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# Has economics become a new theology? Some comments about the practice of modern economists and medieval theologians

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## Abstract

In this paper, parallels between the practice of medieval theologians and modern economists are made, showing the striking similarities between them. Exploring these links further shows that these links go much more profound and are functional to the central ideological role both played in their respective historical contexts. Moreover, it is argued that this ideological role may explain the remarkable grip neoclassic economics has on the academy for now over a century. The neoclassic approach has nearly completely removed alternative perspectives from the academy, notably the historical school of economics, despite its inability to adequately describe the economic process in its socioecological, historically changing dynamics. Despite the numerous internal and external critiques it has received since its inception. Thereby, in this paper, an ironic paradox is shown: modern economics, by grounding itself on the mechanistic methodology, set forth by those like Galileo, Kepler and Newton, which has dethroned the medieval theology-grounded depiction of reality, ended up becoming a new theology.

## Introduction

What does modern economics have in common with medieval theology? At a first glimpse, very little. After all, economics presents itself as a science, based on the same mathematical principles and ideals of objectivity and empiricism on which mechanical physics is grounded and which, as is known, replaced medieval theological description of reality. Moreover, they apply to different subjects: heavenly, spiritual matters for theology, earthly matters for economics. Notwithstanding, if we look at how modern economics is practised nowadays and its ideological role in supporting free markets and the hegemonic social and political practices, striking similarities emerge.

In terms of method, since at least the end of the 19<sup>th</sup> century and early 20<sup>th</sup> century, the mathematical, model-based approach to economics has become hegemonic to the point of barring from its practice all dissenting or different methods. Unlike other social and historical sciences, modern economics was built around the idea that the economic reality can and indeed had to be approached in the same way natural scientists approach simple, repeatable phenomena like the movement of inertial bodies in physics or chemical reactions in chemistry. Stanley Jevons (1871/1879, p. vii), one of the founding fathers of the modern neoclassical approach, put its aim bluntly:

“In this work I have attempted to treat Economy as a Calculus of Pleasure and Pain, and have sketched out, almost irrespective of previous opinions, the form which the science, as it seems to me, must ultimately take. I have long thought that as it deals throughout with quantities, it must be a mathematical science in matter if not in language. I have endeavoured to arrive at accurate quantitative notions concerning Utility, Value, Labour, Capital, &c., and I have often been surprised to find how clearly some of the most difficult notions, especially that most puzzling of notions *Value*, admit of mathematical analysis and expression. The theory of Economy thus treated presents a close analogy to the science of Statical Mechanics, and the Laws of Exchange are

found to resemble the Laws of Equilibrium of a lever as determined by the principle of virtual velocities.”

Jevons (Ibid., p. xiv) even went on to substitute “the name Political Economy for the single convenient term *Economics*”, since he could not help “thinking that it would be well to discard, as quickly as possible, the old troublesome double-worded name of our Science.” He argued as well that he would one day gladly hand the subject of economics over to skillful mathematicians:

“I do not write for mathematicians, nor as a mathematician, but as an economist wishing to convince other economists that their science can only be satisfactorily treated on an explicit mathematical basis. When mathematicians recognize the subject as one with which they may usefully deal, I shall gladly resign it into their hands” (ibid., p. xiii).

Thus, neoclassic economics has been modelled on the image of Newtonian physics, which it seeks to resemble, despite looking at a living, historical reality and not passive objects’ behaviour as physics did. Indeed, to do so, it had to take Newton’s standard assumptions like inertial movement assuming that objects move friction-free or the total elasticity of colliding bodies – thus, that no energy is lost at the collision – to a completely different level. Just like Newton’s laws of movement apply to frictionless inertial movement, the equations of the economist’s models require linear, predictable behaviour to be the norm. Thus, it had to assume not just the nonexistence of minor factors affecting the observed real-world behaviour of objects, but also the nonexistence of central aspects of the economic process like the inexistence of technological change, changing political, institutional and cultural factors, as well as the inherent plasticity and unpredictability of human behaviour. Just as Newton described celestial bodies’ behaviour, economists assumed that the economic process happens in an abstract, no-space and no-time historical void. Thanks to the *ceteris paribus* assumption, all qualitative change and non-mathematically depictable factors can be ignored.

By doing so, as I argued elsewhere (Stahel, 2020a), economics effectively placed itself out of any attempt of empirical refutation once any deviation of observed facts from the predicted outcomes in the model had to be necessarily attributed to the excluded, so-called exogenous variables of the model. But, unless physics, where the deviations observed due to the letting out of real-world frictions are usually minor and predictable, in economics, the variations are entirely different in nature and scale. Real-world frictions like political, technological, cultural, or environmental factors like the present Covid-19 epidemic or climate change affect real-world economic dynamics in complex and often unpredictable ways, with different feedback-loops phase-transitions and emergent properties happening all the time. And they are central to the process, unlike air friction which is just a relatively small and minor aspect affecting the fall of a billiard ball from the heights of the Pisa tower or the trajectory of a cannon-ball. Physicians would certainly not dare to predict the course of a falling feather on a windy day or that of a falling leaf in an autumn storm using Newton’s equations. Nevertheless, economists do not shy back from predicting the outcome, in numerical and precise terms, of Greece applying the IMF backed and imposed “structural adjustment plan” on its economy. Although no cultural, political, historical and environmental context has been taken into account by the models.

What is even more striking is that, despite its visible and known shortcomings, the modern neoclassic approach to economics has become omnipresent and hegemonic in the academy. Now, for well over a century, it is almost the only accepted way to approach economics. We even forgot that when those like Jevons and Walras started their crusade, the historical approach to the economic process was the favoured one. Now it disappeared from economics. At that time, Wilhelm Dilthey (1989, first published in 1883) strongly rejected applying a methodology formed exclusively from the natural sciences (*Naturwissenschaften*) to the human sciences (*Geisteswissenschaften* or “spiritual sciences” as he

termed them). The former is centred on natural phenomena subjected to unvarying natural laws, which we aim to **explain** in terms of cause and effect. Notwithstanding, in the human sciences, we strive to **understand** them in terms of the parts' relations to the whole as a living, changing historical reality. Thus, according to Dilthey, a distinctively hermeneutic and phenomenological approach had to be applied to understand the latter. As it should be to understand the economic process, which, being a historical, creative and open process, cannot simply be explained through mathematical equations and formula. The economic process, too, is open to novelty and the emergence of new contexts and realities. Thus, context-specific and changing realities characterise it, not unchanging universal laws.

Notwithstanding, in economics, the mathematical, model-based approach has become hegemonic, to the point that a single methodological approach and even a restricted content to be approached has become the norm. Indeed, in economics, those who take an empirical, historical and institutional approach to the economic process have been ignored and excluded. Thus, authors such as Max Weber, Karl Polanyi, or Werner Sombart are not even considered economists or relevant to the profession. However essential and path-breaking their studies about the economic process from an empirical, historical and institutional perspective happened to be. Other institutional studies like those of John Kenneth Galbraith or Georgescu-Roegen's considerations of the role of the entropy law and qualitative change to the economic process are simply ignored by the mainstream, although they may be praised as economists.

Thus, we have already a first important parallel with medieval theological practice: unlike other social sciences, economics is constrained by following a single approach and, moreover, its subject is limited to a restricted field of inquiry. Thus, for instance, the classics' labour-value theory has been excluded from the debates and commonly agreed on academic topics. However, it too was stated in abstract, logical-deductive terms. Indeed, Smith and Ricardo's labour-value theory, later developed into a critique of the capitalist mode of production by Marx, has been the stated main target of Jevons and the neoclassic school. They based their critique on supposedly methodological grounds, although Smith, Ricardo and later Marx followed a purely abstract methodology too. A clear case in point is given by the so-called Cambridge X Cambridge debate in which Pierro Sraffa (1960), in strictly mathematical terms, proved the inconsistencies of the neoclassic definition and use of "capital". Although it started a heated debate at the time, it simply faded away and ceased to be considered after a while. Although the critique was never refuted in theoretical terms, economists just kept talking about capital as an independent variable, as if Sraffa had never proved that it could not. Indeed, both sides of the arguments being based on logical reasoning and abstract models, no way to settle the dispute on empirical grounds could be found. Unlike in natural sciences dealing with unchanging, universal laws where, for instances, empirical evidence favoured Einstein's theory of gravity over Newton's view.

But the unanswered question is how neoclassic economics managed to become that hegemonic in the academy despite the ongoing critique even by those professing it? As argued by Georgescu-Roegen, himself a reputed and recognised econometrician:

"No science has been criticized by its own servants as openly and constantly as economics. The motives of dissatisfaction are many, but the most important pertains to the fiction of *homo oeconomicus*. (...) The criticism is irrefutable. However, the mechanistic sin of economic science is much deeper than this criticism implies. For the sin is still there even if we look at the economic process from the purely physical viewpoint only. The whole truth is that economics in the way this discipline is now generally professed, is mechanistic in the same strong sense in which we generally believe only Classical mechanics to be.

In this sense, Classical mechanics is mechanistic because it can neither account for the existence of enduring qualitative changes in nature nor accept this existence as an independent fact. Mechanics knows only locomotion, and locomotion is both reversible and qualityless. The same drawback was built into modern economics by its founders, who, on testimony of Jevons and Walras, had no greater aspiration than to create an economic science after the exact pattern of mechanics. A most eloquent proof of how staunch the enthusiasm for mechanics was among the early architects is provided by Irving Fisher, who went to the trouble of building a very intricate apparatus just for demonstrating the purely mechanical nature of consumer behaviour” (Georgescu-Roegen, 1971, p. 1).

But the question still remains open: how has this methodology borrowed from Newton, who was dealing with relatively simple passive objects, become that hegemonic to the point to exclude from the profession alternative approaches and dissenting views about a complex, historical phenomenon like the economic process? As will be argued, the answer goes far beyond science and has a lot to do with the ideological dimension of modern economic theory.

The XIX century in Europe – and elsewhere – was a time of intense social, political and even military dispute. The ideological debate between Marxist economists and liberal economists was very present to the founders of the neoclassic approach. Jevons made it one of his main targets to refute Smith’s and Ricardo’s labour-value theory on which Marx’s value theory was grounded, arguing that

“I feel sure that when casting ourselves free from the Wage-fund Theory, The Cost of Production doctrine of Value, the Natural Rate of Wages, and other misleading or false Ricardian doctrines, we begin to trace out clearly and simply the results of a correct theory. (...)

When at length a true system of Economics comes to be established, it will be seen that that able but wrong-headed man, David Ricardo, shunted the car of Economic science on to a wrong line (...). It will be a work of labour to pick up the fragments of a shattered science and to start anew” (Jevons, op. cit., pp. I and Ivii).

Notwithstanding, by arguing that this new science had to be based on idealized, abstract models of reality in which general economic equilibrium and full-employment could be proven to occur, Jevons had created an ideological construct more than empirical science. Indeed, once models point to the existence of “general equilibrium”, full or near-full employment, “Pareto-optimality”, among other desired outcomes; it is argued that once we implement those assumptions on which the model is based (like for instances more free-market and “rational economic behaviour”), reality too will move towards these results. Thus, as I argued elsewhere,

“Instead of following Popper’s idealised normative behaviour of abandoning a theory once its predictions fail to be observed, economists use their theories as ideological weapons to promote and defend given economic policies. Not searching theory to conform to reality, but the ‘messy reality’ to conform to the theoretical models instead” (Stahel, 2020a, p. 81).

It may be essential to inquire into this ideological function of modern economics a little further. After all, IMF’s structural adjustment plans, which countries in financial distress like recently Greece are obliged to subscribe to gain access to foreign credit again, are based on these models. As are the policies and recommendations of the World Bank and, indeed, economic policies everywhere. As is said, “the

economy rules the world”, making what is said about it behind a label of “scientificity” and objectivity even more relevant.

### Whence it all started

“*Eppur si muove*”<sup>1</sup> Galileo is quoted having said after being found “vehemently suspect of heresy” by the Roman Catholic Inquisition for sticking to his observations and conclusions that the Earth circles the sun and not the other way around as assumed by the Church’s accepted dogma. His telescopic observations, made public in 1610 in his *Sidereus Nuncius* (The Starry Messenger) describing the Moon surface with his valleys and mountains, the planet phases of Venus and Jupiter (which implied them as well circling the Sun), among other evidence, were all considered heresy at the eyes of the Church. The argument went on for many decades, and despite the empirical evidence supporting Galileo, he was condemned in 1633 to lifelong imprisonment, commuted to house arrest until he died in 1642.

Many Church Astronomers repeated Galileo’s observations. But instead of arriving at his conclusions, they went on along complicated arguments to reconcile them with the accepted geocentric view. Others directly refused to look through the telescope, as Galileo complained in a letter to Kepler: “My dear Kepler, I wish that we might laugh at the remarkable stupidity of the common herd. What do you have to say about the principal philosophers of this academy who are filled with the stubbornness of an asp and do not want to look at either the planets, the moon or the telescope, even though I have freely and deliberately offered them the opportunity a thousand times? Truly, just as the asp stops its ears, so do these philosophers shut their eyes to the light of truth.”<sup>2</sup>

Unlike Galileo, Newton, who built on his method and followed his observations, was hailed as a hero during his lifetime. For his epitaph, the poet Alexandre Pope proposed to state: “Nature and Nature’s laws lay hid in night: God said, Let Newton be! and all was light.” Although this epitaph was finally not approved, a more extensive inscription in the Westminster Abbey where “lies that which was mortal of Isaac Newton” points to the same fascination and perspective:

“Here is buried Isaac Newton, Knight, who by a strength of mind almost divine, and mathematical principles peculiarly his own, explored the course and figures of the planets, the paths of comets, the tides of the sea, the dissimilarities in rays of light, and, what no other scholar has previously imagined, the properties of the colours thus produced. Diligent, sagacious and faithful, in his expositions of nature, antiquity and the Holy Scriptures, he vindicated by his philosophy the majesty of God mighty and good, and expressed the simplicity of the Gospel in his manners. Mortals rejoice that there has existed such and so great an ornament of the human race! He was born on 25th December 1642, and died on 20th March 1726.”<sup>3</sup>

Thus, when the British political economy was born, modern science had already taken the upper hand. Newton’s theory was the epitome of the possibilities open to the human inquiring mind. Theology had been relegated to a minor role, and science was how humans were expected to assess empirical reality. It was in this context that Adam Smith wrote the founding book of modern economics, *An Inquiry into the Nature and Causes of the Wealth of Nations*, and it was in the mathematical, model-based deductive method proposed by Galileo and Newton that modern economists would seek advice on how to

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<sup>1</sup> “Still it moves”.

<sup>2</sup> From the Latin original source, quoted in Wikipedia [https://en.wikipedia.org/wiki/Galileo\\_affair](https://en.wikipedia.org/wiki/Galileo_affair) and Favaro, Antonio (Ed.) (1890–1909) *Le Opere di Galileo Galilei*. Edizione Nazionale. Florence: Barbera.

<sup>3</sup> Available online at <http://www.westminster-abbey.org/our-history/people/sir-isaac-newton>.

approach reality “scientifically”. Even if at the price of greatly simplifying and reducing reality and ultimately ignoring it by introducing the *ceteris paribus* condition. However, economists never asked themselves whether this could be done without impairing their undertaking’s scientificity and objectivity.

Notwithstanding, being presented as logic, scientific conclusions and not as politically motivated interests, Adam Smith’s, Ricardo’s and later neoclassic model’s defence of the benefits of the “invisible hand”, the free-market competition driving individual greed towards the common-good, end-up being represented as a logical necessity. Not as a historical reality affecting different individuals and groups differently. Paradoxically, thereby modern economics ignores the political character of the *political economy* as such.

But this methodological approach, which became the hegemonic and indeed only accepted one to modern economics, was highly disputed at that time. It may be interesting to recover Arnold Toynbee’s arguments, actually the uncle of the better-known historian Arnold Joseph Toynbee. He was a prominent economic historian and social reformer of the 19<sup>th</sup> century. He was responsible, among others, for popularizing the term industrial revolution in Britain, a term coined by the French revolutionaries, mesmerized by the historical changes they could observe at the other side of the channel. His lectures on the industrial revolution in Britain of the 18<sup>th</sup> and 19<sup>th</sup> centuries were highly influential at the time. But, as it happened to the *historical school of economics* he represented, also known as the *Prussian Historical School*, then hegemonic in Germany and elsewhere, Toynbee ended up being ignored by the profession.

His historical and empirical perspective on markets contrasts sharply with Smith’s, Ricardo’s and later neoclassics’ hypothetical, model-based approach. His arguments were based on interpreting historical and factual realities, not on abstract imaginary models and the search for “universal laws”. For instance, Adam Smith, when making his case for the virtues of the “invisible hand” of market competition, simply stated it in absolute terms by generalising partial observations as constituting universal truths. Thus, he argued that:

“It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages” (Smith, 1776/1937, p. 14).

Indeed, as can be observed, sellers do not give out what is needed as a gift and benevolence whenever we buy something in the market. They sell it and may try to sell it at the highest possible price. But, by just asking a little bit further, we can – and thus Smith could have done – find plenty of examples pointing to the opposite directions. Cases whereby out of greed people have been exploited in the marketplace, ecosystems destroyed for profit, or people speculating in financial markets make huge profits without adding any new wealth in use-value terms to the process (Stahel, 2020b). Indeed, starting from partial observation, Smith could as well have reached the opposite conclusion.

The same can be seen if we look at Smith’s and later Ricardo’s and, indeed, neoclassical trade theory. Although apparently referring to actual world events, it is a logical argument based on a hypothetical reality not backed by empirical facts. Thus, for instances, both Smith and Ricardo argued that free-markets would promote the local economy and that this was precisely one of its benefits. However, later historical developments proved them wrong; it has not deterred later economists to still mention them as proponents of the benefits of free commerce. Therefore, it may be worth it to quote them here in length and ask ourselves whether, according to their own economic and ideological preferences, they would still be holding their defence of the invisible hand today. As they argued:

“Every individual is continually exerting himself to find out the most advantageous employment for whatever capital he can command. It is his own advantage, indeed, and not that of the society, which he has in view. But the study of his own advantage naturally, or rather necessarily, leads him to prefer that employment which is most advantageous to the society.

First, every individual **endeavours to employ his capital as near home as he can, and consequently as much as he can in the support of domestic industry**; provided always that he can thereby obtain the ordinary, or not a great deal less than the ordinary profits of stock. (...)

A capital employed in the home trade, it has already been shown, necessarily puts into motion a greater quantity of domestic industry, and gives revenue and employment to a greater number of the inhabitants of the country, than an equal capital employed in the foreign trade of consumption: and one employed in the foreign trade of consumption has the same advantage over an equal capital employed in the carrying trade. Upon equal, or only nearly equal profits, therefore, **every individual naturally inclines to employ his capital in the manner in which it is likely to afford the greatest support to domestic industry, and to give revenue and employment to the greatest number of people of his own country.**

Secondly, every individual who employs his capital in the support of domestic industry, necessarily endeavours so to direct that industry that its produce may be of the greatest possible value. (...)

**As every individual, therefore, endeavours as much as he can both to employ his capital in the support of domestic industry, and so to direct that industry that its produce may be of the greatest value; every individual necessarily labours to render the annual revenue of the society as great as he can. He generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it. By preferring the support of domestic to that of foreign industry, he intends only his own security; and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention.** Nor is it always the worse for the society that it was no part of it. By pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it. I have never known much good done by those who affected to trade for the public good. It is an affectation, indeed, not very common among merchants, and very few words need be employed in dissuading them from it” (Smith, pp. 421-423, emphasis added).

“Experience, however, shows, that the fancied or real insecurity of capital, when not under the immediate control of its owner, together with the **natural disinclination which every man has to quit the country of his birth and connexions, and intrust himself with all his habits fixed, to a strange government and new laws, checks the emigration of capital. These feelings, which I should be sorry to see weakened,** induce most men of property to be satisfied with a low rate of profits in their own country, rather than seek a more advantageous employment for their wealth in foreign nations” (Ricardo, 1817/1960, p. 83, emphasis added).



Indeed, looking at the social and ecological costs of our industrialised food production and the current globalisation of the economy, we could paraphrase Smith pointing to the negative side of free markets competition. Indeed, had Smith looked more carefully to what was happening already at his time, he could have easily concluded that

“it is not from the lack of consciousness of the butcher, the brewer, or the baker, that we’d expect cheaper or adulterated ingredients in our dinner, but from their regard to their own interest. By preferring to employ children and women at lower wages; and by using lower cost and correspondingly lower quality ingredients to produce their sausages, beer or wine, they only intend their security; and by directing their industry in such a manner as its produce may be of the greatest value at the lowest cost, independently of their nutritional value or the environmental and social costs incurred in their production, they intend only their own gain. They are in this, as in many other cases, led by an invisible hand to promote an end that was no part of their intention. By pursuing their own interest, they frequently harm society more effectually than should they consciously be willing to do so.”

It is precisely acknowledging that market competition may push into both directions what Toynbee concluded:

“If we once grant the principle of the division of labour, then it follows that one man can live only by finding out what other men want, it is on this fact, for instance, that the food supply of London depends. This is the basis of the doctrine of *laissez faire*. (...)”

But the principle of *laissez faire* breaks down in certain points not recognised by Adam Smith. It fails, for instance, in assuming that it is the interest of the producer to supply the want of the consumer in the best possible manner, that it is the interest of the producer to manufacture honest wares. It is quite true that this is his interest, where the trade is an old-established one and has a reputation to maintain, or where the consumer is intelligent enough to discover whether a commodity is genuine or not. But these conditions exist only to a small extent in modern commerce. (...) Thus the interest of producers and consumer conflict, and it has been necessary to pass Adulteration Acts, which recognise the non-identity of interest of sellers and buyers. (...) Adam Smith, moreover, could not foresee that internal free trade might result in *natural* monopolies. A conspicuous feature of our times is the concentration of certain industries in the hands of a few great capitalists, especially in America, where such rings actually dictate the prices of the market” (Toynbee, 1894, pp. 83-84).

These arguments are even more true today than in Smith’s time when shorter distance and less product complexity and diversity meant a potentially better understanding by the consumers of the underlying production conditions and quality of the product they were acquiring. Local producers, dependent on a small local demand for their products, certainly have a greater selfish interest in maintaining their reputation. But this cannot be assumed within increasingly globalised markets and even internet sales where buyers do not even know where and how the products have been produced. Thereby, to assure quality and “honest wares”, all kinds of product controls and laws are required to avoid cheating and harming consumers’ interests and health. There is simply no automatic mechanism whereby empirically and theoretically, the “invisible hand” alone suffices invariably to redirect individual greed towards the common good.

Standard neoclassical models simply avoid the problem by assuming perfect information or at least information symmetry. By ignoring asymmetric information and the market incentives to *phishing for phools*, as Akerlof and Shiller (2015) put it, economists ignore that free-market competition selects those producers able to cheat their consumers more “efficiently”. More globally, it stimulates producers to externalize their social and ecological costs while finding ways to exploit natural resources and their labourers more cost-efficiently.

Unlike assumed by theory, in actual practice, people base their decisions on highly incomplete information. We see just what we have in front of us: the seductively displayed and packed product and its price, mostly ignoring all the rest. Akerlof and Shiller are acknowledged professionals in the field, both having earned a “Nobel Prize”. Notwithstanding, their critique and common-sense arguments respect the marketing and sales practices whereby markets and the search for profits push producers to *fish for fools* and dupe consumers, are still ignored by standard models based on the assumption of information symmetry. Mainly, Akerlof’s and Shiller’s point is rationalised aside by being considered a minor potential market failure addressed by appropriate regulations that do not impair fundamental free-market beliefs. They are not taken for what they potentially are: a severe questioning of the bulk of neoclassical theoretical framework built upon non-empirically verifiable and existing assumptions.

In the case of Toynbee, it has to be noted that he was undoubtedly not illiberal. In the debate in the political arena between mainstream economists and industrialists defending *laissez-faire* at one hand and the socialists’ critique, he sought a reasoned middle-ground.

“Competition, heralded by Adam Smith, and taken for granted by Ricardo and Mill, is still the dominant idea of our time; though since the publication of the *Origin of the Species*, we hear more of it under the name of the ‘struggle for existence’. (...) It is next assumed that this struggle for existence is a law of nature, and that therefore all human interference with it is wrong. To that I answer that the whole meaning of civilisation is interference with this brute struggle. We intend to modify the violence of the fight, and to prevent the weak being trampled underfoot.

