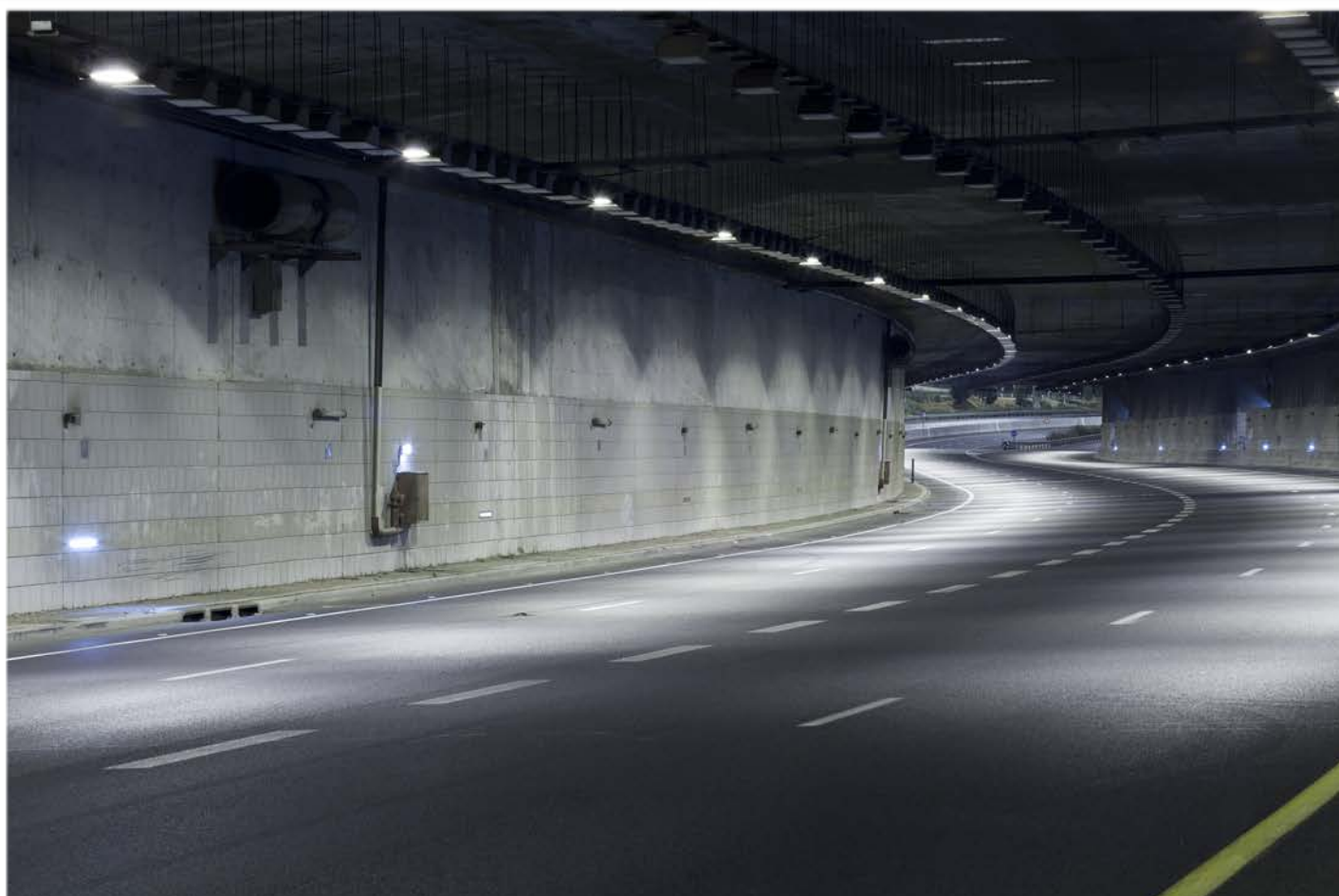


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# PART I: WHY CAN'T THEY SEE IT?

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*By Urs Bruegger*

Economists and journalists screaming at you from every corner "boom", the US President tweeting the economy perhaps is better than it has ever been, when we look deeper however, we cannot fail to notice larger cracks have emerged that point to a major structural issue.

This is the first part in a series of reports on the strength of the global economy and the stock markets. Part I is what prevents the US, the strongest of the large economies, to return to real annual GDP growth rates that averaged 3.5% from 1950 to the first half of 2000?

