Wrong Economics Matters

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Wrong Economics Matters - Table of Contents

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This essay[1], which makes no claims to originality, is addressed to the non-economist[2] concerned about global problems. It aims to connect in straightforward language the failings of mainstream economics with both the outdated, unnecessarily constrained, but politically convenient, current model of public finance and the complacency of most corporate and finance leadership, which believes its own false rhetoric of wealth creation and in the myth of the superior beneficence of "free markets". This, when we urgently need government and business to collaborate respectfully and synergistically to try to stave off existential threats to humanity and its planet, including climate change, environmental degradation, inequality, and poverty.

At the end of the essay, I offer some conclusions about both economics and the economy followed by an epilogue which looks at some mechanisms for the required deeper societal change so far nascent but that could be catalysed by a rethinking of economics and its application to the economy.

A Discipline in Crisis

It is no exaggeration to say that economics is a discipline in prolonged crisis.[3] It is far distant from the truth quest[4] which should be guiding all human endeavours to understand the "big picture". Dissatisfaction with mainstream economics as taught in universities had been noticeable before but received a huge boost because of the global financial and economic crisis of 2008-11.

Having studied philosophy of science, I was uneasy from the start about the nature of the discipline as it was presented to me in the 1970s. The main textbook for the first year of my master's course was called Positive Economics. This made it clear that there was no place for value judgements in economics, which was a strictly scientific[5] discipline.

After the "crash", 2008-11, which only a handful of economists had predicted, students all over the world rebelled against their mainstream courses. Some of their teachers, including

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[1] ….. is an evolving work in progress. Revised and improved versions will be uploaded from time to time. Comments and suggestions are welcome using the contact page. My thanks to all those who have advised and helped me. Mistakes are my responsibility alone.

[2] It should also be of interest to many economists.

[3] As Veronique Dutraive, the editor of a forthcoming festschrift to honour the late David Graeber, anthropologist and activist, puts it, "The greatest disjuncture in the social sciences is between the image that economists have of their discipline, and its reality".

[4] *The Truth Quest,* forthcoming book by political philosopher, Louis Herman, my friend of 57 years. Louis tells me that my restless engagement with economics over fifty years has been my own Truth Quest.

[5] Whether economics is truly a science is a contested question. In the strict Popperian sense (Karl Popper, eminent philosopher of science) of making clear predictions, with all parameters controlled, that are in principle falsifiable, it is not.

Nobel memorial[6] laureates, admitted that what they were teaching was not fit for purpose. A new infrastructure supporting what has become known as heterodox economics, incorporating a pluralist approach to the discipline, has sprung up.

Resistance to the adoption of a new paradigm is common to many if not all academic disciplines as was demonstrated by Thomas Kuhn's seminal work *The Structure of Scientific Revolutions*. Sociologically it is understandable that those who have spent their lives working in the old paradigm and its infrastructure would naturally be unwilling to acknowledge the superiority of the new[7]. "The old paradigm dies one funeral at a time."[8]

The question for economics, and for economists, is why the resistance has been so fierce and prevailed for so long. There are competing answers. At one extreme is the view that mainstream economics suits the power structure of capitalism which finds multiple ways of supporting it and its proponents many of whom are sincere, hard-working, typically specialist academics unconcerned, or even unconscious,[9] of the wider implications of any ideological bias.

Another view places emphasis on the need to defend economics as a science with mathematical laws which can be revealed by theoretical study. (True experiments are not possible in economics as it relies on *ceteris paribus* – other things being equal – which they never are.[10]) This is sometimes known as the "physics envy" view. It supports the tendency for economics to become a branch of applied mathematics which requires too much abstraction from the real and messy world.

A third view, linked to but distinct from the first, goes to the ontology of economics. This would place economics firmly in the service of libertarian politics. Freedom of the individual is the supreme and overarching value. Friedrich Hayek, professor at LSE, (Nobel memorial prize 1974), founder in 1947 of the international "free market" think tank the Mont Pelerin Society, and author of the bestseller *The Road to Serfdom* (1944)[11] famously characterised

[6] The "Nobel prize" in economics was initiated in 1968 on the 300th anniversary of the establishment of the central bank of Sweden. (The 5 genuine Nobel prizes endowed posthumously by Alfred Nobel have been awarded annually since in 1901.) By agreement with the Nobel family, since 2001 the economics prize has been renamed the "Nobel memorial prize". The controversy over the status and politicisation of the economics prize is the subject of a 2016 book *The Nobel Factor: The Prize in Economics, Social Democracy and the Market Turn* by Avner Offer and Gabriel Soderberg.

[7] Steve Keen has recently pointed out (contribution to the 50th anniversary issue of the Journal of Australian Political Economy) an important distinction between hard sciences and economics. In the former, anomalies which eventually accumulate to the point where the old paradigm has to give way, continue to exist. In economics, challenges to the old paradigm, arising from crises in the economy, are successive and tend to replace each other.

[8] This is a short paraphrase of theoretical physicist Max Planck's observation: "A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it."

[9] "The greatest disjuncture in the social sciences is between the image that economists have of their discipline, and its reality." Steve Keen in his draft chapter in a forthcoming festschrift for the late David Graeber.

[10] The closest that economics has come to genuine experiments is the use of randomised control trials on micro level questions, but their proponents admit that beyond limited geographical and temporal boundaries they do not have validity.

[11] Written in reaction to Soviet and Nazi totalitarianism, but later Hayek did make a major contribution emphasising the information gathering and decision-making limitations of central planning given rapid change and uncertainty. His advocacy of the experiment and discovery advantages of dispersed competitive markets

John Maynard Keynes, who has a claim to be the greatest economist of all time, "as a very clever man but not a good economist". (This was after Keynes had died.) The Mont Pelerin Society[12] has sponsored the establishment of several well-funded influential institutes,[13] now linked in the Atlas Network, which has some 500 think tanks in membership in over 100 countries.

Heterodox economics brings back the history of economic ideas as part of the university curriculum, demonstrating pluralism and showing how the thought of past economists has been deliberately misconstrued to support today's monolithic version.

Adam Smith, for example, from the 18th century, considered by many as the father of economics, is today associated almost universally with today's idea of the "free market" and laissez-faire capitalism. In fact, although he saw the benefits of competitive supply, he also advocated watchdog mechanisms to prevent producer price-fixing conspiracies. By "free market" Smith was advocating something quite different: a market free of economic rent, that is unearned income. In his day this rent was enjoyed by the owners of agricultural land. And, again contrary to laissez-faire, Smith held that social trust and ethical behaviour were essential foundations for the beneficial operation of a market economy.[14]

The heterodox economics infrastructure now includes associations[15], journals, conferences, institutes, books, podcasts, and speakers. Its emergence is largely a response to the stranglehold that mainstream, (or orthodox or neoclassical - these are largely synonymous terms) economics had, and still has, over access to top journals as well as over textbooks, curricula, research funding and appointments in major universities. In at least one case a university[16] came close to setting up two economics departments: one orthodox and one heterodox.

There is good evidence[17] that students in Europe are motivated to study economics to tackle the big problems facing humanity, given the prominence of economics in decision-making by government and powerful corporations. Most of these students are seriously disappointed with the economics they are taught. In the US by contrast it seems that the motivation for studying economics is more likely to be materialistic in that an economics training is thought to be useful in launching a lucrative career. There is evidence that such students become even less altruistic and more focused on their own ambitions following exposure to university economics courses.

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for economic and social progress, what he called "spontaneous order", however, became an ideological position against any intervention, while claiming to be scientific. This was also the position taken by his disciple Milton Friedman.

[12] The Society was also instrumental in the establishment of the Nobel Memorial prize in economics.

[13] The UK's Institute of Economic Affairs is one such.

[14] See Smith's *The Theory of Moral Sentiments published in* 1759, seventeen years before *The Wealth of Nations.*

[15] The World Economics Association (WEA) has approx. 15,000 members, publishes the online journals Real-World Economics Review, Economic Thought and World Economic Review and has its own book imprint.

[16] University of Manitoba, Canada

[17] See for example Pühringer and Bäuerle*, International Journal of Social Economics*, Vol 46, No. 8, 2019. I am reminded of a conversation across the high table of an Oxford College when I mentioned to a post-doctoral researcher that I was thinking of teaching a course on "What's Wrong with Economics". Back came the answer: "What's right with it?"

Another kind of evidence for the crisis in the discipline is that, compared with other academic fields of study, economics has had least interaction with, and hence learning from, other disciplines such as history, philosophy, sociology, biology/ecology, law and physics. This is in part a reflection of the idea of economics as a master discipline with a uniquely privileged kind of knowledge that needs no input from outside.

Psychology is an interesting exception. The crude and simplistic framework for human psychology, that every individual ("man" – in 1880 when it was first promulgated) continuously maximises their utility (broadly: satisfaction) using perfect information, is still the basis of orthodox economics. Memorably satirised by Thorstein Veblen,[18] in 1898, as '*homo economicus,* a lightning calculator of pleasures and pains,' it is at last being challenged by behavioural economics, which is better named, in my view, as applied psychology.

Beginning with the idea of bounded rationality,[19] recognising that human beings have inherent cognitive and social limits to this kind of decision-making, a range of specific biases, leading to unknowing irrationality, has been identified. These include the confirmation, availability, hindsight, and overconfidence biases. To these we should add the empirically tested implications of *prospect theory*. Human beings are not symmetrical in their behaviour towards risk. They show loss aversion. Also, their behaviour depends on their starting reference point. Two Nobel memorial prizes in economics have been awarded to psychologists: Daniel Kahneman[20] in 2002 and Richard Thaler in 2017.

Then there is the male dominance of the discipline. Even compared with the hard sciences and engineering, women's participation in academic economics departments is very low. Until 2019 out of 69 Nobel memorial prizes in economics awarded only one went to a woman, Elinor Ostrom. And she won the prize for her work on cooperative mechanisms – a "soft" topic.

Let's also look at the role of mathematics in economics. In microeconomics, which is the study of transactions between individual elements in the economy, be they people, businesses, government departments, or non-profits, within markets, there has been a great deal of attention paid to the sophisticated analysis of choice and decision-making, among competing economic agents. The mathematical base is game theory.[21] A 1994 winner of the Nobel memorial economics prize was the mathematician, John Nash. While advances in this branch of applied mathematics have no doubt improved efficiency for government and business, it is not directly relevant to most people. Few have sufficient purchasing power to make this analysis relevant to their lives. Also, the continuing emphasis on the individual, rather than the societal group or class, as the unit, and hence the method, of analysis, distorts the whole discipline of microeconomics by its "methodological individualism."

[18] Noted and popular American philosopher

[19] This concept was introduced by Herbert Simon (Nobel memorial prize 1978)

[20] If I Amos Tversky had not died the prize would have been jointly awarded. Their somewhat rocky intellectual partnership is well described in "*The Undoing Project*" by Michael Lewis.

[21] This assumes that in the real world there are only imperfect markets. The abstraction of the perfect market does have its own mathematics, but it is theoretical.

In macroeconomics, which is the study of the aggregate elements of the whole economy such as consumption, saving, wages, profits, investment, exports, imports, taxation etc., mathematics has been used to create models of the whole or part of the economy, using various assumptions to allow the necessary degree of approximation and abstraction. Many, if not most, of these models are far removed from the real, untidy, and organic world. At the extreme, economics has become a branch of applied mathematics, attracting mathematicians rather than social scientists. One prominent heterodox economist, Steve Keen, has described this misuse of mathematics, including the failure to address non-linearities in relations between variables, and the absence of truly dynamic analysis, as "mythematics".

The use of mathematics within a discipline can give it a spurious sense of rigour[22], exactitude and "objectivity". It also removes the discussion of important economic issues from most people who do not have the tools to understand or question the mathematics. One of the popular recent books from the heterodox school, which describes the remote, unaccountable, yet politically enormously influential, economics profession is called *The Econocracy*.[23]

Keynes is often credited with the invention of macroeconomics.[24] Roosevelt drew heavily on his ideas for the New Deal which pulled America out of the Depression. Keynes recognised that the macroeconomy was not just the aggregation of all the transactions taking place in the microeconomy. It needed to be analysed as a separate entity with its own properties and would not normally be in equilibrium at full employment. It was therefore something that could be influenced, indeed managed, by government actions and policies. These days we would characterise this relationship as the macro economy having "emergent properties" distinct from an aggregation of microeconomics transactions.

Emergent properties occur in many other disciplines, including physics, chemistry, and biology, where the population of individual elements, taken as a whole, behaves in a distinct manner, not deducible from the behaviour of individual elements. There is a methodological asymmetry: a reductionist approach to the analysis of phenomena by identifying and understanding their smallest parts is useful and powerful; a constructionist approach to understanding the whole phenomenon by aggregating the behaviour and properties of its smallest parts is fundamentally unsound.

Unfortunately, Keynes died young at 63 in 1946 and was not able to lead his supporters to defend his ideas against the neoclassical resurgence which re-asserted the primacy of the "free market", held that macroeconomics had to be built upon, and be consistent with, microeconomics, and characterised government intervention, interfering with the supposed natural tendency to equilibrium, with full employment, as at best a necessary evil. [All real

[22] Kenneth Boulding, a distinguished US economist quipped, "Mathematics brought rigor to economics. Unfortunately, it also brought mortis."

[23] Fifty years ago, the respected academic economist Axel Leijonhufvud published his article "*Life among the Econ*" which sharply satirised the "tribe" of economists.

[24] The word "economics" is missing from the title of Keynes's best-known work, "*The General Theory of Employment Interest and Money*" (1936). This may reflect Keynes's criticism of what he called "the classical economics" not so much for its logical and technical flaws but more for its assumptions which distanced it from the real world.

markets are subject to some degree of regulation, so none is "free".] Worse, Keynes was traduced: some economists opposed to his thinking called themselves neo-Keynesians.[25]

The neoclassical school, which grew up in the 1880s, is associated with the introduction of marginal analysis[26], concepts like utility (discussed above), and above all graphical abstractions showing economic situations transferring from one "equilibrium"[27] state to another - comparative statics instead of true dynamic analysis[28]. This was the beginning of "physics envy", from which economics still suffers. At that time, the hierarchy within academia was based on how "scientific" your discipline was. The drive was to find the "laws" of economics, expressed mathematically, in the same way as the "laws" of physics. Before this period there was no economics; there was only political economy, which had no pretensions to be a science or to be free of value judgements.

Neoclassical economics has remained within the paradigm of mechanistic scientific metaphysics while truly scientific disciplines, including physics, have begun to rethink these foundations. The machine and clock metaphors, essentially linear, are giving way to an organismic, ecological and evolutionary approach. The whole notion of eternal, unchanging "laws" governing the entire universe is being recognised[29] as an anthropomorphism. Human societies create laws - and change them.

As would be expected there have been many attempts to make incremental changes to the neoclassical framework to respond to its glaring failings, and to make it more fit for purpose. Beyond this, the heterodox economics movement has become well established in the last 15 years. Within the heterodox movement are several schools and approaches, not mutually exclusive, and with some overlaps. We have for example, as well as behavioural

[25] The effort to close down Keynes's revolutionary approach started early. Sir John Hicks's article, "Mr Keynes and the 'Classics'; a suggested interpretation", appeared in 1937. In it he created a diagram showing the "IS" line implying that the interest rate varies to ensure that investment is equal to savings. Keynes, in contrast, saw investment as an uncertain quantity, not limited by savings since banks can create the credit required, but dependent on the confidence of entrepreneurs and investors – his "animal spirits". Late in his life, as Steve Keen recounts, Hicks retracted the approach in his article, but much damage had been done.

[26] This powerful but simplistic abstraction derives mainly from the "Law" of Diminishing Returns, which holds that in consumption each additional unit of the item consumed provides less utility (satisfaction) than the previous one, and in production that the application of each additional unit of a variable factor, typically labour, to a fixed factor, usually physical capital, will yield less extra output than the previous one. Thus the "demand curve" is downward sloping. The price the consumer is willing to pay, in line with marginal utility, falls with the quantity consumed. The "supply curve" of a producer (in the short term while his capital is fixed) is upward sloping, because the marginal cost of each additional unit of output is rising. The producer will increase output only until marginal cost rises to meet marginal revenue (unit price) which is falling as quantity supplied increases. Quantity demanded equals quantity supplied at the (static) equilibrium price.

[27] Steve Keen has recently summarised the bankruptcy of the equilibrium approach:

- "Irving Fischer and John Hicks abandoned equilibrium: Both founders of equilibrium theory later rejected it after the Great Depression and 1970s crises [respectively], stating the economy is never in equilibrium—yet modern economists ignore this and continue teaching outdated models.
- Scientists proved systems operate far from equilibrium 60 years ago: Edward Lorenz discovered in the 1960s that real-world systems exhibit chaotic, nonlinear behaviour—not the stable equilibrium neoclassical models assume."

[28] Steve Keen has also recently pointed out that Alfred Marshall (Principles of Economics, 1890), Keynes's teacher at Cambridge, among others, recognised at the time that comparative statics was an inadequate analytical tool and looked forward to a true dynamic analysis becoming mathematically available.

[29] Even physics now recognises that its laws are not immutable, beyond space and time, but are evolving. See Thomas Hertog, *On the Origin of Time,* 2023.

economics, ecological economics, feminist economics and evolutionary economics. This pluralism cuts both ways. On the one hand it emphasises that the neoclassical paradigm is just that and not economics itself. On the other hand, critics of the heterodox approach point to the lack of a comprehensive replacement for the neoclassical framework.

This criticism underscores the importance of the work of Steve Keen and his colleagues over the last five years to develop the first system-dynamics modelling tool for the macroeconomy and make it freely available. It is called "Minsky"[30] in honour of an outstanding heterodox economist of an earlier generation. Minsky is potentially a breaker of the neoclassical paradigm and in that sense revolutionary. Steve Keen's major work is *Debunking Economics,* 2nd edition, 2011. In 2021, he published *The New Economics: A Manifesto.* This short book is a comprehensive demolition, in largely non-technical language, of neoclassical economics.

Almost 18 months after its publication no academic reviews had yet appeared in orthodox economic journals. A long and thorough review[31] in a prominent heterodox online journal by Bichler & Nitzan, distinguished left-wing political economists, is very positive. However, they note that a power analysis of capitalism, which they say all macroeconomics lacks, is once again missing. I try to address this issue later in this essay in the context of the relationships between the public and private sectors of the economy, the limits on corporate power, and the debate between narrow and broader interpretations of the functions of corporations.

Keen won two international awards in 2022: the inaugural Friede-Gard prize "for scientific achievements which represent specific progress of economics with regard to establishing a sustainable economy and society;" and the inaugural award for strategic thought-leadership from the International Institute for Strategic Leadership. This Institute is dedicated to "The Evolution of Economic Ecosystems" and is a joint project of participants MIT, Stanford, Harvard, Oxford, and LSE.

Keen reserves his most bitter criticism of Neoclassical economics for what he sees as its complete failure to provide sensible advice on climate change. He attacks the DICE model, "Dynamic Integrated Model of Climate and the Economy" used by William Nordhaus (Nobel memorial prize 2018) among others. Keen points out that DICE is based on the 1928 Neoclassical long-term growth model which is also the foundation for the DSGE ("Dynamic Stochastic General Equilibrium") macroeconomic model. The DGSE[32] spectacularly failed to anticipate the Global Financial Crisis of 2008.

Nordhaus adapted DICE using a quadratic[33] to model the relationship between an increase in global temperature and its effect on the global economy. This resulted in his estimates that 3°C of warming would, after 130 years, result in a decline of just 2.1% of global income and 6°C of warming, a decline of only 8.5%. The use of a quadratic, a smoothly continuous form, "implies that there are no temperature levels that set off catastrophic breakdown in

[30] The open-source version of Minky, available to all interested in macroeconomic modelling, is called Ravel.
[31] *Real-World Economics Review*, Issue No. 102, pp. 156-163.
[32] Another mainstream macroeconomic model based on the same foundation, which also failed was the RBC ("Real Business Cycle")
[33] That is the decline in GDP is a function of the temperature difference squared.

the economy by triggering fundamental qualitative shifts in the climate—such as melting the icecaps, stopping the Gulf Stream, or turning El Nino from a temporary phenomenon into a permanent one."[34] Nordhaus's work has at last (2022) been repudiated by other mainstream economists as "inadequate to capture deep uncertainty and extreme risk",[35] but is still embedded in internationally agreed approaches to climate change's effects on the economy.

Over the same five-year period that Keen's dynamic modelling work, and his other critical perspectives, have developed into a serious challenge to the mainstream approach, there has finally been something of a return within the economics profession, though still affecting a minority, to political economy. Questions of purpose and values, equity as well as efficiency, are again being addressed. This is associated, in my mind at least, with the rise to prominence, at last, of some women economists.[36] Among these, I would mention Esther Duflo who was a joint Nobel memorial prize winner with her husband Abhijit Bannerjee in 2019 - their latest book is called *Good Economics for Hard Times*, Kate Raworth, my ex-colleague at Oxfam, who invented the concept and wrote the book *Doughnut Economics*, more than 250,000 copies sold in 20 languages since publication in autumn 2017, Mariana Mazzucato[37] whose books include *The Entrepreneurial State, The Value of Everything,* subtitled *Making and Taking in the Global Economy,* and in 2021, *Mission Economy,* subtitled, *A Moonshot Guide To Changing Capitalism* and finally Stephanie Kelton*,* author of *The Deficit Myth,* published in 2020*.*

What do these books have in common? They are all accessible to the general reader, contain a minimum of jargon, and are anchored in the real world. They generally avoid mathematics and modelling. Without being patronising, indeed claiming to be a feminist, I think that women, who have prime responsibility for families and children, should certainly have academically excellent voices heard in this discipline, which has been so politically influential for so long.

"Inequality" in Economics

Discussion of inequality within microeconomics is seriously hampered by the methodological individualism, already discussed, with utility maximising man, *homo economicus*, possessing significant purchasing power*,* as the unit of analysis.

It is not hard to imagine an analytical framework based on two stylised *households*: one with some savings, an ownership interest in a house or an apartment and a disposable income, and a second with none of these, living from paycheck to paycheck or from one

[34] Keen, S "The Cost of Climate Change" https://evonomics.com/steve-keen-nordhaus-climate-change-economics/

[35] Stiglitz J., Stern N., Taylor C., "The economics of immense risk, urgent action and radical change: towards new approaches to the economics of climate change", *Journal of Economic Methodology*, 2022

[36] Feminist economics is a separate but important branch of the subject. Leading figures include Julie Nelson, Nancy Folbre, Diane Els on and Marilyn Waring. *Who cooked Adam Smith's dinner?* by Katrine Marçal, is a light-hearted but penetrating look at the relationship between women and economics.

[37] Founder-director of the Institute for Innovation and Public Purpose, (IIPP) housed at University College London.

benefit payment to the next, just covering rent and other necessities[38]. The latter of course represents the majority of people. A microeconomics of the real world needs to consider both from the outset.

The position is not much better within macroeconomics, where "labour economics" is the traditional term used. This treats humanity, with some allowance for skill levels, instrumentally – as a factor of production. The objective, unquestioned, is to *maximise production* of goods and services with just enough "compensation" - pay, quality of conditions, and benefits - to retain those workers needed.

The ultimate goal, or the truth quest, of the economics discipline should rather be to support a political economy that strives to *maximise well-being* of all people, women, children, and men, and the planet. Remember Schumacher's subtitle, *A study of economics as if people mattered.*

Poverty[39], absolute rather than relative, the latter being just a narrower concept of inequality[40], is incompatible with well-being. But some level of inequality of outcomes is inevitable in a free society. This truth must be distinguished from arguments from fifty years ago that there is an *optimal* level of inequality consistent with rapid economic growth, itself now under question as the universal panacea, which have no evidential support.

A highly influential book, *The Spirit Level*, published in 2010, by Kate Pickett (yes: another woman economist) and Richard Wilkinson, argued convincingly, based on extensive cross-sectional empirical studies, that more equality, basically congruent with less poverty, in a society was better for all its members, rich as well as poor.

Their studies covered life expectancy, educational outcomes, crime rates, mental health problems, drug abuse, obesity, the proportion of unhappy children, bullying behaviour, social distrust and reduced economic growth - now we would rather use the term "economic capacity."

Their deeper explanation for the specific findings is that in more equal societies, people throughout the income distribution tend to have greater trust in their fellow citizens. Inequality affects everyone because the more a society is divided into haves and have-nots, the more mental, physical, and economic capital everyone has to expend to protect or improve their position. This idea is largely captured by the common phrase "feeling that we are all in the same boat."

It is important in all discussions of inequality to distinguish between the super-rich who form a tiny minority within the top 1 percent of incomes and wealth and the more general phenomenon of inequality which affects all of society, although there is no doubt of the power of celebrity associated with the super-rich.

[38] 17% of adults in the UK had no savings at all and a further 9% had less than £100. 39% of UK adults are unable to save regularly. *UK Adult Financial Wellbeing 2021,* Money and Pensions Service, Sept. 2022.
[39] Poverty in the Global South is one of the eight economic concepts examined in the following section.
[40] Relative poverty is defined with respect to median income. Usually the "poverty line" is set at 60%.

Karl Widerquist, who has doctorates in both philosophy and economics, is a leading proponent, within a growing international network of academic and policy support, of the introduction of a Universal Basic Income, that is an unconditional payment to every adult[41]. He draws our attention to a hidden assumption underlying mainstream economics, which is closely linked to inequality and poverty. That is that participation through working in the economy is mandatory for all healthy people of working age, except of course the wealthy.

Traditionally, in economics language the wealthy are the 'rentiers', who receive income, 'rent', from their ownership of assets, rather than from their work. A second important failing of microeconomics is the even smaller attention paid to inequality of wealth[42] rather than of income.

Being long-term unemployed, as the name implies, carries a social and moral stigma with it, with accusations of laziness and "freeloading" on the hard work of others. But there could be another approach and that is an economy based on voluntary participation.

