**Ongoing Discussion "Thought Piece"**

# *The Most Powerful Number: The Dark Side of GDP*

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***The most powerful number: the dark side of GDP***[1]

> If ever there was a controversial icon from the statistics world, GDP is it.
> It measures income, but not equality, it measures growth, but not destruction,
> and it ignores values like social cohesion and the environment.
> Yet, governments, businesses and probably most people swear by it.
> Organization for Economic Cooperation and Development (OECD)[2]

There is no doubt that the gross domestic product (GDP) is the best-known 'number' in the contemporary world and an extremely powerful political tool. Over the course of the past century, it has dominated not only in capitalist countries but also in socialist societies. And, during the Cold War, the GDP competition epitomized the profound rivalry between the two 'blocs' just as much as the arms race. In spite of its apparent neutrality, GDP has come to represent a model of society, thereby influencing not only economic, but also political and cultural processes. Nowadays, GDP drives macro-economic governmental policies and sets priorities in the social fields. For instance, according to the Stability and Growth Pact of the European Union, the amount of funding that governments can devote to public goods such as schooling and healthcare is generally 'tied' to GDP growth, resulting in a straightforward albeit macabre equation: less GDP, less social investment. And in the age of economic stagnation, this means austerity and social tensions throughout Europe. Moral principles such as equity, social justice and redistribution are subjected to GDP calculations and are only taken up by policy makers if they comply with the GDP-led development model. The

1 This chapter is an updated version of several sections of my 2013 book *Gross Domestic Problem: The Politics Behind the World's Most Powerful Number* (London: Zed Books).

2 See: http://www.oecdobserver.org/news/archivestory.php/aid/1518/Is_GDP_a_satisfactory_measure_of_growth_.html (accessed on 15 July 2013).

so-called Bush tax cuts, the largest in the recent history of America, were amply justified by the need to foster GDP growth, while efforts to secure increases in the federal living wage have been thwarted by persistent gloom and doom forecasts with respect to overall GDP performance.[3] Our geography (from the shape of our cities to the management of parks) is dominated by the politics of GDP. Marketing strategies, advertising, consumption patterns and lifestyles are permeated by its influence. Even charity is dependent on GDP, as public and private philanthropy are generally correlated to the performance of economic growth: the more money is generated by the economy, the more funding is made available to 'do good.'

But what is GDP? GDP measures the value of goods and services produced every three months, and can be represented by the following formula:

GDP = Consumption + Investment + Government spending + eXports – iMports

Unlike its less known cousin, the net domestic product, GDP is 'gross' in so far as it does not include the depreciation of assets utilized in the production process (such as machineries, tools, vehicles, etc.). It is a sum of market prices, which means that whatever is exchanged outside the market (e.g. within households, in the informal economies, through barter, etc.) does not count. In addition, GDP disregards the value of the natural resources consumed in the process of economic growth, as these are obtained free of charge from nature. Moreover, it does not even consider the economic costs of pollution and environmental degradation, which are obvious consequences of industrial development. All these important omissions make GDP a very selective (some may rightly say myopic) measure of economic performance. Household services, for instance, have a

3 Foertsch, T. (2006) 'A Victory for Taxpayers and the Economy,' *Heritage Foundation*, WebMemo#1082.

fundamental economic impact even though they are not priced and exchanged in the market. If governments had to pay for the innumerable services rendered at the household level (from child and frail care to education), our economies would arguably grind to halt. In many countries, the 'odd jobs' and the goods and services exchanged informally provide the necessary subsistence to millions of people and often constitute the backbone of the real economy, albeit they do not feature in GDP. Similarly, disregarding the input of natural resources just because they are not priced by nature, makes us forget that economic growth is only possible because of a continuous provision of 'capital' from our ecosystems. Agricultural production would not be attainable without clean soil, water, air and other essential natural processes. Industrialization would have not been achieved without the fossil fuels, hydrocarbons and energy sources made available by the planet. When these resources are depleted, however, we risk endangering not only economic progress, but also the very natural equilibrium that makes life possible. Accounting 101 tells us that profit equals income minus 'all' costs. As GDP systematically disregards key sectors in the economy and neglects critical costs, no reasonable businessman would use it to run a company. Yet, it has become the key parameter to run entire societies.

The rhetoric of GDP and its consumption model have indeed been triumphant in political discourse. In no circumstance was this so evident as in the first reactions of world leaders to the terrorist attacks of the 11th of September 2001. Famously, US President George W. Bush urged Americans to "get on the airlines, get about the business of America" and his British counterpart, Tony Blair, encouraged his compatriots "to travel and to shop" in order to get the economy back on its feet.[4] Similarly, the then Prime Minister of Canada, Jean Chrétien told that the best way to defeat

[4] Speech given by G.W. Bush to airline employees at O'Hare International Airport (Chicago, Illinois) on 27 September 2001. Available online: http://georgewbush-whitehouse.archives.gov/news/releases/2001/09/20010927-1.html (accessed on 30 April 2013); 'Britain Needs You to Shop, says Blair,' *The Telegraph*, 28 September 2001.

terrorism was through sustained consumption: "it is time to go out and get a mortgage, to buy a home, to buy a car. [...] The economy of the world needs people to go back to their lives. [...] It is the way to fight back."[5] In a radio interview ten days after the attacks, New York's mayor Rudy Giuliani put it quite clearly: "There is a way that everybody can help us, New Yorkers and everybody all over the country. Come here and spend money […] And go shopping, we're the best shoppers in the world."[6]

The GDP mantra dominates public debate and our governance systems. Countries are ranked according to GDP, the global definition of 'power' is based on GDP (e.g. superpowers, middle-powers, emerging powers, etc.), access to global governance institutions is also granted on GDP performance (e.g. the G8 or G20 members are selected according to their GDP) and development policies are driven by the GDP formula. Currently, governments striving to come of out of the global economic crisis largely design their policies and strategic choices following the diktat of GDP growth, and even global efforts to curb climate change and greenhouse gas emissions are being opposed by many countries because they may exert a negative impact on GDP growth. The acronym BRIC (recently expanded to BRICS) was introduced in the international political debate by a 2001 report published by the investment bank Goldman Sachs to describe the then fastest growing economies, Brazil, Russia, India and China (and now also South Africa).[7] Their analysis was based purely on current GDP rates and future projections, according to which the economic output of these economies will be able to overtake the G8 by 2050 and thus create a new planetary leadership.

