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Is there a correlation between the construction GDP and the presidential cycle, and how will the new presidential candidates' proposed policies impact the construction industry?

The 2016 election is the most important election since 1932 because of major policy differences between two parties, said Henry Aaron in his December 2015 article for Brookings Institute[1]. How could these policy differences impact the economy and therefore the construction industry?

Because the construction industry is very much impacted by the U.S. economy, we decided to dig deeply into two major presidential candidates' (Hillary Clinton and Donald Trump) policies and see what impact if any would have on the construction industry, if enacted. Bernie Sanders is still in the race as of this writing, but this report assumes Hillary as the presumptive nominee.

Given the complexity of the hypothetical question, we first looked at historical data from 1947 to 2016, to determine if there were any relevant patterns between the presidential terms and the performance of the construction Gross Domestic Product. We then compared the stated policy proposals on corporate tax and infrastructure spending of both presidential candidates. In addition, we reviewed two major policy areas – international trade and immigration policy, as they relate to the construction industry through material costs and labor costs.

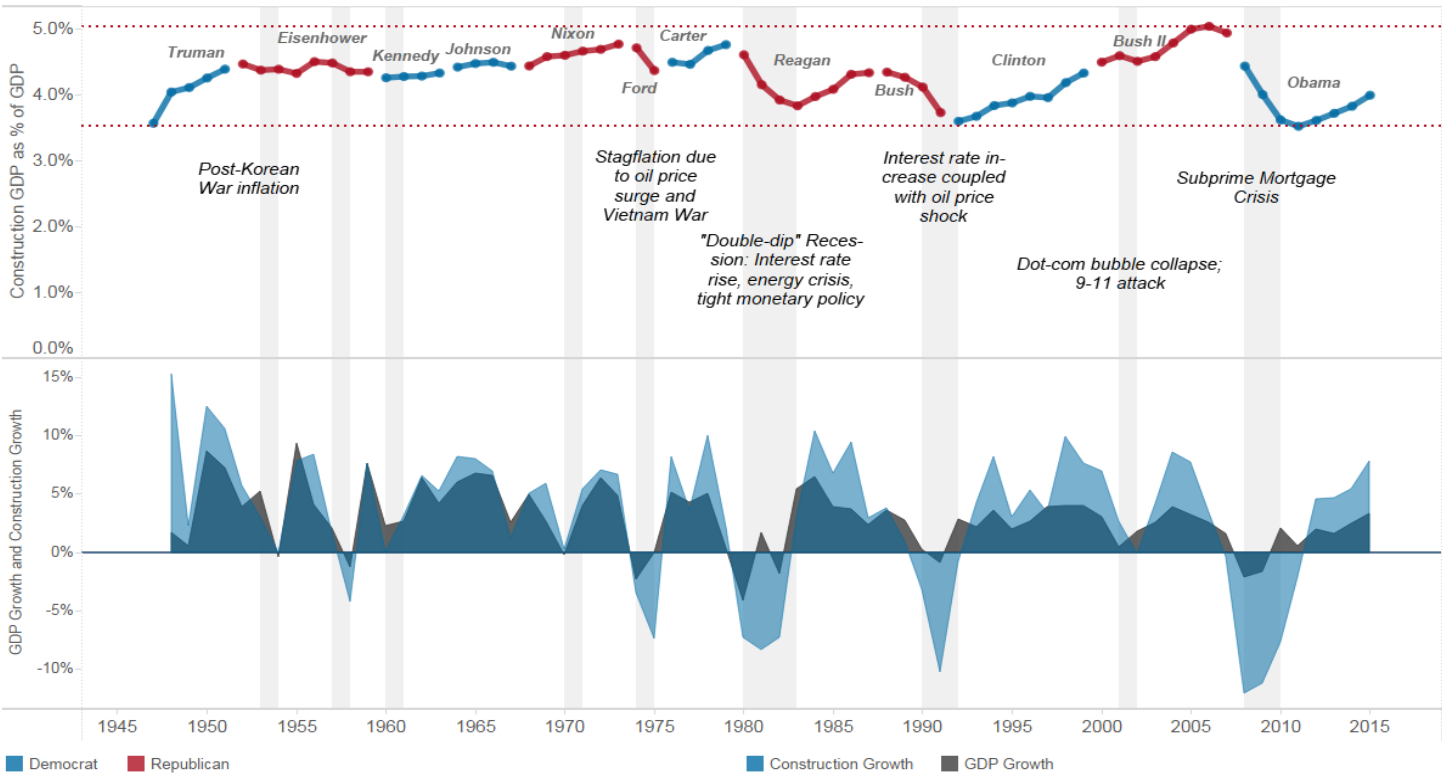
Key takeaways:

