GDP stands for **Gross Domestic Product**. Perhaps, given the lack of detail in terms of how it is calculated and who it benefits some might say it could equally as well stand for **Grossly Distorted Picture**.

More on its defects later, but firstly, how did GDP ever come to be such an important statistic and how is it calculated.

A Brief History of How GDP Came to Be the Maker and Breaker of Governments

GDP was created in the Second World War but methods for determining national income started much earlier. As Diane Coyle writes in her book "GDP a brief but affectionate history" (Chapter 1) GDP stands for: "***Product***: *things that are produced.* ***Domestic***: *at home.* ***Gross***: *nothing deducted, the opposite of net (conversely, a cereal packet will give "net weight," meaning the contents alone, not including the packaging". GDP is just one figure in a full set of accounts of the economy and national income accounts.*"

Diane Coyle's book gives a full history of national accounting and the evolution of GDP some elements of which are as follows:

The early days of national accounting stem back even to the mid-17th century when William Petty, a British scientist, produced estimates of the income and expenditure, population, land and other assets of England and Wales, with the aim of assessing the country's resources to fight the second Anglo Dutch War. Petty's intention was to prove that the country could bear a higher burden of taxes and that it was capable of taking on some of its powerful neighbouring countries.

Throughout the 18th century a number of statistical pioneers built on these works but each measuring slightly different things. As Diane Coyle says : "*the concept of "national income" may seem clear enough but measuring it in practice means choosing what to include and exclude which is surprisingly fuzzy.*"

In comments on the sea change influence of Adam Smith's the Wealth of Nations (first published 1776), book II chapter 3 she highlights the concept of productive and unproductive labour as follows:

"*there is one sort of labour which adds to the value of the subject upon which it is bestowed: there is another which has no such effect. The former, as it produces a value, may be called productive; the latter, unproductive labour. Thus the labour of a manufacturer adds, generally, to the value of the materials which he worked upon, that of his own maintenance, and of his master's profit. The labour of a menial servant, on the contrary, adds the value of nothing. Though the manufacturer has his wages advanced to him by his master, he, in reality, costs him no expense, the value of those wages being generally restored, together with a profit, in the improved value of the subject upon which is labour is bestowed. But the maintenance of a menial servant never is restored. A man grows rich by employing a multitude of manufacturers: ego's poor by maintaining a multitude of menial servants.*"

Diane Coyle comments that this way of thinking about the national economy, in terms of material production, was generally adopted until the 19th century when this distinction between productive and unproductive activities was discarded.

Services were now introduced as an additional element of national income. In America Simon Kuznets produced a report which built on the works of Colin Clark's detailed text on national income and expenditure). One of Kuznets' goals was to measure national economic welfare rather than just output. Coyle comments that nowadays GDP does not measure welfare or well-being. Kuznets general approach was overtaken as there was a move away from just taking into account the private

sector to also include the role of government. As Diane Coyle puts it: "*the importance of wartime necessity in shaping the definition should not be underestimated*" and government expenditure was now included in GDP figures. Keynes book "The General Theory of Employment, Interest and Money" explored tools available to governments that could influence the size of any economy such as monetary (interest rates) and fiscal (taxes).

As Diane Coyle notes the "*development of GDP and specifically its inclusion of government expenditure" won out over Kuznets welfare-based approach...." GDP statistics and Keynesian macroeconomic policy were mutually reinforcing. The story of GDP since 1940 is also the story of macroeconomics".*

GDP – How it is Calculated?

The International Monetary Fund (IMF) webpage at :
https://www.imf.org/external/pubs/ft/fandd/basics/14_gdp.htm illustrates how GDP can be calculated in any one of 3 ways as follows:

"Theoretically, GDP can be viewed in three different ways.

The production approach sums the "value added" at **each stage of production**, where value added is defined as **total sales minus the value of intermediate inputs into the production process**. For example, flour would be an intermediate input and bread the final product, or an architect's services would be an intermediate input and the building the final product.