As he puts it: the question behind this is:

> "Should everyone get an income—even people who could take jobs but choose not to?
>
> …..If jobs need doing, we have enormous ability to get people to work by offering good salaries, good working conditions, advancement opportunities, respect, and access to the many luxuries our economy is capable of producing.
>
> If you need the background threat of homelessness and hunger to get people to do the job you want them to do, for the wages you're willing to pay, maybe your job doesn't need to be done at all.
>
> A livable UBI [that is one provides income enough for basic subsistence] eliminates poverty. Poverty is not the failure to meet one's basic needs; it is the inability to *afford* to meet one's basic needs.
>
> "Also, the introduction of a UBI (without other changes) simply creates a market economy where income doesn't start at zero. It establishes a gapless safety net while leaving the many opportunities of the market in place." [43]

Widerquist also demonstrates that much of the opposition to the introduction of a UBI is based on calculations of its gross cost. This, either deliberately or from misunderstanding, is

[41] Most UBI designs have a proportion of the payment made to children in addition.
[42] Thomas Piketty's unlikely bestseller *Capital in the 21st-Century,* 2013, dramatically raised the profile of the issue of wealth inequality. His central insight is that inequality increases as long as the rate of return on capital (r) exceeds the rate of growth of the economy (g). This has been the case for most of the last 200 years. The period 1945-1973 was an exception.
[43] Widerquist, Karl. Universal Basic Income (The MIT Press Essential Knowledge series), MIT Press, 2024.

a huge exaggeration. Only the net cost, allowing for extra tax revenue from everyone who receives non-UBI income[44], is relevant.

The introduction of a UBI would of course replace much of the current hugely complex, expensive and economically unproductive conditional benefit system, meaning that its true cost would be much lower still. This argument led many distinguished economists[45] in the 1960s and 1970s, both from the right and the left, to support the principle of UBI, in the form of a Basic Income Guarantee.

These flaws in the foundations of mainstream economics, and the unasked[46] question behind the UBI, go alongside the facts of grossly unequal distribution of income and wealth, as well as the prevalence of widespread absolute poverty even in many so-called "rich" or "developed" countries under today's capitalism. This is a prime focus for those critics who would like to replace it.

The arguments in favour of capitalism, on which both mainstream and heterodox economics are based, are less well understood. If, and of course it is a "big if", monopoly power and tax evasion can be adequately restrained by strong, internationally effective anti-trust regulation and tax treaties, capitalism's dynamic nature would promote, through healthy, risk-taking competition, both evolutionary innovation and the efficient use of resources in the economy. These two features of capitalism are essential to overcome the continual and inevitable flow of new obstacles to human and planetary welfare.

But does capitalism necessarily imply gross inequality or absolute poverty? Does it always have to be accompanied by poor quality public services, which the wealthy need far less, or the lack of any constraint on environmental degradation? There are in fact large variations in both income and wealth inequality, as well as corporate culture, between nation states and in the strength of regulation to protect the environment. These variations go well beyond better economics and are examples of the political context which affects both the academic discipline of economics and of course the economy itself.[47]

The issue of inequality is addressed again in specific topics within economics. Inequality in the economy features frequently in the second section of this essay.

How "True" Are Eight Everyday Economics Concepts?

[44] The burden of the tax revenue raised would be fairly distributed by reflecting upward progression in marginal rates of income tax. To minimise any disincentive effect of higher taxation on work effort, Widerquist suggests that some of the additional tax should be raised by wealth taxes on the rentier sector.

[45] These included James Tobin, James Meade, Herbert Simon, James Buchannan, F. A. Hayek, and Milton Friedman.

[46] With the already enormous impact of AI on employment opportunities, with much further to come, the question is now being asked more and more widely.

[47] Steve Keen has pointed out that unlike engineering which would not exist without engineers the economy would continue to exist without economists. He would go further and say that mainstream economists have actually had a negative influence on the economy's performance in coping with its major challenges.

In applying the truth quest approach both to the workings of the real economy and to the academic discipline of economics, which profoundly influence each other, let's look at the fragility/truth value of some of the economic concepts that we all take for granted.

Starting with "the economy" itself, we go on to consider "wealth", "capital", "economic growth", "consumption", "international development", "poverty" and finally the "circular flow of income".

The "deficit", "government borrowing", "inflation", "investment", "non-government, that is private, debt" and "free trade" get their own sections.

Take the whole notion of "**the economy**". This is purely an abstraction that we all believe in, but it's not a real thing. It was invented, as a quantitative tool, in the Depression years when people knew things were bad but had no measure overall of just how bad things were. So, in 1937 in the US a measure of overall national income was designed and calculated, for the years 1929 to 1935. It was called Gross Domestic Product, which soon became GDP. That was the beginning of the idea of a quantitative national economy.

In 1944 at the Bretton Woods conference[48] GDP was made the global standard. GDP's designer, Simon Kuznets, warned at the time: "The welfare of a nation can scarcely be inferred from a measurement of national income." This has not prevented the widespread use of the measure of GDP as shorthand for "the economy". Whole books have been written about the shortcomings of GDP when it is used in this way. But that is a different point from the one I am making here: the existence and common use of the GDP measure has acted to concretise "the economy", as a single amount - it is in fact "per year", that is a flow rather than a stock - of money, which is a severe abstraction from reality: people, mostly struggling, and their environment, seriously threatened.

What about "the economy" of primal people, bands of hunter gatherers? Is it true that their existence was a continuous and desperate struggle for survival? Not so: modern anthropological scholarship now describes it as "The Original Affluent Society"[49]. Not only did people have time for leisure and creative arts, but bands of people were largely egalitarian communities. "Poverty is a disease of civilisation."[50]

The qualitative understanding of the economy as the combination of different economic activities, not all the same value to society, goes back to the Physiocrats, a group of economists in 18th century France, with their *tableau economique*. The idea that the value

[48] Held in a small town in New England with the aim of designing the post war international Institutional framework, including the UN, the IMF, and the World Bank.
[49] First essay in Marshall Sahlins, *Stone Age Economics,* originally published 1972. The 2017 Routledge edition has a powerful and contemporary foreword, by the late anthropologist, David Graeber. Sahlins's position has received recent additional scholarly support in Luke Kemp's seminal 2024 book, *Goliath's Curse*.
[50] This is actually a pithy paraphrase of Sahlins's remark: "Poverty is a social status. As such it is the invention of civilization."

of an activity is automatically captured by its monetary cost is being challenged again by heterodox economists. The distinction in principle between intrinsic or use-value and value in market exchange was an important element in Karl Marx's approach.

Now let's consider "**wealth**". At the height of the financial crisis in November 2009, Lloyd Blankfein, president of Goldman Sachs, America's largest investment bank, said the following:

"We're very important. We help companies to grow by helping them to raise capital. Companies that grow create wealth. This, in turn, allows people to have jobs that create more growth and more wealth. It's a virtuous cycle……we are doing God's work."

But what did he mean by wealth? The figures on a company balance sheet, whether a bank or a company in a non-financial sector, are just that: figures on a piece of paper. They are monetary representations of tangible assets like land, forests, buildings, machinery, equipment, vehicles, and stocks of finished goods. Increasingly, balance sheets also contain figures for intangible assets, such as research and development work, software, brands ("brand equity"), intellectual property (patents, trademarks, licenses etc.).

There are two related issues here. First, if the value of an asset goes up, for example a piece of real estate gets sold at a higher valuation than is recognised in the seller's balance sheet, has anything real been created? After all it's the same piece of land and the same building.

Second, there are finite numbers of tangible and intangible assets that exist and there is a finite physical amount of goods and services produced in the year. But unlike these, financial assets, such as bank deposits, loans, or the value of stocks and shares, have no quantitative limits. They are therefore just *claims* on "real" assets, or goods and services produced. And these claims, in total, may in fact far exceed the assets or goods and services available. Moreover, the claims by the wealthy on consumption tend to bid up prices making it more difficult for people in general to afford things.

What about "**capital**"? We have already introduced *financial* capital. The combined value of the five Tech Giants[51] alone as measured by their current "market capitalisation" (share price times the number of shares in issue) on the American stock exchanges is more than $13 trillion. The AI specialist Nvidia alone has a market capitalisation of more than $4 trillion. But the average price-earnings ratio for the S&P 500[52] has moved from about 10 in the period 1973-1985 to over 20 in the last twenty years. This means that the financial value of corporates, without allowing for any increase in their earnings over that period, has more than doubled. Even Bitcoin's market capitalisation has reached $1 trillion. Globally the value of equity shares quoted on all stock exchanges in 2025 is estimated at $127 trillion.[53]

We can recognise in addition three more kinds of capital.

First is the familiar *"manufactured"* capital. This descriptor is seriously out of date. It looks back to a time when simple machines (as well as household items) were made mainly by

[51] Amazon, Alphabet (parent of Google), Apple, Meta (parent of Facebook), and Microsoft.
[52] The index representing the largest American corporates.
[53] Source: SIFMA (Securities Industry and Financial Markets Association)

hand in domestic factories, during and after the industrial revolution. Economists still like to use their traditional example term “widgets”. Today’s sophisticated products are typically assembled from components sourced from global supply chains and made using capital-intensive techniques. *Physical* capital is an alternative and better term.

Capital (or investment) items, that is those not produced for consumption, include transport and many other kinds of domestic infrastructure. There are buildings and their associated plant and equipment including schools and hospitals, airports, power plants, dams, oil refineries, chemical and other process plants, mines, water treatment facilities, factories with their machines and robots, studios, warehouses, commercial offices, shopping malls, and residential properties with their consumer durables.

Then there are roads, bridges, railways, and vehicles: passenger and transport aircraft, cars vans and trucks, railway locomotives and rolling stock.

Agriculture particularly the modern large-scale intensive system relies on capital investment in equipment, machinery and specialised vehicles.

We must not forget weapons, including fighter jets, tanks, bombs, guns and ammunition.

A surprisingly high[54] proportion of total capital[55] expenditure now goes into what until a few decades ago was called the “ICT”[56] revolution. Films, TV series, video game construction, design of household computers, tablets, and games consoles, and the communication networks that link them – and us – including the internet.

Then there are truly intangible assets, though still “manufactured”, for example “brand equity”- think Coca Cola, or capitalised expenditure on research and development, or patents, trademarks, and other intellectual property assets. Incorporating this kind of capital into the standard (SNA) System of National Accounts as part of capital formation raises additional methodological problems.[57]

We should remember that the traditional accounting basis for the valuation of all kinds of manufactured capital is the historical cost convention: “the lower of historical cost and net realisable value”. This does not work where there is price inflation in real estate, or another asset, which outpaces the actual reduction in the remaining economic life of the asset. I will revisit this later in the essay.

The second non-financial kind is *human* capital meaning the investment made in education and skills, improving capabilities, including creativity and problem solving, but extending to all aspects of culture and to all varieties of human beings.

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[54] But unknown! At least with any reasonable degree of confidence. Average cost to produce a major studio movie in the US is around $65 million. When marketing and distribution costs are added the figure rises to $100 million. At least 500 US movies are released each year.

[55] The distinction between capital and consumer goods is increasingly hard to make consistently. One suspects that the global standard SNA (System of National Accounts) is grappling with this problem and successive revisions will have to tackle it.

[56] Information and Communications Technologies.

[57] These and related issues are discussed in *Capitalism Without Capital - The Rise of The Intangible Economy.* Jonathan Haskel and Stian Westlake, 2017

Third is *natural* capital. This refers to the environment broadly considered. There are the oceans, the seas, the rivers and the lakes; the land – plains, hills, mountains and wilderness. Stocks of minerals and fossil fuels under land and sea, capable of economical extraction, which are diminishing. Then there are indigenous peoples, with their ancient cultures and wisdom, with little or no human capital investment, typically under pressure from a variety of aspects of modernity and with fast reducing populations. Other animals, including the rest of humanity, are of course part of natural capital: mammals, reptiles, fish – food stocks for humans threatened by overfishing - birds, and insects. Finally, we have trees, sometimes in forests - the Amazon rain forest, earth's "green lung", almost defenceless against logging activity - other plants, vegetables and flowers. Considering animal and vegetable species together the scientific consensus is that we are in the age of the sixth great extinction - this time caused by human activity.

In addition to obvious elements vital for human life such as clean air, fresh water, fertile soils, and a climate that supports it, there are a whole host of other "ecosystem services" without which human life, economic and social, as well as most animal life, could not continue. All these are derived from the stock of natural capital.

In a famous paper produced in 1997 by an interdisciplinary group of scientists led by Robert Costanza called *The Value of Ecosystem Services*, it was shown that, in total, these dwarfed global GDP. There have been lots of arguments about the evaluation methods of individual services, and rightly so, but the key is that ecosystem services are the foundation of human life on earth, and we should take them as seriously as we do GDP, if not more so.

In business accounting, a deduction is made against profit for depreciation of assets, manufactured capital, as they become less valuable because they have a finite economic life. The rates of depreciation vary. For example, they are higher for vehicles than for buildings, which obviously last much longer. This is one of the main differences between gross profit and net profit of an enterprise. Another phrase for depreciation is capital consumption.

Although it is a much less familiar measure of national income, we do have NDP or Net Domestic Product which allows for a deduction for capital consumption of manufactured capital across the economy.

Distinguished economists, such as Sir Partha Dasgupta[58] in the UK, have suggested that for economics to be useful in the future we should, before deciding whether the economy has grown or not, make a deduction for the consumption of *natural c*apital. This would capture all aspects of environmental degradation, from loss of biodiversity to reductions in rainforest cover, reserves of clean water, ocean fish stocks, and increases in desertification, inland water areas dead to all life, farmland polluted by saltwater incursion, islands of plastic waste in the oceans, amongst many others.

In his new book *Legacy: How to build the sustainable economy,* Sir Dieter Helm[59] goes further. He makes an important distinction between capital consumption and capital

[58] Professor emeritus of economics at the University of Cambridge.
[59] Professor of Economic Policy at the University of Oxford

maintenance. The former applies when financial resources are regularly set aside from income for buying or building new capital items once the economic life of existing items has come to an end. The latter applies to natural capital assets, where maintenance - and improvement - work must be done and paid for continuously. We cannot buy or build replacement natural capital. We can, however, try to retune our economic activity to make it, using Kate Raworth's term, *regenerative* of natural capital.

Dieter Helm says that we happily go on using the expression "unsustainable economy" without facing up to its implication. That it will *stop* - either suddenly and catastrophically or, with a huge and urgent effort, in a planned transition. He points out that the *flow* of goods and services which we take for granted has depended since about 1900 on our continued consumption of the *stock* of non-renewable fossil fuels.

The struggle to maintain the stock of natural capital assets, including, most importantly, biodiversity, and pass them on in a good state for the benefit of future generations is greatly exacerbated by the enormous increase in human population over the past hundred years, from 2 to 8 billion.[60] The change in the relationship between the natural environment and humanity was beautifully captured by Kenneth Boulding in a 1966 article.[61] He used an analogy contrasting the "cowboy economy" with the "spaceman economy". In the former there were vast expanses of resources and an ever-beckoning frontier. In the latter there was a single earthly spaceship in which man had to find his place[62] in a cyclical, ecological system limited by energy inputs ultimately derived from the sun.

We have touched on the question of determining whether the economy has grown. Just as we have "fetishized" GDP which began life as a simple measurement tool, so we have turned "**economic growth**" - increases or decreases in GDP - as the most important indicator of the success or failure of society to progress. Quite apart from the fact that GDP includes "bads" as well as "goods", for example expenditure on cleaning up pollution - the more pollution, the more we spend – or that it excludes the hard work, mainly done by women, of raising children and looking after elderly family members – the care economy, whether GDP goes up 2% or down 2% in any year makes very little difference to the mass of ordinary people. This is especially true when growth is unequally distributed, so that the rich capture most, if not all, of any benefit. "Trickle down", amplified by tax cuts for corporates and rich individuals under the rubric of "supply side economics" is just a bankrupt slogan, contradicted by solid evidence. [63]

The shortcomings of economic growth as a measure of the increase in the welfare of society are well known. But attempts to replace it with a better measurement tool have not so far

[60] The rate of increase in the human population has slowed for the first time in history.
[61] The Economics of the Coming Spaceship Earth.
[62] Reflecting the fact that 8 billion humans are now by far the biggest influence on the earth's geology and ecosystems, many are using the term Anthropocene (still unofficial, scientifically) for the current geological epoch. An elegant but deeply pessimistic essay "Learning to Die in the Anthropocene" by Ray Scranton appeared in 2015.
[63] A UK study (Hope & Limberg, 2020) of 18 developed countries, comparing those that passed tax cuts in a particular year with those that didn't, showed that five years later there was no difference between the growth in GDP per capita and the change in the unemployment rate between the two groups. Moreover, the incomes of the rich grew much faster in countries where tax rates were lowered. Instead of trickling down to the middle-class the effect was to help the rich become richer, so increasing inequality.

succeeded. The human development index (HDI), launched in 1990 by UNDP (United Nations Development Program), and now in an inequality-adjusted version, for example, has components representing health, education, and incomes but it struggles to gain recognition. Possibly the attempt to capture in one measurement all aspects of society's welfare is futile. Better perhaps to focus separately on areas that are important to everyone, like food security, adequate housing, health and educational outcomes, modern, efficient infrastructure, and reducing both crime and environmental degradation.

This is in line with Kate Raworth's (Doughnut Economics) approach. She says that she is agnostic about growth; it's a residual measure. What matters is hitting targets for real needs in the service of creating a just and safe society, which is thriving. The outer rim of the doughnut represents the safe environmental limits to human civilisation while the inner ring represents the frontier below which social justice is not achieved in terms of absence of poverty, access to healthcare and education, protection from violence, and gender equality. She is calling for an economy which is both regenerative of the environment and distributive to reduce inequality.

In countries where there is too much emphasis on the consumption of energy and non-essential material goods, low levels of recycling and the attendant problems of waste, a good result might mean that GDP growth comes out negative. By contrast for a society where most people are short of food and shelter, reaching targets is likely to result in positive GDP growth.

When we talk about economic growth, that is increases in GDP, we are really talking mainly about increases in household "**consumption**" since that is the largest component of demand in the economy. Investment which is the other main component is generally 25% or less. (There are also components, within the GDP measure, for direct government spending and net exports). Remember that Simon Kuznets, the designer of the GDP measure, said that it was no guide to the welfare of a nation.

A separate but equally important issue is that, where consumption is of material items, "goods" in economics speak, rather than services and there is little of the three Rs (reduce, reuse, recycle), there is an obvious danger of resource exhaustion. For consumer durables, we can add a fourth R - repair. This is not just a problem for non-renewable resources; the energy required to make new consumer goods, and the associated waste and pollution, also apply to renewables as source materials. The old idea that substitutability between different raw materials and between different finished goods would deal with this issue is no longer credible.

That happiness improvements for many countries as measured subjectively have diverged over time from increases in GDP per head is well established. As The Economist put it, reviewing all the available data, "Long-term GDP growth does not seem to be enough to turn the average frown upside-down."[64] A more profound illustration which links the two issues comes from "Buddhist Economics" a short but immensely fruitful essay included in E.F. Schumacher's 1973 book *Small is Beautiful.*[65]

[64] Issue March 21st, 2019

[65] The subtitle is "*a study of economics as if people mattered*". Schumacher, who was a philosopher of human sustainability as well as a technically gifted economist, became an internationally famous speaker, although

> A modern economist …is used to measuring the "standard of living" by the amount of annual consumption, assuming all the time that a man who consumes more is "better off" than a man who consumes less. A Buddhist economist would consider this approach excessively irrational: since consumption is merely a means to human well-being, the aim should be to obtain the maximum of well-being with the minimum of consumption.

Now let's consider **"International Development".** The implication of this phrase is of course that some nations are more "developed" then others. The effort by rich countries to bring what were originally called backward nations, then under-developed countries, "up to speed" dates from 1944 when the architecture of the new post-war institutions was established. These included the United Nations, the International Monetary Fund, and the World Bank[66]. The first approach was a simple one. With enough Western capital and expertise, the "modernisation" problem would be solved quite quickly. The adviser to successive US presidents over almost 50 years most closely associated with this approach was W. W.[67] Rostow. The endpoint of his *Stages of Economic Growth*[68], a linear path to be followed by all countries[69], was industrialisation and high mass consumption. Only gradually has a broader and deeper understanding of "development", applying to *people* in all countries "rich" and "poor" alike, begun to be accepted. The seminal book is *Development as Freedom* by economist and philosopher Amartya Sen (Nobel memorial prize 1998).

What about "**poverty**"? Another outstanding female economist is Sabine Alkire, the founder of the Oxford Poverty and Human Development Initiative, and the inventor of the multi-dimensional poverty index or MPI applied to poorer regions and countries. Instead of trying to define "poverty" simplistically by an arbitrary[70] monetary income level - poverty is a condition of life not a characteristic, like their income level, of "the poor"[71] - the MPI focuses on specific deprivations affecting households, captured unambiguously (yes/no) in surveys. Areas covered are education, health (including nutrition), and living-standards. Deprivation examples are: no household member aged 10 years or older has completed six years of schooling; any child has died in the family in the five-year period preceding the survey; any adult under 70 years or child for whom there is nutritional information is undernourished; the household has no electricity; the household does not have access to improved drinking water (according to SDG[72] guidelines) or safe drinking water is more than a 30-minute walk from home, roundtrip.

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vilified by mainstream economists. He was one of the first environmentalists, concerned with resource depletion and preservation of natural capital. He died at only 66 in 1977.

[66] Originally the International Bank for Reconstruction and Development (IBRD)

[67] His parents, Jewish immigrants to the US, named him after the much-loved poet Walt Whitman.

[68] The Cold War backdrop to the Rostow approach is clear from the subtitle of the 1960 edition "a non-Communist Manifesto".

[69] A cautionary tale about South Korea, a star performer, is given by the brilliant economist Ha Joon Chang in his lecture "The political economy of "Parasite" – the award-winning film. The country has one of the world's highest suicide rates and the lowest TFR (total fertility rate).

[70] There are in any case huge problems in using purchasing power parities (PPP) to arrive at a globally appropriate level.

[71] People living in poverty –not "poor people", find themselves in a psychological prison, without "agency", once they have tried to escape poverty several times and been knocked back. See for example "*Disadvantage"* Wolff and De-Shalit, 2007.

[72] UN Sustainable Development Goals

One of the virtues of the MPI is that it can be applied in both rural and urban settings, though the pattern and intensity of their deprivations differ. At some point between 1970 and 1980 "the world went urban." More people lived in cities than in the countryside. This trend is expected to continue and accelerate. It is estimated that by 2050 two-thirds of humanity will live in an urban environment. Migration from rural to urban areas from a combination of push and pull factors makes a major contribution to the shift.

Traditionally the focus of global efforts to reduce poverty was on the 600 million smallholder subsistence-farmers and their families, some of whom were food insecure despite their best efforts, and hence open to the possibility of moving to the city. More than 80% of the 1.1 billion MPI-poor people, including children, surveyed across 110 countries, still live in rural areas. But the MPI approach has found that about 250 million people suffer multiple deprivation in urban areas, and this number is likely to grow rapidly.

Urban poverty, in the squatter settlements and slums of the "informal sector", where there are almost no salaried jobs, is characterised by disease, lack of sanitation, overcrowding, violence - especially against women - and the need for money to buy everything including food. Rural deprivations more common are lack of electricity, lack of stable flooring, and lack of access to drinking water.

Absolute poverty is not confined to the Global South, what used to be called The Third World. But too much of the discussion in relation to wealthy countries is about relative poverty, which as mentioned earlier is just a narrow measure of inequality. If absolute poverty is broadly defined as inability to afford to meet basic survival needs such as food, clothing and shelter, there are substantial percentages (5-15%) of the population qualifying in European countries and in the US, though measurement methodologies and estimates are highly contested.

The "**circular flow of income**" is the foundational[73] diagram of neoclassical macroeconomics and one of its most machine-like elements. (It should be called the *circulatory* flow of income – there is really nothing circular about it.) In its simplest form it includes just two sectors: businesses and households. Households buy goods and services produced by businesses with the wages that businesses pay households for the labour they supply. Profits made by businesses go as extra income to households as shareholders, either directly or through institutional investors such as insurance companies and pension funds.[74]

There are more sophisticated versions of the diagram, which include government and allow for imports and exports (categorised respectively as leaks from, and injections to, the circulation of income). But all versions see the economy as a closed system. Nowhere in the diagram is there recognition of non-renewable resources and eco-system services, drawn

[73] Although the diagram had been used earlier to illustrate a much narrower point, it was given central significance by its inclusion, in its whole economy form, as the first diagram in MIT Professor Paul Samuelson's *Economics,* the textbook used in sixteen successive editions by generations of students worldwide from 1947 until today. One story is that Samuelson came up with the diagram when he was asked to provide MIT engineering students with a simplified explanation of macroeconomics.

[74] The lines representing these basic relationships would be common to both the old and new paradigms shown in the Revolution tab on the **better-economics.com** website. For clarity of communication, they have therefore been omitted.

from natural capital, which the economy needs, with energy, currently mainly from fossil-fuels, as the prime example. Nor is there recognition that the economy produces waste which must be absorbed externally through "sinks" such as slag heaps, landfill, pollution of rivers and oceans, and other forms of environmental degradation. In fact, of course, it is the biosphere that is closed; the economy is merely an open subsystem within it.

Steve Keen has a pithy summary of the inadequacy of the traditional economic production function underlying the diagram, which has capital and labour as the only two inputs. "Labour without energy is a corpse; capital without energy is a sculpture."

Herman Daly[75], the founder of ecological economics, recounts an incident when he was an environmental economist at the World Bank. The theme of the Bank's annual World Development Report in 1992 was the environment. Daly was consulted on successive drafts. A diagram showing the economy as wholly inside the physical environment was rejected on the grounds that it was the wrong way round; the implication was that however large it grew the economy would be able to "take care of" any impact it had on the physical world. Daly left the bank shortly afterwards.

Daly was one of the first to question the hidden assumption of mainstream economics that more is always better. In other words that economics should not concern itself with the optimal *scale* of human economic activity.

He made[76] a succinct but profound summary of the three problems that economics should address, in sequence and in priority order. First comes the question of the optimal scale of human activity, which is ultimately a matter of science, then there is the question of the distribution of resources and purchasing power, which is a matter of fairness and morality, finally there is the efficient allocation of resources for the production of desirable goods and services – that can and should be left to market forces.

"Yes, sounds like a great public program, but how will we pay for it?"