- There is no obvious correlation between the presidential terms and construction GDP as a percentage of total GDP. The construction GDP is strongly correlated with the total GDP and demonstrates bigger swings to market climate changes; currently, the construction GDP is growing at a faster speed than that of the total GDP, leading to an increasing proportion of the construction GDP within the total GDP.
- In terms of tax policy, Hillary Clinton favors taxing higher incomes, and encourages investments in infrastructure and community; whereas Donald Trump's proposal would reduce tax rates and lower the cost of capital. A study published by the American Economic Review has found that a tax increase by 1 percent of GDP lowers real GDP by roughly 2 to 3 percent[2]. Given the strong correlation between GDP and construction GDP, Trump's proposal of tax reduction appears to create incentives for the economy and thus the construction industry.
- For infrastructure spending, Hillary Clinton has put forward a detailed five-year $276 billion plan that is estimated to create roughly 3.6 million jobs in total, with 2.4 million in the construction industry, based on the job creation estimate by the White House Council of Economic Advisers in the period after 2012; Donald Trump has not proposed a detailed infrastructure spending plan, but has called for a "1-trillion dollar rebuilding plan", frequently citing deteriorating infrastructure in the United States including airports, roads and bridges. Indeed, estimates for Trump's proposed border wall have ranged from $10bn to $20bn, depending on the source of the estimate, and at those levels would comprise between 4% and 10% of Hillary Clinton's infrastructure investment.
- In terms of Donald Trump's policy on the international trade and immigration, we found that imposing a tariff towards China could potentially increase construction material costs in the short-term, but could also encourage domestic manufacturing for the corresponding materials. As for deporting undocumented immigrants (representing 12% of the labor force in the construction industry based on 2012 data from Pew Research Center), the construction industry could suffer a severe labor shortage, which would then translate into higher construction and operating costs.

The analysis should be treated as a cursory review of available data and campaign promises; and as such it is far from statistically sound or empirical evidence. Ideally, indicators such as construction spending and the architecture billing index should be included to measure the activities in the construction industry. However, the publicly accessible data for construction spending GDP only goes back to 2003, and the architecture billing index starts from 1997.

In addition, some stated policies by the candidates lack details, which adds difficulty to the analysis. Lastly, many economic factors are by nature correlated and are almost impossible to estimate in dollar values.

Construction GDP vs historical presidential cycle



Source: MGAC, Bureau of Economic Analysis

In general, the construction GDP accounts for 3.5% to 5% of the total GDP. The construction GDP percentage is relatively stable from the 1950s to the mid-70s, when construction GDP moved together with total GDP at similar rates. Fluctuations started with Ford's administration, when stagflation (low economic growth coupled with high inflation) took hold in 1974. Another turning point in the market occurred in early 1990s savings and loan financial crisis under George H.W. Bush's administration when the total GDP decreased by 1%, but the construction GDP plummeted by 10%. Following this retraction, the U.S. construction GDP experienced 16 years of constant increase during Clinton and George W. Bush's terms in office, with the construction GDP growing faster than the total GDP, taking up an increasingly bigger proportion of the total GDP. In 2008, the Global Financial Crisis, potentially spawned by a hyper-inflated residential real estate bubble, plagued the construction industry – the construction GDP dropped sharply by 12% in 2008 and 11% in 2009.