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5 'Shopping is Patriotic, Leaders Say,' *The National Post*, 28 September 2001.

6 'America's New War: Giuliani on Local Radio Show', 21 September 2001, transcripts provided by CNN.com at http://transcripts.cnn.com/TRANSCRIPTS/0109/21/se.20.html (accessed on 30 April 2013).

7 J. O'Neill (2001) 'Building Better Global Economic BRICs,' *Global Economics* Paper No. 66 (New York: Goldman Sachs).

Being presented as an essential tool for the design of public policies, the invention of GDP also afforded unprecedented influence to technocrats and economic advisors. As political economy was crystallized in the hands of specialists, its goals and objectives were taken away from daily political contestation. Society came to accept that those at the helm knew what was best for all. Individuals were disempowered as citizens and glorified as consumers. All that people needed to want was another bump in GDP.

Over the course of its life, GDP has shaped our understanding of economic progress. It has lauded the impact of industrial production (especially the heavy polluting industries) and intentionally neglected the overall weight of the informal economy. GDP has stylized social complexity into dry numbers and, in doing so, it has perpetrated market society at the expenses of human, social and ecological concerns. It has ushered us in an era of material wealth (at least for some people in industrialized societies) while generating inequalities, depletion of natural resources and growing social distress. Here is the story of this almighty number and its impact on our governance systems.

**[A] The invention of GDP: a 'war machine'**

Although the collection of statistics to describe national economies has a long tradition in the Western world, the invention of the System of National Accounts (SNA) and the measurement of GDP are relatively recent. The SNA was created in the US over the course of the 1930s to allow the American government to jump-start the economy out of the Great Depression and, more importantly, to maximize production in what was soon to become a wartime economy.

By the early 1930s, the Great Depression had hit America. Workers were being retrenched on a daily basis, capital markets were up in arms and entire industries were on the brink of collapse.

Although the federal government tried to tackle the situation with the various means at its disposal, the absence of systematic and regular data on the state of the economy threatened the effectiveness of economic policies. According to economist Richard T. Froyen, "[o]ne reads with dismay of Presidents Hoover and then Roosevelt designing policies to combat the Great Depression of the 1930s on the basis of such sketchy data as stock price indices, freight car loadings, and incomplete indices of industrial production."[8] As America sank deeper into an economic slough, the White House called on the Department of Commerce to produce some factual evidence to assess whether government's policies were actually working. Due to the lack of scientific expertise, the Department turned to the National Bureau for Economic Research (NBER), America's leading economic think tank, where an economist of Russian descent, Simon Kuznets, was tasked with the job. With the help of two other young economists, Milton Gilbert, who would then become the main author of the official figures published by the Department of Commerce, and Robert Nathan, who would later on enjoy a brilliant career as economic advisor to President Roosevelt, Kuznets completed the estimates in record time.[9] The idea was very simple: generate a series of aggregate measures capable of condensing all production and expenses by businesses, companies, and the government into a single number, which should rise in good times and fall in bad. This number was initially called Gross National Product (GNP) and included sales, salaries and various forms of public/private expenses, but only as long as they were directly 'monetized,' which meant that all production for self-consumption, voluntary work and household services were not included.

There is little doubt that Kuznets' work on national accounts profoundly influenced the second phase of the New Deal and contributed to strengthening the policy appeal of Keynesianism among

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[8] Quoted in US Department of Commerce (2000) 'GDP: One of the Great Inventions of the 20th Century', *Survey of Current Business*, January 2000, p. 6.

[9] Kapuria-Foreman, V. and Perlman, M. (1995) 'An Economic Historian's Economist: Remembering Simon Kuznets', *The Economic Journal*, 105 (433), p. 1531.

American scholars and policy makers. Since Keynesian policies aimed to sustain economic performance through flows of money from government to society, a system of national accounts capable of producing regular data to assess the impact of national policies on the economy was essential to government's planning. Therefore, it is not surprising that one of John Maynard Keynes' disciples, Colin Clark, was responsible for developing the first set of economic accounts in Australia and two British economists, Richard Stone and James Meade, largely influenced by Keynes' theories, were tasked with setting up the UK's national accounts in the early 1940s. The underlying philosophy was that, through proper fiscal management and taxation as well as detailed knowledge of economic performance (as indicated by GNP), economists could finally master the dreaded 'business cycle', which had caused continuous crises and job losses, and ensure prosperity indefinitely. The theoretical work of Keynes and the applied statistical method developed by Kuznets finally came together during the Second World War, when GNP was elevated to primary scorecard for the design and implementation of national economic policy.

In 1942, Kuznets went to work for the Planning Committee of the War Production Board, which was chaired by his former student and collaborator at the NBER, Robert Nathan. When President Roosevelt launched his Victory Program to turn America into a war machine and defeat the Axis forces lead by Nazi Germany, the studies conducted by Kuznets and Nathan at the War Production Board helped identify equilibria between the objectives of military mobilization and the need to keep internal consumption growing, so as to generate additional long-term resources for the war efforts. Through a systematic estimation of national income and capital formation, already at the outset of the US' involvement in the war, Kuznets and Nathan were able to gauge how much of the material production called for by Roosevelt's Victory Plan could be achieved and when it would become available.[10] As reported by historian Jim Lacey in a book titled *How US Economists Won World War II*, these calculations "also established that the United States was capable of a far greater effort than was currently being called for and that this could be accomplished without severely curtailing consumer consumption," which was by contrast essential to continue generating the necessary flow of resources sustaining national income. [11] These positions were also supported outside of the closed circles of the president's economic advisors and enjoyed a significant degree of popularity among those business leaders and corporations favouring the adoption of a series of national policies aimed at scaling up the military efforts while encouraging domestic consumption. In their opinion, this would have guaranteed windfall profits for their industries without forcing them into a full conversion programme or an outright (albeit temporary) nationalization. What they wanted was for industrial interests to define military priorities, not for the army to take over production facilities.

The data collection work and the statistical models prepared by Kuznets and colleagues also impacted on specific aspects of military planning. For instance, their estimates of GNP growth combined with those pertaining to the costs of the military campaign led them to conclude that the US government should avoid a direct involvement of armed forces in Europe until the end of 1943 or beginning of 1944. According to their calculations, production levels and munitions would have not sustained an earlier intervention onto the battlefield.