Let's now turn to the truth value of the "deficit". The government's budget deficit, together with the consequent rise in the national debt, is another popular, even a universal, talking point. There is much talk of taxpayers' money and of the burden on future generations of repaying the debt. Government-authorised spending on categories vital for society, and of long-term value, such as health, education, infrastructure, and even, in the light of recent events, defence, is a battle between departments all under the overall constraint of the deficit. Here again the question of the truth value of the concept needs to be considered.

That is why *The Deficit Myth* subtitle *MMT and The Birth of the People's Economy* (MMT is Modern Monetary Theory), the 2020 book and a 2024 film[77] by Stephanie Kelton[78], is so important.

[75] As well as *Ecological Economics and the Ecology of Economics*, 1999, Daly wrote *Beyond Growth,* 1996, and together with philosopher John Cobb*, For the Common Good*, 1989

[76] In his contribution to *Conversations with Real-World Economists,* Jaime Morgan, WEA books, 2025

[77] "Finding the Money" which has been promoted and shown world-wide. It is now available for streaming free of charge.

[78] Professor of economics at Stony Brook University, New York State.

Her work, and that of other MMT economists,[79] has been judged by sober commentators as comparable to the Copernican revolution. The groundswell of expert and non-expert opinion is moving (too slowly!) in her favour. Neoclassical economists frequently challenge MMT on the ground that it has no rigorous mathematical model supporting it. Steve Keen has answered this challenge, most recently and comprehensively, using simulations over time, in a paper[80] he was due to deliver at a systems dynamics conference in August 2024.

The central premise of MMT is more difficult to grasp precisely because it is such an overturning of a doctrine unquestioningly held for many decades. In other words, it is a paradigm shift. Government debt issued in a sovereign currency like the dollar, the pound, or the yen (but not the Euro[81]) is not really debt at all since it never has to be repaid. It is in fact merely a book entry in the government accounting ledger. The national debt is an illusion. Issuers of sovereign currency, that is governments or countries, unlike users of the currency, (individuals, households, businesses, municipalities, foreign governments etc.) can *never* go bankrupt.

There is no such thing as taxpayers' money, nor will government deficits place a burden of repayment on future generations. In fact, by simple two-sector flow-of-funds logic, the government's *deficit* must be the private sector's *surplus.* The "national debt" is the accumulated savings of the private sector from the surplus arising when government has not taken back all its spending in tax. If economics respected the 550-year-old accounting discipline of double entry for each transaction, this would not be in any sense controversial.

Empirical work on US public finance history makes it quite clear that the rare occasions when *the government* has been in surplus, and therefore paying down the national debt, have been associated with *recessions,* even depressions. This is not surprising when you consider that these occasions mean that the government has been taking money from the private sector, putting *it* into deficit.

MMT economists also point to three-sector flow-of-funds logic[82] to argue that, as long as the Government's budget deficit is greater than the balance of payments deficit, (the trade deficit plus the surplus/deficit on capital account) which is also the foreign sector's monetary surplus, the private sector will be in surplus, which is the desirable outcome.

Combining fund flows quantitatively in this way is helpful but only part of the picture. True, the money supply to the private sector will increase from both a budget deficit and export receipts and decrease from payments for imports. But qualitatively the additions have very

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[79] Steve Keen was a candidate in the 2023 election for the Australian senate on an explicit MMT platform. L. Randall Wray, one of the pioneers of MMT, published *Making Money Work for Us*, subtitle *How MMT Can Save America,* in 2022.

[80] *Using system dynamics with Minsky to prove the core tenets of MMT.* https://profstevekeen.substack.com/p/using-system-dynamics-with-minsky

[81] The Euro is issued by The European Central Bank not by a sovereign government. This makes member countries - borrowers and users of the euro - intrinsically vulnerable to market sentiment as seen in the Greek financial crisis, and in very high Italian and Spanish bond yields. In 2012, to remedy this the governor of the ECB announced that it would be the lender of last resort for national governments, so acting as an unlimited issuer. "Whatever it takes."

[82] The three sectoral balances must always sum to zero – an accounting identity.

different destinations. The former will be dispersed over millions of personal bank accounts whereas the latter will be focused on exporter firms, who can in principle invest them in a variety of ways to build productive capacity in the economy.

Therefore, it is a serious error to infer from the quantitative flow of funds framework that imports are a benefit, while exports are a cost simply because they respectively increase and reduce the foreign sector's surplus. A larger foreign sector surplus, that is a larger trade deficit, would encourage otherwise unwarrantedly large budget deficits just to maintain the surplus of the private sector.

The real constraint on government spending is not financial, leading to insolvency, but inflation, arising from too much spending power exercised by the combination of public and private sectors in relation to the resources available in specific sectors of the economy.

The inflation surge that we have recently seen, post-Covid, is emphatically not because policies consistent with Modern Monetary Theory have been adopted. MMT economists' analysis points to an approach to bringing inflation under control which is both more efficient and more equitable than the blunt response by central banks of raising interest rates for all households and businesses in the economy. I'll revisit the nature and causes of inflation shortly.

MMT says that the level of taxation should be determined not by the false doctrine of balancing the books but by the funding requirement for public investment and spending programs to achieve long-term societal goals.[83] As now, government investment programs and much of its regular spending will engage the private sector to carry out the needed activities. Each economic sector would be analysed to check the level of available resources in relation to proposed investment and spending to prevent generating inflation in it.

Unemployed people are the most important resource from a moral and social point of view as well as the economic one. Full employment would be guaranteed through the public sector taking up any slack in the private sector – a Jobs Guarantee (JG). Any supposed financial constraint[84] on the introduction also of a Universal Basic Income (UBI), increasingly recognised as the cheapest and most effective anti-poverty mechanism, would be relieved. Finally, instead of the amount of overseas aid being an acutely controversial budget issue, moral considerations would be paramount.

Such an approach to management of public spending will be accompanied by financial deficits of varying size, even a surplus on occasion - which are of no consequence. In public discourse, and conventional monetarist theory, large deficits are associated with the sin of "printing money" that is rapid increases in the money supply and hence inflation. But a

[83] For example, an MMT approach to financing the Green New Deal is laid out by L. Randall Wray (one of the most distinguished MMT economists) and his colleague in "How to Pay for the Green New Deal", Nersisyan & Wray, Working Paper 931, 2019, Levy Economics Institute.

[84] The recent research consensus is that UBI is certainly a net benefit to the economy and its true budgetary impact (net of additional tax receipts from the upper 75% of the income distribution) is relatively small. See Karl Widerquist: *Universal Basic Income,* MIT Press, 2024

comprehensive empirical study[85] demonstrates that such increases are *not* associated with subsequent inflation.

Within the overall level of taxation, differential taxes and tax rates can continue their most important function: the redistribution mechanism reducing inequalities of income and wealth, and funding social protection. Over the last fifty years there has been a substantial rise in income and wealth inequality[86] in both developed and less-developed countries, though income - not wealth[87]- redistribution activity through progressive taxation and government benefit payments has a modest[88] countereffect in developed countries.

Thus, keeping the overall level of taxation low, and restricting government spending, lest the deficit balloons outwards, is really a political choice given that a very high proportion of total tax revenue is paid by those at the upper end of the distribution of wealth and income[89], who also rely least on publicly provided services. Ideologically it fits with a belief in "small" government.

A powerful way of thinking about the contrast between MMT and the conventional view is to think about the real sequence of government actions. The MMT sequence, factually correct in practice, is government spending comes first, authorised by Congress (or Parliament in the UK), then taxes are levied. The government requires, by law, that taxes are paid only in legal tender, the currency issued by the government.[90] That is the way the currency becomes accepted and valuable for use by the private sector. This is diametrically opposite to the conventional view (shared by mainstream economists) that is you need taxes first to finance spending. So, Mrs Thatcher was quite wrong. It is not taxpayers' money at all; it is government money and as the government issues the currency, in principle, the amount is unlimited.

Doesn't the government have to borrow to fill the gap?

What about "government borrowing"? We know that the deficit arises when government spending exceeds taxation. The national debt represents accumulated deficits. Does the government have to borrow to fill the gap? Another way of asking this question is: does the

[85] "Rapid Money Supply Growth Does Not Cause Inflation", Richard Vague, INET (Institute for New Economic Thinking), Dec. 2016

[86] The longer-term trend in the same direction is demonstrated by Thomas Piketty in his *Capital in the 21st-Century.* The period 1945 to 1973 was an exception.

[87] As of 2024, only five of the 38 OECD countries continued to implement an overall wealth tax on individuals: France, Netherlands, Norway, Spain and Switzerland. In part this is due to the difficulties of administering such a tax. Specific property or stock market-based taxes may be more effective.

[88] The Palma ratio is the most accessible metric of income inequality. It is the incomes of the top 10% of the income distribution divided by those of the bottom 40%. Before tax and benefits the ratio for developed countries is typically between 2 and 3. The US is an outlier at 5.5. After tax and benefits are taken into account, the ratio is typically around 1, still quite high. For the US it is 1.8. 2024 figures from *Our World in Data*.

[89] For example, in the UK the top 1% pay 30% of the total.

[90] Kate Raworth among many others has drawn attention to the advantages, sometimes regenerative and distributive as well as conventionally economic, for some local economies of using quickly circulating complementary currencies in addition, and convertible, to legal tender. They exist in many countries, ranging from the Banglapesa in slum districts of Kenyan cities to the Torekes in Gent, Belgium and BerkShares (now digital) in The Berkshires region of Massachusetts. The key text on this is *Rethinking Money: How New Currencies Turn Scarcity into Prosperity* by Bernard Lietaer and Jacqui Dunne.

deficit have to be funded? By funding is meant the issue of interest-bearing government bonds called "treasuries" in the US and "gilts" in the UK, bought, and traded, by banks and institutional investors like insurance companies and pension funds as well as by foreign investors including foreign governments, and directly by domestic households. The simple answer to the deficit funding question is no.

In his review of Kelton's book, Andrew Smithers, a highly respected, independent-minded financial economist, said:

> Why governments fund is thus an important question, for which economists not only have no agreed answer but seem reluctant to ask. Stephanie Kelton in *The Deficit Myth* argues that governments should not fund. Unasked questions are unanswered ones and one of the several virtues shown by this book is that it forces attention on why governments ever go to the expense of issuing bonds.

The key thing to understand here is that the deficit will not be *reduced* by the issue of bonds – it will merely be *financed*. The bonds must be redeemed (that is bondholders must be repaid) by government when they mature (come to the end of their term of issue). Fresh issues must be made to replace the financing. Interest paid on bonds issued to finance the national debt however is a *real,* and increasingly large[91], component of government spending and will therefore increase any deficit. Were governments not to fund their deficits, the national debt, which is the funding of (borrowing to cover) accumulated deficits, would be seen differently. The sense that the government could run out of money and hence default on its obligations (like a household) would disappear. Instead of lending money to the government, investors holding cash because of the government's deficit – that is the private sector's surplus – could lend or invest it elsewhere.

In 2022 the UK went through a public finance crisis. This was essentially caused by a new government with an economic plan which was likely to increase the deficit substantially. The reaction of the bond markets was to sell existing UK government stock so that its price dropped, and its yield (effective rate of interest offered to buyers) increased. New borrowing would be much more expensive. The implication, completely at variance with Modern Monetary Theory, was that there would be a significant risk of default by the UK to its bondholders. As a result of these unfavourable bond market movements, the UK government fell and was replaced by another with a commitment to "restoring the public finances" and "bringing the deficit down". James Carville, chief strategist of President Clinton, famously remarked "If I believed in reincarnation, I would like to come back as the bond market. Then I could intimidate everybody!" Were governments not to fund their deficits, the financial markets would no longer be in charge.

Another way of expressing a policy to not fund (borrow to cover) is "monetising the deficit". Some people worry that countries which have a big trade surplus with (for example) the US would not hold the resulting dollars if they could not use them to buy Treasuries to gain a safe return. But the alternative would be to reduce their sales of goods to the US and the resulting profits.

[91] Latest figures are 7 to 8% of government spending in the UK, and 13% of federal spending in the US.

It is true that the US dollar has held a special position as the premier reserve currency since the early 1970s, despite being a "fiat" currency, backed only by confidence in the US economy, the world's largest. Previously, exchange rates were fixed, and major currencies were convertible to physical gold, since the gold price itself was fixed at 35 US dollars per ounce. In today's floating rate world, converting reserves to fiat currencies other than the dollar, however, would introduce new, and greater, exchange rate risks.

Japan holds the largest dollar amount in US treasuries (4% of the total value issued), followed by China (3%). Almost all foreign governments hold reserves in US treasuries, so that the total is 24%. But after the UK, which holds 2%, no other individual foreign government owns 1% or more. Were China or Japan to reduce their dollar reserves by converting some into their *domestic* currency, the resulting exchange rate movement would make their exports less competitive and their imports cheaper.

Mainstream economists have come up with a completely arbitrary target ceiling of 90%[92] for the ratio of public, that is national, debt to GDP. 2023 figures for major economies range from 63% in Germany through 98% for the UK to 123% in the US, and 240% in Japan. In absolute terms the national debt keeps on rising. In the US it reached $38 trillion in 2025, an increase from $20 billion, when it was approximately 20% of GDP, over 100 years. So far, the children, grandchildren and great-grandchildren seem to have shouldered the increased "burden" without too much trouble.

Because investors rightly regard the risk of default on government bonds issued by a sovereign currency-issuing government, from a major economy, as lower than any bonds issued by private-sector commercial companies,[93] one genuinely important function of issuing such bonds, but not in the large amount needed to cover the deficit, is to set a minimum interest rate. This short-term (overnight) rate is a policy variable – set by the central bank - affecting the whole economy. If the central bank wishes to raise interest rates, it will sell bonds already issued, putting downward pressure on their price, and hence raising their yield - the percentage return obtained by bond buyers. If a fall in interest rates is wanted the bank will buy bonds, increasing their price and reducing the yield. These transactions are known as open market operations.

The policy of "quantitative easing" (QE) about which there has been so much comment and controversy is best understood as a huge increase in the scope of open market operations under which central banks have bought back large quantities of previously issued medium- and long-term government bonds. The bonds appear as an asset on the central bank's balance sheet; the corresponding liability (double-entry bookkeeping) is substantial additional reserves, that is interest bearing deposits at the central bank, for the commercial banks.

Initially, during the GFC (Global Financial Crisis) of 2008-10, QE was an emergency response to a shortage of liquidity in the banking system, which could have precipitated an international financial collapse. The central banks as "lenders of last resort" to commercial

[92] The EU's Maastricht Treaty condition is actually 60%.

[93] Globally, public sector bonds comprising Sovereign, Supranational, and Agency (SSA) issuers are about two-thirds of the $128 trillion total (2020 figure from ICMA) with private sector bonds the remaining third. Agencies include the IMF, the World Bank and similar bodies.

banks needed to be proactive and not wait for them to apply. Non-bank financial institutions, which do not have access to the "lender of last resort" borrowing window, relied wholly on proactive QE for liquidity support. At the start of the pandemic there was a similar situation of liquidity shortage and a renewed use of QE.

The long-term use of QE, over the last fifteen to twenty years, was as an *economic policy* instrument. The aim is to lower longer-term interest rates. While central bank overnight interest rates have been kept, as a matter of policy, at an unprecedently low level for more than ten years - less than 1% per annum - until very recently, keeping longer term interest rates low requires stronger market intervention. QE has succeeded in 'flattening the yield curve" that is bringing long-term rates, (normally the longer the term the higher the rate) down towards the low short-term rate. But it has not succeeded in stimulating growth in the economy. This failure has been likened to "pushing on a piece of string". Lower interest rates on their own have not been sufficient to encourage the necessary additional productive investment. We needed more of Keynes's "animal spirits".

Moreover, commercial banks are free to withdraw some[94] of their deposits from the central bank and invest in other assets, for example newly issued commercial bonds, giving a higher yield though with greater risk. Lower long-term interest rates have had the expected effect of a shift by investors towards equities, giving higher returns but at greater risk, and away from bonds. This has been a major contributor to share and other asset price inflation.

The example of Japan, which has been applying quantitative easing since 2001, is instructive, as Kelton points out. Instead of issuing new bonds to investors, the central bank of Japan has been buying bonds back, that is retiring the national debt. Of the debt of 240% of GDP, half sits as an asset on the balance sheet of the Bank of Japan, the BoJ, - which is ultimately part of the government. So, the real figure of outstanding debt is around 120% of GDP. And the BoJ could easily retire the other half of the debt. (If the same adjustment were applied to the US and the UK figures the ratio of national debt to GDP would come down to 75% and 68% respectively.)[95]This reversal of borrowing clearly demonstrates that monetising the deficit is a feasible policy.

Why has the BoJ been doing QE for so long? It has been committed to keeping rates (yields) on ten-year government bonds near zero. This is part of the stimulus policy for the Japanese economy after its very long recession dating from the early 1990s, sometimes called the "lost decade".

We now have "quantitative tightening" the beginnings of the reversal of the previous policy. Central banks are in the process of shrinking their balance sheets by selling back to the commercial banks and other institutional investors, often at a loss, the bonds they have bought. This has unfortunately been accompanied by a policy-driven rapid rise in interest rates, as an anti-inflation measure, which reduces the capital value of bonds already held, especially long-dated bonds, and makes banks in general vulnerable to a run (panic withdrawal) of deposits.

[94] Liquidity regulations require banks to keep specified amounts of deposits at the central bank, but in recent years these have been paid interest at a market rate, so there is less incentive to keep the to the regulatory minimum.

[95] Source: my calculations from publicly available data.

The implication of Kelton's reformulation, that the government deficit is a myth, and thus doesn't need funding, is enormous. The financial, that is budgetary, constraint on public spending and investment, used for so many years to justify small government, when this is an ideological position buttressing the position of the powerful and wealthy, who do not need most government programs, is removed. Then attention can be paid to the real deficits, plainly visible to all, in climate change adaptation, environmental protection, employment, education, health, infrastructure, welfare and so on.

These deficits are deficits of resources available in these sectors. A large increase in demand through government purchasing power, on top of private sector demand, would be inflationary if the supply of resources in the sector cannot increase quickly enough. Once the long-term societal goals have been set it will be the responsibility of central banks to take a sector-by-sector approach to ensure that inflation, which could spread to other sectors, does not happen.

Understanding and Taming the Inflation Dragon

Now let's talk about headline "inflation" and its measurement. The familiar presentation of inflation is the annual percentage change in the consumer prices index (CPI in the UK). There are several things to note about this number: first it looks back 12 months on a rolling basis so that it is not a good guide to the current rate of increase in prices. Linked with that point is the influence of the start month's index number on the annual figure. If there was volatility in prices a year ago this will be reflected in month-to-month changes in the current 12-month headline inflation rate.

Second is that, like all indices, the CPI is a weighted average of individual components. Each in turn is a weighted average of individual items chosen to be representative of the pattern of consumption. The obvious point here is that the pattern of consumption varies from individual to individual and from household to household. The inflation number reflects a mythical average household which doesn't exist.

In simple terms people living in poverty (of whom there are many in the so-called rich countries) spend a much higher proportion of their income on food and housing, including energy, so the weights for these components in their price index, and hence the effect of price changes, are much higher than the same weights for richer households. Moreover, the latter enjoy large disposable incomes even after paying at current prices for the necessities of life and for flights and other transport costs, which are an important part of richer households' consumption, and which have seen big price rises recently.

"Bringing inflation back under control" was a very hot topic at the time of the pandemic. The standard response of central banks around the world is to use their power to raise interest rates, which had been at a very low level for a decade or more. The assumption behind this move is that the primary cause of the inflation is too much "demand" from the private sector of the economy, that is the financial capacity, including access to credit, fuelling the appetite of households and businesses to purchase goods and services,

including investment items, such as houses, cars, commercial buildings, machinery, and equipment, in relation to the supply available.

But interest rate rises affect all sectors and segments of the economy. Housing costs are immediately affected for those with mortgages (other than long-term fixed rate), but rental levels in the private sector rise soon after. For many businesses which finance their assets mainly by debt, the cost of refinancing older debt, now repaid, will increase. Working capital financed by credit lines will immediately become more expensive. Higher prices to customers are likely to result as businesses try to recover their extra costs. New borrowing to fund investment projects will also be dearer making them less likely to go ahead. Households buying goods on credit, including via credit cards, will find them more expensive.

Interest rate rises will thus reduce demand[96] by increasing the cost of finance and therefore directly or indirectly decrease purchasing power, eventually, though painfully, squeezing out inflation, but the initial effect is to push prices even higher, while lowering the volume of economic activity. The poor are hit hardest both in terms of job losses and higher prices for necessities. The only beneficiaries are institutional bond buyers (not bond holders, who suffer capital losses) and those living on interest-only income from savings who are now a very small proportion of the population.

If fiscal measures, that is tax increases, are applied instead of, or in addition to, interest rate rises the policy aims are usually dual. On the one hand this move is also a way of reducing demand, though it can be much fairer than an interest rate rise because taxation can differentiate based on people's ability to pay. However, the other motive, not accepted as legitimate by MMT, would be to reduce the deficit and try to cut down the rate of growth of the "national debt". Remember debt in general must be repaid – not so government debt.

But in any case, the evidence is that most of the recent inflation surge was due to supply factors - energy and food price hikes from the Ukraine war and supply chain bottlenecks still unwinding from the pandemic - and not to excessive demand. Research reviews from two independent and respected sources[97] finds that only about one third of the jump in US inflation rates can be attributed to demand side factors. And countries which did not have a fiscal stimulus to demand on the scale of the American Recovery Program also experienced the same inflation surges.

In particular, a rise in oil and gas prices which feeds through into many other sectors is a main driver of higher inflation. Interest rate rises will not contribute to solving this issue, which requires an increase in supply from existing refining capacity in the short term and a move away from fossil fuels in the longer term.

An anti-inflation policy congruent with an MMT approach would be to expand the tool kit of central banks so that they can regulate the availability of credit, and hence purchasing

[96] The reduction in demand is offset to some extent by the increase in interest receipts by domestic purchasers of new, and, because of higher rates, more lucrative government bond issues. This effect is larger if the overall average term of government bonds is shorter so that expensive refinancing is more frequent. It is also regressive in that it is equivalent to a tax break for those deriving income from financial assets.

[97] Sources: Federal Reserve Bank of San Francisco and Federal Reserve Bank of Richmond.

power, in the specific sectors of the economy experiencing high inflation[98], without impacting other sectors. This would still fit within the current mandate of most central banks which is to focus solely on containing overall inflation within narrow limits.

The historical experiences of hyperinflation, for example in Germany after the First World War, are sometimes used by those opposed to MMT. But this is disingenuous. Resources of all kinds in a war-shattered economy, especially when reparations are required by the victors,[99] are bound to be scarce. Modern situations, including hugely superior availability of economic and financial information, are not at all comparable.

Recent examples of hyperinflations, in Venezuela and Zimbabwe, also showed no recognition of resource constraints. In the latter case, there was a futile attempt to maintain food imports by printing money resulting in a collapse of the currency against a background of widespread corruption, institutional collapse, and political uncertainty. In Venezuela, the president attempted to increase purchasing power by raising the nominal minimum wage but given the collapse of the currency and consequently the massive increase in import prices the real value of the minimum wage was quickly reduced.

Governments around the world are understandably worried about the possibility of a return to a spiral of price and wage increases. The idea is that workers demand higher wages to compensate for the rise in prices and employers raise prices to compensate for higher wage costs. There is no magic bullet to ensure this doesn't happen. Conventional wisdom suggests that reducing demand will help to decrease the risk.

However heterodox economists, among them Steve Keen, have pointed out that the neoclassical "theory of the firm", which holds that, in the short term, businesses increase their output until their marginal costs increase sufficiently to equal their marginal revenue, with the implication that marginal productivity is diminishing, and marginal costs are rising, as output increases, has no evidential support. The reality, as evidenced by large-scale empirical studies - by mainstream economists[100] - of real markets under conditions of uncertainty, is quite different. In fact, businesses tend to have constant or rising marginal productivity, hence *lower* costs, as output increases. This means that when the volume of activity in the economy decreases, under a demand reduction policy, there is an inbuilt tendency for prices to *rise*, reflecting higher costs, rather than *fall* as would be expected by mainstream economists.

Investment – Productive, or Property and Finance

What about the truth value of another everyday economics term: "investment"?[101] If that means spending to buy or build new productive assets, especially those enabling disruptive

[98] The Bank of Japan used this approach thus contributing to decades of non-inflationary growth post-WW2.
[99] Keynes famously warned about the dangers of the punitive approach in his best-selling 1919 book "*The Economic Consequences of the Piece".*
[100] For example, Alan Blinder, *Asking About Prices,* 1998
[101] Confusingly this term is used into two distinct ways. Investors make investments by buying shares (stocks in US parlance) or other financial securities, such as bonds, usually from other investors on the secondary market, but sometimes newly issued by companies. Businesses invest directly by buying existing real assets or

technologies such as synthetic food, which doesn't require animals, and therefore is much more economical in its use of land and water, and produces much less greenhouse gases, it sounds, and usually is, a very positive thing. Another positive example is investment in new medical techniques such as robotic surgery.

Large long-established corporates quoted on stock exchanges can use their retained earnings (accumulated undistributed profits) to make productive investments without recourse to external finance. Generally, while such incremental investment, including - less socially valuable - buying up competitors, is necessary for maintaining or improving the company's competitive position in its chosen markets, institutional shareholders prefer prudence rather than excessive risk taking with significant company resources. R&D (research and development) budgets and scope tend to be kept within conservative limits.

In recent years, as discussed in the second half of this essay, large corporates have distributed most of their retained earnings to shareholders leaving less available for investment in developing the business to engage in innovative, profitable, yet socially and environmentally useful activities. This places more responsibility on the finance sector to at least make-up the shortfall, and preferably go beyond, in productive investment.

But most finance does not go into new productive assets. Mariana Mazzucato points out that in the USA and the UK only about a fifth of finance goes into the productive economy, and 90% of all UK bank lending supports real estate and financial assets.[102] The enormous increase in the value of equities quoted on stock exchanges has already been discussed. Another unproductive use of finance is to support large-scale speculation on commodity prices going well beyond the economic benefit obtained by the transfer of risk.

