

Portfolio Strategy January 2017

Destination Taxes and the Bretton Woods II Era: A Second Look

The Key Issue: Who Imports and Exports

- We did further work to model the consequences of the proposals for revamping corporate taxation, focusing on the sector- and industry-level effects. The most contentious of them involves putting in place a destination tax, that would reward net exporters while penalizing companies reliant on imports. President-Elect Trump has invoked the tax when goading companies to add or protect jobs in the U.S., although he's also said he finds the House Republicans' initiative overly complicated. In modeling the P&L effects of such a tax what matters is not the trade deficit for the country as a whole, but rather that generated by the companies we invest in. We used data on multinationals from the Bureau of Economic Analysis to disentangle this complex issue.
- U.S. multinationals run trade surpluses, with the largest ones in capital goods and defense. That's also the case for the technology sector. The deficits are in retailing, wholesaling and refining, and more broadly they're attributable to U.S. consumers buying goods from foreign companies. Only a tenth of the production of U.S. companies' foreign affiliates ever touches U.S. borders; they're multinationals because that's where their customers are located. The real threat from a destination tax is not a direct hit to margins, it's the prospect of retaliatory measures, like those that spread around the world after the passage of the Smoot-Hawley Act in 1930. They'd undermine the Bretton Woods II regime that's dependent on trade, and with it, the market's multiple.
- The most certain outcome is that the top statutory tax rate paid by corporations will come down, and that alone explains most of the market's move since the election. All other things being equal, health care services, med tech, energy, railroads, retailers, financials and utilities would benefit most from that change. Globalized industries like most of technology and the pharmaceuticals already pay low effective rates. The shift to a territorial system that would eliminate U.S. taxation of foreign earnings, would add several percentage points to the margins of most multinationals, with the energy sector the winner. It remits a significant fraction of foreign earnings back to the U.S. and as such would profit from the elimination of the higher domestic tax.
- Manufacturers of all ilks have driven the market's margin expansion during the 15 years of the Bretton Woods II era. 40% of their margin gains were attributable to reductions in labor costs, just over a third were tied to declines in effective tax rates, and the rest were a byproduct of falling interest rates.

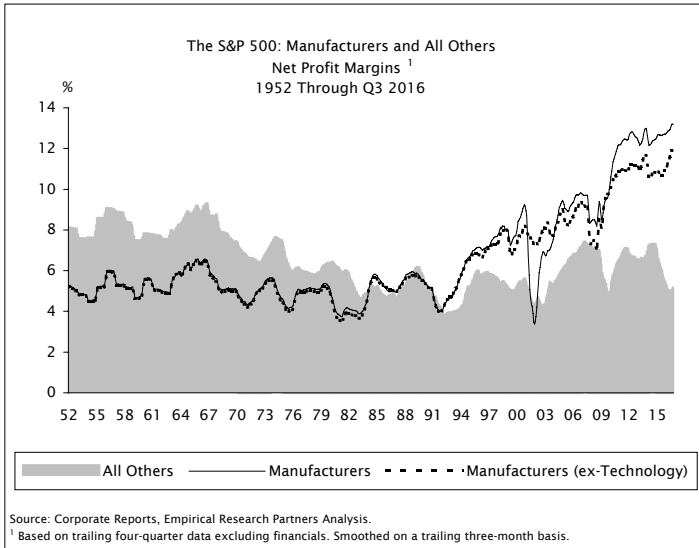
Conclusion: A Bearish Assymetry

- U.S. multinationals haven't needed legislation to reduce their tax bills, globalization has done it for them. Their tax rates fell as they moved production offshore, which is also where their customers are increasingly located. Radical changes to tax policy may not produce the desired consequences because the effective rates are already low and the customer base is geographically dispersed. The fact that the Dollar is the world's reserve currency and it floats is another formidable impediment to paring the trade deficit. The market is assigning little-to-no probability that the protectionist rhetoric will turn into reality, and we need that assessment to be right. The margin story of the past 15 years is the byproduct of globalization and automation, and any attempt to try to reverse the first of those phenomena would in all likelihood prove detrimental to the market's valuation.

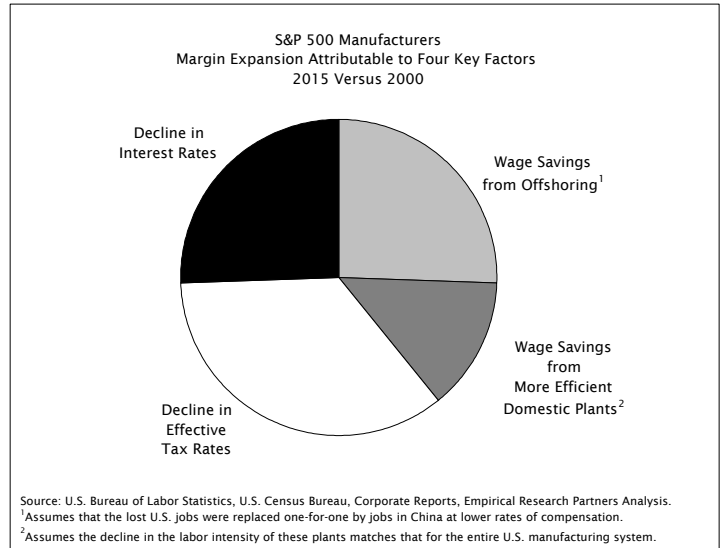
Nicole Price (212) 803-7935 Sungsoo Yang (212) 803-7925 Yi Liu (212) 803-7942 Yu Bai (212) 803-7919 Yuntao Ji (212) 803-7920 Janai Haynes (212) 803-8005

Conclusions in Brief

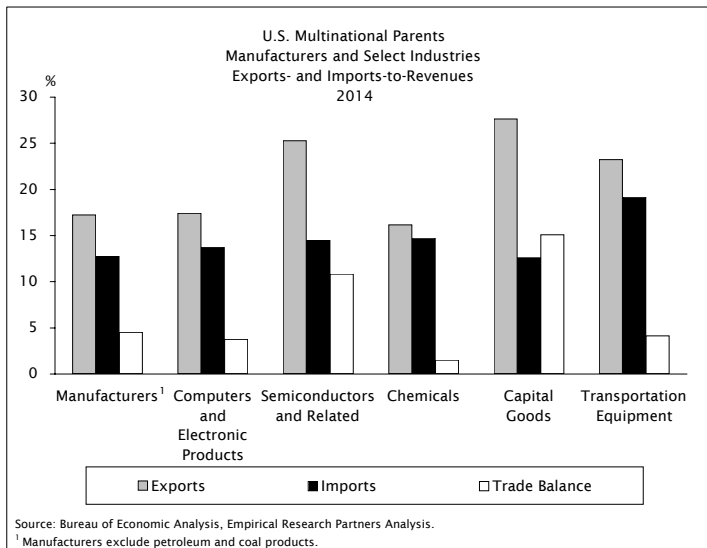
- Manufacturers have propelled the margin gains of the Bretton Woods II era...



