



# The economic growth in the world from 2007 to 2018: Secular stagnation?



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## Abstract

In this study we analyze growth rates of per capita GDP for 166 countries to determine how the economic growth in the world after the Great Recession through 2018 compared to the economic growth in the world prior to the Great Recession. The annual growth of per capita GDP in the world from 2009 to 2018 was 2.13%, which was a large fall from the growth rate in the world from 2000 to 2008, 3.17%, but still the growth rate from 2009 to 2018 was greater than from 1980-1990 (1.29%) and from 1990-2000 (1.89%). If one examines the annual growth rates of individual countries, then from 2007 to 2018 there was a decline in the annual growth rate of the US' per capita GDP as compared to 1991 to 2007 (from 2.1% to 0.76%), of the growth rate of 20 economies in Europe that were not communist prior to 1990 and of the growth rate of the Japanese economy (from 0.95% to 0.68%), but there were 68 countries (41% of the countries in the data set), whose economies had superior growth rates from 2009-2018 as compared to 1991-2008. Whether there was secular stagnation in the world after the Great Recession depends on which countries one looks at and which time periods are compared.

## Introduction

In a series of a papers (2014, 2015, 2016, and 2020), Larry Summers has argued that the economies in the US, Europe and Japan entered a period of secular stagnation after the Great Recession. The basis for this claim is the disappointing economic growth in these countries after the Great Recession. Summers has argued that this secular stagnation was due to a dearth in investment in conjunction with abundant savings. In addition, he argues that a decrease in the working age population in advanced economies has also lowered economic growth.

This disappointing economic growth is surprising since there have been many technological developments from 2007 to the present, which should have spurred economic growth. The Apple iPhone was released in June 2007, and the android operating system was incorporated into mobile phones in October 2008. Smartphones have led to numerous apps that have changed the way that people function, as for explain the ubiquity of shopping online and the use of GPS navigation. Is the smartphone just a consumer good which has not led to any significant changes in production? (See Gordon 2015.) Are people too addicted to their smartphones and is this reducing productivity? Other developments are electric cars, 3D printing, hydraulic fracturing and the giant Amazon fulfillment centers. Again, are these changes only increases in consumer welfare, but not in productivity? Can that be? Or, are the new advances having an overall negative impact due to their disruption of "old" industries such as shopping malls?

There is a need to re-examine the GDP data and to look not just at the "Western world," but to all countries in the world. Was the economic growth for all or most countries in the world disappointing after the Great Recession?

## Methods and Materials

In this study we will examine the per capita GDP data in Bolt and van Zanden (2020) from the Maddison Project database for 166 countries. This dataset is based on international prices from 2011 and has data through 2018. The goal is to determine whether the growth rates in countries throughout the world stagnated after the Great Recession. This determination is based on comparisons of growth rates before and after the Great Recession. We need to divide the data into different periods in order to make these comparisons.

From 1990-2018, each year, on average, 131 countries had increases in their per capita GDP. The notable outliers were 86 countries in 1990, 85 countries in 1991 (the "Gulf War Recession") and just 82 countries in 2009 by the Great Recession. In addition, in 2008, 143 countries had increases in their per capita GDP and in 2010, 144 countries had increases in their per capita GDP. This means that the relatively small number of countries with increases in their per capita GDP in 2009 is a "trough" in the per capita GDP data. An exception to this one year trough is that for 15 countries, including the US, Japan, and 10 European countries their per capita GDP decreased in both 2008 and 2009. For these 15 countries, their peak in 2007 is a relatively well-defined break in their per capita GDP data, but for most countries in the world a reasonable break in their per capita GDP data is their peak in 2008/ trough in 2009.

The tables and the graph on the right show the different growth rates for various periods for different groups of countries based on their respective benchmark years.