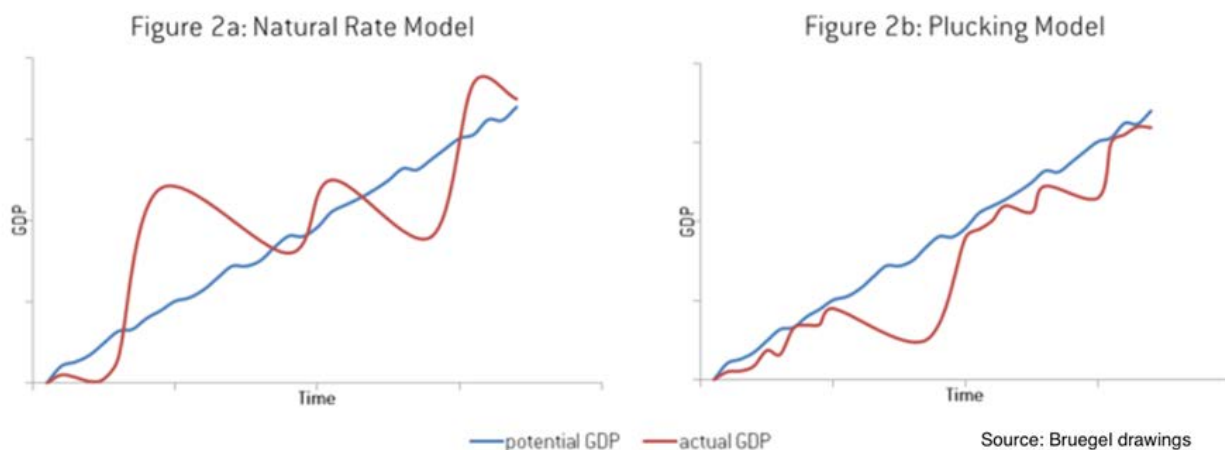
Let us start with some economic theory.

### **The Plucking Model of Recessions and Recoveries**

Milton Friedman in 1964 called into question the traditional business cycle theories which treats boom and subsequent bust as a logical and chronological sequence. In his Plucking Model, Mr. Friedman said that recessions are not dependent on the size of the preceding boom but are mainly the result of infrequent events such as financial crisis (temporary demand shocks).

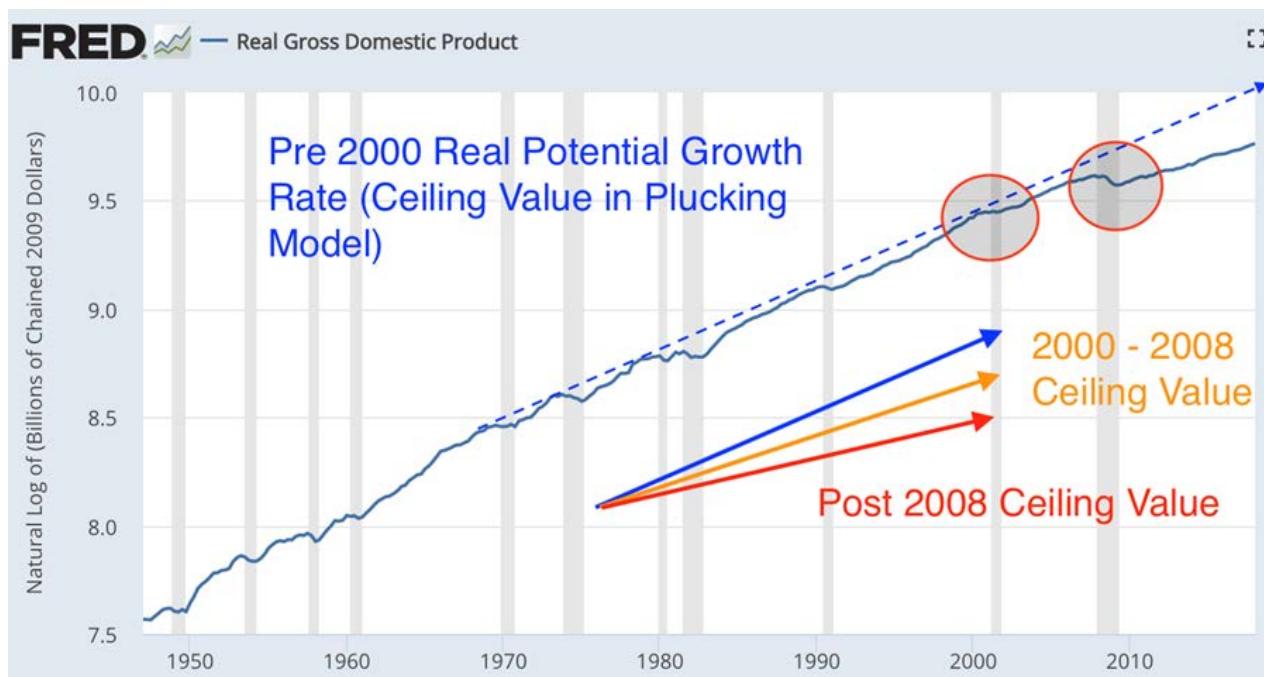
The Plucking Model assumes that while recessions cannot be predicted, only the recovery can, insofar that output returns to pre-recession level of activity.