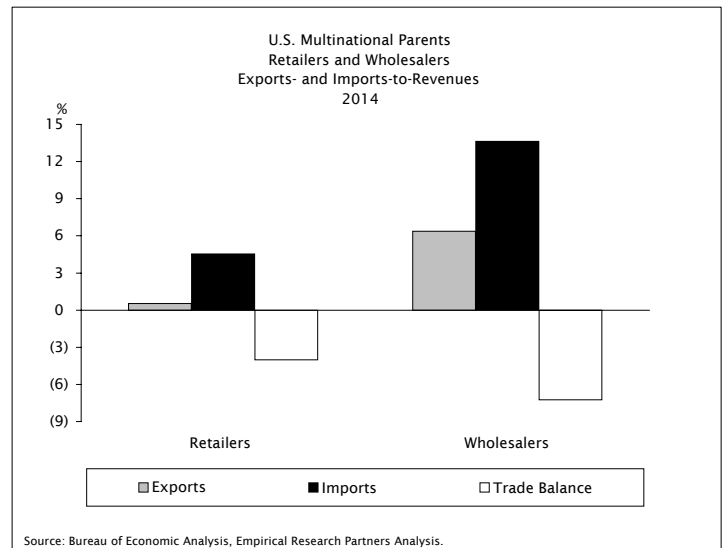
- ...As globalization has produced a whole series of consequences:



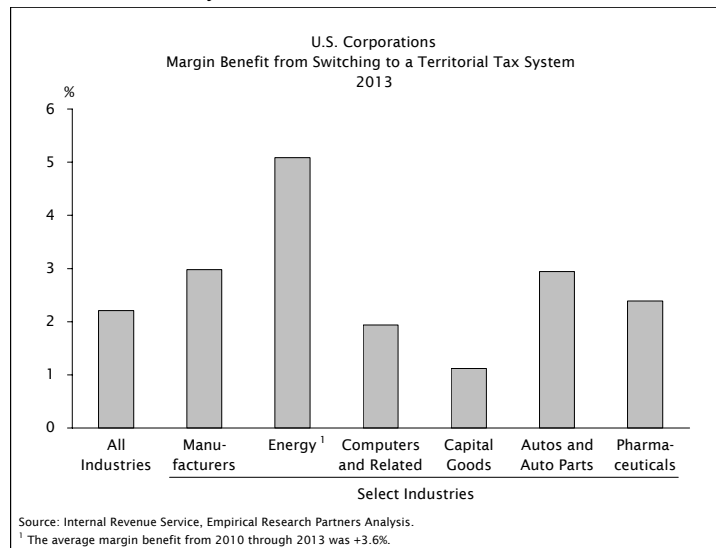
- U.S. multinationals generate trade surpluses...



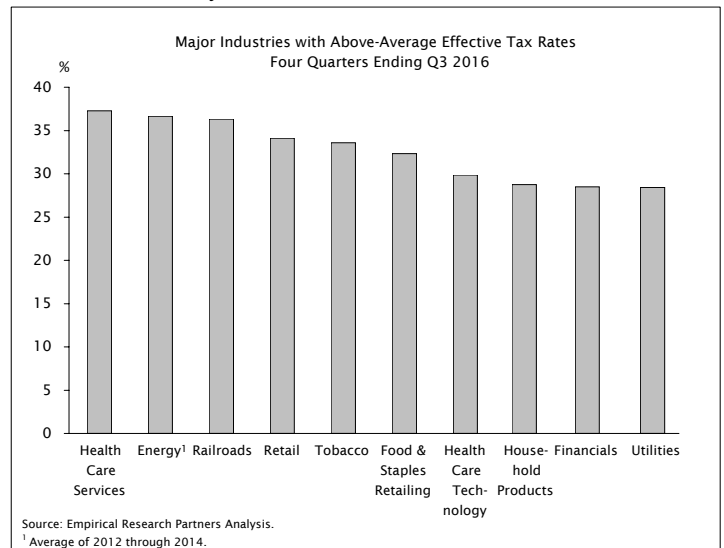
- ...Retailers of course do not:



- The energy sector would gain from the switch to a territorial tax system...



- ...And it's among the industries that would benefit from a decline in statutory tax rates:



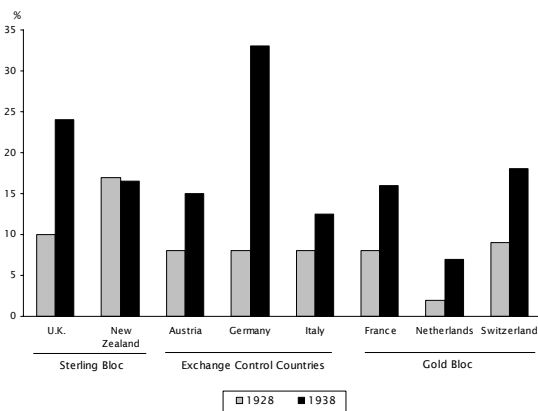
Destination Taxes and the Bretton Woods II Era: A Second Look

A Thorny Problem

The House Republicans have proposed a corporate destination tax that would eliminate the tax deductibility of imported goods and services as well as the taxability of exports. Their plan includes other sweeping changes that if enacted in their entirety would constitute the largest change in the tax code in more than a century. President-Elect Trump had used the destination tax proposal as a stick, trying to goad multinationals into creating jobs in the U.S. It's hard to gauge the odds that it will become reality, at the moment it looks unlikely, nevertheless its protectionist character has caught the attention of investors. It harkens back to the Smoot-Hawley Act that in 1930 created the largest increase in tariffs in 100 years and set off a wave of protectionism around the world (see Exhibit 1). In December we took a stab at modeling the effects of the proposed tax on the tech hardware and semiconductor industries and in this research we expand upon that work using data on the imports and exports of U.S. multinationals.¹

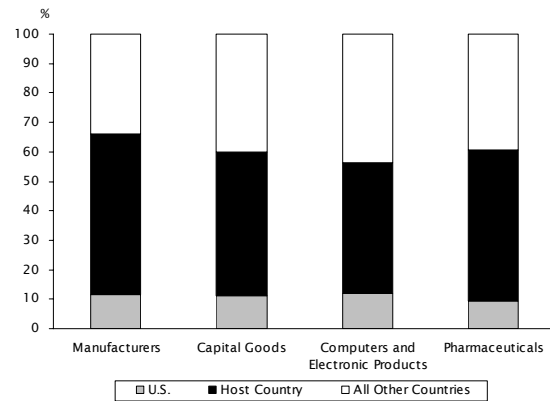
This problem is an exceptionally-thorny one because public companies do not disclose their imports and exports. What they do reveal is their foreign revenues, that for manufacturers represent around half of the total. That information isn't useful for this analysis because the bulk of the production of their foreign affiliates never enters the U.S. and as such wouldn't be subject to a border tax (see Exhibit 2). Most big companies truly are multinational.