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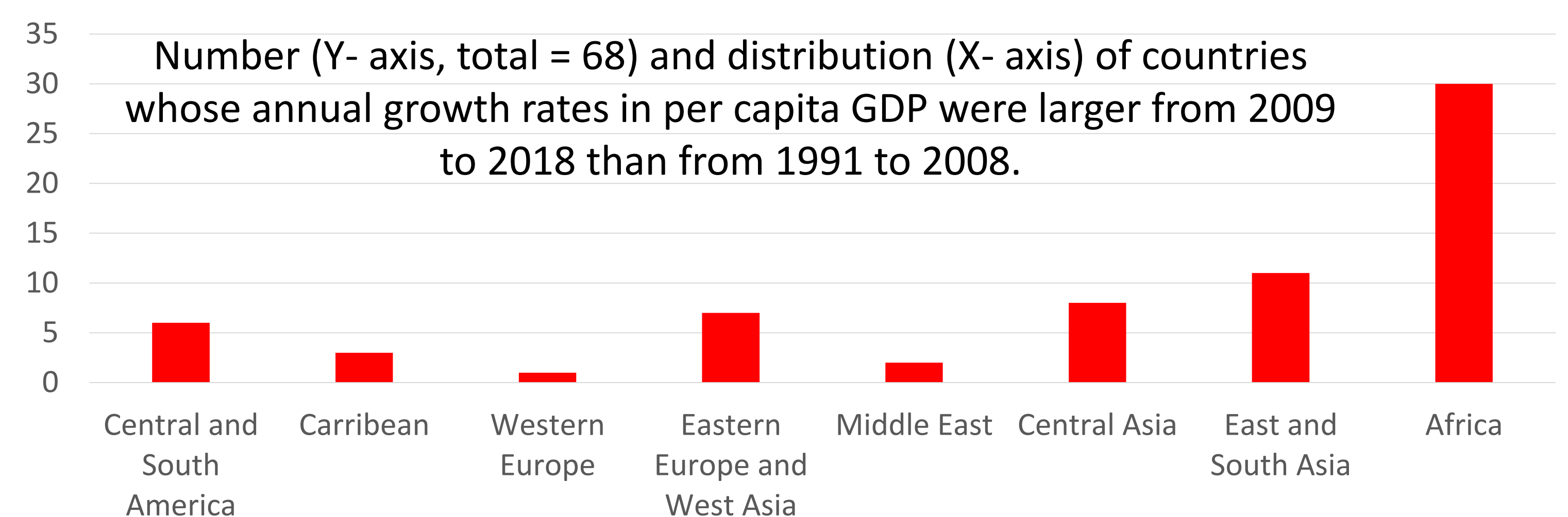


## Annual Growth Rates of Per Capita GDP

	1980-1990	1990-2000	2000-2007	1991-2007	2007-2018	2009-2018
Japan	3.42	1.04	1.12	0.95	0.68	1.58
US	2.25	2.18	1.49	2.11	0.76	1.49
			2000-2008	1991-2008	2008-2018	
World	1.29	1.89	3.17	2.59	1.8	2.13

## Differences in the annual growth rates of per capita GDP from 2007-2018 as compared to the annual growth rates of per capita GDP from 1991-2007 for 20 European countries that were not communist before 1990.

Austria	-1.97%	Ireland	-5.11%
Belgium	-1.71%	Italy	-2.31%
Cyprus	-4.03%	Luxembourg	-2.62%
Denmark	-2.26%	Malta	-1.16%
Finland	-3.11%	Netherlands	-2.36%
France	-1.39%	Norway	-4.88%
Germany	-1.56%	Portugal	-1.84%
Great Britain	-2.04%	Spain	-3.38%
Greece	-4.86%	Sweden	-2.27%
Iceland	-2.03%	Switzerland	-2.23%



## Discussion

The tables and graph show that one can find evidence for a slowdown in economic growth after the Great Recession, but this evidence is not robust since there is also evidence that there was no slowdown. With regard to the US, if one compares the annual growth rate of US per capita GDP from 1991-2007 to the rate from 2007-2018 or to the rate from 2009-2018, then there was a fall in the growth rate. Yet, the annual growth rate of US per capita GDP from 2000-2007 was equal to the annual growth rate from 2009-2018. In addition, if one claims that the US economy was stagnating, then an interesting line of research is that maybe it was due to the fall in the US labor force participation rate, see again Gordon 2015 and Dotsey, Fujita, and Rudanko, 2017. From 1951 to 1997, the LFPR was gradually increasing from 59.2% to 67.1%, it was constant through 2001, but since then it has been falling slowly. The same question of which period of years to compare also applies to Japan, as the growth rate in its per capita GDP from 2009 to 2018 was its highest since 1980 to 1990. With regard to European countries who were not communist, it is striking that for all 20 countries, the annual growth rates of their per capita GDP from 2007 to 2018 were less than from 1991 to 2007. A possible reason for this downturn in these countries was the European Sovereign Debt Crisis. Lastly, a majority of countries in Africa (30 out of 49 in the dataset, 61%) had increases in their rate of growth for the period 2009-2018 as compared to 1991-2008. This was also true for 38 other countries, the vast majority of whom could be considered as having developing economies. Maybe by these countries, the introduction of the smartphone was much more significant to their economies than in countries whose economies are considered advanced.

## Conclusions

In this poster, we have shown that depending on what time periods are chosen for making comparisons, one can claim that there was a secular stagnation in some countries after the Great Recession, but for many countries in the world, the period after the Great Recession was one of increased economic growth.

## References

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