Trumponomics Part 3, Infrastructure

Infrastructure spending could be the most important economic effort the Trump administration pursues. The benefits include:
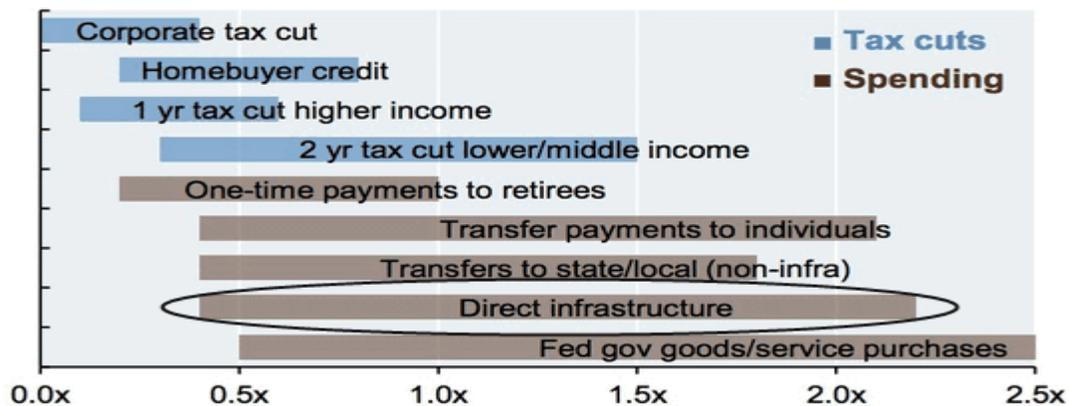
- U.S. infrastructure repair and maintenance is sorely needed.

- Infrastructure spending does have a positive multiplier effect.

- Infrastructure projects could put people to work across the country.

- Infrastructure investments could increase the productivity of America.

Infrastructure Spending Multiplier Effect

President Trump would like to spend about $1 trillion over a 10 year period, about $100 billion a year.

The multiplier effect for infrastructure spending is positive:

What helps GDP growth the most?
Estimated fiscal multiplier range

- Corporate tax cut
- Homebuyer credit
- 1 yr tax cut higher income
- 2 yr tax cut lower/middle income
- One-time payments to retirees
- Transfer payments to individuals
- Transfers to state/local (non-infra)
- Direct infrastructure
- Fed gov goods/service purchases

■ Tax cuts
■ Spending

0.0x 0.5x 1.0x 1.5x 2.0x 2.5x

Source: Congressional Budget Office. February 2015.

Where governments make mistakes is how the investment dollars are allocated for political reasons versus decisions based on the return on investment and multiplier impact. China and Japan are famous for spending capital for political reasons, and much of the spending is wasted. Will the Trump administration spend the money on states that helped him get elected, or will the administration do their homework and judiciously invest the money where it's really needed and has a strong multiplier effect.

The multiplier effect for infrastructure spending could be as high as 2.25 times. If the infrastructure investing becomes political, then the multiple would probably be about .5X. There have been several stories in the financial press that President Trump does put a premium on loyalty, therefore we can anticipate the investing may not be optimal.

If we invest $100 billion a year, the increase to GDP growth could be about $125 million (multiplier 1.25, in the middle of the multiplier effect range). The $100 billion spending with a trillion dollar economy could increase it about .025%. We could grow from the current growth rate of about GDP 2% to about 2.025%.
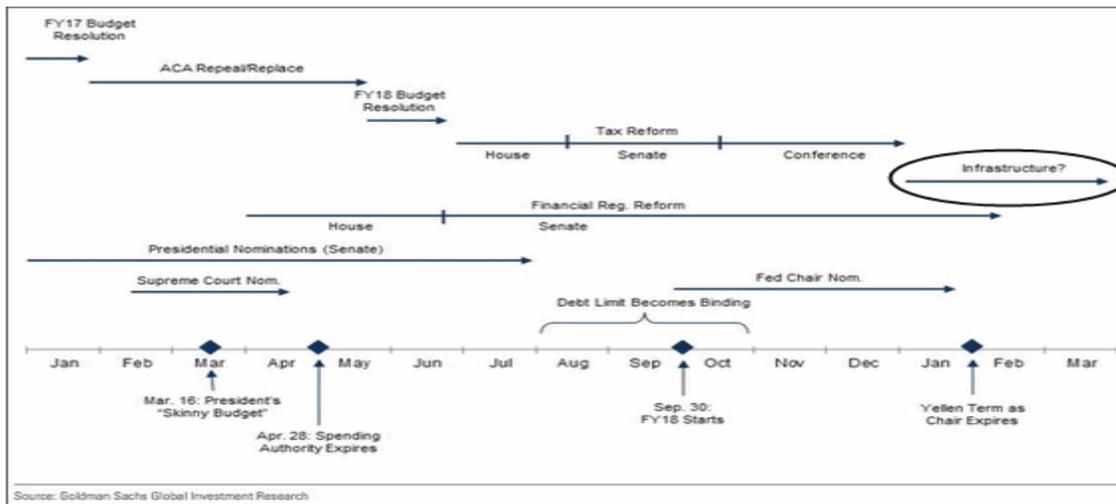
Timing of Infrastructure Spending

