Economistics

Dyrehaugen Web Notebook

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1

Economistics

 $Economistics \ is \ short \ for \ the \ `Economics \ of \ Economists'$



Economics is too important to leave to the economists

Economics

In a humane economy, we would not measure our success in the abstract terms of growth accounting.

The key question in "History of economics" should be: how was it possible for this field to get it so wrong?

Peters - Cherrier tweet exchange

2.1 Climate Economics (lack of)

Noy

Practically, all published economic research can be classified into one of the following three categories:

- (1) theory;
- (2) empirical causal inference; and
- (3)structural modelling.

A typical theory project investigates some new mechanism, describes the conditions under which it arises, and illustrates its consequences. In the climate change context, it might be, for example, an aspect of a hypothetical Emissions Trading Scheme (ETS) that can make it more (or less) efficient. Alternatively, economic theory introduces a conceptual framework for thinking about a particular problem and show what can be proven about that problem from that conceptual framework. For example, this might be to consider the outcome of climate negotiations if groups of countries organise themselves in 'clubs' of countries with similar interests. Economic theory, as currently practiced, requires mathematical formalization, and aims to be as general as possible (i.e., relevant to many different situations). It consequently attempts to refrain from

delving into specific institutional setups. As such, a theory paper will analyse the general format of negotiations in 'clubs' rather than examine it within the institutional details of UNFCCC negotiations, for example. It is easy to see how this emphasis on mathematization and generality does not lend itself very well to the concrete uniqueness of the climate change problem and prevents theoretical economists from contributing more to the climate change literature and its specificities.

An empirical project would attempt to estimate the causal effect of a particular shift, change, or intervention on a given outcome. For example, in the context of climate change impacts, it might attempt to estimate the impact of increases in temperature on worker productivity. Clear and robust identification of the causal inference is considered the aim of this type of research; and that is the main determinant of its value by the profession. Thus, a clearly identified causal mechanism describing an intervention of minor importance is preferable to an analysis of a much bigger and more significant intervention if the causal mechanism cannot be so clearly and clearly identified. This emphasis on causal identification narrows remarkably the scope of what is acceptable, since identification usually relies on either a randomized controlled experiment (where the allocation of 'treatment' is randomized, as is done in medical drug trials), through a 'natural experiment' where some quirk of the data generating process led to a quasi-random assignment of treatment, or through an identification of an 'instrument' that is well correlated with the treatment but not with the outcome that is being investigated. Most climate change economic questions do not easily lend themselves out to a randomized control trial, and neither do they usually involve clearly identified exogenous randomization or a useful instrumental variable that could be utilized for identification. As such, papers that are mostly descriptive or explanatory (as is common in papers that attempt to quantify impacts), or predictive (as is needed in much of the adaptation or mitigation research) are not really welcomed by the profession, and economists are dis-incentivized from producing them. These constraints restrict the questions that can be asked to ones in which causality can be identified (typically welldefined and narrow interventions and policy changes) and restrict the number of contextual details that can be included so that generality is maintained.

Structural modelling work, the third type, occupies a middle ground between the theoretical and empirical work, and is thus a little less easily categorised. A typical structural-modelling paper sets up a model to describe a particular economic context, usually drawing on economic theory. This type of research is much more common in macroeconomics. The model will feature various 'parameters' that could have a variety of values—for example, the responsiveness (the elasticity) of an economy to a change in energy prices. The model then uses these parameters to 'solve' the model and reach a set of conclusions that aim to shed some light on the question the model is designed to answer. For example, it might try to estimate the optimal magnitude of a carbon tax based on a macroeconomic model and a set of functions that describe the impact of the environment on the macroeconomy, and the impact of energy prices on

the economy and consequently on GHG emissions. The one type of economic research that does play a significant role in the IPCC is Integrated Assessment Modelling (IAM), which relies on structural modelling methodologies. There is a wide variety of IAMs; though they are typically divided into two groups: cost-benefit IAMs that are used in WGII, and energy system IAMs that are the focus of mitigation work in WGIII. Broadly speaking, though, the IAMs include macroeconomic modelling approaches as these were developed in the macroeconomic literature some years ago. Given the computational demands of the climate and sectoral parts of the IAMs, the prevailing choice for the macroeconomic half was to resort to older and simpler modelling approaches. Because of that, and because structural modelling is not as prestigious, among economists, as the other two methodological approaches, the papers describing IAMs, and their development are rarely, if ever, published in economics journals. Besides the IAMs, a lot of the research that the IPCC reports on, or indeed requires to inform the economic dimension of its work, does not fall so neatly into the three types we just described.

Economists' preference for not setting normative goals is also part of their discomfort with the IPCC. The IPCC has been progressively calling for more and more aggressive (and evidence-based) action on climate change, but economists often pretend that their role is in shedding lights on trade-offs, and quantifying them, rather than in siding with any specific call to action (even if perceived as urgent).

One of several areas where economists did contribute substantially to both WGII and WGIII in the past has been the IAMs – and specifically the cost-benefit IAMs such as the DICE20 or FUND21 models. These have been the mainstay of much economics discussion of the climate change problem since the pioneering work of William Nordhaus22,23. Yet, the IAMs have been widely criticized by many climate change researchers (in and outside the IPCC), as well as by some economists. This is mostly for neglecting many important connections and pathways and thus materially underestimating the costs of climate change, and therefore underestimating the urgency of the problem and its magnitude. IAMs cannot, as a rule, accommodate extreme tail risks, tipping points, cascades of impacts, and irreversibilities, nor can they estimate the key parameters involved in modelling phenomena that have not repeatedly happened and whose likelihoods are uncertain. This is not very dissimilar to the weaknesses in the traditional macroeconomic modelling approaches that were exposed by the failure to predict the Global Financial Crisis in 2008.

The other popular approach adopted by economists to examine the impacts of climate change is based on empirical causal inference from, typically, aggregate macroeconomic data col- lected across both different geographies and different times. These panel data investigations can provide identification of the causal impact of the annual (or more frequent) fluctuations in the weather 27–29. But this is a partial equilibrium approach (assuming only one dimension is out of equilibrium, and everything else is held constant). Clearly, the cli-

mate change problem is a 'general equilibrium' problem, with a myriad set of markets and prices, in different locations, adjusting simultaneously. Furthermore, these backward-looking papers necessarily assume that the recent past is directly predictive of the future. Economists' refusal to intensively engage with subjective data (like aggregations of expert forecasts in Delphic surveys), as these approaches do not fit the types of acceptable research described above, means that these risks and phenomena all too often are ignored. The DICE model's short-cut exemplifies the straitjacket within which economics operates. Modelling of the economy- climate link including tipping points, irreversibilities, and multiple equilibria is obviously a significant challenge. But the self-imposed constraints, associated with economists' research practices, mean they do not seriously engage or sufficiently acknowledge the complexity of this problem. If economists were to take this issue more seriously and include the myriad caveats and qualifications that are necessary, this research would be difficult to publish in all mainstream economics outlets.

The few economists who have worked on WGII and WGIII issues have done so by deviating from the narrow path of acceptable research in economics. The IAMs, the mainstay of the economics used by the IPCC, is not part of the toolbox of standard academic economics as it is practiced today. This has probably led to a lack of interest, within the economics profession, in spending more intellectual capital on the climate change question. The straitjacket that economists work with has prevented them from addressing some questions and has also consequently prevented them from being interested in concentrating on climate change research more generally. Indeed, many of the people who nowadays work on the IAMs are not trained economists or were trained as economists but now work in professional environments that do not treat them as economists anymore. Unfortunately, as we detail in the next section, this narrow focus and absence of engagement on other issues has alienated researchers from other disciplines within the IPCC toward economics and economists.

One obvious reason for the disagreement between economists and other climate researchers is what appears to be a significant discrepancy between the expected biophysical and ecosystem impacts of climate change projected by natural scientists, and the economic impacts, typically measured by economic output or decreases in annual growth rates. This difference is apparent for relatively lower levels of future warming (e.g., 2 °C) and becomes even starker with higher levels of warming30. It is easy to see why many natural scientists would consider the damage projections from economists' IAMs as gross underestimates. In an admittedly older survey by Nordhaus, natural scientists' estimates of future climate damages were 20-30 times higher than the estimates of non-environmental economists.

Nov (2023) Economists are not engaged enough with the IPCC (pdf)

2.2 Economics Empirical Turn

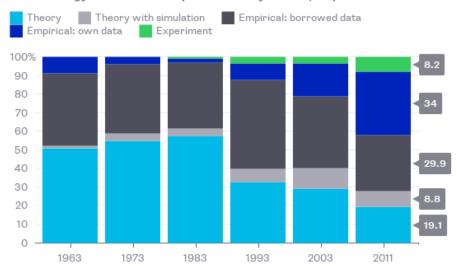
Noah Smith

In recent decades, three huge and important changes have happened in the economics profession. All of these changes work against both the free-market wave of the 70s and 80s and the rise of well-funded "economism" in the public sphere.

First, the profession has become much more empirical.

The Changing Nature of Economic Research

Methodology of articles in top economics journals, as percent of total



Source: Daniel S. Hamermesh, Journal of Economic Literature

BloombergView

Whether or not something works in theory is less important now than whether it works in practice. Papers still have theory sections, but they're more phenomenological — proposed explanations for observed phenomena, rather than a mathed-up form of philosophy. Meanwhile, new econometric methods relying on quasi-experiments are rapidly becoming dominant.

The empirical turn means that economists are more open to being persuaded by the evidence. The second change was an increased willingness of academic economists to enter the public discussion. Leading media figures like Thomas Piketty, Paul Krugman, and Gabriel Zucman now lean to the left, and the influence of the generally left-leaning Econ Twitter is growing. Both of these help balance out the legacy institutions of the 80s free-market media machine.

But the third and most important change is in the econ profession itself. The

free-market revolt is over. Economists' concern about inequality is growing rapidly.

Noah Smith (2015) Is economics an excuse for inaction?

2.3 History of Growth Thinking

Garzon

Economic growth is indeed habitually seen as something desirable, limited in space and time and even as a reflection of a process of natural evolution of societies. The very notion of economic growth is intrinsically connected with the social notion of progress, both of which arise from the Enlightenment and have been victims of forced, equivocal analogies with the natural sciences, particularly based on Darwinist theory (Nisbet, 1980). In short, we have firmly internalized and naturalized the notion of economic growth.

The main problem underlying conventional economics is its reliance on a conceptualization of the economy which deliberately ignores the physical context of which it is necessarily part, as well as the most elementary laws of physics. This means working on the assumption that resources and energy are unlimited, without even considering the fallout of the activity or the planet's limited carrying capacity. In view of the hegemonic nature of economic thought insofar as it is capable of moulding the framework of social thought, this is crucially important, because it makes finding effective solutions to the eco-social crisis virtually impossible.

Defective economic models

Economic growth can be seen as the result of greater production capacity on the part of a particular society. To simplify, this means that a society which produces a larger quantity of product than it did in the previous year is said to have grown economically by an amount equal to the difference between the two levels of output. In this way, a country which produces 10 units of food in a particular year and produces 12 units of food the following year is said to have experienced a 20% growth in food units. These two new food units are considered as economic surplus. The systematic build-up of economic surpluses lies behind the development of societies, inasmuch as historically it has enabled societies to become more complex (Cesaratto, 2020).

Capitalism is an economic system which emerged around five centuries ago and introduced a series of incentives, through competition, to discipline companies and force them to grow in each period, as well as to reinvest profits in order to raise their production capacity to a higher level, in addition to awarding a growing share of those profits to the people who supplied the capital. In this way, under capitalism the whole entrepreneurial fabric is pushed towards boosting its production capacity. This is what, under particular institutional arrangements,

has driven the spectacular increase in economic activity, infrastructure and, finally, the living standards of people over the past two hundred years.

The historical reality of capitalism has, however, demonstrated that the process of economic growth is neither constant nor spared from serious upheavals (leading to phenomena such as unemployment and lack of paid work for large sectors of the society). Economists have also devoted themselves to the task of untangling the difficulties of economic growth for more than two hundred years. Most of them, however, have used a set of theoretical instruments blind to the ecological issue, i.e. the ecological prerequisites for economic growth and the ecological consequences of that growth.

Classical economists, the founders of Political Economy as a discipline, have nevertheless undoubtedly been aware of some of what we might call the social metabolism, i.e. the relationship between nature and the economy (Haberl et al, 2016; González de Molina, M., 2014). The physiocratic school, the predecessor of the above, whose principal exponent was François Quesnay, had already interpreted the economic question in the 18th century on the basis of agrarian flows and concluded that any surplus is possible thanks to the gifts given to us by nature. David Ricardo, on the other hand, was aware of differing soil fertility and put together a theory of decreasing land yields which led him to think that capitalism could not grow indefinitely. Reverend Thomas Malthus introduced his now famous thesis on population growth as a constraint on economic growth. And Karl Marx and Friedrich Engels considered that capitalism would come up against limits to its own development due to the downward trend of the rate of return, although all of this fell within an essentially teleological philosophy of history according to which the whole system would inevitably advance phase by phase until it culminated in communism (Garzón, 2017). A particular remark should, however, be made in the case of Marx, since research over the last few decades has shown that Marx was also a thinker extremely interested in the scientific advances of his time and that he himself accorded considerable importance to the concept of social metabolism (Burkett, 2006; Foster, 2020; Saito, 2022).

In the 20th century, economic thinking, in striving to make the discipline more scientific, moved even further away from the physical and even social conditions under which any economy must necessarily operate. Neoclassical thought, as reformulated by Walras, Marshall & Jevons, amongst others, permeated economic science as a whole and led to a break with the previous Political Economy, giving rise to notions of production and wealth completely disconnected from a natural base (Naredo, 2015). Meanwhile, the search for theoretical explanations of economic growth and its possible failures continued with the economics Harrod and Domar, who developed a model which concluded that economic growth was fundamentally unstable and that meeting the conditions for stability was extremely complicated (Harrod, 1939; Sen, 1970). That Keynesian-inspired model provoked a response from neoclassical economists such as Robert Solow and Swan, who laid the foundations for the paradigm of economic growth and

whose models are still being studied as a priority in every economics faculty around the world. These are the models which, in the end, define to a large extent economists' scope of thought.

The cornerstone of every model of economic growth is the aggregate production function. This function represents the economic production process and, in its most basic formulation, only involves capital and labour, while resources and energy are always considered as fully available. In this way, capital and labour are consolidated as the only production resources which, together, generate the surplus of an economy. This surplus, in its turn, makes up the amount to be distributed between wages and profits.

This is the root of a large proportion of policy discussions around accumulation and distribution in capitalist societies. Ethical and political issues as important as the level of wages or profits or, even more, their relative share of income, arise from the implicit question concerning the effects of those changes on economic growth. Each model belongs to a distinct school of thought due to its specific configuration, determined by different starting assumptions. In general, neoclassical models consider that restrictions on growth come from the supply side, so they suggest that profits must be increased to encourage accumulation, while post-Keynesian models focus on restrictions from the demand side and usually suggest changes in the distribution of income and increases in wages (or public expenditure) to support demand. The large majority of current discussions of economic policy fall within this perspective. Nevertheless, the paradigm is always shared, and the debate really turns on ways to maximize economic growth.

Students of economics are often surprised, when studying these models, especially the most basic ones, that there is apparently no possibility of unlimited growth existing. For example, Solow's model establishes that the production factors, capital and labour, have decreasing returns, which supposes that each additional unit provides an ever-smaller quantity of product. In its dynamics, the model tends towards a stationary state where there is no economic growth. Nevertheless, when technical progress, in whichever possible formulation, is incorporated in these basic models, it is then possible for potentially unlimited growth to exist. This is what happens with the AK growth or endogenous growth models, as well as all models incorporating growing returns in the aggregate production function (Acemoglu, 2009; Romer, 2000). In the end, students soon learn that unlimited economic growth is technically possible thanks to technology and, in the case of certain heterodox models drawing inspiration from Allyn Young, Gunnar Myrdal, Nicholas Kaldor and Anthony Thirlwall, also the central role played by the industrial sector (Blecker & Setterfield, 2019).