As Adair Turner, ex-chairman of the Institute for New Economic Thinking, for example, has pointed out, there is an unhealthy relationship between the finance and real estate sectors in many countries. Another heterodox economist, Michael Hudson, author of *Junk Economics*, takes a polemical, even angry, view. He uses the acronym FIRE, where "I" stands for insurance, to express this toxic relationship. Debt is the instrument that finances real estate investment, advanced either by banks or by the issue of debt securities (bonds) on stock exchanges. Most of this investment does not even finance new buildings but instead supports the increase in value of land and existing buildings, including residential properties financed by ever larger mortgages. Banks and other mortgage lenders make real profits from interest charged on these larger and unproductive loans and have no incentive at all to curb house and other property prices. Many heterodox economists would say that the property sector is a prime candidate for regulating, and restricting, the availability of credit (debt finance), as Japan's central bank did[103] as part of its active credit direction during Japan's postwar decades of high growth and low inflation. Making housing more affordable

building new ones – this can include intangible assets such as brands or capitalised expenditure such as research and development.

[102] *Mission Economy* p.16

[103] The economist Richard A. Werner has written extensively about the policy of "window guidance", the name given to the active credit direction undertaken by the Bank of Japan. The central bank was given government authority to direct bank credit to high value-added industries, while suppressing bank credit for consumption and asset purchases. Werner, now based in the UK, held senior positions in the Japanese finance sector and periods as visiting scholar and visiting researcher at the Japanese Ministry of Finance and the Bank of Japan, respectively. He was also the first Shimomura Fellow at the Development Bank of Japan.

in this way[104] would do much to improve the workings of the economy in the service of people.

Another powerful approach, which enjoys widespread support, to curbing the essentially unproductive rise in the value of commercial and residential real estate is to tax increases in land values.[105] This tax has significant technical advantages over taxes on income, expenditure, profit, movable assets or even buildings. It cannot reduce the supply of land, nor will it depress or displace economic activity, or distort decision making. It penalises those who hoard land and keep it idle. It is easy and cheap to collect and enforce.

There are also minor measures. In the UK, for example, there used to be a mechanism to reduce the financial advantage to households of owning as opposed to renting, namely that the equity in their properties (value minus mortgage) would increase sharply with their rise in value. This was by imputing a taxable rental income to property owners. "Schedule A" income tax was abolished in 1963.

The relationships between debt and equity finance and between debtor and creditor classes of society have deep cultural roots and profound implications which go beyond the academic discipline of economics. In traditional Islamic culture, for example, the practice of charging interest on money provided to a business venture, *riba,* is forbidden. Finance providers take on the risk of failure and are entitled to a share of any profits, much like equity investors. Money itself is considered sterile, so that it is wrong for a debt to grow automatically through the charging of interest, irrespective of the performance of the business financed. (On the other hand, without the charging of interest money would not have a time value and there would be no incentive to repay it to those providing it, so that it can be available for another venture.) Similar ideas about the sterility of money, and hence the prohibition of usury, especially for personal loans, are found in the Judeo-Christian tradition of the West, though modern approaches to finance have left these behind.

On a deeper level still, there is anthropologist David Graeber's ground-breaking book *Debt: The First 5000 Years.* In it he points out that debt and not money is the primary human economic relationship. Money is just one way that debts can be settled. Early human societies recognised that the build-up of debt by the poor and the concentration of credit in the hands of the rich made for a fundamentally unjust and unstable community.

The Hebrew Bible for example mandates[106] a sabbatical or "release" year, which was the basis for the recorded practice of the Israelites. Every seven years[107] agricultural lands were to lie fallow, debts forgiven, and creditors commanded not only to forgive what was owed

[104] Steve Keen has recently (November 2025) drawn attention to the record level of the ratio (9 times) of house prices to median income in the UK and Australia. https://youtu.be/8aWelA1I0NM?si=vDMB-aRTqACIDf9c

[105] The most prominent proponent of this tax was the American, Henry George (1839-1897), a follower of David Ricardo. George even suggested that all other taxes could be replaced by a single tax on increases in the value of land. The game Monopoly was invented by one of his fans. Many modern economists across the political divide including Milton Friedman ("the least bad tax"), and Joseph Stiglitz (Nobel memorial prize 2001, former chief economist at the World Bank) support it. The OECD and the IMF are also in favour. Landlords, especially wealthy urban centre property companies, are against.

[106] Exodus 23.10-11 & Deuteronomy 15.2

[107] More widely known is the concept of the Jubilee (Jovel in Hebrew). This was every 50 years, that is seven sabbaths. In this year all land had to be returned to the original owners.

to them, but also not to harass those previously indebted to them. For the short-term, many cultures had annual village meetings which could result in debt being settled through negotiation, forgiving, or gift exchange.

In modern societies, it is the overwhelming majority who struggle with debt service payments (interest and instalments of principal), or rent, for their homes and the few who are rich who are ultimately their creditors[108] through their outright ownership of financial, property and other assets.

The banks and the financial system generally facilitate this fundamental relationship, which is the core of inequality.[109]

Too much private debt: that is credit granted from the finance sector?

We talked earlier about the national debt. This is government, or "public sector", debt and according to Modern Monetary Theory it is basically an illusion, for sovereign issuers of currencies, because it never needs to be repaid. But what about "private debt", that is credit extended to businesses, local government, non-profits, and households, and "hard" currency loans to foreign governments? This is real debt which does have to be repaid sooner or later. Does it matter how big private credit grows in relation to the size of the economy?

Mainstream economics, on the neoclassical model, says no. Money, which nowadays is not so much cash but rather credit (loans) from banks, credit card companies, mortgage lenders, NBFIs[110] (non-bank financial institutions), and bonds issued by corporate borrowers, is just another commodity, subject to supply and demand. Its usefulness is merely as an effective and efficient means to reduce transaction costs.[111] Money is "a veil over barter" that is "a veil over the real economy". (David Graeber's first chapter is *The Myth of Barter*). In "the circular flow of income" diagram, reproduced several million times in student copies of Samuelson's *Economics,*[112] households and businesses are always represented but the banks, standing for the whole of private sector credit, are excluded as a distinct economic actor.

[108] Creditors thus have more to gain from low inflation, which maintains positive real interest rates and income for them, whereas those with long-term mortgages benefit to some extent from moderate inflation being able to repay the principal of their mortgages in depreciated currency.

[109] If we look at inequality globally, we see even larger disparities of wealth and income, and hence security economic, social and psychological, *within* what used to be called developing countries but are now more commonly referred to as countries in the "Global South." Guy Standing, Professor of Development Studies at SOAS (the School of Oriental and African Studies), University of London, has coined the term "The Precariat" to describe this class of people, which he argues has been greatly expanded because of globalisation.

[110] NBFIs are not allowed to take deposits from the public or non-financial enterprises.

[111] This relies on the first two traditionally recognised functions of money: a unit of account and a medium of exchange. It says nothing about the third: a store of value. The Apostle Paul said in the name of Jesus, "The love of money is the root of all evil".

[112] See footnote 73 page 19.

Money is merely transferred, via the banks, from savers to borrowers. The theoretical basis for this is the "IS" curve, introduced in 1937 as a "helpful" addition to Keynes's General Theory, but now largely discredited, suggesting that planned investment equals savings with the interest rate being the equilibrium price. This money transfer is considered to have only a minor effect on the economy, generated by the difference between the two groups, thought to be small, in their propensity to consume. This completely misses the powerful role of the private financial sector in the economy through its credit creation.

For heterodox economists this is one of the worst errors of the mainstream approach. Hyman Minsky pointed out in the 1970s that an economics which did not have periods of boom and bust as integral outcomes of its theoretical structure was not fit for purpose. This led to his Financial Instability Hypothesis. A major cause of inflationary booms, especially in property prices and the value of stocks and shares, is increases in private credit, especially when the amount of private credit is already large in relation to the size of the economy.

At the end of the boom period, confidence in further asset price rises disappears. Then there is a sharp decrease in private credit, accompanied by falling asset prices, which heralds the bust. The finance sector, contrary to orthodox tradition[113], is endogenous, that is an integral and active part of the economy. Money is not just another commodity.

Where the additional credit during the boom is used merely to push up the values of existing assets, and hence unproductively, it still generates "wealth" and extra purchasing power, beyond the wages of households and the profits of companies, and hence with little corresponding increase in the supply of goods and services. Inflationary pressure results.

In the UK for example, consumer credit (credit card debt, car loans, personal bank loans etc.), another - and expensive - element of private finance, has multiplied in real terms (adjusted for inflation) three times over the last thirty years.[114] This has boosted consumer demand directly, but, given spending on imports, domestic investment to increase supply has received only a minor stimulus.

The complementary error of the mainstream approach, which is still repeated in many economics textbooks, despite authoritative academic and central bank articles to the contrary, concerns how banks work. The traditional model is that banks "intermediate" between savers and borrowers. This is the ILF model: Intermediation of Loanable Funds. The implication is that total bank lending is constrained by the total of deposits made by savers. Constrained, but could exceed, because banks could increase loanable funds by borrowing on the interbank market or issuing bonds.

The deposit holders' safeguard mechanism was compulsory liquid reserves. Central banks used to require non-interest-bearing deposits from the commercial banks in accordance with mandatory proportions – in the UK it was[115] 12 ½% of deposits. These were always *automatically* placed by banks at the central bank. But these reserves did not in fact

[113] I corresponded on this issue with a distinguished, now retired economics don at Oxford. "It is crucial to recognise", he wrote, "that an important element in the economic failures of the interwar period was the *autonomous* behaviour of some monetary and financial systems – most notably the surge in the New York stock exchange in the latter 1920s, followed by The Great Crash of 1929 and its aftermath." My italics!
[114] Source: My calculation from Bank of England published data, and CPI for 1994 - 2024.
[115] The mandatory reserve requirement was abolished in the UK in 1981 and in the US in 2000.

constrain bank *lending.* Nowadays central banks pay market rates on these deposits and commercial banks typically have large reserves there, in excess of modern liquidity regulations, because of the proceeds from their sales-back of government bonds under QE (quantitative easing).

Actual borrowers and bankers know that when a loan is made two accounts are opened for the borrower. A loan account, showing that the borrower owes the bank, and a deposit account for the same amount, which he or she can spend on the purposes for which the loan has been made.[116] No previous deposit is necessary. This is the FCC model: Financing through money (Credit) Creation. So, the only limit to the credit that the banks can create comes from central bank regulations on *capital* adequacy - that is the minimum amount of shareholder funds - not deposits - required to support safely a bank's operations - the so-called Basel rules. Each class of asset, including different types of loans, is given a risk weighting, which determines how much capital is required to back it.

How exactly does the "finance sector"[117] fit into the economy anyway? In shorthand the real economy is Main Street and the private finance sector Wall Street. In the past the saying goes: Wall Street served Main Street. But nowadays it seems the other way around.[118] Mariana Mazzucato in her book *The Value of Everything* suggests that most of the activity of the financial sector has no economic value. She points out that before 1968 the international standard SNA (System of National Accounts) included only the fee-earning activity of the financial sector in GDP. Net interest income (the difference between what banks charge for loans and what they pay on deposits) was treated as just a transfer payment like social security. Some finance activity *is* valuable, however. Allocating capital to businesses judged likely to be the most profitable is an important part of a (hopefully competitive!) capitalist economy. For sustainability, however, the judgement needs to recognise the difference between short-term opportunistic profit and long-term steady profit.

The giant investment banks, mostly US based, play the major role in arranging for capital to flow to corporates including those which make the transition from private companies to being quoted on the stock exchange. They also facilitate mergers and acquisitions – "the market for corporate control". But their other activities include "trading", speculation on the current and futures prices of commodities, currencies and traded financial instruments. Futures markets can avoid risk by locking in the price of something that has to be bought or sold at some time in the future, as part of an economically valuable process. This transfer of risk to a counterparty that is willing to handle it, that is an investment bank, is a useful financial mechanism. But it can be misused.

There is clear evidence that the large investment banks have used their own capital as well as external investor funds for pure speculation, unrelated to economically useful

[116] In the case of mortgage loans, the new deposit is immediately fully utilised in the purchase transaction for the house.

[117] L. Randall Wray, the MMT economist and author of *Making Money Work for Us* uses the phrase "the money system" to cover both private and public sectors. His observation is that the public sector is seriously misguided by its failure to incorporate an MMT approach while the private sector has abused the money system permitting distortions such as the excessive growth of inequality.

[118] Herman Daly among others has quoted a simple way of characterising this historical development, where M is money and C is commodities. From C-C, to C-M-C, to M-C-M and finally to M-M.

transactions. Large profits can be made[119] by exaggerating the volatility of futures prices. In the case of war-induced shortages this activity has increased the already elevated current price at which cereals, for example, are traded on physical or "spot" markets. In the UN's Olivier de Schutter's words: banks were "betting on hunger and exacerbating it".[120] What is more their political and lobbying power has enabled the investment banks to circumvent[121] new regulations designed to limit this type of activity.

James Tobin, an early Nobel memorial prize winner, suggested there should be a small tax on *short-term* currency speculation by financial institutions, recognising that most currency transactions of this type served no useful purpose. The Tobin tax would have acted as a friction meaning that it would no longer be possible to make profits from huge volumes of daily (or even intra-day) trades with tiny profit margins. The same principle could apply to other similar kinds of financial trades, for example in commodities. Tobin, even fifty years ago, recognised that the finance sector had got too big. He also pointed out that because of the high salaries offered the sector was absorbing too many of the best and brightest graduates. The situation now is much worse.

If the finance sector were properly fulfilling its role of allocating capital to the most productive businesses, we should expect that the growth of the non-financial part of the economy (Main Street) should be faster than that of the finance sector (Wall Street). In fact, as Mariana Mazzucato points out, in the US (and most likely in the UK and elsewhere), the reverse has been true since the mid 1980s.

We have been addressing, and attempting to answer, the important question posed earlier in this section: "How does the finance sector fit in anyway?" But there is a more profound question which needs to be considered: What is finance "for"? This goes beyond the shorthand version: the relationship between "Wall Street" and "Main Street". Once we get away from the false idea that it is a value free science, we know what economics should be "for". Remember Schumacher's ironic subtitle, *A study of economics as if people mattered.* Even if much of the criticism of mainstream economics in this essay echoes this perspective, we all agree, with the possible exception of extreme libertarians, that the ultimate purpose of the discipline should be to benefit people and planet.

But what about the purpose of finance? There are four distinct fallacies which together have distracted us from the straightforward answer that finance should be, and be seen to be, just a support for economics. One is the confusion, discussed earlier, about the meaning of "wealth". Remember that financial capital, unlike physical, human or natural capital is just a *claim* on real things[122]. A second fallacy is that "money is just a veil over the real economy"

[119] Revenues for the commodities divisions of the top 12 investment banks grew by $3.4bn in the first six months of 2022 compared to the previous year, according to figures from industry analyst Coalition Greenwich.

[120] Olivier de Schutter, former UN special rapporteur on poverty and the chair of the International Panel of Experts on Sustainable Food Systems, said in 2010 after an earlier food price spike that banks were "betting on hunger, and exacerbating it".

[121] After the 2008 crisis the Dodd Frank act in the US empowered the Commodities Futures Trading Commission to set limits on the size of positions held by a company in a particular commodity. It was successfully sued by an industry body, the International Swaps and Derivatives Association, (Goldman Sachs and Morgan Stanley in membership among other banks) and prevented from introducing the rules.

[122] My late and much-lamented colleague, Graham Bannock, used to refer to the "fallacy of misplaced concreteness."

– this suggests that finance doesn't matter. Another, related to this, is the false, yet almost universally held, model of banking: ILF (Intermediation of Loanable Funds). Banks in reality create money – that is credit and hence purchasing power – and are not just intermediaries between savers and borrowers. And money is not, as some textbooks still have it, "just another commodity, subject to supply and demand". The fourth fallacy is that money belongs to taxpayers until the government takes some of it in taxes. The reality is that governments spend money into creation in the first place, then tax some back.

We can go further than Mariana Mazzucato, who, as mentioned earlier in this section, finds that most activities of the finance sector do not add economic value, by saying that some of their activities actually remove economic value. One clear example, mentioned above, is the exchange of reductions in the affordable availability of food for people living in poverty, for increases in the profits of some investment banks, from their purely speculative activity in commodity markets. Another is the damage done to mature corporations providing goods and services profitably and efficiently by the activities of some private equity operators. To buy the company they load the balance sheet with debt using leveraged buyouts, then compound the excess leverage by buying back equity[123].

Serious discussion of the purpose of finance may be hindered by the fact that, unlike economics and the economy, there is no word to denote the academic discipline of the study of finance other than finance itself.

Is Free Trade always best?

Finally, let's look at another concept beloved of economists and almost universally held to be a good thing: "free trade". To depart from full support of unlimited growth in international free trade, with minimal or no tariffs and quotas, is to invite opprobrium as a "protectionist". The only allowable exception is the infant industries argument that developing countries need a degree of tariff protection as a temporary measure.

Keynes's view on free trade versus protection changed several times over his time as an advisor to the British government.[124] While he was basically a free trader, he saw benefit in a protectionist approach as a "second best" policy under certain circumstances.

The theory behind free trade goes back to the economist David Ricardo in the early 19th century. He demonstrated that if there was a difference between countries in the *ratio* of their manufacturing efficiencies in the same product sectors, both countries would benefit from trading with each other, even if one country was more efficient than the other in both the sectors under consideration. This is the elegant, but essentially static, theory of comparative advantage. By the middle of the 20th century the 150-year-old theory had been applied to a complex dynamic multi-sectoral global economy. Yet the doctrine of maximising unfettered free trade remains dominant.

[123]See, for example, *Private equity and public problems in a financialized world: an interview with Rosemary Batt* in *Conversations in Real-World Economics,* Jamie Morgan, WEA books, 2025

[124] For a succinct but expert review of Keynes's changing position see Barry Eichengreen's 1984 article in the *Journal of Economic History*.

Ha Joon Chang, another heterodox economist, until recently at the University of Cambridge, pointed out in his book *Bad Samaritans* that the now "developed" industrial economies grew wealthy behind a protectionist policy framework, so that the recipe they now promote globally is a case of "do as I say, not as I did."

Michael Hudson makes a different point going back to the author of the original theory: David Ricardo, it turns out, was one of several Ricardo brothers active in international trade finance. Hudson also refers to Simon Patten and others in the American School of Economics, active in the 19th century. They developed a robust theoretical rationale for a protectionist approach, partly based on their appreciation of the dynamism of the 19th century American economy. Patten says: "*Free-trade by sinking into a creed has lost its scientific basis."* [125]

There are (at least) two challenges to free trade being always optimal, one theoretical and one empirical, which have not been answered satisfactorily. The first is that the theory rests on the assumption that factors of production like capital and labour, for investment, can transfer seamlessly and instantly from one sector to another in the national economy as patterns of trade shift. This implies, for example, that steelworkers who have lost their jobs, leaving behind a derelict steelworks, can quickly retrain and be re-employed as IT specialists in an office block financed from the sale of the steelworks[126]. Some economists, for example Herman Daly[127], also say that because factors of production, especially capital, are now mobile internationally, this alone invalidates the theory.

The second challenge is based on the condition built into the claim of the overall gain from free trade that government policies will ensure that those who benefit from it, typically consumers, will compensate those who lose, typically producers, while still being better off. As Duflo and Banerjee point out in "*Good Economics for Hard Times*", empirical research suggests this doesn't normally happen.

Even some mainstream economists recognise the practical limitations of the underlying theory. In a 1990 OECD[128] review study[129] the distinguished economist Ian Goldin, now Professor of Globalisation and Development at the University of Oxford, summarised: "Despite its central role in economics, the theory is found to be at an impasse, with its usefulness confined mainly to the illustration of economic principles which in practice are not borne out by the evidence……. Comparative advantage, despite its centrality to economics, remains remote from policy analysis."

Globalisation is the broader modern term referring to the dominant, long-established trend of increasing flows of goods, services, capital, and - though with many more barriers -

[125] Patten's seminal article is *The Economic Basis of Protection,* 1890, re-issued 2003

[126] Steve Keen has recently re-examined Ricardo's 1817 original paper and found that Ricardo himself deliberately uses the word *province* instead of *industry* when talking about the domestic mobility of physical capital. *https://open.substack.com/pub/profstevekeen/p/the-deliberate-deception-in-ricardos?utm_campaign=post&utm_medium=email*

[127] Daly makes this argument in *Beyond Growth*, Beacon Press, 1996

[128] Organisation for Economic Cooperation and Development - a forum of 38 developed countries, with a commitment to democracy and a market economy.

[129] *Comparative Advantage: Theory And Application to Developing Country Agriculture,* OECD Development Centre, June 1990.

people across national boundaries, facilitated by modern technologies. Those who point out that globalisation has some disadvantages are often accused of standing in the way of progress and that in any case the process is inevitable. But the fact is that real median male wages in the US have hardly increased from the mid-1970s while national income per head there has more than doubled.

A June 2025 article in "The Free Press"[130] entitled "The Intellectual Godfathers of Protectionism"[131] written at a time when President Trump's tariffs were the subject of furious debate, included the following paragraph:

> No one anymore, on the left or the right, denies that globalization has fractured the U.S., both economically and socially. It has hollowed out once-prosperous regions like the furniture-making areas of North Carolina and the auto manufacturing towns of the Midwest. It has been a driver of income inequality. Perhaps most alarmingly, the U.S. has outsourced not just the manufacture of toys and furniture, but pharmaceuticals and semiconductors—products we need for our national security. Trump owes much of his political success to the fury that these realities aroused in working-class Americans.

One aspect of globalisation is the transnational free movement of people in response to economic incentives. This includes some categories which raise troubling moral questions.[132] Imports of labour from low-income countries at significantly worse pay and conditions compared to available domestic workers is one. Another is the "trade in care". A family member, usually a mother with children to care for, and sometimes dependent elderly relatives as well, takes a job in a high-income country to look after the children while their mother goes out to work in a professional high-income job. The low-income mother leaves her children to the care of their grandmother, an aunt or another relative. A third category is the "brain drain". This refers to the emigration of qualified doctors and other professionals, very scarce in their countries of origin, to satisfy unnecessary shortages of supply in high-income countries.

A different kind of challenge to maximising free trade comes from the absurdity of ships passing each other each carrying the same low value items, biscuits for example. This was not what David Ricardo had in mind. [133]

One consequence of unfettered free trade in goods is large surpluses by some countries e.g. China, and correspondingly large deficits by others e.g. the US. On a smaller scale this is true for many other countries. This is the issue that President Trump has focused upon in his

[130] A recently established independent, and intellectually serious, daily online journal.
[131] https://www.thefp.com/p/the-intellectual-godfathers-of-protectionism
[132] Such questions can arise from trade in goods. A Harvard economist, Lant Pritchett, wrote a memo in 1991 recommending dumping toxic wastes in under-populated countries in Africa which are "vastly under-polluted." "The economic logic is impeccable." The memo was infamously countersigned, after too cursory a reading, by Larry Summers, who was at the time vice-president and chief economist of the World Bank.
[133] This example to illustrate the point was used many years ago in a discussion with a left-wing friend. The answer of course is that transport costs should defeat the profitability of such trades, but the problem is the externalities (social costs) of shipping: use of fossil fuels, pollution, etc., which are borne by the environment, not the shipping company.

unprecedented sudden application of high tariffs in an attempt to reduce the US trade deficit and rebuild domestic manufacturing capacity.

The US dollar replaced the British pound after WW2 as the preferred currency in which to hold reserves. In 1943, when he was advising on the structure of the proposed international finance institutions like the International Monetary Fund, Keynes foresaw that the use of *any* national currency as the reserves currency would be a potential problem contributing to instability and inequality in the global financial system. For this reason, he suggested, using[134] ideas that E. F. (Fritz) Schumacher had set out in a letter to him from his internment camp for enemy aliens, that there should be an international currency (strictly only a unit of account) called the "bancor" which would serve as a mechanism to limit both trade surpluses and trade deficits.

In this way global imbalances would be reduced, and global specialisation would also be reduced. We would thus avoid the situation where for example manufacturing in the US has decreased to 10% of its GDP because so much of it has been taken up by China[135]. The "bancor" mechanism[136] also provided for some financial flows to go to developing countries to ease their foreign exchange shortages. But it was[137] not to be, as imperial political rivalries overruled sound and creative economics.

In sum…. engaging with economics

It may not be easy, but it matters hugely that as many people as possible can challenge concepts with dubious truth-values, used in the academic, and often abstract, discipline of economics. These not only make up the public discourse but also act as the basis for policy making.

By doing this, they will broaden and deepen their understanding of the roles of government and business, including banks, in real, everyday economic life. Inflation, job security, inadequate public services, the presence of poverty, inequality, environmental degradation, and now the immediate existential threat of climate change, affect everyone.

As Ha Joon Chang and others have said, economics is too important to be left to the economists, echoing the same statement about politics and politicians. With the ending of the artificial dividing line between politics and economics, we all have a responsibility to extend the boundary of our own truth quest. In seeking the balance between the good of the individual and the good of the whole, the fundamental question underlying all politics, we need to think in terms of political economy and not just politics.

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[134] Keynes was embarrassed when Schumacher's paper "Multilateral Clearing" was published in the prestigious journal *Economica* in 1943. He had failed to acknowledge Schumacher's contribution.

[135] Quite apart from their increasingly recognised negative effect on domestic producers, cheap consumer goods from China, especially clothing, have contributed in no small part to the "throw away society" which works against the three Rs.

[136] All countries having trade imbalances above their quota, which would be their total aggregate trade (imports + exports) would pay interest on them. This would go as financial aid to developing countries.

[137] In the last few years there has been a serious revival of academic interest in a modern version of the bancor proposal.

For reference here is a table summarising the main elements of the paradigm change.

From Comparative Statics to Continuous Dynamics.
From Linear Relationships to Complex Systems with Feedback Loops.
From Unquestioned "Trickle Down" Growth to Meeting Specific Societal Needs.
From the Yoke of the Government Budget "Deficit" to the Humbling of the International Bond Markets.
From the *Flow* of Goods and Services to the *Stock* of Natural and Infrastructure Capital.
From Main Street Serves Wall Street to Wall Street Serves Main Street
From "Intermediation of Loanable Funds" to Financing through Credit Creation (Restrained Away from Property and Stock Markets)
From unquestioned adherence to the doctrine of Free Trade to recognition that tariffs can sometimes be an effective and fair policy instrument.
From National Economies Floating in Space to the Planetary Political Economy Constrained by the Biosphere.

