



A critical assessment of GDP as a measure of economic performance and social progress

A note from the author Cressida Gaukroger

From July-September 2022, I carried out research for Carnegie UK with the aim of producing a report that provides background understanding and support for their Gross Domestic Wellbeing (GDWe) Index. Texts consulted include books, academic articles and online, journal and newspaper pieces, and my research has also been informed by discussions I have had with former members of the Australian Bureau of Statistics, and the OECD Better Life Index and Human Development Index, as well as others working in the wellbeing and public policy space. This work also includes significant analysis and is crafted to be of best use to a non-academic audience, hence its untraditional structure in places and choice of informal language, which has been used intentionally to facilitate ease of understanding and clarity of meaning.

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Contents

| | | |
|-----|---|----|
| 1. | Introduction | 3 |
| 2. | What is GDP? | 5 |
| 3. | Differences in how GDP is measured | 8 |
| 4. | What is GDP used for? | 12 |
| 5. | Some arguments for GDP and their flaws | 17 |
| 6. | Critiques of GDP | 21 |
| 7. | Is GDP a good indicator of wellbeing? | 26 |
| 8. | Concluding comments from the author | 28 |
| 9. | Appendix: Examples showing the absurdity of GDP | 31 |
| 10. | Bibliography | 32 |



1. Introduction

Gross domestic product (GDP) was never intended to be a measure of wellbeing or progress. It was developed to fill significant gaps in information available about the state of the economy, namely how bad things had become in the Great Depression, and how much money could be raised for fighting the Second World War. Its founders recognised its shortcomings from inception, and concerns about the worldwide focus on promoting economic growth in its current form have been building, particularly since the 1970s (Nordhaus and Tobin, 1973). Thousands of papers, articles, books and speeches have been written on the failings of GDP, and yet it has continued as the primary metric of progress and economic wellbeing around the world, imposing significant influence on domestic and international structures and policy. There are many reasons why GDP has been so persistent, including:

- ***It is deeply embedded in domestic and international structures:*** Keeping track of GDP is required for countries to be eligible to receive loans or aid; it forms the basis for within-country accounting; it guides markets, international relations and policy. Any shift away from GDP would be extremely complicated, expensive and disruptive, and would potentially require changes on an international level.
- ***It has achieved and continues to achieve a lot:*** When first developed, GDP filled a much-needed gap in information about the economy and was used to justify economic intervention, without which governments would have remained far smaller and more inert than they are today. The information it provides continues to have many uses – but these uses don't justify the primacy of the measure, particularly in the face of improved alternatives.
- ***Growth is still very much seen as a good:*** To argue against growth is a political third rail. Growth is seen as responsible for all the advances in society since the industrial revolution – better education, sanitation, health care, life expectancy. It is also seen as providing resources to governments to continue with social projects that are necessary to ensure and improve wellbeing. Whether or not this is true, insofar as attacks on GDP are seen as attacks on growth, they can easily be politically dismissed. GDP also has the further political advantage that by its nature it isn't the kind of thing that is usually the topic of political debate:



Because it focusses on the input side, or the means to achieve ends, it is somewhat shielded from the (healthy) democratic debate on how to allocate resources between priorities, representing the 'output' side of the political process.
(Terzi, 2021: 10).

- ***It has incredible communications power:*** GDP is often presented as being far simpler than it is, as is shown in this report, but its great advantage is that it generates one figure that is represented in very basic terms as signalling improvement the faster and higher it grows, and decline when it slows or decreases. Not only do people feel they understand what GDP data means, but they invest a great deal in its success. This is, no doubt in part because GDP is presented competitively between different periods of time (and therefore past and present governments) and between

countries. All this is reinforced by the fact that it is released with high frequency – typically quarterly, but sometimes monthly – meaning that it can always feed a media that is in a committed pattern of reporting on and therefore promoting it (Coyle, 2015).

Challenging the primacy of GDP remains an uphill battle, but it has never been more necessary. We need better measures of those things we value to guide public policy and ensure that the quality of life that affluence brings is felt by more than a small percentage of the population, and that quality of life in the future is not threatened by today's activities.

Section 2 of this report begins with an account of what GDP is with the aim of helping the reader to better understand the details of what is being talked about when GDP is referred to in the media and government documents. Section 3 looks at differences in how GDP is measured and challenges the assumption that GDP is objective, is standardised across all countries, and measures a real entity in the world. It highlights that there is room for GDP to change, and that what is included in or excluded from GDP is a choice, and not free from values as it is often portrayed. Section 4 discusses some of the different uses of GDP, including a brief history of its development. It is suggested that there are problems with the use of GDP in every one of its functions, but that these functions cannot all be replaced by a Wellbeing Index. There is value in being able to differentiate which GDP functions are the focus of pro-wellbeing index arguments, and which are not. For some of its functions – for example, assessing a nation's assets for the purpose of making loans – an adjusted GDP or other alternative economic indicator may be preferable to a wellbeing index.

These first sections provide the tools for arguing against GDP on 'its own terms', looking at its internal limitations or inconsistencies. The following sections look at the failures of GDP as a measure of quality of life and as a reliable guide to policy that represents the wellbeing of the people. Section 5 looks at four of the most common arguments in favour of maintaining our current reliance and emphasis on GDP, and describes some central flaws with each. Section 6 looks at the many critiques of GDP – considering things of value that it fails to cover (such as democratic values and unpaid labour), harms it fails to account for (such as environmental and economic damage), and harms that it counts as 'goods' because they contribute to growth of GDP (the costs of responding to natural disasters and health crises).

The concluding remarks ask whether GDP is a good measure of wellbeing, questioning the relationship between them and addressing the arguments around using GDP to reflect wellbeing. Concluding comments from the author reflect on whether it is better to revise GDP or replace it. It concludes that there is no clear answer. There are strong arguments on both sides, but these two approaches need not be at odds with one another. Revising GDP may be the best way to entrench significant change, particularly for sustainability and environmental protection, due to the speed with which this can be brought about and its global reach. However, replacing GDP (or in the shorter term supplementing it) with a wellbeing index has the potential to make greater changes in the long run, if a very challenging communication battle can be won and the index is reported and received in the way that GDP is. An appendix provides some examples demonstrating the perverse nature of GDP.

2. What is GDP?

Gross domestic product (GDP) is the combination of everything spent by consumers, businesses and the government within a country within a year (plus exports, minus imports). Well, not exactly.

First, it only counts **finished goods and services**: These are those goods and services that will not be sold again as part of another product. For example, the ingredients bought to make a restaurant dessert would not be counted, but the cost of the dessert would be. The ingredients are classed as 'intermediate goods' in this context. (Note, however, that if the ingredients were sold directly to a consumer who was making the same dessert at home they would be counted as 'finished goods' because that dessert will not be sold on.)

Second, it only counts **goods produced**: GDP only counts new things that have been produced, rather than all goods that are sold. The sale of new houses, for example, counts towards GDP, but not the sale of old houses.

It is a lot more complicated than this, which, as we will see, is relevant to the case for wellbeing indexes in a number of ways.

The Basic GDP Formula

While there are three recognised ways of calculating GDP (which are all meant to give the same result, see Coyle (2015:28)), the formula most commonly referred to is the 'expenditures approach':

$$\text{GDP} = \text{C} + \text{I} + \text{G} + (\text{X} - \text{M})$$

Consumer spending + Investment + Government spending¹ + (the difference between Exports and Imports).

¹ Note that government spending covers money spent on goods and services, but not money 'transferred' as a payment for something. These are called 'transfer payments' and cover things like benefits and pensions. (Coyle, 2015: 28)

2.1 Nominal vs Real GDP

One important distinction is between **nominal GDP** and **real GDP**. Because GDP measures the price paid for goods and services, when those prices go up, GDP will go up. But prices can go up even where the quality of goods remains the same – in the case of inflation. This means that there can be an increase in GDP without there being more or better goods and services. This measure of GDP that just looks at prices and so will go up with inflation is called nominal GDP. **Nominal GDP** isn't so relevant for measuring progress or productivity: what is needed is a measurement that shows increases in GDP only when we have a rise in the quantity and/or quality of goods produced. This type of growth is measured by **real GDP**. Stagflation, which we experienced in August 2022, is where real GDP decreases or grows slowly, while nominal GDP increases due to inflation.