Exhibit 1: Tariffs on Imports in Select Countries 1928 and 1938



Source: Eichengreen, B. and Douglas A. Irwin, 2009. "The Protectionist Temptation: Lessons from the Great Depression for Today." <http://www.voxeu.org/>.

Exhibit 2: U.S. Multinationals Manufacturers and Select Industries Breakdown of Foreign Affiliates' Sales: To the U.S., Their Host Country and All Other Countries 2014



Source: Bureau of Economic Analysis, Empirical Research Partners Analysis.

In our attempt to quantify the exposures of U.S. public companies to a destination tax we drew upon not only their financial filings but also a separate set of accounts for multinationals maintained by the Bureau of Economic Analysis. The Census Bureau and the United Nations are the sources of aggregate information on trade and we also used data from the IRS to understand the breakdown of credits for taxes paid in foreign countries.

Bretton Woods II: The Moving Pieces

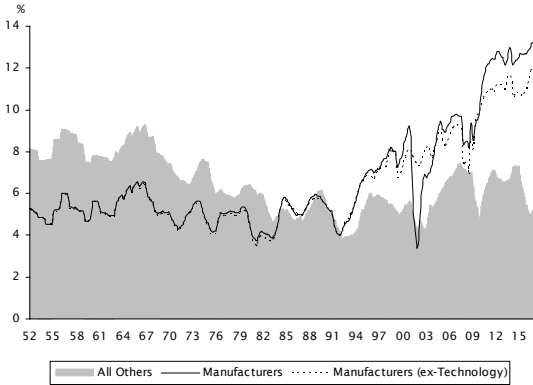
As we've pointed out incessantly over the years, in the 15 years of the Bretton Woods II era companies involved in manufacturing have accounted for most of the margin expansion of the S&P 500 index (see Exhibit 3). In the last decade or so one sector, technology, drove the margin trend for the entire market (see Exhibit 4). The 175 constituents that comprise our manufacturer composite source nearly half of the index's earnings. Manufacturing employment on the other hand represents only 8.5% of the U.S. total and has been declining in importance for more than 50 years (see Exhibit 5). Its share stabilized in the 2010s. What we've witness in the U.S. is indicative of what's gone on throughout the developed world (see Exhibit 6).

There's a debate about why manufacturers' margins have gone up so much. Some investors believe that it's all been about robotics, such that cheap machines have replaced expensive people. If that's in fact the case, the destination

¹Portfolio Strategy December 2016. "Destination Taxes and the Technology Sector."

tax won't matter much because low-cost, heavily-automated capacity can be put in place domestically. While we believe that the use of robotics explains some of the margin expansion, it's far from being the entire explanation.

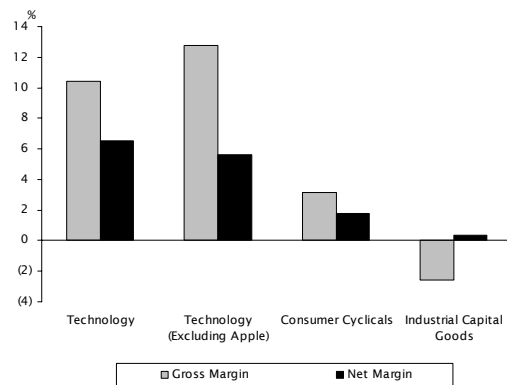
Exhibit 3: The S&P 500: Manufacturers and All Others Net Profit Margins¹ 1952 Through Q3 2016



Source: Corporate Reports, Empirical Research Partners Analysis.

¹Based on trailing four-quarter data excluding financials; smoothed on a trailing three-month basis.

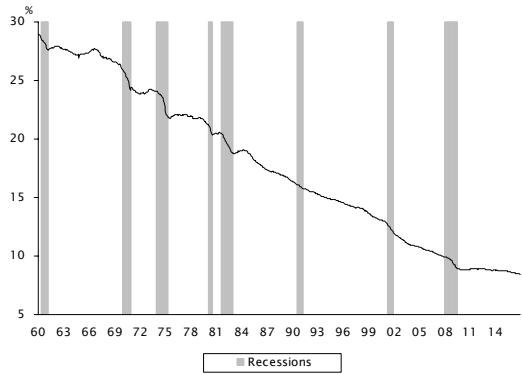
Exhibit 4: Select S&P 500 Sectors Changes in Gross and Net Margins¹ Q3 2016 Versus 2005



Source: Corporate Reports, Empirical Research Partners Analysis.

¹Based on trailing four-quarter data.

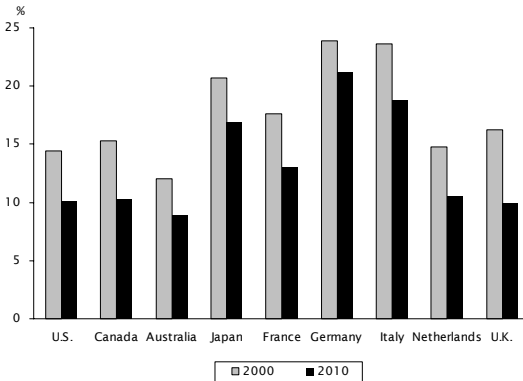
Exhibit 5: The U.S. Manufacturing Employment as a Share of the Total¹ 1960 Through 2016



Source: National Bureau of Economic Research, Bureau of Labor Statistics, Empirical Research Partners Analysis.

¹Excludes agriculture.

Exhibit 6: Select Developed Economies Manufacturing Employment as a Share of the Total 2000 and 2010

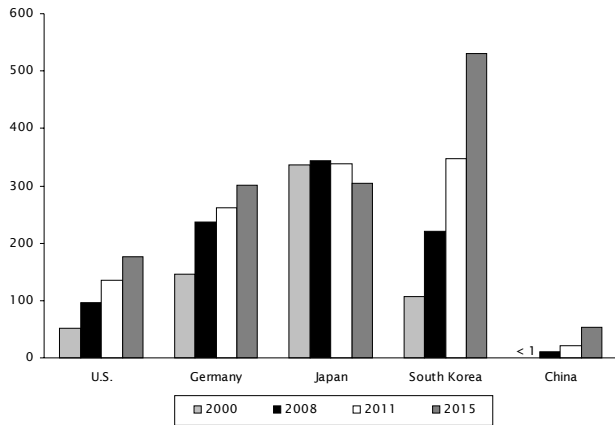


Source: Lawrence, R. Z. and Lawrence Edwards, 2013. "U.S. Employment Deindustrialization: Insights from History and the International Experience," Peterson Institute for International Economics, *Policy Brief* 13-27.

