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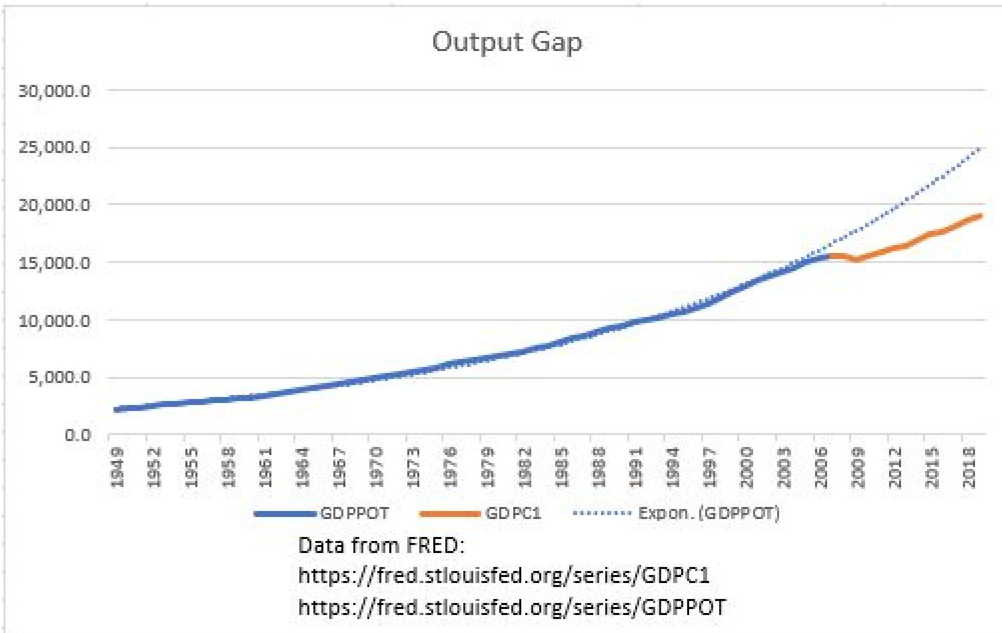
The Great Recession's Output Gap



	Average % Annual Growth Rate
Potential RGDP 1949-2007	3.420733102
RGDP 2008-2019	1.824417238

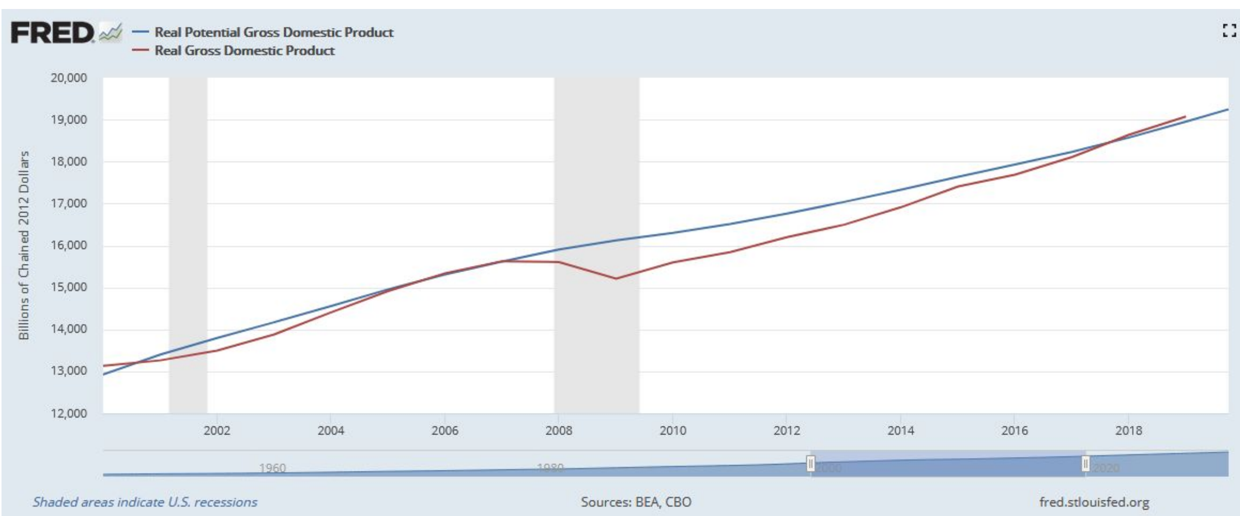
From the graph it is clear there is a difference between the trend potential output from 1949-2007 and the real output from 2008-2019. From 2008 onwards there is a noticeable gap between GDP and the trend of the potential GDP. Looking at the average annual growth rates between the two as well we can see there is a decrease in the growth rate from 2008-2019.

