trade deals have thereby helped pull capital investment offshore that would otherwise have remained in the United States. Statistically, this shows up as less nonresidential fixed investment than would otherwise be, slower real GDP growth, and more outbound FDI.

As we shall discuss more fully in the next section, Donald Trump has promised to renegotiate America's bad trade deals and crack down on trade cheating. While Trump's primary goal is to reduce the trade deficit and its drag on GDP growth, we have seen in this section that Trump's trade reforms will also reduce the pull of domestic investment offshore and thereby help to stimulate more real GDP growth.

VII. The Structural Underpinnings of Trade Deficit Drag

Critics have attacked Trump as an "isolationist" and a "protectionist" who will start a "trade war." These attacks reveal a more fundamental lack of understanding of the role trade deficits have played in constraining US economic growth.

The prevailing view within the White House and Clinton campaign is that America's economic woes are short run and cyclical and can be solved through Keynesian fiscal deficits and higher Keynesian monetary stimuli. This Keynesian misdiagnosis has led to a near doubling of America's national debt during the Obama presidency from $10 trillion to almost $20 trillion and the weakest economic recovery since World War II, all while America's infrastructure deficit has continued to increase and our military has grown smaller.

In contrast, Donald Trump views America's economic malaise as a long-term structural problem inexorably linked not just to high taxation and over-regulation but also to the drag of trade deficits on real GDP growth. Trade policy factors identified by the Trump campaign that have created this structural problem include: (1) currency manipulation, (2) the equally widespread use of mercantilist trade practices by key US trading partners, and (3) poorly negotiated trade deals that have insured the US has not shared equally in the "gains from trade" promised by textbook economic theory.

#1: Currency Manipulation

According to textbook theory, balanced trade among nations should be the long-term norm, and the chronic and massive trade deficits the US has sustained for over a decade simply should not exist. This textbook state of balanced trade would exist because freely floating currencies would effectively adjust differences in national domestic cost structures to bring about balanced trade.

The problem, however, is that not all currencies freely float. Many are actively managed, and some are pegged to another currency or currency basket. This hybrid international monetary system makes it impossible for market forces to bring about balanced trade and thereby fairly distribute what the textbooks promise us will be the "gains from trade."

A poster child for this problem is China and its narrowly pegged currency. In a world of freely floating currencies, the US dollar would weaken and the Chinese yuan would strengthen because the US runs a large trade deficit with China and the rest of the world. American exports to China would then rise, Chinese imports to America would fall, and trade should come back towards balance. The problem, however, is that China stymies major adjustments.

China's purchases of US treasury securities are one way the Chinese government holds down their currency relative to ours. Maintaining their manipulated currency peg perpetuates the trade imbalance. Effectively, we are borrowing from China to pay for our trade deficit. It is analogous to a money-losing business borrowing money every year to stay afloat.

A similar problem exists because of the European Monetary Union. While the euro freely floats in international currency markets, this system deflates the German currency from where it would be if the German Deutschmark were still in existence.

In effect, the weakness of the southern European economies in the European Monetary Union holds the euro at a lower exchange rate than the Deutschmark would have as a freestanding currency. This is a major reason why the US has a large trade in goods deficit with Germany – $75 billion in 2015 – even though German wages are relatively high.

The Germans, too, are buyers of US Treasuries as are the Japanese. The US runs trade deficits with both of these countries as well as with China.

The broader structural problem is an international monetary system plagued by widespread currency manipulation. Of course, a weaker currency stimulates the currency manipulator's exports, discourages imports, brings about a more favorable trade balance, and the currency manipulator grows at the expense of its trading partners.

Donald Trump has promised to use his Treasury Department to brand any country than manipulates its currency a "currency manipulator." This will allow the US to impose defensive and countervailing tariffs if the currency manipulation does not cease.

As Secretary of State, Hillary Clinton neither said nor did anything about this issue and supported China's earlier entry into the WTO. During her tenure as Secretary of State, she had a chance to engage in corrective diplomatic action, including addressing intellectual property theft, but she did nothing. Whatever she might vaguely promise now on the campaign trail rings hollow against the backdrop of her bad trade deals and past comments on the inevitability of outsourcing. This is an indefensible record documented by none other than President Barack Obama during his 2008 primary victory over Senator Clinton. Her one consistency has been ultimately favoring policies that in the end result in offshoring and expanded trade deficits.

