Is GDP a satisfactory measure of growth?

If ever there was a controversial icon from the statistics world, GDP is it. It measures income, but not equality, it measures growth, but not destruction, and it ignores values like social cohesion and the environment. Yet, governments, businesses and probably most people swear by it. According to François Lequiller*, head of national accounts at the OECD, part of the problem is that perhaps we expect too much from this trusty, though misunderstood, indicator. He explains.

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François Lequiller: If by growth you mean the expansion of output of goods and services, then GDP or preferably real GDP – which measures growth without the effects of inflation – is perfectly satisfactory. It has been built for this purpose. The letter P stands for "Product", the result of production. Gross Domestic Product is defined as the sum of all goods and services produced in a country over time, without double counting products used in other output. It is a comprehensive measure, covering the production of consumer goods and services, even government services, and investment goods.

In this single number, you get an idea of whether the economy is expanding or contracting. Paul Samuelson, Nobel Laureate and author of many textbook references, once described GDP as "truly among the great inventions of the 20th century, a beacon that helps policymakers steer the economy toward key economic objectives".

But, the public is so used to GDP that we sometimes forget how hard it is to accurately sum all of the goods and services produced in a country together, from bricks and tableware to banking and software. First of all, to make such aggregating possible, you need to define what production is and what it is not. Our conventions may sometimes look arbitrary, such as when we exclude the output of domestic work that is carried out in the home. We do not consider, for example, that taking care of one's own children is production, whereas we do when a hired nanny does the same work.

Then, you need good statistics, which are not always easy to gather. For example, there are, by definition, hardly any statistics available on the underground economy. Third, we need a sophisticated system that can add it all together, from the number of new cars and haircuts, to the volume of teaching, etc. In GDP, each component is given the weight of its relative price. In market economies, this works because prices reflect both the marginal cost for the producer and the marginal utility for the consumer: people sell at a price that other people are willing to pay. But the contribution to welfare of the output of government services, in particular public education and health, which by definition have no market prices, is difficult to measure, despite their importance in our economies.

Finally, one could also recommend users to look at alternative measures to GDP that exist inside the national accounts, such as Net Domestic Product or National Income. These may be more suitable for measuring particular contexts (See GDP and GNI).

How might GDP be expanded, for instance, to capture wellbeing?

First, it is inaccurate to say that GDP does not capture wellbeing. It captures at least the wellbeing that results from the production of goods and services. Indeed, when statisticians quantify the goods and services produced, they take into account their utility to the consumer. Nevertheless, it is true that there are other dimensions to wellbeing which GDP misses. And it is often said, sometimes cynically, that GDP increases when there are car accidents, or that while the terrible destruction of the recent tsunami in Asia undermined GDP by wiping out communities and their economic activities, it would at the same time lead to a boost in GDP, thanks to rebuilding, new investment and so on! However, this should not be held as a criticism of GDP, which is simply a measure of production.

If you want a number which will capture the negative effects of accidents on wealth, use the national accounts system, which contains many different aggregates, of which GDP is only one. It provides a general measure of the stock of national assets: the nation's "balance sheet", so to speak. The trouble is, few countries compile one.

On the other hand, neither GDP nor this balance sheet takes account of environmental degradation, insecurity or inequality. The main obstacle to overcome in deriving a single measure for all these dimensions is finding a convincing proxy price – or imputed price – for each and every component, on top of goods and services. Without such imputed prices, it is impossible to combine the various indicators that contribute to our wellbeing. The UN Human Development Indicator is a good attempt, and academics, such as William Nordhaus or Andrew Sharpe, have come up with some interesting possibilities. However, many statisticians, including me, are wary of adding too many imputations that could end up weakening the GDP indicator. We prefer instead to produce a suite of indicators.

An example is the Australian Bureau of Statistics' publication, Measuring Australia's Progress, whose indicators cover health, education, environment, crime and social attachment. The OECD's new publication, OECD Factbook 2005 is essentially in the same mould, and allows the user to assess how countries are performing on several fronts. In addition, international organisations, like the OECD, have developed systems to account for the environment, such as the System of Economic Environmental Accounts (SEEA), but these are in

addition to GDP, and are not incorporated within it. GDP is a beacon, but it is not the only one.

So GDP is here to stay?

The times of major change, such as the one to include non-market production in GDP some 30 years ago, have passed, so do not expect any radical upheavals. Nevertheless, we are trying to strengthen GDP as an indicator. Statisticians at the OECD and around the world are currently discussing new reforms to the current system of national accounts, which should enter into force in 2008. One such reform now under consideration is how to recognise spending on research and development as investment, since at present, in business as in national accounting, these expenditures are seen as being consumed immediately, and so do not contribute to market GDP or to the stock of assets. If the reform goes ahead, their true contribution over time would be counted, which is intellectually more satisfying. Counting R&D in this way would raise the absolute level of GDP for OECD countries by around 2%, depending on the level of research and development expenditures in each country. While this would be a significant reform, it still depends on getting good quality data. Without them, the beacon of GDP would become dimmer, and we certainly do not want that to happen.

*Mr Lequiller heads the National Accounts work at the OECD, and is a former chief of national accounts at the National Institute for Statistics and Economic Studies (INSEE).

References

Lequiller, François, and Blades, Derek (2004), *Comptabilité nationale : manuel pour étudiants*, Economica, Paris. Includes CD-Rom.

©OECD Observer, No 246-247, December 2004-January 2005

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