Competition, no doubt, has its uses. Without competition no progress would be possible, for progress comes chiefly from without, it is external pressure which forces men to exert themselves. Socialists, however, maintain that this advantage is gained at the expense of an enormous waste of human life and labour, which might be avoided by regulation. But here we must distinguish between competition in production and competition in distribution, a difference recognised in modern legislation, which has widened the sphere of contract in the one direction, while it has narrowed it in the other. For the struggle of men to outvie one another in production is beneficial to the community; their struggle over the division of the joint product is not. The stronger side will dictate its own terms; and as a matter of fact, in the early days of competition the capitalists used all their power to oppress the labourers and drove down wages to starvation point. This kind of competition has to be checked; there is no historical instance of its having lasted long without being modified either by combination or legislation or both. In England both remedies are in operation, the former through Trades-Unions, the latter through factory legislation. In the past, other remedies were applied. (...) Competition, we have now learnt, is neither good nor evil in itself; it is a force which has to be studied and controlled; it may be compared to a stream whose strength and direction have to be observed, that embankments may be thrown up within which it may do its work harmlessly and beneficially. But at the period we are considering it came to be believed in as a gospel, and the idea of necessity being

superadded, economic laws deduced from the assumption of universal unrestricted competition were converted into practical precepts, from which it was regarded as little short of immoral to depart” (Toynbee, 1894, pp. 86-87).

The main point he makes, and indeed any economist should do, is that real markets are not just an abstract concept in which “perfect” or “imperfect competition” can be assumed. As all historical realities, markets are the fruits of past choices and developments and, by their very nature, a place where conflicting interests may collide. Indeed, as Karl Polanyi in his magnificent *The Breakdown of Nations* showed, our free-market-based industrial societies’ idea and practice did not emerge until the 18<sup>th</sup> and 19<sup>th</sup> centuries, being unknown before then. Conventional economists like to argue that capitalism is not new and that markets as such have existed throughout history. They have, but they had never been free and seen to organise the economic process without external limits and controls. As Wolfgang Sachs showed,

“As late as 1744, Zedler’s *Universal Encyclopaedia* unwittingly gave a naive definition of the term ‘market’: ‘that spacious public place, surrounded by ornate buildings or enclosed by stands, where, at certain times, all kinds of victuals and other wares are offered for sale; hence the same place is also called market place’. (...) There is no mention of ‘market shares’, ‘price fluctuations’ or ‘equilibrium’. Between then and now a far-reaching change has taken place in the self-image of society.

Adam Smith was the first thinker who, when using the term ‘market’, no longer envisaged a locally determinable outlet for goods, but that society-wide space throughout which all prices intercommunicated” (Sachs, 1999, pp. 18-19).

Previously, markets were embedded and contained by society’s broader social, cultural and political norms and forces. Political and administrative regulations and restrictions, cultural values and individual ethics hold the upper hand over and explicitly limit “market freedom”. It is true that “at the local market places” and long-distance wholesale trade, individuals freely engaged in “the art of acquisition”: buyers and sellers defining and accepting their exchange terms. But these spaces were circumscribed and limited by political, cultural and sometimes even moral and religious limits.

Labour, that fundamental pillar of our market economy, began to be hired in the labour markets instead of being acquired by warfare or, at the marketplace, as slave labour; or elsewhere being imposed by force or cultural tradition in feudal serfdom. Although found elsewhere in ancient societies, it was only with capitalism that wage-labour became the primary way labour was exerted, being freely bought and sold as a commodity whose price was called wages. It was then, already with Adam Smith, that labour, or what he initially termed “productive labour”, has been defined solely in terms of a market-oriented activity. As he did with his other historical examples, he took for the whole that which was but a part of it. He reduced labour to wage-labour, ignoring all other ways whereby we humans (re)produce use-values, create new wealth by transforming and combining different elements of our environment. All other productive activities like domestic work and other non-paid for labour in the context of self-sufficiency, reciprocity, redistribution, or plunder by force.<sup>4</sup>

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<sup>4</sup> For a better understanding of these other crucial ways of organizing and directing the economic process and their logic and relevance, see Polanyi, Karl (1944). *The Great Transformation*. New York: Farrar & Rinehart op. cit., and Stahel, Andri (2020b) *Oikonomy – The art of living and living well*. Campins: Montseny – Spiral Edition, pp. 10-33, where I added “plunder economy” to the list and discuss the relevance of these different forms to the economy and, therefore, to economic science. Once modern economics only concerns itself with one of these forms, that which in ancient Greece was known as chrematistics, ignoring all others, I argue for the need of using the term “oikonomy” instead of “economy” to differentiate one from the other.

Land and, for that purpose, all naturally available use-values (re)produced by autonomous ecological and biospheric dynamics, were no longer inherited as an unalienable family domain or, elsewhere, conquered through military force or held as commons by the community. Instead, it became a commodity open to being freely bought and sold. It was reduced to “natural resources” or merely raw material. Thereby Smith and later economists simply ignored the free and balanced ecological dynamics whereby our air and waters are renewed, wild fish stocks replenished and our lives sustained – implicitly considering it irrelevant to explain “*the Nature and Causes of the Wealth of Nations*”.<sup>5</sup>

Money too became something which could be obtained or lent for a given time at a freely agreed price, namely interests, once freed from the Medieval ban on usury. But these were all historical developments and choices, not the result of universal and unchanging natural laws.

As Karl Polanyi showed,

“The transformation to this system from the earlier economy is so complete that it resembles more the metamorphosis of the caterpillar than any alteration that can be expressed in terms of continuous growth and development” (Polanyi, 1944, p. 42).

We may even take this image a step further to appreciate the scope of this historical transition better. It is known that once in their silky cocoon or their shiny chrysalis, caterpillar larvae first have to digest themselves, dissolving their previous form (except for some tiny “imaginal discs” which will be the basis for some future new structures). After passing through this dissolution process, similar to how food is reduced to its tiniest components through the digestion process, new structures and forms may be built.<sup>6</sup> Similarly, the ancient world had to be first wholly transformed and dissolved by the scientific, cultural, industrial, technological, and political revolutions that opened the modern world.

It is in this context that modern economic theory was born. But, by giving up in considering markets in a historical term to inquire into its nature and dynamics, viewing it as simple abstraction, modern economics lost touch with reality. Instead of being concerned with actual historical facts, it became a disagreement between abstract models of reality pointing for or against more market freedom. It stopped being scientific to become increasingly ideological and utopian. Models depict how an ideal world would function if it conformed to the model, not how it is. They ignore, among others, Polanyi’s point that markets are treating as commodities realities that are not. As he argued:

“A self-regulating market demands nothing less than the institutional separation of society into an economic and political sphere. (...) True, no society can exist without a system of some kind which ensures order in the production and distribution of goods. But that does not imply the existence of separate economic institutions; normally the economic order is merely a function of the social in which it is contained. (...)”

Such an institutional pattern could not function unless society was somehow subordinated to its requirements. A market economy can exist only in a market society. (...) A market economy must comprise all elements of industry, including labor, land and money. (...)

The crucial point is this: labor, land, and money are essential elements of industry; they also must be organized in markets; in fact, these markets form an absolutely vital part of the economic system. But labor, land, and money are obviously *not* commodities;

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<sup>5</sup> A discussion of the relevance and the ways of what I termed “Nature’s oikonomy” can be found in part Two of my book, op. cit (2020b), pp. 169-290.

<sup>6</sup> Jabr, Ferris, August 10, 2012, <http://www.scientificamerican.com/article/caterpillar-butterfly-metamorphosis-explainer/>.

the postulate that anything that is bought and sold must have been produced for sale is emphatically untrue in regard to them. (...) Labor is only another word for a human activity which goes with life itself, which in its turn is not produced for sale but for entirely different reasons, nor can that activity be detached from the rest of life, be stored or mobilized; land is only another name for nature, which is not produced by man; actual money, finally, is merely a token of purchasing power which, as a rule, is not produced at all, but comes into being through the mechanism of banking or state finance. None of them is produced for sale. (...)

To allow the market mechanism to be the sole director of the fate of human beings and their natural environment, indeed even of the amount and use of purchasing power, would result in the demolition of society. For the alleged commodity 'labor power' cannot be shoved about, used indiscriminately, or even left unused, without also affecting the human individual who happens to be the bearer of this peculiar commodity. In disposing of a man's labor power the system would, incidentally, dispose of the physical, psychological, and moral entity 'man' attached to that tag. Robbed of the protective covering of cultural institutions, human beings would perish from the effects of social exposure; they would die as the victims of acute social dislocation through vice, perversion, crime, and starvation. Nature would be reduced to its elements, neighborhoods and landscapes defiled, rivers polluted, military safety jeopardized, the power to produce food and raw materials destroyed. Finally, the market administration of purchasing power would periodically liquidate business enterprise for shortages and surfeits of money would prove as disastrous to business as floods and droughts in primitive society" (Polanyi, 1944, pp. 71-73).

Indeed, any even superficial historical analysis corroborates this point: everywhere, there are political, administrative, or even moral limits to the way markets work and are allowed to function. Maybe drug and other illegal markets are the closest we have to "free-market" competition. But even there, people, cartels and gangs organise its functioning and set limits, using bullets if needed. Entirely free-markets are a convenient fiction, not a historical reality. Thus, Polanyi's point that modern industrial society's political history is a constant push for and against more market freedom. Some groups and interests ask for more deregulations and market freedom, others pushing in the other direction. But everywhere, administrative, political and cultural limits to market freedom have continued to be put in place. Be it through direct administrative and state intervention, laws and regulations, or through moral and ethical values promoting behaviours that go beyond short-term personal chrematistic interests.

In this context, we can better understand the debates in economics between *Keynesian* or *fiscalists* and *Monetarists*. More than a question of empirical truth, it is an ideological debate between different economic policy options. Although arguments are based on the outcomes of abstract models, those of the formers invariably tend to show that there is a scope and needed intervention by the government through active fiscal or monetary stimulus, the latter "proving" that leaving the markets self-regulate promotes the most desirable and "efficient" outcome. Thus, models are not chosen according to what is being observed but primarily according to what is being tried to be proven. Some are sustaining and legitimizing government intervention, others more deregulation and market freedom. Nor is it a coincidence that Adam Smith's ideas about the invisible hand driving individual greed towards the common good started to find friendly ears in Britain who, after all, based its hegemony on its industrial power and dominion of world trade.

*Trade, not rule*, was the official motto of Britain's foreign policy in the XIX Century and the cornerstone of its supremacy in the world. It was a fundamental aspect to support its growing industrial output

resulting from the industrial revolution it initiated, both finding markets for its products and raw materials for its industry. Smith's and later Ricardo's trade models gave it an apparently scientific and well-argued logical support. We just have to remember British support of Latin America's independence movements and eagerly signing trade deals with all of them or, in the same vein, how Britain obliged the Chinese Empire to submit to free-trade deals with Britain after losing the Opium Wars. A reality far-removed from the image of universal peace, welfare and brotherhood brought by trade as promoted by Smith and Ricardo.

Thus, after considering the history of economic thought, both Mark Blaug's and Maurice Dobb's conclusions:

“When certain theories become the ruling scientific idea of their times for ‘good’ internalist reasons, there are frequently also ideological reasons that make the theory palatable to vested interests and appealing to the man-in-the-street” (Blaug, 1980, p. 177).

“Whatever one may be led to expect *a priori*, the history of political economy from its inception makes abundantly clear how closely (and even consciously) the formation of economic theory was linked with the formation and advocacy of policy. Although the doctrines of the classical school were very abstract, especially in the form given to them by Ricardo (whom Bagehot called ‘the true founder of abstract Political Economy’), they were related very closely to practical issues of their day, indeed surprisingly closely” (Dobb, 1973, p. 22).

“There is an undetermined body of economic propositions and theorems which appear to be about economic behavior but which do not result in any predictable implications about that behavior. In short, a good deal of received doctrine is metaphysics. There is nothing wrong with this, provided it is not mistaken for science. Alas, the history of economics reveals that economists are as prone as anyone else to mistake chaff for wheat and to claim possession of the truth when all they possess are intricate series of definitions or value judgements disguised as scientific rules. (...) To be sure, modern economics provides an abundance of empty theories parading as scientific predictions or policy recommendations carrying concealed value premises” (Blaug, 1988, p. 711).

## **The New Theology**

Taking a hermeneutic look at economics, by considering its development and practices in the broader political, cultural and ideological context in which it happened, shows how deeply economics is related to the legitimization and maintenance of the modern, market-centred historical order. More surprisingly and paradoxically perhaps – after all, economics' method is based on modern objectivist science, which dethroned theology and tradition as a way to assess empirical reality – economics came to resemble medieval theology both in its practice and their central ideological role.

In terms of practice, just as medieval theological discussions seem metaphysical, dogmatic and abstract, so did economics. Both are based on initial dogma or hypothesis from which conclusions, through deduction, are obtained and taken as truths. Both follow strict rules and orthodoxies, all those who deviated from being simply expelled from the corps and considered heretics. Just as theology had to stick to a clearly defined doctrine and corps of knowledge, economists are not supposed to engage

in other social sciences' subjects like sociology, cultural studies or political sciences. Nor are they supposed to ask themselves about human psychology more deeply. Humans' mechanical and predictable behaviour is simply assumed as an initial point of departure, just as particularly shaped production functions and consumer preferences. Like for theology, initial assumptions and logical reasoning are taken as the way to truth. As were Medieval theologians not supposed to consider other spiritual traditions or even direct personal mystic experiences besides the accepted official doctrine, as some nowadays greatly respected Medieval mystics like Meister Eckhart did. Like the Church, who ignored or censured the views of those who, like Giordano Bruno, Galileo or Kepler, dared to go against the accepted orthodoxy, economics ignores or condemn those who dare to think beside the box.

Both medieval theology and modern economics maintained their orthodoxy and closed character by resorting to a private language inaccessible to others. Latin and the intricate theological arguments for the former, mathematics and, probably more than in most other sciences, a series of technical terms and terminology for economics. "Pareto Optimality", "bounded rationality", "yield gap", "monopsony", "generational accounting", "marginal propensity to save", "income elasticity of demand", "liquidity trap", "adverse selection", etc., are just some of the terms and concepts needed to be known to participate in the debate. Notwithstanding, this is a way to effectively exclude common folk and even all non-theologians/economists from the discussions. Thus, generating a self-referential environment in which truth and the status of specific assertions and individuals are assessed.

Persio Arida (1983) wrote an interesting paper about the role of rhetoric in the settling of disputes within economics. As he argued, once there are no commonly agreed on external objective factors to assess the heuristic content of economic theories – unless other sciences in which empirical reality and falsificationism procedures are the ultimate yardsticks used – by looking at the history of modern economic thought, it can be seen that in economics it is more a matter of managing to assess your ascendancy among your peers rhetorically, then of the positive overcoming of theories with a lower heuristic content by others with a higher level of explanatory power as assumed by science. Indeed, both theologies' and economics' abstract reasoning and idealised, non-observable realities on which their logic is applied render them immune to external, empirical scrutiny. Thereby, truthfulness can only be assessed by internal criteria, by its peers, and not by empirical evidence. It becomes all a matter of how the agreed rules, dogmas and procedures are followed and how the profession favours some theories and models over others.

Thus, as Arida argued and in line with theological practice, rhetoric and sticking to a clearly defined abstract field where given assertions are supposed to be valid and validated became the primary way disputes within economics have been solved in the past. Rhetorical dogmatism and not empirical fact-checking are, thus, the rule. These rules and practices may vary slightly in space and time. Nonetheless, as Arida claimed, some basic principles have been repeatedly favoured by economists and have led to some authors and models' enthronisation and others' side-lining. Here are some of the principles to traditional economics that Arida considers.

**Simplicity**, as an ideal borrowed from physics, is one of the central rhetorical practices in economics. Despite the intrinsic supposed complexity of the studied object, simple and straightforward statements are preferred to unclear, nuanced, dialectical and complex ones; simple, elegant mathematical formulae preferred to hermeneutic digressions and considerations. Thus, like Newton's movement equations or Einstein's famous  $E=mc^2$ , economic theories and models are supposed to be simple and elegant. They may be based on complicated mathematics and formulae. Still, they are expected to exclude the ambiguity of linguistic discourse, contradictions and complexities inherent to qualitative and ever-changing realities and their reluctance to be mathematised.

**Inner coherence** and the avoidance of *ad hoc* hypotheses to realign the model's inconsistencies is another generally agreed procedure. Thus, authors should clearly state their models' hypothesis and arrive at given statements through mathematical and coherent operations. Like in theological arguments, in economics, reasoning starts from clearly defined and accepted initial premises or dogma, and conclusions are reached by logical deduction and coherent argumentation.

Other fundamental and widely-used rhetorical procedures are the **greater amplitude** and **extent** of given theories and models. Thereby, those theories that explain a broader range of phenomena are preferred to those with a more restricted scope. Hence the frequent practice of portraying rival theories and models as "special cases" of the "general model" or theory being presented. For instance, Keynes's portrayal of the neoclassic full-employment equilibrium models as a particular case of his general theory, which, later on, and ironically perhaps, in its turn, was portrayed as a specific case of the more general IS-LM model instead.

Moreover, as was the case in traditional societies and theology, economists gain prestige by adhering **to a tradition and line of thought**. Thus, an allegiance to the founding father, Adam Smith, or the Ricardian tradition or Malthusianism in their polemic respecting rent and full-employment are cases in point. As do modern economists who line up as *monetarists* or *fiscalists*, for instances. Thus, like for religious faith, splitting into different branches, economics splits into separate lines, although all are adhering to the same faith. As in the other principles, adherence here has to be seen as rhetorical rather than necessary. By declaring to follow the line of accepted and revered authors, authors claim their authority and ascendancy. As did Jevons by creating a list of many pages of "mathematical economists" whose tradition he claimed to have inherited. Thus, giving legitimacy to his approach and statements but significantly leaving Ricardo, whose labour-value-theory he despised, out of his list. He did so on a purely rhetorical basis, despite Ricardo's abstract, model-based methodology they shared, and which this list was supposed to reflect.

In this context, another often used rhetorical practice identified by Arida has to do with the **(re)invention and (re)assessment of tradition**. Thus, by reinterpreting past authors, ideas, and controversies, authors claim that given practices represent false paths. Simultaneously, the tradition claimed by themselves is portrayed as the correct one. Hence Keynes's vindication of Malthus in opposition to Say, or Sraffa's vindication of the classics and particularly Ricardo in the face of the neoclassical tradition. We can also see these very practices occurring in the theological disputes between different lines of faith, and between orthodoxy and heterodoxy.

Another fundamental rhetorical practice in economics is to claim **independence from particular interests, political and ideological motives**. Although most economics debates are related to specific and often conflicting interests, economists are expected not to be affected by these issues and follow "objective" and "non-ideologically tainted" research. Thus, at the rhetorical level, economists are supposed to be unaffected by their theories' implications. Like, for example, astrophysicists showing little concern with the fate of distant stars and supernovas as eventually predicted by their models. Thus, economists present themselves as "technicians" and "objective scientists", positively developing the economic "tool-box" arsenal, whose use and application is to be decided by others, by the so-called normative political instances.

Related to this rhetorical practice, another practice identified by Arida refers to the **minimum use of metaphors**. Although the use of metaphors and images may be necessary at the early stages of controversies, economic practice favours those who use more literal and direct explanations to those based on analogies and vague images.



Finally, and in a certain sense encompassing all these rhetorical practices, we find the choice of **mathematical language and formalisation over narrative and qualitative description**. By favouring, like in physics, mathematical formulae, economics portrays itself as **simple: reducing** the world's complexity to simple formulae. By sticking to the rules of mathematics, the theory's internal **coherence** is assumed. Moreover, it claims mathematical **universality** and **amplitude** and **adherence to the scientific tradition** set out by modern natural science and such great luminaries as Galileo, Newton and Einstein. Moreover, based on mathematics' precise, abstract language, theories and models are presented as **free from metaphors** and particularly **economists as objective** and detached from particular interest groups and conflicting powers. These all despite economics' direct relevance to informing and legitimising economic policy. Despite economics' ideological role legitimising modern free-market, chrematistic centred development model.

Indeed, to the economists, mathematics became the new Latin, a language whose grammar and meanings economists have to master and are not understood by the general public. Like the use of Latin by Medieval theologians, it shields from external critique and, at the rhetorical level, reinforces the practitioner's status and the aura of the profession as a whole. Just as understanding Latin endowed medieval theologians with ascendancy over society and the common folk by their apparently deeper understanding of God's will, mathematics provides economists (and scientists in general) with a supposedly deeper understanding of the underlying workings of reality too.

The analogies that can be made between theologians and economists can be seen already at the training of aspiring future professionals. As for theology, there is a strikingly homogeneous and circumscribed program followed all over the world. Like aspiring theologians, there is considerable pressure to conform to a given, highly orthodox way of doing science and approaching the subject all students in economics go through. Moreover, if students wish to be accepted by their peers and follow an institutional career, they must adhere to both form and content carried by the prevalent hegemonic orthodoxy. Like for theologians no longer bothering that much about their deep spiritual questions, following established and accepted doctrine instead, economists have to conform to the limited scope of subjects to be approached and the mathematical method to make their career in economics.

By reflecting on modern economics as an institutionalized practice and considering it in the historical context it developed, a paradoxical development becomes clear: economics has become the new theology of our world, and economists have become the new theologians. Just as theology was a central ideological piece legitimising and holding the medieval social order, modern economics plays a central role in keeping the modern, industrial, free-market based order. Just as the medieval hierarchical order and tradition, with the Catholic Church and the Pope as central figures, did not accept being questioned; the idea of the benefit of free-market competition and the dogma of the *invisible hand* as leading to the common good and welfare was and still is not something that is easily questioned without jeopardising and menacing existing social structures, interests and practices. Nor is the scope of economic inquiry easily expanded without questioning our chrematistic, market-centred, growth-oriented development practice.

At the dawn of our modern era, with the feudal society based on inherited privilege and tradition crumbling down, a new set of theories and a new ideological construct replaced the previous one. Instead of the resort to tradition, reason and empiricism became the new way to access truth. As the philosopher Jürgen Habermas (1981) argued, instrumental reason replaced communicative reason. Instead of tradition and morals, human action had to follow a means-to-an-end logic. Thus, future expected outcomes, not the past, become our guide for our practice. To get there, the human spirit had to be freed from past superstitions, morals and ideologies. It had to get rid of religion and theology's ascendancy as ways to understand and order our lives.

But, and here is perhaps the big irony, in the end, by following Galileo's method set out and consolidated by Newton and the scientific revolution that ended the theological explanation of reality, economics ended up becoming the new dogma, the new guardians of the truth. We came, thus, full circle. Modern science's instrumental approach and empiricism had successfully dethroned tradition-based morals and theological truths. As Max Weber argued, rationalization and the constitution of a society based on rational criteria and empiricism, instead of morals and tradition, have been central to the emergence of modern industrial society.

Notwithstanding, once applied to the economic practice's social, ever-changing realm, the mathematical method borrowed from mechanical physics led to a new abstract, dogmatic ideological discourse. Thus, seen in their respective contexts, economics occupies the same place theology once had occupied. Its orthodoxy and purity must be preserved at all cost once our very perception of what the economy and economic development are all about depends on it. Once we question some of its central truths like the infinity of human needs (confounding needs with satisfiers), examine the dogma of free-market's automatic benefits, the role of modern finances and speculative gains in our contemporary world increasing our social and ecological imbalances, the principle of ongoing chrematistic growth, among others, it is the whole edifice that has to be reviewed.

Perhaps, that is precisely what is needed, and we are approaching another of these Copernican moments in history. Now that our chrematistic growth-oriented development limits become evident, the social and ecological imbalances resulting from it increase more and more, a new understanding and a new *ethos* have to emerge. Exacerbated by the current Covid-19 pandemic, our current development model's political, social and ecological limits and contradictions are becoming more and more acute and evident. Just as were the limits of the Medieval feudal order at their time. Thus, the "new normality" spoken of cannot follow and repeat the previous one. A new world has to emerge. It is undoubtedly a needed step if we hope to find new development models and practices that are not at the service of profits and the logic of exchange-value accumulation, of infinite chrematistic growth, but are aimed at our individual, collective and ecological balances and welfare instead. An economy "as if life matters".

This means, first of all, recovering a living, phenomenological look at reality instead of following an inherited, dogmatic body of theories and preconceptions. To follow Newton's method, economics had to resort to the *ceteris paribus* condition, assuming that everything else is kept unchanged. Thereby, history and life's creative movement have been wiped out of its view. Thus, faced with the incapacity of modern economics to understand the economy in historical and ecological terms, we may nowadays, following Galileo, state: *eppur si muove*. The reality, and particularly economic reality in our increasingly accelerating and interdependent world, is always moving. Thus, to rightly look at it and try to understand it, a new way of looking at it must be found. The *ceteris paribus* condition has to be removed. And just as Galileo looked at the cosmos with fresh eyes, we too have to look at the economic process and our world in a new, living and open way. The question is, will economists dare to do so and look at reality with fresh eyes and new instruments, or will they do as the theological establishment tried to do at the dawn of modern science, sticking to their dogma and accepted doctrines?

