Measure for Measure – Innovative Ways of Measuring Well-Being

by Wayne Bartlett

Over the years I have worked with a number of economists, both at national government levels and also with colleagues from multilateral international organisations such as the International Monetary Fund (IMF) and the World Bank. In that time, I have become acutely aware that although economists and accountants in theory have much in common, in practice the reality is somewhat different. The two specialisms have somewhat different ways of looking at economic consequences and measuring them. We are a bit like the Brits and the Americans; two peoples separated by a common language.

One thing I have learned is that there is one type of measure above all others that is supremely important to economists, and that is those which are based on measurements of Gross Domestic Product (GDP). The textbook definition of GDP is that it is a measure of the value of all the goods and services produced by an economy over a certain period, typically one year. At the time of writing this article, there are a plethora of gloomy predictions of the levels of growth we are likely to experience as a consequence of the Covid-19 pandemic and these almost without exception are based on basic measures of GDP that economists of the mid-20th Century would recognise. They are useful as a way of gauging relative trends over time In the UK for example economists have developed scenarios that suggest the last time the British economy has dipped this much was in 1709 when the European winter was so severe that the Thames froze over and the economies of Britain and Europe came grinding to an abrupt halt, frozen as surely and solidly as the river was.

However, even most of my economist friends would concede that high-level GDP is something of a blunt instrument as far as national economies are concerned. For one thing, it takes no account of relative size. One would, all things being equal, expect the GDP of China or India with a billion+ citizens to be higher than that of San Marino which has about 34,000 inhabitants and such measures do not mean very much other than looking at relative rates of growth or decline over time on a country-by-country basis. So, economists developed the concept of GDP per capita which simply looks at the total GDP divided by the population to calculate a surrogate value for national wealth per head.

Where does the Big Mac fit into all this?

Per capita GDP is a simple calculation which enables some country to country benchmarking to take place and adds a degree of sophistication to comparisons. Even then though it does not go far enough. It does not take account for example of the purchasing power of national currencies; $1 or its equivalent will probably not buy the same in Dublin as it would in New York for example; and neither would it purchase the same as it would likely do in a developing country context such as buying something in downtown Dhaka, Bangladesh. The chances are you would get more ‘bank for your buck’ in the latter than in Western Europe or North America.

Economists have tried to take into account this phenomenon whereby your buck is worth more in one country than another and have

developed a measure called GDP PPP ('Purchasing Power Parity') as a result. However, there are much more fun ways of measuring relative purchasing power if we think outside of the box. Enter the Big Mac Index. Yes, I am talking about the famous, tasty (to some anyway) but probably not that healthy fast food item, McDonalds' brand leader. The idea of the Big Mac Index was written up in The Economist magazine in 1986. It attempts to measure purchasing power parity by using the price of a Big Mac as a benchmark in a process rather nicely called 'Burgonomics'.

The underlying theory, as most great theories are, is fundamentally wonderfully simple. Normally it would be impossible to compare the price of a basket of goods in say Tokyo compared to Dublin as the contents of that basket would be different. Not so with a Big Mac; as McDonalds would have us believe; a Big Mac is a Big Mac is a Big Mac regardless of where we buy it. In other words, we have two identical items on opposite sides of the world that we should be able to compare.

It is a useful indicator of whether currencies are over or undervalued because by using exchange rates in force we can work out how much a Big Mac should be in theory and compare it to the actual price. For example, using data in force in January 2019 a Big Mac cost $2.20 in Russia whereas it was $5.67 in New York. The Big Mac index would suggest a dollar exchange rate of 23.8 rouble per dollar but was in fact about 61.43 rouble per dollar at the time.

The conclusion: the Russian rouble was undervalued by about 61%. On the other hand, some currencies appeared overvalued: the most marked example of this was the case of the Swiss Franc and the Norwegian Krona was also overvalued. If you wanted a Big Mac and were after value for money then (ignoring flight costs and negative impacts on the environment) you should go to Azerbaijan, Egypt or Moldova. Don't go to Iceland or Bolivia though – you won't find a Big Mac there (or you wouldn't back in 2019 but as new franchises can open at any time this might not be true now).

