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Pathological measure of progress – GDP



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About

What is society's progress?

It certainly can't be equated with an increase in GDP. How can all human activity be flattened down to some numbers? Societies blindly pursue an increase in GDP, even though it often doesn't mean an improvement in the situation of people, on the contrary – more stress, suicides, pollution or civilization diseases. Moreover, war damage, provided that it is rebuilt, contributes to GDP growth as well as a new washing machine or apple pie.

Gross domestic product (GDP) measures the size of a nation's economy and doesn't reflect a nation's welfare. GDP's inventor **Simon Kuznets was adamant that his measure had nothing to do with wellbeing. But too often people confuse the two.**

The purpose of this article is to express the urgent need to replace GDP with another international indicator or even several that will tell us more about the well-being of societies.

Even Robert Kennedy remarked in 1968 that GDP
"measures everything in short, except that which makes life worthwhile".

Gross domestic product is a single number. That's why everyone loves it so much. It makes it very easy to classify countries and evaluate their performance.

The indicator can be used in several ways, which makes it an invaluable tool:

- An organization or company that wants to expand its business can use GDP to assess which markets will prove to be the healthiest.
- An investor interested in roi markets can use GDP to understand which countries are growing the fastest and thus provide the greatest return on investment (ROI).
- A politician can use GDP to understand how politics has affected the economy. If we wanted to classify countries based on the state of health or well-being of citizens, it could turn out to be a bit more difficult. Fortunately, people are starting to realize that GDP is long past its sell-by date.



What is exactly Gross Domestic Product?

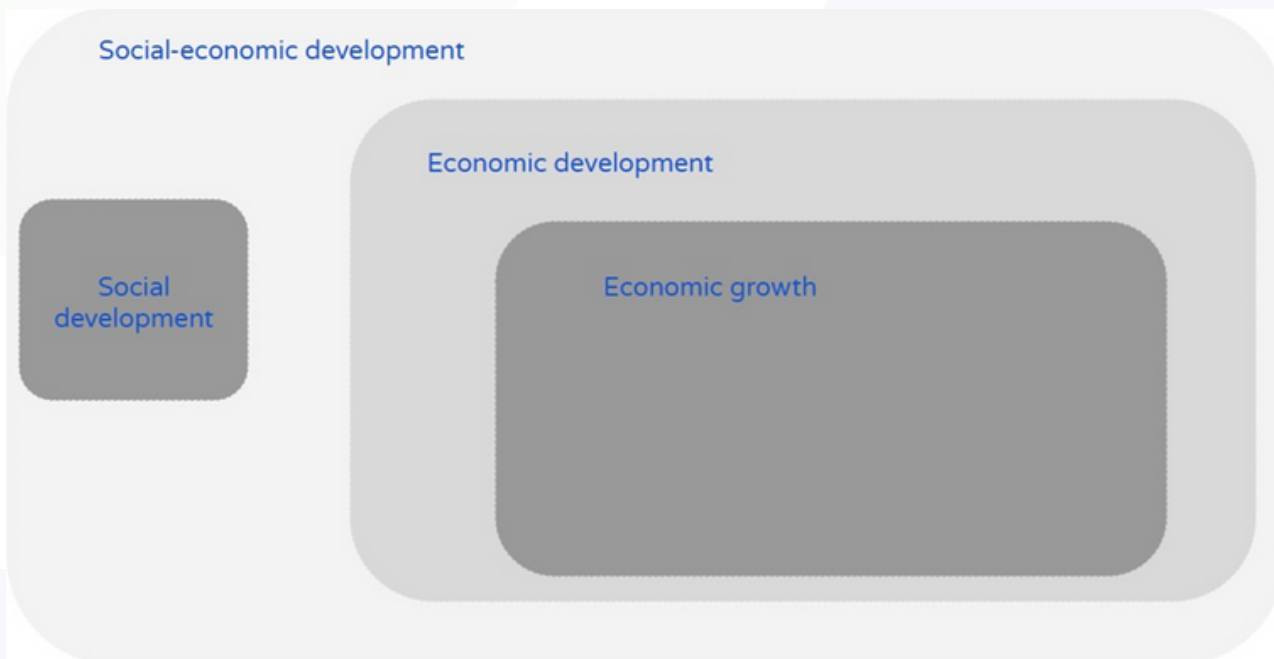
To criticize something, we should first know exactly what it is. GDP stands for gross domestic product, which represents the total monetary value, or market value, of finished goods and services produced within a country during a period, typically one year or quarter. In this sense, it's a measurement of domestic production and can be used to measure a country's economic health. There are three ways to calculate GDP.

1. Expenditures approach – involves adding up all spending on final goods and services in an economy; the expenditures approach categorizes this spending into five categories: consumption, investment, government spending, exports, and imports: $Y = C + I + G + X - M$.
2. Income approach – involves adding up all of the income earned within the borders of a country in a given year; the income approach adds up wages, rents, interest, and profits.
3. Value – added approach – involves adding up all of the value added at various stages of production.



So if we already know for sure what it is, it is crucial to define the key concepts because people often confuse these concepts. Higher GDP entails economic growth, but we can't equate this with socio-economic development, which is a much broader concept.

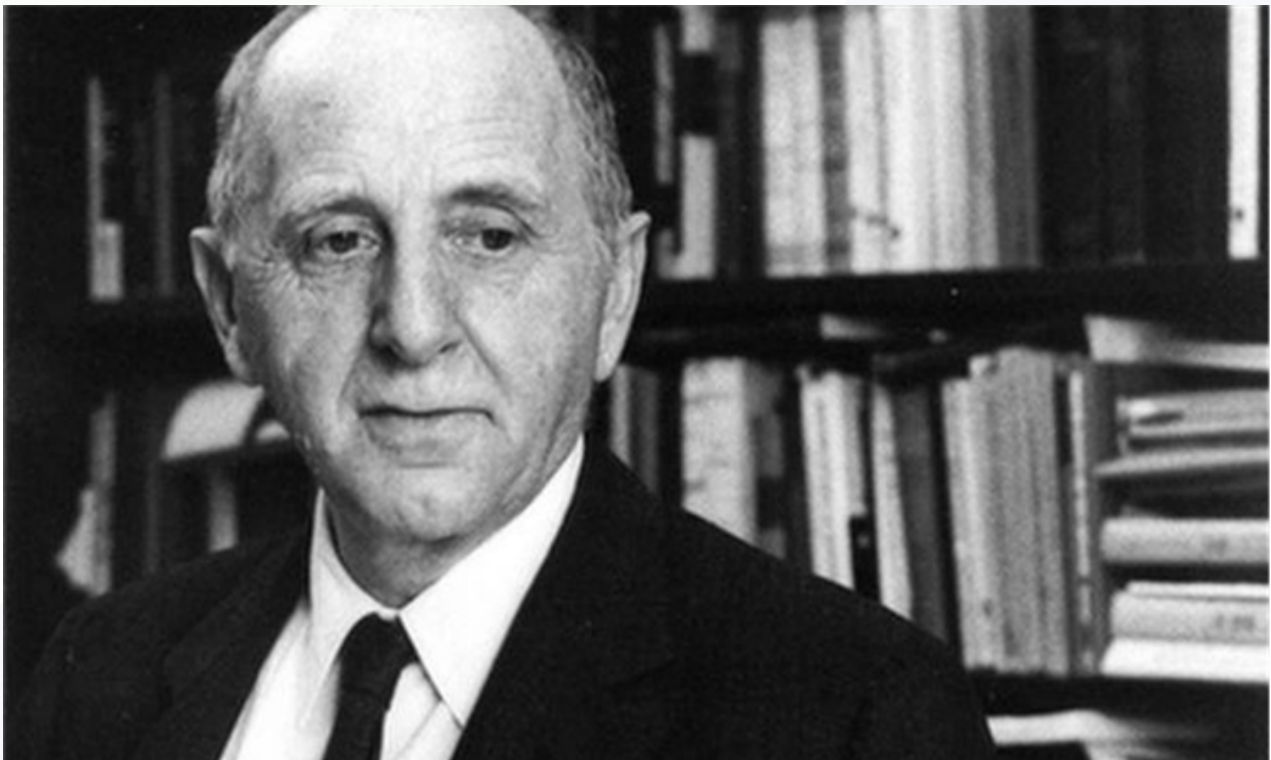
- Economic growth – the process of increasing the economic size of one's own national farm in absolute terms, i.e. quantitative increase year by year of productive forces, production of goods and services, national income and consumption.
- Economic development – the process of quantitative and qualitative changes in the sphere of all economic activity of a given society; includes GDP per capita, share of 3 production sectors, technical progress, production relations, infrastructure development; is considered over longer periods than economic growth.
- Social development – the process of positive quantitative and qualitative changes in the social and cultural sphere of a given society and its social-production and political-system relations; takes into account the organization of society, the availability of services, the progress of science and technology, the growth of cultural heritage, prosperity and standard of living, social infrastructure and social policy.
- Socio-economic development – the process of positive socio-economic changes in the sphere of all economic, cultural and social activities as well as social-production and political-system relations.



In the illustration, we can clearly see that socio-economic development is a much broader concept than economic growth, but people often confuse these two concepts. Without a shadow of a doubt economic growth, i.e. GDP growth can be good, however, only if it entails socio-economic development. Because after all, how can it positively affect society that state authorities invest in armaments to pursue expansionist policies to satisfy their revisionist views?

Let's see the historical outline

Although figures such as William Petty and Charles Davenant had already contributed to the concept of GDP, its modern version was first developed by Simon Kuznets for a 1934 US Congress report. After the Bretton Woods Conference in 1944, GDP became the main tool for measuring the country's economy. The role of GDP during World War II was crucial for its consecutive political acceptance as an indicator of national development and progress. It made it easy to compare how quickly countries recover from war damage. However, GDP became truly global in 1993. China then officially adopted it as an indicator to measure the national economy. Previously, China relied on a national accounting system inspired by Marxism.



But what exactly is wrong with GDP?

- It measures quantity not quality

So what if the national economy increases production if goods and services are of lower quality? Shouldn't progress be measured by the fact that more durable products are produced? Currently, many companies practice the method of planned obsolescence. This practice certainly contributes to GDP growth, but it is such a negative phenomenon.

In 1924, Osram, Philips and General Electric began the planned obsolescence of light bulbs. They created the so-called Phoebus cartel, which is officially the Swiss company Phoebus S.A. Compagnie Industrielle pour le Développement de l'Éclairage, controlling their production and sale. His goal was to reduce their quality, so that each of them worked for a maximum of 1,000 hours (instead of about 2,000).

Planned obsolescence consists of an artificially limited service life or deliberately weak design so that it becomes nonfunctional or perceived as unfashionable after a certain predetermined period of time. This forces people to buy new functional replacements. The goal of this is to generate long-term sales volume by reducing the time between purchases.



Take, for example, the famous anecdote about a light bulb that has been on for over 100 years at the Livermore–Pleasanton Fire Station in California. If each bulb lit 100, manufacturers would have no buyers and the industry would go bankrupt. Therefore, selling bulbs with a planned lifetime means buying more bulbs while maintaining a cost-effective trade-off between supply and demand.

This is the idea that real estate broker Bernard London suggested in 1932 in his report "Ending the Depression through Planned Aging", with the aim of preventing an economic crisis like the 1929 Crash.

Several sectors are better known for planned obsolescence than others. In fashion, it is generally accepted that nylon stockings tear easily and therefore require routine replacement. In technology, the replacement cycle for personal electronic devices such as smartphones has historically been two to three years as components begin to wear out and new generations of software and operating systems become less compatible with aging hardware.

Computer hardware is also a candidate for planned obsolescence because computing power in microprocessors typically follows Moore's Law, which observes that the number of transistors able to fit on an integrated circuit doubles about every two years—and the cost of processing power halves every two years. Finally, planned obsolescence also affects automobile manufacturers, who annually roll out new versions of their models.



One of the main disadvantages of planned obsolescence is its environmental impact. Manufacturing and consuming a greater number of products doesn't just involve increasing water, energy, and natural resource consumption to get raw materials

Moreover, there are different types of planned obsolescence:

1. Planned obsolescence: The useful life of a product is planned so that it stops working after a certain number of uses.
2. Indirect obsolescence: The damaged product doesn't have spare parts to repair it, so it's unusable.
3. Functional obsolescence: This occurs when a component fails, and the whole device stops working.
4. Incompatibility obsolescence: In IT services, updates stop being released for the proper functioning of the product, and it becomes obsolete.
5. Psychological obsolescence: New models of the same category appear, so the product becomes "old-fashioned".
6. Aesthetic obsolescence: When a product in good condition is replaced by another more modern one or with a more attractive design.
7. Obsolescence by expiration: The life of a product is artificially reduced because of its preferable expiration or consumption date although it can still be used or consumed.
8. Environmental obsolescence: When abandoning a product in perfect condition for another that's promoted as more efficient or more eco-friendly is justified.

Apple Inc. has often been at the center of skeptical consumer discourse. Company is notorious for this practice, it has not been proved unequivocally. A Harvard University study found that some iOS upgrades have slowed down the processor speed of older iPhone models, but not for the explicit purpose of driving new iPhone sales.

One of the main disadvantages of planned obsolescence is its environmental impact. Manufacturing and consuming a greater number of products doesn't just involve increasing water, energy, and natural resource consumption to get raw materials, but it also brings with it generating more waste. I strongly believe banning planned obsolescence should be the key thing right now. State authorities must impose penalties on producers who follow this practice.

- GDP doesn't involve the value of informal economic activity

It consists of those economic activities which are neither taxed or regulated by the government. This is a crucial issue, especially in undeveloped countries where a large proportion of transactions take place in the informal sector. Uganda is the number one in the high informality of the workforce. This country sees 94% of its population working in unregulated and untaxed jobs. The majority of these jobs are in trade and are followed by the manufacturing and services industries.

	Country	Informaal Employment
1	Uganda	94%
2	Guatemala	74%
3	Honduras	73%
4	Peru	69%
5	El Salvador	65%
6	Paraguay	64%
7	Columbia	64%
8	Mexico	54%
9	Palestine	52%
10	Dominican Republic	51%

Chart showing countries with the highest informal employment relative to all non-agricultural employment, source: Countries With the Highest Rates of Informal Employment – WorldAtlas

This is where the second problem emerges – a large part of society works without any insurance. What, in turn, can lead to dire consequences.

According to Oxfam, the economic value of the unpaid housework done by women globally in 2019 was \$10.9 trillion. This is more than the combined 2018 revenue of the world's 50 largest companies.

- GDP doesn't include non market housework

It may include a variety of activities, particularly those traditionally associated with housekeeping (or homemaking), along with child care and nurturing. These activities have recognizable economic and social significance, but are not included in GDP. Women's work is of great importance in shaping future generations. They raise children who will later become doctors, firefighters or scientists. They also prepare dinner for their husbands and do their laundry, thanks to which they can go to work rested and full of energy, which in turn contributes to the growth of GDP. But how much exactly is housework worth? According to Oxfam, the economic value of the unpaid housework done by women globally in 2019 was \$10.9 trillion. This is more than the combined 2018 revenue of the world's 50 largest companies. Or, put another way, bigger than the GDP of every country in the world except the US, China and India. That makes women's unpaid work the fourth largest economy in the world. That is obviously significant at a global level.