The expenditure approach adds up the value of purchases made by final users—for example, the consumption of food, televisions, and medical services by households; the investments in machinery by companies; and the purchases of goods and services by the government and foreigners.

The income approach sums the incomes generated by production—for example, the compensation paid to employees, rent paid to land owners, interest paid on capital, and profit paid to the company owners.

GDP in a country is usually calculated by the national statistical agency, which compiles the information from a large number of sources. In making the calculations, however, most countries follow established international standards. **The international standard for measuring GDP is contained in the System of National Accounts, 1993**, compiled by the International Monetary Fund, the European Commission, the Organisation for Economic Co-operation and Development, the United Nations, and the World Bank."

For details on the System of National Accounts 1993 **(SNA 1993)** you can go to :
https://www.imf.org/en/Publications/Books/Issues/2016/12/30/System-of-National-Accounts-1993-575#:~:text=The%201993%20SNA%20represents%20a,enhancing%20analysis%20of%20economic%20developments. The precise text of the SNA 1993 can be found at the United Nations website at:

https://unstats.un.org/unsd/nationalaccount/sna1993.asp

So what's potentially wrong with GDP? Well, before considering that let's look at what the Office for National Statistics(ONS) in the UK says is good about GDP:

The ONS (see the following webpage)
https://www.ons.gov.uk/economy/economicoutputandproductivity/output/articles/newbeyondgdpmeasuresfortheukaworkplanformeasuringinclusiveincome/2022-05-12 states:

"Why GDP is used to measure economic welfare"… "It is widely recognised that GDP is often used as a measure of welfare despite being a poor conceptual fit. What is less frequently considered is why it is so widely used for these purposes, despite these recognised weaknesses. The simple answer is that it also has certain strengths and, for many users, these strengths outweigh the weaknesses.

At its core, those strengths are that:

it is a coherent single measure that unambiguously either goes up, down or stays the same - there is therefore a "definite signal" from the data

it is published frequently and quickly after the relevant time period, meaning there is a "timely signal" from the data because it can be decomposed, or broken down, into its component parts we can explain why it has grown, shrunk or remained unchanged; in essence it contains an "explainable signal"

While there is often an argument that it is impossible to address well-being or welfare within a single indicator, we must consider whether that is a theoretical, empirical or user-driven conclusion."

So, the ONS acknowledges it is an imperfect measurement tool but according to the ONS is a single coherent measure that goes up, down or stays the same and therefore is a "definite signal".

So now let's look at the down sides to GDP as a tool measuring how well a country is doing:

<u>Reason 1:</u> There is a problem with the financial sector. As Diane Coyle details in chapter 5 of her book a large portion of banks' profits comes from the gap between the interest rates, at which they borrow and lend and also trading activity. Quoting from the OECD GDP statistics manual she puts it as follows: "*measurement using the general formula (for constructing GDP) would result in their value added being very small, if not negative; in other words, their intermediate consumption would be greater than their sales!*" Initially the convention was to "*count financial services as the negative output of an imaginary segment of the economy. It is to use a phrase from Alice in Wonderland, curiouser and curiouser. As the financial services industry grew throughout the 1980s the approach changed again, in the 1993 update of the UN system of National accounts introduce the concept of "Financial Intermediation Services Indirectly Measured" or FISIM. This current measure compares banks borrowing and lending rates on their loan and deposit portfolios to a risk-free "reference rate" such as the central bank's policy rate, and multiplies the difference by the stock of outstanding balances in each case. The practical difficulties are enormous, especially when it comes to translating this into an inflation-adjusted or real terms figure…. one consequence however is that increased risk-taking is recorded as increased real growth in financial services.*"

So oddly: "<u>**risk-taking is recorded as increased real growth in financial services**</u>".

What could possibly go wrong with that sort of approach, I hear you ask? I don't have to tell you what can go wrong because you already know.