To better understand this gap it is best to start by looking at what the potential GDP is a measure of. Potential GDP estimates the highest level of output of an economy and assumes that the economy has achieved full employment (Krugman, 2019). It is important to define full employment as well. Full employment is defined as when "...all available labor resources are being used in the most efficient way possible" (Chappelow, 2019). Another way of phrasing this is that potential GDP is a measure of output when there is zero unemployment.

Before looking at what caused this gap we should look at what an output gap actually is. An output gap is the difference between the real GDP and the potential GDP of an economy (Majaski, 2019). A negative output gap indicates that the real GDP is below the potential GDP (Majaski, 2019). Also, a negative output gap can mean that there is a lack of demand for goods in services which would foreshadow a decline in the GDP growth rate (Majaski, 2019). A positive output gap indicates that the real GDP is higher than the potential GDP (Majaski, 2019). A positive output gap also implies that there is a high demand for goods and services and to meet this demand labor must push past their maximum efficiency level (Majaski, 2019).

The first piece to consider is, why is there a large output gap after the Great Recession? A negative output gap can be indicative of their being spare capacity in the economy (Jahan, 2013). What this means is that the economy was not at full employment during this gap. The main cause of the large output gap was a spike in unemployment and job loss (Chart Book, 2019). Also, The unemployment rate rose much faster than in the recessions before (Chart Book, 2019). Before the recession the unemployment rate was around 5% but during the recession it reached around 10% (Chart Book, 2019). The unemployment rate did not go back down to 5% until late into 2015 (Chart Book, 2019). The large output gap was due to the jump unemployment rates that were seen during the Great Recession and the slow recovery afterwards.

The second piece to consider is, why has this output gap persisted for so long after the Great Recession? Looking at the graph below, which shows real GDP and potential GDP from 2000-2019, we can see that in reality, the output gap has closed but then why did the graph above show a different story.



Data from Fred:
https://fred.stlouisfed.org/series/GDPC1
https://fred.stlouisfed.org/series/GDPPOT

The graph at the beginning still showed an output gap because the potential GDP data stopped in 2007 and the trendline was extended out from there till 2019. The graph above however shows the potential GDP contrasted with the real GDP data from 2000 to 2019. The first graph’s potential GDP is not recalculated after the Great Recession so it does not account for the dip in GDP from the Great Recession. The graph above shows the recalculated potential GDP in the years following 2007 that adjusted for the Great Recession. The growth rate of potential GDP before the Great Recession was higher than the growth rate of it after the Great Recession. The graph above shows that the negative output gap caused by the Great Recession has been closed but the growth rate of potential GDP has decreased as a result. Even considering this, the output gap still remained for a longer period of time than the output gaps of recessions before it. This was due to unemployment rates staying high even after the Great Recession had concluded (Chart Book, 2019). Another factor was that long term unemployment reached new highs and stayed that way for a greater amount of time than in any recent event (Chart Book, 2019).

The Great Recession created a lasting negative output gap in the US economy. The main factor in causing this output gap was the rise of the unemployment rate. The output gap created by the Great Recession lasted longer than other output gaps because the unemployment rate did not recover till many years later. The US has recovered from the Great Recession as of now but it has still not reached pre-Great Recession growth rates and time will tell if the US can reach that point again.

References

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