Real GDP is measured by looking at the goods and services bought and sold this year but measuring them in the prices of a previous year so that a comparison can be made. If, for example, I want to work out whether GDP has risen over the last 10 years I would work out how much everything bought and sold in the economy this year would have cost in 2012 pounds and then see if the number I get is greater than the GDP in 2012.

Unless otherwise stated, **real GDP** is what people are talking about when they talk about GDP – it is the measure that is used when GDP is discussed in the media, for example. When countries are compared by size of economy (e.g. 'China is threatening to surpass the USA as the world's largest economy') this is typically discussed in terms of **real GDP**.

Average Standard of Living is typically used to refer to **real GDP per capita** (real GDP divided by the number of people in a country).

How to Spot Real GDP

If you are looking at GDP documents they will sometimes say 'chained currency' or 'chained volume' to indicate real GDP, which means they are looking at a value tied to a previous year's prices.

2.2 GDP Adjustments

It is very important to make GDP calculations comparable – saying the economy is worth £X doesn't tell you anything if you don't know the value of a pound. GDP is a bit like the property of being tall – what it means to be tall isn't something you have on your own, but rather you are tall compared to someone or something else. Similarly, it isn't the GDP number that is important, but what it shows us when compared to other countries or within a single country over time. If it isn't comparable then it has no value. As we will see, this comparative nature is one of its strengths – it provides a strong reason to have a (relatively) standardised international methodology of calculating national accounts, and

that in turn gives us something that is always presented in 'competitive' terms: Are we doing better or worse than we used to? Are we doing better than other countries?

To make GDP comparable there are adjustments that are made on top of the base GDP calculations.

Seasonal Adjustments

At the simplest level, adjustments are made for seasonal variations: the fact that people spend more in the lead up to Christmas doesn't give us a good indication of whether this year's GDP increase or decrease was large or small when we are looking at the numbers in December. Such numbers on their own tell us more about how economic activity is spread out across the year, than whether economic activity within a country is on an upward or downward trajectory. For this reason, GDP numbers are 'seasonally adjusted' with spikes being 'smoothed out'. It is these adjusted numbers that are used in public commentary by the media.

Adjustments to allow for international comparisons

International comparisons are central to many arguments in favour of the correspondence of GDP and quality of life. For example, cross-country comparisons are used to show that countries that have a higher GDP per capita also have a higher life expectancy. If we are measuring real GDP by looking at prices from within that country during a particular year, how do we compare real GDP across countries?

International comparisons can be made using current exchange rates – but these tend to fluctuate for reasons unrelated to a nation's economic value. Instead, therefore, purchasing power parity (PPP) is often used – particularly when making comparisons that involve developing countries. You take a 'basket of goods' and look at how much it would cost to buy that basket in US dollars and how much it would cost to buy it in your target currency. This sets the PPP exchange rate between the two countries: Suppose it costs \$100 to buy a particular pair of shoes in the USA, and £99 to buy the exact same shoes in the UK. First you need to convert the £99 to US dollars. Let's say that comes out at US\$120. This means that if you bought your shoes in the UK, it would cost you the equivalent of US\$20 more than if you bought them in the US. Because of this the PPP on those shoes would be 12/10, or 1.2. If the shoes were the only thing in our comparative 'basket of goods', then for every US\$1 spent in the USA it would require an extra US 20c to buy the same goods in the UK.

Note that the use of PPP in comparative GDP calculations is criticised by some, and international comparisons, particularly with developing countries, are made more complicated by the fact that they typically don't have the resources to measure their economic activity easily or adequately.

3. Differences in how GDP is measured

What counts as relevant economic activity for the purpose of calculating GDP is not fixed or objective, but is decided upon by the United Nations System of National Accounts (UNSNA or SNA), produced by representatives of the United Nations, the World Bank, the International Monetary Fund, the OECD, and the EU Commission. However, Europe is bound by the European System of Accounts (ESA) which is roughly similar but has some differences (see 3.2). The Office for National Statistics in the UK calculates GDP. This decision is determined by values as much as 'reason'. For example, while only goods and services that are 'productive' should be counted in GDP in principle, what that means in practice is debatable. Well prior to the development of GDP, Adam Smith argued that 'service sector' jobs (for example the work of servants) added to the value of nothing and therefore could not be counted as productive labour, Smith believed that service jobs needed to be reduced to a minimum in order to maximise economic growth (Smith, 1776: Book II, ch3).

People typically see GDP as fixed in international practice and determined by rational calculations alone – as if GDP were a real thing that could not include anything that it does not already include. However, this is not the case. Below I will discuss why GDP is determined a lot more by values than is typically thought. But it is worth noting here that even though in principle there is a standardised international system for calculating GDP – the SNA – this is not the way that all countries have measured or do measure GDP, and we have seen examples of large-scale changes by countries, some of which have not ended up being widely adopted (see 3.1) and some that have (see 3.2). The services sector currently accounts for around 80% of the United Kingdom's GDP.

3.1 Measuring the 'informal economy' (e.g. Italy)

In 1987 the Italian economy increased by about a fifth overnight. This was due to the addition of estimates of the 'unofficial' or 'informal' economy in GDP calculations. In terms of reported GDP, Italy instantly became the 5th biggest economy in the world, overtaking the UK (Haberman, 1989; Coyle, 2015: 108). The informal economy includes activities with market value that are not taxed or monitored by the government – it can make up a significant proportion of the economy in developing countries in particular (with Greece and Italy having the biggest informal economies in the OECD), though is notoriously difficult to measure.

Interestingly, the effect of the increase in GDP when Italy changed its measurement system to include the informal economy was something akin to a collective euphoria, *even though this represented no actual change in life in, or the economy of, Italy*. It was reported that *Italians took to bragging about 'il sorpasso' – the overtaking of the British economy* (Echikson, 1987). As *The New York Times* reported: "Two years ago, a wave of euphoria swept over Italians after economists recalibrated their statistics, taking into

account for the first time the country's formidable underground economy of tax evaders and illegal workers..." (Haberman, 1989).

This is an indicator of the public and social power of GDP: the amount that the citizens of a country invest in the state of their GDP even where they don't really understand it, and consequently the amount of weight that politicians place on it in making decisions and communicating them with the public.

While Italy's inclusion of the informal economy in its official figures wasn't considered an internationally recognised change to measuring GDP – it did not reflect official guidelines in the UNSNA, and other countries didn't follow suit – there was nothing fundamental about it that meant it couldn't have become a recognised change:

- 1)** What was originally included in GDP was a function of what was easily available for measurement, rather than a deep or objective understanding about what contributed to 'the economy'. Much was made of this, for example, in the decision not to include domestic and household activities by the creators of GDP in the US and the UK. As Richard Stone, one of the fathers of GDP, stated in his Nobel Memorial Lecture: "This treatment, whereby commercial products are valued at market price, government services are valued at cost and unpaid household activities are simply ignored, is not a matter of principle but of practical convenience. It can be defended, therefore, only on practical grounds." (Stone, 1984).
- 2)** While some voice concerns that the informal economy detracts from GDP, in fact there is reasonable evidence that it contributes to a country's overall economy. Studies show that at least two thirds of money generated in the informal economy goes on to be spent in the official economy: "In Germany and Austria, two thirds of the value added produced in the shadow economy would not be produced at all if the shadow economy did not exist." (Schneider and Enste, 2003). This is not to say that governments don't have a good incentive to reduce the size of the informal economy, or to try to 'formalise' it, as the greater the informal proportion of the economy is, the less opportunity governments have for raising taxes. However, this does not mean that it is not part of the economy, just as activities that generate other costs such as public health or addressing environmental damage – spending on which eats into public funds – are still counted as part of the economy.
- 3)** Sometimes these big changes in GDP calculation catch on (see 3.2 and 3.3 below). It is possible that, had the countries that are understood under the current system as being 'wealthier' had more to gain from this change in GDP calculations, then they may have been more open to it. In other words, it is not surprising that the countries with the biggest informal economies are more likely to want this change, while those with bigger formal economies and smaller informal economies are resistant to it.

3.2 Measuring 'illegal activity' (e.g. in Europe)

In September 2014, illegal prostitution, the production and trafficking of illegal drugs, and the smuggling of tobacco and alcohol products were included in the measurement of EU Member States' economic activity. The EU noted that measuring such activities would prove a challenge because by their nature they were near impossible to directly observe. According to the EU: "Examples of activities that may be illegal but productive in an economic sense include the manufacture and distribution of narcotics, illegal transportation in the form of smuggling goods or migrants, and services such as prostitution." (Eurostat, 2018).