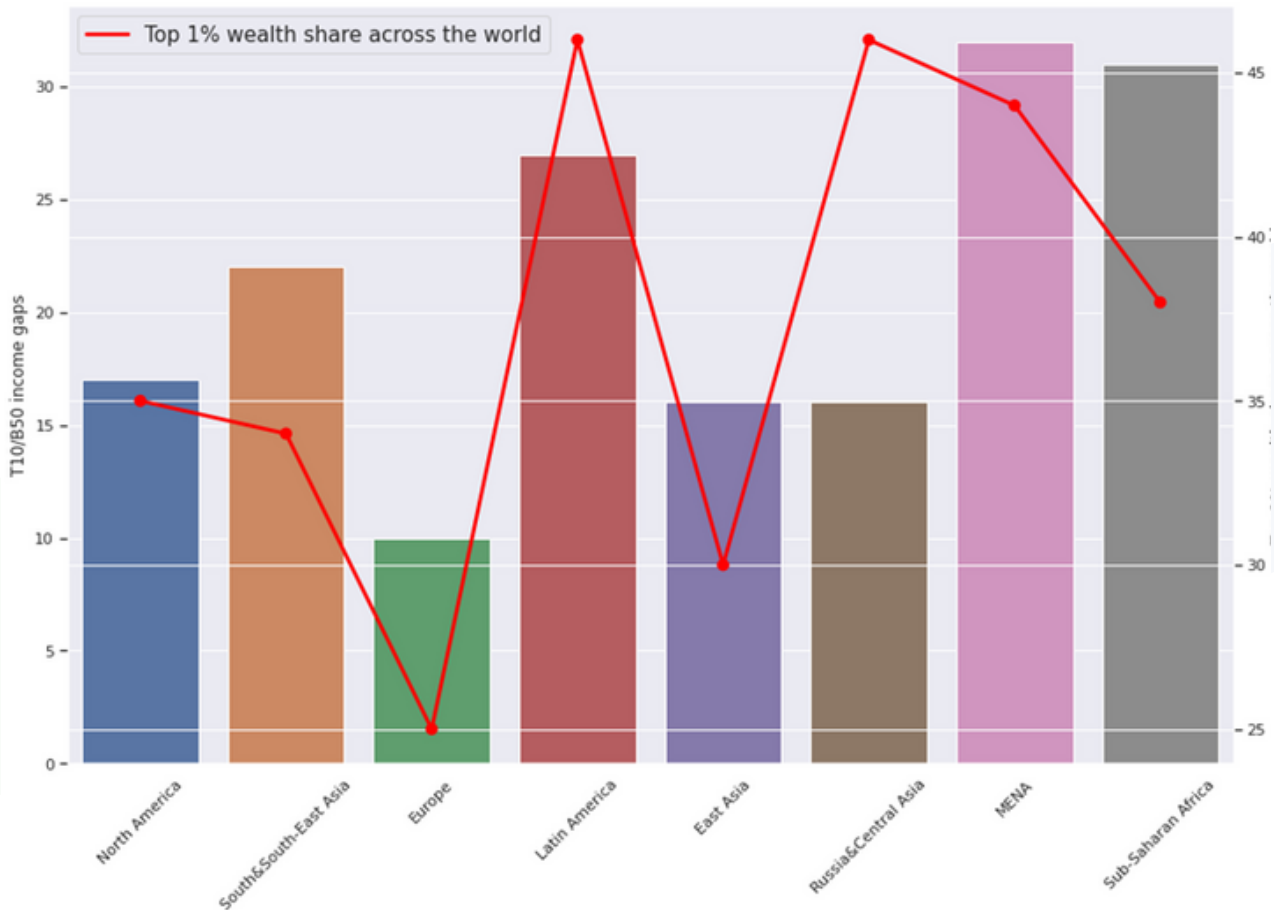


- GDP has nothing to say about distribution

A high level of GDP doesn't mean that income goes equally to individual social groups. Wealth and income inequalities are a global problem in the 21st century.

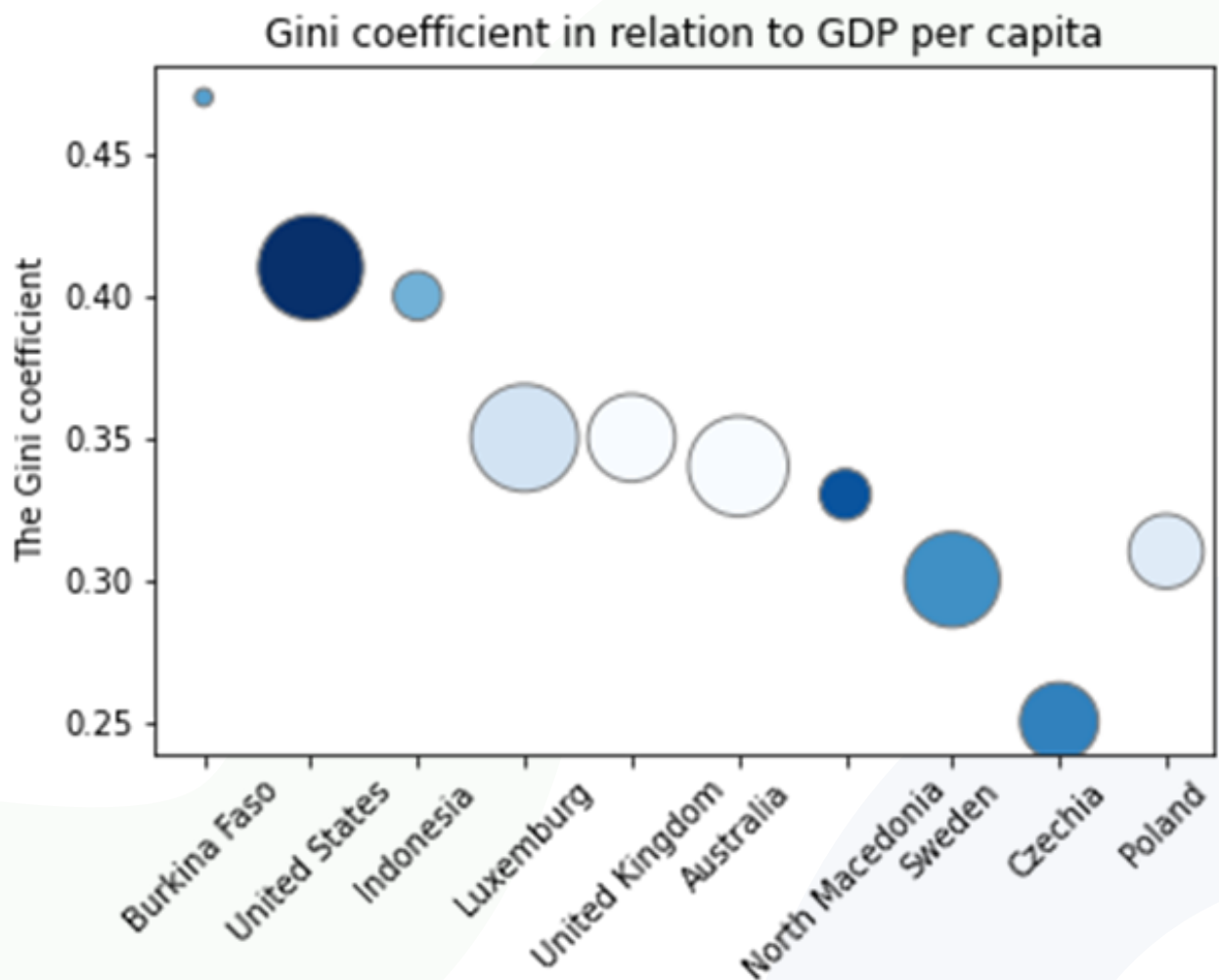
Europe stands out as a relatively equal region –the top 10% captures 36% of income while this is 55–58% in the world's most unequal regions. The Middle East and North Africa are notorious for very different income distributions. When it comes to inequalities within countries, the most unequal region is the Middle East and North Africa. The top 10% earn 32 times more than the poorest half of the population, whereas in In East Asia, Russia and Central Asia, North America – and in Europe – 10 times more.

However, when we look at inequalities between individuals, the figures are outrageous. The richest 10% of the global population currently makes 52% of global incomes, whereas the poorest half of the population makes 8% of it. What is more, global wealth inequalities are even more intense than income inequalities. The poorest half of the global population barely owns wealth: it owns just 2% of the total. By contrast, the richest 10% of the global population own 76% of all wealth. To get a better sense of the extreme wealth inequalities let's see the top 1% wealth shares across world regions. The richest 1% own between one quarter in Europe and 35–46% in North and Latin America of total wealth. As we can see, the disproportions are striking.



The graph shows T10/B50 income gaps and the top 1% wealth share across the world.

In econometrics, social inequality can be measured quantitatively. The Gini coefficient is most often used for this purpose. It ranges from 0 to 100, where 0 means complete equality (everyone has the same amount) and 100 means complete inequality (one person has everything and everyone else has nothing).

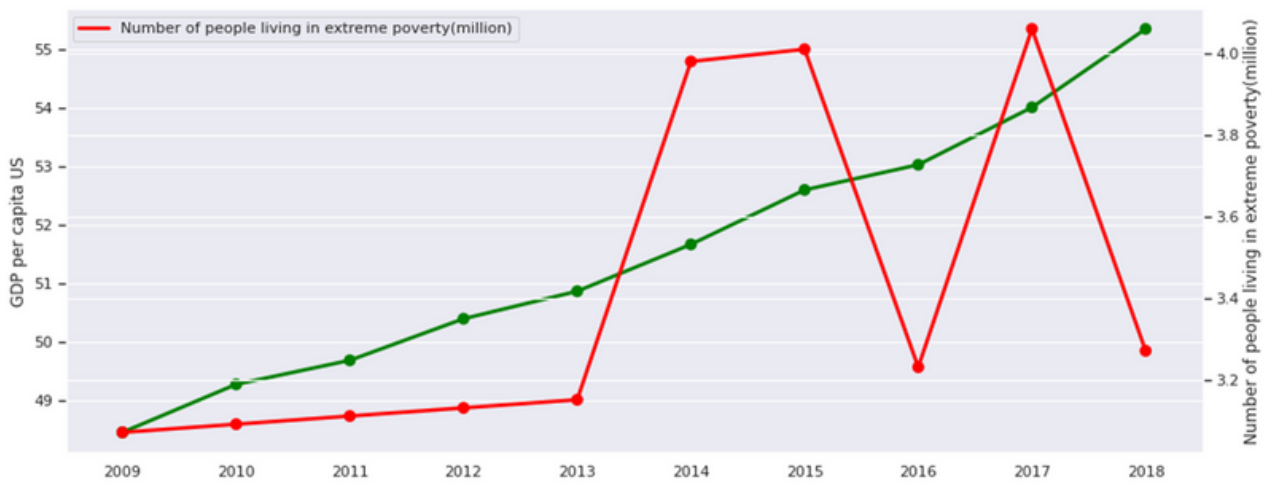


*The graph shows the Gini index of individual countries.
The size of the circle symbolizes the size of GDP per capita.*

The Scandinavian countries are still among the most egalitarian countries. A significant increase in the ratio is recorded in the United States, where the 20% of the lowest earners receive only 4% of the total income, and the 20% of the highest earners receive 53% of the income. In most countries of Central and Eastern Europe, compared to other regions of the world, income inequality is relatively low.

Thus, large income disparities may be in poor countries, such as Burkina Faso, but also in relatively rich countries, such as the USA. This is conditioned by many other factors, such as:

- varying levels of skills and education of citizens,
- varying levels of technology,
- market failure,
- state failure,
- differences in predispositions,
- rent-seeking,
- the pursuit of positional days,
- and many others...



The graph shows US GDP and the number of people living in extreme poverty in the US.

As we can see, in the years 2009–2018 the total number of people living in extreme poverty increased. Economic growth doesn't mean that income goes to all citizens equally. It often happens that only the richest get richer, and poverty even deepens. The case of the USA illustrates this perfectly. However, many other countries are pursuing policies that successively lead to a decrease in the number of people living in tough conditions.

Why is poverty so much higher in the U.S. than in other industrialized countries?



Surely it is not because Americans fail to work hard. Americans tend to be at the top internationally in terms of the average number of hours worked per week.

1) A failure of policy

The US has failed to provide the kinds of policies and programs that are designed to prevent or reduce poverty. Social policy can make a significant difference in reducing the extent of poverty across countries. Programs that are targeted to reduce inequalities and poverty, generally result in lower rates of poverty. Although it is widely thought that the US spends significant tax dollars on public assistance, the social safety net can be more accurately described in minimalist terms. In fact, the United States devotes a smaller proportion of its GDP to welfare programs than virtually any other industrialized counterpart.

Most European countries and Canada provide a wide range of social security programs to prevent you from falling into poverty. These include, for example, family allowances or child allowances, or assistance for the unemployed. In addition, universal health insurance is provided, along with significant support for childcare.

2) Lack of education

Without a shadow of doubt, not everyone can afford higher education. It is widely known that it is very costly. Without any scholarship and coming from a large family, going to college often becomes impossible.

The average cost of college in the United States is \$35,551 per student per year, including books, supplies, and daily living expenses. Consequently, the lack of a good education deprives the possibility of getting a well-paid job. The average income for someone who has just a high school diploma is about \$28,000 and it is just about the poverty line for a family of four.

3) Technology

Unfortunately, technological change is not delivering to all people. And it is pushing income inequality higher, with the distribution of both capital and labor income becoming more unequal and income shifting from labor to capital. There is a widening gap between the wages of occupations that take advantage of technological progress and those related to personal service, food, cleaning, security, repair. This is why they have substantially higher levels of productivity. The salaries of manual workers who find themselves in unpredictable economic situations can put them in a difficult life situation.

4) Healthcare cost

In the US, in case of illness, in an emergency, the prices of American health care will immediately start to rise. The cost of an ambulance starts at \$400. The need for basic testing is an additional cost that ranges from \$100 to \$500. A night in the hospital is an additional fee of USD 5,000. For drugs used to treat a disease, the total cost of an emergency room or ER visit can be \$6,000 or more! With more serious diseases, the situation becomes even worse. Brain cancer treatments cost anywhere from \$50,000 to over \$700,000, while breast cancer costs range from \$48,500 to \$300,000+. Pancreatic cancer treatment prices range from \$31,000 to over \$200,000. And melanoma treatment can cost anywhere from \$1,700 to \$152,000+. These enormous costs, in the event of unforeseeable events, can undoubtedly significantly worsen the situation of many people and plunge them into poverty.

5) Drug use

Nowadays more and more people are addicted to some drugs and alcohol. Surely, these substances are very costly. Unfortunately, many people pour all their money into this habit. The situation becomes dramatic and falls below the poverty line.

6) Informal sector

The size of the United States's informal economy is estimated to be 7.3% which represents approximately \$1,568 billion at GDP PPP levels. It is caused mainly by firms and individuals "cheating" to avoid paying taxes. Informal workers enjoy little social protection, and working conditions are very poor. Therefore, the informal sector perpetuates poverty and the effect of informality on poverty reduction is negative.

An interesting question to discuss is why is the US allocating so little resources to fighting poverty? Does it have anything to do with our belief in strict individualism? What about the fact that America is racially and ethnically diverse? How can this work against the fight against poverty? Are the poor an important political force? These and many other questions can be discussed and considered as we try to understand our public policy response to poverty.

Another example showing that economic growth doesn't reach all citizens equally is the situation in Equatorial Guinea. There, in 1996, very large oil deposits were discovered. The country in the mid-1990s was the 30th poorest country in the world with a GDP per capita of only \$371. Since 2010, Equatorial Guinea has become the richest country in Africa with a GDP per capita of USD 20,703, and the growth rate of this indicator was over 18.5 percent in the period 1995–2010, which is twice as high as in China, where the GDP per capita growth rate was at that time was "only" 9.1 percent per year. It has achieved a spectacular increase in production only thanks to the increase in oil production (apart from oil, the country is unable to produce other goods

for export) and in addition not by its own resources. The exploitation of the rich oil resources was taken over by American companies. The largest income from this account was earned not only by these companies, but mainly by the political elites ruling in this country and a small group of nouveau riche entrepreneurs. The income distribution system in this country is extremely unfair and only a few have benefited and continue to benefit from the oil boom.



As we can see, in the years 2009–2018 the total number of people living in extreme poverty increased. Economic growth doesn't mean that income goes to all citizens equally. It often happens that only the richest get richer, and poverty even deepens. The case of the USA illustrates this perfectly. However, many other countries are pursuing policies that successively lead to a decrease in the number of people living in tough conditions.



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It is impossible to achieve full equality in social life, which doesn't mean that one should accept the fact of scarcity and poverty, especially when it is a state that can be changed. Many countries and organizations are taking action to reduce the level of stratification and thus ensure access for citizens new opportunities, good quality public services or decent living conditions.

- GDP doesn't include volunteer work

“Volunteers don't get paid, not because they're worthless, but because they are priceless”.