Figure 2a and 2b) In Milton Friedman's Plucking Model on the right, the size of the recession predicts the growth of the recovery (as opposed to the Natural Rate Model on the left). In the Plucking Model, output will revert, but cannot exceed, the ceiling value, the real potential GDP growth rates.

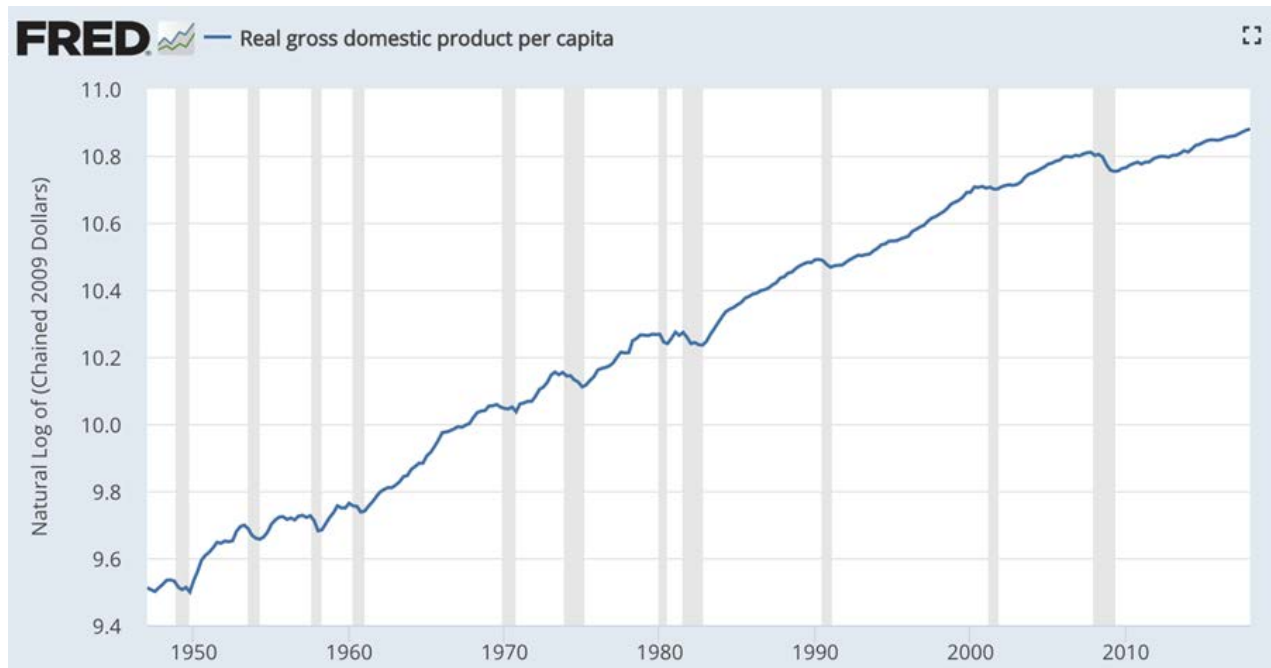


The Congressional Budget Office (CBO) in its April 2018 publication projects US average annual real potential GDP growth rates for the 2018 - 2022 period at 2%, well below the realised 3.5% from 1950 to 30/09/2007, below the 2.3% from mid-2000 to the end of September 2007, but above the dismal 1.5% from the fourth quarter 2007 to the end of 2017.

Real GDP (logarithmic scale): The changes in the ceiling value over time.



On real GDP per capita (logarithmic scale), the 2007/8 financial crisis has had an even more pronounced effect.