Reorienting the economy

Now let's move beyond our critical review of mainstream economics to consider the implications for the capitalist economies (focusing on the UK and the US that I know best) in our struggle for them to follow a beneficial path. The aim is to explore some of the positive initiatives trying to move the economy, and humanity, towards a safe and just world, in Kate Raworth's phrase, as well as the barriers to be overcome. The backdrop is, of course, the frightening, urgent, and continuing, 'polycrisis' of entangled risks and threats.

We begin by reviewing the roles and relative sizes of the public and private sectors including the insufficiently recognised, and valued, role of the public sector in innovation. Next, we look at various aspects of the private sector in more detail including the meaning of profit, the effectiveness of divestment as a curb to corporate power, and the replacement of the increasingly outdated "Friedman doctrine" of narrow corporate purpose with stakeholder capitalism, the first of several broader conceptions.

We document the often-underestimated contribution of SMEs to enterprise ecology and to the economy in general and go on to consider how productive investment in the economy, especially that targeted at sustainability, can be increased, through leveraging public capital. Then we ask whether the high-street banks could do better for the economy.

Large corporations, we say, should not be treated as a homogeneous category. We discuss what would make a responsible corporation. We explain the ESG[138] reporting revolution, how it has become politicised, and review the evidence for attention to ESG being a good business strategy. But how much of global capital is already "sustainable"?

Then we begin the discussion as to whether corporations have really changed their basic goals of maximising profits in the short term to satisfy shareholders and therefore the whole "sustainability" movement, and the idea of the corporation that acknowledges its responsibility to people and planet, is merely a sham. We next review the balance of power and the possibility of collaboration between government and corporations.

A completely different approach to how the "Friedman doctrine" could be replaced is where a charismatic business leader decides, from personal conviction, to reform his corporation to make it regenerative of the environment, and to become an evangelist for the cause of sustainability. We discuss in detail the paradigmatic example of Ray Anderson and his company Interface.

Recognising that for giant corporations with institutional shareholders, particularly MNEs[139], the Anderson approach is inappropriate, we look at pressures for change on big corporates. Finally, we make the point that today's entrepreneur-business founder, if worthy of the name, needs to have social and sustainability goals from the outset.

The Economy: Public and Private Sectors

In capitalist economies businesses, large and small, new and well-established, including banks and other financial companies, compete on some combination of price, quality, availability and innovativeness, in markets[140], and thus efficiently supply goods and services directly to consumers, to other businesses, or to government. They range from unincorporated sole traders to giant multinational corporations. Together they make up the "private sector". Healthy competition fails, and excess profits are made, when monopolies or oligopolies are allowed to dominate markets, as is too often the case. Hence the importance of a vigorous competition and markets authority, politically independent, and preferably coordinated internationally.

The relative size of the private sector versus the "public sector" in the whole economy is an important measure. The public sector consists of central and local government spending as well as goods and services provided directly by the state or by state-owned enterprises and agencies. Government spending covers direct payment of salaries, plus purchases of goods and services from the private sector including infrastructure and other investment projects.

[138] Environmental, Social, Governance

[139] Multinational Enterprises

[140] Karl Polyani, in his book "*The Great Transformation*" (1943), pointed out that before the Industrial Revolution in England, in the 18th and 19th centuries, and the creation there of a single national commercial "market" (with Scotland from 1707) the role of markets, that is physical marketplaces for trading, in society was small and did not represent the main way that people interacted, socially or economically.

It also includes subsidies granted, as well as "social protection": pensions and benefit payments to the unemployed, the sick and disabled, and other disadvantaged groups.

In many richer countries (members of the OECD) government spending has recently risen from about 35% to 50% of GDP on average. The figure for the US for example was 48% in 2020. This reflects the increase in spending in response to the pandemic, as well as the pandemic's depression of GDP. Even before it, and excluding spending on social protection, the public sector has long been a major participant even in the most "free market" economies.

In his recent book *Understanding the Private – Public Divide. Markets, Governments, and Time Horizons*, Avner Offer[141] points out that despite the prevailing ideology, reinvigorated in the Thatcher and Reagan era, that market solutions are best suited to solve economic problems, the share of the public sector in allocating economic activity has not diminished over the last 40 years, but rather increased. When allowance is made for the contributions of the non-profit sector, sometimes called the third sector,[142] and the non-monetised care sector, the proportion of economic activity undertaken under competitive for-profit conditions[143] is only between a third and a half.

"Free market" ideologues like to present the public sector as spending, often wastefully, the hard-earned tax revenue supplied by the private sector. It should be remembered that in the UK, for example, a third of private sector activity is meeting, profitably, government procurement requirements, including privatised public services, as well as infrastructure and other capital items.[144]

Conventionally the third sector excludes universities.[145] This is on the grounds that they provide a public service – education – and for most of the part they are funded by government. Recently we have seen the entry into the sector of for-profit universities. But traditionally they have been autonomous institutions with a crucially important role in transmitting the wisdom of previous generations to the current one[146] and in allowing free debate for students and their teachers as to the best ways forward in all aspects of life for their national society, or, considered on a planetary scale, for humanity. These noble functions, reflecting the very word *university*, have been overshadowed in recent decades.

Universities today are much more like training institutions preparing students, taught intensively in narrow specialties, for their professional or academic lives. The interdisciplinary or holistic approach struggles to survive against this fragmentation into specialist silos. There is also an increasing emphasis on STEM subjects (science, technology, engineering, and mathematics). Student numbers and funding for social science, humanities, and the arts have dropped substantially. In the UK a campaign started several years ago to raise the profile of these subjects by creating a competing acronym: SHAPE. I

[141] Emeritus Professor of Economic History at the University of Oxford. Offer agrees (p.174) that governments have no need to borrow to cover deficits. This is in line with the MMT approach.
[142] Categories in this sector include cooperatives and social enterprises, think tanks, NGOs, and charities.
[143] In the UK privatised utilities, for example multi-year railway franchises, heavily regulated, are included.
[144] Sources: *Procurement statistics - a short guide*, House of Commons Library, August 2024.
[145] But not privately funded research institutes, such as INET, the Institute for New Economic Thinking.
[146] The master of my own Cambridge college, at the first formal dinner for new students, memorably described university as "machinery for cultural inheritance".

attach great importance to the fact that this acronym recognises purpose in the university. Its expansion ends with the words "*for* people and the economy". [My italics]

One famous university course, PPE (philosophy politics and economics) at Oxford, which has been copied at over 100 universities around the world, sounds promising as taking a holistic approach. It was introduced in 1920 in response to post-WWI criticism that Oxford was placing too much emphasis on the study of classical civilisations. However, at Oxford the course's three subjects have always been taught independently without an interdisciplinary approach, which arguably reduces its effectiveness.[147] Nevertheless the Oxford PPE has been extraordinarily predominant across the constituent parts of the UK's elite for many years, which may not altogether be a good thing.[148]

Returning to the first two sectors, Mariana Mazzucato discusses the relationship, for *current* spending, between public and private in her book *The Value of Everything.* She points out that the accounting convention, within the international standard for national accounts, for government direct expenditure on education, health services, libraries and so on is the *cost* of provision (mainly the salaries of teachers, doctors, and other professionals). By contrast, where such services are supplied commercially by the private sector, the basis of accounting is the price paid for the service, which is a measure of the *value* placed on the service by those paying for it, so will include the profit of the supplier as well as the cost of provision. It is highly likely therefore that the numerical value of public sector services within GDP, despite their acknowledged importance, is underestimated. [Unless you believe, usually without evidence, that government-supplied services are hugely inefficient in terms of their cost in relation to the valuable output achieved.]

Avner Offer revisits the question of which economic *investment* activities should be government responsibility, and which should be left to the private sector. He uses the "payback period" to define where the boundary should be. Private investors, seeking investments which will become profitable before the future becomes too uncertain, require a payback period comfortably inside "the credit time horizon".[149] The time horizon for investment in ventures like railways, schools and sewerage systems lies outside the payback period that private investors expect.

> In contrast, in market societies, undertakings that pay off inside the credit time horizon are typically undertaken by business. This suggests a division of labour: market competition for short-term provision; government, not-for-profits, and the family for long or uncertain durations. This boundary predicts where the limit is likely to run and sets down where it ought to be. When violated in either direction, poor outcomes are likely, inefficiency, corruption, or failure. [Offer p.13]

Thus, the private sector is right for investment projects with short-term or medium-term payback periods, giving higher returns - including a profit element - for a given interest rate.

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[147] Some other universities have addressed this limitation. For example, PPE at the Hebrew University in Jerusalem has a tutor from all three disciplines present whenever students are discussing an issue or a text.

[148] For a fascinating and balanced review of the impact of the Oxford PPE, see this February 2017 article from *The Guardian*.
PPE: the Oxford degree that runs Britain | Higher education

[149] In Offer's formulation, this is the time required for interest on a loan to add up to the original advance, under the prevailing interest rate.

The public sector should undertake those projects which exceed the credit time horizon earning lower financial returns, but high economic, that is social, returns, over an extended period.

When deciding on the interest rate used to calculate payback periods, it is usual to add an extra element to allow for uncertainty. Steve Keen has pointed out that this approach does not capture the fact that uncertainty increases the further we go into the future. He quotes an interesting proposal that the interest rate used should itself increase with time.[150]

Surveys quoted by Avner Offer show that the target payback period used by the private sector is 6-7 years, much shorter than would be suggested by considering interest rates alone, even at the recent higher levels. As Steve Keen says, "uncertainty about the future is more important than the interest rate."

Another dimension to the division between public and private sectors concerns risk and the time horizon of uncertainty. In her first book *The Entrepreneurial State*, Mariana Mazzucato shows that publicly financed R&D (research and development) is very frequently the foundation for major corporations, especially MNEs with large-scale production facilities, and well-established brands and distribution networks, to launch highly profitable innovative products and services. Not only is the role of the public sector in innovation typically unacknowledged, but there is no adequate mechanism by which some of the profits accruing to shareholders can be clawed back to support public sector R&D. A telling recent example is that Dr Anthony Fauci used to be the head of a publicly financed research laboratory, based at the University of Pennsylvania, where two professors[151] developed the mRNA technology later used by Pfizer and Moderna in their successful and hugely profitable COVID vaccines.

If Modern Monetary Theory is correct and we can stop worrying about the "National Debt" and the size of annual government deficits, which currently have interest paid on government bond issues as a significant real component, the balance between government purchasing power and private sector purchasing power could shift towards the former in pursuit of societal goals, through investment with a long time-horizon, without budgetary constraints. This does not mean that direct government spending would necessarily increase. Much, though not all, of the increase in government purchasing power would be spent on investment goods and services supplied by the private sector. The real constraint is resources available in the priority sectors.

For example, in the UK at present there is a serious shortage of trained nurses. Increasing the salary level offered by the publicly funded National Health Service would certainly attract more people to the profession in the short term, and might better reflect the value of their work, but there are limits to this approach. Without attending to the constraints of supply by investment in the availability of training courses, specialised teachers, and places, further salary increases would be genuinely inflationary, though as NHS services are free of charge, there would be no knock-on effect on prices – just on government expenditure.

[150] The suggestion comes from work by mathematician-turned-economist John Blatt. Steve Keen, "*Railroaded: Bring Back Thatcher and Reagan"*, Aug. 7, 2023.
[151] Katalin Kariko and Drew Weissman shared the Nobel prize for medicine in 2023.

For infrastructure, the capacity and available expertise within the private construction sector, considering current order books, would need careful checking, before a major public program was launched, to avoid driving up prices. This detailed sector analysis in the service of keeping inflation under control would be a new way for the central bank to meet this responsibility by paying more attention to push supply constraints. It would thus need to review its data sources and analytic capacity, including the use of novel techniques.

The debate over Modern Monetary Theory and its implications for relaxation of the budget constraint (not the inflation constraint) on government spending is by far the most important issue affecting the contribution by the public sector to an economy that works well for everyone.

The Private Sector & Divestment

For the private sector huge quantities of detailed data are collected from businesses and analysed for every branch and sub-branch of the economy. Output, known as "value-added" to bought-in inputs, and equal to the sum of wages and profits, can also be analysed by size of business within sector. This can be done using numbers of people employed, value of sales or net worth (as shown on the balance sheet) as the measure of size. The way that businesses of every size and in every sector form an interdependent, dynamic whole can fairly be described, by biological analogy, as an ecosystem.

Joseph Schumpeter, who came to the US from Austria in 1932, where he had briefly been Minister of Finance, and died in 1950, is increasingly recognised as an economist of the stature of Keynes. He understood the dynamic nature of capitalism and saw that innovation was its key characteristic. He coined the phrase "the gale of creative destruction" to describe the process by which new and innovative businesses grow and outcompete established large corporations which eventually get absorbed or cease trading altogether.

Large private-sector corporations including banks, especially multinationals, are a convenient "enemy" for those seeking a better world and especially a world where power is more accountable. Opprobrium is currently focused on their CEOs with billions of dollars of personal wealth, celebrity status and now political and media ambitions. But David Korten's 1995 book, *When Corporations Rule the World*, has long been a global best seller.

And for many such seekers "profit is a dirty word". This is a glib sentence, but it hides a complex truth. Profit, in a competitive market, can be a measure of efficient, often innovative, use of resources benefiting society. It can also be a measure of exploitation by rich and powerful corporations, without sufficient competition, of the poorer and weaker segments of society, as both workers and consumers. In their latter role they must contend with psychologically sophisticated, and largely dishonest, advertising. David Korten recommends eliminating tax deductions for other than informational advertising. Total advertising expenditure is now nearly 1% of global GDP.[152]

A popular anti-corporate campaign is based on the idea of divestment – that is selling existing shareholdings and cutting out any future investments – from companies considered

[152] My calculation from publicly available data. The fastest growing region for advertising spend is Asia-Pacific.

to be operating in environmentally damaging sectors. The prime example is fossil fuels. It is important to remember, however, that this activity does not damage the corporation in the short run. Shares (stocks in US terms) are traded on the secondary market between investors. This means that the financial position of the company is not directly affected. If the share price were lowered by the weight of selling and this reduction persisted over a long period, despite other factors attracting buying investors, then it is possible that the cost of capital for the corporation, when it raised new funds from the capital market (a primary transaction), would increase. So far there is no evidence that this has happened in practice.

Thus, ethical investment funds, which exclude sectors such as fossil fuels, defence, gambling, tobacco, and alcohol are satisfying the moral requirements of their investors, and in doing so may achieve lower financial returns (the evidence in the case of fossil fuels is that there is no sacrifice of returns, rather a gain), but do not have a negative impact on companies in those sectors. The largest divestment transaction to date was by the Norwegian sovereign wealth fund, the world's biggest such fund, supporting public sector pensions, with investments totalling $1 trillion. In 2019 it sold all its holdings in fossil fuel companies, amounting to $13 billion. Some people might see an irony in that the fund has been built up largely from North Sea oil revenues.

The argument for divestment would be stronger if the re-investment of the resources released is targeted at companies which are making larger or more effective contributions to solving global problems such as reducing dependence on fossil fuels, while at least maintaining the level of risk-adjusted returns that their investors expect, or, in the case of pension fund trustees, while maintaining compliance with their fiduciary duties to their members. I deal with this question in more depth later. For now, the example of the New York Common Retirement Fund is instructive.

By the end of 2021 this fund had divested approximately $3 billion out of an estimated $4.5 billion invested in fossil fuels. However, this was only part of the plan to achieve net zero in its investment portfolio by 2040. The intention is to double investments in climate change solutions, such as renewable energy, energy efficiency and green real estate, to over $8 billion by 2025, and achieve a total of over $37 billion in climate solutions investments by 2035.

Of course, the big oil companies are investing real capital, not financial capital at market valuations, in substantial amounts, billions of dollars *each year*[153], in their transition plans to shift their operations to supplying renewable energy instead. Critics say that these transition plans could be faster. OECD conclude[154] that the binding constraint for net-zero may not be cash availability but rather a pipeline of bankable projects. Again, I return to this question later.

Stakeholder Capitalism

[153] According to OECD *total* investment by the listed energy companies in 2024 was approximately $1400 billion. *Global Sustainability Report 2025,* OECD publications

[154] *Global Sustainability Report 2025,* OECD publications

Fifty years ago, the US Economist Milton Friedman, (Nobel memorial prize 1976) and an early member of the "free market" Mont Pelerin Society[155], asserted that the sole purpose of a firm is to make profits for its shareholders. A later expression of the same point was that firms should maximise shareholder value. This idea has thankfully been in retreat for at least the last twenty-five years, but it has probably encouraged and excused the worst excesses of corporate behaviour. We refer to this as the "Friedman doctrine."

Stakeholder capitalism which expresses the idea that corporations have a duty to their workers, customers, and suppliers (and, in some versions, financiers, communities and governmental bodies) as well as to their shareholders is now sixty years old, though still developing as a concept and highly contested both theoretically and in practice.

While in the US and the UK the tradition of the adversarial relationship between capital and organisations of workers continues, in continental Europe, particularly in Germany, a different institutional form of capitalism has evolved: the social market. Here workers, through works councils, usually advised by trade unions, have strong legal rights of consultation, including, in some areas, the right of veto, over company policies and actions. They are also represented on the supervisory board of the company, responsible for strategic decisions, and the ultimate authority over day-to-day management.

In both the US and the UK, however, trade union membership in the private sector has fallen quite dramatically over the past forty years. This drop is much more than can be accounted for by the change in mix of activity, for example away from manufacturing towards services. Public sector trade union membership has been stable, which is understandable given that government is effectively a monopsonist (a monopoly buyer).

The two American companies with the largest number of employees, Amazon and Walmart, go to extraordinary lengths to prevent unionisation in their workforce. This is true of many other companies, including well-known names such as Apple. Such companies take a one-sided approach, without collective bargaining, to setting worker pay, terms and conditions. They rely on local labour market conditions and ease of recruitment to claim worker satisfaction. They are not setting a good example if stakeholder capitalism, where employees have a deservedly important stake, is the future.

Enterprise Ecology

Multinational enterprises (MNEs), that is corporations, small and medium-sized as well as large, with one or more foreign affiliates, were estimated by OECD (in 2018) to have produced a third of global output in 2014. This proportion has almost certainly risen in the last ten years. Of the total in 2014 about two-thirds were produced by the headquarters and domestic plants in the home country and one third by their foreign affiliates. Furthermore, MNEs were responsible for approximately half of world exports and imports. A large part of world trade takes place within MNE networks, partly because of the organisation of manufacturing into global supply chains of components. The year 2022, with its rethinking

[155] See page 2

of many aspects of geopolitics, saw the first pushback against this long-established trend, captured by the newly heard phrase “local for local.”

In every economic sector there has been an increase in concentration so that fewer corporations dominate the large firm segment. But SMEs (small and medium sized enterprises) continue to play vital roles in innovation and, through their births and deaths, allow resources to move smoothly from declining to growing sectors without the major upheaval of a big company failing. As well as outright failure SMEs can cease to exist by being absorbed by a larger company. While some SMEs produce final products exclusively for the domestic market in manufacturing, construction or services, or supply inputs to MNEs in their country, many are directly active in international trade through exports and imports.

SMEs are also usually more locally accountable to the communities in which they operate. They used to be financed and supported by regional and local banks, and in continental Europe might have regional governments as minority shareholders. Now, even in Germany where this pattern was best established, and where such banks typically invested equity in SMEs as well as lending to them, the banking sector is now more weighted to a few giant firms operating nationally. Banks could do better for the SME sector, as argued in a later section.

The commercial bond markets could also do more for SMEs, even unquoted firms, which would make them less dependent on bank finance. There are now specialised internet platforms for smaller bond issues, tapping into a wide variety of lenders besides traditional financial institutions.

Large corporations with well-known brands dominate the media and public discourse but the contribution of the SME sector, in terms of both employment and output, as well as innovation, is large and often underestimated. In the EU, for example, firms with less than 250 employees accounted for 48% of employment and 35% of value added (2019 data from Eurostat). In the US, the employment share of businesses with less than 500 employees was 46% in 2022. The value-added share was 44% in 2014, according to a major study quoted by the SBA (Small Business Administration).

Given the important role that SMEs play in innovation, government risk sharing in finance mechanisms for them is an important policy instrument. In many countries there are loan guarantee arrangements whereby a minor share of losses from bank loan default[156] is borne by the government.

In the US, in addition to the SBA’s loan guarantee program[157] there is the long established SBIC program (Small Business Investment Company) which takes a different form. SBICs can leverage their own capital up to 2:1 by issuing low-cost SBA guaranteed debentures (debt securities) thus expanding their capacity to invest in SMEs.

[156] In Germany the government has also undertaken a minor share of the risk in *equity* investments by certain venture capitalists.

[157] Lenders include non-banks raising capital by securitising their guaranteed loan books.

Some government finance programs specifically target research and development activity by SMEs. These can take the form of heavily subsidised incubators or accelerators which provide a range of support services for start-up enterprises in innovative technologies. In the US there is the SBIR grant program (Small Business Innovation Research).

Given the modest cost of well-designed risk sharing programmes and the benefits in terms of innovative SMEs, there is an argument for more public resources to be allocated there.

Leveraging Public Capital

If the political economy is to be re-focused on addressing the existential problems facing humanity three things are essential. The first is that productive investment as a proportion of economic activity, as opposed to consumption, needs to rise in many if not most of the major economies. In the UK in particular the combined public and private sector investment proportion[158] is a low 19% compared to 22% in the US and 25% in Germany. Secondly the public sector and the private sector must work synergistically, but respectfully, together. The third is that, since we do not know with any certainty which of the proposed innovative approaches to solving any of the big sustainability problems will work, we need an efficient mechanism of trial and error. Efficiency here means economical use of resources and the speedy selection and success-based financing of the more promising initiatives.

Mariana Mazzucato's recommendation is that the public sector becomes entrepreneurial rather than bureaucratic, leading by setting long-term goals rather than merely facilitating and regulating smooth operations of markets in the short-term. A major theme of her Institute's[159] work is "Rethinking the Role of the State". She shows how the private sector can respond creatively to this kind of lead.[160] We need, as she says, to move from a welfare state to an innovation state.

In the US, the recent emphasis has been on incentives in the form of tax breaks for those companies investing alongside major multi-year public programs. The three largest are the 2021 Bipartisan Infrastructure Law, $1.2 trillion over 10 years, including $550 billion new spending, the 2022 CHIPS and Science Act, $284 billion over 10 years, and the Inflation Reduction Act targeting clean-energy-related investments. The tax breaks for the last of these are *uncapped* meaning that private sector investment could be very large. A Goldman Sachs report[161] suggests that the tax credits and subsidies will cost $1.2 trillion, increasing the budget deficit, but will result in a $3 trillion clean energy investment boom over 10 years. It is unfortunate that President Trump's policies have already diminished these resources substantially.

There are other ways that government investment spending can mobilise additional private capital for domestic projects[162]. One mechanism is "blended finance". This combines private capital in search of an investment return with other, more risk-tolerant, with much lower

[158] Gross Fixed Capital Formation as a percentage of GDP. This is new manufactured capital including housing and other construction, not flows of financial capital. Source: World Bank.
[159] Institute for Innovation and Public Purpose
[160] See final two paragraphs of the later section "Changing the Balance of Power or Fostering Collaboration".
[161] *Carbonomics The Third American Energy Revolution*, March 2023
[162] In recent years the ratio of total private to public sector capital spending (excluding dwellings) in the UK has been about 3:1. Mobilisation programmes working at the margin would aim to achieve a higher ratio.

return requirements, 'catalytic' capital from government and philanthropic[163] sources. Blended finance can take a range of instrumental forms. So far, most UK blended finance projects have been aimed at remedying investment shortages in social sectors (health, housing, education etc.) rather than addressing environmental issues.

PPPs (Public Private Partnerships), called PFIs in the UK (Private Finance Initiatives), were a form of blended finance introduced in the 1980s and adopted by many countries in the 1990s, including some middle-income developing countries, as a condition for their receiving support from the IMF and the World Bank. Avner Offer, in a devastating economic and political critique[164], shows that this design, where private finance was rewarded by long-term government revenue guarantees, offended against his principle that the credit time horizon for the public and private sectors is sharply different and must not be conflated. PFI was a much more expensive way of delivering infrastructure investment, than by government borrowing directly - which under MMT would not be constrained by the "budget deficit". Banks and other finance companies as well as lawyers and consultants made huge profits. The high interest rates payable by government, unjustified by the risk level, continue under 30-year contracts.

Specific proposals made in a recent influential UK report[165] explicitly acknowledge this failure and adopt a completely different design. They are for a substantial - targeting £46 billion in 5 to 10 years - venture capital fund of funds, the "UK Growth Fund" and a smaller "UK Community Growth Fund". The nature and potential contribution of venture capital is discussed below. Fund of funds refers to a second-tier pool of capital invested in first tier sector-specific funds that invest in SMEs. Private capital, from different sources with differing risk appetites, would be attracted to join at both tiers.

Growth-oriented SMEs targeted at solving pressing environmental problems are an important element in the mix of new productive investment. They can provide the innovative excellence and energy of small teams of gifted scientists, engineers, marketeers, investors, and entrepreneurs, working together in the competitive financial and market environment. The dispersion of this activity among many risk-taking and creative SMEs achieves the needed experimentation, discovery and sometimes disruption of existing patterns of economic activity. It is a form of natural selection – survival of the most adaptive.

Venture capital (sometimes now disingenuously called "early-stage private equity" [166]with an eye to the possibility of extending tax breaks granted for true VC investments) is the essential partner for this activity. It is patient[167], high-risk, equity capital invested in young,

[163] Venture philanthropy, most developed in the US is a similar activity, but directed mostly at reducing social problems rather than tackling environmental issues.
[164] *Understanding The Private Public Divide – Markets, Government, and Time Horizons*, 2023. Pp 28-42
[165] *Investing in our Future*, Sarah Gordon, LSE's Grantham Research Institute, October 2023.
[166] EVCA began life as the European Venture Capital Association. Sometime in the 1990s it changed its name to the European Private Equity and Venture Capital Association. In 2024 it became Invest Europe - the Voice of Private Capital. Its activities are focused on taking publicly quoted mature companies into private ownership, using mainly debt finance. This is completely different from true venture capital.
[167] A serious criticism of some venture capitalists is that their patience is severely limited, with quick returns driving decisions. The oldest operator in the UK called the Industrial Commercial and Finance Corporation (ICFC) later "3i" refused to be known as a venture capitalist for this reason.

innovative, unquoted, that is privately-owned, companies. Equity capital has crucial advantages for young high-risk companies. It does not have to be repaid on a fixed schedule and does not require the regular payment of interest.