This brief review of the relationship between economic models and public policy should make it clear above all that economists, past and present, generally tend to think within analytical and conceptual frameworks defined on the basis of the search for maximum economic growth.

Garzon (2022) The limits to growth: eco-socialism or barbarism

2.4 Growth Obsession

Michael D. Higgins (President of Ireland)

In a reception for think tank Tasc, Michael D Higgins condemned 'neo-liberalism' and urged country to 'rebalance economy, ecology and ethics'

President Michael D Higgins has condemned the "obsession" with achieving economic growth in a speech on Friday that was implicitly critical of the economic policies pursued by successive governments.

In a reception at Áras an Uachtaráin for Tasc, a think tank dedicated to social change, the President delivered a typically wide-ranging speech that featured a strong critique of economic policy that seeks to prioritise growth, a condemnation of "neoliberalism" and an evaluation of the shortcomings of the teaching of economics at universities.

He also urged those present to "envisage our future utopia", suggesting the Ireland must "rebalance economy, ecology and ethics".

And he insisted that the current exchequer surplus was not just the product of corporation tax receipts from multinationals, but "has been made possible by an educated and hard-working population".

The President's views on one of the constants of Irish Government policy – the promotion of economic growth – may raise eyebrows in Government.

"Many economists remain stuck in an inexorable growth narrative, or at best a 'green growth' narrative," he said. "A fixation on a narrowly defined efficiency, productivity, perpetual growth has resulted in a discipline that has become blinkered to the ecological challenge – the ecological catastrophe – we now face.

"That narrow focus constitutes an empty economics which has lost touch with everything meaningful, a social science which no longer is connected, or even attempts to be connected, with the social issues and objectives for which it was developed over centuries. It is incapable of offering solutions to glaring inadequacies of provision as to public needs, devoid of vision."

Later he added: "Our obsession with inexorable economic expansion expresses, perhaps, a desire to transcend our material limits and rise above the state of nature. Yet this growth fixation paradoxically increases the potency of those very limits.

"A deadly cocktail of exploding inequalities, massive deregulation and a globalisation defined solely by trade densities has precipitated this ecological crisis."

Mr Higgins also fretted about the "fragile, even empty, quality of democracy", but said that while "we are living under great shadows that cast so much doubt and anxiety, I wish to offer a positive contribution to the debate, and I must

attempt to avoid the temptation to fall into any Adornoesque sense of despondency."

Senior Government figures declined to make any substantive comment on the President's views, even off the record. For a long time the general rule in successive governments has been not to tangle with the President, as he is more popular than any politician.

Mr Higgins returned to a theme he has previously spoken on – the teaching of economics.

He said he had "called for many years now on third-level institutions" to expand their teaching of economics to include the "emancipatory potential for a new, recovered political economy".

"The question of how economics is taught and encountered... is a matter of utmost importance," he said, adding that a failure "to facilitate a pluralism of approaches in teaching economics is a deprivation of basic students' rights, indeed citizen rights".

Mr Higgins also set out clear political challenges. "Do we want to bequeath to our children an Ireland where everybody will have access to nutritious food, clean water, adequate housing, good healthcare, childcare and education, irrespective of their ability to pay for those basic social goods? Or do we wish to pursue a means-tested, two- or even three-tiered system of access to services with all its exclusionary and inequitable outcomes?"

Some welfare payments, such as the disability allowance, are currently meanstested.

"The challenge for all of us here today," Mr Higgins continued, "is, therefore, to find a way of building, with all our distinctive contributions, an alternative to that hegemonic discourse that casts competitiveness, productivity, efficiency, as the ultimate purpose of economic activity, and inexorable growth in output and trade as an end in itself.

"I suggest that all of the prevailing ruling concepts in our present economic discourse – flexibility, globalisation, productivity, efficiency, innovation, indeed economic growth itself – are capable of being redefined within an active citizen participative state context, given a shared moral resonance, reimagined sustainably within the context of the new ecological-social model."

Higgins (2023) President condemns 'obsession' with economic growth

2.5 History of Economics

Noah Smith

There's a sort of popular myth that economics began with Adam Smith's declaration that the "invisible hand" of the market would lead to a good society. In

fact, while Smith did recognize the importance of market forces and self-interest, his vision of a good society didn't stop there.

Adam Smith decries the existence of inequality and poverty, blames property rights for this inequality, advocates progressive taxation as a remedy, and is innately suspicious of profit. He sounds more like Thomas Piketty than Milton Friedman.

Smith's suspicion of profit and enthusiasm for redistribution are baked into the very core of economic theory. The zero-profit condition says that in a well-functioning market, the rate of profit should be no more than the cost of capital — if you see companies making big margins, you should suspect that the market isn't working

Meanwhile, Smith's call for redistribution is inherent in the Second Welfare Theorem, considered one of the basic theorems of economics — and something that every intro student is taught. The Second Welfare Theorem says that if you change the initial distribution of wealth in society, you can basically get any outcome you like. This puts the burden of proof on those who think we shouldn't redistribute wealth — it forces them to bring proof that the harms from taxation are just too high. Though there have been some economists who opposed redistribution, enthusiasm for the idea is traditionally very dominant within the profession. Even Milton Friedman, that great champion of laissezfaire, supported the idea of a negative income tax that would give people more cash the poorer they were.

Over the decades, leading economists found other reasons for government intervention in the economy. Just a few examples:

- John Maynard Keynes, the father of modern macroeconomics and an incredibly influential figure, came up with the idea of fiscal stimulus to solve the problem of recessions an idea that is almost universally accepted today among economists.
- Paul Samuelson, arguably the most influential economist of the 20th century, and the author of much of the modern economics curriculum, came up with the theory of public goods things like infrastructure and research and public parks that the private sector won't provide on its own.
- Kenneth Arrow, one of the profession's leading lights, explained why the free market doesn't work in the health care industry.
- Joseph Stiglitz, yet another Nobel prize winner, showed that under some simple assumptions, land should be taxed at 100% of its value basically, total redistribution of the wealth from land ownership (the idea was originally due to the 19th century economist Henry George).
- Along with George Akerlof, Michael Spence, and others, Stiglitz pioneered the theory of asymmetric information, which shows yet another reason

free markets break down (and which provides another justification for government health insurance).

This is by no means an exhaustive list. But it shows how economists at the very top of the field — the people cited are not just Nobel winners but legendary names within the profession — spent their effort finding reasons to justify action by the ruling class to alleviate inequality, poverty, and market breakdown.

The libertarian economics of the 70s and 80s had its roots in the Mont Pelerin Society and the University of Chicago economics department in the mid 20th century. Economists like Friedrich Hayek, Milton Friedman, and George Stigler were consciously and openly ideological in their promotion of small-government ideology. This culminated in Friedman's famous 1980 television special, Free to Choose, in which he combined libertarian principles with (often simplistic and obsolete) economic theory to endorse laissez-faire approaches across a broad swath of policy issues.

This free-market revolt left lasting marks on the profession. The new discipline of "law and economics" was dominated by the Chicago school, providing strong support to big business in its quest to become even bigger.

Macroeconomics became temporarily dominated by anti-interventionists. Economists like Robert Lucas and Ed Prescott made models claiming that recessions are optimal economic outcomes (!!!), and that attempts to fight them only make things worse.

The free-marketers had a deep impact on econ education. Greg Mankiw's text-books, which generally favor free-market ideas, have become the standard introductory undergrad textbook, and are only now starting to be displaced by materials like Krugman's textbooks and the CORE Project.

Noah Smith (2015) Is economics an excuse for inaction?

2.5.1 Blinder's History 1961-2021

Geoff Mann

On Lucas

But in both academic and policy circles, Keynesianism hadn't recovered from the beating it took in the 1970s. An aggressively anti-Keynesian post-monetarism began to dominate macroeconomics, dedicated to monetarism's free-market fundamentalism but virtually uninterested in the money stock, in which it placed no faith and barely even mentioned. The first stirrings of this self-described 'rational expectations revolution' began with the work of Friedman's student Robert Lucas. Keynes had put expectations at the centre of macroeconomics. If you wanted to understand how an actually existing market economy worked, you had to begin with what people expected the future would look like, because those expectations determine their behaviour. Pretty much every economist agreed with this. But the monetarists bristled

at how 'irrational' those expectations seemed in Keynesian thinking, which in their view depicted market actors as myopic, impulsive, gullible and sometimes just dumb. This undermined the entirety of neoclassical economics, based as it is on rational, self-interested decision-making by optimising agents operating in complete markets (conditions in which all goods are available and subject to competition).

Lucas's 'new classical economics' was an attempt to end this sacrilege. It was built on models with neoclassical 'microfoundations', which assumed that the expectations of market participants are fully 'rational': that the participants have all available information, including the information policymakers have, and use it just as 'efficiently'; that they know and respond to the ways policymakers operate; and that they know what their lives will be like, so that every decision moves optimally towards that end. This work was inspired by Friedman's effort to demonstrate the ultimate futility of stabilisation policy. If actors have rational expectations, they know what is probably going to happen in the economy, so can anticipate it. This means 'systematic' policy is totally ineffective. The only way to 'stimulate', in that case, is to 'surprise'. This might work in the very short term, but soon it will just end up generating inflation that will be expected, and then the only way to 'surprise' anyone will be an even bigger surprise, causing even more inflation. Everything the government does to 'help' will end up being irrelevant, leaving the economy back where it started but with ever higher prices.

Lucas, whose new classical economics seeded further uncompromising variants such as 'real business cycle' theory and 'dynamic stochastic general equilibrium' macro, insisted that the only meaningful economics is technical mathematical modelling: 'Everything else is just pictures and talk.' Keynes's General Theory of Employment, Interest and Money (1936), the book that underwrote the Keynesian project, was nothing more than 'disconnected qualitative talk'. Further, all macroeconomic models had to have the neoclassical 'microfoundations' that drive the rational expectations revolution. Nothing else was 'real social science'. In the labour market, all workers ('labour suppliers') are rationally optimising the 'intertemporal substitution' of work and leisure across their lifetimes: as Lucas put it, 'To explain why people allocate time to a particular activity – like unemployment – we need to know why they prefer it to all other available activities: to say that I am allergic to strawberries does not "explain" why I drink coffee.' (No, I don't get the metaphor either.)

Finally, all macroeconomic models must begin from the premise that the economy as a whole is always in intertemporal equilibrium: all markets 'clear' (all supply finds demand), meaning 'idle' resources are not proof of states of disequilibrium, but rather of the unfolding process of rational self-interested decision-making. This follows directly from the 'microfoundations' assumption: if the people that make up an economy are rational agents optimising intertemporally across their lifetimes – or even beyond, into overlapping generations – then at no point could that economy possibly be in disequilibrium. Everything is as it is

because of decisions made to maximise agents' utility over their life-cycles. The operation of the economy isn't actually a 'macro' phenomenon but the product of 'aggregative', rational, individual choices; disequilibrium is thinkable only on the Keynesian assumption of what Lucas once called 'unintelligent behaviour'.

The upshot is the polar opposite of Keynesianism: markets produce the optimal outcome; the state is the problem, not the solution.

The monetarist project and its Lucasian variants amount to nothing less than the 'scientific' delegitimisation of the welfare state. They are an attack on the very idea of the collective.

Blinder writes that the evidence for monetarism was never 'very convincing – unless you were already convinced'. (He has been making these criticisms for decades. In 1988, he called new classical economics 'a triumph of a priori theorising over empiricism, of intellectual aesthetics over observation and, in some measure, of conservative ideology over liberalism' – 'liberalism' in the American, social-programmes-are-good sense. What bothers him most, however, isn't the narrow-mindedness or arrogance of post-monetarist free-market fundamentalism, or the spiralling inequality and environmental destruction it has legitimised and even celebrated.

Mann (2023) Keynesian in a Foxhole

2.5.2 The Invention of Economics

Tooze

Keith Tribe is a fascinating scholar, the sort of iconoclastic revisionist whose broadsides soon become new orthodoxies, and an expert reader of theoretical texts from classical political economy at the birth of modernity to Max Weber. He started out (as many did in the 1970s) grappling with Marx, and with the complicated status of Marx's unpublished manuscripts on the critique of political economy. Tribe's new book is a must-read:



Constructing Economic Science

The Invention of a Discipline 1850-1950

Keith Tribe

Oxford Studies in the History of Economics

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Tooze (2023) Invention of Economics

2.6 Second Best Theory

A classic finding in the economic literature – the theory of second best – illustrates that, in the presence of many market failures, leaving one failure unaddressed is suboptimal. Conversely, addressing a particular market failure has the potential to improve the overall allocation of resources, even if it worsens some other market failure.

Scnabel (2021)

2.7 Weaponizing Economics

Franta Abstract The role of particular scientists in opposing policies to slow and halt global warming has been extensively documented. The role of economists, however, has received less attention. Here, I trace the history of an influential group of economic consultants hired by the petroleum industry from the 1990s to the 2010s to estimate the costs of various proposed climate policies. The economists used models that inflated predicted costs while ignoring policy benefits, and their results were often portrayed to the public as independent rather than industry-sponsored. Their work played a key role in undermining numerous major climate policy initiatives in the US over a span of decades, including carbon pricing and participation in international climate agreements. This study illustrates how the fossil fuel industry has funded biased economic analyses to oppose climate policy and highlights the need for greater attention on the role of economists and economic paradigms, doctrines, and models in climate policy delay.

Franta Memo

An early handbook written for regulated industries even has among its top recommendations, 'Coopt the Experts' (Owen and Braeutigam 1978). The handbook explains (p. 7):

"Regulatory policy is increasingly made with the participation of experts, especially academics. A regulated firm or industry should be prepared when ever possible to coopt these experts. This is most effectively done by identifying the leading experts in each relevant field and hiring them as consultants or advisors, or giving them research grants and the like. This activity requires a modicum of finesse; it must not be too blatant, for the experts themselves must not recognize that they have lost their objectivity and freedom of action."

By the early 1980s, at least some economists were already counteracting calls for policies that would help prevent and minimize global warming. In 1983, the US National Academy of Sciences published Changing Climate, a report presenting an overview of contemporary climate science and policy thinking (National Research Council 1983). The portions by scientists, for the most part, warned that continued fossil fuel use would have dire con sequences.

The economists, in contrast, counseled against policy action, suggesting that global warming might not be that bad. Thomas Schelling of Harvard University argued that migration and adaptation would be preferable to reducing fossil fuel emissions. 'It would be wrong to commit ourselves to the principle,' he wrote, 'that if fossil fuels and carbon dioxide are where the problem arises, that must also be where the solution lies' (p. 449). William Nordhaus of Yale University agreed, writing that although a fossil fuel tax would reduce emissions, '[t]he strategies suggested . . . by Schelling . . . cli mate modification or

simply adaptation to a high CO 2 and high temperature world – are likely to be more economical ways of adjusting' (p. 151). Yet neither economist provided a detailed analysis to support his conclusions.

While the scientists' warnings were supported by decades of research, the economists' reassurances were closer to hopeful guesses. Yet the economists' arguments, though speculative, were given credibility by the National Academies report.

as pressure grew in the late 1980s to prevent severe global warming, it may not be surprising that the fossil fuel industry turned to economists to help influence public policy. Important among these economists were those at Charles River Associates, a US-based consulting firm that played a key role in weakening, delaying, or defeating a wide range of climate policies over the following years, including US carbon pricing proposals and international climate agreements. These economic consultants helped convince the public and policymakers that climate policy would be costly, global warming would be relatively unimportant, and there would be little harm in delaying action.