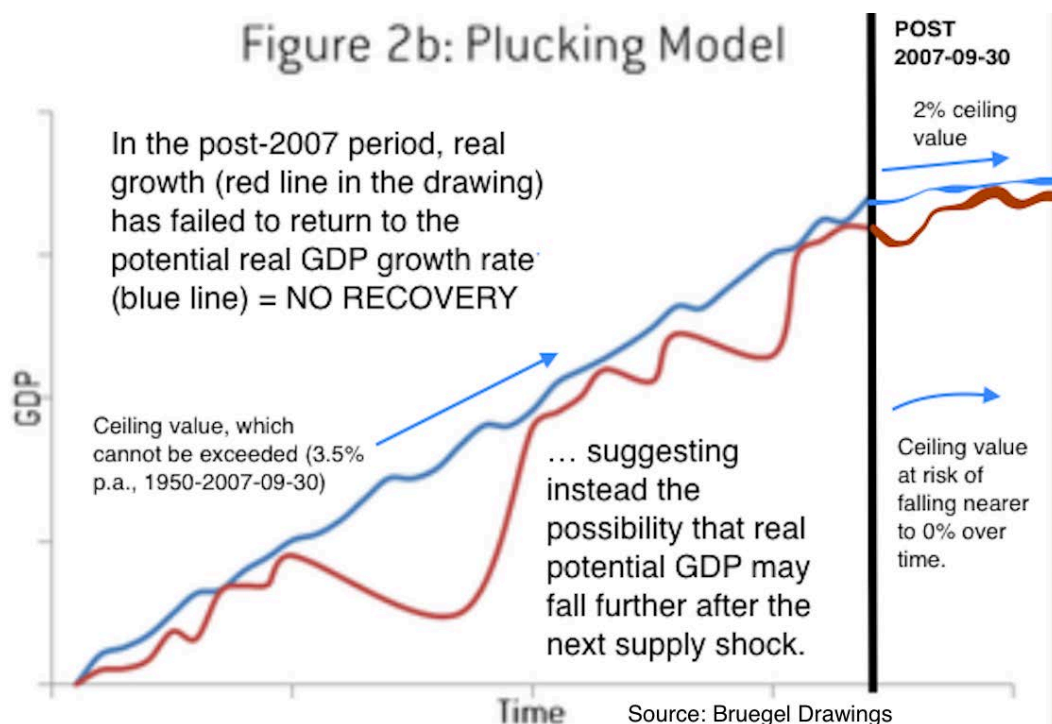


As we can clearly see from the two FRED GDP graphs above, growth has not returned to the former levels. Instead we see the slowdown in trend growth rates.

Applying these observations onto the Plucking Model, where, like a guitar string, the harder the string is plucked down, the faster it should bounce back. But it has not come back up, and the only conclusion for now can be, there has been no recovery.

The string is the ceiling that fell from 3.5% to 2.5% in 2000, followed not by a recovery but by a further drop to 2% projected rate for 2018 to 2022.

Our Modified Plucking Model shows, in added drawings, in both instances, no recovery, with risks tilted to the downside.

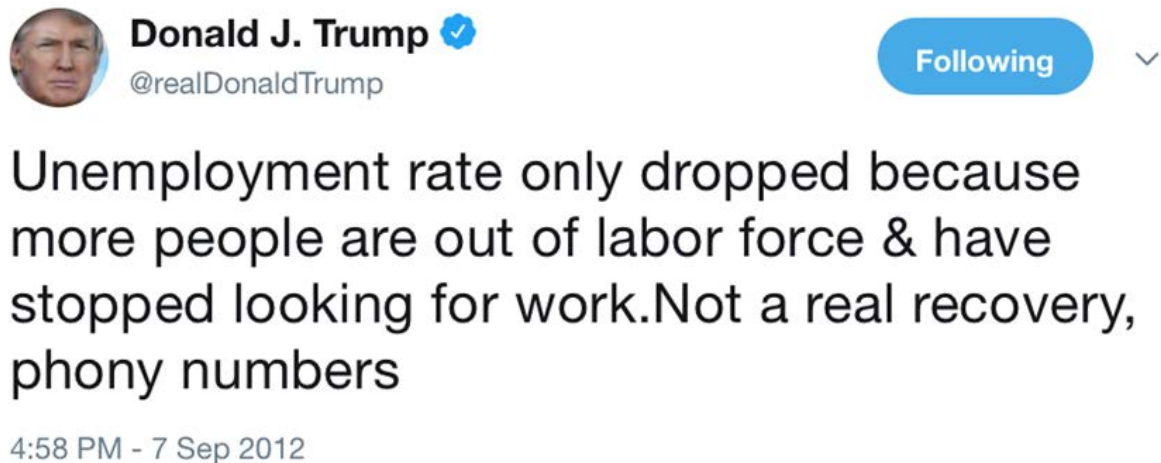


Fluctuations of the ceiling itself are determined by supply shocks (e.g. demographic, regulatory, monetary, etc). Whatever caused the fluctuations in the first place, is still there. It prevents a return to 3.5%, the rate that cannot be exceeded but always should be met over the long term.

