[GDP and the System of National Accounts: Past, Present and Future](#)

CFM-DP2018-02

Nicholas Oulton

Centre for Macroeconomics, London School of Economics, National Institute of Economic and Social Research and Economic Statistics Centre of Excellence

"China became the world's largest economy in 2014". "UK GDP grew by 0.1% in the first quarter of 2018." "In the Eurozone, inflation as measured by the Harmonised Index of Consumer Prices was up 1.4% in March 2018 compared to the previous March." Any scanner of websites that cover business news can read statements like these on any day of the week. Each statement relies on modern economic statistics whose basis is the System of National Accounts (SNA). In this chapter I briefly outline how the SNA came to have such a powerful (if background) role. I then go on to discuss some of the many criticisms levelled at the SNA, and in particular at GDP, its centrepiece. These criticisms fall into two groups. The first group raises doubts about how accurately GDP is measured. The second is more about the relevance of GDP (and the SNA) as a guide to policy. Even if GDP is measured accurately, is it measuring anything which thoughtful people should be interested in?

History and uses of the SNA

The concept of GDP was originally developed by academic researchers like Simon Kuznets. Kuznets used this new invention to make what is arguably the most important empirical finding in the whole of economics. He concluded that economic growth had been much more rapid after the Industrial Revolution than before it. The Industrial Revolution therefore marks a new epoch in human history.

During the Second World War pioneering estimates of GDP were used by the UK and US governments for planning the war for which estimates in current prices sufficed. The post-war development of the SNA met the needs of Keynesian macroeconomic management, support for which was spreading rapidly. For this purpose GDP in constant as well as current prices is necessary. Quarterly as well as annual estimates of GDP started to appear. Keynesian notions of macroeconomic management are now less popular than they once were but central banks with a remit to target inflation are just as keen to receive high quality and frequent estimates of GDP and its main components.

In parallel with the needs of monetary and fiscal policy a new market for GDP and the SNA has arisen because of increasing interest in the problems of long run growth and development both in developing and developed countries. And this has sparked innovations in official statistics too, such as the OECD's capital and productivity manuals.

With the rise of major new economic powers like China and more recently India there has also been increasing interest in international comparisons of the size of different economies (GDP) and their relative standards of living (GDP per capita). The crucial institution here is the International Comparison Program (ICP) run by the World Bank in conjunction with the OECD which estimates Purchasing Power Parities (PPPs) for virtually the whole world. PPPS are the cross-section counterpart to time series price indices like the CPI.

How accurately is GDP measured?

For the advanced countries with well-developed statistical systems the issue of accuracy boils down to the size of errors in price indices. These are mainly due to mismeasurement of quality change and inadequate treatment of new goods. I review research in these areas which mainly concludes that price indices are biased upwards so growth is biased downwards. In addition, on the output side of the national accounts price indices for important industries are missing. This does not affect the overall accuracy of GDP but does mean that the contributions of different industries to GDP are mis-measured. There are also unresolved problems in making PPPs consistent with the national accounts and domestic price indices, casting doubt on the accuracy of international comparisons of GDP levels.

Should we still care about GDP?

GDP is not and was never intended to be a measure of welfare. But it can be considered to be both a component and an indicator of welfare. In practice, in cross-country data GDP per capita is highly correlated with other factors which are important for human welfare. In particular it is positively correlated with life expectancy, negatively correlated with infant mortality, and negatively correlated with inequality.

In advanced countries, though not in developing ones, a focus on GDP is often criticised on the grounds that most people haven't benefited from GDP growth in recent decades, due to rising inequality. This case is most easily made for the United States. I review the evidence here and find it to be exaggerated. One of the strengths of the SNA is that it can be used to construct measures which do relate directly to household welfare.

Measuring GDP in currently rich countries might become increasingly irrelevant if the benefits of future technical progress were to be taken largely in the form of increased leisure. This would imply that no new consumer goods and services will be invented in coming decades. But this seems very unlikely given the historical record: a vast array of new consumer goods has appeared since the Industrial Revolution.

I conclude that GDP and the SNA have a long life ahead of them.