~ Sherry Anderson

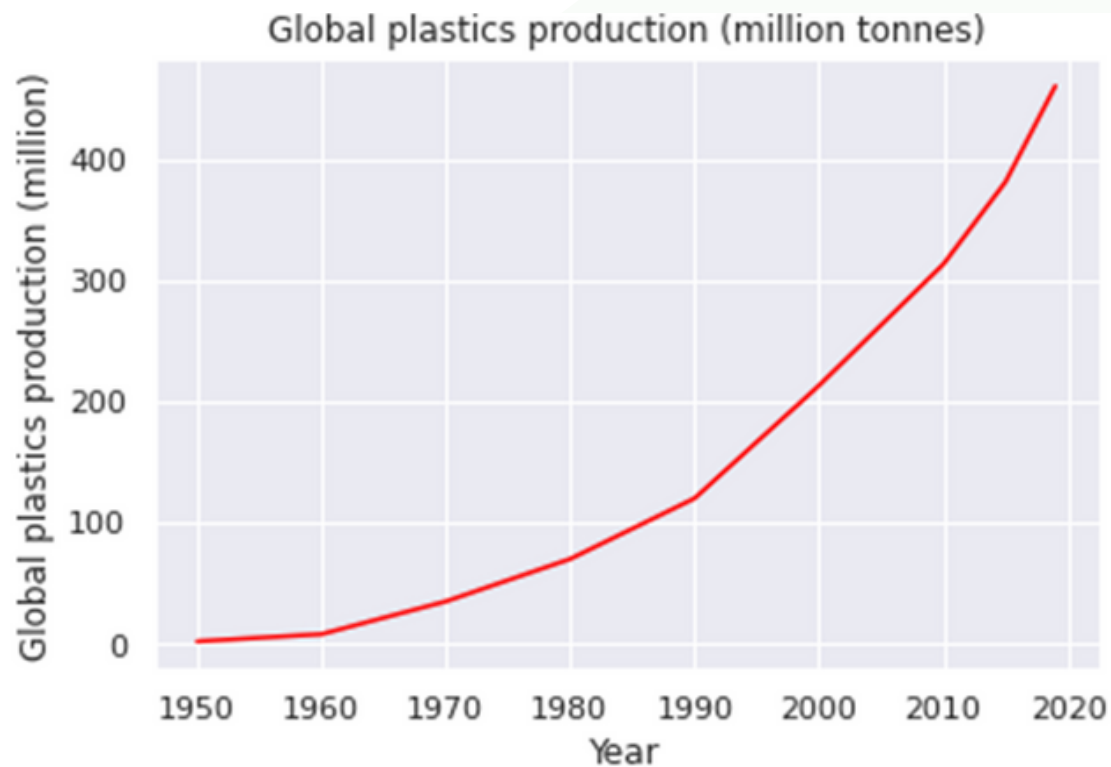
Volunteer or unpaid work isn't included as it is not only difficult to measure, it has no explicit economic activity related to them. However, the results of that volunteer activity as measured by other economic activity related to the workers (additional tourism, increased productivity, etc.), then one can use that activity as the input, claiming the value exists due to the volunteer work. The United States has the third

highest rate of volunteering in the world. According to the INDEPENDENT SECTOR in 2018, 63 million Americans served about 8 billion hours to support communities. The value of service is \$24.69 per hour, which is equivalent to \$297.5 billion/year. Albeit the most crucial are the benefits of society. Helping homeless people off the street has, in econo-speak, significant “positive externalities”: improved employment and income prospects, lower criminal activity, lower risk of mental-health problems, and so forth. What's more, these activities can give meaning to our lives. Such important activities have essentially zero value in gross domestic product (GDP).



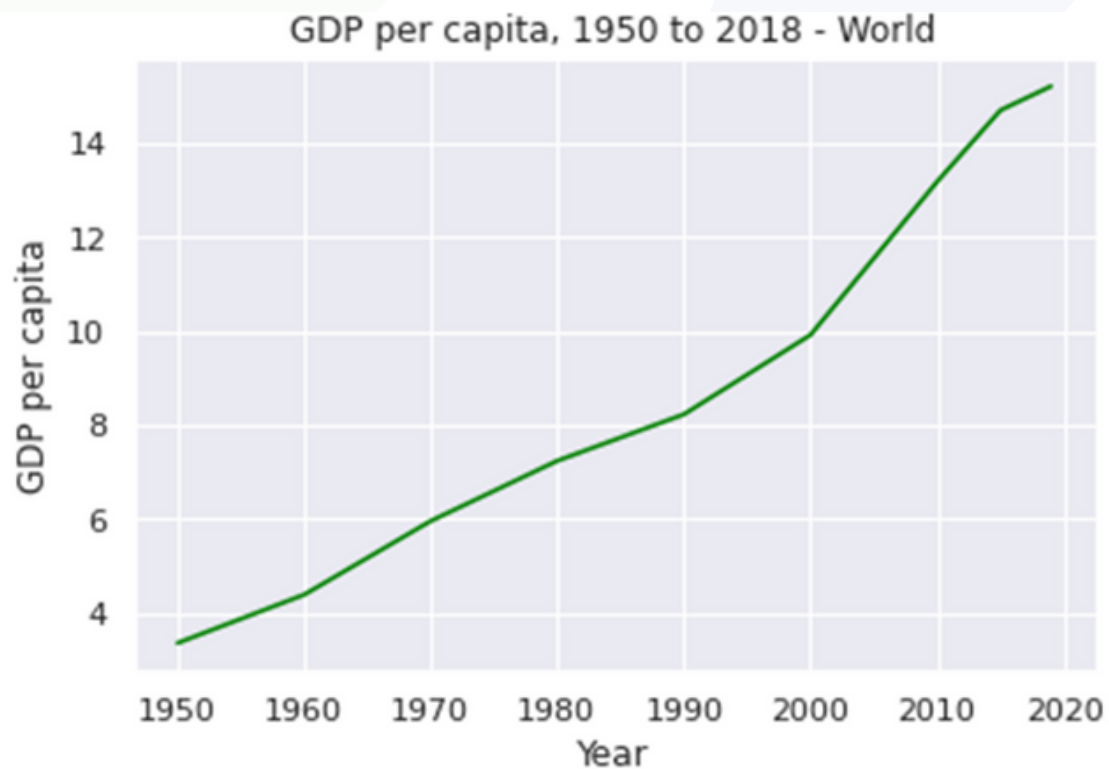
- GDP doesn't take into account external effects, including environmental degradation

We need more and more natural resources to increase production, which contributes to the abuse of our planet. This causes phenomena such as environmental pollution or reduction of biodiversity.



The graph shows the increase in global plastics production, measured in tonnes per year, since 1950.

In 1950, production was only 2 million tons per year. Since then, annual production has increased almost 230-fold, reaching 460 million tonnes in 2019.



The graph shows the growth of world GDP per capita, since 1950.

GDP per capita, 1950 to 2018 - World		Global plastics production (million tonnes)
1950	3.350	2
1960	4.380	8
1970	5.950	35
1980	7.233	70
1990	8.222	120
2000	9.915	213
2010	13.179	313
2015	14.700	381
2019	15.212	460

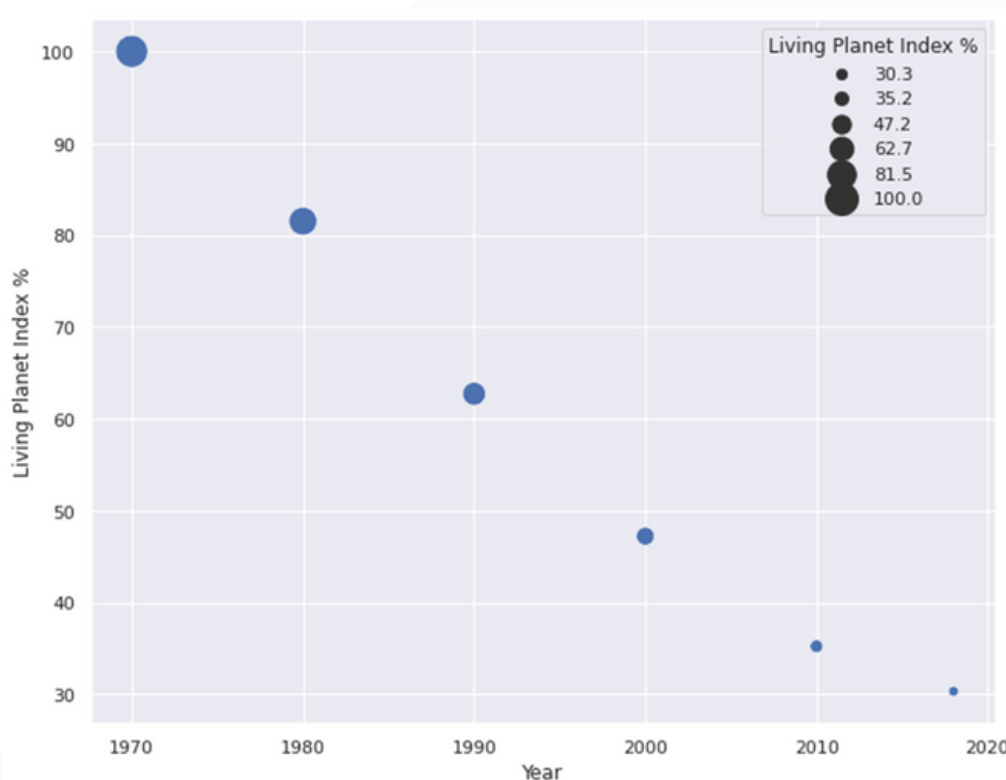
Table showing the growth of world GDP per capita and global plastic production, since 1950.

GDP per capita, 1950 to 2018 - World	
GDP per capita, 1950 to 2018 - World	1.000000
Global plastics production (million tonnes)	0.984209

Table showing the correlation of world GDP per capita growth and global plastic production, since 1950.

On the basis of the above data, it can be concluded that there is a close relationship between the growth of global GDP per capita and the global production of plastic. The correlation is as high as 0.984. This means that the two quantities are very closely related and it increases almost by unit.

Now let's look at how human activities affect biodiversity...



Source: Living Planet Index, World

(...) thousands of studied animal populations. It distills this change into a single number. Since 1970, then, the size of animal populations for which data is available have declined by 69%, on average!

The Living Planet Index tries to summarize the average change in population size of tens of thousands of studied animal populations. It distills this change into a single number. Since 1970, then, the size of animal populations for which data is available have declined by 69%, on average!

However, it is worth mentioning that the decline for some populations is much larger; for some, it's much smaller.

Biodiversity loss can have significant direct impacts on human health if ecosystem services are no longer sufficient to meet societal needs. Indirectly, changes in ecosystem services affect livelihoods, income, local migration and sometimes can even cause or exacerbate political conflicts.

One recent analysis found that approximately 60% of total global biodiversity loss for bird and mammal species has occurred in just seven countries between 1996 and 2008 – Indonesia, Malaysia, Papua New Guinea, China, India, Australia and the USA, where the majority has occurred on the islands of Hawaii.

Let's take a closer look at Indonesia which is known for its lush rainforests and exotic animals. Just 120 years ago, an estimated 84% of Indonesia was forested, with that number having fallen to 54% by 2015. Between 1990 and 2015 alone, almost a quarter of all the forested area in Indonesia was destroyed. Between 2014 and 2015, just under two FIFA regulation football pitches were lost in every minute, of every hour, of every day. What is more, it is estimated that around 25% of Indonesia's native mammals are now endangered.

The main reason for this situation is that lumber and oil palm are Indonesia's main export products and are therefore heavily exploited. Moreover, the fault must also be sought in poor monitoring of laws. It not only causes biodiversity loss but also CO2 emission and climate change.



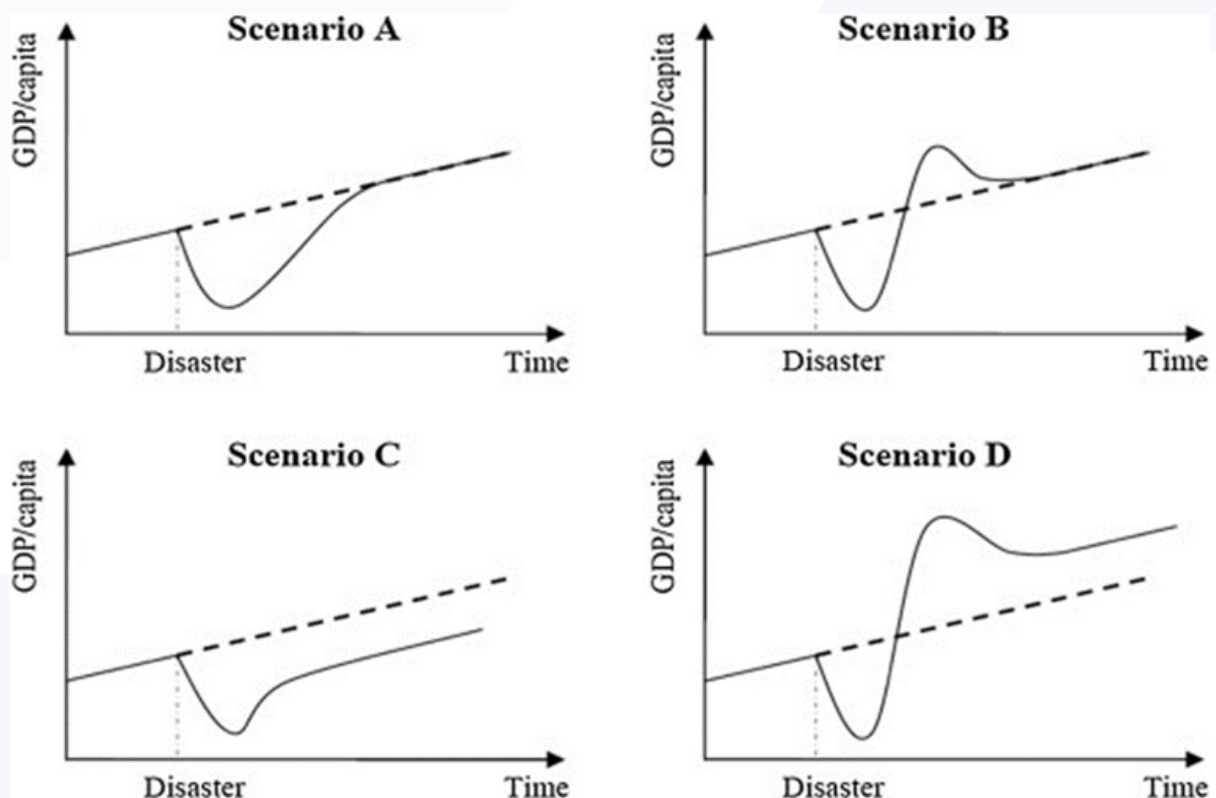
Graph showing Indonesia GDP per capita (USD) between 2001–2019.

The figures are terrifying because both plastic production and biodiversity loss are happening at an alarming rate. This rapid growth has only taken place over the last century and has already had severe effects. If it continues to increase at the rate of the exponential curve, humanity will soon experience intense effects of this situation.

So what if there is an increase in GDP if along with it humanity destroys the natural environment, which may soon be unfit for proper functioning. Humanity is myopia, we should definitely start thinking ahead.

- Natural disasters equals growth

If they happen in a developed economy like the United States then they end up providing a boost to the economy i.e. they increase the GDP numbers. However, if the same disaster were to happen in a country like Afghanistan it would end up diminishing the economy i.e. reducing the GDP numbers. The huge construction activity and the vast resources that are required to rebuild what has been destroyed contribute to the increase in GDP. All the land, labor, capital and enterprise that are used to rebuild the broken infrastructure are added to that year's output, resulting in an increase in GDP. Therefore, countries such as the United States, which may have the resources to rebuild broken infrastructure, experience an increase in GDP when these disasters occur, but less developed economies that can't accumulate such resources in a short time experience a decrease in GDP. It is why, it turns out that climatic disasters in developing countries have the most significant adverse impact on economic growth. The pertinent example is Pakistan. The costly consequence of the 2022 climate crisis was flooding. As a result, at least 1.7 thousand people died and the losses caused by it have been estimated at at least USD 15 billion – it is more than 4.5 percent Pakistan's GDP.