A typical VC fund will be a 10-year fixed-capital structure, with a specialist, hands-on[168] management company, where there is no possibility to sell shares in the fund to other investors during that period. The highest risk category of venture capital is called seed capital which refers to small scale investments made before the project has even achieved "Proof of Concept".

Capital is returned to investors only when there is an "exit" from a portfolio company in which the fund has invested. Exit routes are flotation on a stock exchange or a trade sale to a large company in that industry. There is a saying in the industry that the lemons ripen before the plums. Typically, out of every 10 investments, 3 will be complete losses, 4 will be "the living dead" and 3 will eventually, that is during the harvest period of the fund - typically years 7-10 - do very well. This will normally be after successive rounds of investment, with several VCs participating. The capital gains (big increases in the value of the shares) made on these exits should compensate for the capital losses and mediocre performance of the other 7 so that the fund as a whole makes a high return, compensating investors for their high risk.

There are various sources of venture capital, including small allocations to VC funds from pension fund and insurance company investment portfolios, wealthy families, and individual investors through specialised platforms enabling diversification of risk. A more recent addition is corporate venturing, that is large companies investing directly in innovative SMEs in their sector.

The global volume of investment by true venture capital, as opposed to the larger asset class of private equity, where portfolio companies are mature and the risks are market and financial as opposed to innovation and execution, rose to a peak in 2021 of $750 billion over some 35,000 deals, though with uncertain geopolitical and market conditions, there has been a marked slowdown since 2022. 2025 saw a recovery to $512 billion in 38,000 deals[169] with AI dominating the sector. Although this is only about 2% of total global non-financial investment, successful portfolio companies typically grow rapidly and can finance much larger volumes of investment using internal as well as external funding.

Currently however only a small proportion of global venture capital activity is targeted at solving problems in the broad area of planetary and human sustainability. The largest amounts (45% of the 2025 total) are aimed at opportunities in software, including AI, followed by commercial products and services, including financial, and then consumer goods and services. Energy, after an increase in 2021-3 is declining and accounted for less than 3% of the total in 2025. Transportation was 10% of the total invested in 2019 but only 2% in 2025.

[168] That is the management company offers a lot more than just capital. Services might include advice, sector expertise, contacts, help with recruitment, introductions. Typically, the VC will nominate a director.
[169] Source: KPMG Venture Pulse Q4 2025

It would be helpful if the analysis of venture investment by sector were more granular. Some of the software investments, for example, are likely to be targeted at environmental issues. The proposed UK fund of funds could be closely targeted though this is likely to increase its overall risk level.

Can High-Street Banks Do Better for the Economy? [170]

Credit creation, financing innovative growth-oriented SMEs[171], which are working to support sustainability in the economy, is probably the most valuable contribution that banks can make[172]. Skilled lending officers can work closely with such firms to build both short-term working capital and medium or long-term development capital on an adequate base of equity, initially supplied by the business founders, their family[173] and friends, and later amplified by venture capitalists.

Almost if not equally valuable to the economy, were they to be further encouraged and allowed to reach their full potential, are Community Development Financial Institutions (CDFIs), which benefit from access to low-interest government funding. These also require high banking skills, though with different emphasis. The paradigmatic example is ShoreBank. It was founded in 1973, in South and West Chicago, poor areas of the city with many SMEs owned by black Americans, later expanding profitably, nationally and internationally, but closed by the FDIC[174] in 2010 due to insolvency, during the global financial crisis.

At the other extreme, residential mortgage banking is essentially a routine high-volume documentation activity, governed by standard parameters about security requirements and requiring few skills, or any regular post-advance contact with the borrower. Too high a proportion of bank lending and profits in wealthier economies comes from this low-risk activity. During the GFC (Global Financial Crisis) of 2008-11 when property prices ceased to conform to their long assumed rising trend, and indeed began to fall, banks and borrowers were both in trouble. Remember, higher valuations of the same piece of real estate contribute nothing of economic value.

The strange persistence of the false ILF model (Intermediation of Loanable Funds) within banking's self-understanding of its function has contributed to the traditional, and still widespread, internal banking culture of excessive risk aversion. If bank lending officers believe that in deciding whether to make an advance to an SME, they are contemplating lending out customer deposits, their desire to avoid the possibility of loss[175] from loan default will be strengthened. This will also be reflected in bank policies and procedures on

[170] This section draws mainly on my knowledge e and experience researching UK banking, but I believe much if not all the argument applies to banks elsewhere.
[171] Empirical research in both US and the UK suggests that no more than 10% of SMEs are growing or intend to grow. We should neither be surprised nor concerned. Many SMEs are content to stay small and take a lower risk approach.
[172] Such activity would be strongly encouraged under an active credit direction policy of the central bank. See Footnote 80 on "window guidance" as practised in Japan in the post-war period.
[173] In the UK the proverbial family member backing a young entrepreneur was "Aunt Agatha".
[174] Federal Deposit Insurance Corporation
[175] Many SMEs do fail, hence are unable to repay their loans, and the uncertainty can be reduced only so far. This needs to be accepted as a healthy feature of a competitive and innovative capitalist economy.

the necessity of requiring security, collateral, or third-party guarantee often in amounts much larger than the loan advanced.

For the most part bank lending officers are incentivised just to avoid losses and they therefore err on the side of asking for security, typically real estate, where the loan to value ratio is low enough that there is a large cushion against loss. Equity requirements (in cash rather than in kind, for example drawing very low salaries - "sweat equity") can be onerous for borrowers who do not come from wealthy families. There is little emphasis, in incentive structures, on the quality of the loan book, for example whether business customers are growing and likely to need more loan finance or other products and services offered by the bank.

Another problem is the systemic failure to recognise the distinction between commitment and security value. If a borrower stands to lose his or her house should the business default on its bank loan this is a strong incentive for due servicing (paying instalments of interest plus capital repayment).

Unsecured or partially secured lending to SMEs, sometimes called cash flow lending, requires more time for analysis and research on the part of the lending officer and, of course, for the borrower with his regularly updated business plan and cashflow forecast. This approach is clearly uneconomic for the bank to apply to numerous small loans. Where it is used there is obviously a higher risk of loss from default and the interest rate charged by the bank will be correspondingly higher. If a business grows and the volume of loans increases, it will be good for bank profits. However, the balance between risk and return may not be favourable enough. The higher interest rate itself will reduce the profitability of the business. For a new business, this is a more severe problem unless the bank provides an interest "holiday".[176]

Although it is sometimes said that access to finance is more important than the cost of finance there are important limits to this argument. The first is "adverse selection": a borrower who plans to misuse the finance advanced and does not intend to repay in accordance with the loan terms will accept higher interest rate terms. More generally loans to SMEs are subject to "asymmetric information"; the borrower always knows more about her or his business and its inherent risks than the lender.

Some UK banks have experimented with hybrid loan products which, in return for a lower interest rate, give the bank a share of business profits, but not of losses should they occur. In Germany where there was a strong presence of regional banks, including cooperative structures, it was not unusual for a lending bank to take also a direct equity share in a *Mittelstand*[177] business.

It is where conventional security presented is inadequate for which public[178] credit guarantee systems are designed, enabling the bank, in return for the payment of a guarantee premium, to offset a significant, but minor, part of its risk.

[176] A period when regular interest payments are rolled up and become due only at the end.
[177] The name for the German SME sector, typically family-owned businesses.
[178] There are several different forms of guarantee fund. Some regional funds have a mutual element contributed by local SME borrowers. There also unfunded "pay as you go" schemes.

An interesting banking case study from the US is that of the Silicon Valley Bank (SVB). As its name implies this bank specialised in lending and other financial services to high tech companies with venture capital backing. In 2023 SVB got into serious financial difficulties. Many commentators associated this with their specialised market. Deeper analysis however revealed that the course of their problems was only indirectly related to their high-tech specialism.

SVB's balance sheet structure was unusual. On the asset side the volume of loans was relatively small in comparison to deposits on the liabilities side. This reflects the fact that their customers typically relied more heavily on equity finance. The bank's missing asset element was made up by government bonds (Treasuries) and some commercial bonds. With the rapid rise in interest rates during 2023, the capital value of these bond holdings fell substantially since their coupons (interest rates payable) were much lower. It was this that caused problems for SVB, resulting in a panic withdrawal of deposits. In the end the government's Federal Deposit Insurance Corporation (FDIC) extended their guarantee from a maximum deposit of $50,000 to an unlimited amount, which stabilised the situation. SVB lost its independence however, having to be taken over by a larger bank.

Large Corporations: Short-Term or Long-Term Outlook?

The first thing to say about large corporations is that they are not a homogeneous category. Corporate culture varies widely between countries, even within each sector, as do leadership and management styles. One dimension is the time horizon for making profits. Some corporations are focused on the short-term; they are content to be judged on quarterly results. Others have multi-year strategies and plans for making steady profits over the longer term. These will often consider the need to reduce their environmental footprint, in the face of rising costs and risks including regulation. A crucial issue is whether short-term profit maximisation for investors will remain the dominant goal of corporate culture. Longer-term outlooks have been gaining ground although there are powerful forces to be overcome. In many cases too much depends on the character and personality of the CEO or the chairman of the board.

There has certainly been a steep decline in long-term investing. On the New York Stock Exchange, the average holding period for investors has declined from nearly six years in the mid 1970s to less than six months in 2022. There are other factors driving this change which may be more important than a greater focus on short-term results. One is the emergence of high-frequency, often intra-day computer-based trading, and another is lower fees and commissions on trades. The former, which a Tobin tax would make unprofitable, clearly encourages an overall short-term outlook by the investor community.

Another recent development going against a long-term outlook by corporations is the increase in share buybacks. These are flows of money from corporate reserves to shareholders,[179] which can be orders of magnitude larger than traditional dividends and are taxed at a lower rate. The resulting increase in share prices directly benefits executives

[179] Hence the bidirectional flow between Finance and Corporates in the graphic of the current paradigm.

whose pay is typically linked to them. In some cases, the buybacks are partially financed from new issues of corporate bonds. This means that, as well as running down reserves, the company is taking on more debt. Debt interest is an allowable deduction from pre-tax profit, unlike dividends which are paid from profits after tax has been deducted. This means that financing major long-term investment programs by the corporation will be dependent on raising fresh funds from the capital market, instead of using its own reserves.

A major study by William Lazonick (Harvard Business Review 2014) found that from 2003 to 2012, 449 of the companies on the S&P 500 index distributed $4 trillion dollars to shareholders as buybacks, equal to 53% of profits, along with $3.1 trillion as dividends, 37% of profits, leaving just 9% for reinvestment. In the 1980s, by contrast, a full 50% of profits were reinvested by the largest corporations. At the macroeconomic level this fall in internal reinvestment is reflected in a fall in *total* business investment in the economy, showing that the capital markets are not making up for the shortfall in internal reinvestment.

The energy sector maybe an exception. Because of its enormous operating cashflow it is able to invest as well as to pay dividends and finance buy backs. For example, in 2024 buy backs and dividends totalled $571 billion while investment was approximately $1400 billion[180].

The Responsible Corporation?

A corporation that is behaving responsibly, and that could be described as on its own truth quest within the capitalist ecosystem, by analogy with human individuals in their communities, will be investing over long-term horizons both in research and development, including ways that it can profitably reduce its environmental footprint, and broadly and deeply (including through generous salaries and benefits, particularly to entry level employees) in the productive capabilities, and commitment, of its workforce. Safety considerations for employees, the public and the environment will come before its profits. It should also be ahead of impending regulation, for example on pollution limits, rather than following it. In that way it should remain competitive in global markets.

Responsible behaviour should of course include paying a fair amount of tax on profits in the countries where profits are made. As corporations enjoy the advantage of legal personhood, it seems only reasonable that they should pay their taxes in the same way as real people and that tax avoidance should give rise to social opprobrium. In practice, many global corporations, prominent examples are Apple and Amazon, employ highly skilled accountants and lawyers to devise strategies, including the use of tax havens and transfer pricing, to minimise their overall tax liabilities, while complying with the letter of the law. Such corporations go to great lengths to avoid tax liabilities in jurisdictions where tax rates are high because of the amount and quality of publicly provided infrastructure, including education and health services, from which corporations as well as real people benefit.

We should however keep the tax issue in proportion. The share of tax revenue from corporation tax in the UK was 9% in the latest tax year. Even allowing for significant

[180] Source: *OECD Global Sustainability Report 2025*, OECD publications

avoidance by global corporations, business taxation is a minor element in the total tax take. In the US the picture is complicated by there being two classes of corporation the "C" and the "S". Only the former pay corporate income tax; the latter, the majority, which are much smaller firms on average, are "pass through" corporations in which corporate profits are taxed as personal income in the hands of shareholders. The share of corporate income tax in total taxation is just 5%.

Sir Paul Collier, an internationally respected UK development economist, in *The Future of Capitalism* takes the idea of the responsible corporation further. He has a chapter: *The Ethical Firm.* Its paradigmatic example is Imperial Chemical Industries.

> In the Britain of my youth, the most respected company in the entire country was Imperial Chemical Industries. Combining scientific innovation and size it developed huge prestige, and to work for it was a matter of pride. This was reflected in its mission statement: 'we aim to be the finest chemical company in the world.' Yet in the 1990s ICI changed its mission statement. It became: 'we aim to maximise shareholder value.'
> …. That change in mission statement reflected a change in focus by the company's board. Previously, it had tried to be a world-class chemical company, which implied paying attention to its workforce, its customers, and its future. Now it tried to please shareholders with profits and hence dividends…….the change of focus proved disastrous: the company went into decline and was taken over.

Of course, the real story is more complicated, and less romantic. ICI was an institution with great technical strengths and a heritage of virtually captive markets in territories of the British Empire. It was not run as a competitive, lean, innovative and adaptive corporation, under strong leadership, concentrating on making profits by satisfying customers and markets. A substantial change in corporate culture, spearheaded by a new and gifted leader in the second half of the 1980s, was not enough to save the whole corporation from being broken up into separate divisions.[181]

UK corporations have long been legally obliged to report and be audited on the number of employees earning high salaries. This minor departure from financial statements and disclosures traditionally necessary, and mandatory, for investors and creditors, has recently been massively expanded in scope and depth. Sustainability in terms of impact on the environment has been added to a much more extensive probing of employment practices, and corporate governance arrangements. This could be the harbinger of a profound revolution in corporate culture going far beyond the ICI story.

The ESG Reporting Revolution

Reporting, and auditing, on ESG (environment, social, governance) aspects of corporate activity is now mandatory in some 25 countries. In most cases this applies to financial institutions, state-owned companies, and large listed companies. Work is also progressing on establishing internationally agreed sustainability reporting standards, with a view to them also becoming mandatory. The International Sustainability Standards Board was

[181] See the case study on ICI in "*Corporate Culture and Performance*", Kotter and Heskett, 1992.

established in 2021. OECD's latest Global Sustainability Report[182], which uses 2024 data, covers 12,900 companies, reporting on sustainability issues, representing 91% of all listed companies by market capitalisation, but only about a third of the total number of companies listed. About 40% of the companies reporting (81% by market capitalisation) had a third-party audit of sustainability data. The share of companies with variable executive compensation that link it to sustainability factors reached 67%.

The OECD report notes that 47% of the market capitalisation of listed shares is held by institutional investors who could exert influence over sustainability performance. One of its recommendations is that corporate governance frameworks that support effective shareholder engagement should be promoted.

Up to now the emphasis of the ESG approach has been one of risk management, avoiding or mitigating the effects of policies and actions, within these three aspects, which could do harm to people and/or planet as well as adversely affecting the financial health or performance of the corporation. This is a standard of behaviour which falls short of generating positive outcomes for stakeholders and is more distant still from the test of contributing to solutions for the problems of people and planet. But the momentum around strengthening the ESG approach, especially the environmental aspect, is growing.

Under the social aspect of ESG, the reporting categories are:
employee safety and health, working conditions, diversity, equity and inclusion, and responses to conflicts and humanitarian crises affecting employees.

The aim of the "S" in ESG is to monitor the *internal* social performance of the corporation. This is different in principle from *external* social performance. Allowing employees time off for "good works" in the community was the kind of minimal action taken in the name of CSR (Corporate Social Responsibility), an earlier and much weaker departure from the narrow "Friedman" corporate model. But CSR, which is discretionary not mandatory, does not tackle serious negative social *externalities* arising from corporate actions in pursuit of profit.

The damage to the social fabric that the corporation can inflict by, for example, closing a loss-making branch, far distant from HQ, without considering measures to reduce the immediate and long-term impact on local employment, can be enormous. Whereas the principle that "the polluter pays" is widely accepted and expressed through regulations and penalties for non-compliance, the correction and internalising of negative social externalities has a long way to go.

Turning now to "G" for governance, the reporting requirements deal with:
corporate structure: procedures, such as preventing bribery and corruption; diversity of board of directors; executive compensation; cyber security and privacy practices; and management structure.

An important and highly symbolic measure of responsible corporate behaviour, and leadership culture, straddling the social and governance spheres, is the ratio between the pay of the highest paid employee, usually the CEO, and that of the lowest paid person that the company employs.

[182] *Global Sustainability Report 2025*, OECD publications.

In the US, publicly quoted companies must disclose the ratio between CEO compensation (including the value of stock market options cashed and stock vested) and the median compensation of all other employees. According to one analysis[183], for the top 350 firms in the US the average ratio increased from 21:1 in 1965 to 61:1 in 1989 and to 351:1 in 2020. One example I noticed recently was David Solomon, chief executive of Goldman Sachs, who received $25m in "compensation" in 2022, down by nearly 30% from the previous year. His "pay cut" reportedly came amid stumbles by the investment bank.

A Swiss proposal to impose a limit of 12 for the ratio of the pay of the highest paid executive to that of the lowest paid employee was decisively defeated in a referendum in 2013. But a more modest, or gradualist, approach to tackling this aspect of inequality might have succeeded and thus be an example to policymakers in other countries.

"E", the environment component of ESG, is by far the most open ended. Issues addressed include:
climate change, greenhouse gas emissions, biodiversity loss, deforestation/reforestation, pollution mitigation, energy efficiency, and water management.

When I trained and then worked as a Chartered Accountant in the UK, (equivalent to a CPA in the US) we learned that the auditor's responsibility was to determine whether the financial statements provided "a true and fair view" of the company's activity over the period and of its position at the end of the period. The phrase reflected the philosophy that both accounting and auditing were an art as much as a science and therefore judgement was required. This was, we were told, a contrast with the practice in the US where a more black and white approach prevailed. Either the company was in compliance with the letter of corporate reporting law, or it was not.

Now that mandatory reporting and auditing has moved far beyond the monetary figures in financial statements, there is increased scope for debate and judgement, not only by auditors but also by investors, climate change campaigners, journalists, and other observers, over data reported and, much more so, over interpretation of narrative statements. The explosion of interest in ESG has put the accounting and auditing professions under considerable strain. While they are working hard to develop standards for reporting, they have yet to catch up and it is a moving target.

A new discipline for analysts within asset management teams and external consultants has emerged: rating, ranking and index construction of ESG performance. Data providers such as ESG Analytics have applied AI to rate companies and their commitment to ESG. Each rating agency uses its own set of metrics to measure the level of ESG compliance and there is, at present, no industry-wide set of common standards.

Traditional institutional investors such as pension funds, insurance and re-insurance companies have the longest time horizons. Recently the notion that a responsible corporation will also produce better value for investors over the long term in terms of risk-adjusted returns, including environmental regulatory risk, has come to the fore. Swiss Re is

[183] Economic Policy Institute, August 10, 2021

the second largest and most respected re-insurance company in the world, with $40 billion in annual premiums. Here is its interpretation of being a responsible investor:

'We make the world more resilient' is Swiss Re's vision. More than ten years ago, our Asset Management unit embarked on a journey to not only generate risk-adjusted, stable long-term returns, but to also consider environmental, social and governance (ESG) aspects in our investment decisions.

In 2007, just before the global financial crisis, Oxfam had changed its stance from holding corporate capital accountable to critical engagement with it. Corporations had to be part of the solution, as well as part of the problem. I took part in several initiatives, including meetings between Oxfam and Goldman Sachs. At that time Goldman Sachs had developed something they called GS Sustain. This was a product offered to buy-side clients who wanted to focus their investments on companies with high ESG ratings. Goldmans was conducting research as to whether companies with high ESG ratings also outperformed other companies in the same sector on conventional, profit-based return measures. This is a crucial question not only for institutional and other investors but for society in general. The research has been dramatically expanded since then.

Does Attention to ESG Make Good Business Sense?

Since 2021 the debate over whether good ESG performance is correlated with higher financial returns has become hugely contentious. Data, methodology, interpretation of results are all being fought over.

Furthermore, the question has become politicised. President Biden used the presidential veto for the first time in his presidency to strike down anti-ESG legislation which had passed the Republican majority Congress (House of Representatives) and the Senate, with the help of two Democratic senators who voted with the Republicans. The proposed law would have prohibited trustees of pension funds considering ESG factors in their investment decisions. It went directly against the Labor Department ruling of November 2022 which allowed and even encouraged retirement plan fiduciaries to consider ESG factors in making prudent investment decisions, based on their potential financial benefits. A phrase included in that ruling was "the human and planetary costs, or risks, of doing business."

National Republicans have made opposition to ESG a key pillar of their pitch to voters. Ron DeSantis, the Florida governor and former contender for presidential nomination, has banned fund managers for the state's retirement system from including ESG factors in their decision-making. (Financial Times March 1, 2023). Following the election of President Trump the opposition to ESG has increased hugely.

In 2022, ESMA (European Securities and Markets Authority), published a research study carried out by ESG Book, a consultancy set up in December 2021, backed by HSBC, Deutsche Bank, Swiss Re and others, to make corporate sustainability data more transparent and comparable. The headline finding was "ESG generally improves returns and cuts client costs over time".

The methodology was based on comparing model funds (not actual funds) investing in contrasting portfolios. Analysis over the five-year period 2017-2022 showed funds weighted towards companies with the highest ESG scores generally performed better than the unweighted benchmark. There was an increase in annual average return of 1.59% in European markets, 1.02% in Asia-Pacific markets, but only 0.13-0.17% in North American and global markets. An increase in annual return of 1% or more is a very substantial difference.

When the results are disaggregated to look separately at the three factors E, S, and G it turns out that good corporate governance is the main driver of increased financial returns, especially in Europe where the outperformance was 2.17% better.

Socially positive portfolios showed very small excess returns in Europe, and in North American funds the returns were *lower* by 1.3%. The comment from ESG Book on this result was "the markets are confused as to what it is, how to measure it and how to determine performance implications."

As companies in general seek to measure and cut their climate related risks, those that scored highly on environmental metrics also contributed, but only modestly, to outperformance except for funds focused on global markets where performance was dragged lower by exposure to emerging markets. As measures improve, we can expect outperformance of environmentally focused funds to be more significant.

McKinsey, back in 2019, though not disaggregating between the three aspects, was more firmly positive, even complacent.

> The overwhelming weight of accumulated research finds that companies that pay attention to environmental, social, and governance concerns do not experience a drag on value creation—in fact, quite the opposite. A strong ESG proposition correlates with higher equity returns ….. Better performance in ESG also corresponds with a reduction in downside risk, as evidenced, among other ways, by lower loan and credit default swap spreads and higher credit ratings.[184]

A review article[185], looking at 2,200 studies, concluded that effective ESG strategies boost performance but again found that S and G we are more important factors then the E. The study suggested the drivers of better performance were attracting investors, enhancing brand reputation, lowering operational expenses, improving employee retention, and reducing risks.

Another strand, distinct from ESG, of the rethinking to broaden and deepen the role of institutional and other investors is something called *impact investing*. This captures the idea that investment, and therefore the companies invested in, can make a measured social return, (where the term "social" could include positive environmental change) i.e., impact, as well as a financial return. Depending on the requirements of investors there can be some trade-off between the two.

[184] McKinsey Quarterly, November 2019

[185] *The impact of ESG performance on firm value and profitability* Aydogmus et al, Borsa Istanbul Review, December 2022

The amount of capital managed under impact investing has grown rapidly and is now large – in 2024 it was estimated[186] at $1.6 trillion, around 1% of all global assets under professional investment management - and there is now an infrastructure of services including networks, research, measurement, consulting, and index construction which supports this activity. Impact investing is beginning to replace earlier concepts such as socially responsible investment (SRI) and responsible investment.

How Much of Global Capital is Really "Sustainable"?

But what about the total volume of global financial capital which is subject to ESG or broader sustainability considerations. There is no doubt that this a big growth story. However, there is wide disparity in the estimates, indicating the lack of precision in definitions and the presence of "greenwashing" to make companies and funds more attractive. According to Bloomberg:

> ESG assets will hit $50 trillion by 2025, representing more than a third of the projected $140.5 trillion in total global assets under management.[187]

Morgan Stanley's Institute for Sustainable Investing uses a much more precise definition and concentrates on funds rather than the broader "global ESG assets".

> ….in the prospectus or other regulatory filings, it [the fund] is described as focusing on sustainability, impact investing, or environmental, social or governance (ESG) factors. Funds must claim to have a sustainability objective, and/or use binding ESG criteria for their investment selection. Funds that employ only limited exclusions or only consider ESG factors in a non-binding way are not considered to be a sustainable investment product.

Sustainable funds under this definition amounted to $4.1 trillion at the end of 2025. This was 6.5% of the total assets under management in the fund universe, up from 4% in 2021.

Europe dominates the sustainable funds sector. According to Morgan Stanley's Institute, 88% of sustainable assets under management was domiciled in Europe in 2025.

The beginning of 2023 saw a global pushback on ESG ratings, affecting 30,000 funds, to try to apply stricter criteria more consistently and to crackdown on "greenwashing", affecting companies, funds, and indices. Environmental issues were particularly in need of attention. However, there are yet no internationally agreed definitions and standards of ESG compliance. Their development is a major challenge. It needs to be both rapid and broadly consultative. Because the definition of compliance is itself changing, becoming more ambitious, standards will have to respond dynamically.