#2: Mercantilism and Trade Cheating

The global trading order is riddled with trade cheaters. Not coincidentally, China is both the biggest trade cheater in the world and that country with which the US runs its largest trade deficit.

The elaborate web of unfair trade practices includes illegal export subsidies, the theft of intellectual property, the aforementioned currency manipulation, forced technology transfers and a widespread reliance upon both "sweat shop" labor and pollution havens. The People's Republic of China also engages in the massive dumping of select products such as aluminum and steel below cost. It is currently dumping over 100 million tons of steel alone into global markets. China is hardly the only cheater in the world; it's just the biggest.

It is fair for countries to benefit competitively from any inherently lower costs. It is unfair to game the system in addition.

When countries cheat to boost their exports, reduce their imports, and protect their own markets, trade becomes more of a zero sum game in which the cheating countries enjoy a disproportionate share of any gains from trade. Their economies grow faster and the US economy grows more slowly.

A Trump Administration will not tolerate cheating by any nation. If America's trading partners continue to cheat, a President Trump will use all available means to defend

American workers and American manufacturing facilities from such cheating, including tariffs.

Tariffs will be used not as an end game but rather as a negotiating tool to encourage our trading partners to cease cheating. If, however, the cheating does not stop, Trump will impose appropriate *defensive* tariffs to level the playing field.

While candidate Hillary Clinton has adopted the rhetoric of Donald Trump on trade, she has zero credibility on this issue, as the next portion of this analysis will illustrate.

#3: Renegotiating Bad Trade Deals

Dating back to at least 1993, the US has entered into a series of poorly negotiated trade deals that have not distributed the gains from trade fairly. Hillary Clinton supported virtually all of these deals – and she directly negotiated one of America's most recent and damaging deals.

For example, First Lady Hillary Clinton advocated for NAFTA and Bill Clinton signed it in 1993, promising it would create 200,000 new jobs within two years. To date, the US has lost over 850,000 jobs and its trade deficit with Mexico has soared from virtually zero to roughly $60 billion.

As noted earlier, in 2012, Secretary of State Hillary Clinton promised that the "cutting edge" South Korean deal would create 70,000 new jobs. Instead, the US has lost 95,000 jobs and America's trade deficit with South Korea nearly doubled within three years. Workers in the US auto industry, particularly in states like Michigan, Ohio, and Indiana, have been particularly hard hit.

Donald Trump has pledged to renegotiate every one of these bad trade deals according to the principles of the Trump Trade Doctrine, i.e., any deal must increase the GDP growth rate, decrease the trade deficit, and strengthen the US manufacturing base.

In contrast, Hillary Clinton wants to create yet another bureaucracy to enforce existing agreements. If she read these poorly negotiated agreements carefully, she would realize there is little enforcement to be had – in either the large or fine print.

A case in point is the 2012 South Korea deal she herself helped put in place. If the Koreans violate the automotive provisions, there is a required and lengthy consultative process at the end of which the maximum possible penalty appears to be a modest 2.5% tariff – hardly a behavior-changer.

While Donald Trump knows that in some cases enforcement might be enough, most of the deals America has entered into must be renegotiated. Clinton's campaign notably is funded by the very entities that would oppose such renegotiations.

There is a clear binary choice between Clinton and Trump. One leads to ever-larger trade deficits and the offshoring of American jobs. The other leads to balanced trade and the rebuilding of America's manufacturing base.

The analytical question is not whether trade deficits matter in the process of economic growth. We know that to be true from the simple arithmetic of the GDP equation.

Instead, the analytical questions are: How much growth might be gained from reducing America's trade deficit as Trump has proposed to do, and how might a policy of balanced trade contribute to a balanced budget through the creation of additional income and tax revenues? We address these questions in the next section.

VIII. Trade Policy Effects

As the GDP equation illustrates, trade deficits matter to economic growth. When the United States runs massive and chronic deficits as it has been doing since the turn of this century, trade deficits matter a great deal.