The use of robots has skyrocketed in the U.S., mirroring trends seen in Germany, South Korea and more recently in China (see Exhibit 7). Concurrently, the work forces of U.S. plants have declined by a third, with reductions occurring in every industry. The result is that output and value-added per employee are up, with chemicals and autos in the lead (see Exhibit 8). Capital equipment has become cheaper relative to the cost of labor and that relationship explains much of the reduction in the manufacturing work force worldwide (see Exhibit 9). Just like in agriculture before it, in manufacturing machinery has long been replacing people, it's just that the machines have gotten smarter.

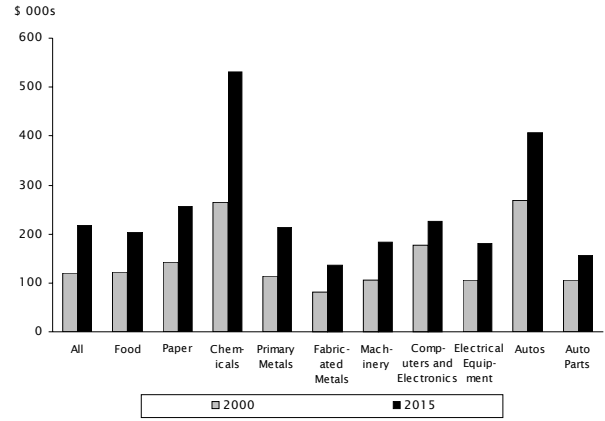
While robotics has been a significant factor behind the margin improvement, the globalization of the plant floor looks to us to be a more important one. That's because wage differentials around the world remain huge. For example, in 2001 U.S. workers made \$25 per hour more than their Chinese counterparts, and now even after a long period of rising wages that differential tops \$30 per hour (see Exhibit 10). The picture is the same when Mexico is substituted for China in the comparison. One way we can see how those wage gaps have been manifest in the system is to examine the role of the imports of intermediate goods from the developing world in U.S. production. Their weight in the supply chain almost doubled over 15 years (see Exhibit 11). By all accounts the initial cost savings realized from relocating production to those locales were large and they flowed through to margins (see Exhibit 12). China was the big winner, capturing around 70% of all the export-related jobs created worldwide (see Exhibit 13). In 2016 CEOs ranked it as the most competitive place to manufacture, owing to its low costs (see Exhibits 14 and 15). The U.S. has been moving up in the standings and now ranks a close second.

**Exhibit 7: Robot Use in Manufacturing
Number Per 10,000 Employees
2000, 2008, 2011 and 2015**



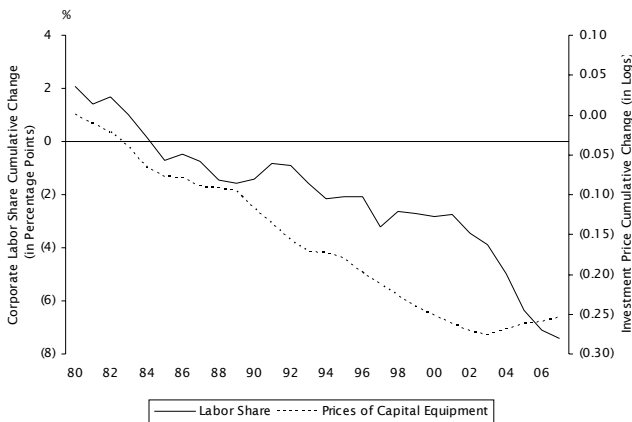
Source: Metra Martech Limited, International Federation of Robotics, Empirical Research Partners Estimates.

**Exhibit 8: U.S. Manufacturing Plants
Value Added Per Employee By Industry
2000 and 2015**



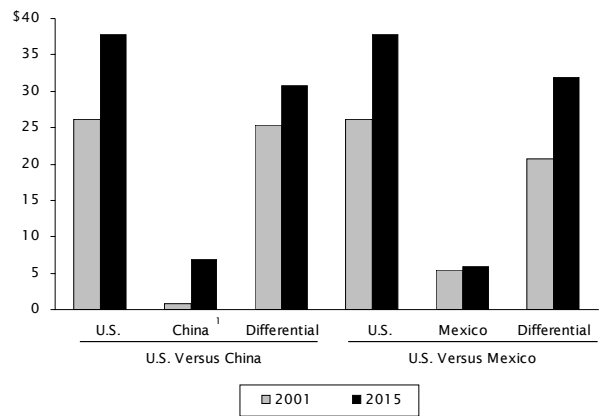
Source: U.S. Census Bureau, Annual Survey of Manufactures.

**Exhibit 9: Global Corporations
Movements in the Labor Share
and Relative Prices of Capital Equipment
1980 Through 2007**



Source: Karabarbounis, L. and Brent Neiman, 2012. "Declining Labor Shares and the Global Rise of Corporate Savings," NBER Working Paper No. 18154.

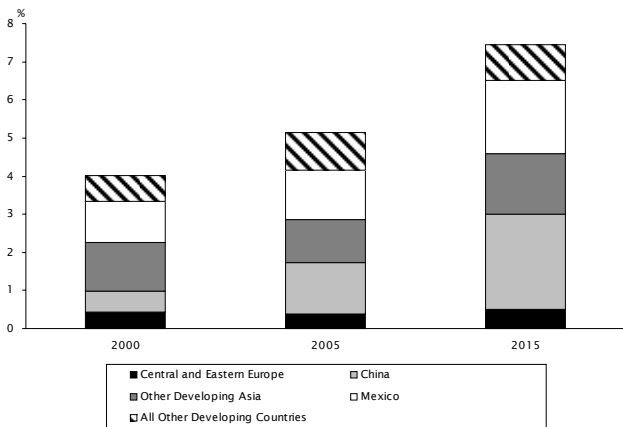
**Exhibit 10: The U.S., China and Mexico
Manufacturing labor Compensation Per Hour
2001 and 2015**



Source: Bureau of Labor Statistics, The Conference Board, CEIC, Empirical Research Partners Analysis.