When these changes in measurement were included in the UK Blue Book, the Office for National Statistics' (ONS) publication which describes economic activity in the UK, the ONS stated that it increased the size of the British GDP by £10 billion a year, which, alongside other changes, added around 4.6% to Britain's GDP (Patterson, 2014). One justification for the inclusion of illegal activity in GDP measurements was that it brought European measurements in line with one another as many activities that are illegal in some countries are legal in others. Note that this means that legal interventions such as seizure of large quantities of drugs now count as reducing GDP.

3.3 The inclusion of new ways of accounting for digital goods

In the 1990s the USA adopted two new ways of accounting for technological advances in GDP figures. The first was to class software purchases by businesses as investments. Previously software when bought by businesses had been considered 'intermediate goods' (see section 1), which meant that it hadn't been counted towards GDP. The second was the inclusion of 'hedonic pricing' for technology in real GDP calculations which looks at more than just the amount paid for digital goods to estimate their value particularly in relation to inflation (Landefeld and Grimm, 2000; Coyle, 2015: 91-92).

These changes in what was included in US GDP led to particularly strong growth of GDP numbers in the late 1990s and early 2000s, contributing to the appearance of a far stronger US economy at the time than the economies of Europe and Japan (Coyle, 2015: 92). Unlike with Italy's move to include the informal economy, however, this US change was eventually adopted by more and more countries, including the UK in 2015 (Coyle, 2015: 91).



GDP is the way we measure and compare how well or badly countries are doing. But this is not a question of measuring a natural phenomenon like land mass or average temperature to varying degrees of accuracy. GDP is a made-up entity. The concept dates back only to the 1940s.

Diane Coyle, 2015.

4. What is GDP used for?

For those who are interested in the prospect of displacing the current primacy of GDP one question is whether the call to remove, modify or replace GDP applies to all of its functions: is it the case that having GDP would be fine if it were a minor economic tool that was not publicly reported, and only played a small role in informing certain kinds of economic policy (for example, where a government might need to step in by applying economic stimulus at the sign of an economic downturn)? Furthermore, of the many roles that GDP plays, should or could these be replaced by a single tool, or are different tools required to adequately fill each of these functions?

4.1 Assessing a country's assets or how much money can be raised (if needed)

Early versions of national accounts were developed to calculate assets that could be taxed to fund wars (Coyle, 2015; Philipsen, 2015). In the UK, the first calculations of GDP, published in the UK's budget of 1941, were directly inspired by Keynes' 1940 pamphlet *How to Pay for the War*.

From its very early days, GDP was used in the calculation and administration of international loans as a way for international lenders to assess a country's capacity to repay loans (Coyle, 2015: 2). Indeed, one of the reasons GDP was so widely and rapidly adopted internationally was that, from the time that the UN adopted its standard System of National Accounts (then UNSNA now referred to as SNA) in 1953, a requirement of joining the UN was that countries needed to use the SNA measurement. UN dues were then calculated based on GDP (Philipsen, 2015). By the early 1950s, to get loans or trade with others, countries had to implement GDP accounting (Philipsen, 2015: 11).

However, using GDP as a measure of a nation's ability to service debts has been criticised on the grounds that it is too crude a measure to accurately reflect a nation's economic value. For example, building a 'bridge to nowhere' would increase GDP while adding no value to the economy (Pettis, 2018 and 2019).

But GDP isn't a measure of assets

GDP is often used by governments as a proxy for how the country is doing financially, but GDP isn't strictly a measure of a nation's assets or its fund-raising capacity. Firstly, it doesn't include the value of assets, most notably natural assets that can be depleted with no effect on GDP, but also ownership of capital (only new goods are counted towards GDP). Secondly, lots of revenue-raising activities are not included in GDP, but are taxed. For example, intermediate goods – the goods bought by businesses that are used as components in producing 'final goods' (see section 2) – are taxed with VAT but not included in GDP.

Calculations that reflect assets

In theory growth in GDP reflects growth in the ability of a country to service debts. But GDP does not include 'unused' assets: forests, for example, only contribute to GDP if they generate money, e.g. through having their trees felled sold or used to attract ecotourism. This is because unused assets do not tell us about productivity. However, it would make sense to include assets (particularly those that can be depleted over the long term) in calculations of the ability of a country to repay loans.

Adjustments to GDP to account for environmental damage could potentially be better at reflecting the assets of a nation. If such a figure were used in place of GDP to calculate international loan rates, for example, this would tie protection of natural assets to the motivation to have high or increasing GDP. Protection or depletion of a nation's environment could be factored into its ability to secure good loan terms, and with good reason – protection of the environment is linked to how likely you are to be able to repay those loans in the long term: "Embracing such a balance-sheet approach would immediately bring sustainability into the calculation of economic progress by revealing when future prosperity is being compromised for that of today" (Coyle, 2019).

Basing loan and aid assessments on GDP can create perverse incentives to measure in ways that get the result you want

The fact that GDP is used in calculations for loans means that having a high GDP can be very desirable. The fact that GDP is used in calculations for aid (see 4.2) means that having a low GDP can also be very desirable. China, for example, has at different times been criticised for intentionally keeping its GDP artificially low because "its government prefers China not to be seen as a rich country" (Coyle, 2015; see also Wade, 2004, and Colebatch, 2018) and for artificially increasing its reported GDP growth (Pettis, 2019).

4.2 As an indicator that action needs to be taken

[GDP] has proved to be a hugely powerful incentive to get things done.
(Diane Coyle)²



When GDP goes down, this pressures governments to take action to stimulate the economy or reduce spending. When it was calculated that the US economy was halved during the Great Depression, the government took significant action to steer the economy for the first time (Philipsen, 2015). Before the first national accounts were introduced, the ability of governments to assess the extent of an economic crisis was almost non-

² <https://www.bennettinstitute.cam.ac.uk/blog/beyond-gdp-impact/>

existent, and there was nothing that could be drawn upon to flag when economic intervention might be needed to steer countries away from potentially devastating economic downturns. This is one of the great historical achievements of GDP.

In a different type of example, the World Bank sets a threshold to determine whether a country counts as “low income” or “middle income” based on GDP per capita. This determines the extent to which nations are entitled to aid and cheap loan assistance. The idea is that GDP below a certain amount indicates a need for intervention. International organisations that were established following the war, like the IMF and the World Bank, had GDP at their core:



The first thing you do in the 1950s and 60s if you are a new nation is you open a national airline, you create a national army and you start measuring GDP. And you start measuring GDP because if you want to go to the world bank or you want to go to the UN and you want some sort of economic aid, the sole criteria for those is 'if we give you money, you have to show that it helped your GDP.

(Zachary Karabell, 2014).

The Marshall Plan, which provided loans and grants at favourable rates to European countries to fund rebuilding after the war, had GDP at its centre. To be eligible to receive funds, a country needed to submit GDP figures, and whether the American aid provided was ‘working’ was determined entirely by whether it led to GDP increases. This was underpinned by a belief that if GDP didn’t go up each year, then this was a sign that the aid money was not being spent on the right things, and the funding would be cut (Masood, 2021: 72).

4.3 Economic forecasting

Governments use macroeconomic modelling to forecast what the effects of interventions and policy changes might be. To give one example: if the government wants to cut taxes to stimulate the economy, they will use modelling to identify what effect such a cut would have on GDP (e.g. what proportion of their extra money people will spend in the economy, and what proportion of that extra spending will lead to more spending, and so on).

However, the economic forecasting power of GDP isn't flawless. Estimates of quarterly GDP figures regularly have to be revised: “Although the notion of ‘fine-tuning’ the economy by adjusting tax and spending or interest rates has been pretty much discredited among economists, thanks to the terrible experience of this approach going wrong in the 1970s, there is still immense pressure on politicians and central bankers to try to boost the growth of GDP during a recession.” (Coyle, 2015).

4.4 Political decision making

During the financial crisis, the [financial services] industry's lobbying has had a substantial impact on political decisions about regulatory reform, not just because investment banks are making donations to political parties, but also because politicians genuinely believe the industry to be fundamentally important to jobs and economic growth. (Coyle, 2015)



From 1945 through today, policy initiatives that have little to no impact on GDP growth tend to get little attention and little to no support (like funding for humanities and arts, or early childhood development); plans that may undermine GDP growth are sure never to make it out of committee (strict pollution standards or humanitarian restrictions on weapons exports or environmental cost accounting as part of national accounts); proposals that fly in the face of common sense or science, on the other hand, can succeed for no other reason than that they are seen to boost GDP (fracking or oil extraction from tar sand or deregulating banks).