Their work was paid for by the fossil fuel industry, a fact often concealed from the public, and their methodologies were incomplete in favor of the industry.

Franta (2021) Weaponizing economics: Big Oil, economic consultants, and climate policy delay (pdf)

Economists

Economists are clueless. Economics as a discipline is mostly wrong about almost everything macro, and economists are out to lunch in a very dangerous way. (Ian Welsh)

3.1 Joan Robinson

The orthodox economists have been much preoccupied with elegant elaboration of minor problems.... Marx's intellectual tools are far cruder, but his sense of reality is far stronger.

In the autumn of 1975, there was one name "on everyone's list for this year's Nobel Prize in Economics," Business Week magazine trumpeted: the Cambridge economist Joan Robinson. The week before the prize announcement, the magazine predicted that Robinson would be the first woman to win the prize. A major interpreter of John Maynard Keynes and Karl Marx, she was one of the most prominent economists of her generation.

But when the names of the winners were read out at the Royal Swedish Academy of Sciences, Robinson's name was not among them. When she died in 1983, just shy of her eightieth birthday, she had not won the prize – despite words of support from laureates as different as Paul Samuelson and Milton Friedman.

What went wrong? More than perhaps any other factor, one man was to blame: Mao Zedong. Robinson's writing in praise of Mao's China – from her defense of the ruinous Great Leap Forward to her zesty praise of the Cultural Revolution – was likely what lost her the Prize. Fang Qin, an economist at Fudan University in Shanghai, put it plainly: "She is considered the most important female economist in history, but she did not win the Nobel Prize because she publicly praised the Cultural Revolution."

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"How could it happen that, under cover of Mao Tse-tung thought, a medieval drama of ambition and treachery could play itself out?"

Gewirtz (2017) Mao NobelPrize

At the outset of this debate over capital theory, Professor Joan Rob- inson argued that capital could not be aggregated using any single measure because capital assets include a tremendous variety of goods: physical equipment, real estate, trademarks, financial products, and so on. 61 The normal remedy — and a move that lies at the heart of the neoclassical theory of capital — is to group these disparate entities together as a homogeneous stock or fund, using their market value to render them commensurate. Piketty adopts this approach, yet a problem arises when we want to calculate the rate of return on capital that has been aggregated in this way. According to standard economic theory, the return on capital should be equivalent to its rental price at equilibrium — that is, to the cost of hiring capital at a given moment, independent of any short-term shocks or anomalies. This return should be equal to the "marginal product" of capital, because (assum- ing equilibrium) the cost of capital will equal the value of the additional production it enables. The problem with this solution is that calculating the equilibrium price of capital assets requires assuming a given rate of interest, as shown by several technical results from the 1960s and 1970s. 62 But (again according to standard economic theory) the rate of interest is itself endogenously related to the price of capital assets: it is supposed to reflect the marginal product of capital. Calculating the rate of return on capital would thus seem to require assuming the very thing that the calculation is supposed to discover, making the exercise circular.

Grewal (2014) Review of Piketty (full pdf)

Alves

In Marx's view, once the rate of exploitation is given, the rate of profit is derived from it, followed by the wage rate. If one asks what determines the wage rate, one must ask what determines the rate of exploitation first. In this way, the rate of exploitation takes us to the forces underlying class struggle in capitalism and thus outside the system of price and technology.

For Robinson, Marx's concept of surplus value—and the related idea of exploitation— is the most striking difference between Marx and orthodox economics.

Alves (2022) Joan Robinson on Karl Marx: "His Sense of Reality Is Far Stronger" (pdf)

3.2 Pierro Sraffa

But what determines the rate of return on a capital asset if it is not simply the value of the additional production it enables? The force of the debate over this

question stemmed from the ideological stakes of the conventional answer. The theory of marginal productivity was thought to naturalize capital and its share of national income, rational- izing profit as simply what was owed to one factor of production, capi- tal, just as wages were what was owed to labor. 64 Against this, Profes- sor Piero Sraffa's seminal contribution was to show that the rate of return could not be derived from the marginal product of capital but was rather an independent variable — given, he suggested, by factors "outside the system of production," such as monetary policy. 65 In ef- fect, according to Sraffa, the equilibrium price of capital goods reflects a history of social struggle over the terms of economic cooperation and cannot be understood simply in terms of the aggregate production function.

Grewal (2014) Review of Piketty (full pdf)

3.3 Marc Lavoie

3.3.1 Post-keynesian Economics: New Foundations

The book is a considerably revised and updated version of the widely used and frequently cited 2014 edition, which won the EAEPE Myrdal Prize (now the Joan Robinson Prize).

It provides an exhaustive account of post-Keynesian theory and policy. Topics covered include its methodological foundations, consumer theory and choice under fundamental uncertainty, firms and pricing, money and credit, effective demand and employment, growth theory, open-economy issues, inflation theory.

It also links up with ecological economics.

Marc Lavoie (Homepage)

Tankus on Lavoie (2023) Greedflation Debate ## Diane Coyle

3.3.2 What happened to Cambridge Economics?

Galbraith on Coyle

One can understand and even sympathize with Coyle's project. The real world has overtaken Friedrich von Hayek and his lead disciple, former British Prime Minister Margaret Thatcher. Today's profound inequalities are becoming politically unacceptable. Financial crises are endemic, and now climate change is upon us, too. The free-market, deregulate-and-privatize verities of Coyle's professional youth have lost their appeal.

But as Coyle points out, the discipline is still exceptionally disciplined. Academic success demands publication in one of only five "top" journals, all of which are tightly controlled by acolytes of the mainstream orthodoxy. For most economists today, the only practical way to get ahead is to build on (and therefore accept) that orthodoxy.

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Deference, even sycophancy, is required. Thus, Coyle herself recites from the catechism: "What markets do brilliantly, nevertheless, is coordinate the use of resources in a process of discovery and challenge. The information signaled by the prices set by demand and supply is a wonderful coordinating device."

The new microeconomists point to problems such as pervasive "asymmetric information" – a favorite theme of the very progressive neoclassical economist Joseph E. Stiglitz.

Others emphasize common flaws and sources of friction in markets – sticky wages, sticky prices, monopoly power – while still others focus on social costs and the provision of public goods. And yet all these "departures" still hew to the orthodoxy that treats perfectly informed, fully rational, price-adjusting buyers and sellers in perfectly competitive markets as the ideal type. It doesn't seem to matter that the ideal type doesn't exist anywhere in practice and never has. The presumed purpose of economic policy is to iron out all the flaws so that the world will behave "as if" it conformed to the ideal.

A characteristic manifestation of this belief structure is the fashionable idea of "new antitrust," which prescribes breaking up companies like Facebook, Google, and Amazon in order to ensure price competition in those industries. Another example is advocacy of carbon pricing as a mechanism to slow global warming. And even more pernicious is the case for "flexible labor markets" as a cure for joblessness.

On this last point, Coyle writes that "both the Greek and Italian economies are widely thought to be hamstrung by an accumulation of regulations at the expense of competition, innovation and economic growth." (Note the passive voice: "are widely thought.") Mainstream economists may indeed think such things; but they are wrong. The Greek labor market was wholly deregulated a decade ago by IMF fiat. What disappeared was not unemployment but formal work and the middle class.

Moreover, there is ample evidence that what is really good for jobs is uniondriven wage solidarity, as practiced over the years in Scandinavia, Austria, and at times in Ireland. This fact has eluded mainstream economics and will continue to do so, because articles advancing such insights cannot get published in the "top five" journals.

Prices Are Not the Key to Everything Coyle subscribes to the grand illusion that price adjustment is the economy's prime mover. But as the Cambridge Keynesian economist Nicholas Kaldor noted in his slim 1985 book, Economics without Equilibrium, "the intuitive belief that prices are the key to everything" is simply wrong. The foundation on which Coyle places modern mainstream economics is a myth. As Kaldor put it: "... the important conclusion is that the signal that causes an economic 'agent' to do something different – produce more or produce less, or switch his manufacturing facilities from some varieties to others – is always a quantity signal, not a price signal. ... In the actual adjustment of supply and demand, prices play only a very subordinate role, if any."

When I attended the University of Cambridge in 1974-75, I read Keynes, met Piero Sraffa, listened to Joan Robinson, and studied with Kaldor, Luigi Pasinetti, Richard Goodwin, Ajit Singh, Wynne Godley, Robin Marris, and Adrian Wood. Back then, it was understood at Cambridge that markets do nothing like what Coyle claims they do. Just as Einstein had erased Euclid's axiom of parallels, Keynes's General Theory had long since obliterated the supply curves for labor and saving, thereby eliminating the supposed markets for labor and capital.

It followed that the prices of production were set by *costs* (mostly labor costs and interest rates), while *quantities* were determined by effective demand. Markets were not treated as if they were magical. It was obvious that most resources and components did not move under the influence of an invisible hand. Rather, they moved according to contracts between companies on terms set by negotiation, as had been the case for more than a hundred years. Technology was managed by organizations – mostly by large corporations – in what was sometimes called "the new industrial state."

But the Cambridge school of economics that understood these things has died out. It was targeted in the great intellectual purge of the Thatcher era, and it was pried from its footholds in North America by early-stage McCarthyism, Reaganism, the MIT self-proclaimed Keynesians, and the Chicago School. Only a few scattered survivors remain today.

The Return of Increasing Returns "Economics," Coyle correctly argues, "needs to have at its heart increasing returns and the kind of dynamics they imply. The characteristics of a knowledge economy are distinctive." But this "vibrant area of research ... is not yet the mainstream benchmark, and still less so in the lecture hall or the corridors of power." As it happens, here is Kaldor on the same topic: "The progress of knowledge ... is very often the result gained from experience – learning by doing. And as the great American economist, Allyn Young, emphasized in his famous paper 'Increasing Returns and Economic Progress,' published shortly before his early death in the winter of 1928-1929 – a paper which for reasons that are not clear to me did not have the influence in his native country that it so clearly deserved – once we allow for increasing returns the laws of economics take on quite a different appearance."

Young saw almost a century ago, and Kaldor emphasized 40 years back, that increasing returns generate cumulative causation: the advancing gains of leaders over laggards produce increasingly extreme inequalities and disequilibrium.

Ultimately, these issues lead us right back not only to Keynes but also to his "circus" of peers such as Kaldor, Sraffa, and Robinson. These earlier Cambridge economists did not develop "forecasting models," and macro-policy prescriptions were, for them, a sideline. They and their successors (above all Pasinetti, who continues to publish in his 90s), practiced a unified theoretical economics that encompassed money, banking, production, employment and unemployment, market power, international trade, industrial corporations, and technological

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change.

Coyle's belief in a distinctive applied microeconomics based on markets and price signals is an artifact of the "neoclassical synthesis" constructed in post-war Cambridge. It was here – in Cambridge, Massachusetts – that MIT and Harvard economists bifurcated the discipline, reduced Keynes's thinking to formulas, and set the stage for the Chicago cult of rational "microfoundations."

Cambridge has forgotten Cambridge, and it is poorer for it.

Galbraith (2022) What's Left of Cambridge Economics?

3.4 Mario Draghi

Judah on Darghi

There is a Europe of the mind: of Beethoven, summer holidays and the smell of coffee. Then there is Europe as it actually functions today — the Europe of Mario Draghi.

Understand Draghi and you understand how power works in the EU. He has built a technocratic Europe and risen to its heights.

Whilst his generation was wild, flirting with extremism and dreaming of new worlds on campus, Draghi was tame and burdened by responsibility. An outsider in May '68.

He was well trained by the Jesuits. They taught him to be prudent, reserved and to listen. He's a social Catholic. It is a class marker that inexorably ties him to Massimiliano Massimo, the Jesuits' Roman Eton, where Draghi studied with the sons of ministers and tycoons. t is the sign of a severe, rigorous education at the hands of scholar-priests; and it is privilege. For Europeans, it is often a way to draw attention to his manner: pedagogic; precise, shadowy and, if necessary, ruthless. The Jesuits have a mantra from their founding Saint Ignatius of Loyola about serving the vision of God: todo modo, which in English means whatever it takes.

As a wave of political killings followed '68, Draghi learned the first lesson of political life. Always find the right mentor. His name was Frederico Caffè. Amidst the clamour he lived, his students said, "like a monk". Caffè was influential: Italy's great Keynesian economist. Convinced Draghi was brilliant, he introduced him to Franco Modigliani, the Italian economist at MIT, who accepted him as a student. But he still had to complete his thesis. "It was on the single currency and I concluded that the single currency was madness, something absolutely not to do," said Draghi, at an event honouring his mentor.

Those who would shape the economic discourse of the age taught Draghi at MIT. He proudly points out that five of his professors won Nobel Prizes — Paul Samuelson, Bob Solow, Franco Modigliani, Peter Diamond, and Robert Engle.

His peers — Ben Bernanke, Paul Krugman, Kenneth Rogoff, Olivier Blanchard — would become high priests of the Federal Reserve, New York Times, austerity and the IMF respectively. As the new world of floating exchange rates, free flowing capital and empowered central bankers was starting to emerge, a circle of economists was coalescing. Together they shaped the neoliberal age.

Draghi was not looking for dogma. Unlike his mentors, Draghi's economics has never set into a theory but has kept moving, always one point to the left from wherever the centre is. He sees it as pragmatism. By forty, he had disappointed the left wing Caffè. Draghi was now a Director at the World Bank. In April 1987, overtaken with grief that neoliberalism has triumphed over the left in economics, his disciples dead or fading, Caffè, the great Keynesian, disappeared. He was never seen again. Some say he committed suicide; others that he had taken himself to a monastery in the Alps, to hide from the world he saw coming.

Heading the Treasury from 1991; it was here that the fortysomething civil servant did whatever it took to join the single currency: regulating Italy's banks, managing its debt and privatizing over €100bn. Draghi was more than indispensable. He built Italian neoliberalism.

There was no better school than Rome for Euro politics: it was already a game of weak politicians and powerful technocrats

Capitalism, he believed, had rules. As long as the politicians got out of the way and the technocrats set the right structure, stable growth would follow. This was the MIT philosophy. Across continents, his former student peers were rising and rising. As economists they believed in intervention: to help make the market function.

This was why the Euro was imperative. Capitalism could provide the rules — and the structure — that Italy lacked. Politicians would now be curtailed in macroeconomic policy. Signing up to a single currency put the fundamental levers of the macroeconomy — key fiscal and monetary policies — beyond domestic politics. This strategy was known as il vincolo esterno, the external bind.

This is what elites feared in the 1990s: without il vincolo, a return to the 1970s.

Draghi's generation believed they had got it all right. Then 2008 hit. The financial crisis revealed these engineers had made a terrible mistake. They had broken a system they would now spend the rest of their careers trying to fix.

This would transform central bankers from the technocratic rule setters of capitalism into the political crisis managers who guided it — and in so doing reorder power in the EU forever.

By signalling that Frankfurt was only prepared to put its liquidity behind a certain type of politics he opened the door to ousting Berlusconi. A technocratic government replaced him — which the fallen leader called an EU "coup".

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"In every press conference since I became ECB President, I have ended the introductory statement with a call to accelerate structural reforms in Europe." Central Bankers had crossed the line: no longer technocrats, they were now politicians.

In Frankfurt, Draghi would master the three modes of European power: the charismatic — the politics of persuasion — with which he would claim power for his bank; the technical — the politics of rules — with which he would be the EU enforcer in Greece; and the analytical — the politics of numbers — with which he would win the battle to guide capital flows with quantitative easing. Together these would come together into Draghipolitik — with which he would move the German dial. His challenge was in the very design he agreed to.