When will this happen? We can look at the $875 billion stimulus program of the previous administration. Some of the money was spent on hiring back police and teachers and did not have the multiplier impact that was needed, even though hiring police and teachers are important.

Another problem with the stimulus program was the planning for projects including studies, permits, hiring of labor and procurement of equipment and materials. Large projects take years to plan and more to complete. Experts point out that large projects can take 10 to 20 years to complete (repairs to the Oakland Bay California bridge damaged by the 1989 earthquake took about 20 years, 16 years to dredge the harbor in Savanah Georgia).

President Trump is working on cutting red tape and to expedite certain projects, but some of these studies and permits are done at the local level that the administration does not have jurisdiction over. It will take time to plan, hire and have an impact on GDP growth. The first hires probably won't be until late 2018 or 2019 (see calendar of economic agenda below), and most of the jobs will be temporary not permanent.

Another problem, the President's economic agenda is behind schedule:

FY17 Budget Resolution

ACA Repeal/Replace

FY18 Budget Resolution

Tax Reform
House   Senate   Conference

Infrastructure?

Financial Reg. Reform
House   Senate

Presidential Nominations (Senate)

Supreme Court Nom.

Fed Chair Nom.

Debt Limit Becomes Binding

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar |

Mar. 16: President's "Skinny Budget"

Apr. 28: Spending Authority Expires

Sep. 30: FY18 Starts

Yellen Term as Chair Expires

Source: Goldman Sachs Global Investment Research

Source: Goldman Sachs, @joshdigga

Repeal/Replace ACA is way behind schedule pushing out other economic plans. Tax reform was planned to start soon, but it will be delayed, some say late 2017, early 2018. Infrastructure spending was supposed to be started late in 2017, but the middle to late 2018 is more likely.
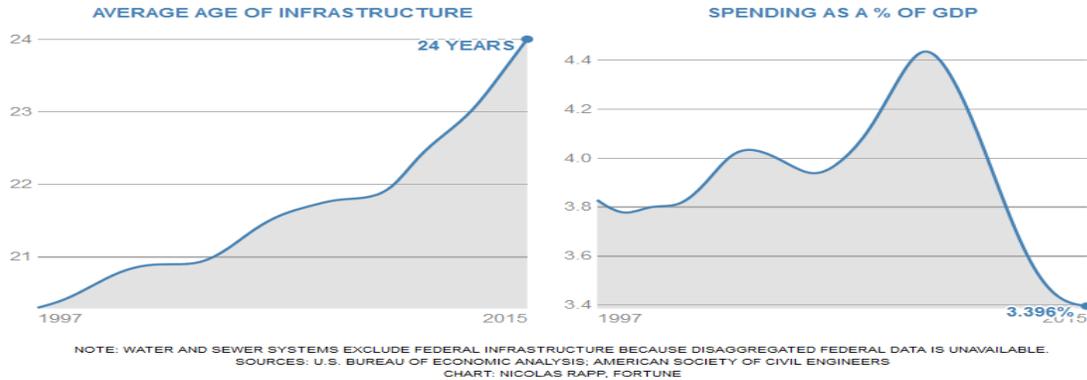
Because of the temporary nature of these jobs and the uncertainty of if and when may disappoint many of Trump's supporters who were counting on his word to create millions of high paying jobs.

Infrastructure Spending Needed

Below is a chart that shows the age and percentage of U.S. **all** infrastructure spending:

ALL INFRASTRUCTURE

In 2015, the federal, state, and local governments spent $612.5 billion on the nation's public infrastructure.