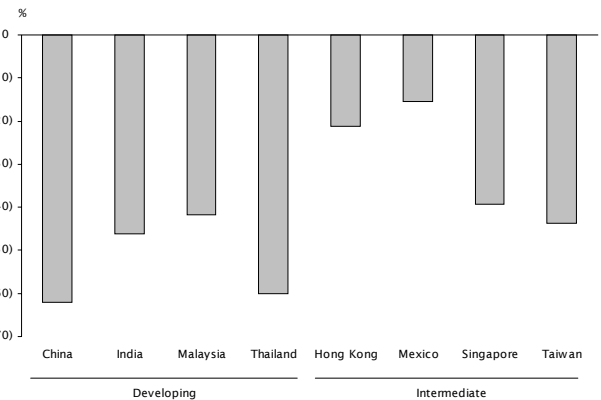
¹For urban areas. Wages nationwide are (29)% lower.

**Exhibit 11: Intermediate Goods Imports from Developing Countries
As a Share of U.S. Manufacturing Shipments
2000, 2005 and 2015**



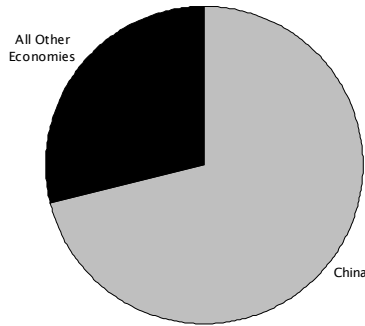
Source: UN Comtrade, U.S. Census Bureau, Empirical Research Partners Analysis.

**Exhibit 12: Import Prices from Select Developing and Intermediate Countries
Declines Realized by Firms Switching Suppliers
September 1993 Through May 2007**



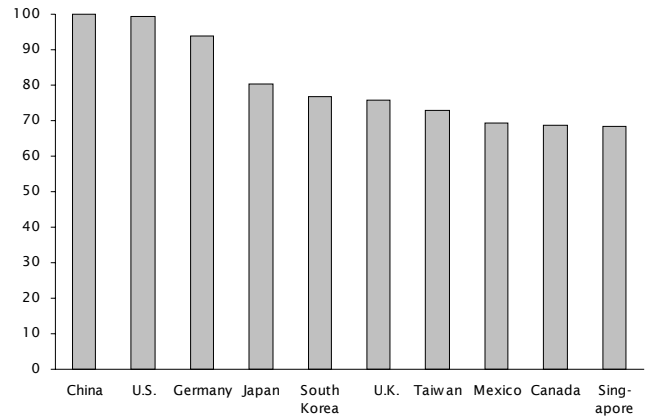
Source: Houseman, S., Kurz, C., Longermann, P. and Benjamin Mandel, 2010. "Offshoring Bias in U.S. Manufacturing: Implications for Productivity and Value Added," Federal Reserve Board *International Discussion Papers* No.1007.

**Exhibit 13: China and All Other Economies
Shares of Jobs Created By Exports
1995 Through 2009**



Source: Jiang, X. and William Milberg, 2013. "Capturing the Jobs from Globalization: Trade and Employment in Global Value Chains." Working Paper.

**Exhibit 14: Global Manufacturing Competitiveness Index
Top Ten Countries Based on a Survey of CEOs
(100 = Best)
2016**



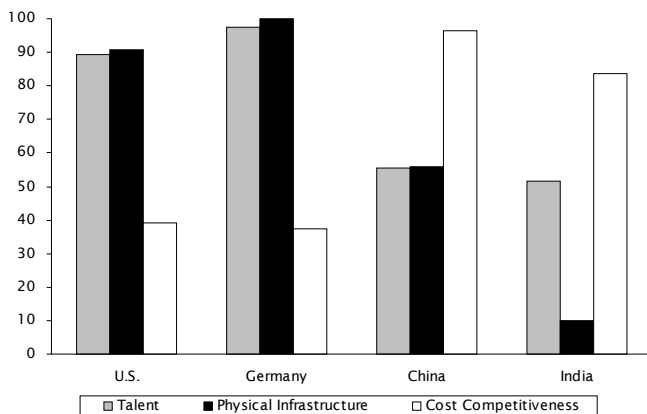
Source: Deloitte Touche Tohmatsu Limited, U.S. Council on Competitiveness.

Explaining the Margin Expansion: Four Factors

We turned to a variety of data sources to try to explain the margin expansion enjoyed by manufacturers in the decade and a half of the Bretton Woods II era. We found four factors that together seem to explain pretty much everything that's gone on: a reduction in effective tax rates, wage savings from offshoring, a sharp decline in interest rates and the savings that came from automating the plant floor (see Exhibit 16).

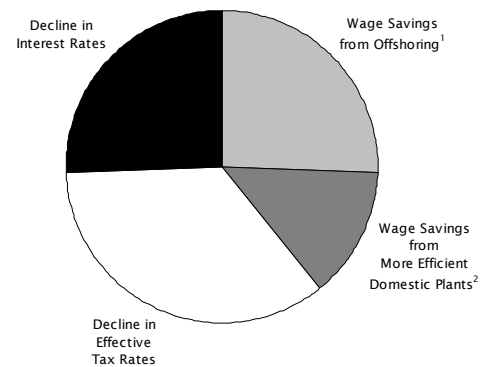
The most powerful of the four factors has been tax rates, that fell by a whopping (14) percentage points, the result of income being increasingly sourced in low-tax-rate locales. In fact, the effective tax rate of our manufacturer composite is currently around 20%, matching that in the Republican's proposal. The reduction in tax payments accounted for more than a third of the margin gains. The next-largest component, at around a quarter of the total, were the savings that came from offshoring production. We estimated them using the wage differentials between U.S. and Chinese workers. A third factor was the large decline in the cost of financing and the rest came from automating the plant floor. We estimated the P&L benefits from automation using data from the Census Department's Survey of Manufacturers that provides plant-level line-item detail by industry. The bottom line is the direct and indirect effects of globalization and automation explain everything that's gone on.

**Exhibit 15: The U.S., Germany, China and India
Three Drivers of Competitiveness
Based on a Survey of CEOs
(100 = Best)
2016**



Source: Deloitte Touche Tohmatsu Limited, U.S. Council on Competitiveness.

**Exhibit 16: S&P 500 Manufacturers
Margin Expansion Attributable to
Four Key Factors
2015 Versus 2000**



Source: U.S. Bureau of Labor Statistics, U.S. Census Bureau, Corporate Reports, Empirical Research Partners Analysis.

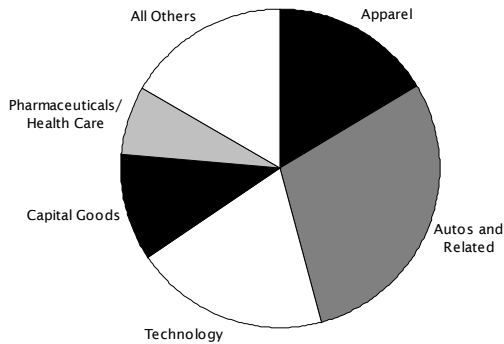
¹Assumes that the lost U.S. jobs were replaced one-for-one by jobs in China at lower rates of compensation.