Genuinely free markets, which had opened in the 1970s with the lifting of capital controls, closed. Directed capitalism came to Europe with the ECB incentivising markets to buy riskier assets by buying over \$2.8 trillion safer ones by 2018. It was the ultimate act of intervention without redistribution.

A whisperer, an enforcer, a number cruncher. These are not the qualities one expects of a great man. But that is to misunderstand how the EU works. Its machine was built to depoliticise politics; and those who do that best, thrive; the unassuming bureaucrat becomes Napoléon.

As the crisis made the state more dependent on finance; finance become more dependent on the state. And men like Draghi were central to it. These victories reveal enormous skill. They turned the ECB into an even more powerful institution than the Bank of England. But they also underline how badly his generation got it wrong. They had bet on a half-built house for Europe as the key to stability. But a monetary union without a fiscal union brought instability. They had bet on setting neoliberal rules for capitalism and stepping back: and it had blown up. They had bet on austerity: then faced a depression. These errors made them — the world's elite central bankers who then had to fix it all — more powerful than most politicians.

All through life, Draghi's personal and political bets have paid off. But at the same time, his great bet, the one he took with Italy — il vincolo esterno — has failed. The geopolitics failed: it has not helped manage German power. The economics failed: Italy has maintained one of the toughest fiscal regimes in Europe, running a primary surplus almost every year since 1995. Yet Italy has got poorer. In 2000, its average standard of living was 98.6 per cent of that of Germany. Today, Italian per capita income is 20 per cent below those over the Alps. These are the long term consequences of austerity, bottled reform and the Euro making exports uncompetitive. The debt Italy ran up in the 1980s has become its albatross. Draghi's growth never came.

Italy has been trapped in a loop of increasingly weak populists, punctuated by weak technocrats.

"The truth," said the historian Marcel Gauchet, "is that Europeans do not know

what they have built." This is what the struggles of Draghi reveal.

The real politics of Europe is the politics of Eurozone debt.

A Euro collapse is now unlikely. That is his legacy. The risk that Europe faces now is that the Euro system — the unfinished house — slowly does to the EU as a whole what it has done to Italy, putting it on a permanently lower growth trajectory. The EU needs collectivised debt for more collective stimulus.

Until someone can pull off the next painful step of consolidation, the risk is that the Union continues to lose the battle for globalisation.

But the price of Draghipolitik is this: it is consolidation without democracy. Empowered elites with alienated voters. Politics only men like him can play.

But what is this Europe? This system, Draghi's system, is one that has depoliticised itself in order to survive. That it has. But at the cost of no longer being able to distinguish between stability and stagnation. A system that can only do the bare minimum. Not whatever it takes.

Judah on Draghi

3.5 James Galbraith

Consider what has happened, in recent years, to five of the leading ideas of modern economics.

1. Inflation is everywhere and always a monetary phenomenon. This dictum is the most famous single thought associated with Milton Friedman. It was once, briefly in the early 1980s, the driving philosophy of the Federal Reserve. Its architect, and many of his students, have won the Nobel Prize. But in practice, monetarism has been completely, silently abandoned. Measures of money (notably M2) have been growing rapidly for years, with no inflationary effect. Monetarism as such is, today, an academic dead letter. There wasn't one monetarist topic on the AEA's calendar this year, and a new academic monetarist hasn't emerged in decades.

And yet, the signal policy achievement of the monetarist movement remains intact. Thirty years ago, Friedman-style monetarists wiped out all alternative theories of inflation. The ideas of "cost push" and "wage-price spirals," on which the successful anti-inflation strategies of the 1960s had been based, disappeared. To this day, there exist no alternatives for fighting inflation, except higher interest rates, recession, and unemployment. These are the hard measures, the brutal measures, for which we have the monetarists to thank.

2. Full employment without inflation is impossible. Four years ago, virtually all "serious" economists, including many self-described Keynesians, agreed: There existed a "natural rate of unemployment." This was in the vicinity of 6 percent, and below it inflation was certain to rise. The number, it

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turns out, had no basis in serious study; it was first made up by Robert J. Gordon as an illustration for his textbook. Since that time, unemployment has been continuously below 6 percent, without rising inflation. It is now almost exactly 4 percent, the formal target of the Full Employment Act. Faced with the embarrassing facts, only a handful of economists continue to defend the natural rate idea.

And yet, the natural rate movement still influences policy. Some of its survivors vote on the Federal Reserve's Open Market Committee. They are presently driving interest rates upward on precisely the pretext that low unemployment must otherwise soon bring rising inflation. It is a notion for which no evidence exists. And except for the damage that higher interest rates will do, it would be hard not to laugh.

3. Rising pay inequality stems from technological change. "Skill-biased technological change" became in the 1990s the profession's pet rationale for the splitting apart of the pay structure. Translation: The "markets" were rewarding those talented and farsighted enough to acquire new skills, particularly in the computer age. This position is now dismissed by all with a serious grip on the facts. Among other things, the rise in pay inequalities, which had not been timed carefully in the first studies, occurred largely before the wide distribution of personal computers. And the theory cannot account at all for declining pay inequalities after 1994, just when the diffusion of computers and information technologies was speeding up.

And yet, the notion that education can cure the inequality problem remains a staple of economics teaching. It also remains the central policy approach to inequality of "third way" politicians in the United States and Europe, including President Clinton. Once again, conventional policy thought lingers on, even as the research fad has faded out.

4. Rising minimum wages cause unemployment. A furious fight on this issue ensued as recently as 1995 when two distinguished researchers, Alan Krueger of Princeton and David Card of the University of California, Berkeley, broke ranks to declare that the evidence contradicted this thesis. Since then, the minimum wage has gone up twice, and unemployment has continued to decline. Card and Krueger were right—and so was their fundamental criticism of basic labor market theory.

And yet, you will not find more than a grudging acknowledgment of this in economics textbooks, virtually all of which will continue to teach false propositions to new generations of students. Nor have labor market economists thrown their professional weight behind a rising minimum wage.

5. Sustained growth cannot exceed 2.5 percent per year. This lulu was a compound of two errors: the idea that productivity growth was fixed, by mysterious forces, at less than 1.5 percent, and the idea that the growth of the labor force could not long exceed another percent or so. But it turns out that productivity growth picks up when unemployment is low

(one entirely sensible reason being that businesses make better use of labor). And it also turns out that there are more potentially employable people out there, after three decades of policy-imposed stagnation, than the economists thought. Even at 4 percent measured unemployment, the economy has been zipping along at 3.5 percent growth or better for several years. In fact, present dangers to growth come very much more from unfounded worries about capacity constraints and labor shortages than from the constraints and shortages themselves.

Economically Correct

The evidence flatly contradicts each of the five dogmas I have just listed.

Why is this so? The reason is fairly clear. Leading active members of today's economics profession, the generation presently in their 40s and 50s, have joined together into a kind of *Politburo for Correct Economic Thinking*.

As a general rule—as one might expect from a gentleman's club—this has placed them on the wrong side of every important policy issue, and not just recently but for decades. They predict disaster where none occurs. They deny the possibility of events that then happen.

The prevailing theory is the idea that price and quantity are set in free competitive markets through the interaction of supply and demand. It is this idea, and no other, that lies at the core of the economist's way of thinking. And it is also the source of the profession's problem in getting almost anything important right.

Galbraith (2001) How the Economists Got It Wrong

3.6 John Maynard Keynes

Keynes famously said of politics' tendency to follow economics with a lag:

'Practical men, who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back.'

On Scarcity Extinction (Lanchester)

Reinert

John Maynard Keynes was not only right about fi nancial crises, but his advice to poor peripheral countries, in the early 1930s, should be given to poor countries today, adapted to the current technological context of course. Following the fi rst period of globalization, Keynes recommended a certain measure of deglobalization in order to promote peace:

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*I sympathize, therefore, with those who would minimize, rather than with those who would maximize, economic entanglement among nations. Ideas, knowledge, science, hospitality, travel—these are the things which should of their nature be international. But let goods be homespun whenever it is reasonably and conveniently possible, and, above all, let fi nance be primarily national. Yet, at the same time, those who seek to disembarrass a country of its entanglements should be very slow and wary. It should not be a matter of tearing up roots but of slowly training a plant to grow in a diff erent direction.

For these strong reasons, therefore, I am inclined to the belief that, aft er the transition is accomplished, a greater measure of national self- suffi ciency and economic isolation among countries than existed in 1914 may tend to serve the cause of peace, rather than otherwise. At any rate, the age of economic internationalism was not particularly successful in avoiding war; and if its friends retort, that the imperfection of its success never gave it a fair chance, it is reasonable to point out that a greater success is scarcely probable in the coming years

Reinert (2011) The terrible simplifiers (pdf)

John Maynard Keynes's famous 1930 essay "The Economic Possibilities for Our Grandchildren." Keynes speculated that if the world continued to get richer we would naturally end up enjoying a high standard of living while doing much less work. He thought that "the economic problem" of having enough to live on would be solved, and "the struggle for subsistence" would be over:

When the accumulation of wealth is no longer of high social importance, there will be great changes in the code of morals. We shall be able to rid ourselves of many of the pseudo-moral principles which have hag-ridden us for two hundred years, by which we have exalted some of the most distasteful of human qualities into the position of the highest virtues. We shall be able to afford to dare to assess the money-motive at its true value. The love of money as a possession—as distinguished from the love of money as a means to the enjoyments and realities of life—will be recognized for what it is, a somewhat disgusting morbidity, one of those semi-criminal, semi-pathological propensities which one hands over with a shudder to the specialists in mental disease.

The world has indeed got richer, but any such shift in morals and values is hard to detect. Money and the value system around its acquisition are fully intact. Greed is still good.

The study of hunter-gatherers, who live for the day and do not accumulate surpluses, shows that humanity can live more or less as Keynes suggests. It's

just that we're choosing not to. A key to that lost or forsworn ability, Suzman suggests, lies in the ferocious egalitarianism of hunter-gatherers.

Lanchester (2017) The Case against Civilization

Tankus on Keynes

In the General Theory, Keynes focuses on defining and refining his idea of "Effective Demand". The key difference between aggregate demand and effective demand — and the most important element for our purposes — is that effective demand refers to the expectations of "entrepreneurs". Effective demand is not simply the actual sums of money being spent, or preparing to be spent, "out there". In our world, we can simply think of the expectations of firms rather than "entrepreneurs". If those in charge of firms are pessimistic about future sales, effective demand will be low. That's true regardless of the factors impacting aggregate demand.

Of course, in the immediate future, it is hard to imagine this kind of mismatch sustaining itself. If a firm doesn't produce because it expects its products to remain unsold, the sales and market share growth of its competitors will likely change its tune. It does not, after all, take all that much to restart production that has been recently mothballed (abstracting from sudden bottlenecks of key inputs).

Keynes understood this point well, which is why he divided expectations into two types. "Short term" expectations referred to the expectation that a firm can sell what it can produce with the plant and equipment it already controls. "Long term" expectations are "concerned with what the entrepreneur [firm] can hope to earn in the shape of future returns if he purchases (or, perhaps, manufactures) 'finished' output as an addition to his capital equipment". In other words, long term expectations relate to whether the sales will be there to make building more capacity, or even an entire new factory, worth it.

Here lies the issue. Keynes highlights that: "The actually realised results of the production and sale of output will only be relevant to employment in so far as they cause a modification of subsequent expectation". If sales growth in 2021 or 2022 doesn't lead to expectations of higher sales in 2027 and 2028, businesses have no reason to invest in plant and equipment with multi-year, perhaps even multi-decade, lifespans.

Now it is likely that years upon years of annual sales growth could eventually align "short term" and "long term" expectations. However, that would take quite a long time. This possibility is also being currently closed by the Federal Reserve. Chairman Powell is doing his best to validate business expectations that effective demand has not increased by lowering aggregate demand today. In a sense, interest rate policy is closing the gap by perversely lowering short term expectations until they are in line with long term expectations. Even more perversely, their very unwillingness to invest in new capacity has contributed to the elevated CPI readings, which have led to elite pressure on the Federal

Reserve to lower inflation through choking demand.

If we can't quickly break through pessimistic expectations that are lowering "long term effective demand" by boosting "short term effective demand", we need to either directly invest in additional capacity or insure firms against negative surprises in the future.

Tankus (2022) Insuring The Oil and Gas Industry

Tooze on Keynes

As Keynes himself acknowledged in the preface to the German edition to the General Theory, his macroeconomic theory was "much more easily adapted to the conditions of a totalitarian state". And on that score the feeling was mutual. Mussolini, who unlike Hitler was something of an intellectual, read and liked Keynes's 1926 essay, "The End of Laissez Faire".

So it is not economics as such that draws a sharp line between Keynesianism and authoritarianism. In the case of Keynes himself there can be no doubt that his personal politics and values made fascism distasteful to him. But there is also a more basic answer, which goes back to the three structural conditions that define historic fascism: Anglo-American hegemony; total war; and class war. On all three dimensions one can see Keynes staking out positions that are effectively an answer to the fascist and authoritarian temptation that Mattei skewers in more conventional liberal economists in Italy and that Keynes himself clearly knew to be real.

If Anglo-American hegemony was one of the ultimate targets of fascist politics, Keynes was a self-conscious architect of Anglo-American hegemony. Both after World War I and World War II he worked feverishly to shape a postwar world that would moderate the resentment of the defeated powers, constrain the victors, reduce the chance of radicalization, or, in other words, "neutralize" them. With this in mind, as I hinted in my book Deluge, Keynes should be seen as the anti-Schmitt.

On total war mobilization, the central preoccupation of fascist domestic politics, Keynes too was the architect of a strategy of total mobilization. But his strategy was designed to minimize the disruptive pressure of inflation on the home front and thus secured a maximum for the war effort with a minimum of coercion. He was also an advocate of a strategy of "Homes Fit for Heroes" i.e. a strategy of securing cooperation and mobilization by promises of large-scale postwar reform. Both were clearly designed to address the risk of escalating distributional struggles on the home front without resorting either to massive indoctrination or coercion - the fascist solutions.

But the basic thread running through all of Keynes thought was the need to contain the risk of escalating class struggle. Why? Because Keynes clearly understood, and Mattei's Italian history shows, that class war was the ultimate challenge to Keynes's strategy of liberal balance. When push came to shove, as

it did in Italy in the early 1920s, Keynes knew which side he was on. As he put it in, "Am I a Liberal?" in the summer of 1925:

Ought I, then, to join the Labour Party? Superficially that is more attractive. But looked at closer, there are great difficulties. To begin with, it is a class party, and the class is not my class. If I am going to pursue sectional interests at all, I shall pursue my own. When it comes to the class struggle as such, my local and personal patriotisms, like those of every one else, except certain unpleasant zealous ones, are attached to my own surroundings. I can be influenced by what seems to me to be justice ad good sense; but the Class war will find me on the side of the educated bourgeoisie.

Avoiding the condition of extremis that would evacuate the space for liberalism was precisely what Keynes's political economics was ultimately intended to do. Conventional gold standard economics was a ticking time bomb as exemplified by the deflationary pressure created by Britain's return to gold and the general strike that provoked in the spring of 1926. The only way to escape such ruinous confrontations that created the setting for the disastrous collaboration between liberalism and authoritarianism was to convert both the center-ground and the democratic left-wing of politics to an expansionary Keynesian view of economics.

[Tooze (2022) The centenary of Mussolini's "March on Rome" and the dilemmas of the liberal expert class.](https://adamtooze.substack.com/p/chartbook-166-19222022-the-centenary]

Feygin on Keynes

When I read Keynes' General Theory tThe part that really appealed to me was how he structured his argument. The GT is set up as an argument against "Say's Law" – that supply creates its own demand through a price adjustment. Alex William's blog is what you want to read if you want a chapter-by-chapter discussion of how the book is written and what Keynes argues. However, for our purposes, I want to emphasize that Keynes sets up his critique of Say's Law not by rejecting it outright but by noting that it is a "special case." In other words, the law can hold under some circumstances, but it is more informative in that it fails than that it holds at all times. The logic is really, really clean. Say's Law is more normative than it is a law, and if it is not a law, then you have to do a lot of work to make it real: work that can be more destructive than helpful. In fact, I think that's a lot of what conservative economic thought comes down to; making Say's Law real.