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# Beyond dollar creditocracy: A geopolitical economy

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## Preface: September 2021

The argument of this paper, completed at the end of December 2020, has become more relevant today as the US withdrawal from Afghanistan underlines much of what we say about the decline of US power. They include the following:

- There are limits to the US's so-called exorbitant privilege and they have dictated the withdrawal from Afghanistan. The Triffin Dilemma of US current account and budget deficits putting downward pressure on the dollar never went away. Today, when a decade of Quantitative Easing has been topped by even greater money creation, the dollar is sinking, generating pressures to raise taxes and cut spending.
- The financializations that the US has employed in recent decades to keep money flowing into the dollar creditocracy and hold up the dollar's value have run their course and can only be sustained by Federal Reserve support for major asset markets.
- The cost that creating and maintaining the dollar creditocracy has exacted from the US economy is no longer bearable.
- The rivals and victims of the US creditocracy are today numerous, growing and increasingly allied in a challenge to the dollar creditocracy.
- They are creating a multi- and pluripolar world where US unilateralism is no longer just resented, but simply rejected.

## Introduction

As a new Cold War against China began, it was clear that the pandemic was altering the international balance of power fundamentally. For former US Treasury Secretary, Lawrence Summers, it was likely a "hinge of history": "[i]f the 21st century turns out to be an Asian century as the 20<sup>th</sup> was an American one, the pandemic may well be remembered as the turning point". It would erase 9/11 and 2008 from memory and rank alongside "the 1914 assassination of the Archduke, the 1929 stock market crash, or the 1938 Munich Conference" (Summers, 2020).

However, Professor Summers misses the point. The twentieth century actually was more an *attempted* American Century than an accomplished one (Desai, 2013) and the shift away from it is looking more certain and decisive than the "ifs" in his assessment let on. The pandemic is less a hinge than an acceleration of the decline of US power based on financialised neoliberal capitalism (Desai, 2020a). The structure of world domination that the US had sought to foist on the world in recent decades is breaking down. The US never succeeded; the structure was too unstable and volatile to work. Therefore, one cannot blame the pandemic for reversing even its limited successes. The reversal is rooted in a geopolitical economic earthquake whose rumblings date back decades. They have loosened more and more countries from the contradictory and crisis-prone structures of US domination.

The core of all international power structures of the capitalist “mode of foreign relations” (Van der Pijl 2014) lies in the international monetary system – what James Steuart called “the money of the world” in 1767, referring to the means by which countries settle their trade or financial imbalances among one another. The domination the US sought to exert was no different. At its heart lay the dollar-denominated international financial system that we call the Dollar Creditocracy. It has undergirded the dollar’s world role since the early 1970s and its unravelling leads to the denouement of US power.

The financial commentariat is already expressing foreboding of the dollar’s coming doom. “The decline of the US dollar could happen at ‘warp speed’”, warns *Market Watch*, while Reuters reports more sedately on how “King dollar’s decline ripples across the globe”. While set-tos between dollar boosters and gloomsters have long been a feature of the crises that have regularly punctuated the dollar system, what was remarkable is how many are changing sides. Benjamin Cohen (2020) warned of the end of the dollar’s “exorbitant privilege” and Stephen Roach (2020) warned of a 35 percent drop in the dollar index over the coming two to three years. Although some boosters such as Barry Eichengreen (2020) stuck to their guns, they were clearly low on ammunition, unable to find solace in anything other than lack of alternatives.

Such commentators sense that doom lies ahead. However, they are far from explaining why. Cohen blamed it on Trump’s disastrous pandemic management, added to his tendency to weaponise the dollar, and Roach blames it on increased US borrowing. However, these explanations, like most commentary on the dollar’s world role, is tangled in that combination of wishful thinking and wager that one of us identified as the international financial intermediation hypothesis (IFIH) (Hudson, [1972]2003). It emerged from the difficulties that ended the dollar’s link to gold in 1971 to conjure up a new basis for the dollar’s world role. By making the so-very-clever argument that the US was no ordinary indebted country but the world’s banker and that its deficits were loans to the world, a public service the world should accept gratefully by lifting capital control and deregulating finance. This attempt to normalise the transformation of the US economy from super creditor to super debtor was never more than a barely adequate fig-leaf.

In this article, we cut through this understanding, which, despite its faults, dominates our understanding of the dollar system. We wish to replace it with one that accords with the historical record, a geopolitical economy of international monetary system of modern capitalism. We trace the fundamental instability of the current dollar-centred “system”, allegedly the successor to the gold-sterling standard that prevailed before 1914. We stake out the conceptual ground of the argument to follow. We then proceed to our historical account through the main phases of the international monetary system since the international gold standard. We conclude by bringing the story up to the current unravelling of the dollar creditocracy with a survey of the chief forms its breakdown and alternatives are taking. We conclude with reflections on the political and geopolitical stakes in the unravelling of the dollar system.

### **Money under capitalism**

No other notion sets back our understanding of money than that money is a commodity. Money is an ancient social institution that put capitalism in a bind: The essentially public character of money is pitted against capitalism’s urge to privatise, control and commodify it. However, success in doing so only lays the basis for financial crisis. Karl Polanyi, following the Marxist sociology of Ferdinand Tönnies, called money a fictitious commodity (Desai, 2020b).

Unlike commodities, Marx noted, money has no “natural” price, no real cost of production (Marx, [1894]1981, p. 478). Precious metal coinage was the earliest of the attempts to commodify money. Marx hit the nail on the head when he observed that

“For a coin, the road from the mint is also the path to the melting pot... In the course of circulation, coins wear down ... The weight of gold fixed upon as the standard of prices diverges from the weight which serves as the circulating medium... The history of these difficulties constitutes the history of the coinage throughout the Middle Ages and in modern times down to the eighteenth century” (Marx, [1867]1977, p. 222)

The acceptance of coins relied not on the precious metal they contained, but on minting by a sovereign authority that undertook to exchange them for the right quantity of the metal. “[A]s coin, gold becomes completely divorced from the substance of its value. Relatively valueless objects, therefore, such as paper notes, can serve as coins in the place of gold”. The coin therefore is always “capable of being replaced by valueless symbols of itself” (Marx, [1867]1977, pp. 223-4, 225-6).

Moreover, as Pierre Vilar points out, capitalism requires that money not be too much like a commodity. If it were, it would be punishingly deflationary: “if a single stable monetary system existed, a perpetual fall in prices would have continually discouraged producers and sellers, for whom the prospect of increases is the best stimulus” (Vilar, 1976, p. 11). That is also why John Maynard Keynes pointed out that there were only two periods in history when metallic money functioned tolerably well: the Elizabethan and Victorian ages, when the supply of precious metals was sufficiently plentiful. Even then, other devices were needed to forestall deflationary consequences (Keynes, 1980, p. 30).

We must therefore understand money as an historical institution, created by human societies and changing as social forms change. Capitalism has changed money in a very distinctive fashion, seeking to force it into the mould of a commodity. Such an endeavour could never be entirely successful, but the effort did transform money in critical ways. Two elements are important here.

First, all money is debt, whether issued by states or owed by households and firms to private creditors. Repayment extinguishes the debt owed to private creditors. State-issued notes and coins constitute an accounting liability on government balance sheets. We have already seen the fate of the earliest attempt to commodify money and reduce state control over it by making a commodity the material bearer of money, usually a precious metal such as gold or silver: the social and political character of money showed through in the very exercise. Though governments were liable to exchange notes and coins for gold and such exchange discharged the debt, most holders never demanded gold. Since the mid-twentieth century, governments have largely ceased offering gold in exchange. This has freed governments to fund their expenditures with paper debt, as the United States did during its Civil War with its greenbacks.

While gold coinage or convertibility did not last as ways of commodifying money, two other ways persist in the new situation of fiat or government-backed money. First, in the private financial sector, the originally social and political debt relations became exchange relations. Second, through a self-denying ordinance, capitalist states limited their own issue of money, permitting private credit a greater role than public credit in issuing money.

The second element of capitalism’s transformation of money relates to how debt is managed. The earliest human societies managed debt for social stability by holding both parties to the social relation of debt co-responsible when debts could not be paid. In the ancient Near East, such management included jubilees: at regular intervals these celebrations extinguished all debts, freeing debtors to make

new beginnings with “Clean Slates”, maintaining social cohesion and economic stability by cancelling unpayable debt (Hudson, 2018 and 2020).

Only in Roman times did debt become a relation of pure contractual exchange, making it inescapable. Five centuries of civil wars were fought to reverse forfeiture of collateral, land and liberty, wars that led to the fall of Rome. Once debt was contracted, the debtor had to pay it without regard to adverse personal and social consequences. Creditors bore no responsibility for having made loans that could not be paid, often at interest rates as high as 42 percent. With mounting compound interest unmoored from real growth rates and the ability to pay, debts inevitably mounted to unsustainable levels and racked Rome with recurrent and politically destabilizing debt crises.

Since Roman times, creditors have forced debtors who could not repay to forfeit their assets through foreclosure or forced sale. Though the medieval age recognised the ills of debt in its injunctions against usury, capitalism resurrected this aspect of Roman law. To be sure, the tyranny of creditors was sometimes vanquished by powerful debtors: Philip IV of France destroyed his creditors, the Knights Templar and Edward III of Britain defaulted against Italian banks, bankrupting them. Overall, however, the creditor interest has asserted itself repeatedly. In the post-Civil War US, it imposed a deflation that led to widespread farm bankruptcies, impoverishing farmers in an infamous monetary deflation. This was repeated in the Great Depression of the 1930s, by President Obama after 2009, as well as by the IMF and its Structural Adjustment Programmes in the developing world in the 1980s and 1990s.

Enforcing the legal fiction of debt as an exchange relation was the necessary condition for commodifying paper money. The sufficient condition involved capitalist states imposing on themselves a monetary self-abnegation when it came to issuing money. Government-created money never needs to be paid back, and does not expand the power of private creditors. So, when governments began limiting their own issuance of money and even borrowing from private creditors, they left the overwhelming amount of money creation as a source of profits for private creditors, banks and financial institutions and founded veritable creditocracies, by backing their financial interest with political power. Such arrangements were already being made in the earliest years of capitalism, when private creditors made their pacts with states hungry for funds to fight wars. Lenders ensured that states did not tax them but borrowed from them (Ingham, 1984, pp. 48-9, 99-100) and states often settled war loans by giving creditors monopolies, such as the East and West India Companies, South Sea Company and the Bank of England.

This is how capitalist states have used their power to create, preserve and extend that of their financial sectors, including over themselves. There is a cost to this. Leaving the issuance of the overwhelming amount of money in circulation to competing profit-seeking private creditors makes them touts and pushers of debt and their activities regularly lead to crises, followed by state bailouts and new financial regulation.

### **World money, world creditocracy**

We are now ready to approach the question of how these national monetary orders of capitalism relate to one another internationally. One key contradiction has powered the history of world money under capitalism. On the one hand, money is created by states or those delegated and controlled by them. On the other, there can be no world state under capitalism, and thus no world money. When dominant states nevertheless seek to foist their currency on the world as world money, they add new layers of contradictions and volatilities to the already unstable logic inherent in the geopolitical economy of

capitalism (Desai, 2013), the “relations between [its] producing states” as Marx once put it (Marx, [1858]1973, p. 886).

Dominant states and their capitalists seek to externalise onto other states or territories the consequences of their capitalism’s contradictions, such as excess commodities and capital, or the need for cheap labour and raw materials. These efforts victimize subordinated economies, but make rivals of states that are able to contest this domination. When the latter happens, there are confrontations – diplomatic, economic or even military – like those between Britain and her nineteenth century rivals, such as Germany. The result then was a Thirty Years’ Crisis (1914-45), including two world wars and a Great Depression. Today, we are witnessing rising tensions between the US and countries like China and Russia. The struggles resulting from international victimization and rivalries prevent any world state from being formed, also preventing stable world money. That is why all major critical writers on the subject, from Marx through to Keynes and Polanyi, distinguished the understanding of national currencies from the distinctly different arrangements world monies have needed.

That is also why the gold-sterling standard before the First World War and the dollar-centred system since the Second World War have been inherently unstable arrangements, the latter even more than the former. National states posing as world states offer their national currency as world money, and use force to integrate the world economy though their goal of a seamless realm of its acceptance has not and could not be realised, thanks to the inherent instabilities of capitalism’s geopolitical economy (Desai, 2013 and 2020b).

The key to understanding the world monetary systems based on the national currencies of the dominant capitalist countries is that they are primarily financial systems: private credit forms the battering ram of their international projection as world money. International *monetary* systems have, therefore, been the *financial* systems of particular countries. Governed by central banks that in most countries represent the interests of the financial sector, they generate vastly more private debt than public money. The results have been international *rentier* elites and world creditocracies, first centred on sterling and then the dollar. Their power extends through networks of institutions offering private credit to the world’s households, firms and governments and dealing in financial assets, such as stocks, bonds and other securities and their derivatives, especially for real estate and natural resources. The network is ultimately protected by the international power of that state. The 1950s and 60s constituted an exception to this when the United States supplied gold and exports to other countries. (Much of the gold was simply a return of the flight capital that had come to the United States in the 1930s.)

These arrangements have shaped the world’s trade and production patterns in the interest of financial classes, seeking to lock in the world balance of power. Other countries became satellites of the dominant economies, buying their surpluses and monopoly goods, and opening their capital markets. Open capital markets let dominant-country capitalists own and control their most lucrative sectors, especially those involved in primary commodities and public-infrastructure monopolies, earning higher returns on their capital than they would enjoy at home. They also let dominant nations’ financial houses speculate in the asset markets – for stocks, bonds, real-estate etc. – of the satellite countries, profiting while the going is good and leaving the country’s government to clean up the financial and economic mess after the inevitable financial crisis strikes. Whether such countries are colonies or formally independent countries, their freedom to do otherwise is severely curtailed. A great deal of this is achieved by backing compliant satellite oligarchies, often by overt military force and covert operations.

As the core instrumentality of domination, creditocracies are intricately enmeshed in international conflict. Major shifts in the international balance of power are expressed in parallel shifts in the international monetary systems and the domestic financial systems on which they rest. Each



international monetary system has rested on an inherently unstable financial system. Of course, this is precisely what is hidden by the dominant discourses about them.

### **The Gold Standard, 1870-1914: gold or empire?**

In popular myth, the international gold standard (c 1870 to 1914) was a pervasive, stable and beneficial arrangement, automatically adjusting the gold value of the world's currencies upward or downward as economies improved or deteriorated. Only the First World War ended it.

These myths have been busted in recent times by those who argue that the post-1971 dollar system is just the contemporary version of that system. The new account clarified that it was not a gold standard but a gold-sterling standard, that it was not automatic but managed, and that though sterling was predominant, there were other "key currencies", such as the French franc or the German mark. Such revisions served the purpose: to cast flattering light on the dollar system. Unsurprisingly, they refrained from saying anything about the sterling system's less flattering parts, its imperial basis, instability and dysfunctionality for working classes and subordination of colonies.

What was the sterling system really and how did it emerge? In medieval times, gold and silver coins circulated together and, with the development of capitalism, this system was progressively transformed. In Britain, silver was driven out and bank notes came into increasing use to supplement gold in circulation. The inflationary financing of the Napoleonic Wars led, eventually, to the 1844 Bank Charter Act. It limited the notes the Bank of England and other banks could issue to a conservative ratio of the Bank's gold reserves. This British gold standard became international when other countries began pegging their currencies to gold in the 1870s (De Cecco, 1984, p. 2). Sterling was only the most widely used such currency.

Britain's commitment to gold is storied, and colonies, such as British India, were dragooned into it at considerable disadvantage to them. Other countries' commitment and motivations varied. While gold appreciated, some countries, such as the oligarchical primary commodity exporters, Austria-Hungary and Russia, remained with depreciating silver (*ibid.*, pp. 51-2). And the countries which adopted the gold standard did so for varied reasons: to escape the depreciation of silver, to obtain credit, or, in the case of industrial challengers like Germany, to gain international acceptability for their own currency as part of a drive to expand market share (*ibid.*, ch. 3) and challenge Britain's control over international financial flows.

The gold-sterling standard not automatic but highly managed. The Bank of England managed the value of sterling and gold outflows by raising or lowering the interest rate. The mechanism worked simply because of London's short-term lending through British financial institutions. They simply left more of their deposits in London when interest rates went up. Other countries, particularly Britain's productively superior challengers whose financial system was geared to long-term lending for production, did not have financial systems with such hair trigger mechanisms ensuring short term in- and out-flows. They had to accumulate considerable gold reserves defend the gold value of their currencies. More generally, governments and central banks decided how to balance transmitting the disciplinary effects of international price movements to their domestic economies and protecting them from the same movements (Polanyi, 1944). When such choices proved too difficult, governments could also go off the gold peg.

However, the gold standard system was not only a managed sterling standard that had to contend with other key currencies and domestic considerations, it was also imperial, unstable and economically dysfunctional.

While the gold peg made sterling internationally acceptable, the British Empire's financial flows actually underwrote it, permitting the system to work with a comparatively tiny gold reserve. The empire was able to furnish liquidity by financing trade and investment in its white settler colonies and the US with surpluses squeezed out of its non-settler colonies, chiefly British India (Desai, 2018; Patnaik, 2017; Saul, 1960; De Cecco, 1984). While geopolitically motivated deposits from countries like Greece or Japan helped, as did those of Britain's own increasingly powerful joint-stock banks, India's contribution was indispensable (Saul, 1960, p. 6; De Cecco, 1984, pp. 36-8, 122-26).

The sterling standard's imperial character did not, however, protect it from the instability of the wider system. This instability arose because, Marcello De Cecco pointed out, the world economy was not a Ricardian one, seamlessly unified and ruled by the currency of its most powerful country, but a Listian *geopolitical economy* of competing and struggling national states and economies (De Cecco, 1984, p. 13). The gold standard era was in fact, witness to acute industrial and imperial competition as new industrial powers rose to challenge Britain's pre-eminence and led, as is well known, to the First World War (Hobsbawm, 1987). How could the sterling system remain unaffected?

Countries that successfully industrialised behind protectionist walls adopted the gold standard not to subordinate themselves to its discipline but to challenge Britain's sterling system as they had challenged her control over the world market. The challengers had, moreover, radically different financial systems that could not prompt inflows and outflows through small interest rate changes and hoarded gold to defend their currencies' gold value. As they did so, "the Bank of England found to its chagrin that when it raised the bank rate gold did not flow in as easily" and it had to raise the rate much higher. The adverse "effects on the economy became substantial, and they were noticed by the public and by the financial and political class" (De Cecco, 2009, p. 126). This ensured that the sterling system was weakening well before war broke out in August 1914.

This was the context in which US policy and business elites began refining their foreign policy objectives. Rather than merely seeking an "open door", they now sought to "topple and replace British business interests as the managing component of the world economy" (Parrini, 1969, p. 1). They sought to do this not by acquiring a territorial empire but by replacing sterling and London with the dollar and New York as the world money and financial centre respectively, and presiding over an open world economy.

Dollar boosters have encouraged the belief that the sterling and dollar systems are the acme of financial sophistication. Nothing could be farther from the truth if financial sophistication be said to consist in fostering economic dynamism. Quite simply, the sterling standard operated in the *declining* part of the world capitalist system while a completely contrasting one prevailed in the vigorously *rising* part, consisting of the contender nations, such as Germany, the US and Japan.

The sterling system combined short-term speculative and rentier activity with long-term investment abroad, chiefly in Britain's settler colonies and the US. There it aided their industrialization. British investors passively earning only low interest while borrower capitalists in these countries reaped high profits (Hilferding [1910] 1981) even as British industry began its still un-reversed relative decline (Gamble, 1994; Ingham, 1984). The sterling system also ruined non-Western countries, such as Persia and Egypt. Only Britain's non-settler colonies permitted sterling's paramountcy in the face of industrial decline. They absorbed Britain's increasingly uncompetitive exports, generated export surpluses that

compensated for Britain's growing trade deficit while increasing Britain's capital exports. They constituted the system's famished foundation (Patnaik and Patnaik, 2016).

The Central European (*Mitteleuropäisch*), particularly the German system, by contrast, used a three-way coordination between governments, banks and industrial firms to prioritise industrial expansion. Most contemporary observers considered the latter superior (Hudson, 2010, Hilferding [1910] 1981 and Desai, 2020c).

Finally, we may note that the sterling system's gold link relied on another luxury, a politically quiescent working class on whom the burden of high interest rates and unemployment could be imposed to maintain the gold value of sterling. It could not survive the coming era of working class empowerment (Eichengreen, 1992).

In sum, the sterling standard, the benchmark against which the dollar system is usually compared, was not only managed but also unstable, dysfunctional and already in crisis well before the war broke out in 1914. It relied on quiescent working classes and colonies, both conditions that would cease to obtain in the decades to come. That was the chief reason why it would not be resurrected in the interwar decades, try as British authorities might.

### **The Thirty Years' Crisis, 1914-1945**

The sterling system's inherent instability showed how impossible it was for a national currency, even one at the helm of the greatest empire ever, to serve as world money. New arrangements were clearly needed. However, the Great War transformed international finance in an unexpected manner. The US Government, pursuing its ambition to replace Britain at the centre of world money and finance, emerged as the overwhelming world creditor because of the loans made as to the Allies to fight the war.

In pursuit of its ambitions, the US had already started moving away from its more productively focused financial system by adopting English commercial banking principles. It established the Federal Reserve in late 1913, becoming the last major country to acquire a central bank. The next step was US entry into the Great War. The nation's banks had exhausted their ability to finance exports to the warring allies, leading the US government to step in.

The war had already brought the US economy out of a depression. It now proceeded to transform the US from a great debtor to the world's creditor, and hence arbiter of the peace that followed. In single-minded pursuit of its ambitions the US government undermined its English and French allies, and ultimately its own economy and corporations.

The key was the US insistence that Britain, France and other Allies pay the debts they had incurred to fight the war. This demand led the Allies, in turn, to demand reparations from defeated Germany. Many US corporate leaders saw the dangers inherent in demands for repayment of such unpayable debt, used as it had been for destruction, not production, and called for at least a partial cancellation. The British also reminded the US of their forgiveness of Austrian debts owed them after the Napoleonic wars. Keynes, mindful of limits both on war-weary Europe's ability to pay and on the US's ability to absorb the exports such repayment would prompt, called for a "general bonfire" of the "vast paper entanglements" (Keynes 1919, p. 283). However, US Government demands for payment prevailed. This accomplished two things. First, governmentalized international finance displaced the private financial flows over which sterling had presided. Second, the creditor orientated principle that all debts

must be paid, regardless of how socially destabilizing the consequences were, was established in inter-governmental finance just as in private finance.

World growth and stability were sacrificed to these inter-governmental creditor claims. Satisfying such large creditor demands of a single government led debtor countries to pay by subjecting their economies to austerity. Allied governments and their central banks siphoned off economic surpluses to pay debts owed to the US Government, a sum far in excess of what they owed to America's private bankers.

The US government for its part was chiefly concerned with its own world power, and pursued objectives quite distinct from those of Wall Street. This became clear when, in 1931, President Herbert Hoover announced a moratorium on US Inter-Ally debt demands. This led to one on German reparations and stock markets jumped throughout the world. The resulting restoration of foreign-exchange stability more than repaid the United States for the loss of the nominal \$250 million sum of foregone debt service. Suspension of the government's claims had a salutary initial effect on private international finance capital.

US interwar actions were also implicated in the crash of 1929 and the Great Depression. Given that its demands for debt repayment and reparations were unsound, the US had to organise a veritable financial merry-go-round to keep them going as long as they did: Germany paid reparations to the European allies, who paid their war debts to the US – and its banks, in turn, lent to Germany, chiefly to German municipalities. The US Federal Reserve maintained low interest rates through an early form of Quantitative Easing to encourage this circular flow, and to help the British put the pound back on gold. However, a side effect of low US interest rates was leveraged speculation in the US stock market, which rose even faster as foreign lending slowed. The US raised interest rates to tame it, triggering the crash of 1929. The already slowing economy, ultimately due to the undermining of the very markets on which the US relied to keep its war-bloated economy expanding, careened into the Great Depression. Lacking protected colonial markets, the US was its worst sufferer.