²Assumes the decline in the labor intensity of these plants matches that for the entire U.S. manufacturing system.

Modeling the Direct Consequences of the Destination Tax Proposal

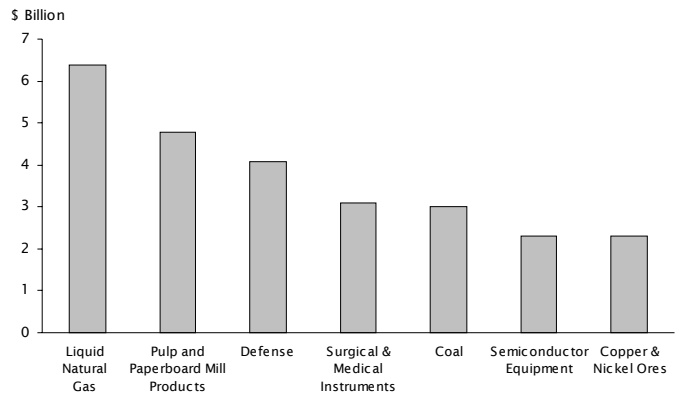
The destination tax aims to incent companies to move manufacturing back to the U.S., creating high-paying jobs and reducing the trade deficit in goods. To get a better understanding of where that's supposed to occur we looked into where that deficit comes from in the first place. In Exhibit 17 we disaggregate it, taking oil out of the equation; autos, technology and apparel represents almost two-thirds of it, with health care, mainly pharmaceuticals, and capital goods another 18% of the total. Liquid natural gas, paper, defense, medical devices, coal, semiconductor equipment and copper are among the industries where there have been significant surpluses (see Exhibit 18).

Exhibit 17: Composition of the U.S. Trade Deficit (ex-Petroleum) By Industry 2016 Through November



Source: U.S. Census Bureau.

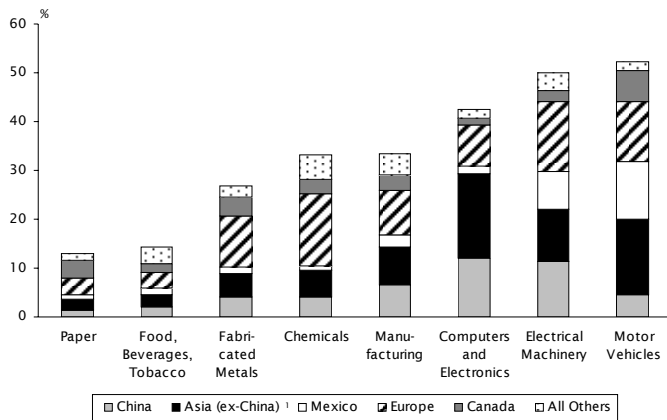
Exhibit 18: Select Industries Trade Surpluses 2016 Through November



Source: U.S. Census Bureau, Empirical Research Partners Analysis.

A second way we can get a handle on what businesses would be in the crosshairs of a tax is to examine data from the OECD on foreign value-added by industry. Once again, autos and technology stand out (see Exhibit 19).

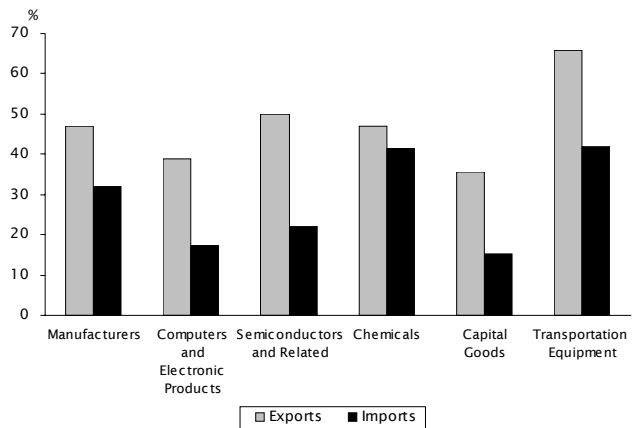
Exhibit 19: Select U.S. Manufacturing Industries Foreign Value-Added as a Share of the Total 2011



Source: OECD-WTO Trade in Value-Added (TiVA) Database, Empirical Research Partners Analysis.

¹Asia (ex-China) is comprised of Japan, Korea, Hong Kong, Indonesia, Cambodia, Malaysia, Philippines, Singapore, Thailand, Taipei and Vietnam.

Exhibit 20: U.S. Multinational Parents Manufacturers and Select Industries Share of Total U.S. Exports and Imports 2014



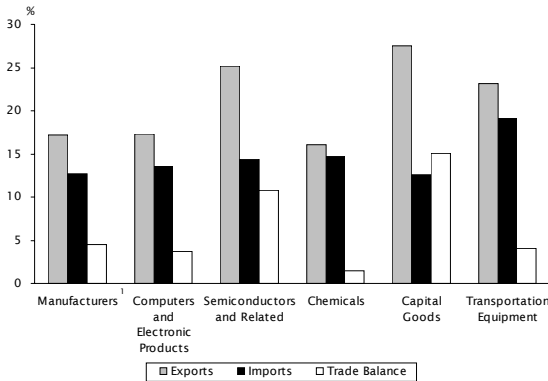
Source: Bureau of Economic Analysis, Empirical Research Partners Analysis.

What we care about though are not all imports and exports, but those of U.S. companies. The government trade statistics encompasses all the activity, including that which originates with non-U.S. companies that comprise a meaningful part of the puzzle. Fortunately the Bureau of Economic Analysis collects trade data from U.S. multinationals, that quantifies their exposures and discriminate between trade with their foreign affiliates and that with everyone else. Multinationals represent a much larger share of exports than imports, because many of the former go direct from non-U.S. companies to U.S. consumers (see Exhibit 20). The totals for the multinational universe match up pretty well with those in our public company database.

In Exhibit 21 we present the data for the universe of multinational manufacturers, along with that for some key industries.² We've excluded the oil industry from the equation although a destination tax would be a problem for refiners. Here we're looking at the aggregate exports and imports of the U.S. parent entities normalized by their revenues. The BEA data has been adjusted to eliminate the double counting of revenues due to intra-company transactions.

We believe that the parent entity is the correct one to use when analyzing the House proposal because it would be the taxable entity. We put considerable effort into tying the government data to that for public companies. Our key finding is that most industries run trade surpluses, and in semiconductors and capital goods they exceed 10% of revenues. Multinational wholesalers and retailers, a composite that includes all the major public companies, run large deficits (see Exhibit 22).