I think we have the same problem when it comes to theories of growth and development in the context of the dollar debate and other related matters. We have a lot of "special cases" that are being discussed as theories.

Feygin (2023) Theory and History

3.7 Paul Romer

NY Times on Paul Romer

Paul Romer was once Silicon Valley's favorite economist. The theory that helped him win a Nobel prize — that ideas are the turbocharged fuel of the modern economy — resonated deeply in the global capital of wealth-generating ideas. In the 1990s, Wired magazine called him "an economist for the technological age." The Wall Street Journal said the tech industry treated him "like a rock star."

Not anymore.

Today, Mr. Romer, 65, remains a believer in science and technology as engines of progress. But he has also become a fierce critic of the tech industry's largest companies, saying that they stifle the flow of new ideas. He has championed new state taxes on the digital ads sold by companies like Facebook and Google, an idea that Maryland adopted this year.

And he is hard on economists, including himself, for long supplying the intellectual cover for hands-off policies and court rulings that have led to what he calls the "collapse of competition" in tech and other industries.

"Economists taught, 'It's the market. There's nothing we can do,' "Mr. Romer said. "That's really just so wrong."

Mr. Romer's current call for government activism, he said, reflects "a profound change in my thinking" in recent years. It also fits into a broader reevaluation about the tech industry and government regulation among prominent economists. They see markets — search, social networks, online advertising, e-commerce — not behaving according to free-market theory. Monopoly or oligopoly seems to be the order of the day.

Of all the economists now taking on big tech, though, Mr. Romer is perhaps the most unlikely. He earned his undergraduate and doctoral degrees from the University of Chicago, long the high church of free-market absolutism, whose ideology has guided antitrust court decisions for years.

Mr. Romer spent 21 years in the Bay Area, mostly as a professor first at Berkeley and then Stanford. While in California, he founded and sold an educational software company. In his research, Mr. Romer uses software as a tool for data exploration and discovery, and he has become an adept Python programmer. "I enjoy the solitary exercise of building things with code," he said.

"People I like are frequently unhappy with me," he said.

Mr. Romer, who joined the faculty of New York University a decade ago, said that preparing for his Nobel lecture in 2018 prompted him to think about the "progress gap" in America. Progress, he explained, is not just a matter of economic growth, but should also be seen in measures of individual and social well-being.

n the United States, Mr. Romer saw worrying trends: a decline in life expectancy; rising "deaths of despair" from suicides and drug overdoses; falling rates of labor participation for adults in their prime working years, from 25 to 54; a growing wealth gap and increasing inequality.

Such problems, to be sure, have many causes, but Mr. Romer believes one contributing cause has been an economics profession that belittled the importance of government. His new growth theory recognized that the government played a vital part in scientific and technological progress, but mainly by funding basic research.

Looking back, Mr. Romer admits that he was caught up in the "small government bubble" of the time. "I substantially underestimated the role of the government in sustaining progress," he said.

"For real progress, you need both science and government — a government that can say no to things that are bad," Mr. Romer said.

NY Times

3.8 Frederick Soddy

Reinert

The Nobel Prize winner that predicted a crisis between nature and capital.

A scientist who used much of his time on economics was rewarded a Nobel Prize in 1921. Admittedly, Frederick Soddy (1877–1956) received the prize in chemistry, for his work on radioactivity. But in the period from 1921 to 1934 Soddy wrote four books campaigning for a radical restructuring of the global monetary system.

'There is no wealth but life' is the basic message.

Placing money as a kind of enemy for humankind. Here is a new type of economics: we have standard neoclassical economics, based on the metaphor of equilibrium between supply and demand, and we have evolutionary (Schumpeterian) economics based on a metaphor from biology (innovations as mutations). Soddy offered us a third angle: economics rooted in physics, in the laws of thermodynamics.

Humans survive, he wrote, based on the use of natural resources. If these resources are exhausted, we shall be in deep trouble. At the time Soddy was not taken seriously, but he is now seen as a forerunner for ecological economics. Romanian-born economist Nicholas Georgescu-Roegen (1906–1994) continued working in this tradition.

Soddy points to the fundamental difference between the biophysical resources and consumables — what he calls 'real wealth' — that are subject to the laws of thermodynamics. This wealth will rot, rust, wear out, or be consumed. Money

and debt — which he calls 'virtual wealth' — are only subject to the laws of mathematics. Money can grow without limits, whereas the real economy cannot. In this mismatch, says Soddy, lies the roots of most of our economic problems.

in a very informative New York Times op-ed in 2009, US ecological economist Eric Zencey (1953–2019) notes that Frederick Soddy had distilled his vision into five policy prescriptions, of which four since have become conventional wisdom: to abandon the gold standard, to let international exchange rates float, to use federal surpluses and deficits as macroeconomic policy tools that could counter cyclical trends, and establish bureaus of economic statistics (including a consumer price index). Soddy's fifth proposal — the only one that remains outside today's bounds of conventional wisdom — was to stop banks from creating money (and debt) out of nothing.

Reinert (2021) The Nobel Prize winner that predicted a crisis between nature and capital

3.9 Dennis Snower

Behavioural Economics can't fix it

This is probably the most exciting and fruitful time ever to become an aspiring economist. Why? Because economics is reaching its Copernican Moment – the moment when it is finally becoming clear that the current ways of thinking about economic behavior are inadequate and a new way of thinking enables us to make much better sense of our world. It is a moment fraught with danger, because those in power still adhere to the traditional conventional wisdom and heresy is suppressed.

Behavioral economics began as a compendium of "anomalies" that the neoclassical system could not explain. Some of these anomalies have been addressed by behavioral theories such as prospect theory or social preference theory, but many have not. Different theories explain different anomalies; there is no overarching theory to explain them all.

And since behavioral economics is devoted primarily to individual fixes, it has retained many of the basic axioms above, such as methodological individualism, consumption as central for wellbeing, understanding economic events in terms of probability theory and the tendency toward equilibrium. However, these axioms are also open to question.

Regarding methodological individualism, who says that the individual is the only level of selection? After all, Homo Sapiens owe their evolutionary success largely to their ability to cooperate with one another, in larger number than other mammals.

Regarding consumption as central to wellbeing, who says that our material appetitive needs dwarf our social needs, such as the need to care and be cared

for, or the need to belong to a community, or the need to shape your fate through your own efforts?

Regarding our ability to understand economic events in terms of probability theory, who says that we can imagine all conceivable future states of the world and that we can assign probabilities to each of them? After all, many of the most important events that young people look forward to in the future — whom they will marry, where they will live, what jobs they will get, how much they will earn, what their state of health will be, when they will retire, how long they will live — are simply unknown unknowns.

Not only has the neoclassical system encountered endless discrepancies between predictions and evidence and thus has accumulated endless fixes, but it also has had little success in addressing the great economic questions of our time. For example: If the free-market system is meant to satisfy our needs efficiently, why is it despoiling our environment? Why is it generating inequalities and other inequities that threaten the social cohesion of our societies? Why does it leave so many people economically insecure, vulnerable to unemployment and trapped in dead-end jobs? Why does it not correct for the excesses of consumerism, workaholism and digital addictions, frequently leading to anxiety, depression, burnout, substance abuse and crime? Why is it giving us so little guidance in promoting public compliance with social distancing rules during the Covid-19 pandemic, even though such compliance has economic causes and consequences? Why does it keep so many businesses focused on short-term profit and shareholder value, even though so many business leaders are genuinely concerned about the environment and the wellbeing of their customers and employees?

Now the practitioners' patience with mainstream economics is wearing thin. Unlike the academic economists, the practitioners must actually address the great economic questions of our time.

Nor can the practitioners be content with the economists' standard policy toolbox, since these instruments are obviously not overcoming the growing problems of climate change, social conflict, "deaths of despair," containment of the Covid-19 pandemic, and much more.

And finally, the practitioners are no longer enamored by the mainstream narrative on the division of responsibilities.

Consumers in their millions are taking an interest in the social, political and environmental consequences of consumption and production activities, school children are out in the streets in protest about climate change, international organizations are beginning to measure economic performance beyond GDP (such as through the OECD's Better Life Index and the UN's Sustainable Development Goals), businesses are beginning to measure business performance beyond shareholder value (such as through Environmental, Social and Governance criteria along with the initiatives of the WEF International Business Council, the OECD Business for Inclusive Growth coalition, the Value Balancing Initiative,

the British Academy's Future of the Corporation programme), national governments are beginning to design budgets with regard to notions of wellbeing that extend beyond consumption of goods and services (such as New Zealand' wellbeing budget). In short, the practitioners are not waiting for the mainstream economics profession to adjust to reality; instead, they are forging ahead on multiple fronts, extending the domain of economics to the existential challenges we face.

Fortunately, we now have access to a powerful body of thought that can guide this new encounter. The evolution of our natural world can be understood in terms of variation, replication and selection. The evolution of ideas can be understood in such terms as well: new ideas keep cropping up; they are transmitted from person to person; and the ideas that get selected to survive are often to be ones that enable us to navigate our environment most effectively. Selection can act not only on individuals, but also on groups. "Selfishness beats altruism within groups. Altruistic groups beat selfish groups. Everything else is commentary." (E.O. Wilson and D.S. Wilson (2007), "Rethinking the Theoretical Foundations of Sociobiology," Quarterly Review of Biology, 82(4), 327-348) The level of functional organization thus depends on the relative strength of withinand between-group selection.

This is a different starting point from the one underlying mainstream economics. The discipline of economics is based on classical physics, i.e. the inanimate world. Evolution, by contrast, is appropriate to the animate world. Not a bad point of departure for economics. After all, humans are living creatures. If we choose this path, economics will be reaching its Darwinian – not Copernican – Moment.

This is why now is probably the most exciting and fruitful time ever to become an aspiring economist.

Snower

3.10 Adam Smith

The invisible hand, it turns out, belongs to the long arm of investors in New York, Toronto, Zurich and other financial capitals. (Sasja Beslik)

Richard Smith

Adam Smith's economics is an idea whose time has passed. Specialization, planless, anarchic production for market, single-minded pursuit of profit maximization at the expense of all other considerations, was the driving engine that generated the greatest advances in industrial and agricultural productivity, and also the greatest accumulation of wealth the world has ever seen. But that same engine of development, now immensely larger and running at full throttle, is overdeveloping the world economy, overconsuming the world's resources, flooding the world's waters and atmosphere with toxic and warming pollution,

and propelling us off the cliff to ecological collapse, if not extinction. Adam Smith's fatal error – fatal for us – was his assumption that the "most effectual" means of promoting the public interest, the common good of society, is to just ignore it and focus exclusively on the pursuit of individual economic self-interest.

Even with respect to the public interest of the economic welfare of society, Smith's thesis that the invisible hand of the market would automatically bring about "universal opulence which extends itself to the lowest ranks of the people" as "a general plenty diffuses itself through all the different ranks of the society" could hardly have been more mistaken. Two-and-a-quarter centuries after Smith wrote, global capitalist development has produced the most obscenely unequal societies in history.

Two-and-a-quarter centuries after Smith wrote, global capitalist development has produced the most obscenely unequal societies in history, with half the world living on less than two dollars a day, billions of people living in desperate poverty, many times more than the entire population of the world in Smith's day, while a tiny global elite, even just a few hundred individuals, concentrate an ever-growing share of the world's wealth, which they lavish on "opulence" on a hitherto unimagined scale. On this breath-taking failure of social scientific prediction alone, Smith's economic theory ought to have been ridiculed and drummed out of the profession long ago, as such a comparable predictive failure would have been in the natural sciences.

With respect to the public interest of broader societal concerns, which today would include the environment, Smith's philosophy of economic individualism as the means to maximize the public interest – the common good of society – is not only completely wrongheaded, it's suicidal. And it is completely at odds with the world's scientists and scientific bodies who are crying out for a plan – a plan to stop global warming, to save the forests, to save the fisheries, to stop ocean acidification, to detoxify the planet, to save the thousands of creatures from extinction, etc.

Leaving the global economy in the hands of private corporations, subject to the demands of the market, is the road to collective eco-suicide.

Richard Smith (2015) Green Capitalism (pdf)

Noah Smith on Adam Smith

There's a sort of popular myth that economics began with Adam Smith's declaration that the "invisible hand" of the market would lead to a good society. In fact, while Smith did recognize the importance of market forces and self-interest, his vision of a good society didn't stop there. Here are some Adam Smith quotes:

1. "Our merchants and masters complain much of the bad effects of high wages in raising the price and lessening the sale of goods. They say nothing concerning the bad effects of high profits. They are silent with regard to the pernicious effects of their own gains."

2. "It is not very unreasonable that the rich should contribute to the public expense, not only in proportion to their revenue, but something more than in that proportion."

- 3. "No society can surely be flourishing and happy of which by far the greater part of the numbers are poor and miserable."
- 4. "Wherever there is great property there is great inequality. For one very rich man there must be at least five hundred poor, and the affluence of the few supposes the indigence of the many."
- 5. "People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices."

And so on. Adam Smith decries the existence of inequality and poverty, blames property rights for this inequality, advocates progressive taxation as a remedy, and is innately suspicious of profit. He sounds more like Thomas Piketty than Milton Friedman.

Smith's suspicion of profit and enthusiasm for redistribution are baked into the very core of economic theory. The zero-profit condition says that in a well-functioning market, the rate of profit should be no more than the cost of capital—if you see companies making big margins, you should suspect that the market isn't working right. This is the basis of the antitrust movement, which is again gaining strength in America with the appointment of Lina Khan to chair the FTC. Though there are a few populist firebrands in the antitrust movement, much of it is an intellectual movement driven by economists.

Meanwhile, Smith's call for redistribution is inherent in the Second Welfare Theorem, considered one of the basic theorems of economics — and something that every intro student is taught. The Second Welfare Theorem says that if you change the initial distribution of wealth in society, you can basically get any outcome you like. This puts the burden of proof on those who think we shouldn't redistribute wealth — it forces them to bring proof that the harms from taxation are just too high. Though there have been some economists who opposed redistribution, enthusiasm for the idea is traditionally very dominant within the profession. Even Milton Friedman, that great champion of laissez-faire, supported the idea of a negative income tax that would give people more cash the poorer they were.

And though economists do generally believe that very high taxes have some costs, a 2013 survey found that 97% of economists favored federal tax hikes, compared to only two-thirds of the general public, and a 2020 survey finds that most economists think raising the top marginal rate wouldn't hurt economic growth.

Noah Smith (2015) Is economics an excuse for inaction?

Austin on Smith

In 1714's The Fable of the Bees – among the first panegyrics to the market system - Bernard de Mandeville emphasized the market's seemingly magical power to transmute the individual 'Vice' of greed into the 'Virtue' of greater good. Not only did the market have the power to neutralize greed, but it also positively required greed as, in modern terms, the multiplier of effective demand and hence the driver of the economy overall. 73 De Mandeville's commendation of greed met strenuous and widespread objection. John Wesley, the contemporary theologian, condemned Mandeville as a latter-day Machiavelli: '...till now I imagined there had never been in the world such a book as the works of Machiavel. But de Mandeville goes far beyond it.' 74 But events took their course, with the practical benefits of markets asserting themselves, such that Adam Smith – 60 years later! – could offer a more palatable account of market dynamics. Mandeville's 'vice' became 'self-love' and 'self-interest' in Smith's telling. Where Mandeville had been the radical breaking new ground, Smith had the luxury of placing a professorial seal on the matter for an audience already won over.