Advocates of US Hegemony (such as Kindleberger, 1973) bemoan the US's "failure" to provide international leadership in the interwar period. What they do not understand is that the US's pursuit of world power was necessarily a zero sum game. The last thing Roosevelt and his advisors wanted was the kind of internationalist leadership or even world recovery that would rehabilitate British, French and other European economies, enabling their governments to act as equals. The US aimed to subordinate foreign interests to its creditor claims, while escalating America's protective tariffs and quotas to make it harder for these governments to repay. The Roosevelt administration justified its actions with the rationale that freeing Europe from having to pay its war debts to the United States would simply leave its governments with more money to re-arm and threaten the world once more with war. In reality, US actions from Versailles onwards were already making the Second World War inevitable.

Seeing it as a "second chance" to pursue its goals, the US Government organized its intervention in the Second World War much the same way, tempered here and there by a lesson or two of the disastrous inter-war experience. In 1944-45 it tried to absorb the Sterling and Franc areas into its own dollar-centered financial system, based once again on inter-governmental debts. Once more, success eluded it.

### **Bretton Woods: US altruism or imperialism? 1945-9**

In 1944, with the war's end imminent, planning for the post-war international order got under way. The US sought to use the Bretton Woods negotiations to revive its plans for world domination by securing

the dollar's position as world money. The first aim was to limit the potential power of rivals, pre-eminently British sterling and Keynes' proposals for bancor. US officials used US creditor power, re-charged by the Second World War and by the capital that had fled Europe for the United States since the 1930s, as a lever to pry open foreign markets for US exporters and investors. Finally, they ensured that the newly formed institutions of international economic governance, chiefly the IMF and the World Bank, were designed to impose free trade and financial flows, both of which were expected to benefit US business.

However, these arrangements could not be imposed on other capitalist economies, weakened by war. They could not withstand the rigors of free trade and capital movements and the resulting debility would increase the attractions of Communism, which had, in any case, removed vast territories and populations from the ambit of capitalism. Nevertheless, soon after 1945 much of the infrastructure for US plans was, if not operational, in place.

To bring pressure on Britain, the US abruptly stopped loans to Britain through wartime Lend-Lease as soon as hostilities ended. The US used negotiations over the repayment of the \$20 billion debt Britain already had incurred to secure three aims: take over what remained of British overseas assets, private and public, by obliging Britain to sell them off to pay Lend Lease credit; to pry open Britain's Imperial Preference system; and to secure British support for the design of the IMF and the World Bank.

Under existing colonial and Imperial Preference arrangements, Britain had effectively frozen nearly \$10 billion in sterling deposits of major exporters such as India or Egypt in London to ensure they would be spent on British exports through preferential tariff arrangements. The US wanted to open up British and Europe's colonial raw-materials resources and markets for US corporations so that the blocked sterling credits could be spent on US exports instead of being limited to British products.

The US aim was to gain US access to world markets, a precondition for achieving full employment at home. To this end, the US pressure on Britain through the loan negotiations enlisted it in a common front against Europe. In the immediate post-war period, the effect was to concentrate in US Government hands most of the major decisions regarding which countries could borrow how much and on what conditions.

Finally, the US targeted proposals for an alternative to a US dollar-denominated, creditor-oriented international financial system. John Maynard Keynes proposed a multilateral International Clearing Union to settle international payments in a new multilaterally created currency, the "bancor," whose value would be determined by a price index of 30 widely traded commodities. The proposal was designed eliminate persistent trade and financial imbalances by putting pressure for adjustment on creditor economies (mainly the United States), by charging interest on positive as well as negative balances, and by wiping out the excess accumulations when they failed to find a counterpart in the ability of debtor countries to pay. Keynes' scheme also underlined creditor nations' obligation to make debts payable by importing goods from debtor countries and taking steps to improve their productive capacity. These proposals rested on Keynes' critique of German reparations and Inter-Ally debt excesses of the 1920s and his acute awareness that a dollar system would subject Britain, with her declining industry and imminent loss of empire, to practically colonial pressures.

US designs for the IMF and the World Bank, the two institutions of international economic governance to emerge from the Bretton Woods conference, involved ensuring that their lending would be conditional. Conditions would include refraining from enacting protective tariffs or quotas, or erecting financial barriers such as competitive devaluation, multiple exchange rates, bilateral clearing agreements or blocked funds beyond a brief transition period.

Post-war European determination to expand their productive base and reduce balance of payment pressures converted what would have been an even greater US trade surplus into the great post-war expansion of US corporate investment in Europe. US corporations bought foreign companies and set up production facilities near markets and cheaper labour. As foreign earnings became an increasingly large proportion of US international profits, US corporations appeared to thrive. However, this investment outflow heralded the great US investment outflow to China and its Asian neighbours after 1990 that, while keeping down US consumer prices, shifted industrialization away from the United States itself.

Given US export surpluses at the time, US foreign investment seemed almost the only way to recycle its export earnings as international liquidity. While some US economists worried about shifting industrial production abroad, politicians on both sides of the Atlantic thought it would provide the basis for a stable equilibrium.

However, this was not the kind of equilibrium that Keynes had proposed. His ideas would have formally ended the financial monopoly the single payments-surplus nation and its currency, precisely what US officials desired. By using the US's post-war economic and financial weight, and by promising to back the dollar with gold, the US ensured the rejection of Keynes' plan. That left the world with no alternative to the US dollar. Even so, the rest of the world was in no mood to swallow this bitter pill and the US had to promise to continue backing the dollar with gold at \$35 an oz. When the war ended in 1945, the United States held about \$20 billion in gold, accounting for 59 per cent of world gold reserves and these reserves only grew when, amid the dollar shortage, the Europeans were forced to pay for much needed US imports with gold. Europe lost gold rapidly to the US Treasury. US holdings rose by \$4.3 billion by 1948, and by 1949 its gold stock reached an all-time high of \$24.8 billion, reflecting an inflow of nearly \$5 billion since the end of the war. France lost 60 percent of its gold and foreign exchange reserves during 1946-47, and Sweden's reserves fell by 75 percent. Over the next two decades, however, the tables would turn dramatically.

### **The Golden Age: creditocracy in abeyance, 1945-1971**

Ideas about US hegemony that emerged in the 1970s (e.g. Kindleberger, 1973; Gilpin, 1971; for a fuller discussion see Desai, 2013, pp. 24-137) retrospectively designated the 1950s and 1960s as a period when the US had been hegemonic, reluctantly accepting the burdens of world leadership and permitting the dollar to serve as the world's currency. However, the US was neither reluctant nor successful. Having nursed the ambition to emulate Britain's erstwhile dominance over a world economy mostly open to it, and squandered its opportunities to realise it after the First World War, it was determined to succeed at this "Second Chance". However, despite the considerable power it wielded, circumstances were not propitious.

Though at Bretton Woods the US succeeded in preventing the emergence of any alternative to the dollar in international payments, it had to promise to back it with gold and it did not succeed in preventing capital controls, considerable state intervention in economies and financial regulation. Given the fragile state of war-torn allied economies, insisting on free markets, trade and capital flows, as the State Department under Cordell Hull wished to, would have been tantamount to handing them over to Communism. With the stabilization and extension (to Eastern Europe and China) of the Communist World and decolonised countries pursuing state-directed development, these compulsions made for the most *dirigiste* period ever witnessed since the beginnings of capitalism. Little wonder then that it was characterised by heavily regulated financial systems focused on productive expansion, with capital

controls and low interest rates. The result was the “golden age” the most sustained period of growth the world had witnessed.

In such a dirigiste, far from open, world economy, defeating alternatives to the dollar could only have been a Pyrrhic victory. The dollar did not preside over a world-girding financial system but only served to settle imbalances between central banks, apexes of their respective, heavily regulated and closed financial systems. Without an empire, in a world of national economies all seeking growth and therefore investment, the US was in no position to export capital. Early on, with the US running an export surplus and sucking in the world’s dollars, there were shortages of the means of international payment. After 1958, when European currencies became convertible and could serve in international payments, practically overnight, the dollar shortage turned into a dollar glut.

Robert Triffin (1961) knew why. Unable to export substantial capital, US current account deficits due to its military expenditures in Korea and Vietnam became the way the US furnished the world with dollars. This method was subject to the Triffin Dilemma: deficits lowered the dollar’s value. After 1958, when major European currencies became convertible, the US’s vast gold hoard was drained down so quickly that by 1961 there was not enough to back dollars in circulation given that US law required 20 percent of the paper currency in circulation to be backed by gold. The US has to persuade its allies to pool their gold to retain the dollar’s gold peg.

Over the next decade, the dollar lurched from crisis to crisis and exhausted all expedients for dealing with the situation. They ranged from claiming that there was no objective problem, only one of confidence under Kennedy to ending domestic gold convertibility to trying to deal with the deficit through “special transactions” under Johnson and persuading allies to repay war and Marshall Plan debts early, buy more US military supplies, make advance payments on them, hold their surplus dollars in non-convertible US treasury bills and, not least, agree to a *de facto* embargo on US gold sales.

Having exhausted them all, knowing that restoring the dollar’s gold value would require punishing economic measures at home, Nixon abandoned convertibility in August 1971. Just over twenty-seven years after the US scuttled Keynes’ plan at Bretton Woods to install the dollar as world money, the US had failed and all it had to show for it was the loss of its enviable gold reserves.

### **The re-emergence of creditocracy: 1971 to 2008**

By the early twenty-first century, the dollar was well into its second, even more volatile and destructive career, now reinforced by the rhetoric of Clinton’s “globalization” and Bush’s “empire”. New discourses proposed to regard the 1971 closing of the gold window as a masterful move, at one stroke unburdening the US from backing the dollar with gold while leaving the dollar’s preeminent position intact, perhaps even enhancing it in a veritable new “Bretton Woods II” (Dooley et al., 2005).

One has to cut through the fog of these discourses to retrieve the real history of the dollar after 1971. Initially, it took the form of a dollar-Treasury Bill standard (Hudson, 1972). As the US continued to run its current account deficits, US Treasury securities per force became the “safe” asset that foreign central banks could hold their surplus dollar in, instead of demanding gold. However, neither it, not the other measures the US now took, could prevent the dollar’s slide.

The US scuttled the Committee of Twenty negotiations to reform the international monetary system on a more equitable and less asymmetric basis when it concluded agreements with OPEC to recycle their oil surpluses in US and allied banks (Williamson, 1977, p. xi), lifting capital controls to facilitate this.

However, this too appeared incapable of halting the dollar's slide. On the one hand, unimpressed Europeans took the first step towards European monetary integration by creating the "snake" mechanism to place limits on fluctuations of member currencies in terms of one another. On the other, US and allied banks, stuffed to the gills with petrodollars and unable to lend in a stagnating West, went on a Third World lending spree, aided by the World Bank where less credit worthy nations were concerned. The result was a veritable "magic liquidity machine" (Calleo, 1982, p. 38) that triggered a new bout of Third World industrial deepening boding ill for the US.

The dollar's decline became precipitous, sending the price of gold up to over \$800 an ounce around 1980. Clearly amid stagflation and negative interest rates of the 1970s, US Treasuries were not attractive. Only after the new Chairman of the Federal Reserve, Paul Volcker, permitted rates to rise as high as necessary – to 20 percent at one point – to stabilize the dollar did the new arrangement stabilise. The Japanese now became the major holders of US treasury bills. High interest was not the only cost: Volcker also reinforced the tendency of US industry to achieve competitiveness at the expense of workers even as Japanese manufacturers' access to US markets marked the beginning of the rapid deindustrialization of the US that is still ongoing. It mirrors that of Britain in the gold standard period.

The punishing Volcker Shock recession of the early 1980s did push interest rates down from their stratospheric heights, though they remained historically high throughout the 1980s and 1990s in order to attract the funds needed to finance high US government deficits. By 1982, they triggered the Third World Debt Crisis as Mexico, Brazil and Argentina warned of impending default. The US, aided by the IMF and the World Bank, swung into action. In the first major post-war assertion of creditor interests, they enforced the rule that governments never go bankrupt (since they can always tax their citizens). The debt restructurings that followed ensured that by the end of the 1980s, Brazil and Argentina were each paying an enormous 45% interest rate on their dollar-denominated bonds (held mainly by their own kleptocratic elites).

Meanwhile, astronomical interest rates had sent the dollar to unsustainable heights and the 1985 Plaza Accord between the key currency countries was necessary ensure its inevitable decline was relatively orderly. The US had to put its financial house in order by closing its deficits in the late 1980s and early 1990s. The US dollar hit another nadir in the latter 1980s and early 1990s even as the euro emerged as a new rival. The defects of the Euro's architecture that became clear after 2010 should not draw attention away from the Europeans' intention to withdraw their mutual transactions from the dollar system, much like the countries today concluding bi- and multi-lateral agreements to sidestep the dollar are doing. And, like the stronger European currencies it brought together, the euro is also used in international payments farther afield.

However, by the late 1980s, financial deregulation picked up pace and started the regressive transformation of the US financial system. It had resembled the productive German "finance capital" model during the gold standard era, and has been turned into the most regulated of financial systems by Depression era legislation like the famous Glass Steagall Act after its brief dalliance with speculation contributed to the Crash of 1929. So the US financial system remained until the 1980s when it set off once again on the deregulatory path to ever more resemble the UK's archaic, predatory, speculative and short-term finance model.

In this form, it was finally ready to expand the supply of assets – denominated in US dollars or in currencies easily convertible into US dollar – for private holders such that this private financial demand for the dollar would counteract the Triffin Dilemma downward pressure on the dollar that continued thanks to the US's infamous twin – government and current account – deficits. This demand was many times greater than central banks' demand for dollars as reserves. The resulting rise in financial activity



in most countries was analysed as “financialization” (Krippner, 2005) though most scholars neither disaggregated the phenomena to examine particulars – agents, assets, flows and regulatory environment – of each discrete financialization, nor analysed their usually intimate connection with the requirements of the dollar system. Ever greater US budget, trade and current account deficits now became fixtures on the scene, and ever greater volumes of international financial flows became necessary to undergird the dollar.

These processes accelerated the 1987 appointment of Wall Street lobbyist Alan Greenspan as Chairman of the Federal Reserve. Under his supervision, an even stronger speculative financial dynamic was introduced into the dollar-centred system (Fleckenstein, 2008). It was now also undergirded by the “Greenspan put”, a promise by the US Federal Reserve to rescue the US financial sector from the inevitable losses as bubbles burst chiefly through their monetization through lowered interest rates and, since 2008, Quantitative Easing. Essentially, it involved giving financial institutions good money for their bad “toxic” assets so they could recover from their losses and re-build their balance sheets. This promise has been solemnly kept by all Greenspan’s successors to this day.

In the US economy as a whole, financial engineering replaced industrial engineering. Wealth was decreasingly made by building new means of production and hiring labour to produce new goods and services to sell at a profit. Instead, money was made purely by buying and selling financial securities and real estate. This is fundamentally contradictory because financial activities constrict and strangulate production even as they prey upon the very incomes it generates. This is the fundamental logic behind the regular financial and asset market crashes and crises of our time.

Only in the mid-1990s did the series of ever larger, more volatile and dangerous dollar denominated financializations, essentially asset bubbles, the dollar needed to sustain its international acceptability got going. It was aided by the Clinton administrations’ crusade, supported by the IMF and the World Bank, against capital controls worldwide, to bring even more countries into the dragnet of the dollar creditocracy.

Each bubble culminated in a resounding crash: financial crises became more frequent, touching first world (Sweden, Britain), transition (Russia) and developing countries (Mexico, India) alike. A culmination of sorts was reached in the 1997-8 East Asian Financial crisis. Thereafter, it was the turn of the already developing bubble in US stocks, particularly high technology stocks, which burst in 2000. That was followed by the housing and credit bubbles which burst in 2008.

### **World money beyond creditocracy**

The dollar-centred world financial and monetary system of recent decades relies on short-term speculation, with the Federal Reserve financial engineering asset market bubbles. The effect is to increase inequality among nations and classes and undermining economies instead of building them up. The system is anti-labour, imposing austerity policies to squeeze out rising debt service from working populations. This “austerity” and the adjustment imposed on debtor countries are designed to preserve the financial gains of creditors. Unlike productive activities, financial activities involve a zero-sum game. Gains can only be made by some when corresponding losses and suffering are imposed on the indebted wage-earning population, small business and debtor countries.

The inherent contradictions of the system and the conflicts it generates have been maturing over the decades and they are now rapidly unravelling the dollar creditocracy.

Let us deal with the contradictions first. The sheer scale of money creation – already stratospherically high amid the Quantitative Easing after 2008, it reached astronomic proportions amid the pandemic – threatens the dollar's value. Ever since easy monetary policy became necessary after the dot com bubble burst in 2000, the dollar's value has fallen captive to two competing imperatives: the financial sector's need for plentiful, cheap or outright free liquidity to finance leveraged speculation in asset markets with ever thinning margins, and the need to limit liquidity to boost the dollar's value. Pandemic liquidity issuance is sending asset markets soaring past even the unprecedented heights reached in the past decades. Instead of halting or bursting them at a sufficiently safe early stage, the Federal Reserve has been encouraging their inflation through its low interest rate policies and by buying bonds of all kinds, including government, junk and corporate bonds. The question is how long it can continue inflating its balance sheet without the government doing something to expand the rapidly shrinking productive base of US from which alone these assets gain their value. One only need add that such an expansion of the productive base in the difficult circumstances of the US economy will require such a radical about turn from neoliberalism that it is practically impossible in present circumstances given the Federal Reserve and the incoming Biden administration's commitment to the neoliberal policy paradigm.

Meanwhile Federal Reserve liquidity issuance has transformed “[t]he long, long bull market since 2009 ... into a fully-fledged epic bubble ... [f]eaturing extreme overvaluation, explosive price increases, frenzied issuance, and hysterically speculative investor behaviour” and rivalling “the South Sea bubble, 1929, and 2000” (Foroohar, 2021, quoting investment strategist Jeremy Grantham). The crash is only a matter of time and circumstance. When it comes, the Federal Reserve will face two equally unpalatable choices. It may react by letting the financial system that is invested in stocks go down, which will bring down the dollar creditocracy with it, or it can prop up the financial system to the tune of more trillions of liquidity, making the system's contradictions more acute. It is no wonder. The oceans of liquidity this creditor oriented system has created has only burdened working people, small business and governments everywhere with debt that only provides creditors with a means to control them and weakens productive systems rather than setting them and free and strengthening economies with productive investment.

To these contradictions, we add the conflicts the system generates, expanding the ranks of the system's rivals and victims. Since 2008, major international financial institutions have become more national, reducing foreign monies flowing into the dollar system to counteract the Triffin Dilemma, part of the reason the Federal Reserve has had to support asset prices and expand its balance sheet to massively. The system is, moreover, exposing weaker economies without adequate capital controls to politically unsustainable levels of currency volatility, as most acutely revealed by Turkey today.

These countries are seeking alternative sources of finance and payments systems.

Further, the dollar system could function so long as it maintained a semblance of neutrality. However, in recent decades, its legal regime and payments system have been weaponized by increasingly aggressive US diplomacy to favour its own corporations one-sidedly (Wolf 2014) and to further US foreign policy goals questioned even by allies, such as the sanctions against Iran. This is beginning to make rivals and victims such as Russia and Iran, and even long-standing allies such as Western European countries and substantial US Treasury holders wary, including China.

Finally, in the context of the present crisis, the Federal Reserve has clearly crossed another line. After 2008, it released torrents of liquidity to save the financial sector both within and beyond the US. However, in recent months it has provided the same to US non-financial corporations, including buying the junk bonds of debt-ridden “zombie” companies undermining any pretence of being even the whole

US economy's impartial central bank, let alone the world's (Bair and Goodman 2021, Brenner 2020, Foroohar 2020).

### **Emerging alternatives**

Other countries are seeking three types of ways out. First, Russia, the EU and China are building alternative international payments systems in the form of SPFS, INSTEX and CIPS respectively as well as domestic ones such as China's Union Pay, Russia's Mir Pay, India's RuPay and Brazil's ELO. These are, further, being coordinated internationally (Losev, 2019). These rapidly expanding systems, based on other currencies, will increasingly replace the need for international transaction to be routed through the US controlled dollar system.

Second, many countries, particularly those targeted by or rejecting US diktats, are actively pursuing the de-dollarization of their payments, prices and financial systems (Kuznetsov and Ivanova, 2018) and choosing to trade with other countries in each other's currencies in order to avoid the rigged dollar system, while Sino-Russian monetary and financial cooperation is widening even further. These practices constitute a reversion to means of settling balance-of-payments deficits that were used in the inter-war period, when sterling's role had shrunk and the dollar was giving the initial demonstration of its incapacity for a world role.

Third, the BRICS New Development Bank and Contingency Reserve Arrangement and, particularly, China's international financial initiatives increasingly constitute an alternative source of finance with advantages the dollar system simply does not have. China's Asian Infrastructure Investment Bank, One Belt and One Road Initiative and other financial initiatives are based on the principle of long-term patient capital making productive investment in a cooperative spirit that preserves the policy-autonomy of recipient countries. This contrasts sharply with the dollar creditocracy that, over past decades, has provided only short-term fickle capital for largely financial investment in an aggressive system that constrains policy, is loaded in favour of creditors and willing is to wage conventional and hybrid wars against countries seeking to exit the system. With the expansion of the AIIB and the OBOR, and planning to extend membership of the NDB to regional partners of the BRICS countries (Lissovolik, 2019), these initiatives are demonstrating their attractiveness to ever more countries.

Finally, though opinion is divided on whether the recent EU fiscal deal will resurrect the euro as a rival to the dollar, it continues to subtract the Eurozone from the dollar payments system. Amid the pandemic, de-dollarization can only accelerate further, making the dollar system and more exclusively a US affair. Even the dollar's traditional boosters have had to admit that its end is near (Cohen, 2020, for example).

The urge to escape from the predatory dollar creditocracy is strong, and the alternatives are today mostly China-centred. This is because, as in the period before 1914, the breakaway or challenge has to be led by countries whose financial systems are public utilities, focusing on financing production. Today, China's financial system is the most powerful such system, and it has enough international currency reserves to withstand speculative attacks by raiders or hostile powers.

Only such an alternative is in a position to create credit that enables economies to grow, in contrast to being the means of impoverishing them through debts that neither finance production (out of which they can be repaid) nor can be repaid out of existing trade and investment trends without impoverishing the debtor.

This basic difference in financial philosophy is generating powerful pressures toward the creation of a multilateral, multicurrency world. The contradictory dollar creditocracy is surviving only by lending debtor countries more money to pay and remain solvent. That only increases their debt, prolonging the period during which debtors must acquiesce in political and commercial “conditionalities” laid down by the powers that maintain and protect the dollar creditocracy: the US, the IMF and associated institutions plying their financial diplomacy of privatization sell-offs, anti-labour policies, pro-US trade favouritism and general impoverishment .

How exactly the contradiction of the dollar creditocracy and the conflicts it has generated will play out, and with what results, remains something of an open question. Today’s fracturing world economy and New Cold War certainly make Keynes’ ideas of a bancor and the International Clearing Union impractical on a world or universal scale. However, in the hands of a China-Russia-Iran centred bloc, perhaps expanding to include other European and Third World countries seeking to avoid debt deflation and austerity á la Greece or Argentina, its principles can be adapted to the needs of a less universal and partial, though still large, bloc.

Such a bloc is likely to use the most expedient measures first. Gold is the path of least resistance and *de facto* expedient in such a transition. It has the virtue of being a widely demanded asset not taking the form of debt to the reserve-currency government. At the same time, there is the long-standing difficulty of using a commodity whose price fluctuates with fluctuating production costs and demand conditions. These difficulties, along with the limits of gold supply, mean that any transition away from the dollar creditocracy will need other expedients, chief among which will be government holdings of the securities of allied governments. These mutual balances, extended as necessary through swap agreements, could become the basis for the new international reserve system.

These expedients will still need to be supplemented by a solution to the most fundamental problem for any stable and non-polarizing international monetary reform. It is the problem that Keynes emphasized in his 1944 proposals for bancor: in a world of unevenly developed productive capacities, some countries may run prolonged payments surpluses and become large net creditors, while other countries accumulate payments deficits.

To prevent such imbalances, Keynes proposed a system that would generate pressures on creditor nations to provide debtors with the means to pay, essentially by purchasing imports of their goods and services. These pressures included not only the interest charged on positive balances but also the threat that if disequilibrium persisted to a serious degree, the build-up of credits and debts should simply be wiped out. Either way, imposing austerity on debtor countries, undermining the world’s aggregate productive capacity, was the option avoided.