Their feasibility approach to the president's Victory Program was unavoidably met with resistance by the military apparatus and the 'all-outers', a group of political advisors to Roosevelt who argued for the country's quick and massive involvement in the war through seizing industries and private

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10 Carson (1975).

11 Lacey, J. (2011) *Keep from All Thoughtful Men. How US Economists Won World War Two* (Annapolis: Naval Institute Press), p.88.

corporations. In their view, politics should have dominated the game, not economics: "the strategists decide what their requirements are, and our job is to get industry to fill those requirements."[12] Confronted with long lists of numbers and theoretical estimates of abstract concepts such as 'national product in wartime', they plainly could not fathom how their 'high' targets could actually end up lowering the capacity of the economy to support the military effort and ultimately undermine the US' ability to win the war.

In the end, the economists prevailed and the government revised its approach to the munitions' programme in order to follow the estimates provided by Kuznets and Nathan. As expected, the US economy boomed and the country's capacity to sustain military exposure appeared almost unlimited. Real consumption in the US rose sharply in 1941 and, after a slight drop in 1942, it rose again in 1943. By 1944, the US could afford to wage the war simultaneously on two fronts (Europe and the Pacific) while domestic personal civilian consumption was at an all-time high. To their great surprise, American investigators learned after the war that Hitler's military production targets were unrealistically disconnected from the overall performance of the German economy, a deficiency arguably caused by the lack of sophisticated systems of national accounts.[13]

According to Kuznets' former boss and founding director of the NBER, Wesley C. Mitchell, "[o]nly those who had a personal share in the economic mobilization for World War I could realize in how many ways and how much estimates of national income covering 20 years and classified in several ways facilitated the World War II effort."[14] In the words of analysts Clifford Colb, Ted Halstead and Jonathan Rowe, "the degree to which the GNP evolved as a war-planning tool is hard

[12] Quoted in Lacey (2011), p. 104.
[13] Lundberg, E. (1971) 'Simon Kuznets' contribution to economics,' *Swedish Journal of Economics*, 73 (4): 444-459. See also Carson (1975).
[14] Quoted in US Department of Commerce (2000), p. 8.

to exaggerate":

> In the United States the Manhattan Project got much more glory. But as a technical achievement the development of the GNP accounts was no less important. The accounts enabled the nation to locate unused capacity, and to exceed by far the production levels that conventional opinion thought possible.[15]

Overall, GNP accounts turned out to be a powerful instrument to estimate militarization costs and calculate what speed of economic growth would be necessary 'to pay for the war,' to paraphrase a well-known paper written by Keynes in 1940 during his tenure at the British Treasury. Thanks to this systematic approach, America managed to come very close to pure economic planning and, in 1944, war production goals alone surpassed the nation's entire output just ten years earlier.[16] According to economist John Kenneth Galbraith, celebrated author of *The Affluent Society* and advisor to US President Kennedy, Kuznets and his talented colleagues had been the equivalent of several infantry divisions in their contribution to the American war effort.[17] Importantly, their work had a fundamental impact on the postwar recovery too. Based on their recommendations, the US government sustained internal consumption throughout the war without endangering civilian industries, which made it possible to collect additional resources for the mobilization effort while limiting the generation of an excess capacity that may have caused a new recession after the end of the war. As a consequence, by the end of the conflict, Americans were left with a stronger industrial sector and a huge saving pool, which coupled with pent-up consumer demand for durable consumer

15 Cobb, C., Halstead, T. and Rowe, K. (1995) 'If the GDP is Up, Why is America Down?,' *Atlantic Monthly*, October 1995, p. 6.

16 Rowe, J. (2008) 'Our Phony Economy,' *Harper's Magazine*, June 2008.

17 Galbraith, J. K. (1980) 'The National Accounts: Arrival and Impact', in N. Cousins (ed.), *Reflections of America: Commemorating the Statistical Abstract Centennial* (Washington, DC: US Department of Commerce, Bureau of the Census), p. 80.

items were the key factors propelling America's postwar economic expansion.

As the war was winding down, the accounts served to guide the economy back to peacetime without the risk of a relapse into economic stagnation. In order to guarantee continuous GNP growth, the government kept on incentivizing private consumption on a massive scale. Moreover, it increased its defence budget, which had the indirect consequence of strengthening the political and economic power of the so-called military-industrial complex, a web of business interests against whose growing influence in American politics President Eisenhower would later on warn his fellow citizens. During these years, the linkage between domestic consumerism and external military projection was so deeply integrated into economic design as to become a key feature of the US' model of capitalism, thus replicating – although at varying degrees – the successful model emerged out of the war.

Kuznets did not like these developments. Although he recognized that "success in war and preservation of a country's social framework" may be considered "at least equal in importance to the welfare of individuals," he nevertheless emphasized that one should "beware of extending this view-point, justified by the necessarily temporary crises in the life of a nation, to the common run of public activities."[18] Yet, with the breakout of the Cold War, most politicians and their economic advisors endorsed a view of economic growth opposite to that of Kuznets. They pushed for military expenditures to become a pillar of GNP expansion, a choice that his creator only considered legitimate during a war for national survival.[19] So, although Kuznets would continue arguing for a 'peacetime concept' of national income, the very success of GNP as a 'war machine' limited the

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18 Kuznets, S. (1951) 'Government Product and National Income,' in E. Lundberg (ed.), *Income and Wealth* (Cambridge: Cambridge University Press), pp. 184-185.

19 Higgs, R. (1992) 'Wartime Prosperity? A Reassessment of the US Economy in the 1940s', *The Journal of Economic History*, 52 (1): 41-60.

capacity of political elites and opinion makers to realize the shortcomings that this number suffered from as an indicator of economic welfare.