Our conclusion is that regardless of who gets elected and which party he or she belongs to, broader economic trends play a greater role in the nation's construction output than do political considerations. Construction growth tends to correlate more directly with the overall GDP growth and broader economic conditions. However, the construction industry does seem to react to broader economic indices at magnified rates, both in expansion and decline. The area chart further reveals that the construction market is currently increasing at a faster speed than the total GDP, and the construction GDP as a percentage of total GDP is not half way to the historical high.

Construction GDP ranges between 3.5% - 5% of total GDP

GDP Decline vs Construction GDP Decline
1958: -1.3% vs -4.2%
1975: -0.1% vs -7.4%
1982: -1.9% vs -7.3%
1991: -0.9% vs -10.2%
2008: -2.1% vs -12.1%
2009: -1.7% vs -11.3%

Current GDP growth vs Construction GDP growth
2013: 1.6% vs 4.7%
2014: 2.5% vs 5.4%
2015: 3.3% vs 7.8%

Will the new presidential candidates' proposed policies impact the construction industry?

The analysis of the historical data above indicates that the overall GDP and the construction GDP move closely together, and a small decrease in the overall GDP might correspond to a much larger construction GDP shrinkage. In this section, we compared the stated corporate tax policy and the infrastructure spending policy between Hillary Clinton and Donald Trump. The tax policy would potentially impact the economy, and based upon the above stated correlation would impact the construction industry as well. The infrastructure spending policy links to the construction industry through creating construction related contracts, materials and labor demand.

Corporate Tax

Clinton's stated policy favors a tax on higher incomes, and investing in community and infrastructure. Specifically, an "exit tax[3]" would be levied to the untaxed earnings from the U.S. companies' foreign subsidiaries, which amounts for roughly $2-trillion[4]. In addition, Clinton also proposed establishing tax credits for businesses investing in community and infrastructure. According to the estimate done by the Urban-Brookings Tax Policy Center (TPC), Clinton's tax proposal as a whole would increase federal receipts by $1.1 trillion between 2016 and 2026, and reduce federal debt by $1.2 trillion over the next decade[5].

On the other hand, Trump's stated policy is more business-friendly. He proposed to cut the corporate tax from 35% to 15%, and establish a one-time 10% tax on repatriated corporate earnings from overseas to encourage capital investments in the U.S. According to TPC, Trump's tax plan would reduce tax revenues by $9.5 trillion over the next decade accounting for macroeconomic feedback effects. However, the federal government's deficit would increase to 80% of GDP by 2036[6].

In the paper published by the American Economic Review, Christina Romer and David Romer found that "tax changes have very large effects on outputs: an exogenous tax increase of 1 percent of GDP lowers real GDP by roughly 2 to 3 percent." Given the strong correlation between GDP and construction GDP, Clinton's increasing tax revenues might impact the overall economic output and thus the construction industry; in the same vein, Trump's tax policies appear to create tax incentives boosting the economy.

Infrastructure Spending

Infrastructure spending is a big job generator, especially for the construction industry. According to the most recent official estimate by the White House Council of Economic Advisers in late 2011, every $1 billion in infrastructure spending creates around 13,000 jobs, accounting for direct, indirect, and induced jobs[7]. Among the jobs created, 68 percent goes to the construction sector, 10 percent in the manufacturing sector, and 6 percent in retail trade[8].

Clinton has outlined a detailed plan that will increase federal infrastructure spending by $275 billion dollars during a five-year period, all of which will be paid through business tax reform. Within the total $275 billion, $250 billion will be allocated to direct public spending, and the other $25 billion dollars will go to a national infrastructure bank, which will leverage the $25 billion to support up to an additional $225 billion in assorted loans dedicated to infrastructure programs. Clinton's plan will create roughly 3.6 million jobs in total, with 2.4 million in the construction industry.