These systemic incentives were directed at the long-term stabilization of the system in which productively superior creditor nations (such as China) help build up the economies of their debtors and customer countries so as to create a balanced circulation of goods and services. That possibility is contained, for instance, in the Belt and Road Initiative, creating ports and transport infrastructure, and China’s other overseas investment and financing operations creating a foundation for mutual regional prosperity.

To be workable, such a system must expand bilateral balances into a truly region-wide bank, empowered to create its own money to finance this overall development. That would create long-term, patient and productive credit in a system of mutual gain. That expansionary international credit system, like the one Keynes sought to devise, is what the Eurozone failed to create for its member-nation

governments. The result has been to fracture between northern creditor nations and the debt-strapped southern and Western periphery, the so-called PIIGS (Portugal, Ireland, Italy, Greece and Spain).

Neither the United States nor its dollar-area satellites are likely to approve of such a region-wide financial entity. The US will not join any system that it cannot dominate and veto, and refuses to submit to decisions reached by what may be thought of as a democracy of nations. If it persists in this mode, it can only watch the demise of its contradictory dollar creditocracy and the rise of alternative systems fostering productive expansion elsewhere.

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# A black-swan shock exposes the deep fissures, endemic imbalances, and structural weaknesses of the U.S. economy\*

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## Abstract

For years President Donald Trump touted how strong the U.S. economy became under his leadership, and a chorus of sycophants, pundits, and economists echoed that narrative. It did appear to be true superficially: after all, the *official* unemployment rate was at a record low, while the stock market was at a record high, and average incomes were actually growing. However, seeming is not being. The economy seemed strong if one overlooked the deep fissures, endemic imbalances, and structural weaknesses indicative of an economy vulnerable to large unforeseen shocks. Thus, the coronavirus pandemic struck an economy so off balance that its impact was magnified.

**JEL:** A10, E02, E39, G10, H10

**Keywords:** Coronavirus pandemic, Covid recession, black-swan robust society, real unemployment rate

## Introduction

The commonplace idiom, attributed to the legendary investor, Warren Buffett, “It’s only when the tide goes out that you learn who’s been swimming naked,” is a vivid portrayal of our situation, for the Covid pandemic of 2020 found the U.S., as well as much of the world, swimming naked, i.e., unprepared for meeting the challenges it posed. To be sure, Buffett’s allusion was to normal business cycles but by the 21<sup>st</sup> century it seems like these have morphed into black-swan shocks, inasmuch as ordinary inventory cycles, trade cycles, or demographic cycles have waned in significance and have been overtaken by low-probability extremely-high impact events that are often referred to using the metaphor of a “black swan” (Taleb 2007).<sup>1</sup> Yet, in the 21<sup>st</sup> century U.S. such low-probability disasters have been appearing with uncanny frequency: the Dot-Com bubble, 9/11, the financial meltdown in 2008, and then the coronavirus pandemic.<sup>2</sup> Hence, economists should take the threats such shocks pose to the system much more seriously than in the past and explore ways to create what Nicholas Taleb called a black-swan robust socio-economic system in which we would be less vulnerable to their devastating impact (Taleb, 2009).<sup>3</sup>

Admittedly, this is not the only issue on economists’ to do list. They will have to rethink seriously many concepts including efficiency, for instance, insofar as from now on we will need to think about maximization subject to the constraint that radical uncertainty looms in our future. They will also have

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<sup>1</sup> The metaphor arose because black swans were unknown in Europe before the discovery of Australia.

<sup>2</sup> In addition, there were numerous devastating events of regional significance, including Hurricanes Maria, Katrina, Harvey, and Sandy, tornadoes, and wildfires. In the last two decades these regional catastrophes claimed upwards of 6,000 lives and caused damages of \$600 billion. Wikipedia contributors, “List of disasters in the United States by death toll.”

<sup>3</sup> Threats in the foreseeable future include global environmental degradation, hostile artificial intelligence, and the endemic U.S. national debt, domestic terrorism, not to speak of the possibility of untoward acts of adversaries around the globe.



to pay more attention to basic needs, a concept that amazingly does not even appear in any of the major textbooks (Mankiw, 2018; Samuelson and Nordhaus, 2009)! Each epoch puts its stamp on the canon, and I suspect that the early decades of the 21<sup>st</sup> century will do so as well.

This essay explores how labor, stratified by ethnicity, fared so far during the Covid recession. However, first we examine the nature of the U.S. economy just prior to the recession in order to reveal that the pandemic struck an economy that was already in disequilibrium and therefore vulnerable and easily destabilized. It was not an inclusive economy in which all who wanted to work found decent jobs. It was not an economy with ample savings and with deep safety nets in case of a major downturn. Instead, it was an economy in which hubris was so widespread that planning for a rainy day appeared unreasonable caution. In short, the depth of the recession is indicative of the economy's fragility. The goal of most policy makers and economists to "reboot the U.S. economy," or to focus on "economic recovery," is therefore short sighted. We should not aspire to return to a frail economy, but instead to forge new tracks towards a black-swan robust economy and that will need a new Keynes for our time, as Robert Skidelsky noted some time ago (Rothschild, 2005, p. 439).

### **Evidence that the economy was not roaring at all prior to the recession**

The pandemic had already begun to ravage the world when President Trump boasted in his State of the Union Address of 2020: "our economy is the best it has ever been", we have a "roaring economy", emphasizing that the "stock markets have soared" (Trump 2020).<sup>4</sup> He was by no means alone in propagating such impressions. These assessments were not only echoed in the media but just days before the pandemic Jerome Powell, Chair of the Federal Reserve, stated that the "economy was in a very good place" (Long 2020).<sup>5</sup> Academic economists agreed.

Already in 2016 at the meeting of the American Economic Association, Martin Feldstein of Harvard University, a doyen of the National Bureau of Economic Research, declared confidently that "fortunately, U.S. economy is now in very good shape. We are essentially at full employment" (Feldstein, 2016).

Half a million pre-mature deaths later, we realize that these observers mistook a Potemkin village for reality. They were mesmerized by the official statistics, but failed to recognize the economy's deep structural weaknesses, its fragility and fundamental imbalances, the uncanny inequality, as well as the widespread disaffection among the citizenry. In short, the U.S. has morphed into a dual economy with half of the population doing well while the other half flounders or worse (Temin, 2017).

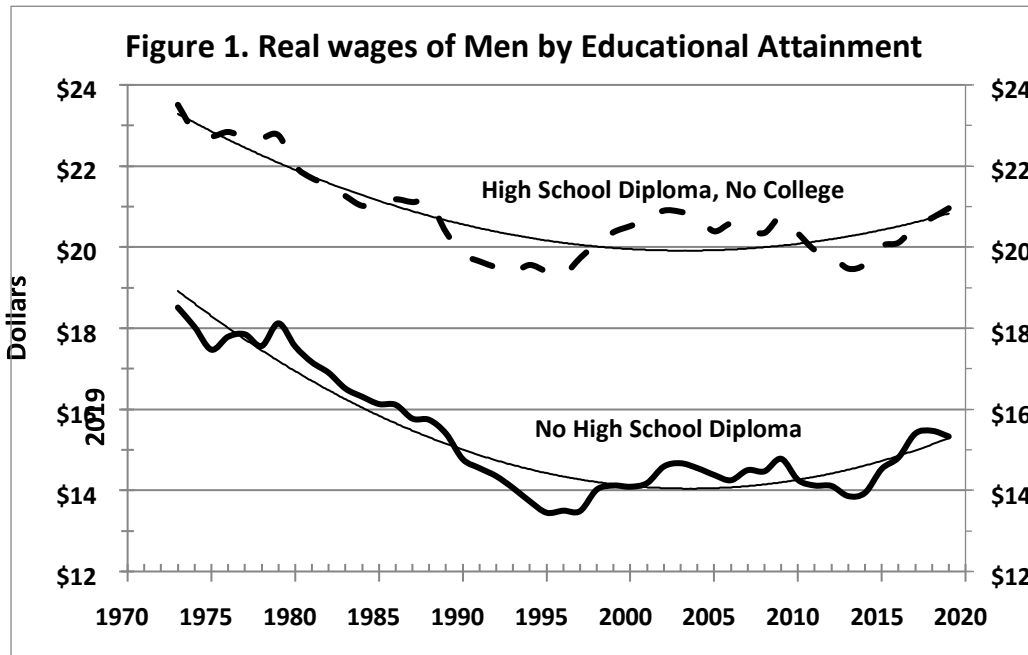
The mainstream economists also missed that there is no quality-of-life indicator for which the U.S.'s rank is comparable to those of other rich countries: not in life expectancy, not in life satisfaction, not in educational attainment, not in children's welfare, not in equality, not in incarcerations, not in mass murders, and not in opioid overdoses. Only using average income per capita is U.S. ranked high, but this is an indication of how misleading averages are if the distribution of income is extremely skewed. To be sure, some do realize that the economy was not working for far too many Americans and that the middle class was being hollowed out (Bernard and Russell, 2019; Hacker, 2019; Komlos, 2018; Stiglitz, 2019). In short, the headlines were woefully misleading. "This nation was ailing long before the coronavirus reached its shores" (Editors, 2020). Here is why:

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<sup>4</sup> Earlier he boasted about "an unprecedented economic boom." adding that we have "the hottest economy anywhere" and that "our economy is the envy of the world" because "an economic miracle is taking place in the United States" (Trump, 2019).

<sup>5</sup> Some of the news clips were collected and reposted: "America's Economy is Roaring" (White House, 2018).

- 1) Although the pundits could assert correctly that wages were rising, it was misleading, because they failed to add that the **real wages** of men without a college education was still below those attained in 1973 (Figure 1). Moreover, not less than 40% of the U.S. workforce was made up of low-wage working adults (Barnes, 2021) and 4.6 million part-time workers, who were unable to find a full-time job, were earning \$283 per week, just \$14 (in 2019 prices) more than they earned in July 2002 (Figure 2).<sup>6</sup>

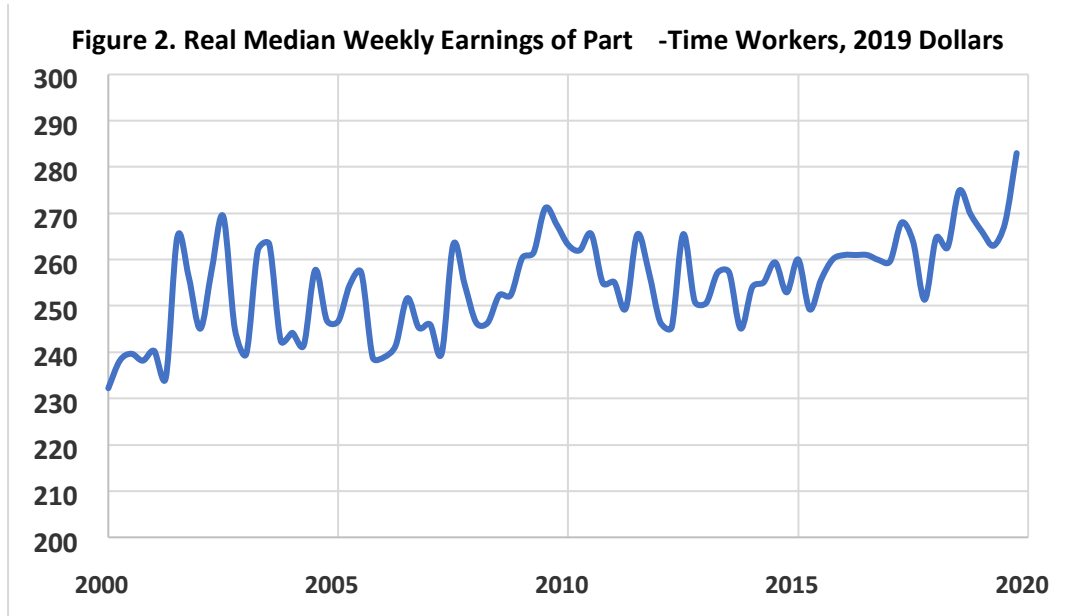


Source: Economic Policy Institute, *State of Working America Data Library* 2019.  
<https://www.epi.org/data/#?subject=wage-education>

- 2) It is also true that the economy was growing and that incomes were increasing but median household income rose by merely \$87 per annum since 1999 (Figure 3) and the statisticians had to strain themselves in order to keep the price deflator as low as possible so that they could document at least this level of growth (Håring and Niall, 2012, p. 32; Hartwig, 2006, 2008). If one considers instead, how much income it would take to thrive like a middle-class family, one finds that the cost of thriving index (COTI) rose much faster than incomes.

“The COTI shows a declining capacity of a male full-time worker to meet the major costs of a typical middle-class household.... The widening gulf... between what American life costs and what American jobs pay is a central fact of American political economy that the public appears to have understood long before economists” (Cass 2020).

<sup>6</sup> The nominal series was deflated by the CPI (Fed series CPIAUCSL).



Source: Federal Reserve Bank of St. Louis, series LEU0262881800Q and CPIAUCSL.

**Figure 3. Real Median Household Income in the U.S.**



Source: Federal Reserve Bank of St. Louis, series MEHOINUSA672N

- 3) To be sure, the *official* unemployment rate stood at 3.5% but only because the rate was woefully underestimated. Actually, the *real* unemployment rate has been generally twice the *official* rate and far from full employment (Komlos, 2019a, p. 190; Komlos, 2021). More about this below.
- 4) Although the media celebrated the hundreds of thousands of jobs allegedly created monthly, they failed to consider that many of the jobs created were not providing security, benefits, or were part time.<sup>7</sup> Many were precarious jobs with lower and more insecure incomes than regular workers. Six million such “contingent workers” in 2017 were in the gig economy, such as “independent contractors”, “on-call workers”, “temporary help”, worked mostly without unemployment or health insurance benefits or pension plans (Friedman 2014, Kosanovich, 2018; Standing, 2014). The spread of the gig economy is hardly a sign of a thriving and robust labor force capable of living a dignified life and able to withstand downturns. As the Nobelist Amartya Sen put it, “there is a critical need for paying special attention to the underdogs of society...” (Sen, 2009).
- 5) Government deficit was projected to be \$1.1 trillion in 2020 before the pandemic. Instead, it rose to \$3.1 trillion in 2020 to increase the cumulative debt to \$26.9 trillion or 127% of GDP (Figures 4 and 5) (CBO “Budget”, Fed series GFDEBTN, GFDEGDQ188S). This is in stark contrast to the federal debt in 1981 at 31% of GDP (Hilsenrath, 2020). Endemic government deficits are not a sign of a balanced economy, but an economy living well beyond its means for decades and digging itself deeper into debt. The consensus view even before the pandemic was that \$1 trillion deficits are unsustainable because of the accumulating interest rate burden (Rogoff, 2019).<sup>8</sup>

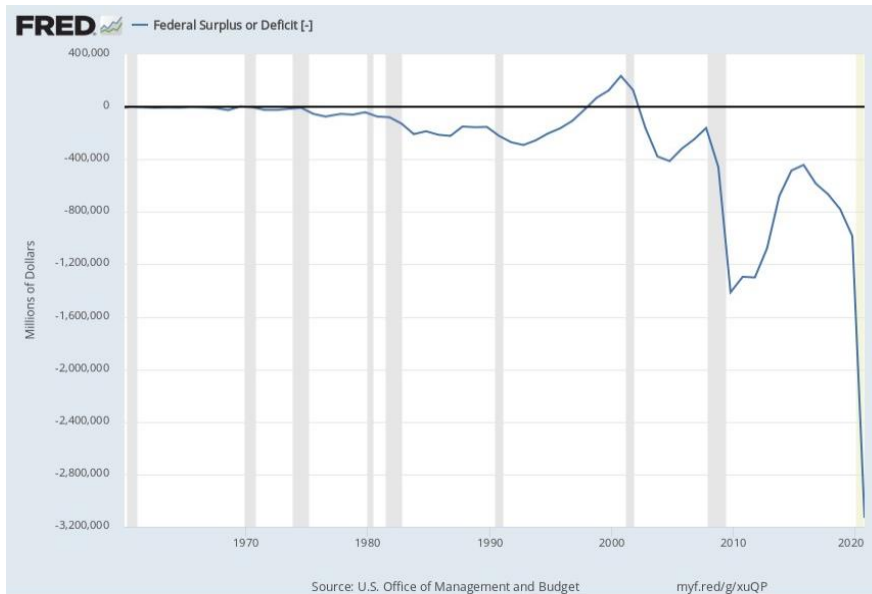
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<sup>7</sup> Pertaining to the February jobs report CNBC, wrote that “Job growth smashes expectations” as payrolls rose by 273,000 (Cox, 2020). However, it failed to note that the rosy picture was not so rosy after all if one looked a bit deeper. The same “Employment Situation News Release” of the Bureau of Labor Statistics that included the 273,000 figure, also reported another survey according to which the number employed increased by merely 45,000 in February.

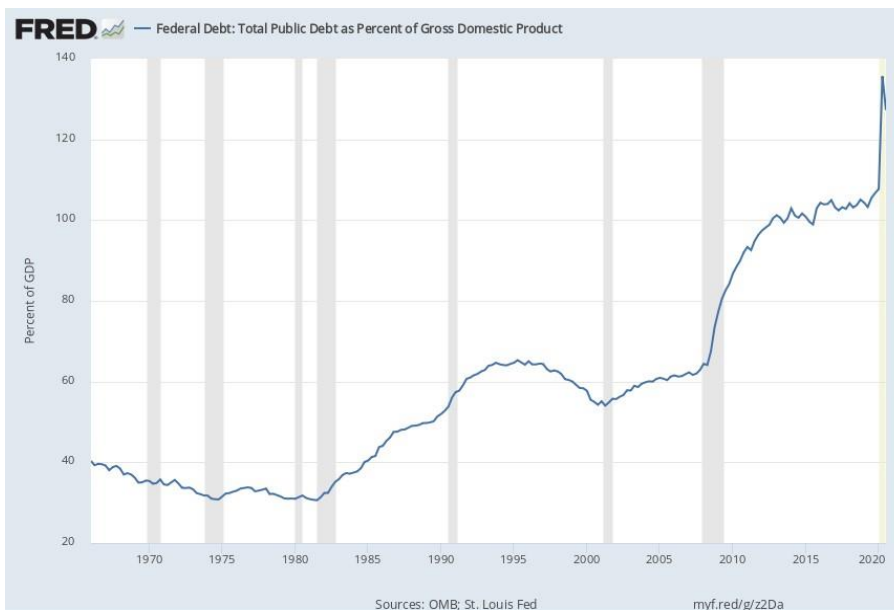
[https://www.bls.gov/news.release/archives/empsit\\_03062020.htm](https://www.bls.gov/news.release/archives/empsit_03062020.htm). Moreover, another count stated that the number of full-time workers increased by merely 10,000 and the number of parttime workers remained unchanged (Fed series LNS12500000 and LNS12600000). So, there was much less reason for jubilation than the report suggested.

<sup>8</sup> Jerome Powell, pleaded for a reduction of the deficit: “Putting the federal budget on a sustainable path when the economy is strong would help ensure that policymakers have the space to use fiscal policy to assist in stabilizing the economy during a downturn” (Long, 2020). The economy remained “strong” for another week after this testimony.

**Figure 4.** Federal Budget Deficits

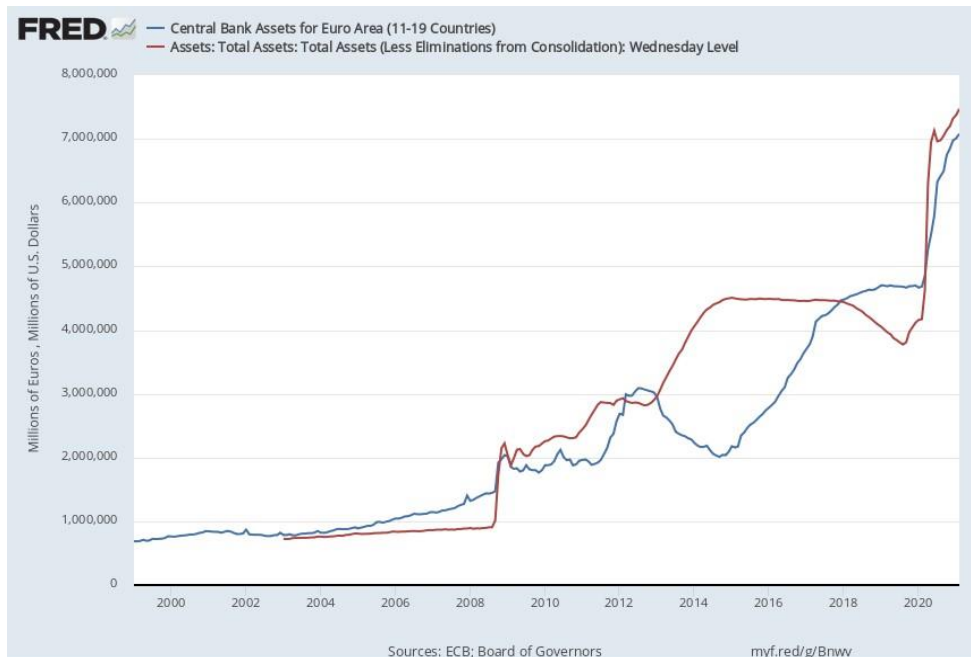


**Figure 5.** Federal Debt as a Percent of GDP



In addition, the Federal Reserve has purchased \$3.3 trillion worth of assets during the pandemic in order to flood the financial markets with liquidity (Figure 6). The assets of the Fed have increased by a factor of 9 since the 2008 crisis, implying that the U.S. has morphed into a bailout capitalism insofar as it depends on a periodic infusion of liquidity – euphemistically called quantitative easing – in order to prop up the financial markets. To assert that we are in uncharted territory would be an understatement.

**Figure 6.** Assets Held by the Federal Reserve and by the European Central Bank



Source: Federal Reserve Bank of St. Louis, series WALCL.

- 6) Burgeoning private debt – including credit card debt – is also worrisome. People are living paycheck to paycheck without any savings to rely on in downturns (Board of Governors 2019). Individuals in a recession without adequate savings find it difficult to meet commitments leading to consternation and the threat of bankruptcies. There is “widespread fragility across the entire population – more than one-third of Americans are financially fragile.... Financial fragility is not only pervasive, but many middle-income households also suffer from the inability to deal with shocks” (Hasler, Lusardi and Oggero, 2017). Indebtedness and fragility are not the qualities one would expect from a strong economy capable of withstanding large unanticipated fluctuations.

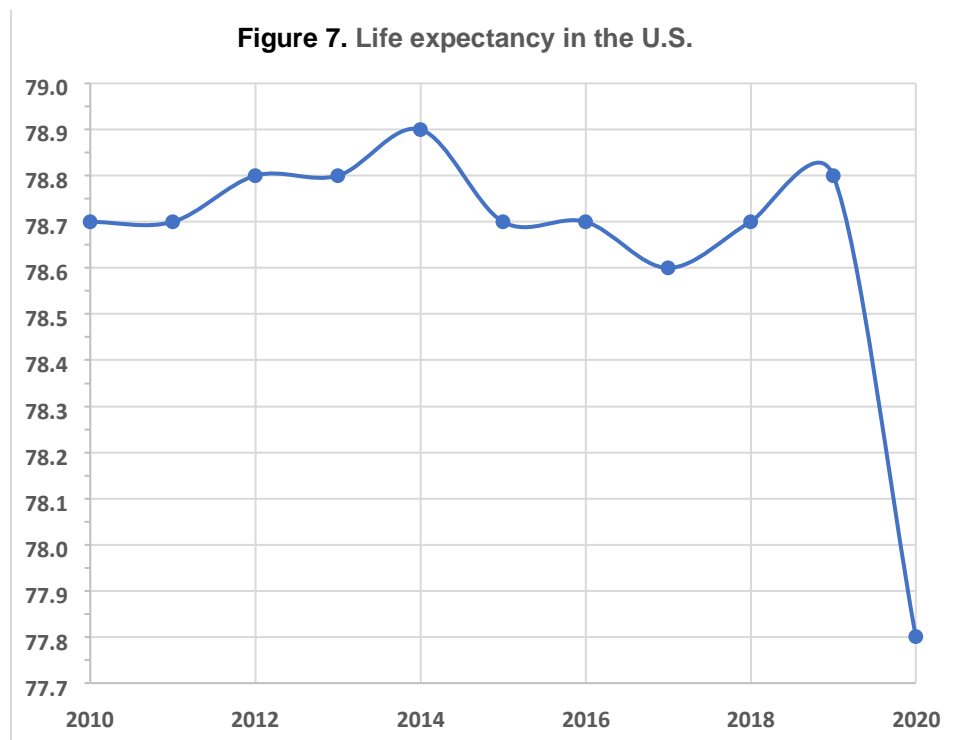
Instead, it is a sign of an unbalanced economy in which “only 29% of Americans are financially healthy” and, even more troublesome, only half of households with income above \$100,000 were healthy financially (Financial Health Network, 2019).<sup>9</sup>

- 7) A good economy is one which distributes its fruits equitably (Atkinson, 2015; Boushey, 2019; Piketty, 2014). This is not the case in the U.S. in which households in the top 1% of the wealth distribution have accumulated an average net wealth of an astronomical \$25 million. Yet, 39% of adults do not have \$400 cash on hand to meet an unexpected expense (Board of Governors, 2019, p. 21). Similarly, with incomes: between 1979 and 2013 the top 1% of households increased their income by \$600,000 annually whereas the middle class gained \$11,000 (Komlos, 2018). Even former Chairman of the Federal Reserve, Alan Greenspan acknowledged that the increase in inequality might “spark... an economically destructive backlash”, a prediction that came true in

<sup>9</sup> In addition, “54% are financially coping.... struggling with some, but not necessarily all, aspects of their financial lives.... And 17% are financially vulnerable.” “Women are overwhelmingly bearing the increase in financial vulnerability, relative to men.”