**[A] The globalization of GDP and the global economic crisis**

With the fall of communism in 1989, GNP became the globally accepted measure of economic success. Through the United Nations, the SNA was exported to the rest of the world and methodological capacity was built in developing countries to collect regular statistics on economic performance.[20] In 1991, GNP was superseded by GDP, which is still the most popular acronym by which national income is commonly known. From 'national' the gross product became 'domestic'. Although this may look like an irrelevant shift that only insiders would care about, it indeed signalled an important political change. Traditional GNP referred to all goods and services produced by the residents of a given country, regardless of whether the 'income' was generated within our outside its borders. This meant that, for instance, the earnings of a multinational corporation were attributed to the country where the firm was owned and where the profits would eventually return. With the introduction of the gross 'domestic' product, this calculation changed completely. GDP is indeed territorially defined, which means that the income generated by foreign companies is 'formally' attributed to the country where it is generated, even though the profits may very well not remain there. This conceptual evolution (which of course altered existing statistics) was by and large responsible for the economic boom of many developing nations. Yet, it is obvious that the gains it revealed were more apparent than real. They may be reflected in the numbers and, perhaps, in the rhetoric of political leaders, but hardly in the daily experience of common citizens. Indeed, this statistical abstraction hides a basic fact: "the nations of the North are walking off with

[20] M. Jerven (2013) *Poor Numbers: How We Are Misled by African Development Statistics and What to Do About It* (Ithaca, NY: Cornell University Press).

the South's resources, and calling it a gain for the South."[21]

Ever since, GDP has been the key to success. Its underlying economic principles have contributed to splitting the planet into two worlds: the 'developed' and the 'developing' countries. Through the adoption of policies to sustain GDP, a country would reap not only alleged economic benefits but it would also see its geopolitical status increase. Similarly, sluggish GDP performance would throw a nation into a vicious circle of structural adjustments and macroeconomic reforms. Paradoxically, the GDP mantra was imposed on poorer nations in spite of Kuznets' conclusions that its approach should not be applied to countries largely dependent on informal economic structures, as these are ignored by the income accounts and threatened by policies designed to increase GDP.[22] In May 2013, even the billionaire turned philanthropist Bill Gates, who is a fervent supporter of metric-driven approaches to development (as we will see in Chapter 5), publicly contested the validity of GDP: "I have long believed that GDP understates growth even in rich countries, where its measurement is quite sophisticated, because it is very difficult to compare the value of baskets of goods across different time periods," but this problem is "particularly acute in Sub-Saharan Africa, owing to weak national statistics offices and historical biases that muddy crucial measurements."[23] The economic historian Merton Jerven, author of *Poor Numbers: How We are Misled by African Development Statistics and What To Do About It*, provides a very interesting account of the fallacies, methodological issues and inconsistencies affecting the way in which GDP is measured in African countries. Besides limited financial resources for comprehensive statistical surveys and the continuous imputations made by statisticians due to lack of 'objective' data, he points out that, because GDP does not capture informal economies, the economic contribution of subsistence

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[21] Cobb, Halstead and Rowe, K. (1995), p. 6.
[22] Lundberg, E. (1971) 'Simon Kuznets' contribution to economics,' *Swedish Journal of Economics*, 73 (4): 444-459.
[23] B. Gates (2013) 'The Problem with Poor Countries' GDP,' *Project Syndicate*, 6 May 2013.

farming, non-commercial agriculture and other localized forms of production and consumption are systematically neglected. And this is not a negligible omission.[24] According to estimates published by the International Monetary Fund (IMF) in 2002, informal economies accounted for up to 44% of economic output in developing nations, 30% in transition economies, and 16% in the OECD countries.[25]

Kuznets also raised doubts about the reliability of the accounts, for which data was often missing, and took great pains to single out the disparate sources of error in international comparisons, including the use of prices. Indeed, in calculating GDP, each national statistical agency uses different formulas and corrective methods to correct for inflation (the so-called GDP deflators). As technological innovation tends to reduce prices (e.g. a laptop today is much cheaper than it was a few years back, even though its performance is much higher), hedonic models have been introduced to account for quality improvements, thus manipulating the pricing principle underpinning the calculation of GDP. The pricing of government expenses is also subject to revisions and adjustments made by statisticians. In Cuba, for instance, since 2001 the national statistical office has been correcting the overall contribution of key social services (from education to healthcare) by estimating their impact on social welfare rather than through a calculation of the actual salaries and costs of personnel, as is generally the case.[26] Cubans were indeed concerned that the comparatively low salaries of doctors and teachers, among others, would penalize their GDP and distort the actual impact these services have on economic performance. Indeed, looking simply at the size of expenditures (as conventional GDP methodologies do) rewards countries like the US, which have

[24] M. Jerven (2013) *Poor Numbers: How We are Misled by African Development Statistics and What Do to About It* (Ithaca, NY: Cornell University Press).

[25] F. Schneider and D. Enste (2002) 'Hiding in the Shadows: the Growth of the Underground Economy,' *Economic Issues 30* (Brussels: International Monetary Fund).

[26] See *EcuRed, Conocimiento con Todos y Para Todos*: http://www.ecured.cu/index.php/Producto_Interno_Bruto_en_Cuba (accessed 15 July 2013).

notoriously expensive yet inefficient healthcare sectors. The different procedures and operations to calculate GDP also produce troubling inconsistencies. For instance, a country like Liberia would be considered Africa's second-poorest, seventh-poorest or 22nd-poorest depending on whether one takes the international calculations published by the World Bank (through the World Development Indicators), the Penn World Table or the Maddison Project Database, which provide the data used by most development agencies to design their policies: "Angola, Central African Republic, Comoros, Congo-Brazzaville, Nigeria and Zambia all make leaps of more than ten places in the rankings from one source to the other."[27] When Ghana changed its base-year methodology for the calculation of GDP in 2010, all of a sudden it went from being a poor country to a middle-income nation. As declared by a blog post on the website of the Centre for Global Development, "Ghana says, hey, guess what? We are not poor anymore."[28]

Importantly, Kuznets also noted that growth of GDP in industrial countries might be easily over-estimated by counting in goods and services whose sole purpose is to offset the drawbacks of industrialization, such as the increasing cost of traffic, pollution and security. At the same time, the level of output in developing countries may be distorted because of the availability of free resources, which are disregarded by GDP. In a report titled *Where is the Wealth of Nations? Measuring Capital for the 21st Century*, the World Bank confirmed such distortions and concluded that "in all countries, intangible capital is, by far, the largest share of wealth" and "in poorer countries, natural capital is more important than produced capital," thus suggesting that properly managing natural resources should become a fundamental component of development strategies, "particularly since the poorest households in those countries are usually the most dependent on

[27] Jerven (2013) *Poor Numbers*, p. 19.
[28] Cited by Jerven (2013) *Poor Numbers*, p. 26.

these resources."[29] In a suggestive simulation, the report concluded that if resource-dependent economies had consistently invested the equivalent value of the natural resources depleted in the production process from 1970 to 2000, they would have substantially increased their overall wealth. For instance, a major oil exporter such as Nigeria could have had a stock of produced capital five times higher. Similarly, Venezuela could have four times as much produced capital. In terms of per capita GDP, Venezuela, Trinidad and Tobago, and Gabon, all rich in petroleum, could have reached a level of produced capital comparable to that of contemporary South Korea.