This point is often lost on those who look only and singularly at the growth in US *exports* since the advent of globalization. For example, exports in goods have rapidly risen from $59.7 billion in 1970 to $1.5 trillion by the end of 2015 in nominal dollars. Along the way, these exports have created new jobs and generated additional income and wealth.

However, imports in goods have risen at an even faster pace, from $40.9 billion in 1970 to $2.3 trillion in 2015. Although some of our imported goods contain American export content, they still represent a significant subtraction from GDP growth, even after accounting for the positive contribution of services to the trade balance.

Trump's goal is not to reduce overall trade flows but rather increase them. Through tough, smart negotiations, he will improve our trade deals, increase our exports, and displace some goods we now currently import with products made in America.

Scoring Trade Deficit Drag

In 2015, the US exported $2.3 trillion worth of goods and services and imported $2.8 trillion for a total net exports deficit of $500 billion. When we divide this $500 billion trade deficit by the change in the nominal GDP of $644 billion from 2014 to 2015, we see that the trade deficit represents 78% of the net gain in nominal GDP relative to the 2014 period. This comparison suggests that trade deficits matter a great deal when it comes to GDP growth.

To illustrate this, suppose the US had been able to completely eliminate its roughly $500 billion 2015 trade deficit through a combination of increased exports and decreased imports rather than simply closing its borders to trade. This would have resulted in a one-time gain of 3.38 real GDP points and a real GDP growth rate that year of 5.97%.

Income Statement Approach to Scoring Trade Effects

To score the benefits of eliminating trade deficit drag, we don't need any complex computer model. We simply add up most (if not all) of the tax revenues and capital expenditures that would be gained if the trade deficit were eliminated. We have modeled only the impacts of implicit profits and wages, not any other economic aspect of the increased activity.

Trump proposes eliminating America's $500 billion trade deficit through a combination of increased exports and reduced imports. Again assuming labor is 44 percent of GDP, eliminating the deficit would result in $220 billion of additional wages. This additional

wage income would be taxed at an effective rate of 28 percent (including trust taxes), yielding additional tax revenues of $61.6 billion.

In addition, businesses would earn at least a 15% profit margin on the $500 billion of incremental revenues, and this translates into pretax profits of $75 billion. Applying Trump's 15% corporate tax rate, this results in an additional $11.25 billion of taxes.

This leaves businesses with $63.75 billion of additional net profit which must be distributed between dividends and retained earnings. If businesses pay out one third of this additional profit as dividends and these $21.25 billion worth of dividends are taxed at a rate of 18%, this yields another $3.8 billion of taxes, after which there remains $17.45 billion of net income.

Together, these tax revenues from wage, corporate, and dividend income total $76.68 billion per year and over the standard ten-year budget window, this recurring contribution to the economy cumulates to $766.8 billion dollars of additional tax revenue.

To this total, we must add at least two more increments of revenues. Under the dividend payout schedule, we have noted that businesses will retain $42.5 billion of cash flow after paying both taxes and dividends.

Reinvesting this $42.5 billion each year at even as subpar a return as 5 percent pretax per year on the cumulating balances invested and assuming reinvestment of the post tax proceeds each year at the same 5 percent pretax return generates another $120.21 billion of pretax profits and taxes of $18.04 billion over the standard 10-year budget window. Adding these increments to the previous calculation results in a ten-year direct incremental contribution to Federal tax revenues of $766.8 billion in 2016 dollars.

Since taxes are paid in nominal, not real, dollars, we have applied to them a 1.1082 inflation factor for a total of $869.76 billion of incremental tax revenues over the ten years from the elimination of the trade deficit.

This is an *intermediate* calculation. To account for multiplier effects, we must add our conservative multiplier of 1.0 (versus the National Association of Manufacturers' 1.81 multiplier). This produces a grand total from trade of $1.74 trillion of additional Federal tax revenues. If the National Association of Manufacturers multiplier of 1.81 were achieved instead of the 1:1 ratio we used, the tax revenue increment from trade alone would be $2.44 trillion nominal dollars.