In the chart above, we see possible scenarios after a natural disaster. In very highly developed countries, scenario D is most likely, whereas in developing countries, scenario C.

In the first phase, in developed countries, immediately after the disaster, there is a loss of supplies in the affected area. After hurricanes, oil spills or floods, people, land, buildings and other resources no longer provide the same level of production. However, the quantitative impact of this first round is small, particularly when the disaster happens to a large diversified economy like that of the United States. Following the unnatural disaster of the World Trade Center destruction, there was little sign of an impact on overall U.S. GDP. What happens in the next round depends on the way the country or region responds to the crisis.



(...) the disaster at the BP oil field in the Gulf of Mexico in the year 2010. The damage caused by it increased the "income" of the average American by \$300.

For example, the earthquake and tsunami in Japan destroyed a lot of factories and homes and Japan's GDP loss from the earthquake is estimated at 0.7 percent to 3.0 percent. However, Japan is a strong economy and has the resources to start rebuilding quickly. It is expected that Japanese GDP will rebound as production is restored to damaged factories. Japan has pledged to rebuild the destroyed housing and social infrastructure and this increase in government spending will likely boost the economy.

On the other hand, some may believe that natural disasters contribute to a decline in GDP through lower demand. However, it is worth noting that demand doesn't fall, it just shifts over time. People, for example, store supplies before a hurricane, which leads to significantly higher demand in this period, then during the disaster, we can see a temporary collapse in demand, which immediately after it increased rapidly.

The most famous example of catastrophe that contributed to an increase in GDP is USA's participation in World War 2. It is widely known that it helped its economy come out of the Great Depression.

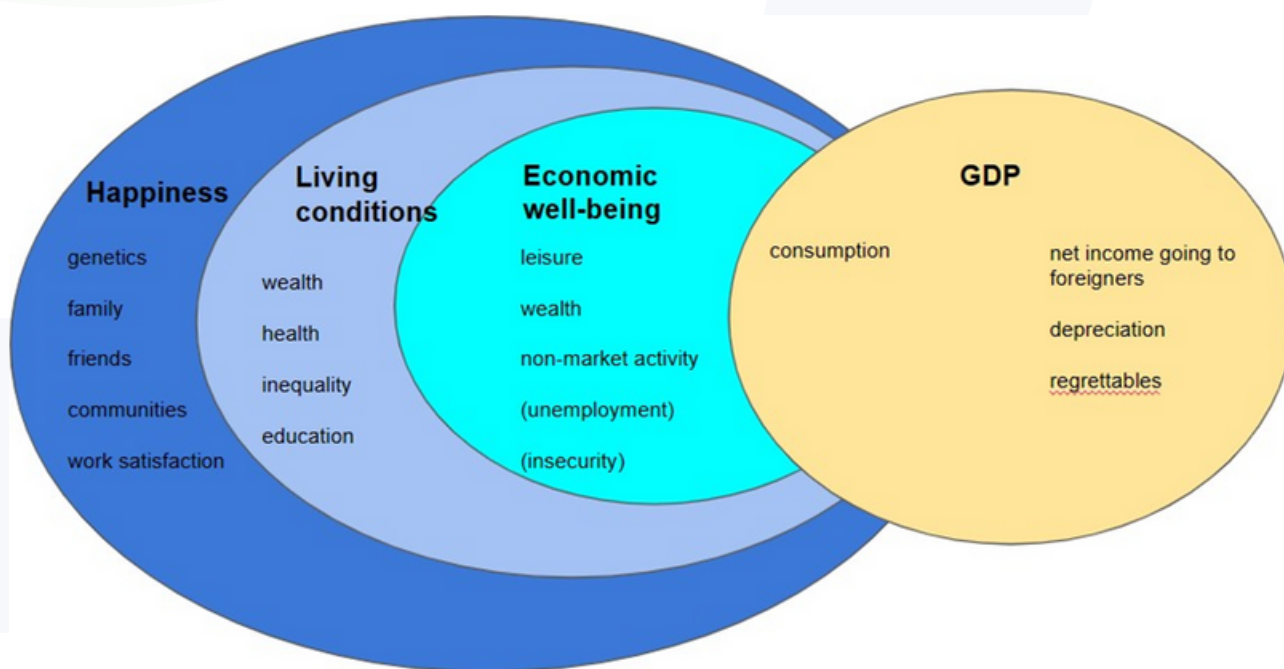
It is also worth mentioning the disaster at the BP oil field in the Gulf of Mexico in the year 2010. The damage caused by it increased the "income" of the average American by \$300. The disaster created a demand that gave jobs to thousands of people. They dealt with such works as the disposal of pollutants or stopping the leakage.

The irony of this situation is the asymmetric treatment of losses and gains. Losses are simply omitted from the calculation while gains are fully included. However, GDP is not a fair and logical system.

In addition, labor is one of the main resources of any economy. Natural disasters cause thousands of displacements, deaths and disabilities. Accordingly, labor productivity is seriously affected. Of course, this also applies to other means of production, but labor has suffered the most. What's more, natural disasters bring great misfortune and suffering. People are losing family and friends, so GDP growth can't be equated with a more prosperous society.

Such examples can be enumerated, but the conclusion is one – human misery leads to an increase in GDP.

- GDP doesn't include well-being

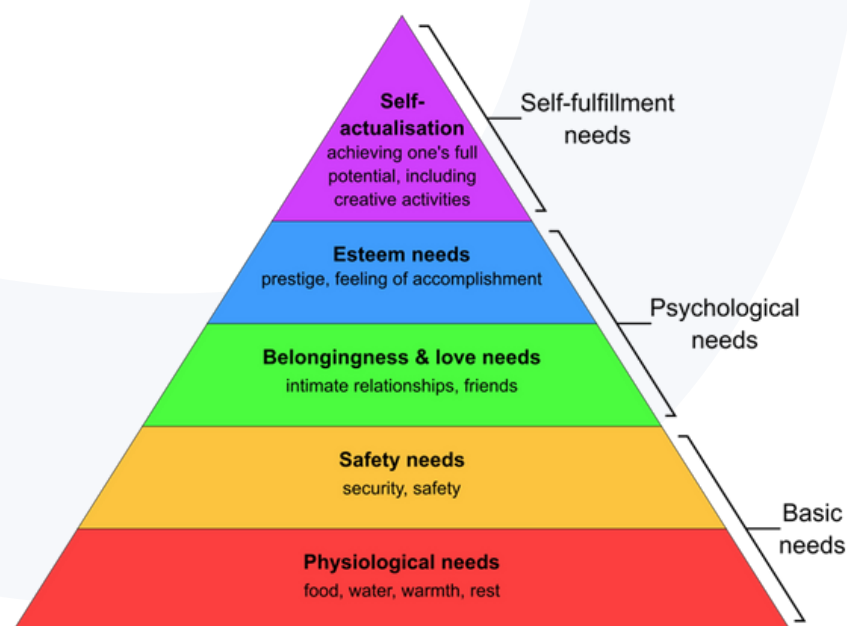


Leisure time

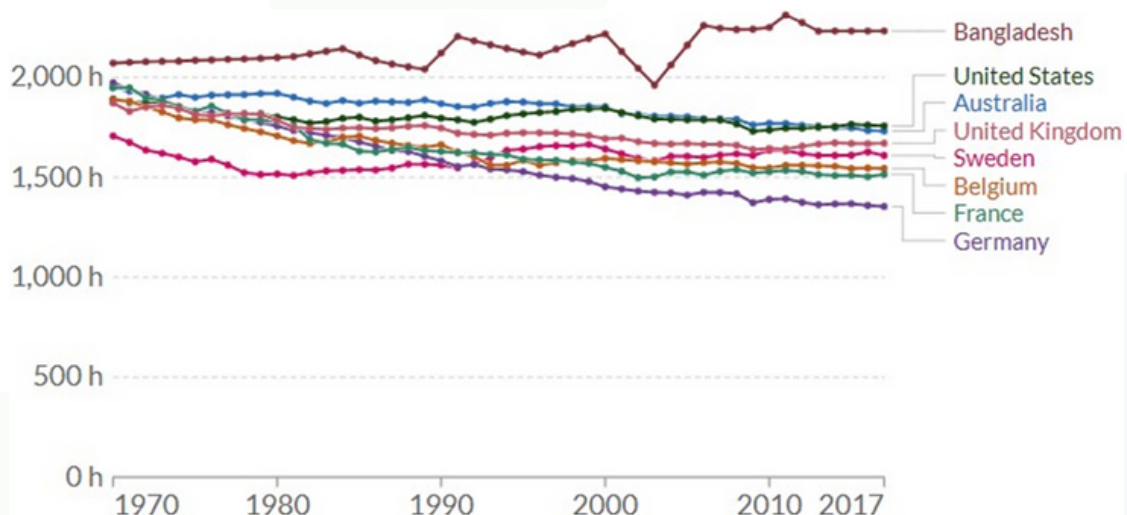
Numerous empirical studies have confirmed that more free time can improve well-being. Leisure, such as time with family and friends, hobbies, and exercise, is what makes our lives happy and healthy. People can then devote themselves to their passions, charity, or spend time with loved ones and meet their social needs.



From Maslow's pyramid, we see that the need for belonging, esteem, and self-actualization has an important function. A person can satisfy them to a greater extent when I have more free time. Once the physiological and safety needs are met, a person should consider the opportunity cost of an hour of free time and the amount of money he or she can earn by spending that hour at work.



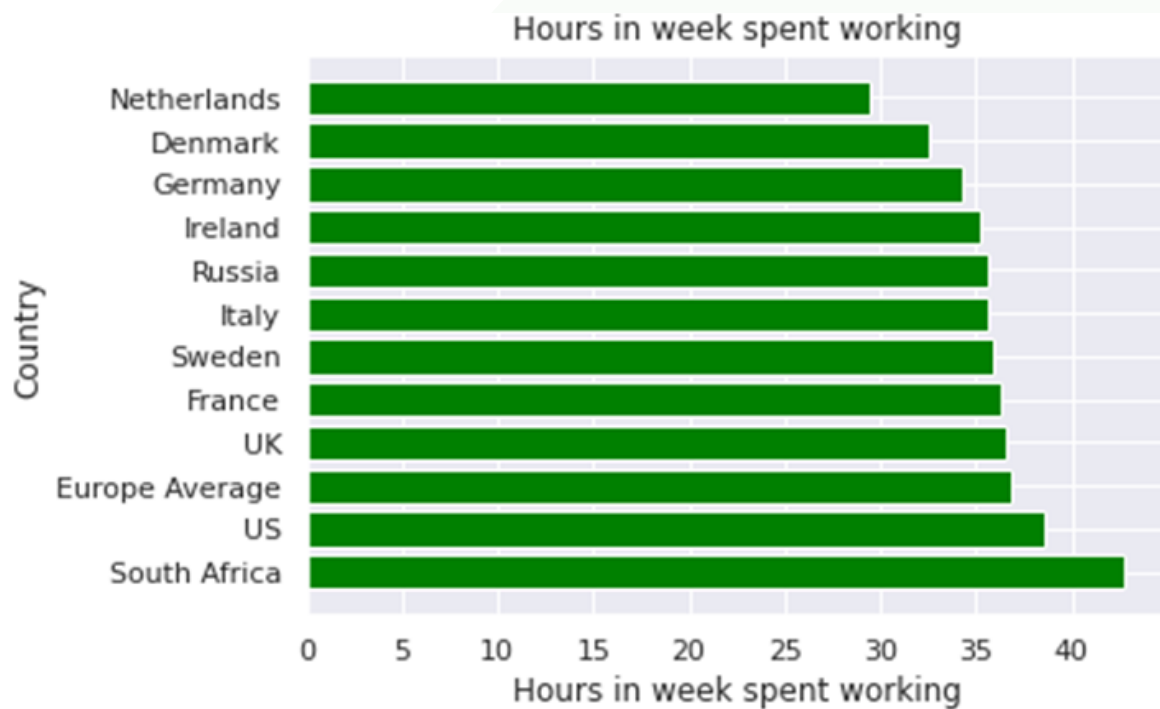
In the 19th century people across the world used to work extremely long hours, but in the last 150 years working hours have decreased substantially, particularly in today's richest countries. In Germany, for example, annual working hours decreased by nearly 60% – from 3,284 hours in 1870 to 1,354 hours in 2017 – and in the UK the decrease was around 40%. It is mainly the result of productivity growth and technological innovation.



Average working hours per worker over an entire year, source: Working Hours – Our World in Data

In Japanese, there is even a special term ‘Karōshi’ meaning death from overwork. It is estimated that about 10,000 people die of overwork in Japan.

This makes sense: as people’s incomes rise they can afford more of the things they enjoy, including more leisure and less time spent working. Though this doesn’t necessarily mean they actually do work less – workers in the US and Singapore, for instance, work many more hours than their counterparts in countries with similar productivity. Growing consumerism and the pursuit of material goods mean that people often decide to work longer at the expense of free time. People often fight over positional goods, which are a status symbol. The measure of satisfaction with their possession is comparing them to the wealth of others. In Japanese, there is even a special term ‘Karōshi’ meaning death from overwork. It is estimated that about 10,000 people die of overwork in Japan.



Graph showing the average weekly working hours per worker over.

The "hedonistic treadmill" theory is also worth mentioning. It says that as consumption increases, people will get used to more and more of it, as a consequence, the increase in consumption doesn't give greater satisfaction.



Moreover, according to Easterlin's Paradox, happiness varies directly with income at some point, but over time, the long-term growth rates of happiness and income are not significantly related. People with a higher income are not necessarily happier because they compare themselves to others. And over time, incomes increase throughout society and this offsets the positive impact of increasing one's own income, because there will always be someone who has more. What is more, higher-level needs such as the love, esteem and self-actualization needs can't be

met with money. This is why very wealthy people often engage in political or philanthropic activities. In this case, more free time that they can devote to this activity may make them happier than extra income. However, despite this, leisure time is not included in GDP. Belonging, esteem, and self-actualization needs are essential to human well-being.

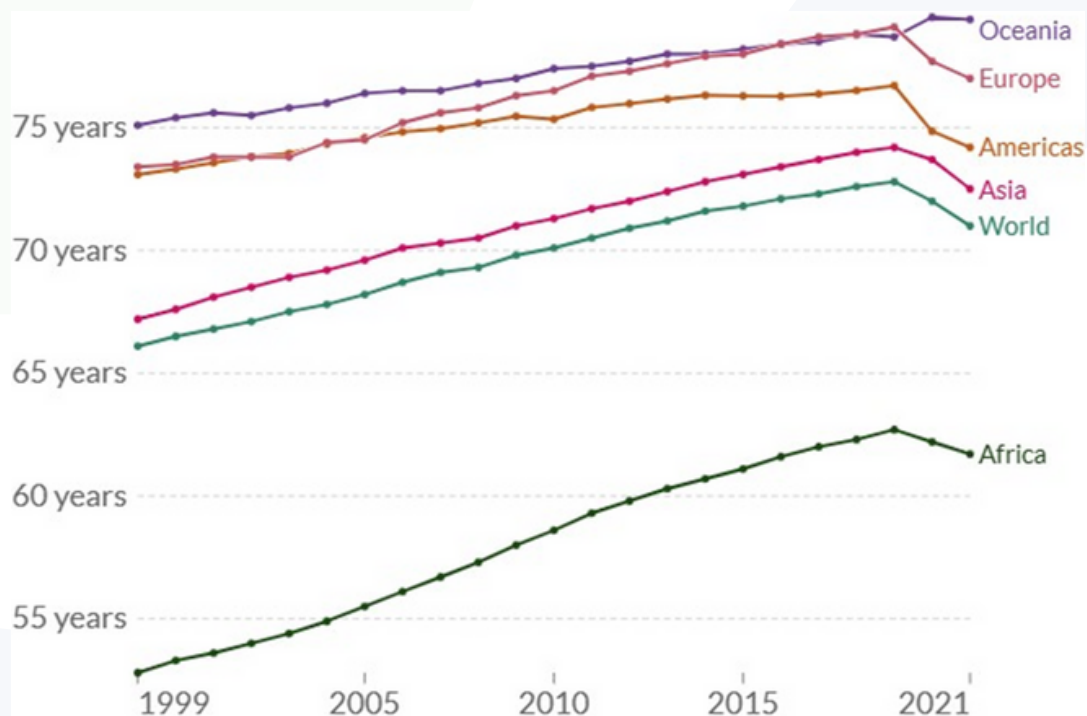
Health

Surely, health is crucial for our well-being, both physical and mental. In the pre-modern, poor world, life expectancy was around 30 years in all regions of the world. However, over modernization and industrialization the health of the population and life conditions enhanced dramatically. Epidemiologists refer to this period in which life expectancy began to increase substantially as the “health transition”.