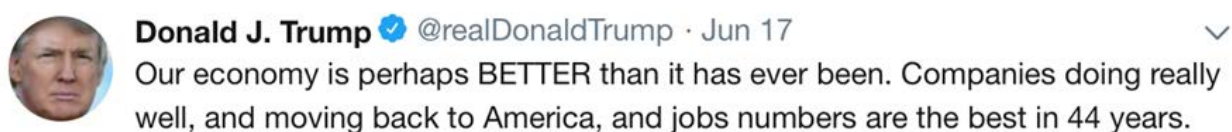
But what stops it from doing this? Let us look at jobs where we find one of our answers. Jobs affecting spending and spending affecting output.

### Jobs

On September 7, 2012, Mr Trump tweeted:

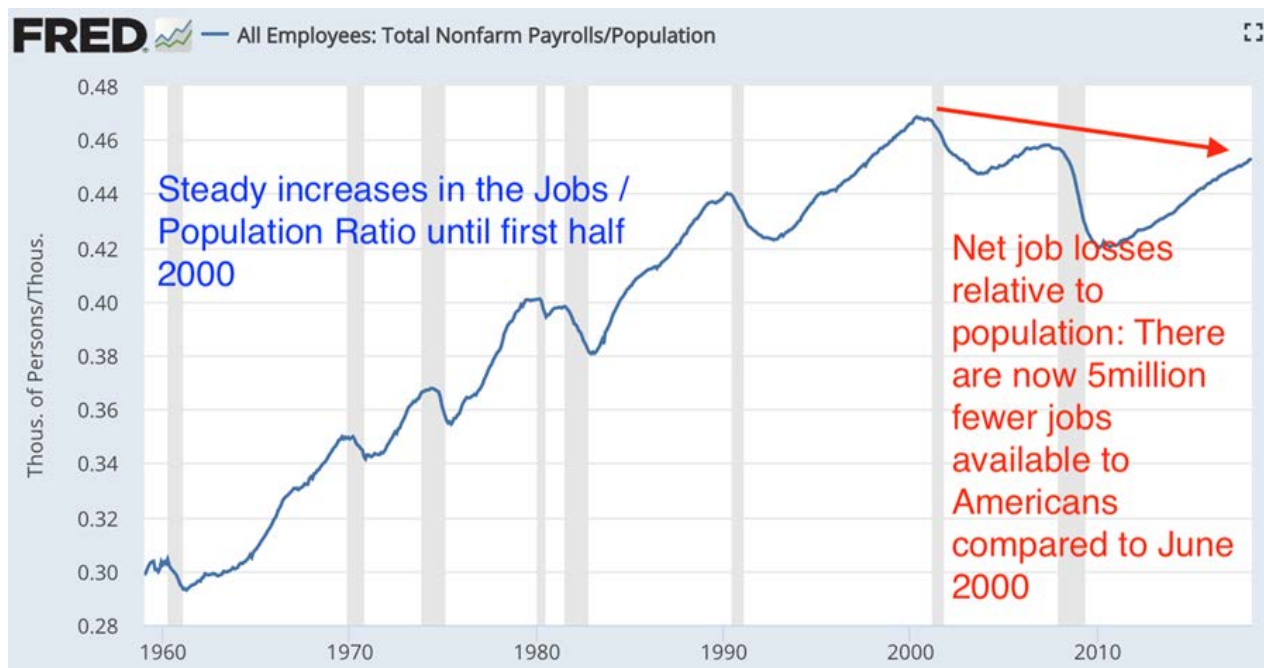


President Trump is acutely aware of the dire place many workers find themselves in and has taken steps to help to remedy the hardship so many of the population are facing. And he assuredly is a big cheerleader: Mr Trump refers to the official unemployment number of 3.8% for May. Let us start with the total nonfarm payroll gains of 223,000.