IX. Inflation and Trade War Critiques of The Trump Plan

If past is prologue, some critics will argue that reducing the flow of cheap imports from locales such as China, Mexico, and Vietnam will be inflationary and act as a "regressive tax" by denying lower income households cheap imports. Other critics will insist that Trump's trade policies will start a "trade war" and trigger a recession.

In reality, four decades of one-sided globalization and chronic trade deficits have shifted wealth and capital from workers to the mobile owners of capital and reduced the purchasing power of Americans. Trump's proposals will reverse these trends, concentrate more wealth and purchasing power in the hands of domestic workers, and

result in substantially higher employment. A visit to cities from Johnstown, Pennsylvania to Flint, Michigan reveals quickly the falsehoods and broken promises of those who preach the gains from trade deficits – entities often financed by those who turn a profit from offshoring production.

Income Benefits Vs. Inflation Concerns

To those who oppose reducing America's trade deficit on the grounds that this would increase prices for consumers and disadvantage the poor, we say that the numbers directly contradict these assertions. Suppose, for example, we eliminate our $500 billion trade deficit with 50% of the trade balance improvement from increased exports and 50% from reduced imports. This would mean fewer imports of $250 billion per year.

In plain terms, reducing the trade deficit means increasing the money workers will have in their paychecks and consumers will have in their pockets. This increased income and purchasing power will more than offset any price increases.

Moreover, as products develop a competitive advantage in America and increase their production and margins, prices per unit will go down. Those purchasing products made in America will not only purchase them duty-free but from a dramatically reduced business tax, with lower energy costs, and reduced regulatory costs. In these ways, all of Trump's policy reforms will work together to increase wealth and the concentration of wealth among the poor, working, and middle classes of this country.

Trump Will End, Not Start, A Trade War

Those who suggest that Trump trade policies will ignite a trade war ignore the fact that we are *already* engaged in a trade war. It is a war in which the American government has surrendered before engaging. Unfair trade practices and policies of our competitors are overlooked or ignored. As a well-documented result, America has already lost tens of thousands of factories, millions of jobs, and trillions in wages and tax revenues. Donald Trump will simply put our government on the field in defense of American interests.

As a very practical matter, as Trump pursues a policy of more balanced trade, our major trading partners are far more likely to cooperate with an America resolute about balancing its trade than they are likely to provoke a trade war. This is true for one very simple reason: America's major trading partners are far more dependent on American markets than America is on their markets.

Consider that roughly half of our trade deficit is with just six countries: Canada, China, Germany, Japan, Mexico and South Korea. If we look at the bilateral relationships of America with each of these countries, improvement in our trade balance is clearly achievable through some combination of increased exports and reduced imports, albeit after some tough, smart negotiations – an obvious Trump strength.

Consider South Korea, and recall here that Hillary Clinton's 2012 South Korea trade deal has resulted in the loss of 75,000 jobs – especially in America's auto industry. As has been noted, this poorly negotiated Clinton deal has also led to a near doubling of the US trade deficit with South Korea.

Donald Trump has promised to promptly renegotiate bad deals such as this. Given that it is abundantly clear that this deal did not perform as promised, South Korea will have no grounds to complain when Trump calls for a renegotiation. The two parties will simply seek a far more equitable deal.

As for South Korea, Germany, and Japan, all import a very high percentage of their hydrocarbons (as does South Korea). However, most of these imports do *not* come from the US. With Trump promising to increase oil and natural gas production in the US and remove any restrictions on US exports, there are reasonable deals to be made here with little or no cost to our petroleum-dependent trading partners, and there are many high-paying American jobs that would be created in our energy industries as a result.

China is likely to pose the biggest challenge. That said, the US is still China's biggest market, and the Chinese Communist Party runs a huge risk if it chooses to destabilize its own economy, and undermine Party control.

For example, China cannot cancel imports of American soybeans because there is not enough global excess supply of soybeans to replace the American output. If China paid a premium to divert supplies from other countries, the US would simply fill the market void created so there would be no net impact on US exports.

In terms of deals to be had, China likewise imports much of its petroleum needs so there is room to negotiate here. However, a Trump Administration will confront China's continued high tariffs on a wide range of American products, from motorcycles to raisins, as well as China's limits on imports such as cotton from the US.