How to put a price on happiness

Of course, it is a frequently quoted maxim that money doesn't buy happiness. However, money is a hard, tangible thing whereas happiness is much harder to measure. Happiness can be a woolly, ethereal concept, a variation of 'motherhood and apple pie' but that hasn't stopped some from having a go at measuring it. One example is the United Nations (UN) World Happiness Report, now on its 7th edition. It started back in 2012 with the rather academic concept title of 'Wellbeing and Happiness: Defining a New National Paradigm'. The idea is that happiness can be measured if we take certain factors into account which include for example links between government and happiness and the power of prosocial behaviour. The idea evolved long before 2012 though and can be traced back in terms of its modern evolution to an interview with the King of Bhutan at the time, Jigme Singye Wangchuck. He was interviewed at Bombay (now Mumbai) Airport in 1979 and used a phrase which stuck: 'we do not believe in Gross National Product. Gross National Happiness ("GNH") is more important'.

Bhutan became, and remains, the world leader in happiness measurement and here I have to declare a potential conflict of interest. I have been working on a project in this still somewhat isolated Himalayan kingdom for several years now and my own happiness index measures very high when I fly past Everest with a grandstand view of it out of the left-hand window (or right-hand window when flying back again; rational seat selection policies and preplanning assume great importance). And I can confirm that the Gross National Happiness Commission remains at the heart of national planning. Regular five-year plans are prepared which include all the traditional financial elements but also a range of others linked to happiness.

The index works by first of all identifying nine domains, which are:

- Psychological wellbeing
- Health
- Time use
- Education
- Cultural diversity and resilience
- Good governance
- Community vitality
- Ecological diversity and resilience
- Living standards

Only the last of these domains really considers traditional economic wealth as a measurement. Each domain has a small number of supporting indicators to measure how well a society is doing in that particular area. One of the underlying principles which can be hard to get your head around until you adjust to it is that the domains have a 'sufficiency cut off'.

What we measure here is that people have enough of what they need and no more as far as the scoring process is concerned. This is measured by allocating a score linked to the sufficiency cut-off point. A simple example might help to explain best. Let's take a traditional measure around wealth as our starting point. The sufficiency cut-off point might be 250 Currency Units per annum, but an individual might have income of 500 Currency Units. In the scoring system, that individual would be awarded a score as if they were earning 250 Currency Units – sufficient to live on – and not as if they were earning 500 Currency Units – more than they need to live on.

The effect of not over-scoring if someone has more than they need in a particular domain is to balance out an over-emphasis on one factor such as monetary wealth at the expense of others. Happiness is achieved if an individual achieves sufficiency in six of the nine domains, recognising that not all domains will be equally relevant to every individual. The data is then aggregated for the country as a whole. Shortfalls against GNH are calculated using the weighting scoring system applied to the indicators within each domain and deducted from '1' to calculate the GNH Index score. By calculating scores for each domain, we can see where there are shortfalls and we can then design policies at government level to deal with those shortfalls. Regional variations can also be identified and dealt with. We can measure progress over time by seeing if GNH is higher or lower than last year. Further analysis would allow us to see if GNH measurements vary by e.g. gender, age, racial background etc. identifying in the process particular groups that need specific government attention. Thus, this is not just an interesting piece of information hidden away on page 143 of the Government's Annual Report. It can and is used to identify deficiencies in various domains and formulate corrective policies when putting together national budgets and economic plans.

Undoubtedly the system has its critics. There is much room for subjectivity in the domain definitions and contents and the identification of indicators to measure them. In Bhutan's case some might suggest that this is a slightly cynical attempt to convince a country with a high poverty rate of around 12% of the population and a GDP per capita ranking of 120th in the world that there is more to life than being rich.

There are also some critics who claim that the Bhutanese Government has engaged in discrimination against for example Hindu Nepalese who would not integrate with Buddhist Bhutanese culture and were expelled as a result and that the GNH approach is designed to distract attention.

The Refugee Council of Australia even suggested that GNH stands for Gross National Hypocrisy. However, flawed though in some respects it might be, the GNH Index as applied in Bhutan and now incorporated in annual UN Reports is at least an attempt to deal with one basic truth that many around the world can empathise with; whilst we all need money to live, there is indeed more than economic wealth alone involved in the pursuit, and hopefully the attainment, of happiness.

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