(Philipsen, 2015: 125; see also Costanza et al 2009; Hak et al 2012)




A bit like with economic forecasting, GDP is used to make political decisions both in terms of guiding economic interventions and in terms of the power that it gives to industries that are seen as big contributors to GDP. Economic policy, for example, is shaped around what are seen as key sectors based in part on the proportion that they contribute to GDP.

It is important to understand exactly how GDP is used in political decision making in the UK, the details of which are harder to find in written sources and may need to be researched through discussions with policymakers. Many other mechanisms influence fiscal and policy decision making. Cost-benefit analysis (CBA), for example, is typically used to assess policy proposals, and it is worth noting that there is a guide for how to include wellbeing measurements in the Green Book – the guide for making cost-benefit analysis – though anecdotally wellbeing measurements are used neither regularly nor consistently in CBA in the UK. In the roles that GDP does play in influencing political decision making, it is worth considering: In which of these roles is GDP an inadequate tool? In which of these roles may a wellbeing index serve either a complementary or replacement role?

Note that recent discussions with those in central agencies responsible for policy decision making in Australia (e.g. the Treasury), have revealed that GDP is not the central consideration when making everyday policy decisions because it is hard to calculate what effect, if any, social policies would have on GDP. Indeed, one ex-Treasury employee said that it was very common for 'dry and technical' Treasury economists to be very aware of the weaknesses of GDP and would not contest that it is a flawed measure.

That said, in discussions with the Australian Bureau of Statistics, there was a feeling that the nature of GDP, namely that it is regularly reported, very familiar, presented in a 'competitive' way, and mentally associated with the fate of the country, meant that it had a lot of political sway because it played an important role in the media and the minds of the public. There is every indication that economic success is viewed by the public in terms of growth and GDP. This is supported by authors such as Ehsan Masood, a British science writer and journalist, who argues: "it is economic growth (for which read GDP) that matters at the ballot box for any serving head of government and his or her finance team." (Masood, 2021: 18).

However, the lesson Masood takes from this is that GDP isn't going anywhere any time soon, and so we should focus our energy on trying to modify it to better reflect what we value than to waste our time trying to replace it.



5. Some arguments for GDP and their flaws

5.1 Because GDP is all about numbers it is simple to measure, unlike wellbeing

Actually, measuring GDP is really complicated. In addition to having to adjust for things like seasonal variations, real compared to nominal GDP, and international differences, it is very complicated calculating the amount which some activities, in particular the services sector, technology, and the digital economy, add to GDP. This is all on top of the added complication of getting robust statistical data that measures the amount in pounds that consumer, business, and government spending represents, and this is before you even get started on how to measure things like illegal activities. Even small statistical revisions can add huge amounts to GDP, or subtract from it.

Meanwhile, a lot of data now exists on how to measure wellbeing. This is certainly not easy to measure, and there is debate about methods: it is not clear how best to measure certain wellbeing dimensions. However, the same is true of GDP.

5.2 GDP is internationally adopted and therefore is the only measure that allows us to make easy and robust comparisons between countries and within countries over time

In fact, while there is some standardisation in GDP, it is certainly not internationally uniform. The EU and UK include measurements of illegal activity in their GDPs while other countries do not. In 1987 Italy added a measure of the 'informal economy' to their GDP, significantly increasing their GDP overnight which (other than measurement of illegal activities) has not been widely adopted. Meanwhile, the US included new ways of increasing the contribution of software and technology to their GDP in the 1990s, giving their GDP a significant boost, in a way that was subsequently adopted by many other nations in the 2010s.

Furthermore, when we make international comparisons of GDP, and internal comparisons over time, there are still adjustments that need to be made that are not undisputed, using mechanisms like purchasing power parity and hedonic pricing.

Making international comparisons may not be the goal of wellbeing measures. Remember that GDP gets its value only when it is used in comparisons (just like the claim that someone is 'tall' only has meaning in a context where their height is compared to the height of others, a 'strong' economy measured by GDP only has meaning when compared

to other economies). However, even without comparison, (some) wellbeing measures can tell us something about how well a nation is doing: if people rank their happiness at a three out of ten, for example, we know this is a sign of an unhappy population regardless of whether other countries rank their happiness higher or lower.

In addition, there is no real reason measurements of wellbeing could not work like GDP does: the ability to make comparisons can be factored into the development and adoption of a wellbeing index. This is one of the strengths of wellbeing measurements that have been run internationally over a long period of time such as the OECD Better Life Index. In addition, GDP would not be useful for international comparisons were it not for adjustments like PPP, price indexes and seasonal adjustments. If the challenge to wellbeing measures is that they cannot be compared, this may just indicate that similar supporting comparative tools need to be developed for wellbeing indexes in the same way that they were developed for GDP.

5.3 GDP is objective and is not about 'fuzzy' value-laden things like wellbeing

Calculating GDP very much includes making value judgements. The original decision not to include unpaid domestic work in GDP was explained by its founders as being about a lack of available data. These days, however, areas that might similarly be thought to lack easily accessible data – the unofficial economy in Italy; illegal activities in Europe; pricing that reflects value in the digital economy, and so on – are all included in at least some nations' GDPs. Meanwhile we do have resources such as 'time use surveys' to measure unpaid labour. Not including it in GDP is a choice based on values: there is nothing 'objective' about it.

Another choice is to include 'production' in GDP, but not damage to assets such as environmental degradation or reducing natural resources. There is nothing that determines the way we currently measure the economy is the only or the best way of doing it. In fact, many feel that this is a deeply flawed way of measuring the economic health of a nation:



It defies logic. CEOs ordinarily get fired for depleting their own company capital. Investors and pensioners generally understand that, in order to have a future, you need to live off of interest, not principal. But this basic logic does not apply to national and international accounting.
(Philipsen, 2015: 137)

Even where there have been attempts to include more reflection of value into GDP calculations, these have been unsuccessful not because they lacked objectivity, but because they were impossible to 'sell' politically. In 2004 China tried to implement a 'Green GDP' which factored in the environmental consequences of growth. "Yet the initial findings, published in 2006, were so devastating – despite the fact that they were considered to have vastly under-estimated actual problems – the initiative was quickly abandoned. According to the first estimates, as much as 20% of China's GDP was

directly based on depletion of resources and degradation of the environment. In several provinces, pollution-adjusted growth rates were negative.” (Philipsen, 2015: 134). This led to the rejection of Green GDP and a return to a focus on GDP.

5.4 Those who reject GDP just want to ramp up government spending without thinking of the economic impacts this would have

Moving beyond GDP is not necessarily about spending more, but working differently. If done well, this will decrease the need for high rates of spending in the future by reducing the reliance on industries and practices that deliver high rates of growth while drawing down on a nation's capital and creating harms that are expensive to remedy.

It is also worth mentioning that government spending actually contributes to GDP. The first national accounts were developed in part to justify increased government spending and market intervention – first in the form of Keynesian economic stimulus in response to the Great Depression, and then in spending on the war effort.



The welfare of a nation can scarcely be inferred from a measure of national income. Simon Kuznets, who first developed GDP in the US.

(Kuznets, 1934).

Some 80 years after GDP was introduced, nearly everyone (apart from the indicator's stewards) has concluded that it is no longer a useful measure of economic progress.

(Coyle, 2019).

By measuring only marketed economic activity... GDP ignores changes in the natural, social, and human components of community capital on which the community relies for continued existence and wellbeing. As a result, GDP not only fails to measure key aspects of quality of life; in many ways it encourages activities that are counter to long-term community wellbeing.

(Coztanza et al, 2009)

6. Critiques of GDP

GDP as a measure of the growth of the economy plays a significant communication function. It is typically presented as a single number in comparison to GDP at a different point in time, that many take to stand in for how a nation is doing: higher GDP growth means a nation is improving, lower GDP growth indicates things are getting worse. However, this belief comes from a misunderstanding about what GDP tells us and what it doesn't. GDP is emphatically not a measure of quality of life – it was never intended to be, as was made clear by those who created it. A rise in GDP is neither necessary nor sufficient to tell us whether a nation is improving, and the focus on growth and GDP has led to increasing failures in society on pretty much all the dimensions we value.