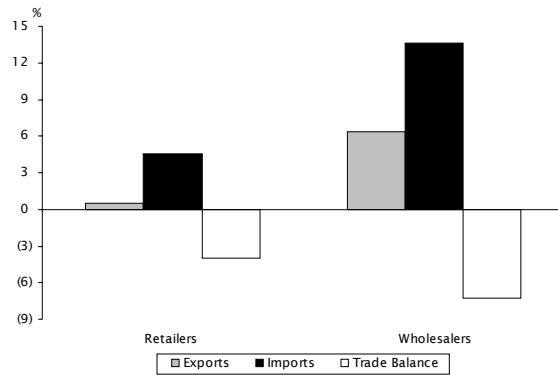
Exhibit 21: U.S. Multinational Parents Manufacturers and Select Industries Exports and Imports-to-Revenues 2014



Source: Bureau of Economic Analysis, Empirical Research Partners Analysis.

¹Manufacturers exclude petroleum and coal products.

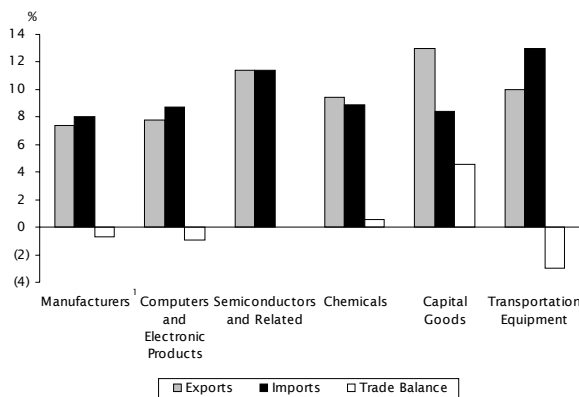
Exhibit 22: U.S. Multinational Parents Retailers and Wholesalers Exports and Imports-to-Revenues 2014



Source: Bureau of Economic Analysis, Empirical Research Partners Analysis.

For the most part the trade between U.S. parents and their own foreign affiliates turn out to be around a breakeven proposition, with exports more or less equaling imports (see Exhibit 23). The notable exception is the capital goods sector where there's a sizeable surplus. The real surpluses come from business done with outside customers and suppliers, as across the board, the value of exported final goods tops that for imported components (see Exhibit 24). For the economy as a whole the trade deficit in consumer goods, \$(450) billion, is almost eight times the size of that in intermediate goods, \$(58) billion.

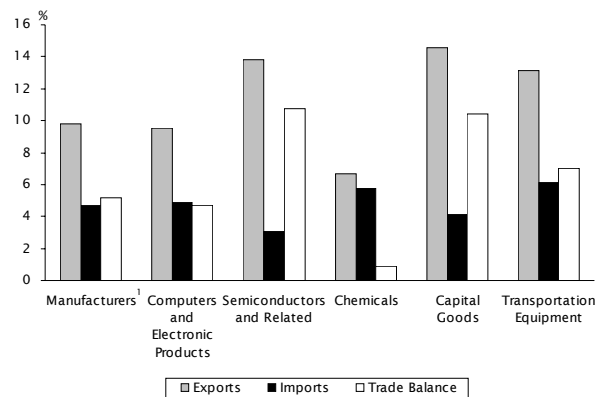
Exhibit 23: U.S. Multinational Parents Manufacturers and Select Industries Trade with Foreign Affiliates-to-Revenues 2014



Source: Bureau of Economic Analysis, Empirical Research Partners Analysis.

¹Manufacturers exclude petroleum and coal products.

Exhibit 24: U.S. Multinational Parents Manufacturers and Select Industries Trade with Others-to-Revenues 2014



Source: Bureau of Economic Analysis, U.S. Census Bureau, Empirical Research Partners Analysis.

¹Manufacturers exclude petroleum and coal products.

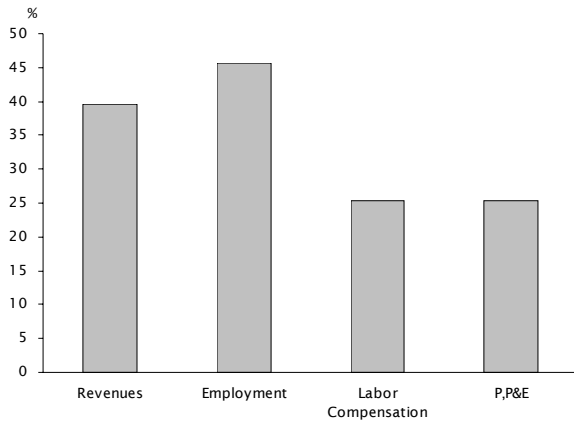
²The BEA suppresses data when the universe of companies is too small, limiting our ability to analyze some industries.

This analysis makes us think that for the likely suspects (i.e., the industries that in aggregate run large trade deficits) the *direct* effects of a destination tax would be inconsequential, because it's not big U.S. companies that generate the deficits. They arise from the imports of final goods manufactured by foreign companies. While retailers and wholesalers would be pressured by such a tax, it looks to us that manufacturers, the winners of the Bretton Woods II era, would benefit to a small extent, with capital goods producers enjoying a windfall.

More Bad Than Good

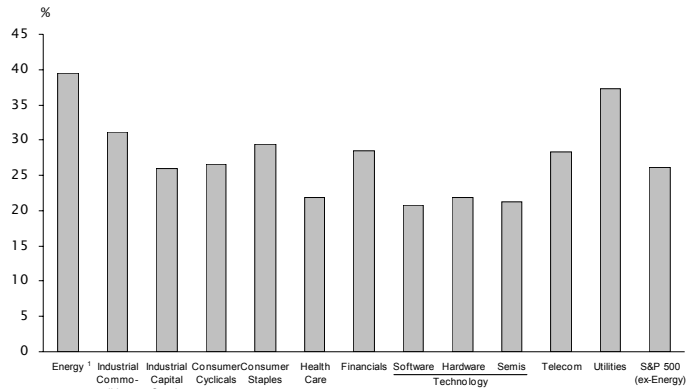
We're doubtful that the tax would produce the behaviors its proponents expect, because the vast majority of the sales of the foreign affiliates of multinationals are to customers outside the U.S. (see Exhibit 2). The reason they're located where they are has mostly to do with the geography of their customer base rather than the differentials in tax rates. Other costs matter too and even now there are wide gaps in labor compensation around the world. That's apparent in Exhibit 25 that presents data for the foreign affiliates of U.S. multinationals expressed as a share of the totals for their operations. Around 45% of all the headcount is located outside the country yet those employees account for only about a quarter of the compensation expense. The technology sector figures large in those statistics.