Since 1870 life expectancy has doubled in all world regions.

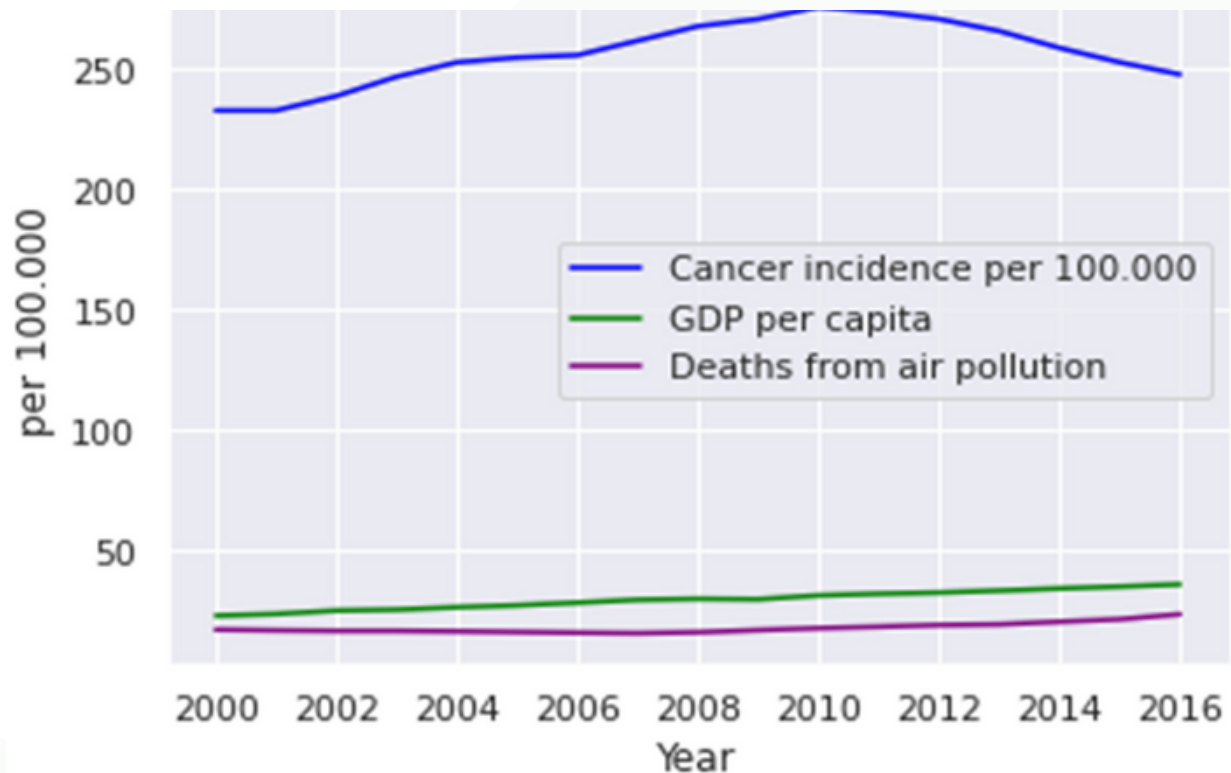
- > In Oceania life expectancy increased from 35 years before the health transition to 79 years in 2019.
- > In Europe from 34 to 79 years.
- > In the Americas from 35 to 77 years.
- > In Asia from 27.5 to 73.6.
- > And in Africa from 26 years to 63 years.

Undoubtedly, it was also related to the increase in GDP. However, in recent years it is clear that life expectancy has stopped growing and even started to decrease.



Life expectancy, 1999 to 2021, source: Life Expectancy – Our World in Data

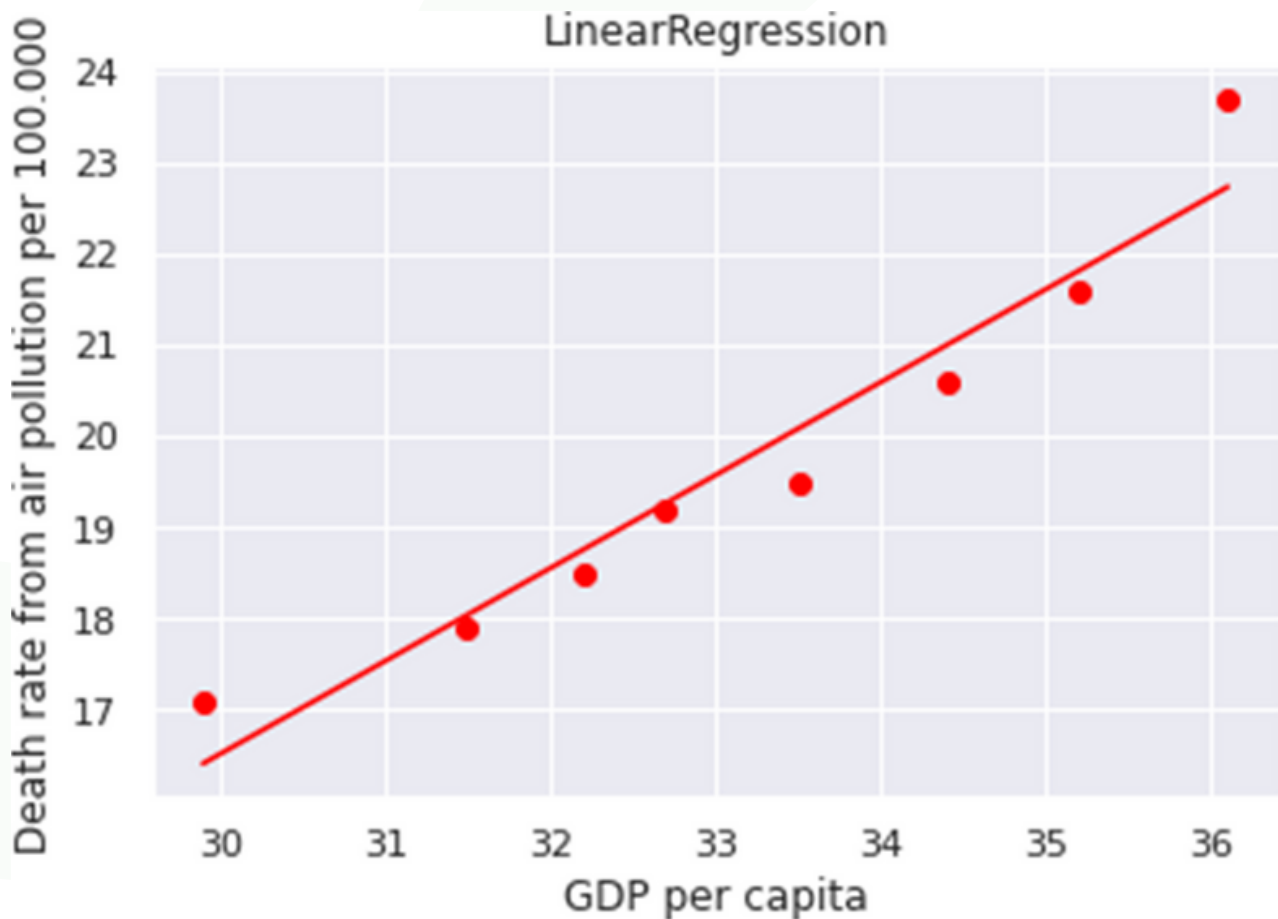
As mentioned earlier, this is mainly a result of environmental pollution and civilizational diseases, which undoubtedly have a negative impact on health, particularly in highly developed countries. Japan's situation is worth mentioning. It is the third largest economy in the world, but the negative phenomena that began to appear along with the dynamic growth of GDP are clearly visible here.



Graph showing death rate from air pollution per 100.000 GDP per capita and Cancer incidence per 100.000.

The closest relationship is between GDP per capita and deaths from air pollution, when one value increases, the other also clearly increases. This is confirmed by the Pearson correlation. It belongs to the range from 0.7 to 0.9 and means a very high correlation. On the other hand, the correlation value of cancer incidences and GDP per capita is in the range from 0.5 to 0.7 and means a high correlation. So in two cases we see a close relationship between phenomena. As GDP per capita increases, so does the number of deaths from air pollution and the number of cancer incidences.

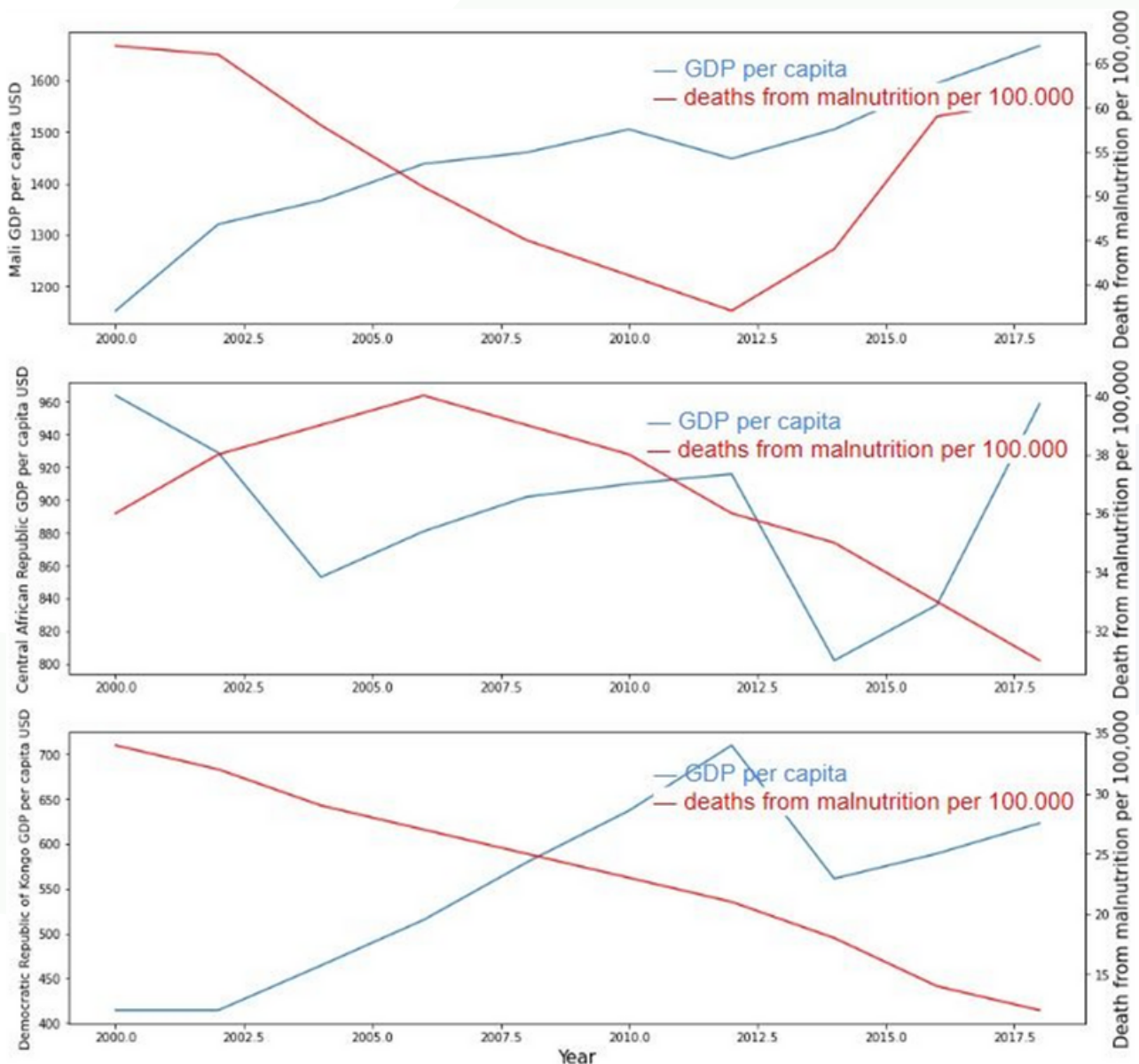
	GDP per capita
GDP per capita	1.000000
Deaths from air pollution per 100.000	0.770023
Cancer incidence	0.606026



The graph shows a linear regression between GDP per capita and the number of deaths from air pollution per 100,000 people in Japan.

Linear regression confirms the strongest relationship between GDP per capita and deaths rate from air pollution per 100,000.

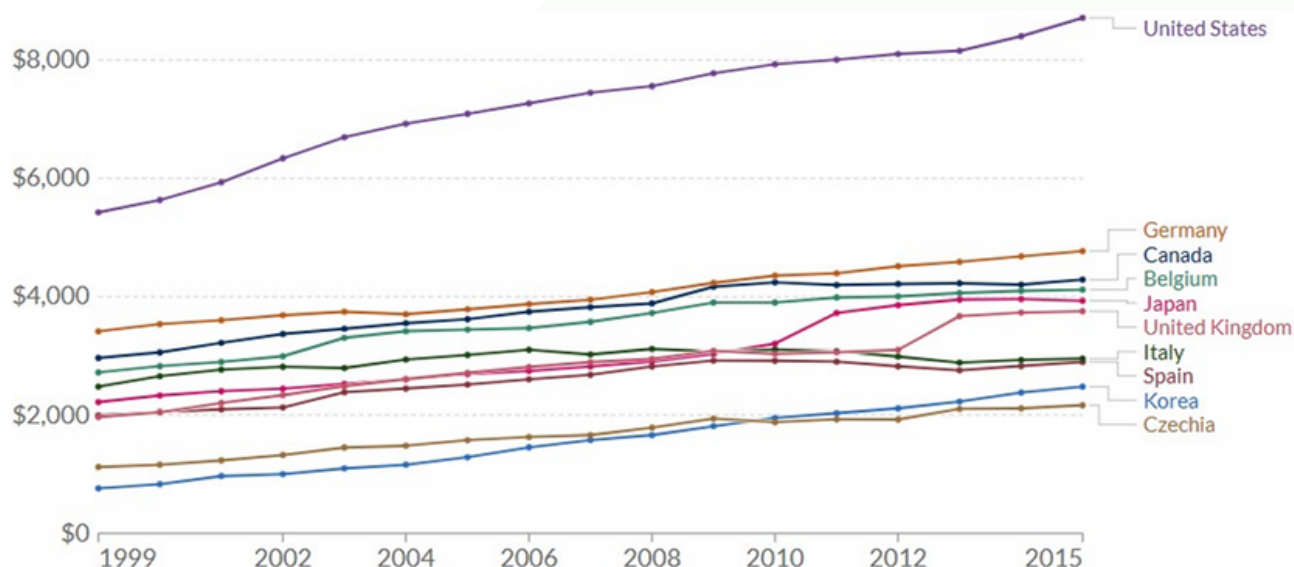
Now let's look at developing countries. There, the main cause of high mortality isn't civilization diseases, but malnutrition and lack of access to clean water.



Graph showing GDP per capita and death from malnutrition per 100.000 people in selected African countries in 2000–2018.

In the mentioned **countries of Sub-Saharan Africa, we can see a systematic increase in GDP per capita, but it doesn't result in an improvement in the welfare of the population in the form of lower deaths rate** from the reasons mentioned above. We observe a lack of dependence between these two phenomena.

Moreover, it is related to what part of this GDP is allocated to the health system or innovations that could extend life expectancy. So what if there is an increase in GDP if none of this goes to improving the health and living conditions of citizens.