Trump hasn't come up with a specific infrastructure plan, but has called for a "1-trillion dollar rebuilding plan", creating 13 million jobs[9], but hasn't described in detail where the funding will come from.

Industry Opinions

According to Greg Valliere, the chief strategist of Horizon Investments, one reason for favoring Clinton from the market perspective is that "Hillary would be fairly predictable, and markets like predictability"[10].

And although Trump seems to have few vocal supporters, the results from two industry surveys reveal that he is indeed very popular in the construction industry. In the survey "Which current U.S. presidential candidate is best for the construction industry, and why?"[11], Trump received 80% of the votes. The major reason for favoring Trump is because of his experience and success in doing business. In the 2016 Real Estate Market Sentiment Survey, out of 139 respondents in the commercial real estate industry, 33% named Donald Trump as the best presidential candidate for the industry, with only 12% supporting Hillary[12].

Other industry professionals are less excited about the attractive 15% corporate tax rate or the rebuilding plan, mainly because Trump hasn't given a specific proposal outlining how to cover the reducing tax revenue and who will have to pay for it.

Other issues and the impact on construction industry

In this section, we analyze the potential impact of the tariff towards China and the deportation of undocumented immigrants, as stated by Donald Trump. These two issues could directly impact the construction industry through material cost and labor cost/shortage. In addition, Trump's caution towards China leads us to explore the potential political environment for EB-5 Investor Program.

Tariff towards China vs Construction Material Costs

International trade with China is Trump's major area of reform. In an interview with the New York Times, Trump proposed a 45% tariff on Chinese imports.

Since 2010, the U.S. import of selected building materials[13] has been increasing continuously. By the end of November 2015, it has reached almost 27 billion dollars (Trading Economics) (See chart). China ranked as the top trading partner in terms of import value, comprising 21.5% of the total foreign imports (US Census Bureau, 2015). By levying a 45% tariff, and assuming no change to import quantities and the additional cost being borne by the purchasers, there would have been a cost increase of around 2.6 billion dollars of selected building materials from China in 2015 alone.

As the U.S. has a widening trade deficit with China, the tariff might benefit the economy by lowering the trade deficit and bringing back some of the manufacturing jobs to the US. In fact, according to a recent estimate by BCG group, the cost of manufacturing goods in the US is only 5% more than that of China, when taking into consideration the costs beyond labor cost. Nonetheless, the economy will need time to react, adjust and absorb the additional industry needs from transferring manufacturing back to the domestic market. There would be a spike in construction material costs at least in the short run.

Trump's tariff on Chinese goods and tariffs on goods that specific American companies produce in foreign countries are primarily intended to keep more factories close to home and to modify the economic policies that he describes as providing unfair advantages to Chinese companies.

Undocumented Immigrant Deportation vs Construction Labor Cost

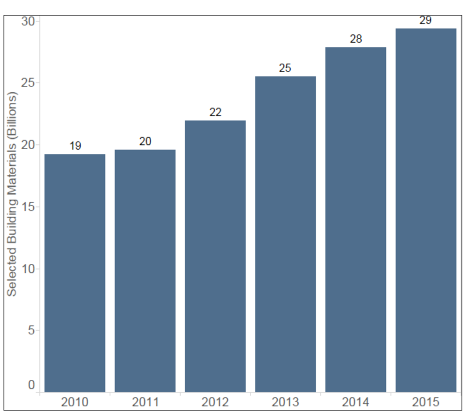
Donald Trump has stated his intention to remove all 11 million undocumented immigrants in two years. This plan, if brought to pass, would further strain the skilled labor shortage that continues to plague the construction industry. According to recent research by the non-partisan organization American Action Forum (AAF), deporting 11 million undocumented immigrants would cost between 400 billion and 600 billion and reduce GDP by over $1 trillion[14]. Among the industries researched, the construction industry would be one of the most affected, after leisure and hospitality.