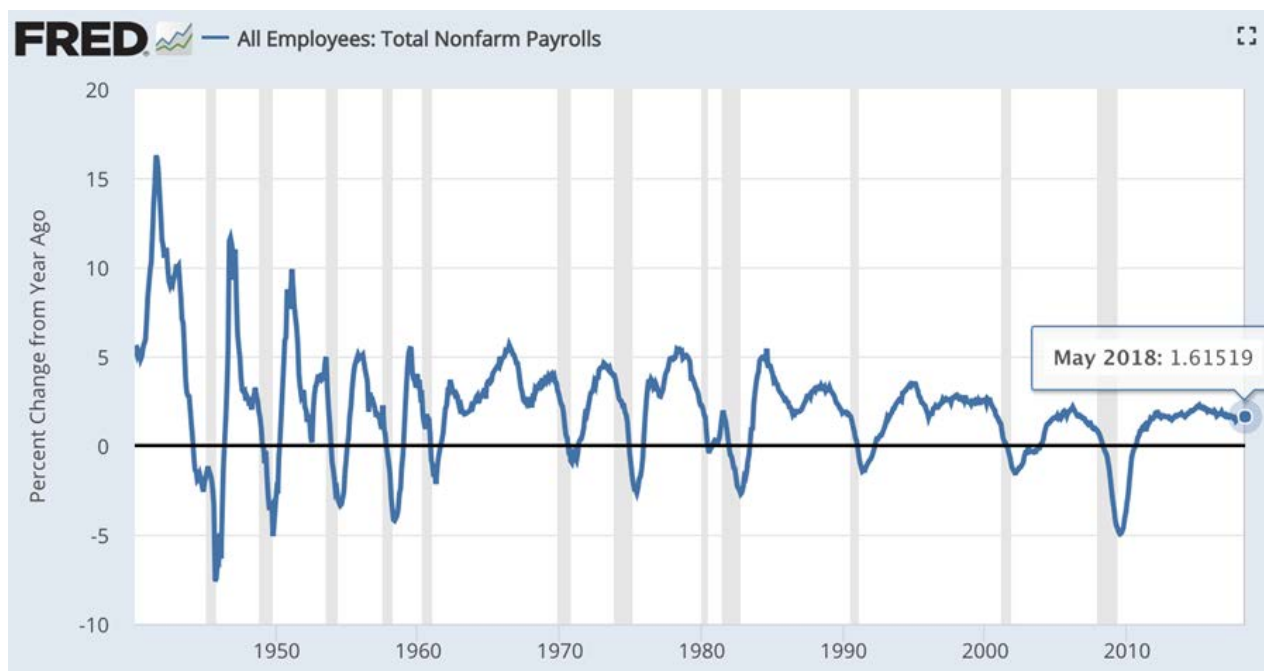


Jobs have to be looked at in relation to population. In June 2000, the jobs/population ratio was 46.80%. As we do not yet have the May population data available, we use the total nonfarm payrolls / population data for April instead, when the US had total jobs of 148,662,000 and a total population of 327,763,000, equaling a ratio of 45.29%. If we apply the June 2000 ratio of 46.8% to the April 2018 numbers, we arrive at 5million fewer jobs available to Americans today.

Total nonfarm/population ratio: Net shrinkage in jobs per US citizen from June 2000.



The May job gains of 223,000 represent just a 1.62% change year-on-year. It is still growth but dangerously flirting with the zero growth line.



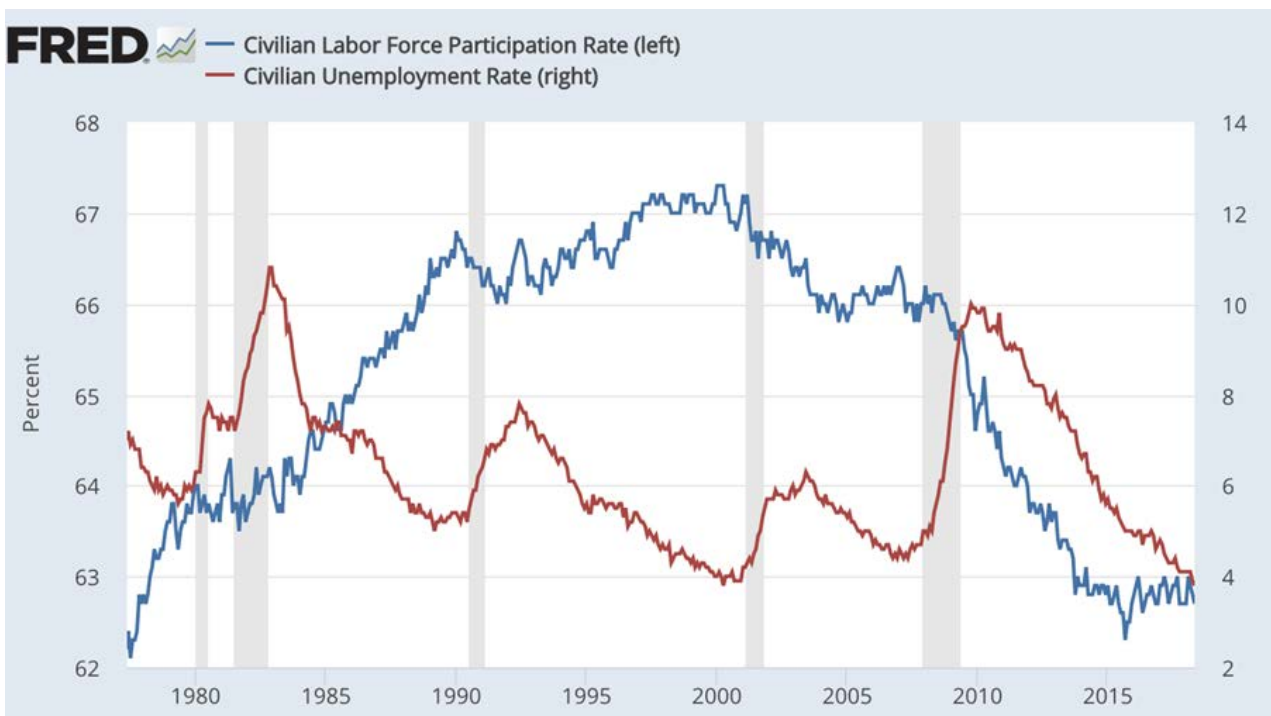
The official unemployment rate of 3.8% for May sounds impressive but only because it counts those with a job and excludes all others with no job. So, how many does it not count? The number can be estimated from the difference in the increases in the civilian non-institutional population and the Bureau of Labor Statistics (BLS)' labour pool. It is an approximation but likely it could exceed 16million people.