Health expenditure and financing, per capita, 1999 to 2015,
source: Health expenditure and financing, per capita, 1999 to 2015 (ourworldindata.org)

The graph shows a systematic increase in the expenditure of individual countries on health care. However, there is a second problem here, that these resources are often not used effectively. That's why it doesn't always contribute to a longer lifespan.

Health economics deals with this problem. It examines the allocation of resources for health care. The costs and unpredictability of diseases make it difficult to finance them with private money.

Many countries allocate a significant percentage of their GDP to finance health care for their citizens. This is where the "free health care problem" comes in and leads to a drop in efficiency. This is due to the treatment of the smallest ailments – people go to the doctor with the smallest problem, limiting the place for those who really need it. This results in queues and rationing of services. What's more, the money is spent on something unnecessary, instead of something that could save a life. Max Gammon studied the situation in the UK in the 1970s. There was a 28% increase in public spending on health care, but the number of patients admitted fell by 11%. This was because the new budget was aimed at new rules, administrations and bureaucracies instead of improving the health conditions of patients. It is also worth mentioning that NICE (The National Institute for Health and Care Excellence) has valued a human life at about PLN 150,000, because if annual treatment costs more than this amount, he refuses treatment.

NICE National Institute for
Health and Care Excellence

Singapore boasts one of the longest life expectancies in the world. There, it is as much as 84 years, despite the fact that state spending on health care is half as much as in Canada and 70% than in the USA. Citizens mostly pay for it with their own money.

	World	Singapore
Government health expenditure as a share of GDP (%)	9.8%	2.2%
Life expectancy	72	83.7

Spending on government funded health care systems as a share of GDP in Singapore is about 345% smaller than the world average, and people live there on average 11.7 years longer!

So what is the reason behind the success of Singapore?

Firstly, the state supports the competitive model, i.e. citizens have accurate information about the market and can choose the best offer for them. Secondly, when people manage their own money rather than government resources, they allocate it more efficiently. What's more, there is a law obliging citizens to allocate 6% of their income to the MediSave fund, from which treatment will be financed if necessary.

Let's see what the situation is in other countries.

	Countries	Government health expenditure as a share of GDP	Life Expectancy
1	Germany	10.9	81.1
2	United States	16.0	77.4
3	United Kingdom	9.9	80.4
4	Japan	9.3	84.7
5	Canada	9.7	82.0
6	Australia	7.6	84.3
7	Poland	4.7	76.9
8	Mexico	3.3	70.1
9	Singapore	2.2	83.7
10	Czechia	8.1	78.6

Table showing "Life Expectancy vs spending on government funded health care systems as a share of GDP", 2020.

Life Expectancy vs spending on government funded health care systems as a share of GDP

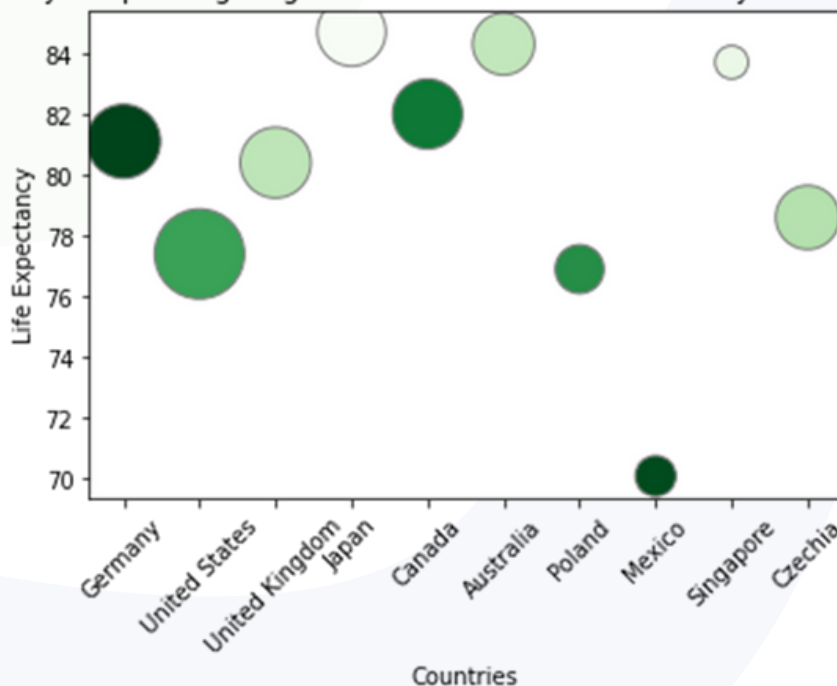


Chart showing "Life Expectancy vs spending on government funded health care systems as a share of GDP", 2020.

These examples confirm that there is no close relationship between the growth of GDP and health care expenditure and the health of citizens. As a result, GDP isn't an appropriate indicator to describe improving the health situation of citizens.

In 2021, mental health disorders were found to affect 13% of the world's population. Richer countries have higher rates of mental health issues compared to poorer countries. For example, Australia and New Zealand, both identified as high-income countries, had the highest lifetime prevalence rates of anxiety – 8% and 7.9%, respectively. Nigeria (0.1%) and Shenzhen, China (0.2%), had the lowest rates reported – both were categorized as low-income areas.

Mental health is also a substantial issue. It can have a significant effect on all areas of life, such as school, work performance, relationships with family and friends as well as the ability to participate in the community. In 2021, mental health disorders were found to affect 13% of the world's population. Richer countries have higher rates of mental health issues compared to poorer countries. For example, Australia and New Zealand, both identified as high-income countries, had the highest lifetime prevalence rates of anxiety – 8% and 7.9%, respectively. Nigeria (0.1%) and Shenzhen, China (0.2%), had the lowest rates reported – both were categorized as low-income areas.

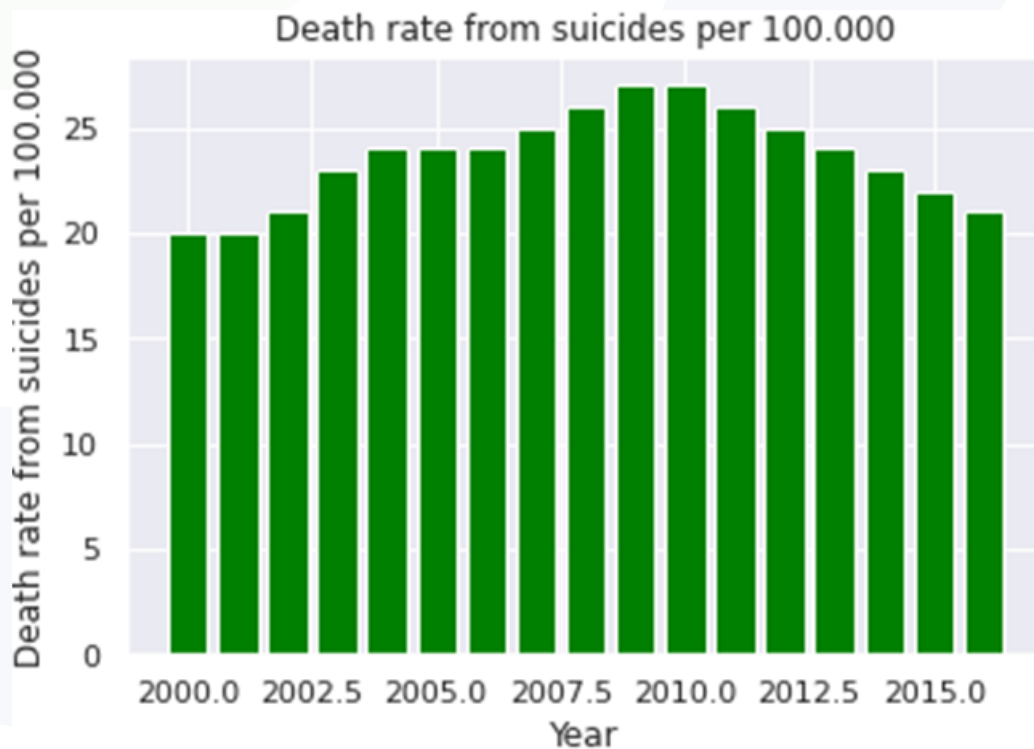
It is a result of stress, working overtime and spending less time with relatives. Consequently, it often causes depression and even suicide. Almost one million people die due to suicide every year, and it is the third leading cause of death among young people. Depression is the leading cause of years lost due to disability worldwide.

Let's go back to Japan now. In the chart below, you can see the increasing difference in suicides, right after the economic crisis in 2008. The number of marriages is also falling. People are delaying or giving up on starting a family. Without a shadow of a doubt, this phenomenon may contribute to solitude and will lead to mental health problems.



Graph showing the relationships between marriages per 1.000 people and GDP per capita.

The family is associated with additional expenses and less time that can be devoted to work, e.g. overtime. It is a common trend that people in highly developed countries lead a more consumerist lifestyle. Bertillone's law in the development of civilization also speaks about this and economic growth and economic decline naturally arises.



Graph showing deaths rates from suicides per 100.000.

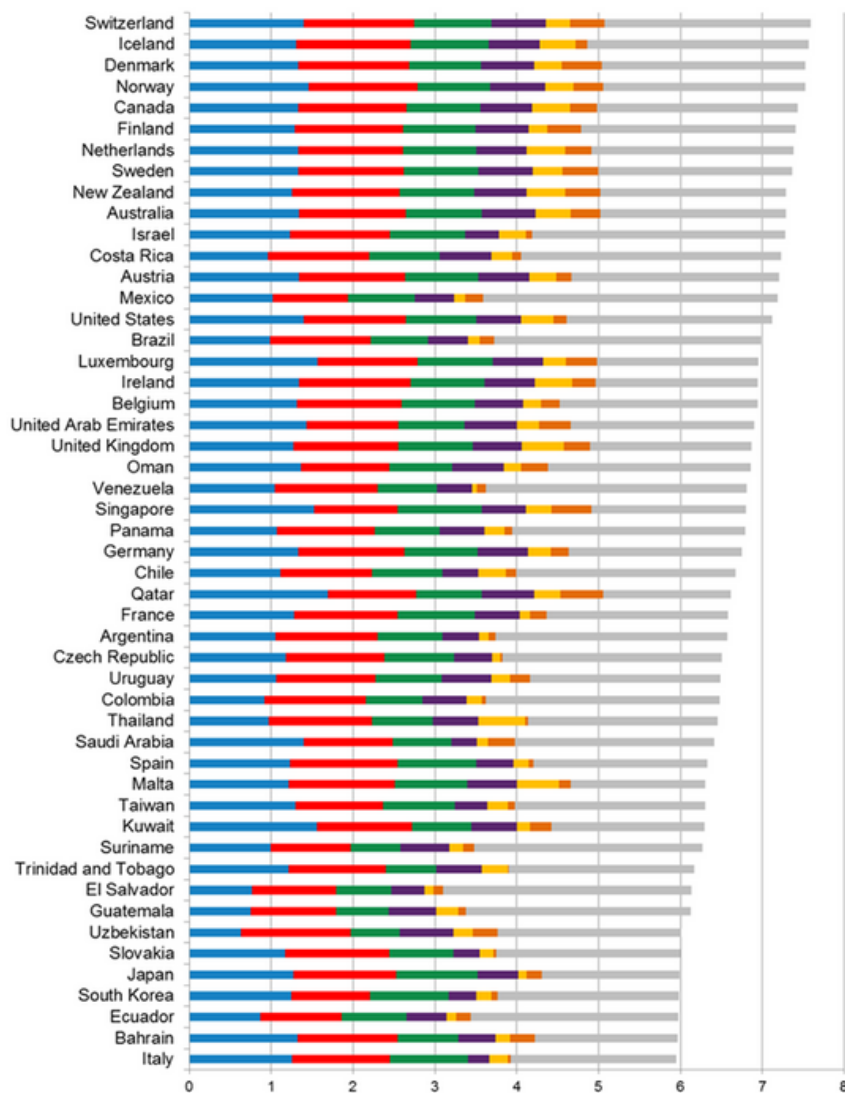
23.647058823529413

The average deaths rate from suicides in Japan between 2000 –2016 is about 23.6 people while the global average in 2016 was 9.6!

Should Japan, with the third largest nominal GDP, really be considered a country of prosperity and happiness if its suicide rate is much more higher? It is essential to think about that. This is why, Gross Domestic Product (GDP) doesn't reflect a nation's welfare.

The chart below shows what makes up the sense of happiness of citizens in given countries. As you can see, GDP is only responsible for the blue part.

The World's Happiest Countries



Source: *The World Happiness Report 2015*

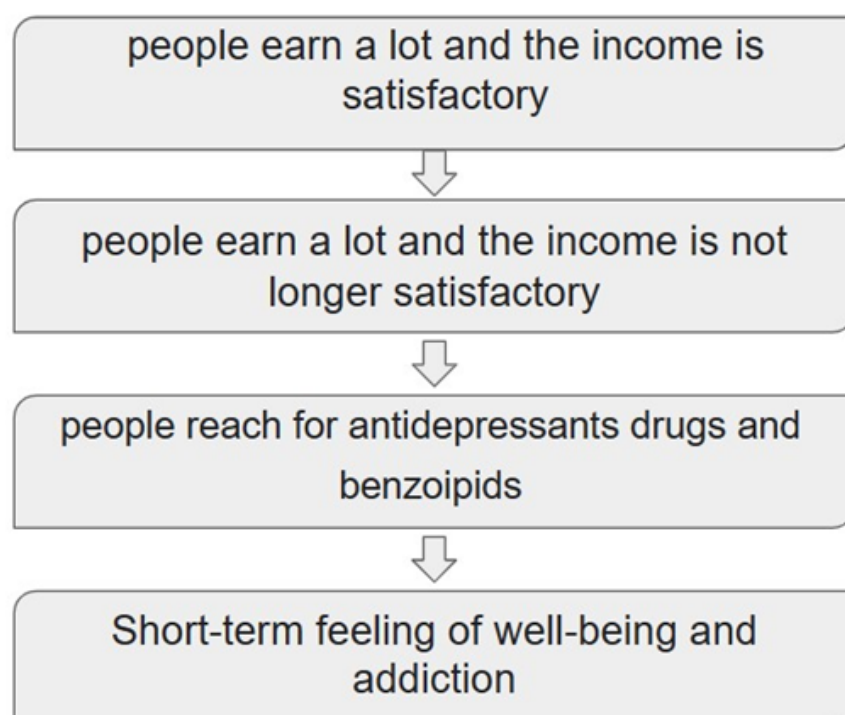
■ Explained by: GDP per capita
 ■ Explained by: healthy life expectancy
 ■ Explained by: generosity
 ■ Explained by: social support
 ■ Explained by: freedom to make life choices
 ■ Explained by: perceptions of corruption
 ■ Dystopia (2.10) + residual

- GDP includes demerit goods

It is widely known that drugs, alcohol and cigarettes have such a debilitating impact on our health. However, these are undoubtedly expensive products that contribute significantly to GDP growth. Moreover, drug-related employment is the driving force for the economy.

Let's take the UK for example. The alcohol industry is a small, but not insignificant, part of the UK economy, contributing £46 billion a year, around 2.5% of total GDP, to national income. This income is split evenly between the production and retail of alcohol. BWe estimate that the alcohol industry is responsible for around 770,000 jobs, around 2.5% of all UK employment, the vast majority of which are in pubs, clubs and bars. When it comes to the Government, it raises about £11 billion in tax revenue from alcohol excise duty in England.

These days many people, especially in developed countries, are more prone to reach for various types of drugs. It is worth mentioning that we can classify drugs in one of seven categories: central nervous system (CNS) depressants, CNS stimulants, hallucinogens, dissociative anesthetics, narcotic analgesics, inhalants, and cannabis. Drugs from each of these categories can affect a person's central nervous system and impair a person's normal faculties. People reach for such means as hallucinogens or narcotic analgesics , for example, because a higher level of income no longer gives them satisfaction, so they want to experience new sensations. However, there is a trend towards greater use of substances such as central nervous system depressants. This may be conditioned by living in constant stress and a sense of loneliness.