AVERAGE AGE OF INFRASTRUCTURE

SPENDING AS A % OF GDP

24 YEARS

3.396%

NOTE: WATER AND SEWER SYSTEMS EXCLUDE FEDERAL INFRASTRUCTURE BECAUSE DISAGGREGATED FEDERAL DATA IS UNAVAILABLE.
SOURCES: U.S. BUREAU OF ECONOMIC ANALYSIS; AMERICAN SOCIETY OF CIVIL ENGINEERS
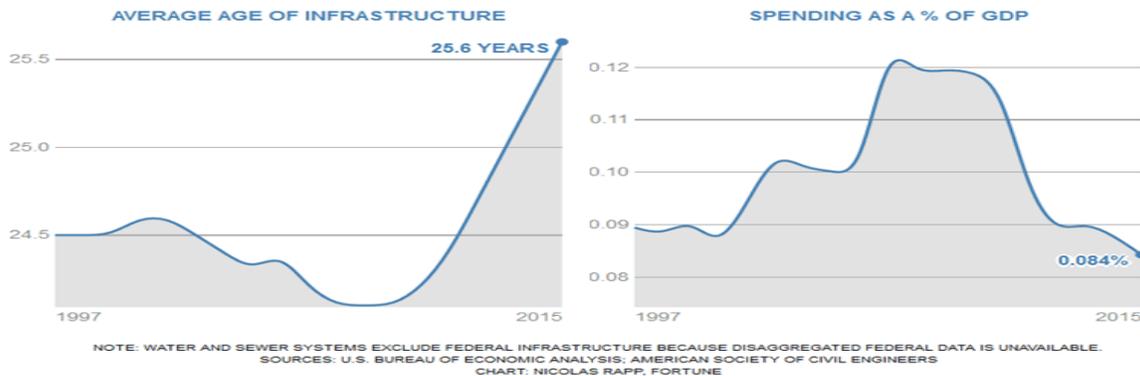CHART: NICOLAS RAPP, FORTUNE

Infrastructure in the U.S. is aging.

Even though total infrastructure spending (local, state and federal) was $612.5 billion in 2015, it has been falling.

Below are the ages and percentage of spending for certain areas of U.S. infrastructure in order of importance:

Water is essential for most forms of life. Certain parts of the country go through droughts, so they can't afford to waste this precious resource.
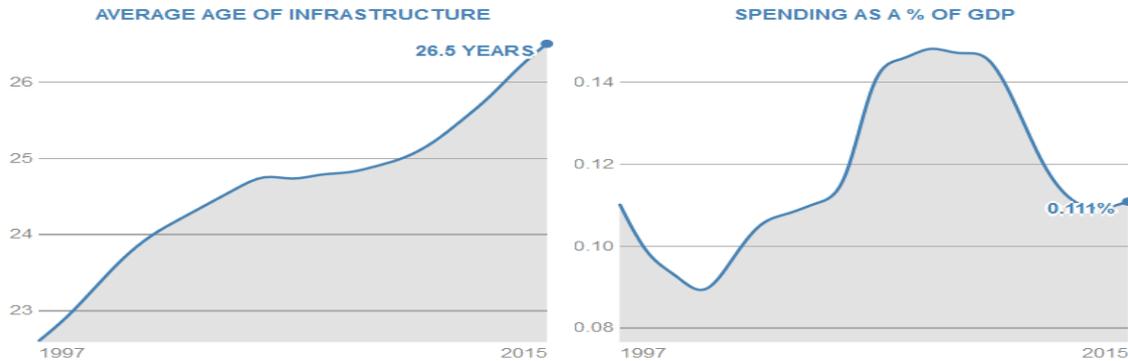
WATER SYSTEMS

State and local expenditure on water supply amounted to $15.2 billion in 2015. (No federal amount available)

AVERAGE AGE OF INFRASTRUCTURE

SPENDING AS A % OF GDP

25.6 YEARS

0.084%

NOTE: WATER AND SEWER SYSTEMS EXCLUDE FEDERAL INFRASTRUCTURE BECAUSE DISAGGREGATED FEDERAL DATA IS UNAVAILABLE.
SOURCES: U.S. BUREAU OF ECONOMIC ANALYSIS; AMERICAN SOCIETY OF CIVIL ENGINEERS
CHART: NICOLAS RAPP, FORTUNE