The civilian employment ratio tells us something about those no longer counted in the workforce. Today, at 60.4% it is as low as in December 1985.



The labour force participation rate (below, blue line, left scale) started to drop first in 2000 and then fell in 2008.

In contrast, the jobless rate (red line, right scale), incredibly, ended its inverse correlation trend with the labour force participation rate just after 2008, from then on falling in tandem, as fast as the labour force participation rate.



2000, 2008, participation rate drops, net job losses for America over 18 years, GDP growth rates shrinking and the unemployment rate going from strength to strength? Really?

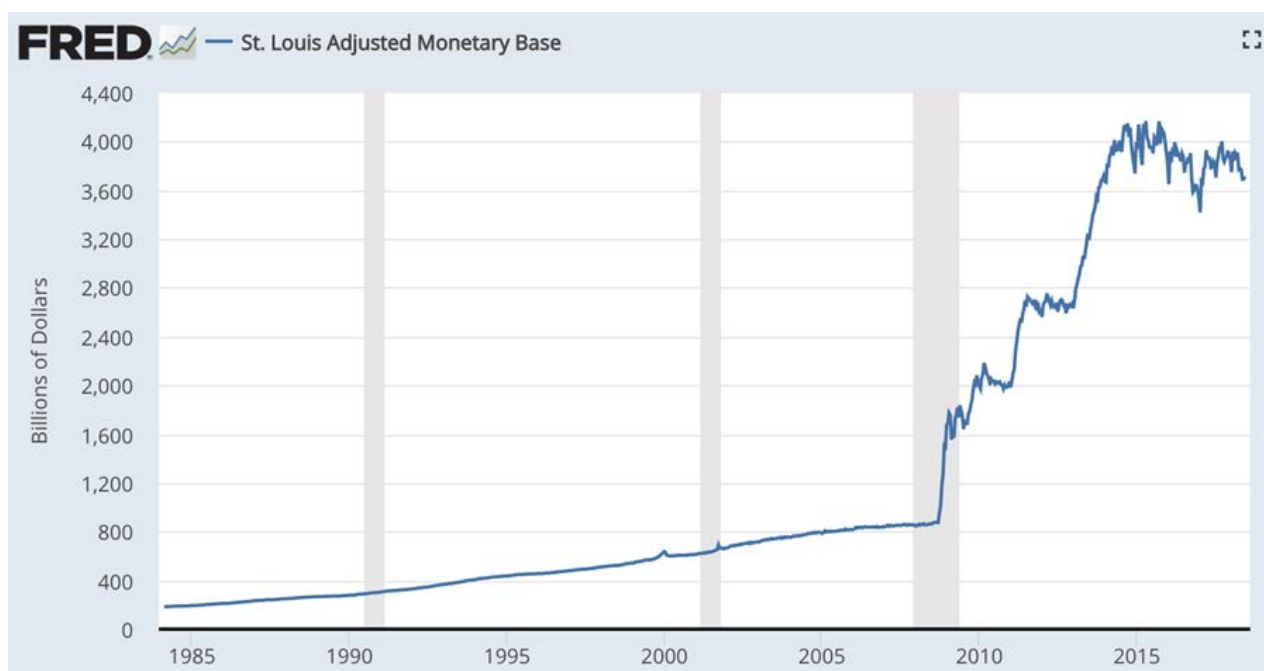
Mr Trump must have got something right on September 7 in 2012, when he tweeted "phony numbers".

