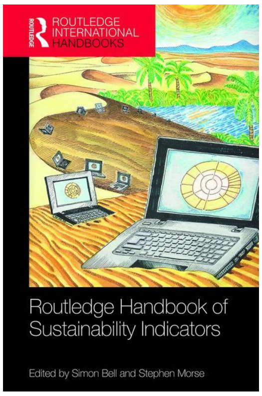

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LESSONS FROM THE HISTORY OF GDP IN THE EFFORT TO CREATE BETTER INDICATORS OF PROSPERITY, WELL-BEING, AND HAPPINESS

Robert Costanza, Maureen Hart, Ida Kubiszewski, Steve Posner, and John Talberth

There has been a long overdue flurry of recent activity in developing better indicators of national progress, prosperity, well-being, and happiness. This activity has arisen from the growing recognition of the inappropriate misuse of Gross Domestic Product (GDP) as a proxy for these goals. This article reviews the history of GDP and what we can learn from that history in creating new and better indicators of societal well-being.

For over a half century, the most widely accepted measure of a country's economic progress has been changes in GDP.[1] GDP is an estimate of market throughput, adding together the value of all 'final' goods and services that are produced and traded for money within a given period of time. It is typically measured by adding together a nation's personal consumption expenditures (payments by households for goods and services), government expenditures (public spending on the provision of goods and services, infrastructure, debt payments, etc.), net exports (the value of a country's exports minus the value of imports), and net capital formation (the increase in value of a nation's total stock of monetized capital goods).

Since its creation, economists who are familiar with GDP have emphasized that GDP is a measure of economic activity, not economic or social well-being. In 1934, Simon Kuznets, the chief architect of the United States national accounting system and GDP, cautioned against equating GDP growth with economic or social well-being. The US Bureau of Economic Analysis's description of GDP (McCulla and Smith 2007) states that the purpose of measuring GDP is to answer questions such as how fast is the economy growing? what is the pattern of spending on goods and services? what percent of the increase in production is due to inflation? and how much of the income produced is being used for consumption as opposed to investment or savings? To understand how GDP continues to be misused as a scorecard for national well-being, it is important to consider history and how the current national accounting system has evolved.

When GDP was initially developed in the US[2] in the 1930s and 1940s, the world was in the midst of major social and economic upheaval from two global wars and the Great Depression. President Roosevelt's government used the statistics to justify policies and budgets aimed at bringing the US out of the depression. As it became more likely that the US would become involved in World War II (WWII), there was a concern about whether this would jeopardize the standard of living of US citizens who were just beginning to recover from the depression. GDP estimates were used to show that the economy could provide sufficient supplies for fighting WWII while maintaining adequate production of consumer goods and services (Marcuss and Kane 2007).

The use of GDP as a measure of economic progress was further strengthened as a result of the Bretton Woods Conference. A key factor in the outbreak of WWII was economic instability in a number of countries caused by unstable currency exchange rates and discriminatory trade practices that discouraged international trade. In 1944, in order to avoid a recurrence, leaders of the 44 allied nations gathered in Bretton Woods, New Hampshire, to create a process for international cooperation on trade and currency exchange. The intent of the meeting was to "speed economic progress everywhere, aid political stability and foster peace" (UN Monetary and Financial Conference at Bretton Woods 1944). International trade would create jobs in all countries. Those jobs would provide income, allowing people everywhere to obtain adequate food, housing, medical care, and other amenities. Improving economic well-being was thus key to creating lasting world peace. Growing the economy was seen as the path to economic well-being.

The key outcomes of the meeting were the establishment of the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD – now part of the World Bank). The IMF was created as a forum for collaborative management of international monetary exchange and for stabilization of the exchange rates of countries' currencies. The World Bank was established to provide investment funds for infrastructure reconstruction and development in war-torn areas and less developed nations. In theory, the governing structures of these institutions were supposed to provide an equal voice to all member countries. In practice, because of its political and economic strength following WWII, the US dominated both institutions for the first quarter century. As a result, the US dollar, economy, and economic policies became the de facto standards against which other countries were compared. In addition, the work done by the US and UK Treasuries developing GDP methodologies for analyzing economic activity informed much of the discussion at the Bretton Woods meeting. As a result, GDP came to be used by the IMF and the World Bank as the primary measure of economic progress in the ensuing 60 years. With the restructuring of these institutions in the 1970s, the US has a less dominant position within the World Bank and the IMF; however, GDP remains the most widely cited measure of economic progress.

Economists have warned since its introduction that GDP is a *specialized* tool, and treating it as an indicator of general well-being is inaccurate and dangerous. However, over the last 70 years economic growth – measured by GDP – has become the *sine qua non* for economic progress. Per capita GDP is frequently used to compare quality of life in different countries. Governments often use changes in GDP as an indicator of the success of economic and fiscal policies. In the US, GDP is

> one of the most comprehensive and closely watched economic statistics: It is used by the White House and Congress to prepare the Federal budget, by the Federal Reserve to formulate monetary policy, by Wall Street as an indicator of economic activity, and by the business community to prepare forecasts of economic performance that provide the basis for production, investment, and employment planning.
>
> (McCulla and Smith 2007, p. 1)

Internationally, the IMF and the World Bank both use the changes in a country's GDP to guide policies and determine how and which projects are funded around the world.