Sewer systems are slightly older that our water systems:

SEWER SYSTEM

State and local expenditure on water treatment and sewer networks amounted to $20 billion in 2015. (No federal amount available)

AVERAGE AGE OF INFRASTRUCTURE
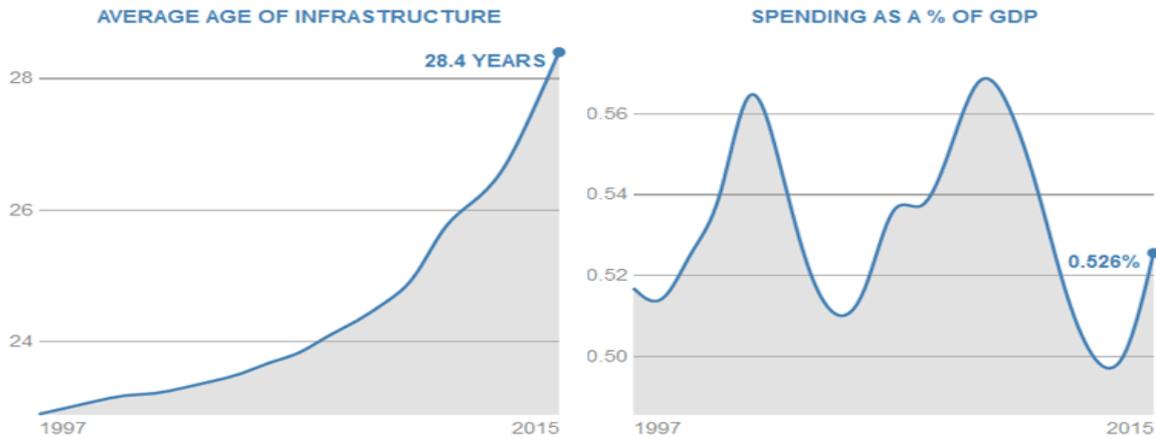
26.5 YEARS

SPENDING AS A % OF GDP

0.111%

NOTE: WATER AND SEWER SYSTEMS EXCLUDE FEDERAL INFRASTRUCTURE BECAUSE DISAGGREGATED FEDERAL DATA IS UNAVAILABLE.
SOURCES: U.S. BUREAU OF ECONOMIC ANALYSIS; AMERICAN SOCIETY OF CIVIL ENGINEERS
CHART: NICOLAS RAPP, FORTUNE

Highways and streets are old and are in need of repair:

HIGHWAYS AND STREETS

The government spent $94.8 billion on highways, streets, and bridges in 2015.

AVERAGE AGE OF INFRASTRUCTURE
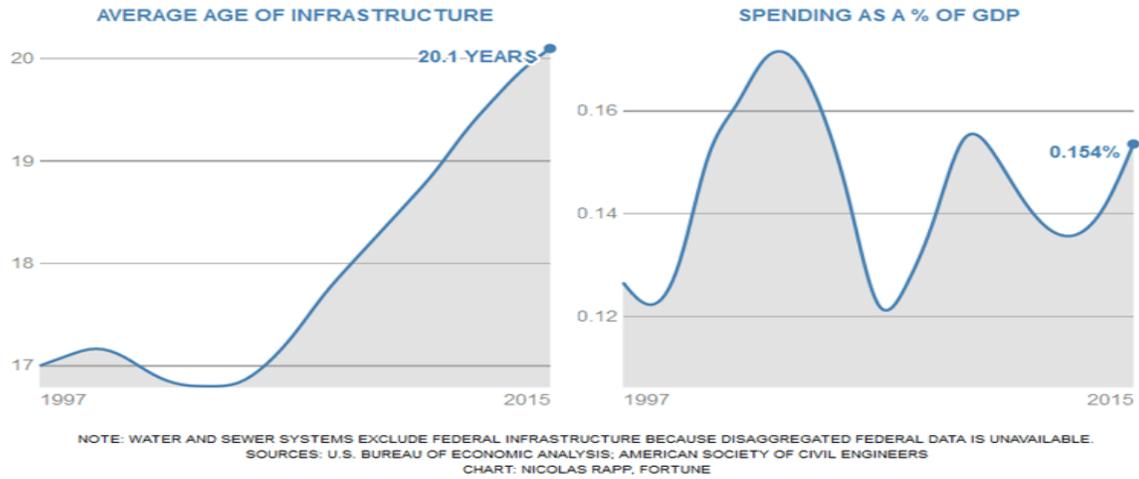
28.4 YEARS