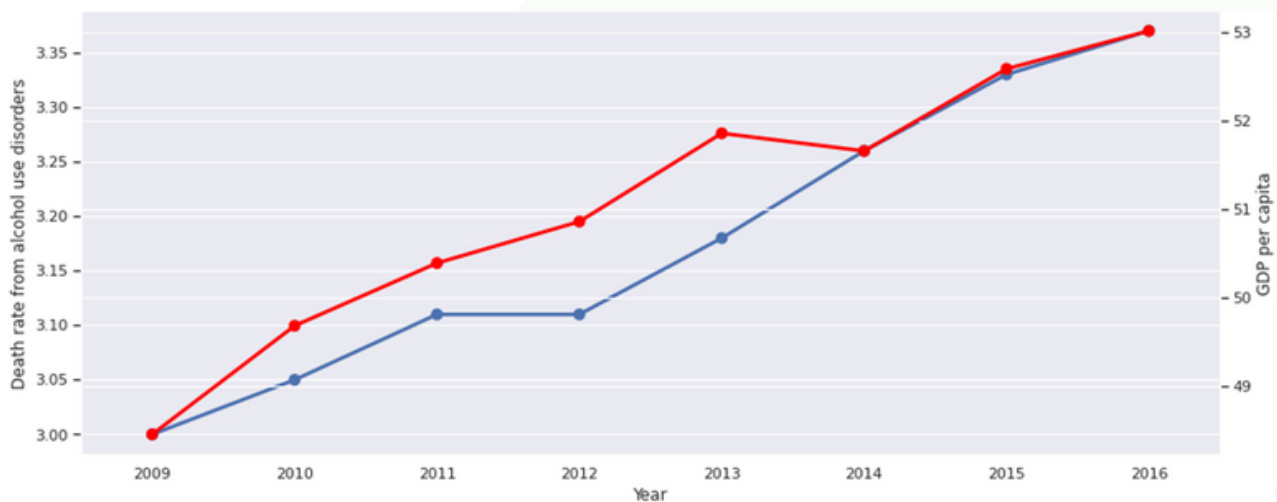
We can see the reason by referring again to Maslow's pyramid. Surely, higher-level needs such as the love, esteem and self-actualization needs can't be met with money. This is why a higher income – as long as basic human needs are met – doesn't always result in an equivalent, higher level of happiness. That's why people with a weaker psyche can look for new experiences in drugs. On the other hand, as a result of work overload and lack of loved ones, people can feel stressed and lonely. Alcohol can quickly reduce negative emotional states. However, this is only a short-term relief. Athletes, on the other hand, may turn to drugs in order to increase their abilities and achieve better results.

In addition, young people often want to impress their peers by trying these harmful substances in fear of rejection.



Furthermore, that repeal of Prohibition is worth mentioning. It is widely known that President Franklin D. Roosevelt supported this idea in order to help the Great Depression. Although the action didn't reverse the economic gloom, as some of the most optimistic west predicted, it brought \$1.35 billion – nearly half the federal government's total revenue, in 1934. It was

mainly the result of excise taxes and the prospect of new jobs needed for alcohol's production. Roosevelt famously said, "What America needs now is a drink." In 1920 Prohibition was undertaken to reduce crime and corruption, solve social problems, and improve health and hygiene in America. However, in the face of the Great Depression, the US authorities decided that GDP growth is crucial for them and put it above everything else.



Death rate from alcohol use disorders	
Death rate from alcohol use disorders	1.000000
GDP per capita	0.954170

The graph shows GDP per capita and death rate from alcohol disorders in the USA in 2009–2016.

The correlation between GDP per capita and death rate from alcohol disorders in the USA amounts to 0.954 and it signifies that there is a very strong relationship between the two indicators. An increase in one value entails an increase in the other value.

As we can see, demerit goods often exert a significant influence on GDP growth, e.g. through excise taxes. Now and then **the government deliberately, despite the harmfulness of given goods, facilitates access to them in order to increase revenues to the state budget. It is clearly visible that in this case the authorities are chasing economic growth that doesn't entail the well-being of citizens.**

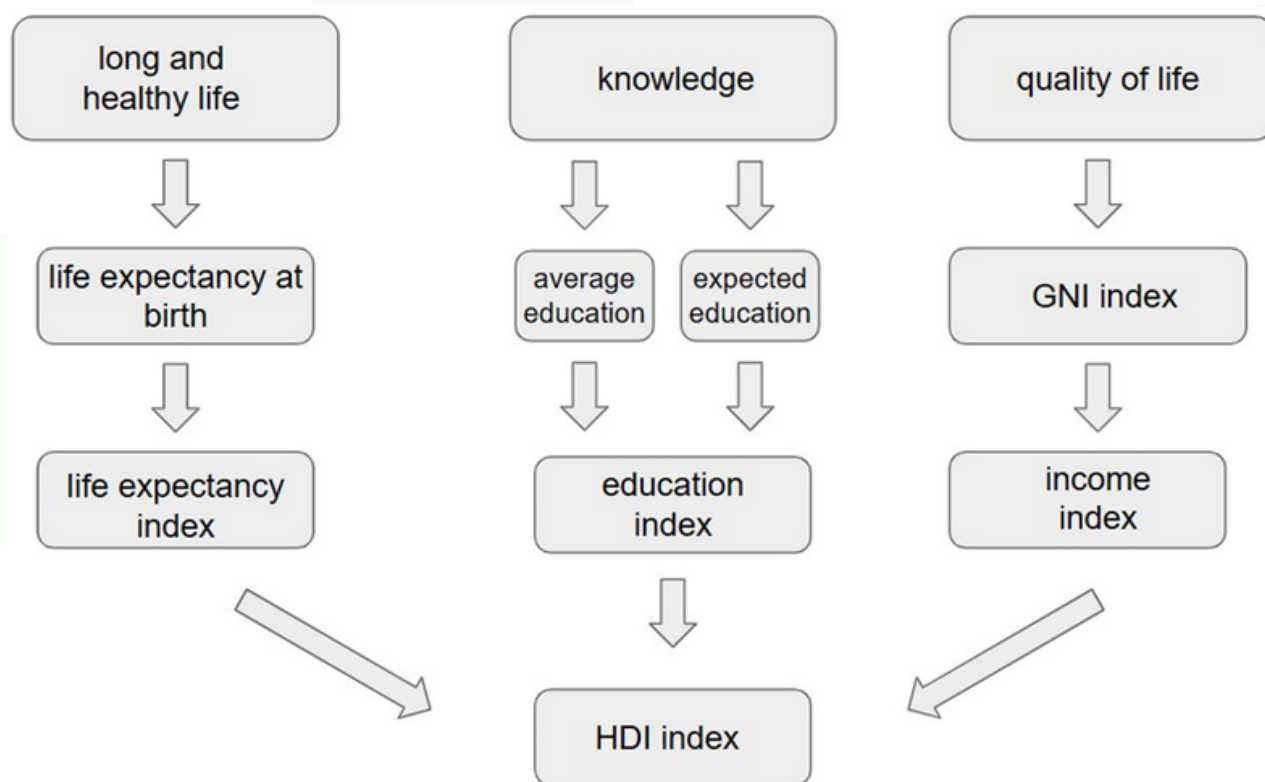
But what is NOT Gross Domestic Product?

Now that we've established that GDP is not an appropriate measure of social well-being, let's look at other possibilities.

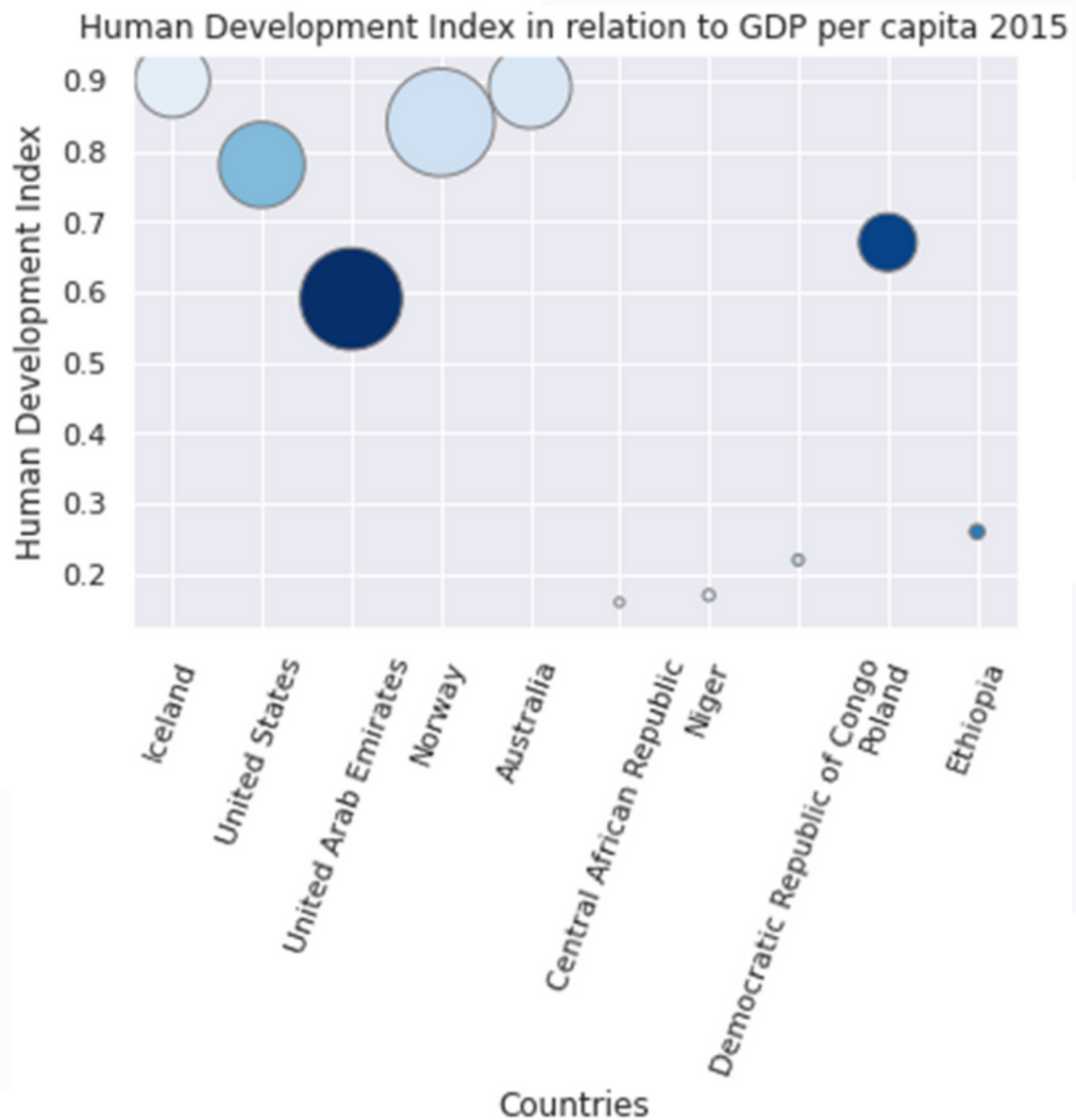
- HDI Human Development Index

It was created to take into account the development of a country, not economic growth alone. It was introduced by the U.N. in 1990. It measures human achievements in key dimensions of development. The three key dimensions are:

- A long and healthy life – measured by life expectancy.
- Access to education – measured by expected years of schooling of children at school-entry age and mean years of schooling of the adult population.
- And a decent standard of living – measured by Gross National Income per capita adjusted for the price level of the country.



The index is based on the approach to human development developed by Mahbub ul Haq, but already addressed in Amartya Sen's work on human potential, looking at whether people are able to "be" and "do" desirable things in life. Such as being: well-nourished, protected, healthy; doing: work, study, vote, social participation. Freedom of choice is key here – a distinction must be made between someone who decides to be hungry – e.g. by fasting for religious reasons, and someone who is hungry because they cannot afford to buy food.



The chart shows the Human Development Index (HDI) and Gross Domestic Product (GDP) of given countries. The size of the bubble reflects the size of GDP. As we can see, there is no strict relationship between them. Not in every case, an increase in one leads to an increase in another. HDI has a greater emphasis on human development. It takes the quality of life into account, not just the production capacity of a country. Education and health are considered as important to a country as economic power. The pertinent examples are Qatar, Kuwait and the UAE – all top 10 countries by GDP per capita, standing at first, seventh and eighth place respectively – drop quite significantly in ranking in the HDI: to 33rd, 51st and 42nd place. That is why the authorities there focus on economic growth, not socio-economic development.

However, HDI also has many disadvantages. It is a simplification and an admittedly limited evaluation of human development. The HDI doesn't specifically reflect quality-of-life factors, such as empowerment movements, overall feelings of security, gender disparity and racial inequality.

- Social Progress Index (SPI)

It measures the extent to which countries meet the social and environmental needs of their citizens. It contains 54 areas of human needs. The index combines three dimensions:

1. Basic human needs
2. Foundations of well-being
3. Opportunity

Two key features of the Social Progress Index are:

1. the exclusion of economic variables,
2. the use of outcome measures rather than inputs.

Each dimension has four components, each consisting of three to five specific indicators.

SPI is based on the writings of Amartya Sen, Douglass North, and Joseph Stiglitz. The Social Progress Index was released in 2014 for 133 countries with a second version in 2015. The EU Social Progress Index was published in October 2016. However, like any indicator, the SPI has its drawbacks. The index's measure has been criticized for using data biased against the Global South, and some critics have noted that much of the criteria are based on European values. Moreover, the criticism is that the Social Progress Index can be seen as a superset of the indicators used in earlier econometric models. Other critics point out that "there remain some dimensions that are not currently included in the SPI. These are the concentrations of wealth in the top 1 percent. population, the efficiency of the judicial system and the quality of transport infrastructure.

- Quality of Life (QOL)

It was created in 2005 by the British weekly "The Economist". This measure describes the level of subjective life satisfaction and compares it with objective factors affecting social well-being. The indicator takes into account statistical data used to present:

- material situation – GDP per capita in USD, while maintaining the purchasing power parity,
- health – average life expectancy in years,
- political stability and security – assessment of political stability and security,
- family life – divorce rate per 1,000 inhabitants, expressed on a scale from 1 (lowest divorce rate) to 5 (highest),
- community life – this variable is set to 1 if the country has a high rate of church attendance or trade union membership,
- climate and geography – latitude is a variable to distinguish between cold and hot climates,

- employment security – unemployment rate expressed as a percentage,
- political freedom – average indicators of political freedoms and civil rights; scale from 1 (completely free) to 7 (no freedom),
- gender equality – proportions of average earnings of men and women.

- Genuine Progress Indicator (GPI)

Incorporates social and environmental factors not measured by GDP, such as the cost of ozone depletion, crime or poverty on a nation's economic health. It nets the positive and negative results to decide whether economic growth has benefited the population overall, for example, balancing GDP spending against external costs. Furthermore, it assigns values to non-financial human contributions, such as volunteering. On the other hand, some finance professionals believe that non-economic variables are too subjective and consequently, GPI isn't an effective measure. Another problem is that GPI hasn't been counted in many countries yet, but we'll see how it pans out.



- Throwing Progress Index (TPI)

Provides a breakdown of holistic elements that help support thriving communities and economies. It includes a wide variety of factors – including mental and physical health, education and learning, work and local economy, and “green” infrastructure – to measure economic health. It doesn't define success purely in terms of consumption. By looking at factors such as land use, recycling and income disparity, it can also help planners understand how to better support communities. From the point of view of opponents, it may sound too radical a departure from the current GDP, widely accepted by finance professionals.

- Green GDP

It embraces broader accounting of economic development that considers the effects of pollution and resource depletion. The Green GDP adjusts the measurements by monetising environmental damage factors to help countries better understand exactly where they stand environmentally. However, governments mainly don't want their economic growth statistics to be affected by environmental factors. As a result, they may be resistant to adopting this as a GDP alternative. Moreover, it is said that putting a price on the loss of biodiversity and environmental impact of CO2 is inaccurate.