Exhibit 25: U.S. Multinational Manufacturers' Foreign Affiliates' Share of Revenue, Employment, Labor Compensation and P,P&E 2014



Source: Bureau of Economic Analysis, Empirical Research Partners Analysis.

Exhibit 26: The S&P 500 Sectoral Effective Tax Rates Four Quarters Ending Q3 2016



Source: Corporate Reports, Empirical Research Partners Analysis.

¹Manufacturers exclude petroleum and coal products.

¹Data is for 2012 through 2014.

The larger consequences of a destination tax are the critical ones because it could prove destabilizing to the global system and provoke a trade war akin to that of the 1930s. In that scenario the effect on the market's multiple would be quite negative particularly for manufacturers that have global customer bases. There's also the matter of the Dollar that should strengthen in response to the passage of the tax, although we doubt its appreciation would be large enough to fully offset the competitive effects of a border tax. On balance a strong Dollar would be a negative for manufacturers, that source around half of their income offshore.

It's likely that a detailed analysis of the consequences of a destination tax will prove to be a waste of time because a trade war would bring down all multiples, including those of the theoretical winners.

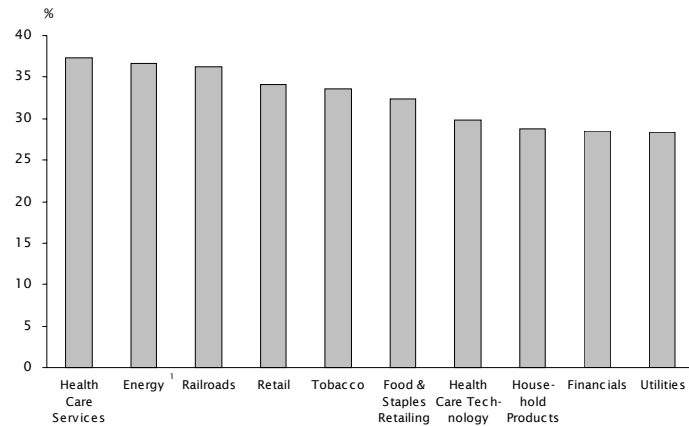
Other Aspects of the Republican's Corporate Tax Proposal

The part of the Republican's tax plan that most investors are quite sure will be enacted is a reduction in corporate tax rates. In fact all of the market's +7% return since the election can be reasonably ascribed to a tax cut. The benefits it creates are circumscribed though because sectors dominated by multinationals, like technology and pharmaceuticals, already have pushed their effective rates down to the proposed level (see Exhibit 26). There are some important groups that pay the higher rates, including HMOs and health care services, energy, railroads, retailers and financials (see Exhibit 27). They would, all other things being equal, end up to be winners from a tax deal.

A move to a full territorial tax system, that eliminates U.S. taxes on income earned overseas, another provision of the House Republicans' plan, would benefit industries that regularly repatriate earnings from countries with tax rates well below those of the U.S.

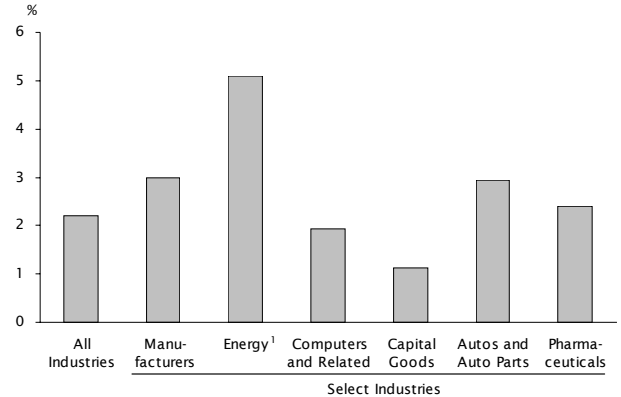
We studied that issue using data from the Internal Revenue Service, and Exhibit 28 presents an estimate of the margin benefit in some key sectors that would arise from switching to a territorial system. We estimated it using information on foreign tax credits, measured relative to taxable income, along with that on the differential in tax rates. On average the foreign tax rate paid was 17.5% or half the U.S. rate. So even if the U.S. rate goes down to 20% or 25% paying just the foreign rate would be advantageous. Energy, a sector that repatriates lots of foreign earnings, would gain from a territorial scheme.

Exhibit 27: Industries with Above-Average Effective Tax Rates Four Quarters Ending Q3 2016



Source: Empirical Research Partners Analysis.

Exhibit 28: U.S. Corporations Margin Benefit from Switching to a Territorial Tax System 2013



Source: Internal Revenue Service, Empirical Research Partners Analysis.

¹Average of 2012 through 2014.

¹The average margin benefit from 2010 through 2013 was +3.6%.

There are also proposals to allow the immediate expensing of capital expenditures while eliminating the deductibility of net interest. Utilities, telecom and auto parts would suffer from a loss of interest deductibility. While expensing would certainly pull some expenditures forward we're doubtful it would have a lasting effect on the level of capital investment. To us it doesn't look irrationally depressed to begin with, rather each dollar spent goes further than it used to.

Conclusions: No Winner in a Trade War

Drawing upon an array of government and company data we've made progress in understanding the trade position of public U.S. companies. While we don't know where each one in particular stands we do have an idea of how the exposure of each industry shakes out. Our key finding is that the parents of U.S. multinationals are net exporters, including capital goods manufacturers and most of the technology sector.

The trade deficit in final goods comes from sales by foreign companies to U.S. consumers. There's also of course a deficit in oil. Given that, a destination tax would likely be seen as a protectionist strike and prompt retaliation. It should also lead to a stronger Dollar although we doubt the adjustment process would be complete. That's why the capital goods manufacturers, the leading net exporters, may not be winners after all. Most of the business done outside the U.S. by multinationals never touches U.S. shores. Tax rate arbitrage has been a consequence of globalization, not the cause of it.

Since the election the market has capitalized a reasonable guess for the reduction in effective corporate tax rates. So far there's little evidence that the President-Elect's protectionist rhetoric will turn into real policy changes.

On paper the energy sector, financials, health care services, med tech, railroads, household products and utilities would benefit from reductions in the corporate tax rate. So too would retailers if the destination tax proposal is dropped. A move to a territorial tax system would reduce the tax rate of the energy sector.

Globalization has defined the Bretton Woods II era. As shown in Exhibit 16 about 40% of the margin improvement enjoyed by manufacturers had to do with labor cost savings, a little more than a third was attributable to lower tax rates and the rest came from declines in interest rates. The House Republicans' tax proposal would codify the tax rate declines that have already been realized while threatening the dynamic behind about half a margin improvement. That's a risk to the longstanding status quo.