SPENDING AS A % OF GDP

0.526%

NOTE: WATER AND SEWER SYSTEMS EXCLUDE FEDERAL INFRASTRUCTURE BECAUSE DISAGGREGATED FEDERAL DATA IS UNAVAILABLE.
SOURCES: U.S. BUREAU OF ECONOMIC ANALYSIS; AMERICAN SOCIETY OF CIVIL ENGINEERS
CHART: NICOLAS RAPP, FORTUNE

The Transportation Department pegs transportation infrastructure needs about $1 trillion. In 2009, the American Recovery and Reinvestment Act earmarked $48 billion for transportation. It took until January 2012 to spend $33.50 billion.

Public transportation including airports and sea ports also need attention:

TRANSPORTATION

Public transportation, airports, and ports accounted for $27.7 billion in government expenses in 2015.

AVERAGE AGE OF INFRASTRUCTURE

20.1 YEARS

SPENDING AS A % OF GDP

0.154%

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SOURCES: U.S. BUREAU OF ECONOMIC ANALYSIS; AMERICAN SOCIETY OF CIVIL ENGINEERS
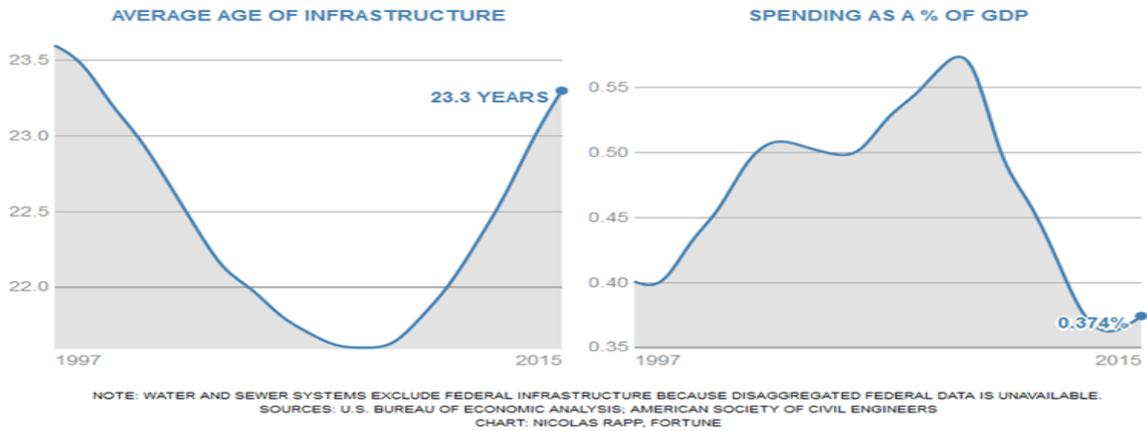CHART: NICOLAS RAPP, FORTUNE

Airports, ports, roads, freeways are important to keep our economy moving and productive.

All types of educational facilities are old and spending has dropped significantly, but was still $67.5 billion in 2015.
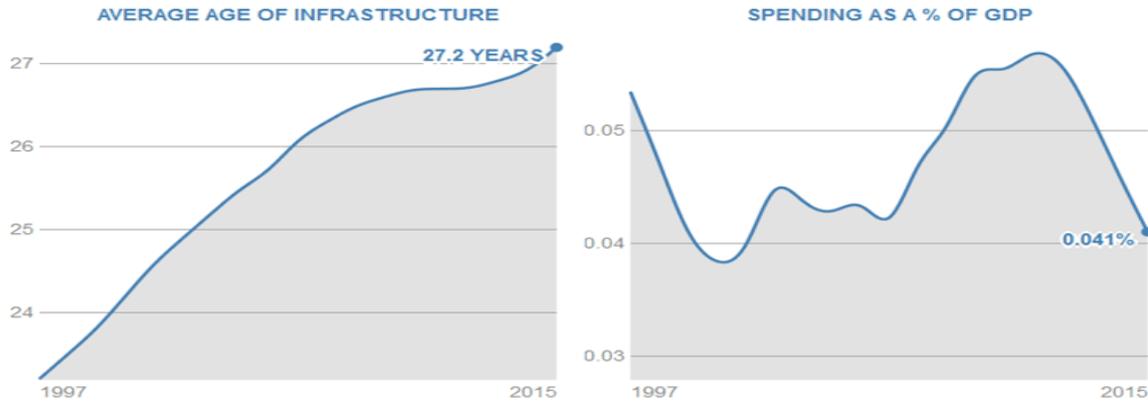

EDUCATIONAL

In 2015, $67.5 billion was spent on schools, colleges, and universities.