The following chart shows the number of employed undocumented immigrants by industry in 2012. Both the leisure and hospitality sector and the construction sector employed more than 1 million undocumented immigrants[15].

The study further estimated the range of labor force decline that would result from deporting undocumented workers. The unemployed native and lawful workers in 2012 could not fill up all the empty spots, which leads to an estimate of employment decline in the construction industry ranging from 485,411 to 1,043,222, and a decrease in construction GDP between $32.3 billion to $69.4 billion (in 2009 dollars).

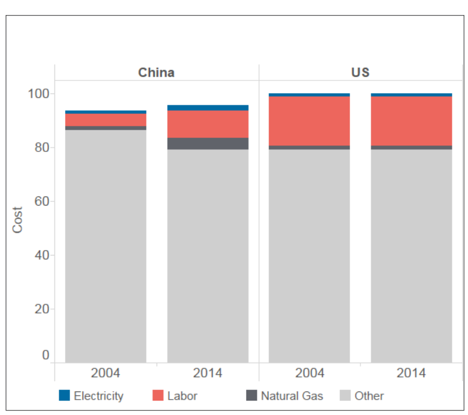
AAF produced this study using the latest undocumented immigrant employment data in 2012. However, we should note that, since then, the unemployment rate has only continued to drop; this means that it would become even harder to replace the empty positions with native or lawful immigrants, creating a larger workforce and GDP decline. Furthermore, the study only estimated the direct cost of deporting undocumented immigrants to the economy; there would also be "butterfly effects" across the industries. For example, labor shortages in the leisure and hospitality industry would raise the corresponding operating costs, which in turn would dampen the construction industry outlook further because there might be fewer transactions of hotels and less construction or renovation work. Deporting all the undocumented immigrants in a short period of time will create market instability.

Chart 3. U.S. Import of Selected Building Materials



Source: Trading Economics

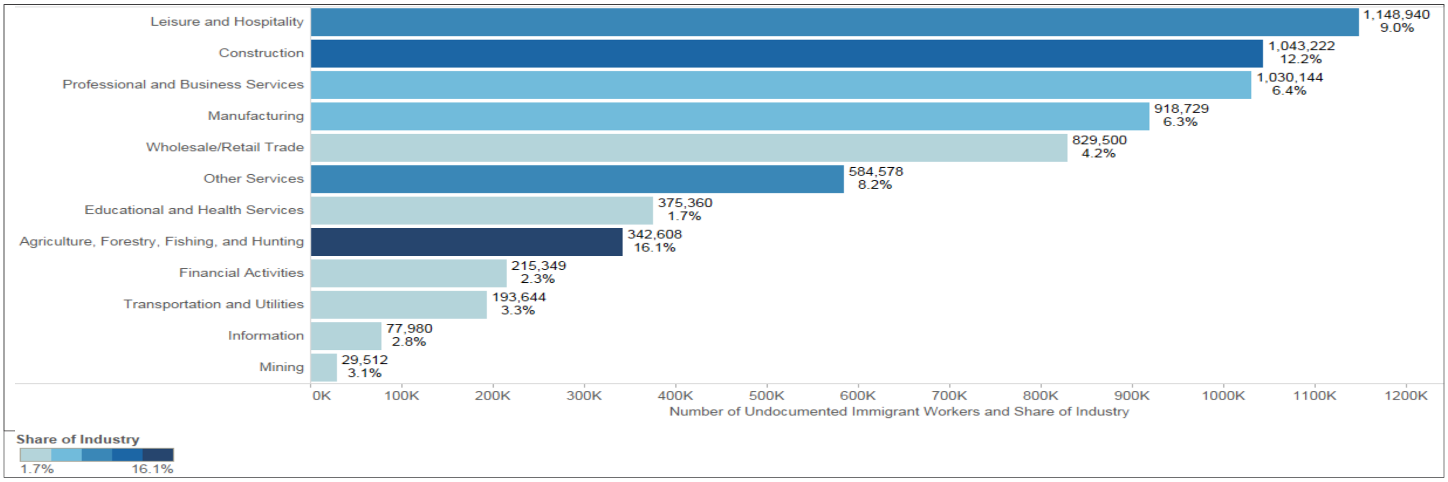
Chart 4. Manufacturing Cost Index: U.S. vs. China