Today, GDP in particular, and economic growth in general, is regularly referred to by leading economists, politicians, top-level decision-makers, and the media *as though* it represents overall progress. In fact, a report released by the World Bank states that long-term high rates of GDP growth (specifically a doubling of GDP each decade) is necessary to solve the world's poverty problem (Commission on Growth and Development 2008, p. 1). Essentially, this is like measuring a building's energy use and saying that the more electricity used, the better the quality of life of the building's inhabitants. Although electricity powers some of life's amenities, a higher electric bill, as many people are beginning to find out, does not equate to a better life.

In presenting GDP to Congress in 1934, Simon Kuznets discussed its uses and limits. After presenting an itemized list of the things measured by the GDP, Kuznets noted, "The boundaries of a 'nation' in 'national' income are still to be defined; and a number of other services, in addition to those listed above, might also be considered a proper part of the national economy's end-product". He went on to list "services of housewives and other members of the family", "relief and charity", "services of owned durable goods", "earnings from odd jobs", and "earnings from illegal pursuits" among others (Kuznets 1934, pp. 3–5). His stated reasons for excluding these things from the GDP largely boil down to his intent that GDP be a precise and above all a *specialized* tool, designed to measure only a narrow segment of society's activity. This is reflected in his fear that the simplicity of the GDP makes it prone to misuse:

> The valuable capacity of the human mind to simplify a complex situation in a compact characterization becomes dangerous when not controlled in terms of definitely stated criteria. With quantitative measurements especially, the definiteness of the result suggests, often misleadingly, a precision and simplicity in the outlines of the object measured. Measurements of national income are subject to this type of illusion and resulting abuse, especially since they deal with matters that are the center of conflict of opposing social groups where the effectiveness of an argument is often contingent upon oversimplification.
>
> (Kuznets 1934, pp. 5–6)

Because GDP measures only monetary transactions related to the production of goods and services, it is based on an incomplete picture of the system within which the human economy operates. As a result, GDP not only fails to measure key aspects of quality of life; in many ways, it encourages activities that are counter to long-term community well-being.

Of particular concern is that GDP measurement encourages the depletion of natural resources faster than they can renew themselves. Another concern is that current economic activity is degrading ecosystems thereby reducing the services that, until now, have been provided to humans virtually for free. In 1997, research by Costanza and colleagues estimated that the world's ecosystem provides benefits valued at an average of US$33 trillion per year. This is nearly double the total *global* economic GDP at the time as measured by NIPA (Costanza et al. 1997). However, in GDP terms, clear-cutting a forest for lumber is valued more than the ecosystem services that forest provides if left uncut. These services – including biodiversity habitat, reducing flooding from severe storms, filtration to improve water quality in rivers and lakes, and the sequestration of carbon dioxide and manufacture of oxygen – are not part of the market economy and as a result are not counted in GDP. As Herman Daly, formerly the senior economist at the World Bank, once commented, "the current national accounting system treats the earth as a business in liquidation" (cited in Cobb et al. 1995, digital edition).

Text Box

"Our Gross National Product . . . counts air pollution and cigarette advertising, and ambulances to clear our highways of carnage. It counts special locks for our doors and the jails for the people who break them. It counts the destruction of the redwood and the loss of our natural wonder in chaotic sprawl. It counts napalm and counts nuclear warheads and armored cars for the police to fight the riots in our cities . . . and the television programs which glorify violence in order to sell toys to our children. Yet the gross national product does not allow for the health of our children, the quality of their education or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country, it measures everything, in short, except that which makes life worthwhile. And it can tell us everything about America except why we are proud that we are Americans". Robert F. Kennedy, speech at the University of Kansas, March 18, 1968 (Kennedy 1968)

Another concern about GDP as a measure of progress is what is known as the 'threshold effect.' As GDP increases, overall quality of life increases, but only up to a threshold point. Beyond this point, increases in GDP often result in no further increases or even decreases in well-being. This is due to the fact that the benefits provided by the increase in expenditures are offset by the costs associated with income inequality, loss of leisure time, and natural capital depletion (Max-Neef 1995, Talberth et al. 2007, Kubiszewski et al. 2013). In fact, an increasingly large and robust body of research confirms that beyond a certain threshold, further increases in material well-being are poor substitutes for community cohesion, healthy relationships, knowledge, wisdom, a sense of purpose, connection with nature, and other dimensions of human happiness (Kubiszewski et al. 2013). A strikingly consistent global trend suggests that as material affluence increases, these critical components of psychic income often decline amidst rising rates of alcoholism, suicide, depression, poor health, crime, divorce, and other social pathologies (McKibben 2007).

In addition, GDP also conceals a growing disparity between the haves and have-nots. Income disparity has been linked to poorer overall health in a country, decreased worker productivity, and increased social unrest (Bernasek 2006, Wilkinson and Pickett 2009).