[186] Global Impact Investing Network (GIIN)

[187] Bloomberg Media's Sustainable Future Study - a 2025 survey based on750 investor respondents.

Larry Fink, the founder and CEO of BlackRock[188], by far the largest fund management group, which has $10 trillion under management, influences a further $15 trillion through leasing its "Aladdin" software platform, and invests on behalf of tens of millions of individuals, announced in January 2021 that BlackRock would make a move to strengthen environmental compliance. He had to retreat the following year in the face of criticism that investors should not be "environmental policemen". It seemed, however, that the rest of the world was catching up, and the movement was gathering momentum.

A more significant finding from the 2025 Bloomberg survey already quoted is the weight of opinion from investors about the future of ESG.

> There's strong consensus around the rise of ESG as a decision-making factor across all, not just ESG-oriented, investment decisions, and that any organization or country that ignores ESG will be left behind.

The investor lever within capitalism is beginning to play its part in moving the whole system away from the narrow "Friedman" approach associated with a focus on short term results. Whether this positive trend, weakened by the Trump administration's policies, will be fast enough to avert environmental and climate change disasters is another question.

Isn't Corporate Reform All a Sham?

There are however powerful counter arguments suggesting that underneath the attractive softening of the "Friedman doctrine", some of which is undoubtedly dishonest public relations or "greenwashing", the single-minded search for short-term financial profits (and avoidance of tax in many cases) that has always driven capitalism continues unchanged, despite the increasing concerns of some of their investors. Worse still there is a new danger. If global corporations believe that they can "do well by doing good" the role of democratically accountable national governments in addressing the problems facing society could be further undercut.

The World Economic Forum WEF, which since 1971 has been held every January in Davos Switzerland, is the most prestigious global meeting where this issue underlies many of the discussions though it is not explicitly debated. Attendees are politicians, CEOs of global corporations - including banks - journalists, academics, and assorted celebrities. Its founder Professor Klaus Schwab (only recently retired as chairman) used to be a spokesman and strong advocate for economic globalisation, which he considered to be both necessary and beneficial. However, in recent years he has changed his view and has become a severe critic. In 2020 he said "free-market fundamentalism has eroded worker rights and economic security, triggered a deregulatory race to the bottom and ruinous tax competition."

But his solution is that the whole world needs a "great reset", and a "new social contract". While the title of his 2021 book, *Stakeholder Capitalism: A Global Economy that Works for Progress, People and Planet,* sounds hopeful, if grandiose, his is essentially a corporatist approach where big companies and remote, technocratic governments "agree" on top-down measures, with a powerless, commenting only, role for "civil society" (NGOs, trade

[188] And now the interim co-chair of the World Economic Forum

unions etc.), while democratic dissent, however constructive or creative, and accountable, has no place.

At 2023 WEF, the organisers estimated that attendance included more than 50 heads of state or government, 56 finance ministers, 19 governors of central banks, 30 trade ministers and 35 foreign ministers. Some major economies were not represented, however, or at a level below head of state, including the US, the UK and France. Attendance at the lavish WEF would perhaps be politically insensitive given the cost-of-living crisis then affecting their populations.

Rutger Bregman, a prominent European thinker and author[189], who attended a recent WEF, pointed to the disconnect between discussions of climate change and inequality on the one hand and the number of private planes at Davos and the low tax amounts paid by attending CEOs, and by their corporations, on the other, while much of the world population is struggling in poverty, suffering badly from climate change, or in wealthier countries, at the time, battling with high inflation.

Since 2015[190], Oxfam has published an annual report in January, based on publicly available data and widely regarded as broadly credible, to coincide with the World Economic Forum. The objective is to highlight that the top 1% own as much wealth as the rest of the global population combined. Also, that within that category a small number of billionaire men, now less than 50, own as much wealth as the bottom 50%.

The 2023 report, *Survival of The Richest,* concentrates on the low amounts of tax paid by the super-rich, who have become much wealthier still in the last 10 years. It argues that a fairer level of tax, both on income and wealth[191], for this tiny group would make a significant contribution to reducing inequality for the whole planet. It would also signal a welcome shift in the relative power of governments, accountable at least in principle to the people, away from billionaires, who are not.

Oxfam's 2024 Davos report, *Inequality Inc.*, discussed in more detail in the next section, concentrated on the disturbing overlap between billionaires and CEOs of large corporations.

American billionaire investor Warren Buffett (net worth $134 billion in 2024, celebrated as "the Sage of Omaha") publicly voiced support in 2011 for increased income taxes on the wealthy. The Buffet Rule would ensure that taxpayers in the highest income bracket do not pay a lower percentage of income in taxes than less-affluent Americans. In the form of a 2012 proposal that those making over a million dollars a year pay a minimum effective tax rate of 30 percent, it received a majority vote in the Senate (51 votes) but was defeated by a Republican filibuster. Estimates of the net amount of resulting extra tax revenue varied widely, from $5 billion to $50 billion per year, depending on assumptions about tax avoidance behaviour.

[189] *Utopia for Realists* is the most well-known of his books.
[190] This effort began with Oxfam's 2014 report "Even It Up"
[191] A wealth tax on *unrealised* capital gains would raise millions from billionaires and is equivalent to Adam Smith's tax on landowners. Founders of tech giants who have retained substantial shareholdings in their companies would be among the major taxpayers. This tax however would be complicated to administer.

In 2024 President Biden brought back the idea. In the State of the Union, he said:

> There are 1,000 billionaires in America. You know what the average federal tax rate for these billionaires is? 8.2 percent! No billionaire should pay a lower tax rate than a teacher, a sanitation worker, a nurse! That's why I've proposed a minimum tax of 25 percent for billionaires. Just 25 percent.

The proposal was defeated in Congress and therefore never enacted. While most of the opposition was political part rested on the complexity of taxing unrealised wealth.

In respect of accountability, the well-advertised "Giving Pledge"[192]by more than 200 billionaires to give away, during or after their lifetimes, half of their wealth to philanthropic causes of their choosing, fails. Furthermore, despite the headline figures of several billion dollars in a single gift, the amount pledged in total is around 500 billion dollars over a long period of time. This is much smaller than would be raised over the same period by a fair level of taxation.

We can summarise the power struggle between corporations and governments. One (admittedly stylised) locus of global power is large corporations, domestically focused as well as international, and their banks, supported by lawyers and accountants, with unreconstructed "Friedman" style corporate cultures and leadership, headed by barely accountable billionaire CEOs[193] and with minimal recognition of their obligations to people and planet, insufficiently restrained by those of their institutional investors with broader and longer-term visions and awareness of the drivers of superior long-term financial returns. The other is democratically elected national governments and supranational organisations, with, in principle at least, longer-term and broader societal and planetary goals, regulating, fining, and taxing corporations and increasingly battling them in courts. The struggle between these two constituencies is the biggest issue in the global (excluding autocracies) economy affecting the chance for a safe and just future. Can we escape from David Korten's gloomy forecast of 30 years ago: "When Corporations Rule the World"?

Changing the Balance of Power or Fostering Collaboration?

Let's examine the relationship between government and large, typically multinational, corporations.

The attack on the capability of "government" to tackle the major problems facing humanity peaked in 1981 with President Ronald Reagan's inaugural address. He said "Government is not the solution to our problem. Government *is* the problem." At least he seemed to recognise that it was a question of solving a problem rather than the pure libertarian position that government should be minimal on ideological grounds.

We should also put aside the *a priori* argument that government should be "small" because it is always inefficient and wasteful just because it is government and unlike the private

[192] Initiated by Warren Buffett and Bill Gates who have so far given more than $50 billion and $100 billion respectively to charitable causes.

[193] Some billionaires, for example Jeff Bezos and Bill Gates, have invested substantial sums into clean energy and climate change mitigation projects.

sector which is forced by competition in markets to be both economical with resources and efficient. We can then examine dispassionately the relative strengths and weaknesses of the public and private sectors, on the reasonable assumption that each has an essential contribution to make, and that only by working collaboratively will the major problems facing humanity be addressed with any chance of success.

I have already[194] drawn upon Avner Offer's argument about the relative suitability of different sectors for private and public investment depending on their credit time horizon. Given the strong argument that the overall balance between investment and consumption needs to change in favour of the former to address existential threats, and that infrastructure investment with its long-term returns is a high priority, the implication is that public-sector commissioned investment needs to increase substantially. This will increase the pressure on government to improve the way it interacts with the private sector to minimise waste, inefficiency and negative externalities.

Governments investing in the procurement system, notably for defence contracts[195], to make it smarter, nimbler, and tougher would be a big step forward. This means among other things hiring and paying lawyers and other professionals to match[196] those employed by the corporations. It also means making sure that SMEs are given the opportunity to undertake parts of the big project rather than automatically approaching only "the usual suspects." Government regulation is another hugely important area for top professionals. Changes in regulation, too many of which require legislative approval, are currently slow and cumbersome processes compared with the dynamism of profit-hungry corporations.

At a deeper level we need a change of culture in relations between the sectors: moving to a more open, transparent, win-win approach in contractual negotiations and discussions about proposed new regulations, rather than automatically being guarded and adversarial. This approach of constructive dialogue is perhaps a form of truth-questing.

There is a complementarity between government and corporations in another sense which is also likely to be win-win. If, as Mariana Mazzucato argues below it should, government returns to a position of strategic leadership setting long-term goals, then corporations will have more confidence that their investment programs can have a longer-term horizon which in turn should be associated with a higher proportion of reinvested earnings.

Against this optimistic view of the potential for a route to beneficial change is a deeply pessimistic understanding of the basic nature of corporations. They are recognised as "legal persons" but unlike real persons they are immortal. These two properties of corporations give them tremendous power. In return, we should expect them to act in the public interest, beyond paying a fair amount of tax on their profits. Joel Bakan, a Canadian law professor and author of *The Corporation: The Pathological Pursuit of Profit and Power*, published in 2010, is one of the most trenchant critics of corporate power. He has suggested that all

[194] See page 35

[195] Defence contractors, in the US and the UK, have sometimes been paid exorbitantly for goods or services that were either overpriced, under-delivered, or unnecessary. Some high-profile US cases involve the Pentagon.

[196] Job security and superior pension provision go some way to compensate for the typical gap between public sector and private sector salaries. But reducing income tax liability for senior government employees and possibly those of non-profits would help to attract talented people at lower headline salaries.

corporations should have their immortal legal personage regularly open to well-financed challenge in the courts on the grounds that their activities are not sufficiently in the public interest. My view is that the existence of this legal threat and the public visibility of some court cases would be a powerful corrective to irresponsible corporate culture.

Revelations that Exxon Mobil suppressed their own scientists' findings about the influence of fossil fuels on global warming are a case in point, given the apocalyptic scale of the threat from human-induced climate change.

> In 2015, investigative journalists discovered internal company memos indicating that Exxon oil company has known since the late 1970s that its fossil fuel products could lead to global warming with "dramatic environmental effects before the year 2050." Additional documents then emerged showing that the US oil and gas industry's largest trade association had likewise known since at least the 1950s, as had the coal industry since at least the 1960s, and electric utilities, Total oil company, and GM and Ford Motor companies since at least the 1970s. . . . . Exxon's internal documents, as well as peer-reviewed studies published by Exxon and ExxonMobil Corp scientists, overwhelmingly acknowledged that climate change is real and human-caused. By contrast, the majority of Mobil and ExxonMobil Corp's public communications promoted doubt on the matter.[197]

The reference in the article to public communications understates the sustained, well financed effort, driven from the very top, using many different channels of communication, including apparently independent organisations, to misinform the public about the contribution of the oil industry to global warming. Lee Raymond was chairman of the board and CEO of ExxonMobil from 1999 until he retired in 2005. He spent his entire working life at the company and clearly absorbed as well as contributed to its culture. Analysis of his public statements and speeches shows his personal commitment to this misinformation effort defending the company position without considering its wider consequences. On his retirement, Lee Raymond received a $400 million severance package. ExxonMobil has continued its stance since that time.

Further evidence of corporate irresponsibility in the face of societal problems, reflecting a deeply flawed internal culture,[198] is the opportunistic and cynical use of international legal loopholes. Exxon Mobil (again!) has recently sued the European Union claiming that it has exceeded its legal authority by imposing a windfall tax on excess profits made through higher oil and gas prices. Part of the company's argument is that the power to tax is traditionally confined to sovereign governments, not supranational entities.

In 2020, Joel Bakan published a sequel: *The New Corporation. How Good Corporations are Bad for Democracy.* The book's blurb reads: "A deeply informed and unflinching look at the way corporations have slyly rebranded themselves [this does not seem to apply to ExxonMobil] as socially conscious entities ready to tackle society's problems, while CEO

[197] Science, 13 January 2023

[198] A 2024 attempt by climate-conscious activist fund investors to introduce a ballot on Exxon's climate change performance was countered by an Exxon lawsuit, claiming extremist behaviour. The lawsuit is being pursued despite the withdrawal of the climate ballot initiative.

compensation soars, income inequality is at all-time highs, and democracy sits in a precarious situation." [My addition]

In its 2024 Davos report, *Inequality Inc.*, Oxfam focused attention on the connection between individual billionaires and the control and strategic direction of major corporations. For the 50 biggest public corporations in the world, its research showed that billionaires are either the principal shareholder or the CEO of 34% of these corporates, with a total market capitalization of US$13.3 trillion.

Oxfam goes on to argue that this control is associated with the high proportion of profits that are paid out to shareholders (which of course include institutional investors as well as wealthy individuals) as opposed to reinvested in the business, a point made earlier in this essay. It also draws attention to increased market concentration over the last 20 years in many sectors, for example pharmaceuticals, agricultural seeds and "Big Tech". Oxfam argues that this oligopolistic[199] market pattern has enabled large price increases.

The report also points out the contrast between effective governmental anti-trust action in all previous periods of concern about monopoly and oligopoly power (which go back to the 1890s in the US) and the lack of such action in the present.

A different and wholly anti-democratic kind of collaboration is the idea that billionaire business leaders can be brought into the heart of government authority with a mandate to reduce "unnecessary or wasteful" government spending.

By far the most prominent recent example, though by no means the only one, is Elon Musk, net worth estimated at $344 billion.[200] He controls three giant corporations, Tesla, SpaceX and Twitter (renamed 'X'), as well as other businesses. He was a significant financial supporter of the Trump campaign for the US presidency and was appointed, following Trump's inauguration, as the leader, together with another billionaire, of "DOGE". This is officially an advisory body – despite its name - the "Department of Government Efficiency." Musk said he intended to use it to reduce Federal spending by one third.

Looking at the mandatory programs covering social security, Medicare and Medicaid and the discretionary allocation to defence spending, which together account for approximately 80% of the $6.4 trillion total federal spend, there is no way that such a big reduction could be achieved by efficiency savings without a substantial cut in programs. The record of previous efficiency drives has produced savings of the order of $10 billion.

In the event DOGE, while making high profile claims for enormous savings, many of which have been completely debunked, actually achieved very little, while disrupting the lives of thousands or federal employees. The public, angry cessation of the Trump-Musk relationship marks the end of this story. One area of spending, however, USAID, was indeed subjected to enormous cuts by DOGE. Musk proudly claimed that he had "spent the weekend putting USAID through the woodchipper." Many USAID programs keep the poorest people in the world alive.

[199] An oligopoly is a market shared by a small number of producers or sellers.
[200] As of December 2024, according to Forbes magazine, he was thought to be the richest individual in the world.

There is no doubt that there is substantial waste by the Federal government and by governments elsewhere - the European Commission is often cited. It is important, however, to distinguish categories, and orders of magnitude, of waste, and responsibility for them.

I have already referred to the unfortunate combination of an inadequate procurement system and complacent, possibly rapacious, suppliers in the case of defence equipment, but the same will apply to many other sectors. This problem is greatly exacerbated if the procurement system is further weakened by cuts in qualified and experienced staff. Any savings in salaries will be completely overwhelmed by increasing contract costs.

Other sources of wasteful expenditure are more properly located wholly within government. Public sector reform measures that have been applied include introducing new technology, streamlining bureaucracy, outsourcing non-core services, and encouraging performance-based budgeting. Over-ambitious efficiency measures, however, while cutting costs in the short term, lead to a reduction in public service capacity including employee morale, which, in the long run, harm the quality, timing or both of service delivery.

Bureaucratic inefficiency often arises from large scale programs run by long-established, centralised agencies, for example the NHS (National Health Service) in the UK. This seems to go against the principle of subsidiarity[201] in the cause of geographical uniformity of provision (not generally achieved in practice) - a doubtful trade-off.

If Modern Monetary Theory is correct and there is no need for governments to fund their deficits then a very large, and increasing[202], component of government expenditure would be completely saved. In the US this is estimated at around 13% of the total federal spending in fiscal year 2025. In the UK the figure for 2025-6 is projected to be 8.2 percent. The savings would of course be orders of magnitude greater than any government efficiency program.

Mariana Mazzucato has looked in some depth at the relationship between corporations and government in her third book *Mission Economy*. She points out that with the rise of neoliberalism and worse, market fundamentalism, the role of government has been reduced to a mere facilitator[203] of smooth market operations. As she said in a recent interview[204] "instead of saying 'the public sector is large and bureaucratic so it can't be entrepreneurial', we need to reinvent bureaucracies to be creative, flexible and agile as they have been shown to be in some moments of history that we should be learning from….. what we need is creativity and entrepreneurship in both sectors, public and private."

In the UK "civil servants", as government staffers are called, are expected to be cautious and risk-averse and rise in the ranks accordingly. Back in 2015, when her first book, The

[201] This states that matters should be handled by the smallest, most local competent authority rather than by a central or higher authority. Decisions should be made at the most decentralized level possible, close to the individuals or communities they affect.
[202] In the US at $970 billion for fiscal year 2025 US, it was 10% higher than the previous year. The figure in fiscal year 2020 was $345 billion.
[203] Avner Offer points out that government goes beyond facilitation to protection of the private sector's freedom to operate. "*Understanding The Private-Public Divide: Markets, Governments and Time Horizons"*
[204] *The Spectator* 15th February 2023

Entrepreneurial State, had been published, Mazzucato gave a lengthy interview to the Financial Times[205]. It reported that she believes that Steve Jobs' famous injunction to budding entrepreneurs — "Stay hungry, stay foolish" — should apply to the public sector, too. She asked: why is failure worn as a badge of honour in Silicon Valley but viewed as a source of shame in government?

> "We are living in a depressing era in which we no longer have courage. We no longer think governments should have missions. But the market never chooses anything. IT wasn't chosen by the market. Biotech wasn't chosen by the market. Nanotech wasn't chosen by the market. So why should green [in 2015, the next] technology be chosen by the market? It comes back to the austerity craziness that we're in today where governments are not allowed to dream; and green is a dream." [My addition]

Mazzucato has written most recently[206] about the dangers of outsourcing key government (and corporate) responsibilities, and effectively their decision-making, to a handful of global-scale (and for-profit) management consultancy firms. These do not have appropriate accountability, nor does their business culture allow any dreaming.

Michael Sandel, with a global fame as "The Public Philosopher", says that we have moved from "having a market economy", which most would support, to "being a market society", something very different. The most extreme version of this approach is "market fundamentalism" which advocates that almost all activities, including for example the trade in organs for transplants, should be based on private transactions among individuals and businesses, with no regulatory role for the public sector. This is partly a political position, the libertarian, in contrast to Sandel's who speaks about the "moral limits to markets" and has been known to use the word "spiritual" in this context, but partly also an economic one: an *a priori* untested assertion, but one widely accepted, that the public sector is always and everywhere a less efficient service provider, because it is not subject to competition and other market forces.

One aspect of this movement is called financialization. What Karl Marx[207] called the "cash nexus", that is the buying and selling of services for money, has increasingly penetrated some basic aspects of a cohesive society, such as health, education, housing, care of the elderly, access to law, and local transport. In wealthier countries these used to be provided, at reasonable quality, from government budgets, without charge, or heavily subsidised, as essential services to all who needed them, irrespective of their means. Now that inequality and poverty in many so-called rich or "developed" countries has substantially increased, the negative impact of financialization on society is much greater.

The commitment, often ideological, to government supply of essential services can, however, be counterproductive. In countries where poverty is widespread, public provision from limited budgets, especially when the shortfall is exacerbated by corruption, can result in low quality services, for example in education, where school classes can be as large as 100 children, and teachers are not accountable to parents. Sometimes private provision, in small scale teacher-owned schools, works better even when parents find the fees difficult to

[205] *Lunch with Mariana Mazzucato*, Financial Times, 14th August 2015
[206] *The Big Con*, Mariana Mazzucato and Rosie Collington, 2023
[207] The term was first used by Thomas Carlyle a 19th century Scottish historian

pay.[208] But in other sectors, for example clean water distribution, failure to extend the public distribution network to poorer areas where people cannot afford standard water charges results in them paying a much higher cost per litre for their water, which has to be brought in on trucks.

In developed countries financialization can radically change the mission statement of corporations as in the case of ICI quoted earlier. Other corporations will change their goals quietly. This is likely to be a bigger problem in the US and the UK which have large financial sectors in relation to their whole economies (around 8% of GDP).

In re-setting the relationship between corporations and government Mazzucato advocates a return to a leadership role for government supported by a different conceptual framework.[209] This, together with top salaries, will attract more of the best and brightest people to work for it. Government, she says, should be confident to set difficult long-term goals for society; achieving these requires both public and private investment working together.

The prime example she quotes is John F Kennedy's 1961 speech[210] announcing the goal of man's landing on the moon, and safe return, by the end of the decade. He did not shirk from saying that it would be very expensive and hard to achieve, with no guarantee of success. He nevertheless called upon Congress to make the resources available. And Mazzucato demonstrates that this bold leadership resulted in an enormous effort by the private sector to solve a huge variety of problems, well beyond engineering, and requiring imagination, experimentation, and innovation. Among these were developments, many with wide application, in health, clothing, communications and many other fields.

CEOs Seeing the Light?

A completely different but complementary approach looks at the scope for corporations to go beyond being responsible to being proactive in using their resources and dynamism to achieve regenerative environmental goals, plus perhaps socially distributive ones. The ambition is to change the mindset of CEOs and other corporate leaders, converting them to the truth-quest approach, who can then reset the culture of their companies, without any regulatory or other pressure from government or investors. The paradigmatic example is Ray Anderson, founder and chairman of Interface, one of the world's largest manufacturers of carpet tiles, sold to a wide range of non-residential customers.

In 1994, at the age of 60, after 21 years building his business, in preparation for a speech to an internal task force on the company's environmental vision, Anderson read Paul Hawken's book *The Ecology of Commerce.* He described its effect on him as being like "a spear in the

[208] See *Private Schools for the Poor* James Tooley, Education Next, Winter 2005

[209] In a recent article dealing with the economics of the "common good" Mazzucato has re-examined traditional conceptual frameworks dividing public goods from private (and intermediate categories "club" goods and common goods) which use "rivalrous" and "excludable" characteristics. She argues that these frameworks support the role of government as correcting market failure. What is needed is a new framework supporting instead the role of government as shaping collective goals. IIPP Working Paper 2023/08

[210] https://youtu.be/8ygoE2YiHCs?si=wHRYUJU-EN5S2QQc

chest". "Mission Zero" was the company's promise to eliminate any negative impact on the environment by 2020 through the redesign of processes and products, the pioneering of new technologies, and efforts to reduce or eliminate waste and harmful emissions - Anderson was shocked to find out how much of his product derived directly from petrochemicals - while increasing the use of recycling and renewables, both materials and sources of energy.

Anderson died in 2011, but Interface made this transformation and demonstrated that it was also a tremendously successful business strategy with record sales and profits. He overcame the initial scepticism and negative reaction from Wall Street who saw care for the environment as equivalent only to increased costs. Anderson became something of an evangelist for sustainability in business. One of his most powerful insights was that the previous three industrial revolutions based on steam, electricity, and information did not challenge the "take, make, waste" model and hence were not truly revolutionary, whereas sustainability really would be. He wrote two books and carried out many speaking engagements to business audiences. His 2009 TED talk has been viewed 1.2 million times.

From his writing, which is sometimes lyrical, even passionate, it is clear that Anderson, as well as being a bold and astute business builder who embraced innovation, deeply appreciated the beauty and fragility of nature and recognised its primacy as the living foundation for human civilisation. His appreciation of nature went beyond aesthetics; its inherent recycling mechanisms eliminating waste inspired the quest (Anderson used that word several times) for re-engineering at Interface.

In describing the factors contributing to Interface's business success, Anderson mentioned two that were unanticipated. One was the clear market differentiation, based on the goodwill of customers, so much stronger than the cleverest marketing campaign, setting his company apart from its competitors. The second was its attraction for highly talented engineers and others who saw working hard for Interface as their contribution to repairing the planet, a fulfilment way beyond the usual parameters of job satisfaction.

Anderson's ambitions for his company and his vision for business of the future went beyond sustainability, to the idea of restorative activity. In that sense his ideas resonate with those of Kate Raworth who talks about the need for the 21st-century economy to be *regenerative*. In 2021, 10 years after Anderson's death, Interface introduced a cradle-to-gate *carbon-negative* carpet tile, a world first innovation.

It may be instructive to note that Anderson came from a relatively humble background in a small town in Georgia. His father was a post office worker, and his mother was a schoolteacher. He was able to enter college only on a football scholarship; not for him an MBA at a business school.

Of course, business schools are catching up. Most now offer sustainability modules as options or add-ons to their standard MBA courses. While some see sustainability at the same level of importance as CSR (Corporate Social Responsibility), others take it more seriously. Here is an extract from one of the better prospectuses:

> Students work in teams to find solutions to problems faced by real firms attempting to advance sustainability strategies.

Even so there is likely to be a big gap in ambition between a “sustainability strategy” and the concept of a mission-driven corporation like Interface.

Anderson felt that only business, not government or public opinion, had the power, and therefore the responsibility, to make the necessary changes towards a sustainable society. I am reminded of Jonathan Porritt, founder of the U.K.'s Ecology Party, who famously remarked that “Capitalism is the only game in town.” Also of Oxfam, which is moving towards the recognition that one cannot separate the antipoverty agenda from the sustainability one and has also shifted its position from holding capital to account to critical engagement with it.