Furthermore, GDP does not account for value destruction: natural disasters, for example, can actually contribute to increased GDP because it counts resources required to rebuild, but not the cost of the damage and loss that necessitated rebuilding (Bally, 2011). This is not to say that there won't be economic costs associated with natural disasters too, and Bally (2011) argues that it is only in countries that are wealthy with the resources to rebuild quickly and absorb any associated economic impacts that GDP goes up with natural disasters. Bally gives the example of Japan after the 2011 earthquake and tsunami where the economy quickly rebounded and government spending to restore damaged homes and social infrastructure likely boosted GDP.

For all these reasons, GDP is a poor guide for policy. It does not accurately reflect either a nation's assets, or the things citizens value. It does not give information for balancing anything other than economic priorities in the present (and even then, it is questionable how valuable it is for that); it not only fails to guide prioritisation with the future in mind, but it actively encourages policies that are neither sustainable nor economically justifiable in the long term.

The critiques of GDP are many and interconnected. No one working in this space is unaware of its limitations. The section below loosely groups the critiques of GDP into the four Carnegie UK domains of wellbeing: Social, Economic, Environmental and Democratic (SEED), though many of them span multiple domains.

6.1 Social failure

GDP does not represent the value of non-productive time such as rest and leisure time, or non-financial activities such as developing and maintaining social and community connections.

The importance of social capital for happiness cannot be understated: findings suggest that all measures of social capital are positively associated with happiness (Majeed and Samreen, 2020). However, GDP does not, and indeed cannot, have the resources to measure social capital which cannot be translated into financial terms (Agarwala and Zenghelis, 2021). Indeed, many of the activities that support social connection risk

reducing GDP³: volunteering; working less⁴; working for lower wages in an ethically meaningful position; participating in a sharing economy.

While increases in social capital are associated overall with increases in GDP (Whiteley, 2000) I was unable to find anyone arguing that increases in GDP can be a good thing for raising social capital, except in cases of recovery after a long dip associated with rapid growth like in China (Frijters and Krekel, 2021). And in some cases, rapid growth in GDP can come at the expense of the erosion of social connection and support mechanisms. For example, despite rapid economic growth in China between 1990 and 2005 (with incomes growing by 300%), a life satisfaction drop was also observed, which has been in part attributed to the collapse of social safety nets and a decline in aspects of social capital such as trust (Easterlin et al, 2017; Frijters and Krekel, 2021).

6.2 Economic failure

GDP cannot be used to tell us about economic equality, poverty or unemployment – it is insensitive to how financial gains from growth are distributed, and to the lived economic experience of the population. GDP doesn't tell us if the gains from growth are all going into the hands of the rich, and none to the rest of society – though this is often the case. Furthermore, it encourages bad economic policymaking which focuses on present spending at the expense of national assets and future living standards.

From its conception, national accounts were criticised for only measuring, and therefore only valuing, those things that were important to rich people (Stamp, 1922: 39). GDP does not tell us about economic inequality or poverty (Terzi, 2021). To give one example, the GDP per capita of Nigeria, Honduras and Pakistan in 2015 was very similar. But in Nigeria 80% of the population lived on less than \$20 a day. In Pakistan that was 60% and in Honduras it was only around 30%⁵.

GDP tells us nothing about how many people need to go to charities and food banks to cover their basic necessities. Indeed, some argue that it is precisely because governments are so fixated on GDP that they can miss the state of economic need in their own countries (Masood, 2021: 21). Just as national accounts (GDP) were needed to reveal the true extent of economic strife the USA was in during the Great Depression, we need governments to pay attention to indicators beyond GDP to recognise the level of economic strife that Britain experienced in 2022 and to be motivated to take action.

GDP growth can reflect concentration of wealth for the richest in society while median income does not increase, and even decreases in real terms (Terzi, 2021: 7). Indeed, this is what appears to be happening in Europe today. Over the period 1980-2016, median income rose in Europe by 26%, but the bottom 50% of earners accrued just 14% of that

3 At least in the first instance – the society with more support and trust, where people are better rested and cared for is likely to be a more productive society (Greve et al, 2010), which is likely to positively impact GDP.

4 While some argue that moving to a four-day work week may increase growth due to a range of productivity benefits (Mao, 2022), this view is hotly contested (Naude, 2022)

5 <https://www.youtube.com/watch?v=Z0qHA93oOSc>

growth, while the top 10% accrued almost 50% (Terzi, 2021: 14). Several authors make the point that one just needs to look at the rate of GDP increases alongside the rate of median household incomes to see that even as the former steadily grows, the latter does not track its rate of growth (Masood, 2021: 21-22). There is also evidence that suggests that the concentration of firms is increasing, with higher GDP growth reflecting a rise in concentrated profits for a smaller number of firms without that being reflected in the wages of the workers they employ (Aghion et al, 2021).

It is also pointed out that not only can a focus on economic 'progress' through increasing GDP come at the expense of those on lower incomes and even middle classes, but that it also comes at the expense of future living standards making it 'illusory' (Coyle, 2021). Indeed, a focus on GDP encourages inefficient economic decision making precisely because it does not subtract the costs of drawing down on a nation's capital: it is like measuring an individual's wealth based only on what they spend, and not on what they have had to sell in order to do that spending. Higher GDP can be driven by higher rates of household debt – after all, people who borrow more money have more to spend – which highlights the fact that GDP counts spending rather than losses or reduction of assets (Masood, 2021: 21).

British economist Richard Douthwaite, who studied the effects of a doubling of GDP in Britain between 1955 and 1988, argued that "almost all the extra resources that growth had created had been used to keep the system functioning in an increasingly inefficient way" (Douthwaite, 1993). As summarised by economic historian Dirk Philipsen: "More cars, more roads, more energy, more plastic bottles, more medications – all to achieve a result in no way superior to what people had before, yet with great costs to humans and environment, and at great expense to stable and safe communities, free time, and physical health." (Philipsen, 2015: 192) We mustn't forget, either, that the costs of bad policies are financial costs – whether that takes the form of programs to fix the damage caused, or replacing things that were once free with something expensive (Grantham, 2021).

6.3 Environmental failure

GDP does not account for sustainability or longevity. Growth that eats into a country's natural endowments or comes with great health or social costs is not distinguished from positive forms of growth such as development of sustainable industries.

There is no denying the urgent state Earth's natural environment is in. It is universally accepted that the pollution, climate change and loss of biodiversity that threaten life on this planet are the product of industrial development that has been at the heart of worldwide economic growth. An emphasis on policies and a system geared towards maintaining ever-increasing rates of growth is argued by many to be responsible for the rapidly increasing speed of environmental destruction.

GDP includes the profits gained from, but not the cost of, environmental damage. People on low incomes and future generations are being robbed of the environmental essentials needed to sustain quality of life (Philipsen, 2015) in a system that “violates both basic accounting principles and common sense” (Anielski, 2007).

Measuring economic activity using GDP “rewards fossil fuel-powered economic development” which is ‘shovel ready’ and able to deliver faster growth than more sustainable development (Masood, 2021: 6)⁶. As governments feel the need to continuously increase growth that will be reflected in quarterly GDP figures, they are likely to green-light unsustainable projects. The way that GDP is calculated and reported places an emphasis on short-term ‘quick fixes’ which are rarely, if ever, environmentally sustainable.

GDP incentivises economic sectors which will push it higher regardless of the damage they do (Mazzucato, 2018). In the UK a Treasury-led taskforce named ‘Project Speed’ was established due to a perceived urgent need to counter the economic impact of COVID with a major infrastructure stimulus package and fast-track delivery (White et al, 2022b). The desire to move quickly, justified by concerns over economic growth, limited the time available for public consultation, high-quality design, responsiveness to the new and pressing needs that had been highlighted in the pandemic, and reflection on the appropriateness of projects that happened to be already in the pipeline. Reforms to decrease the time needed to begin major infrastructure projects announced in the 2020 National Infrastructure Strategy included reducing environmental assessment requirements – ‘Project Speed’ continued this work by changing environmental regulations that were seen as blocking development (White et al, 2022a). As White et al (2022b) remark, there needs to be more focus on ‘shovel-worthy’ projects than shovel-ready projects.