Moreover, if the depreciation of machinery and capital is subtracted from GDP to obtain the net estimates of domestic product, should not the same also apply to the wearing out of people? Indeed, the system of production takes its toll not only on 'things' but also on 'human beings'. This is what Kuznets called the "reverse side of income," that is, "the intensity and unpleasantness of effort going into the earning of income."[30] Yet, national income focuses only on satisfying consumers' demands for commodities and services: "the burden of work and discomfort are ignored."[31]

In the early 1960s, at the height of the GDP hype, Kuznets finally realized the many ways in which his indicator was being misread and manipulated for political purposes. He acknowledged that "the welfare of a national can scarcely be inferred from a measure of national income" and emphasized the fact that policy makers should distinguish between the mere "quantity" of economic growth and its actual "quality" in order to clarify what type of growth they want to achieve and "for what."[32] Thirty years later, in the 1990s, his prescient words resonated with studies focusing on the profound

[29] World Bank (2006) *Where is the Wealth of Nations? Measuring Capital for the 21st Century* (Washington: World Bank), p. XVI.

[30] Quoted in 'Special Report: U.S. Data Dogs on Quest for Sexier Statistics,' *Reuters,* 6 July 2010.

[31] Kuznets, S. (1946) *National Income – A Summary of Findings* (New York: National Bureau of Economic Research), p. 127.

[32] Kuznets, S. (1962) 'How to Judge Quality,' *The New Republic*, 20 October 1962, p. 29.

social imbalances, growing income gaps and pervasive psychological distress caused by the relentless quest for GDP growth. In a report titled *Growing Unequal*, the OECD attested that income inequality in industrialized countries had been systematically on the rise since the mid-1980s, notwithstanding (or rather because of) sustained growth and rather exceptional GDP performance. [33] Yet, despite these alarming signals, in 1999, the US government declared GDP "one of the greatest inventions of the 20th century."[34] The US Department of Commerce, which, ever since Kuznets developed the first calculations, had been producing the GDP official statistics, named the development of the national income and product accounts "its achievement of the century." On that occasion, the former US Secretary of Commerce, William M. Daley, declared that "since the end of World War II, when the GDP accounts were more fully developed and in wider use, the boom and bust swings are much less severe. … They have had a very positive effect on America's economic well-being, by providing a steady stream of very useful economic data."[35]

Then, in 2007-2008, the world entered a new devastating financial crisis that soon triggered a seemingly endless global economic downturn. The US housing bubble, which had been one of the major drivers of GDP growth, suddenly burst and plunged stock markets into disarray. What was soon to become the largest recession since the Great Depression of the 1930s also had a knock-on effect on Europe and many developing countries, causing multiple recessions and the constant fear of a prolonged global stagnation. While GDP served the interests of political and economic elites for several decades, it appears to have run out of steam, at least in the so-called Western world. Since 2007, estimates and measurements of GDP have been released and revised several times, as

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[33] OECD (2008) *Growing Unequal: Income Distribution and Poverty in OECD Countries* (Paris: OECD); OECD (2011) *Divided We Stand: Why Inequality Keeps Rising* (Paris: OECD).

[34] US Department of Commernce (2000).

[35] William M. Daley, "Press Conference Announcing the Department of Commerce's Achievement of the Century," 7 December 1999, in US Department of Commerce (2000), p. 10.

governments have tried to manipulate data and results for political purposes. In 2008, the *Wall Street Journal* reported on the US Department of Commerce's admission that estimates and calculations of GDP expansion had been wrong for the previous four years and had to be revised downward, thus pointing to a probable recession already in 2007 despite most politicians' rather optimistic representations of the state of the American economy.[36] The Department also admitted that most of its estimates "are based on source data that are incomplete or subject to further revision" and that recessions pose "significant challenges to the accuracy of economic indicators," including those that are used as source data for the early GDP estimates: "During recessions, some firms go out of business, some may only partially complete surveys, and some may choose to not respond at all to voluntary surveys."[37] Ever since, statistical offices throughout the world have been scrambling for data as GDP numbers simply did not add up. In the UK, amid double, triple and quadruple dips recessions that were regularly confirmed and then disconfirmed at every quarter, a BBC host asked: "Is there any point in these figures? It seems that with GDP not only we cannot forecast the future. We seem not be able to forecast the past?"[38]

In February 2008, the then French President Nicholas Sarkozy established a Commission on the Measurement of Economic Progress and Performance, chaired by renowned economists Joseph Stiglitz, Amartya Sen and Jean Paul Fitoussi. Sarkozy was apparently unsatisfied with the present state of statistical information about the economy and expected the commission to "identify the limits of GDP as an indicator of economic performance and social progress, including the problems with its measurement."[39] Between 2008 and 2009, the GDP of France had contracted by over four

36 'The GDP Debate: Did a Recession Start in 2007?,' *The Wall Street Journal*, 31 July 2008.
37 'How did the recent GDP revisions change the picture of the 2007–2009 recession and the recovery?,' *Bureau of Economic Analysis*. Available online: http://www.bea.gov/faq/index.cfm?faq_id=1004 (accessed on 30 April 2013).
38 BBC Radio 4, Morning News and Current Affairs, 11 May 2013.
39 Stiglitz, J. E., Sen, A. and Fitoussi, J-P. (2009) *Report by the Commission on the*

points and the country only came out of a recession in 2010, just before the European crisis sank the continent's economic outlook once again.[40]