Trump will also insist that China relax its numerous non-tariff barriers now blocking US exports across a wide range of products, including autos, agricultural commodities, fertilizers, and telecommunications equipment. Nor will a Trump Administration condone China's continued dumping of billions of dollars of illegally subsidized goods into US markets, e.g., the massive dumping of steel.

Our view is that China's leaders will quickly understand they are facing strength on the trade issue in Trump rather than the kind of weakness on trade that has characterized the Obama-Clinton years. Just as these Chinese leaders have been exploiting American weakness by cheating in the trade arena, they will acknowledge the strength and resoluteness of Trump and rein in their mercantilist impulses.

Ultimately, our view is that doing nothing about unfair trade practices is the most hazardous course of action – and the results of this hazard are lived out every day by millions of displaced American workers and deteriorating communities. There are many markets in the world and China is just one of them. We simply cannot trade on their one-sided terms as they are too destructive to the US growth process. The same is true of other trading partners.

X. Conclusions and Recommendations

The economic plans of Hillary Clinton and Donald Trump differ dramatically in the key areas of trade, regulation, and energy policies. These differences are not being fully accounted for in the various scorings of the fiscal impacts of the Clinton vs. Trump plans.

Our analysis indicates that the Trump trade, regulatory, and energy policy reforms would collectively increase Federal tax revenues by $2.4 trillion. In a separate analysis, the Tax Foundation has reported a dynamically scored $2.6 trillion revenue reduction from the Trump tax cuts assuming guardrails to prevent abuse of the business tax.

Taken together, these two analyses indicate the Trump economic plan is fiscally conservative. When properly scored, it approaches revenue neutrality and, with proposed budget savings outlined by the campaign are taken into account, it achieves revenue neutrality

While one can choose to debate the precision of our estimates, the positive impacts are undeniably significant and should be appropriately accounted for in the scoring models. Modelers are therefore urged to think more broadly about the overarching question they are seeking to answer: How will the competing economic plans of Clinton vs. Trump affect budget balance and more broadly growth, jobs, and income? Modelers can only answer that question by including the effects of trade, regulatory, and energy policies in their forecasts and by accounting for proposed spending cuts like Trump's one percent annual reduction in non-military, non-entitlement discretionary spending.

Journalists are likewise urged to consider the following checklist when they are reporting the latest results from the modeling community:

1. Does the model account for supply side tax policy effects?
2. Does the model account for energy and regulatory policy effects?
3. Does the model account for synergies between tax and trade policies? (For example, a cut in the corporate tax will boost business investment, and increase GDP growth and revenues – is that counted?)
4. Does the model account for trade deficit and offshoring effects, which represent significant drags on U.S. GDP growth?

We hope this analysis will spark an important debate that goes beyond the old and tired critiques that have little or no relevance for the challenges we face in this new century. The bigger, more exciting, and hopeful story here is about the underlying structural problems facing the US economy and how to fix them. That's why no journalist, analyst, or modeler should ever mistake the Trump tax plan for the whole Trump economic plan.

The Trump tax cuts are an essential piece of the growth puzzle. So, too are the combined effects of trade, regulation, and energy policies.

APPENDIX A: Trump Plan Scoring Assumptions

Savings Rate	8%
Dividend Tax Rate	18%
Withholding Tax Rate	21%
Trust Tax Rate	7%
Business Tax Rate	15%
Dividend Payout Ratio (Energy Sector)	20%
Dividend Payout Ratio (Non-Energy)	33%
Pretax Rate of Return on Investment	5%
Wages As Percent of Revenues	44%
Pre-tax Profit Margin on Incremental Sales	15%
Multiplier on Economic Activity (Energy, Trade)	1.00

Appendix B: Regulatory Reform Calculations

Eliminating $200 billion of costs equals $200 billion of pretax profits taxed at 15%, $30 billion. This leaves $170 billion post-tax of which one third or $56.67 billion is paid as dividends taxed at 18%, $10.2 billion. This leaves $46.47 billion post-tax minus an 8% savings rate or $3.72 billion leaves $42.75 billion for consumption. The remaining $113.33 is reinvested on the same basis. This creates an additional $37.51 billion of taxes for a total of $439.51 billion in 2016 dollars. This tax amount is converted to nominal dollars using the 1.1082 inflation factor for a final tax figure of $487 billion.