- Better Life Index (BLI)

It is made up of 80 indicators identified by the Organisation for Economic Co-operation and Development (OECD) in 1961. These range from housing, income, community and education to environment, civic engagement, health and gender differences. Apart from this, it's a handy way to see which regions around the world align you without a value system pre-imposed. One of the main drawbacks is that it doesn't contain enough economic indicators to fulfill finance professionals. Especially, BLI doesn't afford digestible raw data which are often desirable.



- Happy Planet Index (HPI)

It combines four elements – life expectancy, wellbeing, ecological footprint and inequality – to show how efficiently people in different countries are using environmental resources to lead long, happy lives. Plus point is that it is easily measurable, flexible, and applicable to many countries. Nevertheless, it assesses only 4 factors as a result, HPI fails to account for some key “happiness killers”, such as human rights violations and modern slavery.

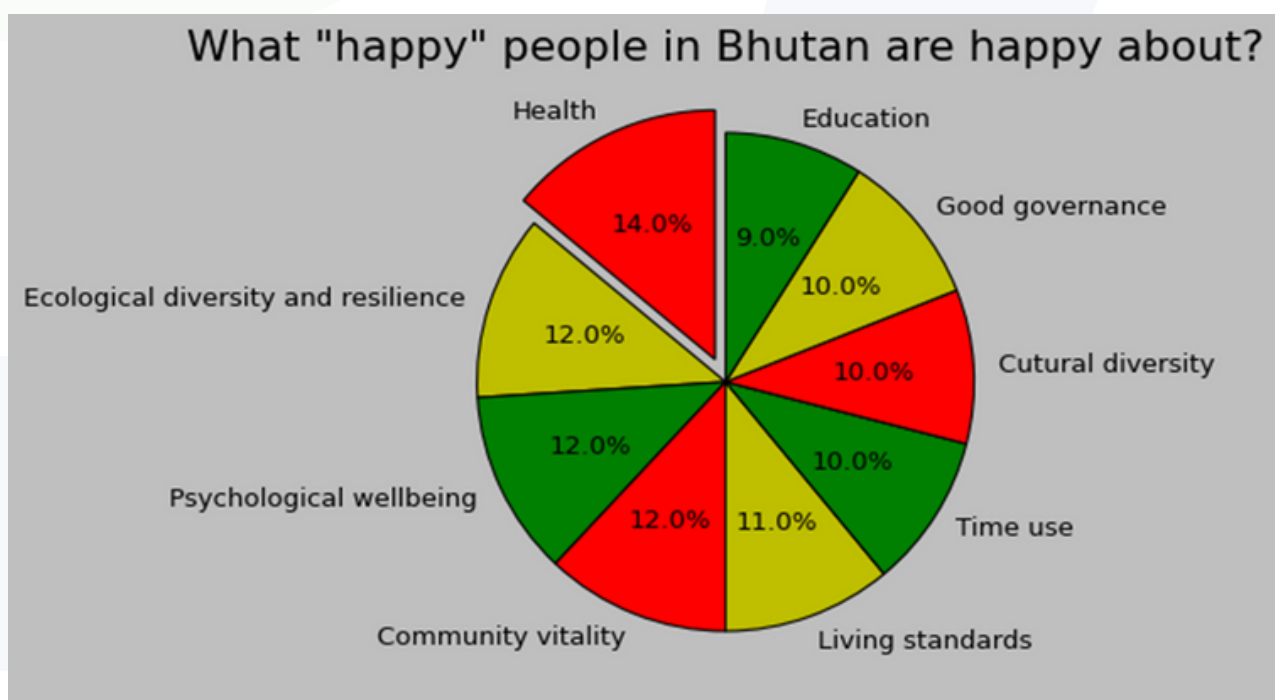
$$\text{HPI} = \frac{\text{Smiley Face} \times \text{Heart} \times \text{Scales}}{\text{Lightbulb}}$$

- Gross National Happiness (GNH).

It is based on four pillars measured by nine parameters. It assumes that every individual strives for happiness in life, so the degree of fulfillment of this aspiration should be a measure of the state's development. In 1972, the king of Bhutan, Jigme Singye Wangchuck, presented his concept of measuring national happiness. An interesting fact may be that this is probably the only index in the world created by the reigning monarch.

The ruler of Bhutan recognized that the happiness of its citizens depends on the following factors:

- fair and sustainable socio-economic development – therefore, the goal of the state should be to support and strengthen economic growth and constantly improve social conditions by increasing the availability, efficiency and quality of social services;
- protecting and promoting culture – this pillar aims to strengthen family and community institutions and promote traditional values such as tolerance and cooperation, the virtue of compassion, dignity, altruism and honor. It is also to enable the preservation of cultural heritage and the maintenance of a sense of national identity;
- protection of the natural environment – due to respect for nature and concern for future generations, the state should care for sustainable development and wisely use the Earth's resources;
- good governance – the way of governance and the system should support the individual search for happiness and internal and external freedom.



The graph shows GDP per capita and death rate from alcohol disorders in the USA in 2009–2016.

The concept of national happiness created by the ruler of Bhutan was based, among other things, on the principle of sustainable development, defined as responsible management of the Earth's resources out of concern for the good of future generations. Initially, the public was quite skeptical of such reports. Only the report "Man and his environment" by Sithu U Than (acting as the UN Secretary General) showed the scale of the threat to the public. Also published in the early 1970s, the report of the Club of Rome "Limits to Growth" contained alarming conclusions. The message of the report was clear: if we do not start to care about the state of the Earth, we are facing a catastrophe in which everyone – rich and poor alike – will lose.

A measure of this interest is the World Happiness Index (HPI) developed in 2006 by the New Economics Foundation. It is based on the assumption that the purpose of economic activity is not so much to get rich as to ensure people's health and happiness. The first place on the list of countries surveyed by this indicator is occupied by Costa Rica – a country that hardly anyone associates with prosperity. The happiest continent is South America, the most desperate is Africa.

But let's go back to Bhutan.

It is an Asian country which has one of the lowest rates of social and economic development. In the 1960s, the first national road was built here, and the Internet and television appeared only in 1999. What's more, the country has a problem with high unemployment, and one in four Bhutanese out of 800,000 lives on less than \$1.25 a day. Despite this, the 2005 census showed that 97% of Bhutanese consider themselves happy people. Research conducted by international agencies confirmed that the inhabitants of Bhutan belong to one of the most satisfied nations in the world. How is it possible that people deprived of almost everything that, in the opinion of the inhabitants of highly developed countries, determines a good quality of life, can feel fulfilled and happy?

**(...) the
purpose of
economic
activity is
not so
much to
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to ensure
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health and
happiness.**

- Natural environment – Bhutan is a mountainous land where 80% of forests are under protection. The inhabitants of Bhutan are fully aware of the natural resources of the environment. The rulers believe that in the long run, no nation will be prosperous or happy if it doesn't care about its environment or the happiness of its people.
- Cultural and spiritual wealth and tradition that hasn't yet been destroyed by human activity.
- Mindfulness – in Bhutanese culture everyone should think about death five times a day. Death is a psychologically terrifying fact, but contemplation and familiarization with it makes Bhutanese people think positively. Moreover, they simply accept it. For them, it is only one of the shades of life and its inseparable element.
- No pursuit of consumerism – Western materialism has not positively influenced the level of happiness of people, but rather increased their appetite for more, bringing ruthless competition and increasing frustration due to not obtaining the desired goods.



However, the reality of happiness in Bhutan raises doubts among some.

Firstly, they suggest that Gross National Happiness in Bhutanese terms is more a brand than a measure, a regional concept rather than a universal one, and an action aimed at reputation rather than economic policy.

Secondly, Bhutan has recently been a constitutional monarchy, but the king's de facto strong influence on society remains. This raises the question of whether respondents are allowed enough freedom to talk about such private and subjective issues as their happiness. This may even cause anxiety and the desire to satisfy the interviewer with positive answers. Moreover, only a small proportion of Bhutanese people are included in the Happiness Index. In 2015, the index covered just over 1% of the population. In the context of the far-reaching assumptions of GNH, it is difficult to consider its results representative for the entire community, and thus credible for the state's economic policy. What is more, objections can be made to the methodology and assumptions of the Gross National Happiness Index. Happiness isn't defined, the answers are highly subjective, hence the question of what information for economic policy is really provided by GNH.

As we know, happiness is also fleeting. Time range questions are very general.

It is worth to notice that the cleverness of the Kingdom of Bhutan lies in the fact that despite its micro-economy and low level of economic development, this country creates unique products (economic concepts, energy) that it can distribute widely on the international arena.

The concept of Gross National Happiness arouses wide international interest and helps to create the image of an idyllic Himalayan land of happiness. This facilitates the acquisition of investments, increasing energy exports, or development potential, e.g. in tourism. To sum up, it is worth bearing in mind that Bhutan may abuse Gross National Happiness and treat it more as a brand than an indicator, however, it is undoubtedly an interesting alternative to Gross Domestic Product.

As we see, there are many indicators measuring the quality of life today. The measurement tools used by analysts are systematically developed and improved.

Currently, statisticians agree that it is impossible to assess the quality of life with one or two parameters. When constructing the indexes, many different aspects that have an impact on the standard of living and well-being of citizens should be taken into account.

We should bear in mind that building a universal, multidimensional indicator of well-being for international comparisons is practically impossible. This is due to both the selection of data and social, cultural, economic, political or historical aspects – as well as the ambiguity of the term itself. Surely, it is troublesome to answer the question why the inhabitants of a given country are more/less happy than the inhabitants of other countries. As we can see, there are many other options that are constantly evolving.

Whether we use any of the above-mentioned index or will make up the others, what matters is that we begin to measure the success of our economies and the well-being of our societies with more diverse metrics than just GDP. It is impossible to flatten the achievements and failures of individual societies into numerical or ranking measurements.

The main problem is that people unfamiliar with economics mistakenly equate GDP growth with something desirable, whereas it isn't always true. Gross Domestic Product doesn't tell us about the well-being of citizens and many other issues. The purpose of this article is to get people to stop confusing growth in consumption with development. Because this is an issue that is often mistaken. US growing at 3% per year isn't the same as US GDP growing at 3% per year. What is also outrageous is that politicians don't say why they are striving for economic growth. They simply identify it as an aim in itself. This is then "growth for growth". I'm expanding on this topic here.

Debilitating dependence on economic growth. | LinkedIn

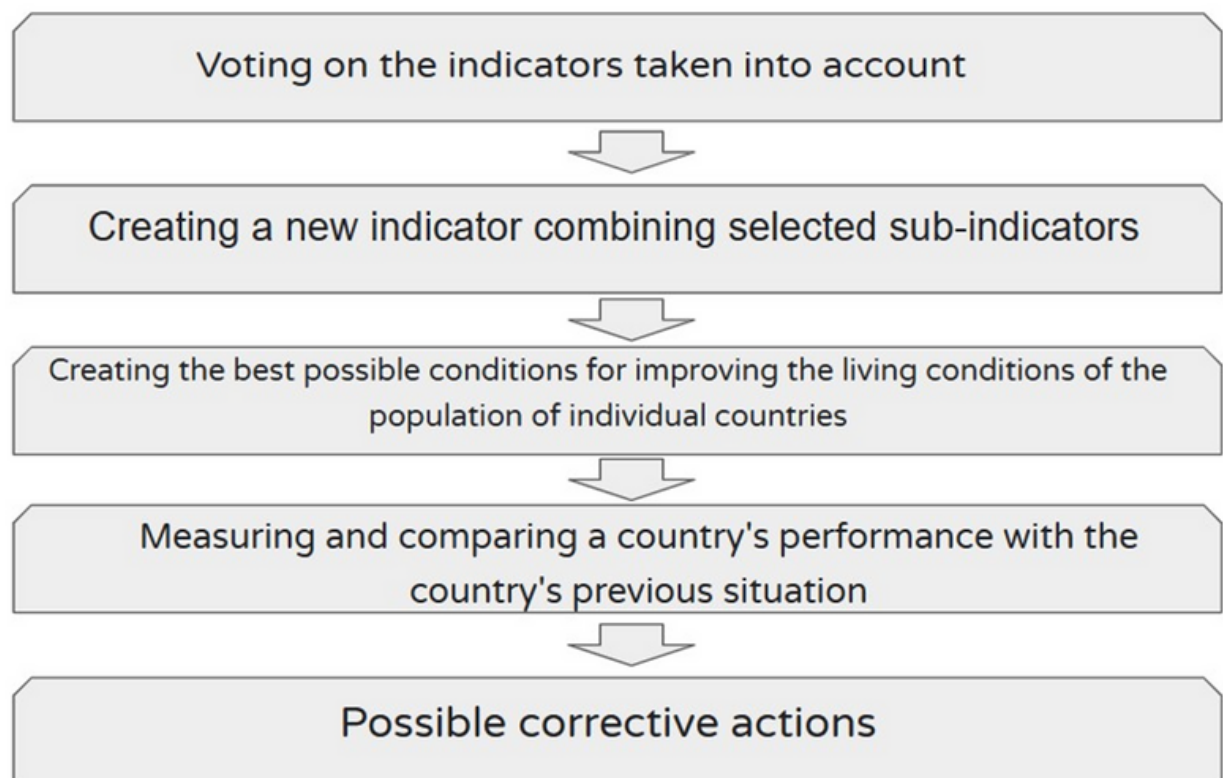
If politicians justified it with the desire to improve, for example, the life situation of citizens, better education or the state of health of citizens, maybe the situation would look different.

Ideas

One of the ideas to solve the problem of GDP as an indicator of the progress of societies is to create a new indicator that would combine other sub-indicators. As mentioned earlier, it is not possible to flatten everything to one value.

The New Society Progress Index should combine data from each category, such as: health, income, happiness, environment, social relations, political stability, leisure time, access to and education, and more. It would be a wise idea for the decision on exactly what indicators to be taken into account to be agreed by all UN countries in an equal vote. The votes of the participating countries should be equal, not dependent on GDP or other indicators. Moreover, it is significant not to measure the size of this indicator and compare countries with it, but to look at the progress that a given country makes relative to each other. Countries start at different levels, have different history, technologies, climates, human and material resources, so it is necessary to look at whether the state is developing in relation to the previous state, and not blindly follow other societies. It is worth noting that each society also has different key needs, so in a given phase of development it will focus on specific indicators. I strongly believe that a country should strive to become a better version of itself. Without a shadow of a doubt, countries with the lowest level of development should have the fastest growth in this indicator, because they start from the lowest base.

There can be many solutions to replace GDP, but it is crucial to start an international debate on this topic and start intensively working in this direction. The process of discarding GDP and replacing it with something new is likely to be a complicated and lengthy process, but undoubtedly important, so it must be started as soon as possible.



Takeaways

- GDP flattens all human activity to some numbers and tells us nothing about the well-being of society, however, politicians love it due to the fact that it makes it easy to classify countries and evaluate their performance.
- Economic growth is only a small part of socio-economic development but people often confuse these concepts.
- Instead of more durable goods, companies often produce low quality products and use artificially limited service life called planned obsolescence so as to maximize profits.
- GDP doesn't include the informal sector, non market housework and volunteer work that engaged a substantial number of people. Value of unpaid women housework equals \$10.9 trillion in 2019 and it makes the fourth largest economy in the world.
- Economic growth says nothing about distribution. Often only a few people get additional income. The richest 1% own 25% in Europe and 35-46% in North and Latin America of total wealth. Moreover, in the US – the biggest economy in the world – the number of people living in extreme poverty is increasing in recent years.
- Economic growth most often entails exploiting more and more natural resources, as a result of environmental degradation. Since 1970 the size of Animal populations for data available have declined by 69% on average.
- GDP doesn't reflect leisure time, well-being and health of society. Countries with a higher GDP do not always have better health, on the contrary – worse due to stress, air pollution and civilization diseases.
- GDP is growing due to the increased consumption of harmful goods by citizens, which are subject to high taxes and then transferred to the state budget.
- If natural disasters happen in a developed economy they end up providing a boost to the economy i.e. they increase the GDP numbers, by huge construction activity. Although they cause thousands of displacements, deaths and disabilities, natural disasters can lead to substantial increase in GDP.
- There are many other options of measures of progress of society and they are constantly evolving. Whether we use any index that already exists or will make up the others, we should measure the success of our economies and the well-being of our societies with more diverse metrics than just GDP.

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