2016 (Greenspan, 2007b, pp. 365, 408). It is not only inequality that is a problem but the perception that the economy allocates rewards unfairly (Case and Deaton, 2020, p. 213).<sup>10</sup>

- 8) A good economy would not have 150,000 deaths of despair a year with life expectancy declining even before Covid (Figure 7) (Case and Deaton, 2020). When traditional social structures of support dissolved for working class whites there was nothing to take their place and despair accumulated. The family was gone, the unions were gone, neighborly love was gone, the churches were no longer relevant, the government looked the other way, and the gig economy did not offer enough income to succeed in the marriage market. For these folks there was nothing to grasp onto except a bottle, the trigger, or a hypodermic needle.



Source: (Arias and Xu, 2019, Xu et al, 2020, Arias, Tejada-Vera, Ahmad, 2021).

Note: The estimate for 2020 pertains to the first half of the year.

- 9) The booming stock market was also interpreted as a sign of a “roaring” economy, but much of it during the last few years was due to irrational exuberance or “overspeculation that, as Adam Smith argued, tends to grip many human beings in their breathless search for profits” (Sen, 2009).<sup>11</sup> Price/Earnings ratio of the S&P 500 reached an unusually high index value of thirty-one in February 2020 (Shiller, 2020). Historically, only twice before has it been at such levels: in 1929 and again during the Dot-Com bubble at the turn of the 21<sup>st</sup> century. To be sure, during the latter bubble it did stay above 30 for four years. Nonetheless, once the ratio reached 30 in August 2017,

<sup>10</sup> Greenspan, not a progressive by any means, recognized that “you cannot have the benefits of capitalist market growth without the support of a significant proportion, and indeed, virtually all of the people; and if you have an increasing sense that the rewards of capitalism are being distributed unjustly the system will not stand” (Greenspan, 2007a). In print he put it this way: if we do not reverse “a quarter century of increases in income inequality, the cultural ties that bind our society could become undone. Disaffection, breakdowns of authority, even large-scale violence could ensue, jeopardizing the civility on which growing economies depend” (Greenspan, 2007b, p. 468).

<sup>11</sup> It was overlooked that investors can make too many “errors of undue optimism or undue pessimism” (Pigou, 1929, p. 73).

it should have been a clear warning sign that the stock market was overheating, and such prices were not sustainable forever.

The above nine factors should have given economists and policy makers pause that such imbalances were not the sign of a healthy and stable economy, but they were overlooked or were concealed under a veneer of optimism. So, the pandemic struck an economy that was hardly robust to black-swan shocks. The ensuing human toll and the bailouts amounting to approximately \$5 trillion appropriations from Congress – about 25% of GDP – with a \$3.3 trillion rescue infusion of liquidity from the Federal Reserve (Fed series WALCL), are indications of the immensity of the dislocation and the degree to which the pandemic struck a labor market that was already off balance. It is to the examination of the labor market that we now turn.

### **The labor market's travails during the pandemic: the real unemployment rate**

- 10) As mentioned above, it is imperative to distinguish between the *official* and the *real* unemployment rates. The official rate is biased downward, inasmuch as the Bureau of Labor Statistics conflates part-time and full-time workers and has an arbitrary and stringent definition of unemployment.<sup>12</sup> So, the official number of unemployed is merely a headcount of those who are working, regardless of the number of hours worked, and disregards the fact that many part-timers would like to work full time and consequently are unemployed at least to some extent.

Moreover, the official unemployment rate also disregards those who would like to work but have not looked for work during the previous month perhaps because they have been rejected so often that they are discouraged from looking further or are even so depressed that they are unable to muster the psychological energy to continue to search for work. These limitations bias the official statistics, because searching for work should not be a prerequisite of being considered unemployed. Wanting to work should be a sufficient criterion to be considered unemployed.<sup>13</sup> The U6 rate, published by the Bureau of Labor Statistics comes much closer to the true unemployment rate than the official rate (Komlos 2019b).

Instead of the BLS subjective methodology, we calculate the unemployment rate standardized on a full-time-equivalent workweek of 39 hours and consider all those without a job who declare that they would like to work as *de facto* unemployed. Thus, we first estimate the hours worked by part-time and full-time workers and find that the average for 2019 was 62.7%.<sup>14</sup> Hence, only 62.7% of the total number of part-time workers is added to the labor force (Table 1, row 2).

Moreover, there are two kinds of part-time workers: those who are content working part time (voluntary part-time workers, denoted by  $v$ ), and those who would like to work full time but have not found such an employment (involuntary part-time workers, denoted by  $i$ ).<sup>15</sup> The former ( $v$ ) are considered the equivalent to 0.627 full-time member of the labor force and are not counted as unemployed (row 2). In

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<sup>12</sup> As long as an individual works one hour per week, she is considered employed. Between 1976 and 1994 part time workers were considered the equivalent of  $\frac{1}{2}$  of full-time workers (Bregger and Haugen, 1995; Shiskin, 1976).

<sup>13</sup> This is being recognized increasingly (Smialek, 2021).

<sup>14</sup> BLS, "Labor Force Statistics from the Current Population Survey, Table 19. "Persons at work in agriculture and nonagricultural industries by hours of work,"

<https://www.bls.gov/cps/lfcharacteristics.htm#fullpart> accessed May 21, 2020. Here we follow the calculations that were done for the European Union (Brandolini and Viviano, 2016).

<sup>15</sup> Data on involuntary part-time workers is published by the BLS on the basis of the current population survey. Involuntary part-time workers are also referred to as part-time for "economic reasons"; <https://data.bls.gov/timeseries/LNS12032194> Accessed May 24, 2020.



contrast, the involuntary part-time workers are considered full members of the labor force who are 62.7% employed (row 2) and 37.3% unemployed (in terms of full-time equivalents) (row 9).<sup>16</sup>

**Table 1.** The Average Actual Unemployment Rate in the U.S.

		May 2020		January 2021	
Labor Force		Millions	Percent	Millions	Percent
1	Civilian labor force full time ( <i>ft</i> )	116.6		125.0	
2	Work Part-time (0.627* 20.7 or 24.6 million) ( <i>v+i</i> )	13.0		15.4	
3	Military ( <i>m</i> )	1.3		1.3	
4	Really Unemployed ( <i>ru</i> ) from Row 12	<b>40.9</b>		<b>21.6</b>	
5	Total <i>actual</i> labor force ( <i>lf</i> )	168.1		161.3	
<b>Unemployed</b>					
6	Official unemployed, full time ( <i>ou1</i> )	15.9	9.5%	8.5	5.3%
7	Official unemployed, part time ( <i>ou2</i> ) 0.627* 5.9 or 1.7	3.7	2.2%	1.1	0.7%
8	Furloughed - Misclassified as Absent from Work ( <i>f</i> )	4.7	3.0%	0.6	0.4%
9	Part-time involuntary (0.373* 10.3 or 6.4 million) ( <i>i</i> )	3.8	2.3%	2.4	1.5%
10	Want job, did not look ( <i>ww</i> )	9.0	5.3%	7.0	4.3%
11	Self-employed (0.243*15.5 or 0.134*15.2 million) ( <i>se</i> )	3.8	2.2%	2.0	1.3%
12	Total <i>really</i> unemployed ( <i>ru</i> )	<b>40.9</b>	<b>24.3%</b>	<b>21.6</b>	<b>13.4%</b>
13	Hidden Unemployment ( <i>hu</i> )	19.9	11.0%	11.5	7.1%
14	U6	33.5	21.2%	17.8	11.1%
15	U3 Official unemployed	21.0	13.3%	10.1	6.3%

Furthermore, there is no reason to exclude those who work for the military (as there was when soldiers were drafted) since they do work for the government and receive a salary just like other government workers, and they do work full time. Hence, we include their number as well in the labor force (denoted by *m*) (row 3). To this we add the number of actually unemployed, the calculation of which is discussed below (denoted by *ru*) (rows 4 and 12).<sup>17</sup> This yields the total effective (full-time equivalent) labor force (denoted by *lf*):  $lf = (ft - 3.7) + 0.627*(v + i) + m + ru$  (row 5). These estimates are 9.9 and 1.2 million (May and Jan) above the official figures, on account of the people who are excluded from the official estimate, because they ceased to look for work (row 10).<sup>18</sup>

<sup>16</sup> It should be clear that involuntary part-time workers “should be appropriately weighted when compared to other standard measures of underemployment” (Cajner et al., 2014).

<sup>17</sup> The 3.7 million self-employed estimated as unemployed is deducted from row 5 because they are presumably included on row 1 (Table 1, row 11).

<sup>18</sup> The official estimates of the labor force in the two months were 158.2 million and 160.1 million (Fed series CLF16OV).

The actual number of people unemployed include those who are officially unemployed. However, contrary to the BLS procedure, we separate those who used to work full time (*ou1*) from those who used to work part time (*ou2*) (rows 6 and 7).<sup>19</sup> The latter are considered 62.7% unemployed insofar as they worked less than those who were employed full time prior to becoming unemployed. Next, we add those who were furloughed but not counted as unemployed since they were misclassified as being absent from work (row 8).<sup>20</sup> Then we add 37.3% of those who are working part time involuntarily (*i*) since they would like to work full time (row 9). In contrast, the BLS excludes them from the official unemployment rate (U3) but includes them in the U6 rate. So, according to the BLS's binary conceptualization, they are either fully employed in U3 or fully unemployed in U6. Hence, our definition is in between these two extremes.

Next, we add the number of those who want to work but have not looked for work within the previous month (denoted by *ww*) (row 10). The self-employed are not considered unemployed at all, although many of them must have been part of the gig economy, so we assume that they were unemployed at the rate of the rest of the labor force (row 11). Hence,  $ru = ou1 + ou2 + f + 0.373 * i + ww + se$ . The estimated number of unemployed in May 2020 becomes 41.1 million and in January 2021 it becomes 21.6 million. So, the estimates of the *actual* unemployment rates are 24.4% and 13.4% (*ru/lf*) (row 12) respectively; these estimates are 11.1 and 7.1 percentage points (ppts) (Row 13) above the *official* unemployment rate of 13.3% and 6.3% (row 15). Even the U6 rates are underestimates by 3.2 and 2.3 ppts but considerably closer to the true rates and therefore will be parsed in the next section, because they are available by ethnicity and education (row 14).<sup>21</sup> This implies that the hidden unemployment rate ( $hu = ru - ou$ ) was 11.1%, and 7.1% i.e., 20.1 and 11.5 million full-time-equivalent workers.

This obviously uncovers a very significant error on the part of the BLS.

Other estimates of the real unemployment rate are comparable to, though somewhat lower than, the above estimate for April: in the 16.4%-19.7% range (Groshen, 2020a, 2010b; Gould, 2020). However, using a slightly different approach one estimate is considerably higher, at 30.7% compared to the official rate of 14.7% for April, while the decline in employment by is estimated at 22% compared to pre-Covid level (Faberman and Rajan, 2020; Cajner et al., 2020).<sup>22</sup> The 20 million jobs lost in April was supposedly much larger than the number of unemployment claims (Coibion et al., 2020). These are all below the 32.1% forecasted in March for the second quarter (Faria-e-Castro, 2020).

### **The labor market's travails: the U-6 rate parsed, September 2020**

As mentioned above, the U6 rate is closer to the true level of unemployment than U3. In May 2020 it was 3.1 ppts and in January 2021 it was 2.3 ppts below the true rate (Figure 8).<sup>23</sup> Another advantage of the U6 rate is that it can be stratified by gender, age, ethnicity, and education. However, the BLS publishes U6 only for the aggregate population, the stratified data are calculated by the Economic Policy Institute (EPI), but these have a disadvantage, as they are 12-month moving averages. Hence, the

<sup>19</sup> This does not equal the official number of unemployed because I count the part-time unemployed as a 62.7% full-time equivalent unemployed. Rows 6 and 7 do not add up to the official unemployment rate because our labor-force estimates also differ.

<sup>20</sup> The BLS admits this mistake but fails to correct for it (BLS, 2020).

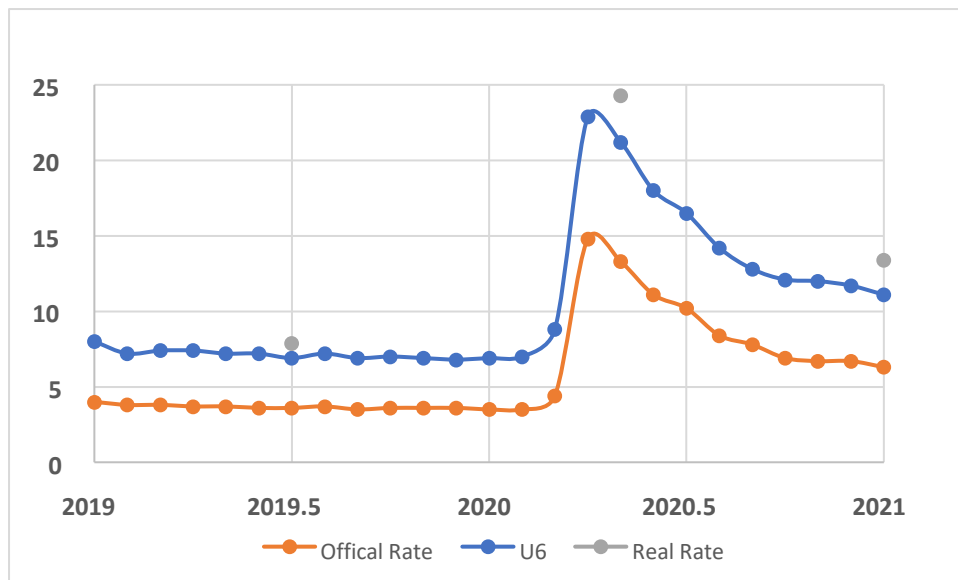
<sup>21</sup> The U6 rate includes involuntary part-time workers as well as the so-called "marginally attached" workers according to the Current Population Survey.

<sup>22</sup> Bell and Blanchflower estimate a 20% unemployment rate for April (Bell and Blanchflower, 2020).

<sup>23</sup> Before the crisis U6 was 3.5 ppts above the *official* unemployment rate, while during the crisis the gap between the two rates calculated by the BLS jumped to 6.0 ppts.

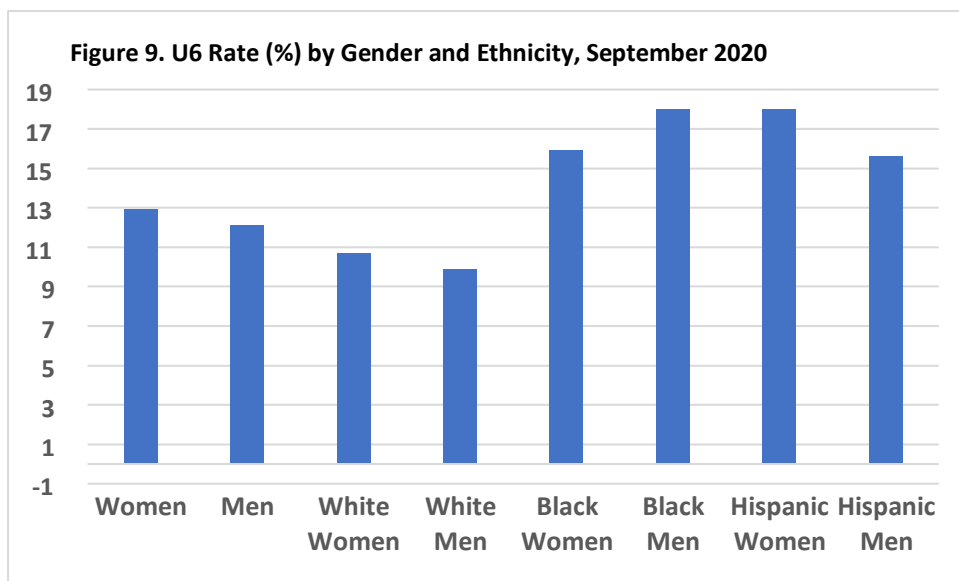
most recent data, available for September 2020, includes five months of pre-Covid values and that implies that they are downwardly biased and do not reflect accurately the reality of the Covid recession. Nonetheless, the data do enable us to glean some basic insights into how various subpopulations fared during the crisis. Moreover, the data thus generated by the EPI yields an overall U6 rate of 12.5% whereas the official U6 rate was 12.8% for September, so that the two U6 estimates are not significantly different from one another at the aggregate level (Fed U6Rate).

**Figure 8.** Three Variants of the Unemployment Rate (%) Compared



Source: Federal Reserve Bank of St. Louis, series UNRATE and U6RATE.

It should not be surprising that the U6 rate is 6.3 ppt higher among African Americans and 6.6 ppt higher among Hispanics than among whites (Figure 9 and Table 2). Women have a slightly greater rate than men by 0.8 ppt but the pattern is not consistent among ethnic groups, namely among African Americans the men’s rate exceeds that of women by 2.1 ppt (Figure 9). That implies that the difference between black and white men is 8.1 ppt (Figure 9).



Source: Source: Economic Policy Institute, *State of Working America Data Library*, “Underemployment,” <https://www.epi.org/data/#?subject=underemp> Accessed February 17, 2021. Note: the data are averages for the previous 12-months

Education	All	White	Black	Hispanic
All	12.5	10.3	16.9	16.6
Less than HS	21.5	18.9	30.9	21.1
High school	15.8	12.9	22.1	18.0
Some college	13.1	11.2	16.3	16.2
Bachelor’s degree	9.0	8.1	10.3	12.1
Advanced degree	6.5	6.2	7.2	8.0
Range	15.0	12.7	23.7	13.1

Source: Economic Policy Institute, *State of Working America Data Library*, “Underemployment,” Accessed February 17, 2021.

Note: the data are averages for the previous 12-months.

As expected, there is a monotonic decrease in the U6 rate by educational attainment (Table 2). The difference between those who did not receive a high school diploma and those who have an advanced degree is a huge 15 pts but is even greater among African Americans (23.7 pts). The incidence of unemployment was highest among youth between the ages of 16 and 24 at 22.7% and about twice as high as for the rest of the population (Table 3). There were no substantial differences among the other age cohorts. Among African American youth the U6 rate was the highest at 31.1%.

Age	All	White	Black	Hispanic
All	12.5	10.3	16.9	16.6
16-24	22.7	19.0	31.1	26.1
25-54	11.1	9.0	14.9	14.7
55-64	10.3	9.0	12.3	15.1
65+	11.8	10.6	15.5	16.6

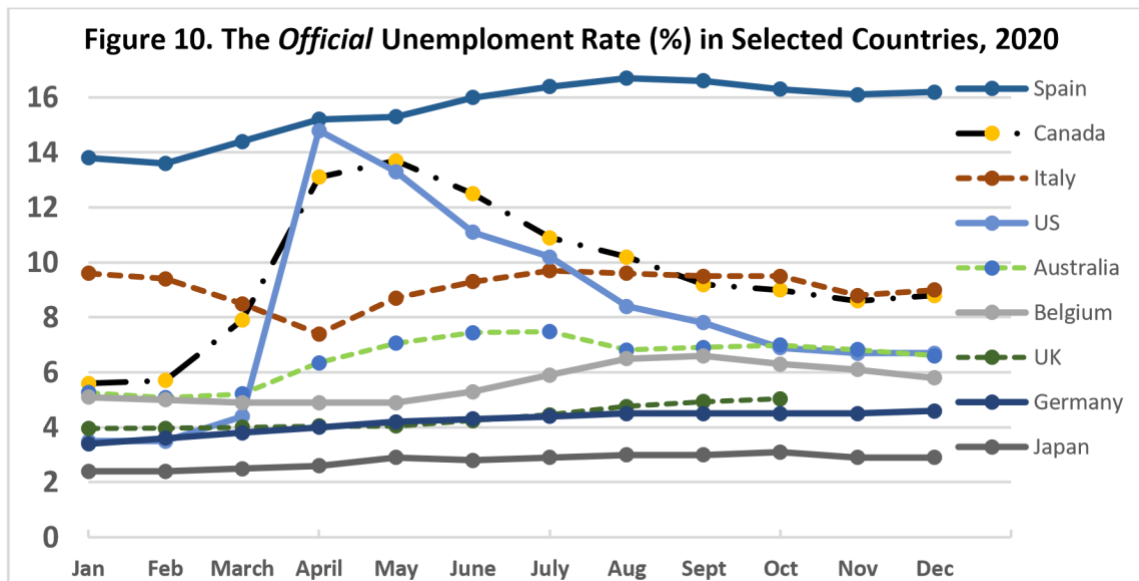
Source: See Table 2. Note: the data are averages for the previous 12-months

### International comparison of the *official* unemployment rate

The *official* unemployment rates are supposedly harmonized but the question nonetheless lingers the extent to which they capture the true slack in the labor market, given the various institutional and cultural factors that vary substantially across countries. It is probable that joblessness or underemployment is not well correlated with the *official* unemployment rate, making cross-country

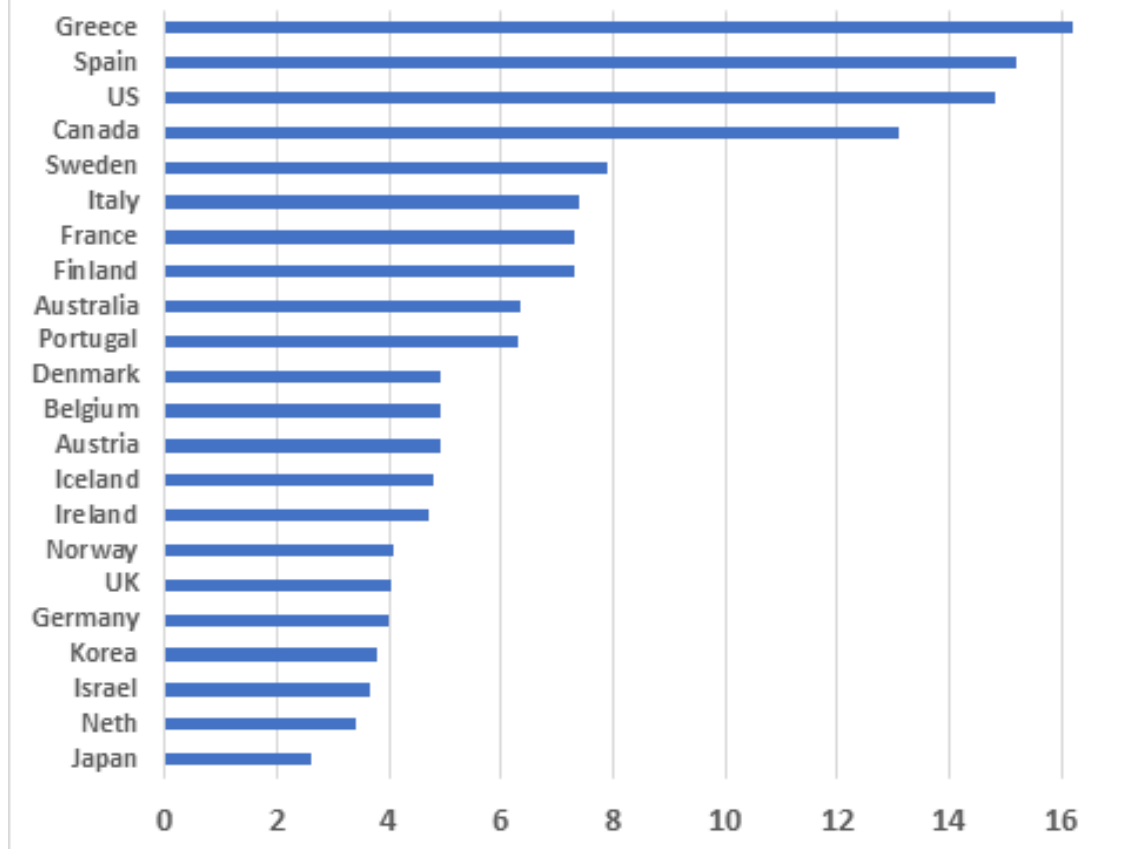
comparisons of labor market conditions ambiguous (Baert, 2020; Bell and Blanchflower, 2019, p. 6; Brandolini and Viviano, 2016, 2018; Veliziotis, Matsaganis and Karakitsios, 2015). Cross-country comparisons, therefore, should be considered *cum grano salis*.