As Diane Coyle says: "… *The absurdity of recording big increases in the contribution made by financial services to GDP as the biggest financial crisis in a generation or two got underway indicates that the statistical approaches mistaken.*"

Further details on the approach to FISIM can be found at the office for National statistics website at: https://www.ons.gov.uk/economy/grossdomesticproductgdp/articles/financialintermediationservicesindirectlymeasuredfisimintheukrevisited/2017-04-24

Reason 2: GDP calculations do not take into account some activities that involve no payments.

As Diane Coyle points out in her text certain types of informal economic activity is not included largely because no money changes hands i.e. "household production". As she says this means that all the work done within the family for its own use such as cooking cleaning childcare vegetable growing etc. is not counted as part of the economy. Oddly though prostitution and drug taking is included in the GDP figures.   The very fact that some elements are included and some are not raise questions as to the methodology as a whole. Is this rather random approach when it comes to choosing what is included and what is as reliable as it should be?

Reason 3:   GDP does not identify precisely who is benefitting. Although the ONS says that it gives a "definite signal" as to how an economy is doing it is too general; there is no detail. Of course there are reasonable arguments that, for example, rising GDP is generally good news and falling GDP is bad. For example, in times of a recession (technically two quarters in which GDP has fallen) people tend to lose their jobs and in consequence of that happiness and welfare, in general terms, reduces. When GDP is rising generally speaking less people are out of work. So in general terms GDP may well be a "definite signal" of direction of travel but is it a detailed signal of how far and how easy different groups are doing in their journey?

Take for example, using information from the ONS website (1) : https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/gdpfirstquarterlyestimateuk/julytoseptember2023 and (2) GDP year-on-year figures from ONS website https://www.ons.gov.uk/economy/grossdomesticproductgdp/timeseries/abmi/pn2

These data sets reveal figures from the first quarter of 2023for the UK the GDP being £569,973 million and the following second quarter being £571,043 million. i.e. an increase of 0.2%; now 0.2% of 569 billion is approximately £1.14 billion.   So a positive rise and so certainly a "definite signal" of the direction of travel of an economy no details on who benefits from the GDP rise and by how much.

Further Reasons

Diane Coyle packages here concerns into the 3 following areas:

1. "*the complexity of the economy now, reflected in innovation, the pace of introduction of new products and services, and also in globalisation and the way goods are made in complicated global production chains.*" *She points out in regard to the first points concerning complexity of products is that it is hard to find statistics on the number of different product types available. The question she asks is why does this affect GDP though. She draws a useful analogy by saying that if you think about a place for setting a meal the contribution to GDP is the same whether there is a manufacturing of a knife fork or spoon or three spoons because GDP just counts the number of items. GDP under records growth by failing to capture fully the increase in the range of products in the economy and it is a poor way to measure innovation customisation. She also goes on to say that it fails to record at all another increasingly important category namely preventative goods or services and gives the example of driverless cars and the benefits that they produce in terms of reduction of number of accidents.*

2. *"the increasing share of advanced economies made up of services and "intangibles", including online activities with no price, rather than physical products which makes it impossible to separate quality and quantity or even think about quantities at all "*

Then focussing on productivity Coyle examines the puzzle that it presents. She raises the question as to how to measure the output of nurses, accountants, designers of gardens, musicians, software developers, healthcare assistants and so on. She says the only way to determine productivity is to rely on, say, numbers of patients a nurse would see but that unfortunately this entirely overlooks the quality of the service; so the upshot is that it is difficult to measure productivity in regard to certain workers given that the quality of what certain workers do is an intrinsic part of the output issue.

3. *"the urgency of questions of sustainability, requiring more attention to be paid to the depletion of resources and assets which is undermining potential future GDP growth."*

Finally, Coyle turns to sustainability and the third issue for the relevance of GDP. She points out that GDP takes account of the increasing output of goods and services over time without fully accounting for whether or not growth comes at the expense of growth in the future. She says that "*GDP statistics do include a measure of the depreciation of physical assets ("capital consumption"), but this is a narrow indicator of how far capital is being used up to consume today by reducing the scope for consumption tomorrow*".

GDP. Gross Domestic Product or Grossly Distorted Picture. You decide.