Poorer countries in particular have been, and continue to be, encouraged to grow in a way that depletes their natural assets: countries with low GDP but abundant natural assets are ranked very poorly, while others are rewarded in the GDP rankings for destroying their environmental resources (Masood, 2021: 22). A World Resource Institute study from 1989 showed that the significant GDP growth Indonesia experienced in the 1970s and 1980s was driven by intensive cash-crop farming which drove the clear-cutting of forests and exhaustion of topsoil (Repetto et al, 1989). And GDP remains a barrier to taking the kinds of action needed to address the threats of climate change and biodiversity loss (Masood, 2021: 22).

⁶ In politics, ‘shovel ready’ typically refers to large-scale infrastructure construction projects that can begin in a short period of time because planning and engineering are already at an advanced stage.

6.4 Democratic failure⁷

A pointed focus on GDP when determining policy is undemocratic – it gives vested business interests a disproportionate influence over political power; GDP itself does not equally represent citizens, so an emphasis on GDP exacerbates social inequalities in policy making.



A gulf of incomprehension between the expert certain in his knowledge and the citizen whose experience of life is completely out of synch with the story told by the data... nothing is more destructive of democracy... people believe that they are being lied to... that they are being manipulated.

(President Sarkozy in a speech to launch the Stiglitz report, 2009)

GDP tells us nothing about democracy. While there is evidence that democracy causes an increase in long-term growth (Acemoglu, 2019), a focus on GDP gives power to those who are seen as contributing most to GDP.

The fact that the financial sector made up such a high proportion of GDP was one of the main arguments for the sector's bailout during the last financial crisis, and it has been suggested this was a reason why the unsustainable activities of the sector were largely overlooked in the lead up to the crisis (Coyle, 2015). It is also argued that sectors whose financial success is predicated on the current system of ever-increasing economic growth, and therefore that have a vested interest in maintaining the status quo, are also those "charged with collecting, managing, and reporting on the current indicators" (Costanza et al, 2009).

Meanwhile, citizens who earn more are more likely to be better represented by policies that focus on increasing growth. This means reliance on GDP can exacerbate social inequalities in policy making as it does not equally represent the work of citizens and residents, typically failing to count unpaid labour and undervaluing low paid labour – work that is traditionally more likely to be carried out by women and members of minority groups. For example, as argued by Marylin Waring, GDP is essentially male-centred, ignoring the work of women (Waring and Steinem, 1988). Unpaid domestic labour, overwhelmingly carried out by women, is not included in GDP. If it were, time use surveys suggest that unpaid childcare alone would be "worth about three times as much as financial services..." (Coyle, 2015: 112).

⁷ See Terzi (2021) section 4.1 for a study of how perceptions of how the economy is doing diverge from how the economy is doing in terms of GDP within Europe, and that a disconnect between belief about how the economy is doing and how it is reported by governments feeds populism, distrust in political institutions, and anti-EU sentiment

7. Is GDP a good indicator of wellbeing?

One defence of GDP centres around whether it is in fact a good indicator of wellbeing. Many arguments in favour of the positive connection between GDP and wellbeing are given by highly respected economists who are not unfamiliar with the literature on wellbeing, nor in some cases are they entirely unsympathetic to wellbeing as an important economic goal. It appears that these arguments are driven by interest in the data and, in some cases at least, a genuine desire to work out what kinds of economic policies really do increase standards of living.

There are those who argue that GDP correlates highly with the elements that make life worthwhile: across countries, when GDP goes up, wellbeing goes up, and conversely wellbeing goes down in a recession (Pritchett and Summers, 1996). Furthermore, the argument goes, GDP is the best single measure of the average standard of living – because it correlates with many of the things that we care about: life expectancy; happiness; child mortality; deaths from preventable diseases (Pritchett and Lewis, 2022).

This view is underpinned by the understanding that having more money allows us to afford the things that we need to make us happy – this might be goods, but it can also be healthcare, housing, free time or economic stability. We also know that within societies, greater wealth correlates with better education, health and employment outcomes. There are, however, several replies to such argument:

- 1)** The evidence of the relationship between GDP and wellbeing is disputed. While there is some correlation, overall it is weak – you only need to look at the GDP rankings against one of the several international wellbeing rankings to see that it is not the case that the countries with the highest GDP also rank highest in terms of wellbeing. Of the 125 countries for which good data exist in the 2019 World Happiness Report, 43 saw GDP per capita and happiness move in opposite directions (China and Germany both experienced GDP and happiness increases over the preceding decade, while India and the US saw GDP rise while happiness declined) (Helliwell et al, 2019). The studies showing the correspondence between GDP and wellbeing look particularly at developing countries or comparisons across all countries including developing countries, which can skew the data: GDP was developed by already wealthy countries to measure their economies, and in such countries, it is much harder to find a solid link between increases in GDP and wellbeing.

As a measure of social well-being, GDP is akin to a personal calorie intake meter, tied to the notion that food is essential, ergo the more calories we consume, the better off we are. Hungry at first, we appreciate the focus on calories. Once sated, we soon find ourselves falling ill, overfed yet in the midst of a culture that keeps cajoling and pushing us toward more.




(Philipsen, 2015: 6).

- 2)** It has not been established that the relationship between GDP increases and apparent wellbeing increases is a causal one. Having higher GDP might also be linked to higher wellbeing because both have common causes – for example, strong education systems and stable society (Philipsen, 2015: 164). Higher wellbeing may in fact cause higher GDP (Coyle, 2015).
- 3)** The evidence is strongest when looking at developing countries, but even here it is wrong to assume that the focus on growth at all costs will lead to increases in levels of wellbeing. While Costa Rica and Bhutan have both shown steady economic growth over the past 25 years, their emphasis on sustainable development has ensured that this has not come at the expense of their natural environment as has been the case for so many other countries.

A further argument made by those who defend GDP is that one of the reasons for the link between increases in GDP and wellbeing is that higher GDP means there is more money available to support social services and other wellbeing-supporting mechanisms. While this might be true to an extent, GDP does not measure all taxable goods and services, and it measures some goods and services that are not taxed – an increase in illegal activity in the UK, for example, would mean a rise in GDP but not more revenue that can be collected by the government. Indeed, GDP does not measure costs to society that would add to the burden on social services, for example the contribution of higher pollution to poor health outcomes (though GDP grows when these costs are created). Off the back of financial globalisation, it is also becoming harder to recoup resources through taxes as profits are increasingly shifted to low tax jurisdictions meaning “more growth does not necessarily imply commensurably more resources for the public benefit” (Terzi, 2021: 13).

There are reasonable grounds on which to reject the claim that GDP is a good indicator of wellbeing. Yet even if it were, this would still not be a reason to focus on simple economic growth as the tool for progress, with all the harm it creates, rather than endorsing alternative means that promote happiness in a sustainable way that safeguards quality of life into the future.



8. Concluding comments from the author

One of the purposes of this report is to assess - in so far as possible - what lessons can be drawn from a better understanding of GDP for the wellbeing index debate.

There are three key roles that a wellbeing measure can play:

1. To provide feedback on how particular policies and approaches are doing and whether or not they are successful in achieving wellbeing outcomes.
2. To guide broader government policy – for example, the New Zealand Living Standards Framework is intended to identify areas where wellbeing is falling below an acceptable level to help determine national policy priorities.
3. To play a communications role – to capture the public imagination and spark debate, political pressure and motivation to continue improvements and address regressions.

While a wellbeing index does not have the granularity to fulfil the first two functions as well as, say, a dashboard metric, it can play a valuable role in the third function.

As valuable as more detailed wellbeing measures are, they will face a real struggle in usurping GDP because they are much harder and typically less exciting to communicate:



There are doubtless several reasons for GDP's continued dominance, but one reason for its popularity is that it is just one number. It is much easier to interpret changes in GDP (with an increase seen as good and a decrease as bad), or to rank countries according to their level, than to summarise changes in a multitude of separate indicators that might be moving in different directions.

Hall et al, 2010: 9)

The question is whether it would be more effective to try to reframe the public debate to focus on increasing wellbeing by providing a wellbeing indicator that works as an alternative to GDP, or, given how entrenched GDP is, whether it would be a better use of resources to try to change GDP itself.

Modifying GDP

If it is true that GDP remains the only number that influences politicians, the markets, the banks, the media, and the commentators pay attention to, then the solution cannot be more alternative indicators; nor can it be a dashboard. The solution has to be to value the things that matter and then incorporate this value into the GDP accounts.