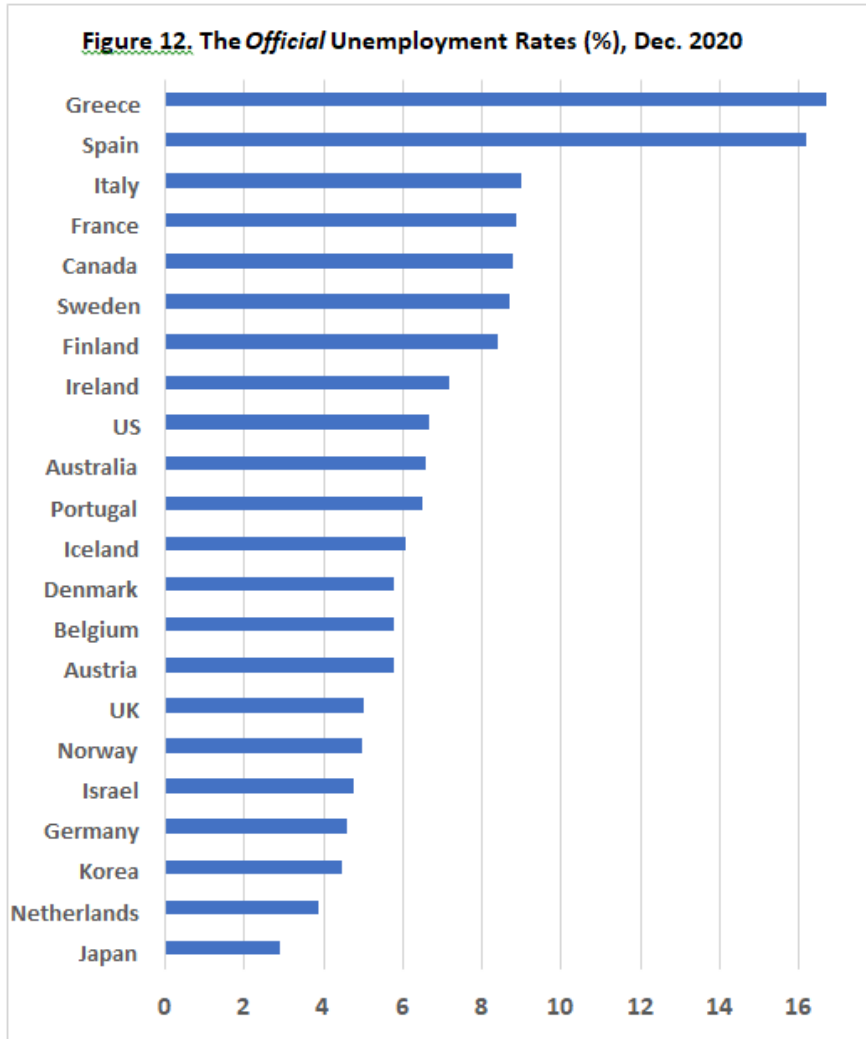
Keeping this caveat in mind, it is nonetheless instructive that the experience of the developed nations appear to fall into three groups: those whose official unemployment rate remained essentially unchanged during the pandemic, those that experienced a huge increase in the rate in April which then dissipated during the course of the year, reaching the levels of those in the first category, and those that started the year with a very high level of official unemployment that continued to linger for the rest of the period under consideration (Figure 10). The first category included most of the developed world sandwiched between Japan at the low end and Sweden at the top (Figure 11). This group was followed by the U.S. and Canada while the third category included Spain and Greece. However, the April spike in the U.S. and Canada was dissipated by December as the rates converged across the developed world with the exception of the two countries in the third group (Figure 12). Thus, we might tentatively suggest that the developed countries in the first group were more robust and less vulnerable to a blackswan shock than the U.S. and Canada. This was the case even though the asset purchases of the Federal Reserve were 1.5 times as large as those of the European Central Bank on a per capita basis (Figure 6 and Table 4). In addition, there was a “wild experiment in social spending. The world launched at least 1,600 new social-protection programmes... Rich countries have provided 5.8% of GDP on average to help record numbers of workers” (The *Economist*, 2021). Yet, the recession lingers.



Source: OECD Data “Unemployment rate,” <https://data.oecd.org/unemp/unemploymentrate.htm> Accessed February 22, 2021.

**Figure 11. The Official Unemployment Rate (%), Selected Countries, April 2020**





Source for Figures 11 and 12: see Figure 10.

**Table 4. Asset purchases of two Central Banks during the Pandemic**

	Assets on Hand		Difference		population	Dollars per capita	Ratio	2019
	Feb 2020	Jan 2021	Euros	Dollars				GDP
	Trillions							\$ Billions
Euro Central Bank	4.7	7.0	2.3	2.8	446	6240		13336
Federal Reserve	4.2	7.3		3.1	328	9451	1.5	21430

### Discussion

Safety is costly but only in the short run. In the long run it becomes efficient but governments alone can provide the necessary institutions and oversight to improve the resiliency of an economy. The invisible hand won't do (Sen, 2009; Stiglitz, 2020; Taleb, 2007). It is clear that the U.S. economy was not solidly anchored before the onset of the 2020 recession and that is one of the fundamental reasons

for the large gyrations in the labor market, documented above. It is not accidental that a quarter of the labor force was unemployed within one month of the onset of the pandemic (Table 1).<sup>24</sup> In contrast, an economy in which households have adequate savings and governments have adequate inventories of the necessities of life and health have some cushion that can serve as a shock absorber. A government with sufficient revenue that allows for enough slack in the budget to prepare for large-impact low-probability events by stockpiling resources for possible catastrophes will be more resilient than the U.S. was in 2020.

The brunt of the difficulties in wake of the pandemic in the U.S. was bore by the weaker elements of the society, i.e., the young, the less skilled and less educated segment of the working class. The number of actually unemployed during the pandemic fluctuated between 21 and 41 million people (Table 1 and Figure 8), a disproportionate share of which was made up of minorities (Tables 2 and 3 and Figure 9). Indicative of the plight of the minorities is the evidence that African Americans without a high-school degree had a *real* unemployment rate probably well above 31%, i.e., a remarkable 12 pts above those of whites (Table 2).

Another problem was that the American unemployment benefits system was overwhelmed, because it was not designed to accommodate such an avalanche of applicants (EPI 2020). Hence, not less than 40% of the unemployed were either unsuccessful or “did not apply because it was too difficult” (EPI, 2020). However, unemployment was by no means the only issue challenging the basic needs of the underprivileged: another seven million workers experienced decrease in pay and in hours worked.

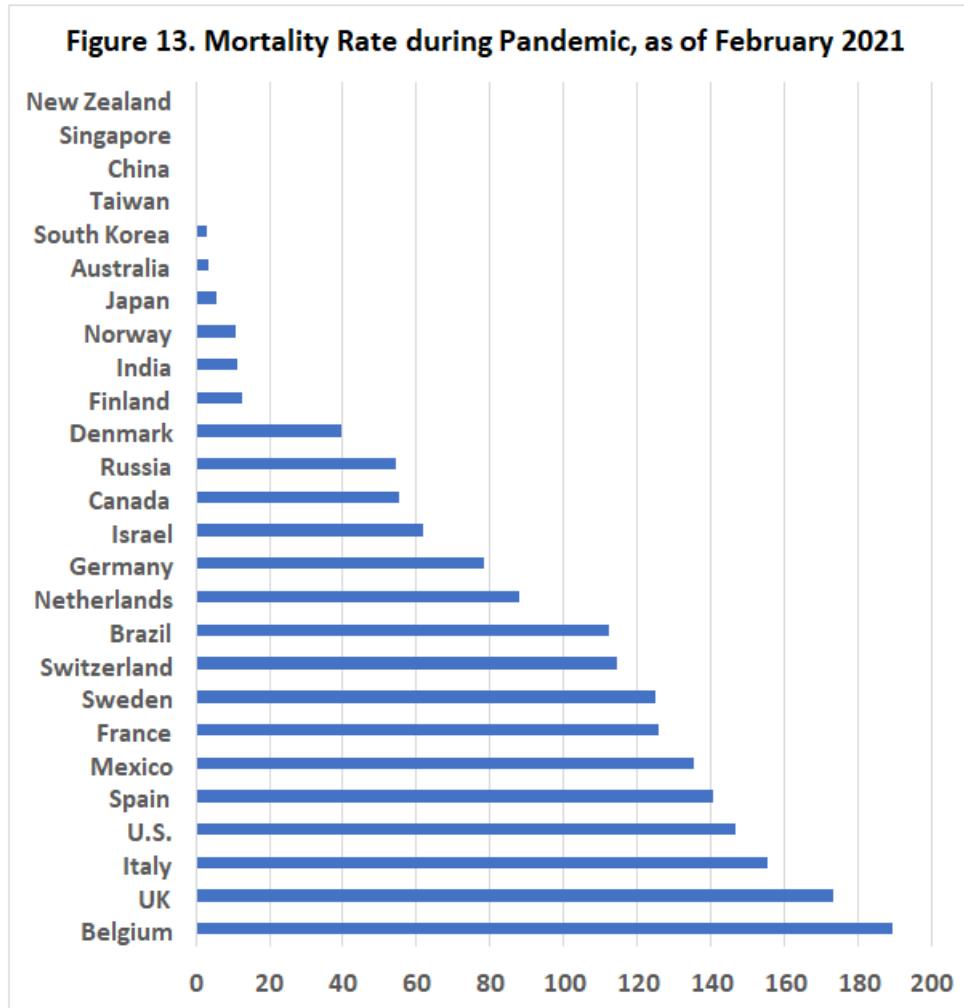
Moreover, the threat of hunger forced poor essential workers to accept dangerous assignments during the recession that had a coercive aspect to it, since they did not have a choice but to work; they could not have survived otherwise. These included some 32 million workers in the service sector such as in grocery and drug stores, public transit, warehousing, trucking, cleaning, and health care, making up about 20% of the labor force (Rho, Brown and Fremstad, 2020). Minorities were overrepresented among the menial front-line workers most of which required face-to-face contact such as cashiers, work that could not be done over the internet. Consequently, they were much more likely to be exposed to the ravages of the infection. That is one of the main reasons why blacks perished at twice the rate of whites during the pandemic (Greenhouse, 2020). The other reason was that their health status was inferior to that of whites and preexisting conditions were a risk factor for Covid infections

Similarly, Hispanics were three times as likely to be infected than whites since “[T]hey make up a disproportionate share of the low-paid “essential workers” who were expected to staff grocery stores and warehouses, clean buildings, and deliver mail while the pandemic raged around them. Earning hourly wages without paid sick leave, they couldn’t afford to miss shifts even when symptomatic. They faced risky commutes on crowded public transportation while more privileged people teleworked from the safety of isolation” (Yong 2020). They were obviously putting their life on the line day in and day out. All this accentuates the need to rethink how the system works and should work (The *Economist*, 2021; Yong, 2020).

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<sup>24</sup> In contrast, the unemployment rate during the Great Depression of the 1930s took three years to reach that level (Margo, 1993).





Source: Johns Hopkins University Coronavirus resource Center, <https://coronavirus.jhu.edu/data/mortality> accessed February 25, 2021.

The devastation of the pandemic is evinced by the fact that life expectancy at birth declined by a full year in the U.S. during the first half of 2020 as the mortality rate from Covid19 was among the highest in the world (Figures 7 and 13).<sup>25</sup> The response of the Trump administration to the pandemic was “inept and insufficient” (Woolhandler et al., 2021). The performance of governmental institutions during the current pandemic should be a warning sign that underfunding government is not a winning strategy for the long-run survival of a nation (Packer, 2020). The minimalist governmental vision of Reaganesque politicians and neoliberal economists led to the bailout capitalism of today (Azmanova, 2020; Komlos, 2019c; Sandel, 2018).

Both economists and policy makers should become much more concerned with blackswan shocks than they have been in the past. The goal of reforming the economy in such a way that it is more resilient if confronted by difficult-to-predict adverse events should be put on the agenda for the 21<sup>st</sup> century (Taleb, 2007). This must include a concerted effort to cope better with radical uncertainty at both the theoretical and practical level (Aldred, 2020). For instance, the impact of global warming is likely to be as destabilizing as the current pandemic, because it will be permanent whereas the current pandemic is presumably temporary. A doom loop is avoidable but only if we think intensely, creatively, and flexibly about our fundamental structural weaknesses and ideological inconsistencies. There are

<sup>25</sup> Other countries with high mortality rate not shown in Figure 13 include Chechia, Portugal, and Mexico.

too many risks associated with a strategy that focuses merely on getting back to normal. We now see that the emperor has no clothes. Now is not the time to pretend otherwise.

As in 2008, the millions of unemployed and the millions suffering deprivation in 2020 and 2021 revealed the fragility of the U.S. economy, the inconsistency of its ideology of rugged individualism, and called into question its sustainability.<sup>26</sup> The markets work until they don't and the corporations and people desperately need government handouts by the trillions in order to fend off the utter collapse of the system (Figure 5) (Stiglitz, 2009). How long will this new kind of bailout capitalism work (Figure 6)? It is rather hard to imagine that "unconditional liquidity" can become the foundation of a sustainable, inclusive, and stable economic model for the 21<sup>st</sup> century (Mazzucato, 2020; Svendsen and Svendsen, 2016).

We have argued that the restrictive nature of the BLS definition of unemployment implies that the *official* rate is woefully inadequate, serves political purposes, and confuses the public as well as researchers and policy makers (Ahn and Hamilton, 2019; Leonhardt, 2018; Morgenstern, 1963, p. 238). The above evidence highlights the extent to which the *official* unemployment rate provides an untenably misleading impression of the labor market. The cavalier treatment of such a bellwether indicator is a major oversight. Recent unusual expression of doubt about the *official* unemployment rate by Treasury Secretary Janet Yellen, is a strong signal that even establishment circles are increasingly admitting the inadequacy of the current statistical practices and the need for their revision (CNBC, 2021).<sup>27</sup> In sum, using Buffet's imagery, the pandemic revealed that the U.S. has been swimming naked for a very long time indeed, yet the realization of its implication is not yet in view.

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<sup>26</sup> According to the editors of the New York Times "The coronavirus pandemic has laid bare once again... the great distance between the realities of life and death in the United States and the values enunciated in its founding documents" (Editors 2020).

<sup>27</sup> According to Yellen the unemployment was 10% for February 2021, in contrast to the official rate of 6.2% and much closer to the U6 rate of 11.1%.

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# Fuck the market

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## Abstract

The market is a foundational concept in economic and political thought. However, the dominant definition of the market has stripped out the role of place in the marketplace, which has facilitated markets being seen everywhere while increasingly existing nowhere. With markets seen everywhere, a societal discourse has been crafted that only serves to distort visions of economic relations – the market discourse.

This paper makes the case that a more limited definition of the market – including the role of the centralisation that a place provides – is possible but must be tied with an explicit rejection of the market discourse. Such a rejection clears the ground for building alternative concepts – competition, business autonomy and strategy, fragmentary centralisation, and economic power – that can be used to more accurately capture economic reality. Overall, the case is made that because the market without the -place doesn't work, can't be fixed, and actively inhibits our understanding of the world then it is imperative that it is rejected on the strongest grounds and other concepts, some of which are sketched in this paper, are deployed in its place. As such, this paper argues, fuck the market.

**Keywords** markets, competition, capitalism, discourse, power

## Introduction

Contemporary political and economic discourse sees capitalist systems characterised as market economies, and references to both The Market and markets are ubiquitous; markets are seemingly everywhere. This situation is distinctly odd, as while economic relations have been more and more characterised as “markets”, many economies have seen both the withering away of traditional marketplaces and the concurrent growth of hierarchically ordered non-market economic organisations (i.e. corporations).

The reason that markets can be both seen everywhere and exist practically nowhere is due to two points. First, “markets” have been defined according to abstract principles – often product similarity or price uniformity – that do not include place. While abstraction is not an issue per se, abstraction that cuts away from a central defining feature – in this case, the place of marketplace – is unhelpful. Second, the dominant definition of the market, stemming from neoclassical economics, has chosen exchange as the principle by which a market is defined; whenever there is exchange there is a market. Rendering “the market” as a synonym for “exchange” means that “the market” can be seen in all economic systems throughout the entirety of human existence and paints capitalist relations of transactionary exchange as universal, natural and inevitable; “in the beginning there were markets” as Williamson (1975: 21) writes.

The consequence of these two points is that we are left with an idea of the market that is non-instituted and non-socialised. Moreover, the latter definition of “the market” captures everything and so defines nothing. It is, however, possible to rescue a definition of “the market” by including a requirement of place alongside exchange, multiple sellers, and similar goods. Applying such a definition, however, renders markets a relatively marginal part of contemporary capitalism.

While this argument may appear to rest on pedantry, the consequences of labelling economic exchange as a market are huge due to the centrality of the market to economic discourse and imagination. Using the term “market” brings up the image of the bustling marketplace, bazaar, or souk where prices are subject to bargaining between buyer and seller, and sharp competition occurs between the many stall-holders. Calling exchange “the market” thus implicitly characterises the exchange as taking place in a competitive environment, with broad equality of bargaining power, and with prices dynamically responding to the laws of supply and demand. In this manner, the market-as-exchange definition smuggles in a whole range of other ideas; the definition is central to a wider, and politically hegemonic, market discourse.

The hegemonic nature of the discourse can be seen in the conceptual imperialism of the market, with the economic language of the market being applied to non-economic matters, which is only really possible due to the thinness of the market-as-exchange definition. Prominent examples of this imperialism are the “marketplace of ideas”, the “sexual marketplace”, and the “political marketplace” (Hodgson, 2019). In each situation, the point of adopting the market discourse is to stress the fairness and openness of the situation, a competitive element to the situation, and that outcomes of this situation are properly and unbiasedly arrived at. In the marketplace of ideas, for the most popular (and legally important) instance, the central thrust is that if ideas are allowed to compete, the best/most truthful ideas will win out (Blocher, 2007).

As the market discourse conjures the image of the bustling marketplace and advances ideas of dynamism, competition, and equality it also obscures many features of contemporary economic systems. The market discourse’s focus solely on exchange means that things such as production, advertising and branding, financing, logistics, research and development, and various other actions that constitute an economic system are omitted. In addition to these economic factors that are missed, the role of the state, of the law, of discrimination, of culture, and of political power in constituting economic relations is missed. By excluding all of these elements through an exclusive focus on exchange the market discourse often erases the business corporation from understandings of capitalism.

In addition, while oft-discussed in the market discourse, the concept of competition has been massively overshadowed and consequently underdeveloped; not least because the idea of “perfect competition” is a non-competitive situation. To see beyond “the market”, it is necessary to shine the light back on the concept of competition, and this article lays a groundwork for doing so. However, it also cautions against developing competition into a master concept – similar to the market – as competition always relies upon a system of rules undergirded by a normative framework that outlines how competition should be conducted and the point of competition.<sup>1</sup>

To lay this argument out in full, this paper is split into five parts. The first part goes into different definitions of “the market” and sketches a workable and limited concept of the market by highlighting the importance of centralisation of exchange in a virtual or physical place. The second part shows the importance of including an explicit rejection of the market discourse when using a more limited definition of the market. With the market taken off of its pedestal, the third section disentangles the concept of competition from the market and sketches what an empirical conception of competition would look like. The fourth section tempers this empirical conception of competition by focusing on the problem of product heterogeneity, making the case that economic competition is always an analytical creation

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<sup>1</sup> Sports provide a useful way of thinking about this point. The rules of the game – no use of the hands in football, no forward passes in rugby, no running holding the ball in basketball – are fundamental to making the game and defining how to compete. You can also see new rules – recently safety-based ones concerning tackling in a host of sports, but also things like the backpass rule or the offside rule in football – changing the nature of competition within the game.

based on its contextualisation and that the investigation of competition within contemporary capitalism should focus on industry-level competition. The fifth and final section sketches three further factors and ideas related to corporations – business autonomy and strategy, fragmentary centralisation, and economic power – that can be seen without the market and which offer potential routes to understanding the economic and social world once market-tainted glasses have been discarded.

### **The market concept – a definition**

Despite the centrality of the market to economics there is not a well-developed economic literature focusing on the concept and its definition, which has left a situation whereby the market is not missing, but is “implied rather than explicitly discussed” (Swedberg, 1994: 257). In contrast, similarly important ideas in political science, for example, – such as power, democracy, or the state – have extensive literatures debating the meaning of the concept and many, varied, and competing conceptualisations of each concept. That the market concept is lacking a diverse and deep literature is perhaps not surprising, as economists have long favoured mathematical precision while giving scant attention to conceptual precision (Hodgson, 2015: ix).

This point about the lack of attention given to the market concept is not new and has been recognised by prominent economists. North (1977: 10) noted that “it is a peculiar fact that the literature on economics and economic history contains so little discussion of the central institution that underlies neo-classical economics – the market”. Similarly, Coase (1988: 7), whose work on the theory of the firm highlighted the firm as an alternative to the market, wrote that “in modern economic theory the market itself has an even more shadowy role than the firm...In the modern textbook, the analysis deals with the determination of market prices, but discussion of the market itself has entirely disappeared”.

Historically, economic definitions of “the market” started by moving away from identifying the market with a physical marketplace and instead make the market an abstract idea. As Cournot (as quoted in Marshall, 1920: 324) explained “it is well understood that by *market* economists mean, not a certain place where purchases and sales are carried on, but the entire territory of which the parts are so united by the relations of unrestricted commerce that prices there take the same level throughout, with ease and rapidity”. While Cournot’s definition allows for some reflection on the institutional foundations of a market, Marshall (1920: 325) dropped this element by focusing more on the latter part of Cournot’s definition in his own definition whereby “the more near perfect a market is, the stronger the tendency for the same price to be paid for the same thing at the same time in all parts of the market.” The market or, more correctly the perfect market, then becomes the area to which an abstract principle – the law of indifference or law of one price – applies.

Marx and Engels in the volumes of *Capital* use both an abstract idea of the market and also an idea of the market as a place. In book 1, the market is both a place that covers a geographic area that goods are brought to, and an abstract placeless thing (as per Cournot) – as “the sphere of circulation” (Marx, 2015: 120-123). In book 2, with the former understanding they talk of “already existing markets” being in “great centres of production and population” (Marx and Engels, 2010a: 152), and with the latter understanding abstract markets are split according to the product/service first broadly – labour market, money market, and commodity market – then more specifically – of the “various commodity markets” (ibid: 55).<sup>2</sup> While in book 3, they begin to clarify when they are talking of actual and abstract markets,

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<sup>2</sup> The language also shifts slightly. In Book 2 they talk of things “thrown” on to the market, rather than brought to market.



they also work with abstract actualised markets – “the world market”, “the home market” – by blurring the geographical boundaries within which a market is located.<sup>3</sup>

Later economic authors would further abstract the market, but unlike Marshall would stress exchange over price as the abstract principle that defines a market. Friedman (1962: 13-14) refers to the market as a technique of co-ordination through “voluntary co-operation by individuals...[which can be] fully displayed in the simple exchange economy that contains neither enterprises nor money”. Samuelson and Nordhaus (2009: 26) dress their definition up a bit as “a market is a mechanism through which buyers and sellers interact to determine prices and exchange goods, services, and assets”, which essentially follows Pearce’s economic dictionary definition (1986: 263) of a market as “any context in which the sale and purchase of goods and services take place. There need be no physical entity corresponding to a market.”

Watson (2018) shows that within neoclassical economics the shifting definition of the market has led to three conceptualisations of the market that are rolled into one another; the descriptive concept, the analytical concept, and the formalist concept. The descriptive concept can be seen in Smith where the idea is of “the market literally as a marketplace, with all the hustle and bustle of people going about their business” (ibid: 21). The analytical concept is the most common economics textbook account and is used to describe market-clearing dynamics. It stems from neoclassical thinking about partial equilibrium in a single product market. Finally, the formalist concept is the concept deriving from general equilibrium neoclassical models. However, as Watson notes, “nobody can relive their everyday economic experiences and imagine themselves in the context captured by the formalist market concept in the same way that they can in the context captured by the descriptive market concept. General equilibrium models have a curious dual characteristic of being irreducibly products of the mind but simultaneously impossible to call to mind in any familiarly recognisable form” (ibid: 28). In essence, as White (as quoted in Swedberg, 2009: 121) explains, the central problem with neoclassical definitions of the market is that “there does not exist a neoclassical theory of the market – [only] a pure theory of exchange”.