The OECD and the European Union promoted a new initiative by the name of 'Beyond GDP' and, in 2009, the European Commission released a formal 'communication' entitled *GDP and Beyond: Measuring Progress in a Changing World*.[41]In late 2010, amid retrenchments, skyrocketing tuition fees for students and the reform of the National Health Service, British Prime Minister David Cameron called on the UK Office for National Statistics to complement the ever-more gloomy calculations of quarterly GDP trends with more general references to the "happiness" of his fellow citizens. Speaking at the Google Zeitgeist Europe conference, he added: "Wellbeing can't be measured by money or traded in markets. It's about the beauty of our surroundings, the quality of our culture and, above all, the strength of our relationships. Improving our society's sense of wellbeing is, I believe, the central political challenge of our times."[42] A couple of months later, the US government followed suit. Funded by the Department of Health and Human Services, a panel of experts in psychology and economics, including Nobel laureate Daniel Kahneman, began to define reliable measures of "subjective well-being" to be incorporated into official statistics.[43] President Obama officially welcomed the effort, which was also sponsored by his chief economic adviser, the Princeton economist Alan Krueger, who had co-authored a 2009 paper proposing "a new approach for measuring features of society's subjective well-being."[44] Finally, in April 2012, the UN

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*Measurement of Economic Performance and Social Progress*, p. 8.

40 'Economists look to Expand GDP to count "quality of life",' *The New York Times*, 1 September 2008.

41 European Commission (2009) *GDP and beyond: measuring progress in a changing world*, COM/2009/0433 final.

42 'David Cameron aims to make happiness the new GDP', *The Guardian*, 14 November 2010.

43 'Feds want to measure gross national happiness. Honest,' *The Washington Post*, 31 March 2012.

44 'What's Wrong with GDP? The Attack on Economic Growth', *The Fiscal Times*, 5 April 2012.

Secretary General Ban Ki-Moon participated in a conference titled "Happiness and Well-being: Defining a New Economic Paradigm", hosted by the representation of Bhutan at the UN headquarters in New York. In his opening remarks, he said:

> Gross Domestic Product (GDP) has long been the yardstick by which economies and politicians have been measured. Yet it fails to take into account the social and environmental costs of so-called progress. […] We need a new economic paradigm that recognizes the parity between the three pillars of sustainable development. Social, economic and environmental well-being are indivisible. Together they define gross global happiness.[45]

**[A] The greatest invention of the 20th century?**

GDP had a profound impact on our societies for most of the 20th century and still drives economic policies nowadays. Undoubtedly, the biggest change brought about by GDP regarded society as a whole. Economic categories such as workers, entrepreneurs, professionals, farmers or social categories such as parents and children, as well as political categories such as citizens, were all conflated into two 'camps': producers and consumers. Given that the GDP approach saw consumption as the driver of prosperity, society itself was shaped accordingly and economic policies were designed to push for all types of consumerism. While military conflict had marked the success of GDP as a political instrument, the postwar system of mass consumption sealed its grip on society as a tool of economic hegemony: "Our young men had marched off to war; now Americans were marching off to the malls that eventually covered the land."[46] A new war began, that of the marketization of all aspects of economic and social life.

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[45] 'Ban: new economic paradigm needed, including social and environmental progress,' *UN News Centre*, 2 April 2012.

[46] Cobb, Halstead and Rowe, K. (1995), p. 6.

One of the more subtle consequences of this process has been the increasing importance that economists have acquired in designing national policies throughout the world. Before the Second World War, economists were rarely quoted in the media, but ever since the invention of GDP and its quarterly updates, economic experts of all sorts have become essential players in public debate and, more often than not, they have been viewed as the holders of some type of canonical truth. As remarked by Paul A. Volcker, former chairman of the Federal Reserve, "For decades, the Department of Commerce, in maintaining the statistics, has also nurtured and protected a group of economists that have made an enormous contribution to independent, authoritative, and timely analysis. It is of great benefit to the United States and unmatched in the world."[47]

There is no doubt that the invention of GDP has given economics a primary role in society and politics. Conformity among mainstream economists has been pervasive. And this strategic unanimity has helped strengthen their discipline vis-à-vis other social sciences. In 1941, Kuznets admitted that the measurement of national income should not be regarded as a morally neutral process, because it is continuously "affected by implicit or explicit value judgments." Looking at the enthusiasm with which his creation was being welcomed by economists and statisticians, he observed that

> the apparent relative unanimity produced by empirical writings on national income is due largely to the estimators' unconscious acceptance of one social philosophy and their natural reluctance to face such fundamental issues as would reveal that estimates are conditioned by controversial criteria.[48]

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47 Quoted in US Department of Commerce (2000), p. 9.

48 Kuznets, S. (1941) *National Income and Its Composition (1919-1938), Volume I* (New York:

Yet, in a world desperately seeking uncontested truths, the development of national income statistics transformed economics from a philosophical reflection on human societies (often based on anecdotal evidence and approximated estimates) into a 'hard' science, supposedly characterized by immutable laws and perfect models. Economists reclaimed their independent epistemological status and new faculties were created amid their growing and unprecedented popularity in society at large. Students flocked to business schools, as this came to be conventionally regarded as the best way to get an 'important' and awesomely remunerated job. Ever since, economists have become opinion leaders, governments' advisors and sought-after consultants. Every quarter, when GDP estimates and projections are officially released by statistical agencies, herds of alleged economic 'experts' pop up everywhere in the media, populating news bulletins and talk shows. They tell us that sustained economic growth is essential to job creation and present innumerable recipes to strengthen economic performance. If GDP goes up, they cheer. If it goes down, they mourn and blame political leaders for doing too little to prop up the economy.

Conflicts of interest have prospered in the GDP era. Many academic economists have left their desks to be flown to Washington, London and Frankfurt. Or, more recently, they have relocated to Beijing and Singapore. They are regularly appointed board members of public enterprises, private corporations and so-called public benefit foundations. Governments hire them to advice on macroeconomic policies and growth strategies. Multinational corporations pay them handsome consultancy fees to sharpen their competitive advantage and increase their market shares. They have filled the ranks of international institutions, from the IMF and the World Bank down to the myriad of local institutions dedicated to support development in poor countries. In a word, they have been successful at building the most powerful paradigm of all times: that GDP growth is panacea. That

NBER), p. 5.

massive production and consumption equate development. And that this is all countries need to strive for.