At the heart of this shift was a major cultural reappraisal of the character of 'greed' – or 'Vice' or 'self-interest' or 'self-love'. Over a relatively short period, human culture flipped from a narrative of 'greed is bad' to an exciting new hypothesis: 'greed might be OK, you know'. Over time, conviction would grow. By 1987, of course, 'greed was good'.

Austin (2021) Market-led Sustainability is a 'Fix that Fails'... (pdf)

3.11 Milton Freeman

Richard Smith

Adherents of the Chicago school simply deny that there is any environmental problem, certainly none that the market can't solve. Thus, in a 1991 interview, Milton Friedman ridiculed environmentalists with his trademark condescending and nasty vitriol:

"The environmental movement consists of two very different parts. One is the traditional conservation groups, who want to save resources et cetera. The other is a group of people who fundamentally aren't interested in conservation at all, and who aren't primarily interested in pollution. They're just long-term anticapitalists who will take every opportunity to trash the capitalist system and the market economy. They used to be communists or socialists, but history has been unkind to them, and now all they can do is complain about pollution. But without modern technology, pollution would be far worse. The pollution from horses was much worse than what you get from automobiles. If you read descriptions of the streets of New York in the nineteenth century..."

And in his sadoeconomic screed *Free to Choose*, the anti-communist warhorse complained that:

"...whatever the announced objectives, all of the movements of the past two decades—the consumer movement, the ecology movement, the back-to-the-land movement, the hippie movement, the organic food movement, the protect-the-wilderness movement, the zero-population-growth movement, the 'small is beautiful' movement, the antinuclear movement—have always had one thing in common. All have been antigrowth. They have been opposed to new developments, to industrial innovation, to the increased use of natural resources. Agencies established in response to these movements have imposed heavy costs on industry after industry..." [and so on].

Friedman's redneck eco-know-nothingism has long defined the far-right wing of US economic theology but his confident assumption that endless growth is sustainable is shared by the entire profession of mainstream economists.

Richard Smith (2015) Green Capitalism (pdf)

3.12 Paul Krugman

Richard Smith

If we look at the far-left extreme of acceptable economic thought, say Paul Krugman, we hear the same "can't stop progress" mantra: writing in the New York Times Krugman wonders "if there isn't something a bit manic about the pace of getting and – especially – spending in fin-de-siècle America":

"But there is one very powerful argument that can be made on behalf of recent American consumerism: not that it is good for consumers, but that it has been good for producers. You see, spending may not produce happiness, but it does create jobs, and unemployment is very effective at creating misery. Better to have manic consumers American style, than the depressive consumers of Japan... There is a strong element of rat race in America's consumer-led boom, but those rats racing in their cages are what keep the wheels of commerce turning. And while it will be a shame if Americans continue to compete over who can own the most toys, the worst thing of all would be if the competition comes to a sudden halt."

Paul Krugman is a brilliant economist but the Smithian premises of his theoretical framework cannot allow that we could actually run out of resources to make all those toys.

Richard Smith (2015) Green Capitalism (pdf)

3.13 Herman Daly

Parrique

7 concepts from Herman Daly that will change your vision of economics.

- 1/ The ENVIRONMENTALLY EXTENDED INPUT-OUTPUT TABLE: bringing purely economic interactions, purely environmental interactions, and interactions between the economy and the environment into one comprehensive framework.
- 2/ The ENDS-MEANS SPECTRUM: political economy is the academic discipline that studies the use of intermediate means to produce intermediate ends.
- 3/ SCALE, DISTRIBUTION, ALLOCATION: a good scale is one that is sustainable, a good distribution is one that is just, and a good allocation is one that is efficient.
- 4/ The ECONOMIC PLIMSOLL LINE: the scale of the economy, like the cargo limit on a ship, should be determined first, and then distribution and allocation can follow.
- 5/ The INDEX OF SUSTAINABLE ECONOMIC WELFARE (ISEW) as an alternative indicator of prosperity to replace Gross Domestic Product (GDP).
- 6/ UNECONOMIC GROWTH: When growth has more costs than benefits, it becomes "uneconomic".
- 7/ STEADY-STATE ECONOMY: "an economy with constant population and constant stock of capital, maintained by a low rate of throughput that is within the regenerative and assimilative capacities of the ecosystem."

Parrique (2022) Twitter Thread

Richard Smith

Beyond growth or beyond capitalism?

Recent publications have revived interest in Herman Daly's proposal for a Steady-State Economy. This paper argues, first, that the idea of a steady-state capitalism is based on untenable assumptions, starting with the assumption that growth is optional rather than built- into capitalism. I argue that irresistible and relentless pressures for growth are functions of the day-to-day requirements of capitalist reproduction in a competitive market, incumbent upon all but a few businesses, and that such pressures would prevail in any conceivable capitalism. Secondly, this paper takes issue with Professor Daly's thesis, which also underpins his SSE model, that capitalist efficiency and resource allocation is the best we can come up with. I argue that this belief is misplaced and incompatible with an ecological economy, and therefore it undermines Daly's own environmental goals. I conclude that since capitalist growth cannot be stopped, or even slowed, and since the market-driven growth is driving us toward collapse, ecological economists should abandon the fantasy of a steady-state capitalism and get on with the project figuring out what a post-capitalist economic democracy could look like.

Capitalism without growth?

In the 1970s and 80s, Herman Daly launched a broadside assault on the academic discipline of economics assailing its dogmatic and neo-totalitarian embrace of neoclassical economics and its willful blindness to our looming environmental crisis. In ground-breaking and widely influential books and articles Daly assailed the "stupor of economic discourse" by holding up to his colleagues what he called the "wild facts" of our ecological crisis: the growing hole in the ozone shield, the alarming evidence of rising CO2 levels, the shocking rates of natural resource consumption, the frightening rates of extinction and loss of biodiversity and so on, which mainstream economists ignored (and most continue to ignore to this day). The ecological crisis is caused, Daly argued, by too much growth: "the scale of human activity relative to the biosphere has grown too large" and most especially, by ever- growing consumption in the advanced industrialized countries. Daly attacked the mainstream's "idolatrous" "religion of growth," its "growthmania," its "fetish" of limitless consumption. 13 Daly's critique of the neoclassical defense of growth is probably the most devastating critique to come from within the profession. But despite his "radical" break with the mainstream's fetish of growth, Daly did not at all break with his colleagues' fetish of the market organization of production, the capitalist market economy. On the contrary. His proposal for a Steady-State Economy was based, he said, "on impeccably respectable premises: private property, the free market, opposition to welfare bureaucracies and centralized control." So in his Steady-State model, Daly embraces capitalism but he rejects the consequences of market-driven economic development, especially overconsumption and environmental destruction.

For more than 30 years Daly has chanted his mantra of "development without growth" but he has yet to explain, in any concrete way, how an actual capitalist economy comprised of capitalists, investors, employees and consumers could carry on from day to day in "stasis".

Daly rejects any such interference with market organization of production because, like his mainstream colleagues, he believes that "the market is the most efficient institution we have come up with" and the only option we have. 38 He can say this because he subscribes to a capitalist conception of efficiency. Capitalist economists since Adam Smith have defined economic efficiency from the standpoint of the production unit – the factory, mill, mine, etc. (which, conveniently, the capitalists own). So in capitalist terms, the most efficient production method, technology, or economic system is the one that gets the most output from the least input, so produces the cheapest widgets and generates the most product/sales/wealth for a given investment of labor and raw materials. So Daly says the market "is wonderful for allocation". "Markets singlemindedly aim to serve allocative efficiency."

Richard Smith (2015) Green Capitalism (pdf)

Vettese

3.14 Wassily Leontief

Leontief

An uneasy feeling about the present state of our discipline has been growing in some of us who have watched its unprecedented development over the last three decades. This concern seems to be shared even by those who are themselves contributing successfully to the present boom. They play the game with professional skill but have serious doubts about its rules.

The trouble is caused, however, not by an inadequate selection of targets, but rather by our inability to hit squarely any one of them. The uneasiness of which I spoke before is caused not by the irrelevance of the practical problems to which present day econo- mists address their efforts, but rather by the palpable inadequacy of the scientific means with which they try to solve them.

The consistently indifferent performance in practical applications is in fact a symptom of a fundamental imbalance in the present state of our discipline. The weak and all too slowly growing empirical foundation clearly cannot support the proliferating superstructure of pure, or should I say, speculative economic theory.

Much is being made of the widespread, nearly mandatory use by modem economic theorists of mathematics. To the extent to which the economic phenomena possess observable quantitative dimensions, this is indisputably a major forward step. Unfortunately, any one capable of learning elementary, or preferably advanced calculus and algebra, and acquiring acquaintance with the specialized terminology of economics can set himself up as a theorist. Uncritical enthusiasm for mathematical formulation tends often to conceal the ephemeral substantive content of the argument behind the formidable front of algebraic signs.

In the presentation of a new model, attention nowadays is usually centered on a step-by-step derivation of its formal properties. But if the author—or at least the referee who recommended the manu-script for publication—is technically com-petent, such mathematical manipulations, however long and intricate, can even with- out further checking be accepted as correct. Nevertheless, they are usually spelled out at great length. By the time it comes to interpretation of the substantive conclusions, the assumptions on which the model has been based are easily forgotten. But it is precisely the empirical validity of these assumptions on which the useful-ness of the entire exercise depends.

What is really needed, in most cases, is a very difficult and seldom very neat assessment and verification of these assumptions in terms of observed facts. Here mathematics cannot help.

An attempt to compensate for the glaring weakness of the data base available to us by the widest possible use of more and more sophisticated statistical techniques. These are intended to stretch to the limit the meager supply of

facts.

Like the economic models they are supposed to implement, the validity of these statistical tools depends itself on the acceptance of certain convenient assumptions pertaining to stochastic properties of the phenomena which the particular models are intended to explain; assumptions that can be seldom verified.

Continued preoccupation with imaginary, hypothetical, rather than with observable reality has gradually led to a distortion of the informal valuation scale used in our academic community to assess and to rank the scientific performance of its members. Empirical analysis, according to this scale, gets a lower rating than formal mathematical reasoning.

Devising a new statistical procedure, however tenuous, that makes it possible to squeeze out one more unknown parameter from a given set of data, is judged a greater scientific achievement than the successful search for additional information that would permit us to measure the magnitude of the same parameter in a less ingenious, but more reliable way.

The pursuit of a more fundamental understanding of the process of production inevitably leads into the area of engineering sciences. To penetrate below the skin-thin surface of conventional consumption functions, it will be necessary to develop a systematic study of the structural characteristics and of the functioning of households, an area in which description and analysis of social, anthropological and demographic factors must obviously occupy the center of the stage.

Establishment of systematic cooperative relationships across the traditional frontiers now separating economics from these adjoining fields is hampered by the sense of self-sufficiency resulting from what I have already characterized as undue re- liance on indirect statistical inference as the principal method of empirical research.

An exceptional example of a healthy balance between theoretical and empirical analysis and of the readiness of professional economists to cooperate with experts in the neighboring disciplines is offered by Agricultural Economics as it developed in this country over the last fifty years. A unique combination of social and political forces has secured for this area unusually strong organizational and generous financial support. Official agricultural statistics are more complete, reliable, and systematic than those pertaining to any other major sector of our economy. Close collaboration with agronomists provides agricultural economists with direct access to information of a technological kind.

Leontief (1970) Theoretical Assumptions and Nonobserved Facts (pdf)

Feygin

Leonteif was closely connected to these figures. He was trained in St. Petersburg by Kondratieff and, after his move to Germany, completed his Ph.D. under

Bortkiewitz. You can see a lot of that heritage in Leonteif's approach to economics. The Input-Output method has the reputation of being empirical rather than theoretical but that's not really the case. Leonteif was never very friendly to institutionalists like Wesley Claire Mitchell and agreed that pure emperical stastical testing was not very useful to an economic theory.

However, the input output method itself is designed to add some illustration to intersectoral ties of the kind that were so central to the Legal Marxists. One of the ways we can see that heritage is through the centrality of technology to Leontief models. Leontief solves his model by assuming a static production function. In other words, unlike other econometric models, labor and capital don't act like perfect substitutes at the aggregate because each sector has a different coefficient that is in fixed proportions and can only shift through technical progress of different production choices. Such a change has remifications through the model. Leontief I-O models are thus comparative statics at all times.

Leontief never believed in any kind of automatic supply and demand co-determination. His first publication caused a debate with father of econometrics Ragnar Firsch because Leontief published on a method to determine supply and demand elasticities as separate functions. In his further development, Leontief rejected simultaneous equation approaches like the ones that came from Firsch's research program through Haavelmo and Larry Klein and the Cowles Commission tradition. The latter group believed that models could only be fit in the reduced form; the fully solved system of equations in which all endogenous variables are functions of exogenous variables. In mathematical terms, that means reducing a matrix of endogenous variables – the structural form – into a vector that, as a linear structure, can be estimated using a least squares method of regression. Leontief's models stayed at the structural level, meaning they relied on matrix inversions to inform inter-industry ties that supplied final demand. However, crucially, that meant that the only way to test a model was through surveying specific production functions since linear methods obscured the real functioning of technology.

Leontief methods are a big part of how we understand the economy to this day. They simply work better than many other emperical, econometric models because they are grounded in concrete realities of technical processes rather than assumptions about substituabilites. However, to really fulfill what Leontief wanted them to do – to help with the process of learning-by-monitoring they need to be put into a broader, politically embedded system of both data gathering and decision making. For that, we need other forms of governance models and mechanisms.

Feygin (2023) Economists We'll Be Talking About: Wassily Leontief

3.15 Friedrich Hayek

Austin on Hayek

One might place the 'free market' at the top of this structure today as being among the latest cultural developments, made possible by formal property rights. Interestingly, Hayek, for all that he bequeathed us the neoliberal trap we find ourselves in, offered a very helpful phrase for capitalism. He didn't much like the term, preferring to refer to the market system as the 'extended order of human cooperation'. He was alert to the idea that the market had emerged out of earlier human cooperation to form something substantially new. With hindsight, his mistake that we are now suffering from is that in his eagerness to limit the powers of government, which might easily stray to authoritarianism, he overestimated the degree to which the 'extended order' market system could fully supersede the underlying layers in promoting long-term human wellbeing.

Austin (2021) Market-led Sustainability is a 'Fix that Fails'... (pdf)

Jason Smith on Hayek

I am fully on board with the idea of a market as an information processing system, and that Hayek is key in the development of that idea. However, his essay The Use of Knowledge in Society [pdf] is at best out of date and should be relegated to the history of economic thought. There are a lot of hints at something that could make sense given our modern knowledge of information theory and communication, but nothing that does on close examination — only assertion and speculation.

To use a physics analogy, Hayek is Bohr, not Heisenberg. The general thrust of what would become quantum mechanics was pioneered by Bohr, but "old quantum theory" (as it is referred to these days) was wrong despite getting the leading order energy levels of the Hydrogen atom correct. It would take Heisenberg (and Schrodinger, and Dirac, and ...) to nail down quantum mechanics. However, it seems very few people have genuinely taken Hayek as a new starting point for a re-invigoration of the field.

There are so many small decisions made in an economy there is no feasible way to collect all of the information required. That is to say the economic state space is both large and dynamic on a scale too short to survey the entire space. In physics, this same problem is addressed by an emergent theory called thermodynamics — it depends not just on the "law of large numbers", but emergent concepts like entropy and temperature.

It is the movement of this fine-grained information throughout the economic state space that Hayek says is crucial to understanding economics:

The various ways in which the knowledge on which people base their plans is communicated to them is the crucial problem for any theory explaining the economic process, and the problem of what is the best way of utilizing knowledge initially dispersed among all the people is at least one of the main problems of economic policy—or of designing an efficient economic system.

