

The 21st-century economy**How to measure prosperity****GDP is a bad gauge of material well-being. Time for a fresh approach**

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WHICH would you prefer to be: a medieval monarch or a modern office-worker? The king has armies of servants. He wears the finest silks and eats the richest foods. But he is also a martyr to toothache. He is prone to fatal infections. It takes him a week by carriage to travel between palaces. And he is tired of listening to the same jesters. Life as a 21st-century office drone looks more appealing once you think about modern dentistry, antibiotics, air travel, smartphones and YouTube.

The question is more than just a parlour game. It shows how tricky it is to compare living standards over time. Yet such comparisons are not just routinely made, but rely heavily on a single metric: gross domestic product (GDP). This one number has become shorthand for material well-being, even though it is a deeply flawed gauge of prosperity, and getting worse all the time (see [article](#)). That may in turn be distorting levels of anxiety in the rich world about everything from stagnant incomes to disappointing productivity growth.

Faulty speedometer

Defenders of GDP say that the statistic is not designed to do what is now asked of it. A creature of the 1930s slump and the exigencies of war in the 1940s, its original purpose was to measure the economy's capacity to produce. Since then, GDP has become a lodestar for policies to set taxes, fix unemployment and manage inflation.

Yet it is often wildly inaccurate: Nigeria's GDP was bumped up by 89% in 2014, after number-crunchers adjusted their methods. Guesswork prevails: the size of the paid-sex market in Britain is assumed to expand in line with the male population; charges at lap-dancing clubs are a proxy for prices. Revisions are common, and in big, rich countries, bar America, tend to be upwards. Since less attention is paid to revised figures, this adds to an often exaggerated impression that America is doing far better than Europe. It also means that policymakers take decisions based on faulty data.

If GDP is failing on its own terms, as a measurement of the value-added in an economy, its use as a welfare benchmark is even more dubious. That has always been so: the benefits of sanitation, better health care and the

comforts of heating or air-conditioning meant that GDP growth almost certainly understated the true advance in living standards in the decades after the second world war. But at least the direction of travel was the same. GDP grew rapidly; so did quality of life. Now GDP is still growing (albeit more slowly), but living standards are thought to be stuck. Part of the problem is widening inequality: median household income in America, adjusted for inflation, has barely budged for 25 years. But increasingly, too, the things that people hold dear are not being captured by the main yardstick of value.

With a few exceptions, such as computers, what is produced and consumed is assumed to be of constant quality. That assumption worked well enough in an era of mass-produced, standardised goods. It is less reliable when a growing share of the economy consists of services. Firms compete for custom on the quality of output and how tailored it is to individual tastes. If restaurants serve fewer but more expensive meals, it pushes up inflation and lowers GDP, even if this reflects changes, such as fresher ingredients or fewer tables, that customers want. The services to consumers provided by Google and Facebook are free, so are excluded from GDP. When paid-for goods, such as maps and music recordings, become free digital services they too drop out of GDP. The convenience of online shopping and banking is a boon to consumers. But if it means less investment in buildings, it detracts from GDP.

Stop counting, start grading

Measuring prosperity better requires three changes. The easiest is to improve GDP as a gauge of production. Junking it altogether is no answer: GDP's enduring appeal is that it offers, or seems to, a summary statistic that tells people how well an economy is doing. Instead, statisticians should improve how GDP data are collected and presented. To minimise revisions, they should rely more on tax records, internet searches and other troves of contemporaneous statistics, such as credit-card transactions, than on the standard surveys of businesses or consumers. Private firms are already showing the way—scraping vast quantities of prices from e-commerce sites to produce improved inflation data, for example.

Second, services-dominated rich countries should start to pioneer a new, broader annual measure, that would aim to capture production and living standards more accurately. This new metric—call it GDP-plus—would begin with a long-overdue conceptual change: the inclusion in GDP of unpaid work in the home, such as caring for relatives. GDP-plus would also measure changes in the quality of services by, for instance, recognising increased

longevity in estimates of health care's output. It would also take greater account of the benefits of brand-new products and of increased choice. And, ideally, it would be sliced up to reflect the actual spending patterns of people at the top, middle and bottom of the earnings scale: poorer people tend to spend more on goods than on Harvard tuition fees.

Although a big improvement on today's measure, GDP-plus would still be an assessment of the flow of income. To provide a cross-check on a country's prosperity, a third gauge would take stock, each decade, of its wealth. This balance-sheet would include government assets such as roads and parks as well as private wealth. Intangible capital—skills, brands, designs, scientific ideas and online networks—would all be valued. The ledger should also account for the depletion of capital: the wear-and-tear of machinery, the deterioration of roads and public spaces, and damage to the environment.

Building these benchmarks will demand a revolution in national statistical agencies as bold as the one that created GDP in the first place. Even then, since so much of what people value is a matter of judgment, no reckoning can be perfect. But the current measurement of prosperity is riddled with errors and omissions. Better to embrace a new approach than to ignore the progress that pervades modern life.