> A highly unequal distribution of income can be detrimental to economic welfare by increasing crime, reducing worker productivity, and reducing investment. Moreover, when growth is concentrated in the wealthiest income brackets it counts less towards improving overall economic welfare because the social benefits of increases in conspicuous consumption by the wealthy are less beneficial than increases in spending by those least well off.
>
> (Talberth et al. 2007, p. 2)

The way forward

At the time it was conceived, GDP was a useful signpost on the path to a better world: a path where increased economic activity provided jobs, income, and basic amenities to reduce worldwide social conflict and prevent a third world war. That economic activity has created a world very different from the one faced by the world leaders who convened at Bretton Woods in 1944. We are now living in a world overflowing with people and man-made capital, where the emphasis on growing GDP and economic activity is leading the world back towards increasing conflict and environmental degradation. As Herman Daly said:

> Economists have focused too much on the economy's circulatory system and have neglected to study its digestive tract. Throughput growth means pushing more of the same food through an ever larger digestive tract; development means eating better food and digesting it more thoroughly.
>
> (Daly 2008, p. 2)

Now, the world is in need of new goals, goals with a broader view of interconnectedness of long-term, sustainable economic, social, and ecological well-being. We also need new ways to measure progress towards those goals. There is a need for a global dialogue on these issues.

In any new context, we first have to remember that the goal of an economy is to sustainably improve human well-being and quality of life. Material consumption and GDP are merely means to that end, not ends in themselves. We have to recognize, as both ancient wisdom and new psychological research tell us, that material consumption beyond real need can actually reduce overall well-being. Such a reorientation leads to specific tasks. We have to identify what really does contribute to human well-being, and recognize and gauge the substantial contributions of natural and social capital, both of which are coming under increasing stress. We have to be able to distinguish between real poverty in terms of low quality of life versus merely low monetary income. Ultimately we have to create a new vision of what the economy is and what it is for, and a new model of development that acknowledges the new full-world context (Costanza 2008).

To solve this problem, the time is right to embark on a new round of consensus-building that will re-envision what was institutionalized over the last 65 years. The consensus is already clear about the need for (1) new goals with a broader view of interconnectedness among long-term, sustainable economic, social, and ecological well-being; (2) better ways to measure progress towards international goals; (3) and an invigorated campaign for the realization of this evolved economic system. What is missing is a "New Bretton Woods". This series of meetings would function somewhat like the original Bretton Woods meetings in that they would set the goals, institutions, and measures for progress at multiple scales, from communities to states, countries, and the whole world. There would be major differences with the original Bretton Woods meetings, however. The new meetings would have additional clarity of purpose: to create solutions to today's global challenges, with care to bring onboard all the new thinking about what progress is and how to measure it. The goal of such a series of meetings would be broad consensus, with broad participation, high-level input, and transparent discussion and incorporation of the various complex measurement issues.

One method of building consensus is to create a global shared vision that is both desirable to the vast majority of humanity and ecologically sustainable (Prugh et al. 2000, Costanza and Kubiszewski 2013). Envisioning can also be seen as a key, but often missing, element in a true democracy. Democracy is about much more than simply voting for representatives. It is about building consensus around the kind of world we really want. The New England town meeting is a good example of real democracy. It is a gathering where an entire town sits down, once a year, to discuss where they are, where they want to go, and how to get there. Can we scale up this process? In order to do that, we need an ongoing discussion about how that world might look. Global communications made possible by the Internet might make sharing visions and scaling up real democracy possible.

As ecological, economic, and social crises deepen, we desperately need new visions of a sustainable and desirable world and ways to measure progress toward those visions. Isolated initiatives will not form an adequate response to our interconnected plights. Envisioning must also be seen as an ongoing process in which community members collectively identify shared values, describe the future they seek, and develop a plan to achieve common goals. Meeting these goals will require ways to measure progress that have as broad a consensus and are therefore as influential as GDP has been in the past.

Only after such a broad consensus is achieved about alternative indicators will it be possible to move beyond GDP to measures of what we really want and to achieve these goals.

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Notes

1 The Gross National Product (GNP) is another frequently mentioned measure of economic progress. The difference between GDP and GNP is the production boundaries used. GDP measures all goods and services produced in the country whether by domestic or foreign companies. It excludes goods and services produced in other countries. GNP measures all production by domestic companies regardless of where in the world that production takes place. Because its boundaries coincide with the boundaries used to measure a country's population and employment, GDP is more useful for setting domestic policies and evaluating programs. To simplify the discussion in this document, the term GDP will be used throughout this paper to refer to the measure of economic activity although at times in the past, the actual measure used was GNP.

2 Work by the US and UK Treasuries in the 1930s and 1940s was the foundation of National Income and Product Accounts (NIPA) and GDP methodologies. Since then the work has been expanded on by many nations and has been formalized in the System of National Accounts (SNA) 1993 documentation available at http://unstats.un.org/unsd/nationalaccount/

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