Source: The BCG Global Manufacturing Cost-Competitiveness Index

Other issues and the impact on construction industry

Chart 5. Employed Undocumented Immigrants by Industry (2012)



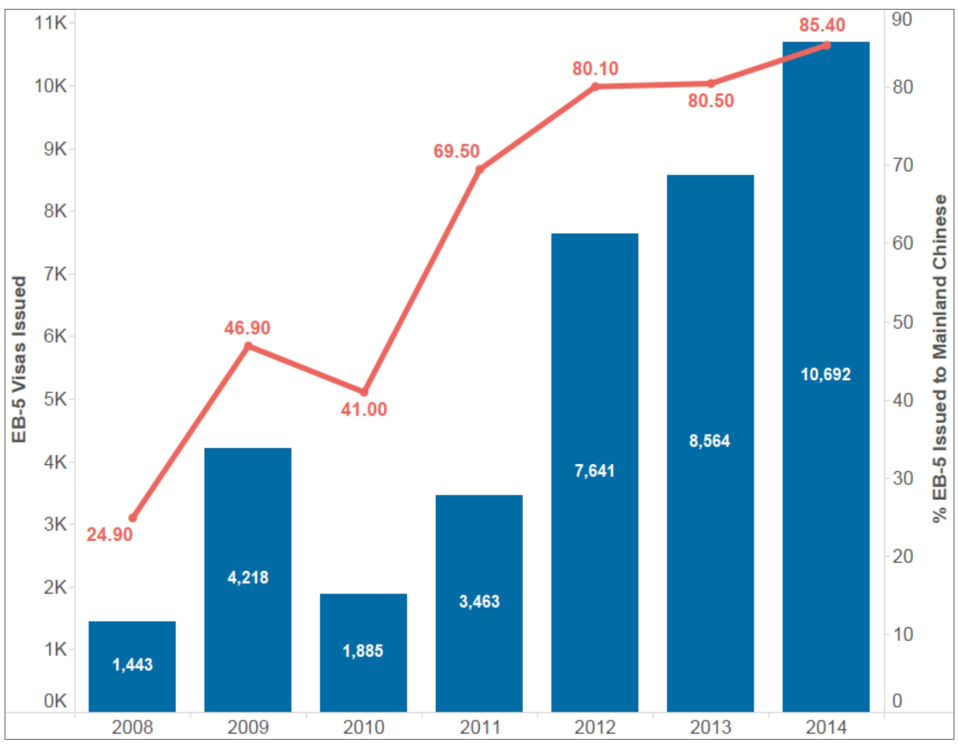
Source: chart created based on AAF research

Trump's Caution towards EB-5 vs Construction Financing

Donald Trump's caution towards China leads us to question the future of EB-5 financing. During the past few years, real estate financing through the EB-5 program has seen dramatic growth, especially as the market gradually recovers from the recession and the financing environment is on the rise. Since 2005, the EB-5 program has created over $9 billion direct foreign investments and supported over 181,000 American jobs[16]. The developers are favoring EB-5 financing more and more, because it provides a stable pool of funds with a much lower required rate of return than the regular bank loans. Among all the EB-5 investors, Chinese investors make up the bulk. In 2014, 85.4% of the total EB-5 visas were issued to investors from Mainland China.

Trump has not discussed the EB-5 Program specifically. However, some facts about his own projects might reveal that Donald Trump may not be against foreign investment when it comes through the proper, legal channels: "(Trump's) Jersey City project has raised $50 million, about a quarter of its funding, from loans obtained through EB-5, according to a slide presentation by the U.S. Immigration Fund. Mark Giresi, general counsel of US Immigration Fund, said he believed nearly all of the EB-5 investors in the Trump project were from China[17]."