According to anti-GDP ideologue Serge Latouche,

> These strategists are intent on doing all they can to outsource costs, which are borne by their employees, their subcontracts, the countries of the South, their clients, states and public services, future generations and, above all, nature, which has become both a supplier of resources and a dustbin.[49]

The invention of GDP did not only mark the era in which economics (and economists) became an all-powerful force in society. It also ushered in a new age of market supremacy. As economic growth became the most important goal of politics, the 'producers' of growth felt their reign of uncontested leadership had finally arrived. Through national income statistics, each industry could boast its contribution to the wealth of the nation and reclaim its share of public recognition for that. Moreover, as GDP masked the negative externalities of industrial production, all industries (especially the heavy polluters) ended up getting a face-lift, a kind of cosmetic purification. Thanks to this statistical Laundromat, their 'bads' magically disappeared, as society could only see the money being 'generated.' The principle is simple: if GDP growth is what society wants and business is instrumental in achieving it, then the latter should be rewarded for this all-important social role.

Labour unions, too, have fallen into the GDP trap. In order to preserve jobs, they have made historic concessions to both business and government. In the West, this has meant further deregulation and

[49] Latouche, S. (2009) *Farewell to Growth* (Cambridge: Polity Press), p.19.

less stringent laws for corporations. In the East, it has resulted in a blank cheque for state-controlled industries. In many instances, unabated devotion to GDP-led employment policies has turned labour unions into 'socially conservative' agents, separating them from more progressive groups within civil society. A wedge has been driven especially with the ecological movement, in so far as stricter environmental regulations to slow down or halt growth in some industrial sectors have been interpreted by unions as a threat to the labour force.

Needless to say, corporations have fed this type of distrust across sectors while doing all they can to capitalize on the advantages presented by a globalized labour market. Almost invariably, they have threatened to relocate to countries with laxer regulations with a view to opposing stricter environmental rules and reining in workers' associations. Perhaps surreptitiously, they have institutionalized corporate blackmail in their management strategies, a reality that has been largely internalized by society too. As a consequence, most labour unions, as well as millions of workers, have become defenders of GDP growth at all costs. As Yale emeritus professor Charles Lindblom wrote in 1982, GDP growth has turned markets into 'prisons.' Whatever attempt at rethinking the growth imperative by limiting the dominance of business is "followed immediately – swiftly – by the punishment of unemployment." This form of punishment, argued Lindblom, is not simply reactive. It is a proactive interference with policy making, a type of "prospective punishment": the mere suggestion that some type of change may occur is immediately attacked with "an automatic punishing recoil."[50]

The history of GDP was that of the quest for power that continues to affect our political life nowadays. In his influential 1989 book *The Rise and Fall of the Great Powers,* Harvard historian Paul Kennedy concluded that a country's wealth and productive power (at least in so far as it relates

[50] Lindblom, C. (1982) 'The Market as a Prison,' *The Journal of Politics*, 44, pp. 325-326.

to that of its contemporaries) is one of the essential determinants of its global status.[51] Looking at how global governance has been shaped in the past decades, one could not agree more. The world has been dominated by a hierarchy of countries, carefully selected on the basis of their GDP credentials, traditionally led by the US. Those who fall from grace, such as stagnant European economies, are increasingly treated as pariahs. Those who do not perform extraordinarily, such as most of the so-called 'developing' world, will never be invited to the ball. For the past few years, the world's eyes have been laid onto the so-called emerging powers, especially China. Why? Because the Asian country has been rocking the global economy with its stunning GDP growth rates. Never mind, of course, the cost in terms of ecological degradation and social impoverishment that the achievement of this status has implied. Then, in early 2013, the Chinese too woke up to the reality of GDP growth. The State Council released an income redistribution plan to address mounting social unrest, which is now considered the most significant threat to political stability in the Asian giant (according to independent researchers China's GINI coefficient is 0.61, indicating extreme inequality).[52] The medical journal *The Lancet* published the results of a study revealing that air pollution was responsible for at least 1.2 million premature deaths in 2010, while growing numbers of foreign residents left Beijing because of what the *Financial Times* termed 'airpocalypse.'[53] In the mid-2000s, an attempt at introducing a so-called Green GDP, which would deduct the costs of environmental degradation, were quelled by the country's leaders as it revealed that environmental damage cost China 8 to 15% of GDP per year and that the country had lost "almost everything it has gained since the late 1970s due to pollution."[54] Yet, in early 2013, support for a Green GDP resurfaced, as the costs of environmental clean up spiraled out of control, while

[51] Kennedy, P. (1989) *The Rise and Fall of the Great Powers* (London: Vintage).
[52] 'China's Inequality. Plan to Spread Wealth Must Be Matched by Hard Targets,' *Financial Times*, 10 February 2013.
[53] 'Air Pollution Linked to 1.2 Million Premature Deaths in China,' *The New York Times*, 1 April 2013; 'Airpocalypse Drives Expats Out of Beijing,' *Financial Times*, 1 April 2013.
[54] 'The Man Making China Green,' *The New Statesman*, December 2006-January 2007, pp. 60-61

official GDP growth began to slow down.[55]

The outburst of the Great Recession has had a double, albeit potentially contradictory, effect. On the one hand, it has awakened some progressive world leaders and opinion makers with regard to the 'dark side' of GDP. This has triggered the frantic work of a number of commissions and the publication of studies and reports on the measurement of economic performance and social wellbeing, some of which actually predate the 2008 financial collapse. On the other hand, widespread unemployment and social discontent have rearmed conservative forces, which see GDP growth as the only escape from the current economic downturn. In their opinion, these are not times to challenge the GDP paradigm as what the world needs is more growth and quickly. Some have also proposed to introduce GDP-indexed bonds in order to link the expectations of financial markets to the borrowing countries' economic performance. For these advocates of GDP, governments must find a way (possibly, any way) to get people back onto their shopping sprees.

It is difficult to make predictions with regard to which of these two contrasting views will eventually prevail. There continues to be some interest in revising GDP statistics (including the measurement of intangibles, household services and natural capital, a process that has gained momentum after the Rio+20 conference in June 2012) but as the crisis worsens, the risk is that the topic will lose relevance for public opinion or will be hijacked by other pressure groups (as we will see in Chapter 3). While the world's attention is increasingly concentrated on credit ratings and yield spreads of sovereign debt obligations, it appears as if whatever change may occur will be cosmetic at best. In the UK, for instance, the fanfare surrounding the government's plan to measure wellbeing has resulted in four generic 'how-do-you feel' questions being surveyed by national

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[55] 'China's Green GDP Resurfaces,' *Radio Free Asia*, 13 February 2012. Available online: http://www.rfa.org/english/commentaries/energy_watch/greengdp-02132012120520.html (accessed on 30 April 2013).

statisticians. The high-level commission launched by the French president in 2008 has provided an important reference point for many experts, but it has not (yet) resulted in tangible reforms and the website has not been updated ever since the publication of their report in 2009. Moreover, during and after the 2012 presidential elections in France, the debate revolved exclusively around GDP growth, with no reference to alternative approaches.