Reinvestment of Annual Returns on Prior Investments: Regulatory Reform

Year	Beginning Principal	Interest	Taxes	Earnings After Tax
1	56.66	2.83	.42	2.41
2	172.43	8.62	1.29	7.33
3	293.09	14.65	2.20	12.45
4	418.87	20.94	3.14	17.80
5	550.00	27.50	4.12	23.38
6	686.71	34.34	5.15	29.19
7	829.23	41.46	6.22	35.24
8	977.80	48.89	7.33	41.56
9	1,152.69	57.63	7.64	48.99
10		53		
		256.86	37.51	219.35

Note: First year principal is the average of zero beginning balance and $42.50 ending balance

Tax Revenue Additions: Regulatory Reform	
	Billions of Dollars
Corp. Dividend	30.00
Reinvestment	10.20
Annual Tax	40.20
X10 year Reinvestment	402.00
Tax on Reinvestment Return	+ 37.51
Total Tax	439.51
Inflation Factor	1.1082
Taxes in Nominal Dollars	487.1

Appendix C: Energy Calculations

The Institute for Energy Research estimated the annual GDP impact at $127 billion for the first seven years and $450 billion annually in the next 30 years. To be conservative we use the $127 billion figure for all ten years of our modeling horizon. As a further conservative step, we discounted the $127 by 25%, or $31.75 billion yielding $95.25 billion, of which 44% or $41.91 billion are wages taxed at 28% (21% + 7% for the trust fund). This yields $11.73 billion of taxes, for $30.18 billion post-tax minus an 8% savings rate, $2.41 billion, for $27.77 billion of annual consumption.

The pre-tax profit margin on the $95.25 billion of revenues is assumed to be 15%, or $14.29 billion taxed at 15%, $2.15 billion. This leaves $12.14 post tax, of which 20% is dividends, $2.43 billion. This leaves $9.71 billion for reinvestment. The dividends are taxed at 18%, yielding $437 million of taxes. The $9.71 is reinvested each year at 5% pre-tax, a conservative number, and the earnings after 15% taxes are also reinvested as they occur at the same 5% pre-tax rate. This results in $4.11 billion of additional taxes for a total in 2016 dollars of $147.3 billion.

Tax Revenue Additions: Energy	
	Billions of Dollars
Wage	11.73
Corp.	2.15
Div.	+ .44
Annual Tax	14.32
Years	X 10
	143.2
Reinvestment earnings	+ 4.1
Basic Taxes	147.3

Reinvested Principal: Energy Impacts				
Year	Beginning Principal	Interest	Taxes	Earnings After Tax
1	4.86	.24	.04	.20
2	14.77	.74	.11	.63
3	25.11	1.26	.19	1.07
4	35.89	1.79	.26	1.53
5	47.13	2.36	.35	2.01
6	58.85	2.94	.44	2.50
7	71.06	3.55	.53	3.02
8	83.79	4.19	.63	3.56
9	97.06	4.85	.73	4.12
10	110.89	5.54	.83	4.71
Total		27.46	4.11	23.35

Note: First year principal is the average of zero beginning balance and $42.50 ending balance

Appendix D: Trade Calculations

$500 billion revenues x 44% labor content = $220 billion of wages times taxed at 21 + 7 for 28% = $61.6 billion of taxes and $158.4 billion post tax income minus 8% savings rate of $12.7 billion = $145.7 billion of consumption per year. Corporate incremental pre-tax margin of 15% equals $75 billion pre-tax minus 15% taxes, $11.25 billion, equals $63.75 billion post tax of which one third or $21.25 billion is distributed as dividends taxed at 18%, $3.8 billion.

The $42.50 billion retained by the business is reinvested domestically at 5% pre-tax per annum as it comes in and so are the returns on the reinvestment. The returns are taxed at 15% for additional taxes of $18.04 billion for a total of $784.84 billion in 2016 dollars. Since taxes are paid in nominal rather than real dollars we applied to them a 1.1082 adjustment factor for inflation over the 10 years. We applied the $1 to $1 discounted NAM multiple to this amount.