(Masood, 2021: 22)

There are systems in place that might make it easier to change GDP, and due to its uniformity this could lead to significant global change. GDP rules, set by the United Nations System of National Accounts (SNA) – these are periodically revised and there is a process for UN member states to propose changes (Masood, 2021: 8-9). Discussions on the next round of revisions to GDP (to take place in 2025) are currently underway. As seen in section 3.2, the EU is also willing and able to update the way GDP is calculated by member states.

Given the embedded nature of GDP and all its advantages, the speed and scope of a change to GDP has the potential to deliver incredible change, particularly if adopted at an international level. It is also argued by some that for political reasons, GDP just won't be given up – China in particular has a strong continuing interest in maintaining GDP at the heart of the international system (Masood, 2021: 7-8;).

The Bennett Institute for Public Policy in Cambridge is looking to create a measure of assets rooted in natural and social capital to run alongside GDP which reflects the wealth of a nation, not just its spending⁸. The idea is that a number can be generated to track these assets which runs alongside GDP, meaning that we can see, at any time there is an increase in GDP, whether this led to an increase or decrease in our national assets. One idea is that sustainability becomes embedded using a system like this. They see this as a first step, though they suggest that GDP could eventually be replaced with a small dashboard measuring what they identify as the six critical assets for economic success: physical, financial, intangible, human, natural and social capitals.

Wellbeing indexes

The fact that it provides a regular, simple and competitive proxy measure of how a nation is doing is one of the great communications advantages of GDP, and this is where a wellbeing index might be able to help shift the focus, and with it social and political attitudes. Given the fact that the problem with GDP really stems from the extent to which it is used by politicians, citizens and the media as the driver of progress, it is possible that changes in the way GDP is calculated would not lead to the political changes we hope to see. That said, in its function relating to setting loan rates (see section 4.2) there would be value in modifying GDP to incentivise the protection and enhancement of genuinely valuable national assets. It has been argued that including unpaid domestic labour in GDP would not get to the heart of the problem: while GDP would go up, this wouldn't be reflected in the lived experiences of those, primarily women, doing the domestic labour (Rohner, 2018). Just because something is included in GDP doesn't mean we will value the work more. After all, do we necessarily value crime more, or try to promote it now that it counts towards GDP figures?

However, if a wellbeing index is going to have the necessary effect, the difficulty of the task cannot be underestimated. If you are going to challenge GDP, then you need to work cleverly with news organisations and journalists, as well as others who know this space. This will include working from the inside and encouraging politicians to 'make news' out of alternative figures.

8 <https://www.bennettinstitute.cam.ac.uk/research/research-projects/wealth-economy-social-and-natural-capital/>

For a wellbeing index to deliver the biggest possible impetus for change here are some things that should be considered:

- Do you have the resources for a sophisticated, long-term communications campaign that engages journalists and politicians in a way that might get them to start thinking about and presenting wellbeing numbers in the way that GDP is presented?
- How regularly can a wellbeing index release its data – is it possible for it to have the regularity of quarterly GDP releases?
 - Some see a measure such as a life-satisfaction indicator made up of one question to be better placed to fill the role of comms rival to GDP (Hall et al, 2010) – as what such an indicator loses through its simplicity would be made up for by the fact that it is relatively easy and resource non-intensive to update on a very regular basis.
- Is it possible to construct a measure that allows comparison between nations (ideally) to encourage both a sense of legitimacy, but also a competitive spirit (which in turn increases the likelihood of further media coverage)?
 - This is one of the great advantages of the Human Development Index: “The Human Development index... is the one that has come closest to dethroning GDP.” (Masood, 2021: 165). However, the problem with HDI is that it is oversimplified – a benefit in creating a consistent measure that corresponds with likely available data, but also lacking many of the important features that contribute to capacity to have a good quality of life for current and future generations. It also has some glaring omissions, most notably an environmental or sustainability dimension (Masood, 2021; Maccari, 2014; Morse, 2003; Ray, 2014).
- Do you have an indicator that will show the kind of change that can be seen as significant? Wellbeing indicators tend to change very little over time (Coyle, 2019) which makes it hard to keep them at the centre of the story. We know very small changes in GDP can be a big deal, but this might be harder to capture with very small changes in a wellbeing index

Appendix: Examples showing the absurdity of GDP

Examples are powerful at showing the absurdity of GDP as a measure of progress, value, or quality of life – they can stick in the mind long after the typically complex details are forgotten. The following examples have been drawn from the literature:

*“A pill-dependent smoker who, on the way to his divorce lawyer, crashes his oversized car into a school bus because he is texting about an impending derivatives trade... [surviving, he] pays his many legal and medical bills, and continues to consume expensive gas, harmful cigarettes, and addictive pharmaceuticals... He fits the profile of a modern economic hero – someone who purchases a lot of goods and requires a lot of services, including fossil fuel, gadgets, medical care, lawyers’ fees, and financial advice.” (Dirk Philipsen (2015) from *The Little Big Number: How GDP Came to Rule the World and What to Do about It*).*

“[GDP] is not necessarily a measure of welfare or even a significant measure of standards of living... for example, there are a number of southern states that use a huge amount of air conditioning in the summer and that appears as output in the GDP. The wonderful breezes you get up in northern Vermont during the summer, which eliminates the requirement for air conditioning, doesn’t show up in the GDP. And other things equal, the standards of living are the same, but the GDP will be less in Vermont than it will be in the South, and clearly that is not a measure of welfare.” (Alan Greenspan (2000), as Chair of the Federal Reserve of the United States).

“Any measure that values a gun several hundred times more than a bottle of milk is bound to raise serious questions about its relevance to human progress.” (Mahbub ul Haq (1995), economist, Pakistani Minister of Finance and founder of the Human Development Index).

“Our Gross National Product, now, is over \$800 billion dollars a year, but that Gross National Product – if we judge the United States of America by that – that Gross National Product counts air pollution and cigarette advertising, and ambulances to clear our highways of carnage. It counts special locks for our doors and the jails for the people who break them. It counts the destruction of the redwood and the loss of our natural wonder in chaotic sprawl. It counts napalm and counts nuclear warheads and armoured cars for the police to fight the riots in our cities. It counts Whitman’s rifle and Speck’s knife, and the television programs which glorify violence in order to sell toys to our children.

Yet the gross national product does not allow for the health of our children, the quality of their education or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country, it measures everything in short, except that which makes life worthwhile. And it can tell us everything about America except why we are proud that we are Americans.” (Robert F. Kennedy (1968), remarks at the University of Kansas).

Bibliography

Acemoglu, D., Naidu, S., Restrepo, P. & Robinson, J. A. (2019) "Democracy does cause growth" *Journal of political economy*, 127(1), 47-100.

Agarwala, M. & Zenghelis, D. (2021) *Social Capital and the Changing Wealth of Nations*

Aghion, P., Antonin, C. & Bunel, S. (2021) "The power of creative destruction" *The Power of Creative Destruction*, Harvard University Press.

Allin, P., Coyle, D., Jackson, T. (2022) "Beyond GDP: changing how we measure progress is key to tackling a world in crisis – three leading experts" *The Conversation*: <https://theconversation.com/beyond-gdp-changing-how-we-measure-progress-is-key-to-tackling-a-world-in-crisis-three-leading-experts-186488?s=03>

Anielski, M. (2007) *The economics of happiness: Building genuine wealth*, New Society Publishers.

Arrow, K. J., Dasgupta, P., Goulder, L. H., Mumford, K. J. & Oleson, K. (2012) "Sustainability and the measurement of wealth" *Environment and development economics*, 17(3), 317-353.

Bally, M. N. (2011) "Can Natural Disasters Help Stimulate the Economy?" *Brookings*: <https://www.brookings.edu/opinions/can-natural-disasters-help-stimulate-the-economy/>

Colebatch, T. (2018) "Underestimating China" *Inside Story*: <https://insidestory.org.au/underestimating-china/>

Costanza, R., Hart, M., Talberth, J. & Posner, S. (2009) "Beyond GDP: The need for new measures of progress" *The pardee papers*

Coyle, D. (2015) *GDP: a brief but affectionate history-revised and expanded edition* Princeton University Press.

Coyle, D. (2019) "What Will Succeed GDP?" *Project Syndicate*: <https://www.project-syndicate.org/commentary/successor-to-gdp-indicator-of-prosperity-by-diane-coyle-2019-02>

Coyle, D. (2021) "GDP's days are numbered" *The Jordan Times*: <https://www.jordantimes.com/opinion/diane-coyle/gdps-days-are-numbered>

Daly, H. E. (1991) *Steady-state economics: with new essays* Island press.