What most of these technical attempts fail to see is the profound political nature of GDP. Either out of naivety or political correctness, they do not recognize that, behind an apparent mathematical neutrality, lies a world of power struggles and conflicts of interest that should be identified and disentangled if real change is to be achieved. In its popularized usage, GDP has become a social construct and a hegemonic political discourse. Over time, it has endured many challenges. In the past few decades, tons of papers have been written and a myriad of alternative indicators have been produced. Yet none of them, thus far, has been able to dethrone this magical number.

GDP is built on a great lie. This lies says that markets are the only producers of wealth. What is not priced, what does not involve a formal financial transaction based on money, does not count. No matter how important it may be for our social and economic wellbeing. Price tags are the ultimate symbol of GDP. Continuous production and endless consumption are its underlying values. Durability, reusability and self-production are its worst enemies. Things that last are detrimental to GDP, because they only get priced (and thus counted) once. Things that we produce for ourselves are even worse, because they are not priced at all. In this paradigm, households are reduced to cages of consumers. If families do not own two or three TV sets, at least a couple of cars, innumerable kitchen appliances and a universe of utensils that must be continuously replaced, then they are publicly scorned. If they are not obsessed with shopping, they are considered a threat to national security.

Nature, the ultimate provider of all richness, is enslaved and devalued. GDP gives mankind the illusion that growth is about production, when it actually should be viewed as a transfer. Mankind does not produce anything. It simply turns natural wealth into money. And puts it up for sale, in what looks like the most vicious system of prostitution, the most disastrous Ponzi scheme of history. According to E.F. Schumacher, the GDP paradigm "consumes the very basis on which it has been erected" and "lives on irreplaceable income which it cheerfully treat as income."[56] The process through which this illusion is created can be compared to the securitization of the sub-prime mortgages that led to the 2008 financial disaster. Just like in that case, we are getting a loan (from nature) that we are not going to be able to repay. In the meantime, we slice it up into an endless sequence of small loans (that we call production), which we then sell onto the market in return for money (we call this process consumption). These micro loans are then packaged by our governments and sold back to everybody, in terms of pollution and environmental degradation. Often, it is the poor countries that pick up most of our debt with nature, especially when they face droughts, floods and other types of climate change related disasters. But future generations will definitely be the payers of last resort. They will be charged with all-time high interests, which – by their own essence – cannot be repaid. It is estimated that it took Great Britain around 60 years to double its economy when the Industrial Revolution began. Then it took the US around 50 years to double its economy at the beginning of the 20th century. Several East and Southeast Asian countries today have been doubling their economies every 10 years.[57] While a few decades ago the concept of 'future generations' was felt with some distance, nowadays we are becoming increasingly aware that – at this rate of growth – the future is quickly catching up with us. Which means that the

56 Schumacher, E.F. (1973) *Small is Beautiful. A Study of Economics as if People Mattered* (London: Vintage Books), p. 8.

57 Kristof, N. D., and WuDunn, S. (2000) *Thunder From the East: Portrait of a Rising Asia* (New York: Knopf).

generation to face nature's debt collectors may very well be our children's.

Although the media is hung up on the financial and social consequences of the Great Recession, our present economic turmoil is just the tip of the iceberg of a more profound and widespread systemic crisis caused by the dogma of infinite GDP growth. Energy resources are irremediably running out. Countries compete to get access to the few untapped oil fields in what looks like an unprecedented global scramble for fuel. As climate change melts ice caps, governments and oil companies jump at the insane but lucrative deal of offshore drilling in the Arctic. Meanwhile, nations endowed with precious minerals have been ravaged by wars, coups, corruption and terrorism. For these countries, a resource-rich subsoil has become the ultimate curse, as extractive industries have been willing to do whatever it takes to secure profits at the expense of local communities. Paradoxically, most societies endowed with a wealth of natural capital have become the poorest in the GDP world.

By definition, infinite growth on a planet of finite resources is incompatible with global justice, at least in so far as it triggers a dangerous zero sum game. As Mahatma Gandhi once said, the Earth provides enough to satisfy "every man's need", but not "every man's greed." Climate change has eventually made this simple (but largely rejected) truth self-evident. As our planet can no longer absorb increasing quantities of greenhouse gases, economic growth in our part of the globe becomes incompatible with an equal amount of growth elsewhere. The global village has become a global dustbin. After sweeping the trash under the carpet for years, there is no space left. When we try to shovel more garbage from this side, it inevitably comes out on the other side. By reasserting the need for growth in the most industrialized societies, we are condemning economically less advanced societies to perpetual poverty.

GDP was designed as a war device. That war did not end in 1945, but continued ever since. It turned into a endless war against social equilibria, natural environments and non-renewable resources, in which consumers became the new foot soldiers. Ultimately, a war against our own future on this planet. By paraphrasing Lindblom, one may say that GDP has not only "imprisoned our thinking about politics and economics",[58] but also our capacity to reinvent our social environment. However, "where there are prisons, there are also jailbreaks."[59] In this process of emancipation, statistical reforms are important but grossly insufficient. A credible challenge to the GDP paradigm can only come from an open debate in society involving civil society groups, political parties, the media, sectoral organizations, religious groups as well as everybody else. Ideally, this process should involve citizens not only in the most industrialized countries but also in less affluent nations, particularly in the new emerging powers, which are nowadays the beacons of global economic growth. Not just the metrics, but also the underlying politics of GDP must be fundamentally challenged. For starters, this would require rethinking the principles and goals of economics as a human discipline and, quite importantly, the role of economists in society. But, more importantly, it would imply a fundamental re-appropriation of our political space. By challenging GDP, we stand a chance to regain control over our political, social and economic institutions.

58 Lindblom (1982), p.332.
59 Ibid., p. 330.

**BIOGRAPHY**

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