Anderson’s company, Interface, was young, small, then with a single product line, and driven by its visionary founder. It has since expanded and employs almost 5,000 people. Nevertheless, there is almost no comparison with a major multinational. These corporations are typically at least 100 years old (the tech giants are exceptional), employ 100,000 people or more with well-established and powerful institutionalised cultures. They have complex governance and structures including product divisions and layers of management.

Anderson's noble evangelising efforts in support of the sustainability revolution for business, through speaking tours, his TED talk, and his books, together with the example of his company Interface, may change the mindset of many owners and CEOs of SMEs, but will not make a sufficient impact on the leadership and culture of giant corporations. We can realistically expect that only small numbers of individuals in powerful corporate positions will experience similar changes in consciousness, perhaps stimulated, as was Anderson, by powerful advocates such as Paul Hawken. While it is possible to imagine that there could be a snowball effect beginning with a few people, preferably including some billionaires controlling large corporations, who become evangelists in their turn, we need, at least in the short term, to look at other mechanisms for change.

Pressures for Change on Big Corporates

The financial performance of major corporations, which have institutional shareholders controlling substantial proportions[211] of their capital, including fund management groups like BlackRock, representing millions of retail investors, is scrutinised in detail by highly skilled (and highly paid) investment analysts. While I have discussed promising changes built around the ESG initiative, itself becoming both more rigorous and more ambitious, the culture of institutional investment is still predominantly short-term.

I have already referred to the much-reduced average holding period for investments and to the buyback culture as two symptoms of the short-term outlook. Investors such as Swiss Re seeking long-term, risk-adjusted, and stable returns are still in the minority.

Judgements based on annual results, let alone quarterly, are arguably inappropriate for a giant corporation with any kind of long-term strategic vision. Producing quarterly results

[211] The 12,900 listed companies recently analysed by OECD had an average institutional shareholding of 47%. *Global Sustainability Report 2025*, OECD publications.

consolidated across all activities also requires a huge amount of accounting resource to generate the information, and even so provisional and estimated figures will inevitably have to be used. The attention and effort of accounting, auditing, and investment analysis need to move away from the short term towards annual and perhaps triennial reviews of the corporation's progress, against target deadlines, in achieving its stated long-term strategic goals. Changes in the strategy need to be announced transparently and be subject to formal reviews.

This shift in focus needs to be mandatory and therefore backed up by changes in corporate law. Inevitably there will be much more scope for judgements and the auditing profession will need to respond, as it has begun to do with mandatory ESG reporting, to a broader and deeper remit. The skill set of auditors will need to be greatly expanded, as well as the range of qualifications within the profession.

Traditionally, when institutional investors representing collectively a substantial percentage of a corporation's share capital are unhappy with the audited financial results, they might vote at the annual general meeting against the resolutions proposing directors' remuneration, or the reappointment of directors standing down after their term of office in line with statutory requirements. Until recently institutional shareholders have not applied similar personally targeted pressure in the case of inadequate sustainability performance.

An Oxfam initiative, just prior to the global financial crisis, in which I took part, organised a series of conferences based on specific social and environmental issues where representatives of institutional investors were asked how they might influence companies in which they held stakes to be more proactive when their operations affected these issues. This work culminated in 2010 in a short report called *Better Returns in A Better World*. This title reflects the conviction, held at a deep level within Oxfam, that the anti-poverty agenda and the "green" agenda are inextricably linked.[212]

Institutional shareholder activism, mainly focused on the climate issue, strongly advocated and supported in the UK by grassroots campaigning organisations like Follow This, has increased hugely over the past 15 years.

Resolutions put forward by climate activist organisations have typically focused on criticism of transition strategies.

In its report on the 2022 Shell AGM for example I know it's just been a trial truly, the Financial Times commented:

> Like peers BP, TotalEnergies and ExxonMobil, Shell is attempting to satisfy an increasingly complex set of shareholder demands by continuing to generate healthy returns while overhauling its business to reduce its carbon emissions to net zero by 2050. When the meeting finally restarted, [after some fifty protesting, but shareholding, activists had been removed] two hours and forty minutes late, 80 per cent of shareholders voted in support of Shell's transition strategy and the progress it had made in the past 12 months. However, that was down from the 89 per cent that backed the plan when it was unveiled last year. [My addition]

[212] The leader of the Oxfam team later became Head of Sustainability at a large European bank.

In 2023 two giant UK pension funds with combined assets under management of £103 billion, publicly committed to vote against the renewal of the appointment of top directors at both BP and Shell unless both companies strengthen commitments to tackling carbon emissions. This is clearly a much more personally targeted approach. A spokesperson for one of the funds said: [213]

> Our new stewardship and voting policy will see us vote more personally against responsible directors where possible. As a long-term investor, we'll do this where a company hasn't disclosed its climate transition plan, doesn't meet our diversity expectations, or where executive pay doesn't align with the company performance.

At the 2025 AGM of BP, 24% of shareholders voted against the re-appointment of the chairman. This was their first chance to express their views after the company slowed its transition strategy, claiming that it had been too optimistic about global green energy investment opportunities.

Another mechanism is the use of legal challenges based on corporate law. ClientEarth, a group of activist lawyers, is suing Shell's board of directors, including the CEO, arguing that they are breaching company law in putting the future success of the whole company at risk by mismanaging its climate risk.

The power of public opinion should also not be underestimated when the change in consciousness towards the appreciation of sustainability goes beyond activists and becomes widespread. Where "brand value" includes important messages about the seriousness of its owner's commitment, there is both reputational opportunity and reputational risk. With the investigative power and media reach of global journalism, supply chain failures to respect sustainability can longer be hidden. "B2B" are less exposed in this respect than "B2C"[214], though Interface, which falls into the former category, found its sustainable approach was a positive market advantage and differentiator for business customers.

The long-term strategic partnership on aluminium announced in early 2023 between the mining giant Rio Tinto Zinc and the premium car manufacturer BMW illustrates the potential for synergy. The metal ore will be mined in Canada using low-energy hydro-powered plant. The smelting will be carbon-free using the new technology ELYSIS. Both companies will communicate improved sustainability.

At the other end of the scale of contributions to sustainability there are new innovative businesses. To succeed, and thus take part in Schumpeter's "gale of creative destruction", they require the boldness, staying power, team building, and risk management associated with successful entrepreneurs, together with truly patient and smart venture capital backing. I am reminded of what the head of a prestigious American business school said, when she was visiting the Skoll Centre for social enterprise at Oxford University's business school: "All self-respecting entrepreneurs today must be social entrepreneurs". To "social" we can add "sustainability". Ray Anderson and Interface should be important role models.

[213] Source FT

[214] B2B: Business to Business and B2C: Business to Consumer.

Conclusions on Economics and the Economy

It is time to try and draw the threads of this essay together. The fundamental point is that the academic discipline of economics has a profound effect on the workings of the economy through its theories and their implications that decision-makers use in deciding on policy matters and on the instruments by which they hope their policies will take effect. And that the reverse is also true. The workings of the economy as measured in many ways and covering both macroeconomic aggregates and microeconomic behaviour are the only testing ground for the propositions of economics.

In the first part of this essay, I have tried to back up my statement that the discipline of economics is in crisis with an examination of the truth value of many concepts that we take for granted when discussing economics or indeed the economy. And the prevailing neoclassical orthodoxy rests on 19th century foundations and has repeatedly failed empirical tests. Even its high priests have admitted that it is not fit for purpose. In respect of useful forward-thinking advice on tackling the problems of climate change its failure has been spectacular.

I have also pointed out the futility of labelling economics as a science, especially a value-free science. I have celebrated the long-delayed arrival of some creative and rigorous women economists who are prepared to challenge conventional wisdom and have no problem in recognising that political economy should be the true subject under review.

Mathematics has its place in economics. But too often in recent years has economics become a playground for applied mathematicians. This serves only to remove a crucially important subject for everyone from the real world and from general discussion. Just as having a view on political questions is part of every citizen's responsibility in a democracy, so this should be extended without fear to economic questions - politics is too important to be left to politicians and economics is too important to be left to economists. We live in a political economy.

I have demonstrated that there is no such thing as a free market or a free market economy. Even the United States has a government sector which represents nearly half of the economy. The argument over whether the private or the public sector is intrinsically more capable of addressing the multiple crises that face humanity is futile and a waste of precious energy. Both sectors need to work creatively and in an entrepreneurial spirit together, not as automatic adversaries. For this to happen we do need leaders, both in government and at the top of corporations, who are statesmen and stateswomen, with long-term vision.

Within the public sector the most important issue by far is the question of the validity and acceptance of the Modern Monetary Theory approach to public finances. This paradigm shift would obviate all the arguments between worthy and indeed necessary goals of public spending in the service of people. It would also release government from the prison of short-term economic programming. The economy would become an outcome of our priorities and no longer their dictator.

In reviewing the operation of the private sector, the recognition is long overdue that excess private credit, created by the banking system, serves mainly to inflate the prices of existing property, quoted shares and other assets, so reinforcing the historical inequality between the many debtors and the few creditors, and making for inevitable financial instability. It therefore requires regulation, perhaps even direction, and major changes to the system of asset taxation.

Capitalism, competitive not crony or oligopolistic, has huge energy, resources and innovative drive. As well as financial, technological and marketing expertise, there is human ingenuity, cooperation, and accumulated corporate know-how and experience. But will big corporates leave behind the "Friedman doctrine" and the chase for short-term profits based on yet more consumption, exacerbated by brands and advertising? Will they go beyond the stakeholder approach and make their due contribution, while earning steady profits, to a sustainable future, regenerative and distributive? To make all this happen, all the levers of influence, economic and beyond, will need synergistically to play their part - and there is no guarantee of success.

We cannot rely solely on revolutionary changes in consciousness by individuals such as Ray Anderson. We need institutional and cultural change, to which many individuals will contribute incrementally, though they may be inspired by the idea and the practices of the Truth Quest.

I have devoted considerable effort to explaining the development of the ESG approach to analysing corporate performance and indirectly influencing flows of investment capital. This has the potential to allow the corporate and investment communities to be aligned, around a longer-term vision, but needs to become, through a broadly participative process, both more ambitious and more stringent. Government should cooperate by using its powers of taxation and regulation to discourage short term investor practices. The Tobin tax recently renamed the Robin Hood tax, for example, would eliminate that part of intraday currency and commodity trading which has no economic purpose or benefit.

Company law reform is another important government lever to move the capitalist private sector towards sustainability. There should be, for example, a requirement for audits to have a broader remit and to review progress against long-term targets. Another new provision would introduce a tapering limit on the ratio of top remuneration to entry salaries. A third and more radical change would be to allow a periodic class action to contest a company's continuing license to operate on the grounds that, on balance, this is not in the public interest. Such a legal process, with full discovery and support from public funds, would reveal both its good and bad practices.

Epilogue: Underneath both Economics and The Economy

I have left till last what many readers may consider to be "the elephant in the room". The question of power and vested interests. My ex-colleague at Oxfam, Duncan Green, who was its strategic advisor, created a blog: "From Poverty to Power". While this is mainly concerned with what used to be called "developing countries" we now know that few so-called "rich" countries, if any, deserve the label "developed". They typically have huge problems, usually

directly or indirectly power-related, of poverty, inequality, crime, drug abuse, epidemic mental illness, screen and social media addiction, obesity, and fertility rates below population replacement.

In reviewing Steve Keen's Manifesto for A New Economics*, Nitzan and Bichler had only one major criticism – the lack of a power analysis. I would say this criticism is misdirected. We need at least conceptually to keep the distinction between the discipline of economics on the one hand, while acknowledging that it is not value-free, and on the other hand the workings of the economy, where power and vested interests typically stand in the way of progress towards Kate Raworth's vision of a just and safe space for humanity.*

Environmental degradation and failure adequately to address climate change are two major elements of the "polycrisis" of interacting risks humanity faces. Yet, as my friend the philosopher Louis Herman, says, "We are autistic in the face of nature". We know it cognitively, but we do not own or feel it. In 2000, French economics students, beginning their rebellion against the standard orthodox curriculum, which they felt did not address pressing real-world problems, termed it "autisme-économie".

Keynes drew attention to the power exerted by the ideas of economists, especially outdated ones.

> *The ideas of economists and political philosophers, both when they are right and when they are wrong are more powerful than is commonly understood. Indeed, the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually slaves of some defunct economist.*

In this essay I have tried to make the case that we urgently need "top-down" change in the ruling economics paradigm, including a return to political economy. We cannot wait any longer for the orthodox academy to concede. The argument needs to be understood, accepted and adopted by those in positions of power and influence in government, financial institutions and major corporates if we are to have any chance of avoiding environmental and social catastrophes. There is no doubt that just as important, if not more so, and just as urgent, will be "bottom-up" change in the way "ordinary people" see things and in turn are seen by those in power.

My thesis, for which I admit there is as yet no evidence, is that the top-down change in economics, necessary in itself, could lead the wider process of change and indeed catalyse it.

Beyond "Knowing" the Problems

In going beyond the cognitive awareness of the giant problems facing humanity, there are two insights that are common to two important recent books. The books are *The Righteous Mind*, by social psychologist Jonathan Haidt, subtitled *Why good people are divided by politics and religion,* and *The Myth Gap*, by political advisor and climate activist Alex Evans, subtitled *What happens when evidence and arguments aren't enough.*

The first insight is that "enemy narratives" have limited potential to effect change.

As Haidt carefully shows there are good people on both sides, even though their priorities differ within the common moral foundations of humanity. By the simplistic, self-regarding, and complacent divide: “We are of course the progressives who care, while the other side are just reactionaries who don't”, we are failing to engage. The “other side”, whichever it is, cannot be forced to change its hierarchy of moral foundations; attempts to do so only increase mutual distrust and polarisation. Haidt co-founded the Constructive Dialogue Institute in 2017.

Alex Evans has been a high-level government political adviser on global issues for many years as well as an activist and advocate for stronger action to mitigate climate change. In 2010, he was appointed as the rapporteur for the newly created UN High-Level Panel on Global Sustainability. Members were prime ministers, presidents, foreign ministers, including from the US, the EU, China, Brazil and India. His disillusionment with the effectiveness of this panel was one of the spurs to his writing *The Myth Gap.* Evans founded the “Larger Us” organisation, to help heal political divides, in 2018.

Chapter 3 of his book is called “The Problem with Enemy Narratives”. He quotes one of the more thoughtful campaigners, George Marshall: “Climate change is far too large to be overcome without a near total commitment across society.” But, he continues, “climate activists can often seem more interested in maintaining the moral high ground than in bringing along people who think differently.” Marshall later talks about the need to replace enemy narratives by narratives based on cooperation, mutual interests, and our common humanity.

Another activist quoted, Micah Smith, one of the creators of the Occupy Wall Street movement, goes further. He says, “protest is broken”……“what I am proposing is a type of activism that focuses on creating a mental shift in people. Basically, an epiphany.”

The second insight is the important of allowing experience, dialogue, emotion, and storytelling to enter the process of change.

To illustrate this, Evans recounts an incident at a UN climate summit in 2013. He describes how “the usual bureaucratic tenor of the talks was breached when the Philippines’ lead negotiator suddenly broke down as he described the impact of Typhoon Haiyan, which struck his home as the summit was taking place, killing more than 6,000 of his compatriots. Abruptly, there was a whole different dynamic in the room. The dry, zero-sum interactions typical of the UN climate process were disrupted as the real-world impact of climate change suddenly intruded and empathy forced its way in.”

We need to let go of the pretence that human beings can be “objective”, in the sense of completely excluding subjectivity.

In arriving at their different hierarchies of moral foundations, Haidt argues, people on both the left and the right of politics consciously or unconsciously rely not on “objective” evidence and arguments but always bring their personal experience to bear.

Evans’s conclusion is that the divided “we” have lost a common myth (or several to suit different cultures) which could bring us together. Myths have a symbolic truth value rather

than a literal one. But myths create our reality as much as they describe it. People think that stories are shaped by people; in fact, it's the other way around.

Karen Armstrong, who has written extensively about the power of myths, reminds us that "a myth does not impart factual information but is primarily a guide to behaviour. [However], its truth will *only* be revealed if it is put into practice – ritually or ethically. If it is perused as though it were a purely intellectual hypothesis, it becomes remote and incredible".[215]

In searching for myths from his, that is Western, culture relevant to today's challenges Evans goes back to the Hebrew Bible and its prophets for inspiration, recognising their foundational role and power.

Reaching for myths in this way is close to the idea of seeking wisdom. One acquires knowledge; one seeks wisdom.

As the poet TS Eliot put it in "Choruses from 'The Rock'"

> Where is the Life we have lost in living?
> Where is the wisdom we have lost in knowledge?
> Where is the knowledge we have lost in information?

An underlying philosophical question is whether wisdom can be sought only by reaching into the deep past rather than by starting the search with a mindset that integrates the past, the present, and the future.[216]

"Ordinary People's Feelings"

In terms of the value of empathetic understanding of broader human experience, we can go back to a paradigmatic example from forty years ago. Victor Zorza, a distinguished Kremlinologist and journalist on The Guardian newspaper, decided to live in an isolated North Indian village for most of each year, for ten years, under the same living conditions and as one of the villagers, writing a regular feature called Village Voice.

Here are two extracts from a 1986 *Washington Post* article:

> His new mission is to establish "a new genre of journalism," to convince the serious press that it should have reporters regularly covering the *ordinary lives* of the rural poor. After all, he says, that is how most of the people in the world live; it is Americans who are peculiar. *He argues that if they understand these people on an emotional level, westerners will not just respond periodically with "guilt money" and "crocodile tears."* [My italics]
>
> "I sit around and chat," Zorza says. "I used to ask questions, but I've learned that that is very counterproductive because your questions betray what you're interested in. ……..The villagers want to please, so they'll tell you what they think you want to

[215] A Short History of Myth, (new edition), Canons, 2018

[216] The globally fast-growing mindfulness-meditation habit is one example.

know. They are very, very intelligent. So, you [need to] wait for them to tell you things that are on their minds." [217] [My addition]

Since then, of course there have been countless examples, some more tokenistic than others. The key phrase is "ordinary lives"; the context varies enormously. It certainly doesn't have to be the rural poor on the other side of the world.

"Real" Dialogue

The value of conversation between people who would not normally meet is large – this is real dialogue. I am reminded of a scene in Joel Bakan's second film when, at the World Economic Forum, a teller at Chase asked Jamie Dimon (net worth $1.7 billion), CEO of the bank, via a congressman at a hearing, about living on her salary. The question was embarrassing to him, and the conversation was very short. Imagine a longer direct, face-to-face conversation in private in which there was genuine dialogue and some mutual understanding as well as disagreement.

This is a point made by an organisation called The Oxford Muse, set up in 2001 to follow some of the ideas of Oxford scholar and thinker Theodore Zeldin.

> The Muse organises Conversation Meals (these have taken place all over the world and for a great variety of organisations including businesses, government departments, arts organisations, and on at least one occasion the World Economic Forum) at which you are seated in pairs with someone you have never met or know only very vaguely. You are each given a Menu of Conversation that looks like a restaurant menu, with starters, fish, grills, dessert etc, but instead of descriptions of food dishes, each heading contains topics to talk about, 25 in all.
> A Muse introduces the meal and explains how to proceed and the rules of what is more than a game. Each of you chooses a topic, and when you have finished discussing it, the other chooses a topic and so you go through the Menu. That normally takes two hours, though we have known it to last seven hours.
>
> We have been amazed by how quickly the conversations become animated, and how interesting and memorable the event becomes. You get to know a stranger very well and find that you learn a lot about yourself too, in discussing such topics as ambition, curiosity, fear, friendship, the relations of the sexes and of civilisations. One eminent participant said he would never again give a dinner party without this Muse Menu, because he hated superficial chat. Another said he had in just two hours made a friend who was closer than many he had known much longer. A third said he had never revealed so much about himself to anybody except his wife. *Self-revelation is the foundation on which mutual trust is built.*[218] [My italics]

Is it too much to hope that "The Titans" of corporate, financial and political power, who gather every year at the World Economic Forum, will see that conversations with "ordinary

[217] Washington Post, 15th May 1986
[218] The Oxford Muse website.

people" are the really important learning opportunities, potentially leading to transformations of consciousness?

Regeneration of the Human Species

Paul Hawken, whom we met as the person who inspired Ray Anderson, and who now influences tens of millions of people on climate change awareness through his books, PBS broadcasts, keynote speeches at conferences and workshops, and online talks, has also met, listened to, and advised CEOs of major corporations.

His new book *Regeneration* (2021) is subtitled *Ending the climate crisis in one generation*. He makes a similar point to Haidt and Evans about the limitations of enemy narratives and the need to find common interests, stories and myths which can allow constructive and empathetic dialogue between powerful and "ordinary" people. In what context? Why, the destructive economy of course.

His, however, is a more profound approach. What he is saying is that underneath the myths, which are at a cultural level, what truly could bring us together is recognition of our essential *nature* as the human animal living on a fragile Earth. As he says: "we *are* nature".

> Our concern is simple: most people in the world remain disengaged, and we need a way forward that engages the majority of humanity. Regeneration is an inclusive and effective strategy compared to combating, fighting, or mitigating climate change. Regeneration creates, builds, and heals. Regeneration is what life has always done, we are life, and that is our focus. It includes how we live and what we do—everywhere. We have a common interest, and that interest can only be served when we come together.[219]

Hawken has a second point to make: the conventional wisdom is that action follows belief, rather than the other way around. The implication is that people need to be convinced before they are ready to take the first step. This places cognitive awareness high above experience. Hawken disagrees - coming together is a matter of action and healthy inclusive *practices*.

Rescue?

This is where Louis Herman's *Truth Quest*[220] comes back in. The practices that he has identified, which include "real"[221] dialogue, have stood the test of evolutionary time, are simple, mutually reinforcing, universal, intuitively human, rooted in nature, and unambiguously beneficial to people and planet.

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[219] www. regeneration.org

[220] The Truth Quest, forthcoming book, 2024. Herman's multi-disciplinary approach was first set out in his major work "Future Primal: How Our Wilderness Origins Show Us the Way Forward"

[221] As Jonathan Haidt puts it: …it is so important to have intellectual and ideological diversity within any group or institution whose goal is to find truth (such as an intelligence agency or a community of scientists) or to produce good public policy (such as a legislature or advisory board). *The Righteous Mind,* p.105.

As with Hawken's *Regeneration* Herman's *Truth Quest* refers to a grassroots, bottom-up, process of action-based change. There are increasing numbers, all around the world, of small-scale, strongly participative, and practical initiatives, rooted in their local natural environments, inspired directly or indirectly by these and similar ideas. One promising movement is called bio-regionalism.

Herman's diagram on the next page, which is a mandala, an ancient way of expressing interconnectedness, shows how every human, whether wealthy and powerful or "ordinary", and independent of geographical, cultural or political specifics, is capable of, and would be fulfilled by, his or her own *truth quest*. By responsibly incorporating into daily life the four practices which together generate the forward momentum of the quest, Herman believes we have a chance, at this juncture of great peril for humanity and our planet, of breaking through into a new planetary culture.

The four practices are face-to-face discussion; the whole person; democratic community; and the big picture.

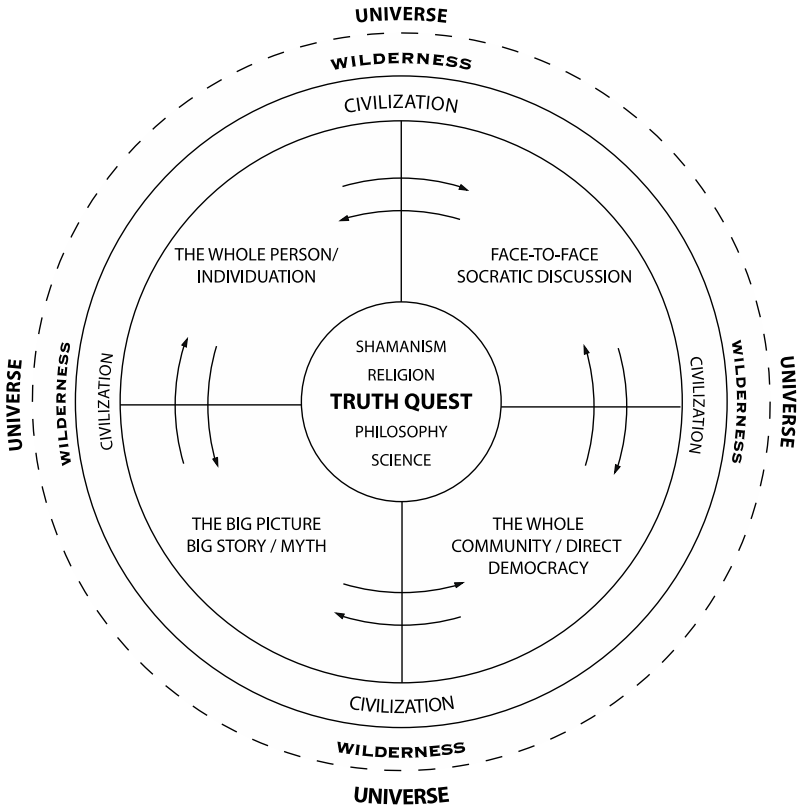
You can find more background on Herman's ideas at the Institute for a New Political Cosmology.[222] The Institute's name refers to the shift needed at the most fundamental level of humanity's understanding of itself and the universe. We would recognise that we are, each individual, part of a generative, expanding, possibly even conscious,[223]cosmos.[224]

Louis and I agree about the necessity of this shift; we differ in that I see better economics as an initial catalyst to enable the shift to gain momentum quickly in the face of urgent existential threats.

[222] Obviously, this is a more profound concept than "a new political economy", but, as Louis Herman says: "I am not an economist!".

[223] "*Is the universe conscious*?" speculative but rigorous lecture by revolutionary biologist and philosopher Dr Rupert Sheldrake.

[224] The mathematical cosmologist Brian Swimme, a close colleague of Louis Herman, has expressed this personally and powerfully in his recent autobiographical memoir "Cosmogenesis".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FACE-TO-FACE
SOCRATIC DISCUSSION
SHAMANISM
RELIGION
TRUTH QUEST
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SCIENCE
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THE WHOLE
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