Is economic growth permanently lower? Gavyn Davies, blog *Financial Times*, Oct 26, 2014

In the years after the Great Recession of 2008-09, forecasts for global economic growth have persistently proven too high. This tendency has been particularly pronounced in the major emerging economies, where there has been a gradual realisation that long term trend growth potential should be revised downwards. In the developed economies, growth expectations have also proven persistently too high, causing an increasing focus on "secular stagnation".

Three of my colleagues at Fulcrum have been examining the behaviour of long run GDP growth in the advanced economies, using developments of dynamic factor models to produce real time estimates of long run GDP growth rates. See the <u>summary paper</u> by Juan Antolin-Diaz, Thomas Drechsel and Ivan Petrella, and the <u>more academic version</u> here¹.



The results (*Graph 1*) show an extremely persistent slowdown in long run growth rates since the 1970s, not a sudden decline after 2008. This looks more persistent for the G7 as a whole than it does for individual countries, where there is more variation in the pattern through time.

Averaged across the G7, the slowdown can be traced to trend declines in both population growth and (especially) labour productivity growth, which together have resulted in a halving in long run GDP growth from over 4 per cent in 1970 to 2 per cent now.

Some version of secular stagnation does seem to be taking hold. This may partly explain why, for the last five years, forecasts of G7 real GDP growth have been persistently biased upwards.

The factor models reported here are innovative because they allow the long run rate of growth to vary through time, rather than assuming that it is a constant. These methods should should make "nowcasts" more robust to future changes in trend GDP growth. They will also allow economists to track long run GDP growth on a more up-to-date basis than has been possible before, which should be useful for investors and policy makers alike.

¹ Dynamic factor models were originally proposed by <u>Domenico Giannone and Lucrezia Reichlin</u> to "nowcast" GDP.

The long run growth rate, as identified in the Fulcrum study, is defined as the trend component of the growth rate. Economic cycles will fluctuate around this rate. But the trend component can also change through time. As <u>Lawrence Summers and Lant Pritchett</u> recently wrote:

The single most robust and striking fact about cross-national growth rates is regression to the mean. There is very little persistence in country growth rates over time and hence current growth has very little predictive power for future growth.

The regression to the mean that Summers/Pritchett have identified is a reversion to the global average growth rate. But that growth rate may also change. The assumption that the mean growth rate is one of the great economic constants in advanced economies is simply wrong.

Economists have often assumed that the long run growth rate will be roughly constant in developed economies, because labour productivity will tend to rise at about 2 per cent per annum for countries at the frontier of technology, and because population growth will be stable for long periods. In the US, for example, the long run growth rate prior to 2000 is usually estimated to be about 3.25 per cent, with many earlier studies showing just one downward break in productivity growth after 1973.

A stable long run growth rate does not, however, emerge from the data. In the US, there seem to have been two recent declines in the long run growth series, clustered around 2005/06 and another around 2010/11. Together, they have taken the long run growth rate down by a full percentage point to 2.25 per cent.

In other developed countries, the decline in long run growth has been even larger, though it has taken place at somewhat different times. The steady decline in the underlying G7 growth rate shown in *Graph 1* is a surprise, since economists are accustomed to think of long run growth as broadly stable, with one or two breaks occurring when technology changes. Instead, with differences between countries cancelling out, the deterioration in the growth process looks more like an inexorable trend.



As already noted, the decline in long run G7 GDP growth can be (inexactly) split into two causes. First, there has been a continuous slowdown in population growth (*Graph 2*). For the G7, this has dropped from 0.6 per cent per annum in the early 1980s to 0.3 per cent now, and it will drop further in coming decades. Germany and Japan have both seen their population growth rates dipping into negative territory.



The second factor has been a slowdown in labour productivity growth (*Graph 3*). Two phases of deceleration are apparent. In the 1970s, the decline in Japan and Europe is particularly pronounced, while in the 2000s, it appears everywhere.

Overall, G7 productivity growth fell from about 4 per cent to about 2.5 per cent per annum during the 1970s, and then seems to have fallen to about 1 per cent in the early 2000s, before the financial crash. A slowdown in technical progress is the reason usually given for this progressive deceleration in productivity growth.

Conclusion

The slowdown in long run growth in the developed economies therefore seems to have become a permanent fact of life, rather than a temporary result of the financial crash that will disappear over time. But the actual path for GDP has fallen well below even the depressed long run equilibrium path since 2009.

Is this "secular stagnation"? The term is interpreted differently by different schools of economists. Some believe that the disappointments in growth since 2009 have been mainly due to persistent shortages of demand because of balance sheet problems after the Great Recession, while others attribute them to a slowdown in supply potential over a longer period of time.

The Fulcrum study does not attempt to settle this debate. However, if we assume that G7 activity was broadly at trend in 2007, and that long run growth since then has been about 2 per cent, then the current level of GDP is still about 8 per cent below its long run level.

This is one indication of how much damage is left to be repaired by improved demand and supply side policy in the future.