AVERAGE AGE OF INFRASTRUCTURE

23.3 YEARS

SPENDING AS A % OF GDP

0.374%

NOTE: WATER AND SEWER SYSTEMS EXCLUDE FEDERAL INFRASTRUCTURE BECAUSE DISAGGREGATED FEDERAL DATA IS UNAVAILABLE.
SOURCES: U.S. BUREAU OF ECONOMIC ANALYSIS; AMERICAN SOCIETY OF CIVIL ENGINEERS
CHART: NICOLAS RAPP, FORTUNE

As the millions of baby boomers retire, health care facilities need to be increased and upgraded:

HEALTH CARE

Health care structures include building such as hospitals, orphanages, and nursing homes. $2.1 billion was spent on this type of resource.

AVERAGE AGE OF INFRASTRUCTURE

27.2 YEARS

27
26
25
24

1997   2015

SPENDING AS A % OF GDP

0.05
0.04   0.041%
0.03

1997   2015

NOTE: WATER AND SEWER SYSTEMS EXCLUDE FEDERAL INFRASTRUCTURE BECAUSE DISAGGREGATED FEDERAL DATA IS UNAVAILABLE.
SOURCES: U.S. BUREAU OF ECONOMIC ANALYSIS; AMERICAN SOCIETY OF CIVIL ENGINEERS
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The American Society of Civil Engineers issued a report "Failure to Act" have estimated that inadequate infrastructure spending could cost the U.S. almost $4 trillion in GDP, and as much as $14 trillion in the very long-term if we don't invest in the nation's infrastructure. The organization gave our nation's roads, bridges, water systems, schools, airports and ports a D+. A big concern are 85,000 bridges and 14,000 dams.

Another study by economist Laurence Kotlikoff concludes that by not repairing our infrastructure it costs us in the terms of time wasted, opportunities lost, and even lives.

How to Pay for Infrastructure Spending

President Trump hasn't detailed how his infrastructure plan will be funded or what types of projects it will include.

The concern among deficit and budget hawks is how the investing will be paid for and they want to avoid more deficits and debts. This will be difficult, especially when we consider how much tax cuts if implemented could lower government revenue.

Below are some of the ideas to help finance the much needed infrastructure projects:

- Issue 100-year bonds. This is being discussed by Treasury officials. One of the problems pointed out with this idea is the pricing and yield for the bonds. They will have to yield more to attract investors. We don't have a history of demand like we have on other bonds and notes.

- Using tax credits to attract private financing and builders. Again, investors have to be attracted, and some projects won't attract investors (schools, dams, bridges) and will have to be financed by states or the federal government.

Some privately financed toll roads have been bad investments and the payback takes decades and yields aren't enough. Toll roads in Texas and California prove that these projects have not worked out well for investors.

- Build America Bonds, BAB, could be issued by state and local governments and they could have tax-exempt status. The states and cities can then decide what will be built. Tax-exempt bonds appeal to high-income investors but does not appeal to large institutional investors. BAB is being considered to be issued by the federal government without tax-exemption to attract more investors, especially the large institutional investor.

    BAB's issued by the federal government is one of the better ideas to help infrastructure spending.

Again, there are not definitive plans on where the money will be spent or how it will be funded.

Summary

- The President would like to spend $1 trillion over a 10-year period.
- There are many benefits to infrastructure investments including: it's needed, positive multiplier impact (increases GDP), job creation, could increase productivity, saves lives.
- If spending is political, the multiplier impact will be less, and the capital could be wasted.
- The infrastructure projects that should be pursued include: water infrastructure and sewers, roads, bridges, dams, schools, hospitals, ports and airports.
- It is not known when or what projects will be pursued
- There are many proposals being made to pay for the investments.

I will probably issue two more research reports on Trumponomics: deregulation and a summary report and update.