This the primary place where Hayek both hints at the real problem, but is misguided about the solution. The issue is that the reason this information is invisible at the level of the macroeconomy is because of its scale, not because it is not communicated. In a complex modern economy, it is simply too large a state space to be communicated. It has millions, if not billions, of dimensions at the agent scale. We will never figure out how it is communicated and because we cannot actually compute a centrally planned solution given an objective function we will never be able to prove optimality.

Hayek proposes that the price mechanism provides the solution to the information problem he identifies.

Hayek first tells us there is a bunch of information that goes missing in statistical aggregates that needs to be communicated, but then turns around and says prices can communicate that information despite also dropping nearly all of it on the floor. "Don't worry," he says. "It keeps the relevant information! Trust me!"

The initial insight is there — that there is an immeasurable amount of fine-grained information that is fundamentally inaccessible at the level of the macroe-conomy due to the scale and dynamic nature of it. However, the suggestion prices magically capture the right information is no different than the assertion that planning the commanding heights is sufficient to run an economy. Saying that prices aggregate or communicate that fine-grained information is fundamentally wrong; saying that they detect the flow of that fine-grained information is plausible and there are real world examples we can point to. Regardless, the fine-grained information is still invisible at the macro scale.

Information equilibrium is a concrete economic theory built on information flow in a social system. In contrast, there is no concreteness to Hayek's arguments even where they are not self-contradictory.

Hayek's essay is relevant background to modern economic thought, having influenced the field (mostly later on, via Milton Friedman). However it is probably better to know of the essay than to know the contents of the essay itself.

The essay conveys a kind of aristocratic detachment of someone who just enjoys hearing themselves talk.

The main problem in economics is understanding how dispersed knowledge required for planning is communicated, and the main problem of economic policy is finding the best way to use that knowledge.

This is supposed to be a genuine statement of the thesis.

Certainly, when one is stumbling in the dark around a new idea the language is not always clear. I do think Hayek was genuinely stumbling on to a new idea

relevant in the nascent information age — one that germinated too early, before the advent of information theory.

Smith (2023) On Hayek's "The Use of Knowledge in Society" (1945)

3.16 William Nordhaus

Bichler Nitzan

The LA Times called the bluff: William D. Nordhaus won the Nobel prize in economics for a climate model that minimized the cost of rising global temperatures and undermined the need for urgent action.

'The economics Nobel went to a guy who enabled climate change denial and delay':

It has been a scary month in climate science. Hurricane Michael and a frightening report from the U.N. Intergovernmental Panel on Climate Change underlined the potential costs of human-caused global warming. Then to add insult to injury, William Nordhaus won the economics Nobel Prize. Nordhaus was recognized for his work developing a model to guide policymakers on how best to address the costs and benefits of limiting greenhouse gases. That's a noble goal, but Nordhaus' work has no more helped to defuse the threat of global warming than Neville Chamberlain's appeasement of Germany prevented World War II. Rather, Nordhaus' low-ball estimates of the costs of future climate change and high-ball estimates of the costs of containing the threat contributed to a lost decade in the fight against climate change, lending intellectual legitimacy to denial and delay.

Bichler Nitzan (2018) The Nordhaus Racket: How to use capitalization to minimize the cost of climate change and win a 'Nobel' for 'sustainable growth'

3.17 Axel Leijonhufved

Farmer on Leijonhufved

My view of modern macroeconomics is much like my view of modern Hollywood movies. The pyrotechnics are spectacular but the plots are sadly lacking.

Modern macroeconomics is a degenerative research program that took a wrong turn in the 1950s.

Farmer (2022) Axel Leijonhufved Remembered

3.18 Karl Marx

Marx would have been a Firefox user

Soriano on Marx

Karl Marx was able, scientifically, to demonstrate that the planetary crisis is inevitable under capitalist production by revealing the causal concatenations of the metabolic rift, as a potential planetary crisis, with the particular form of labor exploitation under the capitalist mode in the context of his labor theory of value.

Soriano (2022) Anthropocene, Capitalocene, and Other "-Cenes": Why a Correct Understanding of Marx's Theory of Value Is Necessary to Leave the Planetary Crisis

3.19 Amartya Sen

Selwyn on Sen

his work is two-sided (or contradictory). On the one hand, Sen punches big holes in mainstream explanations for manifestations of poverty and deprivation that are caused, often directly, by capitalist development. He also provides an approach to development that, on the surface, counters the emphasis on growth and capital accumulation.

On the other hand, Sen sets out a vision of development that promotes the expansion of capitalist markets. This two-sidedness stems from the fact that Sen can identify problems with capitalist development but is unable to penetrate the veil of capitalism itself." Amartya Sen punches big holes in mainstream explanations for manifestations of poverty and deprivation that are caused, often directly, by capitalist development."

His understanding of capitalism is shallow and rooted in the liberal ideology that presents it as a system based on market exchange between free agents, rather than one rooted in exploitative productive relations, as a Marxist framework would suggest.

There is much in Sen's work that we can usefully deploy to develop a critique of capitalism. But this has to involve linking his insights to an alternative, labor-centered version of political economy.

Sen's 1981 book Poverty and Famines was an essential intervention into the political economy of famine and the analysis and alleviation of hunger. Born in 1933, the economist grew up in British-controlled India and experienced first-hand the 1943 Bengal famine, in which at least three million people perished.

Dominant explanations of the Bengal famine as well as other famines and episodes of widespread hunger resort to food availability decline (FAD) arguments. Simply put, they argue that there were too many mouths to feed." Sen's

1981 book Poverty and Famines was an essential intervention into the political economy of famine."

By contrast, Sen showed how in a series of cases, from Bengal in the 1940s to the Bangladesh famine of 1974, food was available at the time — often in higher quantities than during non-famine periods. Crucially, it was not the absolute volume of food that determined whether people died or lived, but the capitalist price mechanism.

Sen demonstrated that the Bengal famine was caused by rapid price inflation rather than crop failure. British military and civil construction investments, including air strips, barracks, munitions, and clothing for soldiers and civilians, fueled such inflation. It pushed up food prices in relation to agricultural wages, leaving agricultural laborers unable to afford food.

Since there was no general crop failure, peasants with access to land were relatively unaffected by price inflation. On the other hand, nonmilitary or civil construction wage workers, mostly in the rural sector, were particularly vulnerable. These sections of the wage-labor force bore the brunt of the catastrophe.

Sen's arguments in Poverty and Famines were a necessary counterargument to the mainstream apologetics for mass hunger. Such arguments often ended up blaming the poor themselves for being too numerous, conveniently obscuring how the capitalist economy continually reproduces poverty." Despite his perspicacity, even Sen himself underestimated the deliberately manufactured causes of the Bengal famine."

However, more recent scholarship has shown that despite his perspicacity, even Sen himself underestimated the deliberately manufactured causes of the Bengal famine. His analysis is thus incomplete as an explanation for the persistence of global hunger.

Indian academic Utsa Patnaik's study of the Bengal famine demonstrates how the price inflation in Bengal represented a deliberate British policy. This policy was recommended by none other than the famed liberal political economist John Maynard Keynes.

In the context of the UK's wartime crisis, Keynes advocated "profit inflation" to achieve a "forced transference of purchasing power" from the mass of the population to the British exchequer. Military investments in Bengal were to be paid for by printing money, without regard for their impact upon the poor of the region.

The increased money supply pushed up prices, benefiting the region's capitalists who were then taxed in turn by the colonial state. The state used these funds to raise its military investments in India itself while siphoning off surplus funds to the UK exchequer to finance its European war effort.

As Patnaik puts it:

Without deliberate state policy of curtailing mass consumption, over £1,600 million of

Sen's emphasis on the capacity of the capitalist price mechanism to generate mortal threats to millions of people is indispensable for any analysis of the current world food crisis. But we also need to identify deliberate state policies designed to further weaken the poor and accelerate marketization.

The problem of world hunger now, as in the cases analyzed by Sen, is not insufficient food but rather the poverty and unequal power relations that are intrinsic to capitalism. The world's poor simply do not have the money to pay for the food they need to live healthy lives.

Poverty and Famines largely ignored the collective action of workers to bring about improvements in their social conditions. This reflected a latent methodological individualism in Sen's conception of social change, which came to the fore in his later work. As professor Pritam Singh told me, this means overlooking important forms of popular resistance during the 1943 famine:

The better organized working class in Calcutta forced the then British government in India to are

Singh notes that the British government demolished refugee camps for famine victims, which worsened their conditions. Once again, it was the rural masses rather than what Singh calls the "more conscious and more organized urban population" who were the main targets of the colonial state.

Real democracy does not just mean the right to vote and the existence of a free press. In order to combat world hunger, our goal should not be to ramp up food production, but rather to establish the democratic distribution of power and resources. In particular, this would mean land reform under the democratic control of rural and urban workers.

In *Development as Freedom*, Sen noted that much growth-based development had the effect of suppressing freedom.

Sen adopted an individualistic conception of "people," rather than a collective one. This constituted a major source of tension as he elaborated on his vision. For Sen, development as freedom meant expanding the abilities of individuals and thus the choices available to them, rather than simply increasing their incomes.

In *Poverty and Famines*, as we have seen, Sen showed that it was the capitalist price mechanism, not the availability of food per se, that functioned as the core determinant of whether the poor lived or died. Yet in *Development and Freedom*, he portrayed capitalist markets as spheres that promote freedoms, and called for the expansion of those markets as a remedy to the poverty and inequality they generate.

Sen's analytical weakness derived from his understanding of capitalist markets as spheres of freedom. He conceptualized them as systems of exchange between individuals that all parties entered into freely, ignoring the reality of productive relations based on the exploitation of subordinate social classes.

We can still embrace Sen's advocacy of real human freedom over economic growth. But this requires us to conceive of freedom as liberation from capitalist rule. Instead of "development as freedom," it would be better to think in terms of "development as liberation."

Selwyn (2023) Amartya Sen's Work Shows Us the Human Cost of Capitalist Development

3.20 Ha-Joon Chang

Selwyn on Chang

Korean economist Ha-Joon Chang is a brilliant, best-selling critic of neoliberal orthodoxy. But Chang stops far short of taking the necessary next step: questioning the capitalist system itself.

Ha-Joon Chang is a rarity in the contemporary world: an economics professor who is highly critical of the neoliberal free-market orthodoxy, advocates progressive social change, writes and speaks accessibly, and is very, very popular.

Chang's self-professed aspiration is to promote an alternative form of capitalism, but our goal should be to develop an alternative to capitalism.

Ha-Joon Chang rebuts this way of thinking as a modern-day exercise in mythology. He roots his own political economy in historical and institutional analysis, with theoretical generalizations derived from historical cases rather than abstract theory. His historical-institutional political economy is a breath of fresh air when compared to abstract free-market theories that are detached from social reality.

n his book Economics: A User's Guide, Chang rejects, in admirably clear prose, the idea that we can identify a single set of economic laws governing the world. Rather, there is a wide range of economic thought, including Marxism, that we can deploy to understand (and change) the contemporary world.

Although he puts forward an effective critique of neoliberal orthodoxy, Chang is not committed to transcending capitalism, nor can he envision a successful noncapitalist society. In his own words, he wants to explain the workings of capitalism so that the system can be "made to work better."

Chang's political objective — to generate a better form of capitalism — and his mode of political economy also generate significant weaknesses in his analysis of really-existing capitalism. At crucial moments, he obscures the reproduction of capitalism through labor exploitation.

Another problem for Chang is the environmental toll of economic growth. This is a tension that he arguably cannot resolve in view of his commitment to capitalist, growth-based development. A Marxist approach to economics can offer solutions to such pressing problems.

In his book 23 Things They Don't Tell You About Capitalism, he shows how markets have always been regulated by states.

It is politics and social norms, rather than a pristine "logic of the market," that determine whether societies have better or worse wages and conditions, rates of investment and innovation, environmental regulation, health care, and so on.

Two of Chang's books, Kicking Away the Ladder (2002) and Bad Samaritans (2007), challenge the free-trade, free-market orthodoxy known as the *Washington Consensus*. The author provides voluminous evidence to show how countries that are now highly developed made use of a whole range of protectionist and interventionist policies to transform their economies.

Chang shows how *state planning* can generate more rapid economic growth and more effective industrial diversification than free-market policies.

For Chang, the key determinant of whether countries can achieve economic development successfully is their ability to deploy an effective industrial policy.

Chang is correct to note that states can regulate investment through industrial policies to generate more rapid economic growth and industrial diversification. Yet he overlooks the way that such development often requires extreme exploitation of workers.

This gap in Chang's analysis of successful developmental states partly stems from his historical-institutional version of political economy, which downplays the importance of shifting class relations in processes of historical change. It also stems from his political project, which is to create a better version of capitalism rather than an alternative socialist system.

Selwyn (2022) Ha-Joon Chang has exposed the fallacies of neoliberalism

3.21 Friedrich List

Selwyn on List

Much like Chang today, List subjected the dominant liberal orthodoxy of his own time to a withering critique. His aim was to help Germany to industrialize and compete effectively with Britain, the dominant economic and military power of the Victorian age.

As List wrote in his 1841 The National System of Political Economy:

It is a very common clever device that when anyone has attained the summit of greatness, he kicks

Much like Chang today, List provided a very effective critique of the free-market nostrums espoused by thinkers like Smith and David Ricardo. List was not interested in promoting a socialist society as an alternative to capitalism: he wanted more effective national forms of capitalism. Mutatis mutandis, the same is true of Chang today.

Selwyn (2022) Ha-Joon Chang has exposed the fallacies of neoliberalism

3.22 Joseph Schumpeter

Benanav on Schumpeter

Schumpeter drew the exact same political insights from his own long-wave theory, but had the opposite worries. Schumpeter feared that, without the protection of a war-making aristocracy, the capitalists would prove too weak-willed to resist workers' economic and political advance during downswings. He saw the advent of the New Deal as a sign that capitalists didn't know "how to say boo to a goose," and as a result, were allowing the social and political infrastructure of the capitalist system to break down, paving the way for socialism.

Benanav (2023) We're All Stagnationists Now

Mazzucato on Schumpeter

The limits to innovation studies' ability to counter the stringency of IP rights has been partly due to the way in which Schumpeter's late work emphasised the way in which big firms with market power are more active and successful in organising innovation than small firms engaged in intense price competition (Rikap and Lundvall 2021; Schumpeter 1942). Indeed, the Schumpeterian/evolutionary literature, while focusing on the 'systems' side of innovation, has not been able to debunk the more general understanding of markets in economics, so that even innovation institutions are seen as correcting system failures.

Mazzucato (2023) Governing the economics of the common good

3.23 Robert Lucas

Noah Smith on Lucas

Lucas helped steer the profession toward the highly formalized mathematical models we now call "DSGE", yet his own most influential paper used only simple math and logical arguments. Few of his own theories are used today, or even given much credence by macroeconomists, but his arguments about *how to do* economic theory — and how not to do it — remain the foundation of the field.

Lucas' most famous work, by far — and the work that won him a Nobel in 1995 — was about how to fight recessions. In a landmark 1976 paper entitled "Econometric Policy Evaluation: A Critique", he argued that the policies macroeconomists were recommending at the time made no sense, because they didn't take people's shifting expectations into account.

Suppose that you look at the past 50 years of macroeconomic history, and you notice that whenever inflation is high, unemployment is low. So you decide "Oh hey, I can use this fact to keep unemployment low forever, by having the

central bank pump up inflation whenever there's a recession!" Sounds clever, but the logic is flawed, because it doesn't take human rationality into account. If businesses see that inflation is generally much higher than it used to be, they might reset their mental baseline — whereas before, they would take 4% inflation as the signal of an economic boom, and hire a bunch of workers, now 4% is just an average level of inflation, thanks to the new central bank policy. So now the central bank has to raise inflation by 6% to get businesses to think there's a boom and hire a bunch of workers. Then 6% becomes the new normal, and so on. Eventually you either get hyperinflation, or you wind up with the same old level of unemployment at a much higher average level of inflation. Neither of those is a good outcome.