Some might argue that the fewer jobs available to Americans are related to machines replacing humans. Perhaps, but more than 16 million out of jobs just after 2008, that we cannot see to have come back since in the civilian employment / population ratio? Also, machines replacing humans means real business investments first – we have not seen nearly enough of these. And if we were to see them, we would have seen different corporate profitability and GDP numbers. Above the expressions used are "depressed", "no recovery" "job shrinkage". So why then does the Fed want to raise rates?

## THE FED

The Fed controls the so-called high-powered money, or the monetary base. Under normal circumstances, this is only a fraction of total money. The economy produces the rest.

The Fed dramatically expanded the monetary base as a reaction to the 2007 financial crisis.



*"Inflation is always and everywhere a monetary phenomenon and it can be produced only by a more rapid increase in the quantity of money than in output". Milton Friedman*

## WHERE IS THIS MONEY?

If Mr Friedman is right, then we should see this QE money reappear somewhere else in the form of inflation. After all, the money supply the Fed controls has risen exponentially since the financial crisis.

And inflation means, the quantity of money would have been plentiful, boosting incomes, lifting the prices of goods and services, real net job gains again after 18 years of conspicuous absence and average annual real trend growth rates moving towards where they should be, around 3.5%.

If we cannot see it, it does not exist. This QE money exists only in the form of bank reserves. These reserves are sitting on the Fed's, and on the ECB's, balance sheets. QE explained is the central banks buying government bonds from the banks and in exchange, the banks' reserves held at the central bank going up. If QE was no monetary expansion or loosening, QT will not be monetary tightening either. QT is as meaningless in the sense of money as QE: a non-event.

Taking this train of thought further, and thinking the unthinkable: if this QE money is not money, a) what is money and how can it be produced, and b) if the Fed does no longer know what money is, how can it be trusted on interest rates?

The Fed uses short term rates as a way to control the quantity of money. They tend to start thinking about raising interest rates when the quantity of money exceeds output. The idea behind is that at a higher cost of money, demand for money will be less and growth will moderate.

A functional money supply (total money) has been the key to the successful expansion of the economy after 1950. A dysfunctional money supply made itself noticeable in growth, jobs, in 2000, and then more so in 2008, when money (much of it from the shadows, see below) dried up. A malfunctioning is the cause for the depressed state of the economy we have seen over the last 18 years, because money has never recovered.

I do not know what the Fed's thinking is - pretend normality to boost morale? Do they really still believe in QE, in unemployment numbers, or is this a face-saving exercise, a retreat instead of admitting defeat?

#### THE MISSING MONEY

Money in the modern world is complex. It is the monetary base under the control of the central bank, it is the money readily available (which we see in the economy and in savings, in stocks and bonds, etc) and it is the money that comes and goes from the shadows (we have seen recently much less of this, it used to be predominant in London real estates not too long ago, it did emerging market boom of 2003 to 2007 and subsequent bust when it left, it was at the heart of subprime, it washed up on, respectively was created in the balance sheets of global Sifi banks, Deutsche Bank, UBS, Citigroup, et al, pre 2008).

But money is so much more. For the global economy, dollar funding proves far harder now than before 2008. Look at Libor, it tells the story, at the Turkish lira or the Brazilian real. These countries cannot get the dollars as they used to, this is what their exchange rates are telling us, so they have to offer more and more of their currency in exchange for fewer and fewer dollars. This cannot end well.



President Trump is his own man, determined and powerful, like him or not. He wants a fairer share of the global economic cake, he says, but there is only so much you can get from a cake made of diminished growth rates. He needs global aggregate demand to rise.

Which is unlikely, once for self-inflicted reasons in Europe, but more importantly, all these countries, even the US, are hampered by the malfunctioning, respectively dysfunctionality of the global monetary system which came to the fore in 2007, but started long before.

The good news one could say is everything works just fine, albeit at a slower pace. But the cracks in the ceiling are getting larger, they are not going away and they are structural.

Ending with the Shiller cyclically adjusted real price earnings ratio (CAPE). This is a good indicator of money and where it when travels. When long term interest rates are high, money plentiful and inflation on the rise, money travels out of equities and bonds as these tend to compete with real business investments and visa versa, when interest rates are low, economic opportunities scarce, money finds its way into cash and near cash, forcing equity and bond prices up (yields down). It is what John Maynard Keynes described as the liquidity preference.

Due to lack of opportunity, corporates prefer share buybacks over real business investments, supporting equity valuations.