Douthwaite, R. (1993) *The Growth Illusion: How Economic Growth Has Enriched the Few, Impoverished the Many, and Endangered the Planet* Council Oak Books.

Easterlin, R. A., Wang, F. & Wang, S. (2021) "Growth and happiness in China, 1990–2015" *A Modern Guide to the Economics of Happiness* Edward Elgar Publishing.

Echikson, W. (1987) "Il sorpasso has Italians riding high" *The Christian Science Monitor*: <https://www.csmonitor.com/1987/0508/oital.html>

Eurostat (2018) *Handbook on the compilation of statistics on illegal economic activities in national accounts and balance of payments: 2018 edition* Publications Office of the European Union.

Frijters, P. & Krekel, C. (2021) *A handbook for wellbeing policy-making: history, theory, measurement, implementation, and examples* Oxford University Press.

Frey, B. S. & Stutzer, A. (2002) "What can economists learn from happiness research?" *Journal of Economic literature*, 40(2), 402-435.

Frey, B. S. & Stutzer, A. (2010) "Happiness and economics" *Happiness and Economics* Princeton University Press.

Grantham, J. (2012) "On the road to Zero Growth" *GMO Quarterly Letter*.

Greenspan, A. (2000) "Press Conference Announcing the Commerce Department's Achievement of the Century" *Survey of Current Business* Bureau of Economic Analysis.

Greve, A., Benassi, M. & Sti, A. D. (2010) "Exploring the contributions of human and social capital to productivity" *International Review of Sociology*, 20(1), 35-58.

Haberman, C. (1989) "For Italy's Entrepreneurs, The Figures Are Bella" *The New York Times*: <https://www.nytimes.com/1989/07/16/magazine/for-italy-s-entrepreneurs-the-figures-are-bella.html>

Hák, T., Janoušková, S., Abdallah, S., Seaford, C. & Mahony, S. (2012) "Review report on Beyond GDP indicators: categorisation, intensions and impacts" Final version of *BRAINPOoL* deliverable, 1.

Hall, J., Barrington-Leigh, C. & Helliwell, J. (2010) "Cutting through the clutter: searching for an over-arching measure of well-being" *CESifo DICE Report*, 8(4), 8-12.

Haq, M. (1973) "System is to blame for the 22 wealthy families" *The London Times*, 22.

Haq, M. (1995) *Reflections on human development* Oxford University Press.

Helliwell, J.F., Layard, R. & Sachs J. (eds) (2019) *World Happiness Report 2019* Sustainable Development Research Network.

Irwin, N. (2014) "You Can't Feed a Family With G.D.P." *The New York Times*: <https://www.nytimes.com/2014/09/17/upshot/you-cant-feed-a-family-with-gdp.html>

Kennedy, R. F. (1968) "Remarks of Robert F. Kennedy at the University of Kansas, March 18, 1968" John F. Kennedy Presidential Library and Museum: <http://www.jfklibrary.org/Research/Ready-Reference/RFK-Speeches/Remarks-of-Robert-F-Kennedy-at-the-University-of-Kansas-March-18-1968.aspx>.

Kuznets, S. (1934) "National Income, 1929-1932" *National Income, 1929-1932* (pp. 1-12) NBER.

Landefeld, J. S. & Grimm, B. T. (2000) "A Note on the Impact of Hedonics and Computers on Real GDP" *Survey of current business*, 80(12), 17-22.

Maccari, N. (2014) *Environmental sustainability and human development: a greening of human development index* Available at SSRN 2426073.

Majeed, M. T., & Samreen, I. (2020) "Social capital as a source of happiness: evidence from a cross-country analysis" *International Journal of Social Economics*.

Mao, B. (2022) "This is what the 4-day workweek means for equal rights, productivity and climate change" *World Economic Forum Blog*: <https://www.weforum.org/agenda/2022/02/what-the-four-day-workweek-means-for-the-future-of-employment/>

Mazzucato, M. (2018) *The value of everything: Making and taking in the global economy* Hachette UK.

Masood, E. (2021) *GDP: The World's Most Powerful Formula and Why it Must Now Change* Icon Books.

Meadows, D. H., Meadows, D. L., Randers, J. & Behrens III, W. W. (1972) *The limits to growth Club of Rome*.

Morse, S. (2003) "Greening the United Nations' human development index?" *Sustainable Development*, 11(4), 183-198.

Naudé, W. (2022) "Five reasons why the four-day week won't work" *The Conversation*: <https://theconversation.com/five-reasons-why-the-four-day-week-wont-work-188188>

Nordhaus, W. D. & Tobin, J. (1973) "Is growth obsolete?" *The measurement of economic and social performance* (pp. 509-564). NBER.

Owen, A. L., Videras, J. & Willemsen, C. (2008) "Democracy, participation, and life satisfaction" *Social science quarterly*, 89(4), 987-1005.

Patterson, P. (2014) "Sex, Drugs and GDP" *UK Civil Service Quarterly Blog*: <https://quarterly.blog.gov.uk/2014/10/15/sex-drugs-and-gdp/>

Pettis, M. (2018) "The GDP of Bridges to Nowhere" *Carnegie Endowment for International Practice*: <https://carnegieendowment.org/chinafinancialmarkets/75355?lang=en>

Pettis, M. (2019) "What is GDP in China?" *Carnegie Endowment for International Practice*: <https://carnegieendowment.org/chinafinancialmarkets/78138>

Philipsen, D. (2015) *The Little Big Number: How GDP Came to Rule the World and What to Do about It* Princeton University Press.

Pritchett, L. & Lewis, A. (2022) *Economic growth is enough and only economic growth is enough*

Pritchett, L. & Summers, L. H. (1993) *Wealthier is healthier* (Vol. 1150) World Bank Publications.

Ray, M. (2014) "Redefining the human development index to account for sustainability" *Atlantic Economic Journal*, 42(3), 305-316.

Repetto, R. C., Magrath, W., Wells, M., Beer, C. & Rossini, F. (1989) *Wasting assets: natural resources in the national income accounts* (No. INVES-ET P01 R425w) Washington, DC: World Resources Institute.

Rohner, U. (2018) "GDP Should Be Corrected, Not Replaced" *Project Syndicate*: <https://www.project-syndicate.org/commentary/correcting-gdp-flaws-by-urs-rohner-2018-01>

Schneider, F. & Enste, D. (2003) "Hiding in the shadows: the growth of the underground economy" *Hiding in the Shadows* International Monetary Fund.

Smith, A. (1776) *The wealth of nations*.

Stamp, J. (1922) *Wealth and Taxable Capacity* PS King & Son, Limited.

Stiglitz, J. E., Sen, A. & Fitoussi, J. P. (2009) "Report by the commission on the measurement of economic performance and social progress"

Stone, R. (1984) *The accounts of society* (No. 1984-1) Nobel Prize Committee.

Terzi, A. (2021) *Economic Policy-Making Beyond GDP An Introduction* (No. 142) Directorate General Economic and Financial Affairs (DG ECFIN), European Commission.

Van den Berg, J.C.J.M. (2007) "Abolishing GDP" *Tinbergen Institution Discussion paper no 2*.

Wade, R. H. (2004) "Is globalization reducing poverty and inequality?" *International journal of health services*, 34(3), 381-414.

Waring, M. & Steinem, G. (1988) *If women counted: A new feminist economics* San Francisco: Harper & Row.

White, I., Legacy, C. & Haughton, G. (2022a) "Infrastructure in times of exception: Unravelling the discourses, governance reforms and politics" 'Building Back Better' from COVID-19. *Environment and Planning C: Politics and Space*.

White, I., Legacy, C. & Haughton, G. (2022b) "Shovel-ready but not shovel-worthy: how COVID-19 infrastructure projects missed the opportunity to transform the way we live" *The Conversation*: <https://theconversation.com/shovel-ready-but-not-shovel-worthy-how-covid-19-infrastructure-projects-missed-the-opportunity-to-transform-the-way-we-live-184640>

Whiteley, P. F. (2000) "Economic growth and social capital" *Political studies*, 48(3), 443-466.

Carnegie UK
Andrew Carnegie House
Pittencrieff Street
Dunfermline
Fife, Scotland
KY12 8AW

T +44 (0)1383 721445
www.carnegieuk.org

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