You can see why this line of argument resonated in the late 1970s.

So if human beings always catch on to whatever policy you're trying to use to manipulate their behavior, what do you do? Lucas basically said you should do three things:

Assume that people catch on very quickly to whatever is happening in the economy, and adjust the

Build a model of the economy that's based on things that policy can't easily change - technology, people's preferences, resource constraints, and so on.

Have policymakers make policy according to set rules, instead of their own ad-hoc discretion, so

None of these three ideas were original to Lucas, and other economists had made versions of the same critique. But Lucas brought it all together. He combined a clear and forceful logical argument that economic theory was being done all wrong with a complete policy program for making it right. No one else had done that.

And in short order, all three of Lucas' recommendations had been wholeheartedly embraced by the macroeconomics profession. Rational expectations became the basis of almost all macroeconomic theories. The quest for "structural" models of the economy led to what we now call Dynamic Stochastic General Equilibrium models, or DSGE. And the idea of monetary policy made by rules rather than discretion became a key feature of DSGE models.

In other words, macroeconomics after Lucas was Lucasian, and it remains largely so to this day. That doesn't mean Lucas created absolute consensus in the field — most macroeconomists will have some kind of problem with at least one of Lucas' basic ideas, and many will have problems with all three. But credible alternatives took a very long time to materialize. In the meantime, Lucas and the other macroeconomists he worked with — most notably Thomas Sargent and Edward Prescott — did a lot of work in the 1980s to solidify Lucasian macroeconomics into a paradigm that anyone in the field could pick up and use. That follow-up effort crystallized Lucas' status as the most influential macroeconomist of his time.

Perhaps the most paradoxical thing about Lucas, though, was that although his most famous work was about business cycles, it wasn't really the topic he cared about most. Over the course of his career, he shifted toward economic growth theory.

The growth model he developed in that 1988 paper was not considered to be particularly useful by growth theorists — its main conclusion, that you can grow an economy infinitely by continuing to build up ever more human capital, just isn't credible; eventually people max out on schooling and skills. Later growth theorists, like Paul Romer (Lucas' student, and another Nobel winner), would introduce more realistic models in which investment in researching new ideas takes center stage. But even these models are difficult to test empirically, and the question of whether research investment hits diminishing returns remains unresolved.

Ultimately, the kind of analysis that had propelled Lucas to superstardom in the world of business cycles was less effective when tackling the problem of economic growth. Lucas was at his best when he was using simple, powerful logic to criticize the assumptions behind economic theories. That kind of intelligence is inherently destructive — its purpose is to clear away the deadwood and point the direction to something newer and (hopefully) better. Constructing a theory of long-term growth is a different sort of challenge entirely, and doing the rigorous empirical work necessary to even start to test that theory was just not in Lucas' wheelhouse. Fortunately, he did manage to direct some students like Romer toward the problem.

In the late 2000s and 2010s, Lucas' attention was pulled back toward the field of business cycle theory that he had revolutionized three decades prior. The Great Recession seemed to upend many of the conclusions Lucas and his friends and disciples had reached about how recessions worked. It was caused by a financial crisis, which contradicted Ed Prescott's technology-driven explanation of business cycles. It was the biggest downturn since the 30s, and monetary policy failed to contain it. The DSGE models that Lucas & co. had spent years ideating and promoting both failed to foresee the possibility of the crisis, and were too rigid and opaque to be of much help to policymakers in fighting it.

Cynics are going to look at this and wonder whether the whole Lucas research program was worth pursuing in the first place. What's the point of thinking about the economy with the kind of simple, logical arguments that Lucas used in the 70s and 80s, if those arguments don't lead to dependable conclusions about the economy? Why did all the brilliant macroeconomists who followed Lucas spend decades on theories that had to be replaced with ancient Keynesianism the next time a big recession came around?

Smith (2023) Thus passes Robert Lucas

Michael Roberts on Lucas

In 1995, Lucas received a 'Nobel prize' for his theory of 'rational expectations'.

It is an irony, given the body of his work, that when Lucas started studying economics, he considered himself a "quasi-Marxist" because he reckoned that it was the economic foundation of society that was the driver of history, not the ideas of individuals. The irony is that his main contribution to mainstream economics was eventually to present a theory that economic change was driven by the 'rational' action of 'agents' i.e, individuals as consumers.

What is 'rational expectations' theory? Apparently, economic changes are the product of agents who make 'rational' decisions on the basis of available information to maximise the 'utility' for each agent over their lifetime. Individual agent expectations thus drive output and prices in an economy, not some aggregated forces like class or exploitation. As economies are driven by individual expectations, markets tend towards some equilibrium state that ensures supply and demand are balanced – and are only disturbed by 'shocks' or by wrong decisions by monetary and fiscal authorities.

Lucas was widely acclaimed because he furthered mainstream theory that markets could work without crises or distortions as long as individuals has sufficient information to make 'rational decisions' on their own interests. So the reality of crises and inequalities was due not to capitalist markets but to 'irrational' decisions by authorities or unions interfering with markets.

In particular, Lucas attacked the Keynesian 'aggregate demand' theory of economies, namely the Keynesian conclusion that total demand could fall below total supply in an economy, leading to periods of high unemployment. Lucas argued that if governments intervened to increase money supply or increase spending to boost aggregate demand, they would distort the 'rational expectations' of individuals and only make things worse.

A 'bastardisation' of the radical aspects of Keynesian theory,namely that capitalism did not grow smoothly and could not without periods of slump and depression. But now these only happened as 'shocks' to the harmony of the market. Lucas had succeeded in his critique in reducing Keynesian macro economics to a weak and feeble beast. No wonder he got a Nobel prize at the height of the neoclassical, neoliberal ascendancy in 1995.

The reality of 'irrational' capitalist markets eventually exposed Lucas' rational expectations theory.

Roberts (2023) Robert Lucas: the rationality of capitalism

3.24 Abba Lerner

Abba Lerner had a remarkable life of the Jewish twentieth century - arriving in London's East End from the Russian empire as a toddler, working as a machinist and Hebrew teacher before studying under Hayek at LSE and meeting Keynes in Cambridge, and never receiving academic tenure until he was in his 60s. He is intellectually a representative of that lost century too, the short twentieth

century that ended not in 1989 but slightly earlier: here was a mainstream economist concerned with the meeting of social goals through deliberate human agency (such was "functional finance"), thus contributing his economic expertise to serious models of socialist planning. Lerner taught advanced macroeconomic theory at Queens College of CUNY, New York. Here his teaching was notably Keynesian. The course outlines, reading assignments, midterm and final exams for 1973 through 1975 have been transcribed and posted at Economics in the Rear-view Mirror, with thanks to Irwin Collier.

Tooze (2023) A maverick economist

3.25 David Ricardo

Marx on Ricardo: "For Ricardo men are nothing, the product everything." "Ricardo is allowing political economy to speak its own language, and if it does not speak ethically, this is not Ricardo's fault." (Economic & philosophic manuscripts 1844)

3.26 Elinor Ostrom

Nobel Prize-winning Ostrom, in her seminal work (1990), discusses how the tragedy of the commons, namely overuse and enclosure (Hardin 1968; Neeson 1993; Greer 2012), can be mitigated through collective decision-making. In her view, negotiations at the community level are central to the production and distribution of the commons. Grounded in the empirical example of coastal fisheries, she contends that effective CPR management requires an in- depth understanding of local conditions, differentiating between coastal fisheries as CPRs and open-ocean fishing as open-access resources. In the same spirit, Federici (2018) argues that the practice of managing shared resources, particularly by women, has been a key strategy for challenging the capitalist and patriarchal systems. Applying a specifically decolonial and environmentalist lens, Federici explores the creation of alternative economies based on solidarity and cooperation. Recent scholarship on collective action has focused on the organisational processes and coordination within communities in a similar manner (Albareda and Sison 2020).

Ostrom's work has relied on rationalist conceptions of the individual, similar to public choice theory. Dardot and Laval (2019, 102) write, 'According to Ostrom, rational and egoistic individuals may create markets, they may call for state intervention, and they construct a commons; it simply depends on the demands of different situations.' In other words, her conception of the commons is an attempt to provide an alternative to the market and state dichotomy without challenging the underlying assumptions that have given rise to limiting interpretations of the dichotomy in the first place.

Mazzucato (2023) Governing the economics of the common good

4

Adam Smith

Cunningham

ChatGPT4 interview with 'Adam Smith'.

Cunningham (2023) The Mixtape with Scott: "Classical Economists" series My Interview with 'Adam Smith' via ChatGPT-4

68 4. ADAM SMITH

Angus Deaton

Roberts

Angus Deaton is a British Nobel prize winner in economics and an expert on poverty economics, working in America. In a recent book, Deaton angrily said that "mainstream economists deliberately ignore rising levels of inequality and the horrendous impact of poverty, claiming that this is not the business of economics. "there is this very strong libertarian belief that inequality is not a proper area of study for economists. Even if you were to worry about inequality, it would be best if you just kept quiet and lived with it."

Roberts (2023) Why real-world economics matters

David Hume

Tooze

Although David Hume's contributions to philosophy are firmly established, his economics has been largely overlooked. A Philosopher's Economist offers the definitive account of Hume's "worldly philosophy" and argues that economics was a central preoccupation of his life and work. Margaret Schabas and Carl Wennerlind show that Hume made important contributions to the science of economics, notably on money, trade, and public finance. Hume's astute understanding of human behavior provided an important foundation for his economics and proved essential to his analysis of the ethical and political dimensions of capitalism. Hume also linked his economic theory with policy recommendations and sought to influence people in power. While in favor of the modern commercial world, believing that it had and would continue to raise standards of living, promote peaceful relations, and foster moral refinement, Hume was not an unqualified enthusiast. He recognized many of the underlying injustices of capitalism, its tendencies to promote avarice and inequality, as well as its potential for political instability and absolutism.

Hume's imprint on modern economics is profound and far-reaching, whether through his close friend Adam Smith or later admirers such as John Maynard Keynes and Friedrich Hayek. Schabas and Wennerlind's book compels us to reconsider the centrality and legacy of Hume's economic thought—for both his time and ours—and thus serves as an important springboard for reflections on the philosophical underpinnings of economics.

What a review! By Ryan Patrick Hanley, in the Journal of Modern History.

72 6. DAVID HUME

7

Eugene Fama

Roberts

Eugene Fama is another Nobel prize winner in economics. His prize is for showing that markets work efficiently and, as long as you and me and everybody has enough information about what is going on, then the market will ensure full employment, steady growth and rising incomes for all. This is called the Efficient Markets Hypothesis (EMH). After the Great Recession, Fama was asked what went wrong. He replied, "We don't know what causes recessions. We've never known. Debates go on to this day about what caused the Great Depression. Economics is not very good at explaining swings in economic activity".

Roberts (2023) Why real-world economics matters

Karl Polanyi

Tooze

Margaret Somers and Fred Block offer this blurb for their article in Dissent on "The Return of Karl Polanyi":

Karl Polanyi, whose ideas took form in 1920s Vienna in direct opposition to the free-market orthodoxy of Ludwig von Mises, has gained belated recognition as one of the most important thinkers of the twentieth century. His central argument, contra von Mises, is that a self-regulating economic system is a completely imaginary construction, impossible to achieve or maintain.

Though he was never quite forgotten, there has been a definite uptick in academic interest in his work as scholars grapple with the lessons of the 2008 crisis. His emphasis on "utopian" nature of ideas about pure market societies, with self-regulating markets, came to seem like the wise words of a seer. But he was much more than this; and as the picture above shows, he was a political militant committed to passing his ideas to workers so that they could better fight for them and claim the mantle of realism in that great "double movement" where they would have to oppose the real utopians, the believers in market utopias. One interesting question, then, is whether we follow him in demanding decommodification — including of land, labour and money — as a route out.

Tooze (2023) Polanyi in the classroom

Robert Lucas

Roberts

Robert Lucas is an eminent mainstream economist, indeed a Nobel prize winner for economics. In 2003, some five years before the global financial crash he pronounced (pdf) that "macroeconomics has succeeded: Its central problem of depression prevention has been solved, for all practical purposes, and has in fact been solved for many decades."

Roberts (2023) Why real-world economics matters

78 9. ROBERT LUCAS

$\begin{array}{c} {\rm Part~I} \\ {\bf Appendices} \end{array}$

Appendix A

About



Dyre Haugen and Dyrehaugen is Webian for Jon Martin - self-owned Globian, Webian, Norwegian and Canarian with a background from industrial research policy, urban planning and economic development consulting on global, regional and urban scales. I am deeply concerned about the (insane) way humanity (i.e. capitalism) interfere with nature. In an effort to gain insights in how and why this happens stuff is collected from around the web and put together in a linked set of web-sites. The sites are operated as personal notebooks. However, these days things can be easily published to the benefit of others concerned with the same issues. But be aware - this is not polished for presentation or peer-reviewed for exactness. I offer you just to have a look at my 'work-desk' as it appears in the moment. Any comment or suggestion can be mailed to dyrehaugen@gmail.com You can follow me on twitter as @dyrehaugen. Thanks for visiting!

Appendix B

Links

Current Dyrehaugen Sites:

- rcap On Capitalism (loc)
- rclm On Climate Change (loc)
- recs On Economics (loc)
- rfin On Finance (loc)
- rngy On Energy (loc)
- renv On Environment (loc)
- rsts On Statistics (loc)
- rurb On Urbanization (loc)
- rvar On Varia (loc)
- rwsd On Wisdom (loc)

Blogs:

- rde Blog in English (loc)
- rdn Blog in Norwegian (loc)

Discontinued:

- jdt Collection (Jekyll) (loc)
- hdt Collection (Hugo) (loc)

Not listed:

- (q:) dhe dhn jrw56
- (z:) rcsa rpad rstart

Appendix C

NEWS

C.1 221220 Market-based development finance in crisis

On December 13 Ghana reached staff-level agreement on a \$3 bn IMF credit package. In addition it is seeking to negotiate a 30 percent haircut with private creditors on tens of billions in bonds. Already in September Ghana's 2026 eurobonds plunged to a record low of 59.30 cents on the US dollar. By the end of October yields had surged to 38.6 %, up from less than 11% at the end of 2021. Meanwhile, inflation is headed to 40 percent and the cedi is the worst performing currency not just in Africa but of all currencies in the world.

You could shrug and say that this is Ghana's second IMF deal in 3 years and its 17th since independence in 1957. Plus ça change. But it is more than a national crisis. It is the latest sign that the entire model of market-based development financing is in crisis.

Tooze (2022) Chartbook #181: Finance and the polycrisis (6): Africa's debt crisis

C.2 210717 Carney calls for stronger Government Regulation

For the world to meet its climate goals, governments would have to force industries to follow *clear rules*, *on everything* from energy generation to construction and transport, and set carbon prices that would drive investment towards green ends and close down fossil fuels.

"We need clear, credible and predictable regulation from government," he said. "Air quality rules, building codes, that type of strong regulation is needed. You

can have strong regulation for the future, then the financial market will start investing today, for that future. Because that's what markets do, they always look forward."

Without such robust intervention from governments, markets would fail to address the crisis.

 $\operatorname{Gurdian}$

Appendix D

Sitelog

Latest Additions

 $\begin{array}{c} {\rm December~9,~2023~history} \\ {\rm the~invention~of~economic~science} \\ {\rm December~11,~2023~david-hume} \backslash \\ {\rm hanley~review~of~hume} \end{array}$

Bibliography