Chart 6. The Trend of EB-5 Visa Issuance from 2008-2014



Source: U.S. Department of State

Citations

1. Henry J. Aaron, "2016: The most important election since 1932," Brookings, December 2015, http://www.brookings.edu/research/opinions/2015/12/18-2016-most-important-election-aaron, accessed May 2016.

2. Christina D. Romer & David H. Romer, 2010. "The Macroeconomic Effects of Tax Changes: Estimates Based on a New Measure of Fiscal Shocks," American Economic Review, American Economic Association, vol. 100(3), pages 763-801, June.

3. The current U.S. tax rule allows U.S. companies to pay tax on earnings from their foreign subsidiaries at a later date, only when the income is brought back to the U.S., which, in many cases, goes beyond the foreseeable future. Some companies take advantage of this by merging with foreign companies as a way of reducing their taxes.

4. "Hillary Clinton targets corporate inversion with new 'exit tax' plan," the Guardian, December 7, 2015, http://www.theguardian.com/us-news/2015/dec/07/hillary-clinton-exit-tax-corporate-inversions, accessed May 2016.

5. Richard Auxier et al. "An Analysis of Hillary Clinton's Tax Proposals," Urban-Brookings Tax Policy Center, March 3, 2016.

6. Jim Nunns et al. "An Analysis of Donald Trump's Tax Proposals", Urban – Brookings Tax Policy Center, December 25, 2015.

7. White House Council of Economic Advisers, The American Jobs Act., September 12, 2011.

8. National Economic Council, President's Council of Economic Advisors, An Economic Analysis of Transportation Infrastructure Investment., July 2014.

9. Eric Levitz, "The Republican Nominee Is Campaigning on a Trillion-Dollar Infrastructure Plan That He Likens to the New Deal," Daily Intelligencer, May 5, 2016, http://nymag.com/daily/intelligencer/2016/05/donald-trump-is-campaigning-on-the-new-deal.html, accessed May 2016.

10. John Kimelman, "Trump or Clinton: Who's Better for Investors?," Barron's, March 5, 2016, http://www.barrons.com/articles/trump-or-clinton-whos-better-for-investors-1457157141, accessed May 2016.

11. Which current U.S. presidential candidate is best for the construction industry, and why? Association of Wall and Ceiling Industry, http://www.awci.org/media/construction-dimensions/problem-solved/47-which-current-us-presidential-candidate-is-best-for-the-construction-industry-why, accessed May 2016.

12. 2016 Real Estate Market Sentiment Survey, Seyfarth Shaw, http://www.seyfarth.com/dir_docs/publications/REMarketSurvey-2016.pdf, accessed May 2016.

13. Selected building materials include softwood lumber, softwood plywood, millwork, dimension stone, cement, ceramic tile, flat glass, fabricated structural metal, plumbing products, and builder's hardware.

14. Ben Gitis, Jacqueline Varas, "The Labor and Output Declines from Removing All Undocumented Immigrants," May 2016, http://www.americanactionforum.org/research/labor-output-declines-removing-undocumented-immigrants/?gclid=CK_wpcmL1cwCFQiJaQod6XYC9A, accessed May 2016.

15. Passel, Jeffrey S. and D'Vera Cohn. 2015. "Immigrant Workers in Production, Construction Jobs Falls Since

16. "Mr. Trump: EB-5 Foreign Investment Visas are Working for America," July 15, 2015, https://visawolf.com/mr-trump-eb-5-foreign-investment-visas-are-working-for-america/, accessed May 2016.

17. Jesse Trucker, "Trump Tower Funded by Rich Chinese Who Invest Cash for Visas," March 6, 2016, http://www.bloomberg.com/politics/articles/2016-03-07/trump-tower-financed-by-rich-chinese-who-invest-cash-for-visas, accessed May 2016.