Tax Revenue Additions: Trade	
	Billions of Dollars
Wages	$61.60
Business	11.25
Dividends	+ 3.83
Annual Tax	$76.68
	X 10 years
	$766.8
Tax on Reinvested Income	+ 18.04
Total Taxes in 2016 Dollars	$784.84
Inflation Factor	x 1.1082
	869.76
+ Discounted NAM Multiplier	+ 869.76
+ Taxes in nominal dollars	$1,739.52

Reinvestment Calculation: Trade				
	Reinvested Principal	Pre-tax Return	Taxes	Post-tax Reinvestment
1	21.25	1.06	.16	.90
2	64.65	3.23	.48	2.75
3	109.9	5.5	.82	4.68
4	157.08	7.85	1.18	6.67
5	206.25	10.31	1.55	8.76
6	257.51	12.88	1.94	10.94
7	310.95	15.55	2.33	13.22
8	366.68	18.33	2.75	15.58
9	424.76	21.23	3.19	18.04
10	485.30	24.27	3.64	20.63
Total		120.21	18.03	102.18

Note: First year principal is the average of zero beginning balance and $42.50 ending balance

ENDNOTES

[1] The Tax Foundation's $2.6 trillion estimate assumes guardrails are in place to insure the
[2] We take this baseline to be the $2.6 trillion estimate of tax reductions as the assumptions best reflecting the actual Trump plan's overall tax effects. We also reject any estimates expressed in under static, rather than dynamically, scored modeling assumptions.
[3] These gains are expressed in nominal dollars and cumulated over the course of the standard ten-year budget window that stretches from 2017 to 2026. They represent gains above the baseline scenario of a 1.96% annual increase in real GDP growth over the 10-year period as forecast by the Congressional Budget Office. We use the CBO baseline because this is common practice in the modeling community.
[4] To reiterate, the assumption about the tax treatment of pass-through income used to generate the higher $3.9 trillion Tax Foundation estimate is inconsistent with the intent of the Trump tax plan.
[5] "Nominal" refers to inflation-adjusted. We start in 1947 to avoid the skew of the steep falloff in GDP in 1946 (-11.6) as the economy transitioned from a war economy to a peacetime one. (From 1941 through 1943, at the height of wartime production, the annual real GDP growth rate was roughly 18%.)
[6] US Department of Commerce, Bureau of Economic Analysis, GDP & Personal Income Data. Table 1.1.1. Percent Change From Preceding Period in Real Gross Domestic Product.
[7] Like everything else, it declined in the 2009 crash.
[8] This is the standard formulation of aggregate demand in any economic principles textbook.
[9] The 2015 trade deficit in goods and services was $540 billion. We use a figure of $500 billion in our estimates to be conservative, as the trade deficit over the last 12 months has fallen to that level partly because of lower oil prices.

[10] As support for this conservative rule of thumb, consider the time period 2000 to 2015. If we simply divide the real GDP growth in each year during that time period (available from the Bureau of Economic Analysis) by the nonfarm employee net job gain in that same year (available from the Bureau of Labor Statistics) and compute an average, we arrive at a number of 1.3 million jobs a year – 100,000 higher than our rule of thumb.

[11] This is as of August 2016.
[12] These estimates are in line with those of the Obama administration itself. Its Office of Information and Regulatory Affairs within the Office of Management and Budget estimates the cost burden at $1.7 trillion.
[13] This study focuses narrowly on opening Federal lands that are "statutorily or as a matter of administration policy prohibited from leasing" and projects savings over a seven-year period rather than the 10-year period used in this study. We use this study's figures as a proxy for broader effects and note that its narrow scope contributes to our use of only conservatively estimated impacts. In years 8 through 10, the annual costs

estimated in the Institute for Energy Research study rise to $450 billion annual, so our use of the discounted seven-year figure is conservative.

[14] The Congressional Budget Office model calculates wages as a percent of GDP at 44%, which is our proxy. See detailed revenue projections, income, wages and salaries.

[15] Note that this figure adds state and local taxes to the 35% Federal rate.