

The real wealth of nations

Despite the obvious advantages of wealth, nations do a poor job of keeping count of their own. They may boast about their abundant natural resources, their skilled workforce and their world-class infrastructure. But there is no widely recognised monetary measure that sums up this stock of natural, human and physical assets. Economists usually settle instead for GDP, but that is a measure of income, not wealth. It values a flow of goods and services, not a stock of assets, so gauging an economy by its GDP is like judging a company by its quarterly profits, without ever peeking at its balance-sheet. The United Nations had published balance-sheets for 20 nations in a report overseen by Sir Partha Dasgupta of Cambridge University.

They included three kinds of asset:

1. manufactured or physical capital (machinery, buildings, infrastructure and so on)
2. human capital (the population's education and skills)
3. natural capital (including land, forests, fossil fuels and minerals).

By this gauge, America's wealth amounted to almost 118 trillion dollars in 2008, its wealth per person was lower than Japan's which tops the league on this measure. Japan's economy is smaller than China's and, Japan is almost 2.8 times wealthier than China in 2008. The UN calculates a population's human capital based on its average years of schooling, the wage its workers can command and the number of years they can expect to work before they retire or die. Human capital represents 88% of Britain's wealth and 75% of America's. The average Japanese has more human capital than anyone else. Japan is also one of only three countries in the report that didn't deplete their natural capital between 1990 and 2008, all of the countries except Russia increased their wealth, accumulating enough other assets to offset the erosion of their natural patrimony. In 14 of the 20 countries these increases in wealth outpaced the growth of their pollution. Germany, for example, increased its human capital by over 50% and China expanded its manufactured capital by 540%.

The UN's exercise makes all three kinds of capital comparable it also implies that they are replaceable. A country like Saudi Arabia, for example, depleted its stock of fossil fuels by \$37 billion between 1990 and 2008, while adding to its stock of school-leavers and university graduates (its human capital grew by almost \$1 trillion). In some richer countries investments in human capital appear to have hit diminishing returns. Perhaps governments should redirect their investment into natural capital instead, restocking their forests. The idea that natural assets are replaceable makes some environmentalists nervous. Many of the services the environment provides, like clean water and air, are irreplaceable necessities.

In theory, the undoubted value of these natural treasures should be reflected in their price, which should rise steeply as they become scarcer.

In practice, natural assets are often hard to price well or at all. As a consequence, the UN report has to steer clear of assets like clean air that cannot be directly owned, bought or sold. It confines itself to resources like gas, nickel and timber, for which market prices exist, but even these market prices may not reflect a commodity's true social value.

Beekeeping is one example beloved by economic theorists. Bees create honey, which can be sold on the market, but they also pollinate nearby apple trees, a useful service that is not purchased or priced. The calculations are inevitably crude, just as the first guesstimates of GDP were crude over 70 years ago. Sir Partha says that more economists will do the hard but valuable work of pricing the seemingly priceless and he says also that the profession does not really reward this work. Some

economists do it anyway: Taylor Ricketts of the University of Vermont and his co-authors have even calculated the value of pollination, showing that one Costa Rican coffee-grower benefited by \$62,000 a year from the feral honey bees in two nearby patches of forest.

Measuring wealth beyond GDP

GDP or human development index of nations are measures that have been used to judge the progress or regress of nations but good welfare economics found its principles on the estimation of wealth which is a stock and not a flow like GDP.

Wealth is the value of all the assets that an economy possesses and the capital assets not only buildings and roads that's manufactured capital but also human capital that is health education and natural capital because it is possible that GDP increase while wealth decline because it is being lost natural capital.

Health is very important because when wealth is estimated in the form of human capital, the reports estimates of natural capital (nature ecosystems) is weaker because government's haven't collected data on the state of their natural economy so what the wealth does is to look at carbon in the atmosphere, to look at forest but only as a source of timber and not about the other services that forests produce like stabilizing water, maintaining soil, medicinal herbs and so on. Sir Partha he wonders if in the next 10-15 years when people will have a better handle on natural capital and most of the wealth will be in the form of natural capital, at the moment it's a very small fraction and the reason are many, but what is really important is that health becomes dominant because nowadays it should be seen as a capital asset because people value their asset. Sir Partha said that people are going to transition towards wealth accounts, but it will be a very less firm than GDP accounts because GDP is based on market price and the wealth account requires market price and price that is necessary to estimate on the basis of social values. He also said that citizens want to know what is going on in the economies in order to judge whether the policies that are being followed and at the moment citizens aren't given that information because the evolution of economic statistics has moved in such a way so is necessary to shake off the reliance on GDP as an indicator of progress or regress.

Winners take all

Pressure has been growing for politicians and regulators to clamp down on the monopoly power of Big Tech. In a speech given in Washington on 12 September 2017, Maureen Ohlhausen, the acting chair of the Federal Trade Commission in the US, tried to pour cold water on the idea. If companies bring down prices for consumers, they can be as big and as powerful, economically and politically, as they want to be. This hugely favours companies such as Google, Facebook and Amazon, which offer up services and products, from search results to self-publishing platforms, that are not just cheap, but free.

Ms. Ohlhausen is overlooking a key point: free is not free when you consider that we are not paying for these services in dollars, but in data, including everything from our credit card numbers to shopping records, to political choices and medical histories. It is almost impossible to put an exact price on personal data, in part because people have widely varying behaviors and ideas about how likely they are to part with it, depending on how offers are posed.

In one recent study, consumers would consent to being tracked by a brand name digital media firm in exchange for being targeted with more useful advertising, (four-fifths said no); another study shows how pathetically little incentive is required to convince people to give up their entire email

contact list. Students in the study were far more likely to do it if offered a free pizza. This latter study also showed, companies can nudge users to part with data more freely by telling them it will be protected by technology but the technology in question could not guarantee this.

The bottom line is that big data tilts the playing field decisively in favour of the largest digital players themselves. They can extract information and plant suggestions that will lead us to entirely different decisions. Not only is that too much power for any one company to have, it is anti-competitive and market-distorting in the sense that the basic rules of capitalism as we know it are being overturned. There is no equal access to market information in this scenario. The personal data that are given away so freely are being lavishly monetized by the richest companies on the planet, they get their raw material (our data) more or less for free, then charge retailers and advertisers for it, who then pass those costs on to us in one form or another. These companies are not so much innovators as attention merchants, the FTC might say that there are a growing number of legal cases that could change the ground rules for Big Tech. One will be forgiven for thinking that we should all have a more explicit right not only to control how our data are used, but to any economic value created from them to ensure it does not become a winner-takes-all society.