Seeking to move beyond the standard economic definition, non-neoclassical authors have reached for alternative abstract principles by which “market” can be defined. Weber (1978: 635) offers a broad definition that emphasises the existence of alternatives, writing that “a market may be said to exist wherever there is competition, even if only unilateral, for opportunities of exchange with a plurality of potential parties”. Block (1990: 50-51) instead uses a more restrictive definition based on the separation of actors, arguing that “the term market should be reserved for situations in which relatively independent actors come together to make economic transactions of limited duration.”

What is missing within all these definitions is the thing that Cournot stripped out – the role of place in a marketplace. Place is essential to markets as it is where buyers come looking for, and expecting to find, goods and services; what marketplaces do is centralise exchange. Centralisation, in turn, is what facilitates competition between sellers. One element of this facilitation is that centralisation keeps information costs low for sellers, thereby enabling their competition over custom – within a marketplace rivals are easily identifiable and their pricing and business strategies are clear. The place need not be physical, and increasingly isn’t. eBay, for example, is an electronic market that works to centralise economic exchange by being a place for individual sellers to promote and sell their goods.

Furthermore, unlike in neoclassical understandings the market is not a singular mechanism or institutional set-up – as a place it can be formally and informally instituted in many different ways.

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<sup>3</sup> We see Cournot’s definition echoed in the thinking behind this line: “The colossal expansion of the means of transportation and communication – ocean liners, railways, electrical telegraphy, the Suez Canal – has made a real world-market a fact” (Marx and Engels, 2010b: 354).

Pricing, for example, can occur through haggling, posted prices, auctions, etc. As such, being able to set the rules of a market and to extract tribute for access to a market provides a source of power within the economy – it's in this light that we should consider many of the new digital markets like Amazon, Deliveroo or UberEats.

A market, then, should be defined as a centralised place of exchange with multiple sellers. Applying this definition, however, renders markets a much more marginal part of contemporary capitalism. While exchange is central to capitalism, the vast majority of exchange does not take place in a market. For example, the primary organisation responsible for food distribution – the supermarket – does not count as a market, as it's a centralised place of exchange with only one seller; its offerings are akin to a menu rather than a market. Similarly, the “labour market” is not a market at all, with most labour instead being provided through contractual relations (i.e. ongoing relationships) with firms. When individuals are “on the market” for labour – when they are actively looking for a job – and seeking a job through direct applications (Granovetter, 2018: 11) they will engage in a series of discrete one-shot competitions against different self-selecting and relatively tiny pools of applicants who consider themselves capable of doing the job and who find the contractual terms being offered sufficient; there is no centralised place of exchange with labour.<sup>4</sup>

### **The market discourse**

While a definition of markets is possible, the result of using such a definition is a more circumscribed use of the term. However, the narrower use of the term does little to stop, and may encourage, the continued dominance of the market-as-exchange definition by trying to use the same language but meaning something different. What is needed, then, is ground clearance through an explicit<sup>5</sup> rejection of the language of “the market”. Without such an explicit rejection the market discourse – the societal language and ideas about the economy built upon the market-as-exchange definition – will continue to infect and corrupt society's understanding of political economy.

Put briefly, the market discourse holds that the market is natural (which is based on a fundamental division between economics and politics), supply and demand (solely) determine market outcomes (particularly price), competition and price dynamics result in an equilibrium absent government interference, market activity is the only productive element within the economy, the market is demand driven (consumers have significant power to alter economic outcomes), the market allows decentralised decision-making, the market is the most capable institution of information processing (making market outcomes inherently efficient), competitive outcomes are fair (victory is to the strong, which allows competitive hierarchy), and that all exchange is voluntary and all participants are equal.<sup>6</sup>

Some of these ideas are often directly referenced in social discourse (supply and demand, for example), others are only indirectly grasped (competitive hierarchy, as a consequence of beliefs about the competitive process, is rarely directly expressed). Nor are all of these ideas always present – the Hayekian points about decentralised decision-making and information processing are less present in lay understandings of the market, but more present in elite political discourse. However, the ideas above broadly represent the connotations of using the market term and constitute the prism with which any academic definition must contend; even the most careful take on the market has to first explicitly disentangle itself from the baggage of the market discourse and colloquial usage of the term.

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<sup>4</sup> Such pools of applicants are tiny relative to the total labour force.

<sup>5</sup> Pun intended.

<sup>6</sup> Competitive hierarchy is more commonly, but less accurately, referred to as “meritocracy”, with merit being the justification for hierarchy.

On top of the general market discourse there are two further augmentations of how the market is discussed. First, the market becomes reified and anthropomorphised. This take on the market can often be seen in financial reporting, where the market reacts to events, judges government policies, can be uncertain, and expresses a whole range of different emotions. The change is essentially from, for example, panic in the market (i.e. the market as a place with participants) to the market panicking. The change is small but plasters over the disunity of purpose and action that comes from competing interests, differential levels of information, and Keynes' animal spirits with a vision of a unified and rationally-processing organism.

Second, building on the first point, the anthropomorphised market becomes deified. The judgements of the market are assumed to reflect a fundamental grasp on the nature of reality above and beyond the judgements of individuals. A consequence of this is that market judgements are elevated above any other mechanism for deciding social questions. As Cox (2016: 11) writes "current thinking already assigns to The Market a comprehensive wisdom that in the past only the gods have known." A common manifestation of this idea in the political arena is the refrain "government shouldn't pick winners and losers, that should be left to the market" for it is the market that will make the best choice. There is a further level to deified market, and that is its role as a political panacea – any issue can be turned over to the market, which with its natural mechanistic drive to equilibrium will solve any problem put before it.

The market discourse, then, establishes a distortionary default that requires repeated dispelling if using a narrower and more accurate conception of the market. However, dispelling the market discourse is not just a negative and destructive task, it also facilitates seeing without the market. One of the reasons for, and consequences of, the power of the market discourse is that the market has first subjugated and then subsumed the concept of competition. Dispensing with the illusions of the market and thinking without the market framing, then, can facilitate greater understanding of competition.

### **Competition and the market**

One of the ironies of the subsumption of competition to the market is that competition is a larger concept than the market – competition can exist without markets but markets can't exist without competition. Yet, thanks to the market concept, currently the concept of competition is woefully underdefined. As McNulty (1968: 639) notes, "there is probably no concept in all of economics that is at once more fundamental and pervasive, yet less satisfactorily developed, than the concept of competition." But it was not always the case that the market concept subsumed the concept of competition. Smith's conception of competition, according to Stigler (1957: 2), was the elimination of extraordinary gains through a relatively short-run process of a sufficient number of independent actors with good knowledge of market opportunities responding to temporary situations of shortfalls or excess; competition is understood here as a corrective mechanism for prices.

However, the work of early neoclassical economists was to strip competition of any substantive meaning. They did so by creating the idea of perfect competition within the market. Perfect competition is not an idea about a process as with Smith, but about an effect; a situation can be said to be competitive if the process of competition has already taken place and the results can be observed (McNulty, 1967: 398). Moreover, the requirements of perfect competition – perfect information and the law of indifference (Stigler, 1957: 6) – eliminate many aspects of what would generally be held to be competition. As Hayek (1948: 92) noted "if the state of affairs assumed by the theory of perfect competition ever existed, it would not only deprive of their scope all the activities which the verb 'to

compete' describes but would make them virtually impossible." Product differentiation is not possible in perfect competition, there is zero spatial or temporal elements to competition, there is no possibility of innovation (in product, process, or administration), no space for perceptual manipulation, and even no possibility of price competition. Thus, this shift to perfect competition resulted in a situation where the Platonic form of competition was non-competitive; within the analytic and formalist market concept there is, at heart, a void concept of competition.

Within the societal market discourse ideas derived from perfect competition do still pertain, such as equilibrium and supply and demand determining price. This correspondence is not surprising as economic tuition has shaped the discourse to a huge degree, and perfect competition is still taught in universities and sometimes is even said to directly relate to the real world. In the 8<sup>th</sup> edition of his textbook, for instance, Mankiw (2020: 67) states that "There are some markets in which the assumption of perfect competition applies perfectly. In the wheat market, for example, there are thousands of farmers who sell wheat and millions of consumers who use wheat and wheat products. Because no single buyer or seller can influence the price of wheat, each takes the market price as given." Note as with the critique above that in this quote competition gets reduced to price and price is uniform, so no competition actually takes place.

However, as the market discourse is more a collection of ideas rather than a coherent doctrine there are more everyday notions of competition, rather than just perfect competition, that get invoked. The first of these notions is rivalry at scale. Rivalry at scale is the assumption that multi-actor competition can be modelled on/is the same as an intense rivalry between two parties. The problem with this idea is that rivalry begets strategic focus on the rival (Baum and Korn, 1996: 255) – the relationship is one of moves and ripostes – but in a multi-actor situation the focus of each actor can never be as intense; scaled up, rivalry would result in schizophrenic paralysis of businesses. But the notion of rivalry at scale is not so important for its content, but for its role in suggesting the market discourse corresponds to reality; if two big rivals can be seen (say Pepsi and Coke) then the situation is competitive/is a market.

The second notion sees competition as an ongoing evolutionary process where only the fittest survive. (Particularly when applied to the labour market, there is a strong undercurrent of social Darwinism present in the discourse.) In this sense, the market discourse posits an intense and cut-throat form of competition; it works along the lines of Schumpeter's perennial gale of creative destruction and, like early Schumpeter lauds the role of the individual entrepreneur (or, in the modern day, the start-up) as a disrupting force in the economy. The market, then, is seen as a dynamic and innovative place with small competitors always able to replace dominant market actors.

Thus, economic orthodoxy and the societal discourse around competition result in a situation where competition is either understood as an unnecessary stabilisation mechanism (as with perfect competition) or is understood as war of all on all (as with scaled up rivalry and evolutionary competition). Competition is thus both understood as offering a form of order and a form of disruption. Beyond this inherent contradiction, this state of affairs offers little insight into the process of competition in the real economy.

My point here is again not new. The problems with perfect competition were noted by Clark, who kicked off a debate about "workable" or "effective" competition. For Clark (1940: 243-244), there were ten factors that needed to be considered – the degree of standardisation of a product, the number and size of producers, the pricing mechanism, the distribution mechanism, market information, geography of selling and production/transportation costs, the degree of control over output, economies of scale, short-run cost flexibility and flexibility of production capacity. Other authors would come up with similar lists of factors, but the last major contribution to this long-standing debate over the concept was by Sosnick,

who put forward his position as (1968: 927) “a market is effectively competitive if and only if it is free of 25 flaws: unsatisfactory products, underuse or overuse, inefficient exchange, inefficient production, bad externalities, spoliation, exploitation, unfair tactics, wasteful advertising, irrationality, undue profits or losses, inadequate research, predation, pre-emption, tying arrangements, resale price maintenance, refusals to deal, undesirable discrimination, misallocation of risk, undesirable mergers, undesirable entry, misinformation, inefficient rules of trading, and misregulation”.

An alternative account of real competition was offered by Schumpeter. Unlike in the market discourse where competition is only at the end transaction point, Schumpeter offers a much broader account of competition, whereby creative destruction involves “the new commodity, the new technology, the new source of supply, the new type of organization (the largest-scale unit of control for instance) – competition which commands a decisive cost or quality advantage and which strikes not at the margins of the profits and the output of the existing firms but at their foundations and their very lives” (Schumpeter, 1942: 84). Furthermore, Schumpeter in *Capitalism, Socialism and Democracy* focuses on the major corporation, rather than the entrepreneur as in his earlier work, as a major driver of innovation – and therefore competition – within the economy.

Both of these alternative accounts of competition are much broader than the one invoked by the market discourse. Now, instead of seeking to develop a master concept of competition based on synthesising the material above, I instead want to sketch what are four essential foundations for an idea of competition. First, competition must be an empirical concept rather than an assumption derived from a definition of market structure. In other words, the existence of alternative providers is not *prima facie* evidence of competition – the relationships between economic entities need not be separated between competitive and collusive, as it can also be companionable or loosely co-operative.

Second, as with the alternative accounts above, competition must be understood as existing in economic activities that take place before end-consumer transactions. Production, logistics and transport, research and development, relational networks, advertising, organisational structure, etc all must be added as potential areas of competition as these are all areas that an economic organisation can seek to gain advantage over another. These areas will not necessarily be ever-present areas of competition but have the continual potential to be.

Third, competition should be a non-binary concept; the world shouldn't be divided into competitive and non-competitive as there are many shades of grey. Combined with the previous point, competition becomes a multi-dimensional continuum and the degree of competition that is normatively desirable becomes an issue of much finer analysis. Moreover, the concept of overly-competitive is likely worth pursuing, as competitive dynamics in many social spheres have a strong track record of inducing destructive and dangerous behaviour that would not be normatively desirable.

Fourth, competition must always be contextualised. Within the market discourse, competition is disembodied – like the market, it exists everywhere and nowhere. To empirically ground the concept both the level (product, shop, or industry) and location (geographical space) of competition must be delineated. These two points are necessary to set the boundaries of investigation and to specify how competition can be seen.

This final definitional point is also the primary reason for resisting fully developing the concept of competition. Competition is always an analytical creation and issue of judgement; it is an evaluative

concept based on normative foundations.<sup>7</sup> Setting the boundaries of investigation is part of the judgement involved, but more fundamentally, competition is an analytic creation because there are no natural cut-off points between the products (and hence the companies) that are meant to be in competition with one another. Any concept of competition, then, requires an understanding of the problem of product heterogeneity.

### **The problem of product heterogeneity**

The market discourse concept of competition, in the first instance, works with an understanding of services or goods as homogenous. In the second instance, there is an analytical splitting of the economic realm into separate markets of similar products, as in the real world products fulfil different roles rather than being uniformly homogenous. This splitting makes sense, as dissimilar products cannot be pitted against one another and so cannot be seen as in competition with one another – a banana and a Lamborghini are not rivals. Hence it is common to see, for example, discussion of the clothing market, the grocery market, or the automobile market. It's also common to split those markets further, often differentiating between luxury and non-luxury forms of similar products.

However, the problem here is that the decision as to what is similar or not is the analyst's choice; these divisions do not adhere in nature (see Karppinen and Moe, 2014 for practical examples of this point). Joan Robinson (1934: 113-114) highlighted this point, writing that "The definition of a commodity is completely arbitrary, and the definition of a market depends upon the definition of a commodity...Often we can fix a convenient boundary by obvious natural landmarks...and all products outside the boundary are other commodities. But at best there must be some arbitrary element in drawing the boundary." These arbitrary lines are drawn right from the start as heterogeneity exists from the beginning of any good or service; the natural world does not provide standardised materials nor standardised humans. To create homogenous goods extensive processes of sifting, grading, and sorting are undertaken. For example, sand has a broad range of product standard variations that have been created through processes of homogenisation; not all sand is alike, and therefore not necessarily in competition. Some of these product standard variations will be sufficiently similar in the required attributes to be said to be in competition with one another, but the different demands of consumers will determine the degree of fungibility (and therefore competition) of the product standard variations.

However, while the first industrial processes standardise products, the goal of corporate-consumer communication is to differentiate products. The purpose of the many billions of dollars spent on advertising by major well-known corporations is to separate, and to continue the separation, of their products from unbranded equivalent products. So, Levis are not considered the same as generic blue jeans; a Rolex is not a mere watch; McDonalds is separate from other hamburger joints; Nikes are Nikes, not trainers or tennis shoes. While the material reality of branded goods is much the same as unbranded goods, the mental and social reality of branded goods is quite different.

These further realities – the mental and social – of branded goods have been extensively empirically investigated by psychologists, neuroscientists, and others working in the field of consumer behaviour (Karmarkar and Plassmann, 2019, Keller, 2020, Schmitt, 2012). On the mental reality side, research has found that branding can have a strong impact on a consumer's perception. For example, McClure, Li et al. (2004) conducted multiple tests on consumer preferences between Pepsi and Coke. Using MRI scanners, they found that in subjects who were told they were consuming Coke additional parts of the

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<sup>7</sup> Sports again provide a useful way of thinking about this point. When commentators say that a game "wasn't even a competition" or something similar they are using competition in an evaluative manner. In fact, when saying such things about a game, they are expressing that the game was an evaluatively non-competitive formal competition.

brain that are linked with emotions were activated that weren't activated with Pepsi. Moreover, the taste test they conducted found that, "despite the fact that there was Coke in all cups during the taste test, subjects...preferred Coke in the labelled cups significantly more than Coke in the [non-labelled cups] and significantly more than [cups labelled as] Pepsi" (ibid. 385). Other research has highlighted the diversity of effects brands can have. Reimann, Nuñez et al. (2017) found that the presence of a loved brand allowed consumers to insulate themselves against physical pain because, they theorised, it provided a semblance of social connectedness, which has been shown to have pain-insulating effects in other experiments.

On the social side, branding can be understood as a manifestation of Veblen's (2000 [1899]) conspicuous consumption, which involves the spending of money on goods and services beyond the level that is necessary – that is, in Veblen's terms, "wasteful". Such consumption invites "invidious comparison" – whereby those without are envious of those with – which is central to establishing an individual's position within the social order. For example, wearing luxury brands – Gucci, Prada, Cartier, etc – or driving a luxury car will work as a social indicator of wealth, and therefore importance.

While Veblen's work highlights the role of consumption within a hierarchical social order it is necessarily premised on a singular line of identity formation. Contemporary research stresses the diversity of meanings and identities that individuals seek to tap into through their consumption habits, some of which will be along the lines of hierarchical social organisation. As MacInnis, Torelli and Park (2019: 523) write, while offering an overview of the consumer behaviour literature, "in a simple calculus, people prefer brands associated with a social group they belong or aspire to and avoid brands associated with social groups to which they don't belong or aspire. Through consumption, an associative network is created in consumers' minds involving the mental representations of the brand, the social group, and the self." Branding is nowadays an essential part of the language, symbols, and ideas that go into forming social groups and the social formation of the individual.

The result of this differentiation of products, and the diversity of understandings and identities mixed with the products, is that the concept of competition is not easily applied. Unlike in the market discourse, consumers are not making simple rational choices between similar goods. Instead, consumers are making complex irrational choices between goods they view as dissimilar and on the basis of limited knowledge.

Take, for example, a consumer approaching the purchase of wine. Wine is a useful example because when being sold its appearance to a consumer is largely the same regardless of quality. Without being able to test the wine, or detect significant visible differences, rational consumers will approach the purchase of a previously-untried wine on the basis of the available information, which will predominately be price, grape variety, vintage and country of origin, and will use this information to deduce the quality of the wine when making a purchase. The problem is this information has feedback effects that colour consumer perception. So, for example, Veale and Quester (2008: 24) conducted a study whereby they altered the country of origin, the price and the level of wine acidity (to change taste) to see their impact on consumer tastes. In their study "the influence of price and country of origin was found so powerful as to overwhelm even the taste of poor wine"; the wine-choosing heuristics consumers had crafted managed to colour their judgement of taste.

But even then, we should not give consumers too much credit when it comes to their decision-making. Consumption is an everyday thing with relatively low risk and low reward and is subject to competing demands on the mental resources of a consumer. Put in other words, consumers are often working on auto-pilot because the range of choice presented by product heterogeneity is too great and the benefits of investing time thinking about different choices too small. For example, Dickson and Sawyer (1990)

observed 802 shoppers making a purchasing decision in a supermarket and then immediately interviewed them. They found that the “average time between arriving at and departing from the product category display was less than 12 seconds. About 42% of shoppers spent five seconds or less; 25% spent more than 15 seconds. In 85% of the purchases only the chosen brand was handled, and 90% of the shoppers physically inspected only one size”, and that less than half of consumers were able to recall the price seconds after putting an item in their trolley, and one fifth didn’t even try as they “seemed to have no idea of the price of the item they had chosen” (Dickson and Sawyer, 1990 p.47).

The problem of product heterogeneity, then, exacerbates fundamental problems of consumer rationality and further muddies the concept of competition (not to mention irreparably damaging common conceptions of the market). The sharp and simple competition of the market discourse is not possible in a world of heterogenous products and irrational consumers. The problem is that the market discourse only considers competition at the product level with consumers calling the shots, but as the above section makes clear, consumers are in no place to call the shots and products are not straight-forwardly competitive with one another; as Hayek (1948: 98) writes “the conception of the economic system as divisible into distinct markets for separate commodities is after all very largely the product of the imagination of the economist”. The problem of product heterogeneity reinforces the need for a contextual understanding of competition and also further suggests that an empirical concept of competition should look beyond products and consumers and instead look at the level of the industry overall to find important competitive dynamics. As exchange mostly takes place outside of markets, it follows that product-based competition is much more insignificant than is commonly assumed.

### **Seeing without the market**

Explicitly rejecting the market discourse is most important for allowing the crafting of a macro empirical concept of competition, which will help further our understanding of contemporary capitalism. It also has additional benefits. Dispensing with the market discourse and having a broader notion of competition allows properly seeing the corporation – the premier economic actor within contemporary capitalism – and its many activities within the economy. Without the market metaphor, there are three main features of the contemporary corporate-dominated economic system that can be seen that were previously occluded.

First, in a multi-dimensionally macro-competitive environment, there is a huge space made available for business autonomy and strategy. Business autonomy is essentially denied in the market discourse by both the narrowness of competition and the idea of a demand-driven economic system where the consumer is king and the market is economic democracy. But as the above sections detail, competition can have many dimensions, and consumers are largely passive participants in the economic system. What’s more is that, in contrast to the claims of the market discourse (Lazonick, 1993: 63), buyer purchasing does not transmit sufficient information to sellers for buyers to control seller action – purchasing/not purchasing offers very limited information as to *why* consumers purchase one item over another. Products have multiple attributes and consumers can purchase a product for any number of different product attributes, but their reasoning is not transmitted through the act of purchasing (Lindblom, 2001). It is for this reason that the multi-billion-dollar market research industry exists – for corporations to find out consumer preferences in order to more ably design for, and shape, consumer preferences.

Without the assumption of consumer control, corporations have much more autonomy and space for action. While competition may constrain the actions of businesses, it does not determine them; a competitive move made by one business may necessitate a response but can be responded to in a



variety of different ways, particularly by major corporations. For example, the craft beer movement in the US saw the rapid growth of small breweries in a highly concentrated industry – there were 1,500 breweries in the mid-2000s (which itself was an improvement on the recent low of 89 in 1978) but by 2018 the number of breweries had grown to 7,450 (Brewers Association, 2020). Part of the reason for the success of the smaller brewers is that they tapped into a hipster anti-mass consumables sentiment (Rice, 2016), which naturally disadvantaged major brewers. The response of the majors, though, to this challenge was multi-faceted. The majors continued with their multi-brand mass production brewing (and continued to do very well from this), but also starting their own “craft” beer labels, co-opted the independent spirit by buying up several of the craft breweries, and are alleged to have put pressure on (or simply purchased) beer distributors so the distributors carry less beer from craft breweries. Their strategy, then, in response to emerging competition was to continue with their current operations, to compete with similar products, and to compete using their financial and logistical superiority; they were not mechanistically forced into a singular response.

Second, when the full range of activities of the corporation are taken into account we can see that there is a large degree of centralisation and co-ordination in the contemporary global economy. While the economic system is not centralised under the control of the state, it should not be assumed that the economy is decentralised because centralisation is an issue of gradation – a simple binary is not appropriate (see, for an example of this binary, Samuelson and Nordhaus, 2009: 8). While there are many small and medium businesses that operate relatively independently of each other, the major corporation, as it grows in size and gains control of economic resources, centralises economic activity. As Robertson (1923: 85) wrote, corporations are “islands of conscious power in this ocean of unconscious co-operation like lumps of butter coagulating in a pail of buttermilk”.

Walmart is a good example of an island of centralised conscious power. Decisions made in Walmart’s headquarters can change behaviour at its 11,500 stores, can direct the 2.2 million workers employed by Walmart, and can alter the flow of many billions of dollars. Moreover, Walmart’s decisions will hold significant sway over its many and various suppliers around the world, with the degree of influence subject to the supplier’s own size and, relatedly, the degree of dependence/diversification of its contracts. A decision made in Walmart HQ, then, can impact on the resources and people directly controlled by Walmart, but can also have ripple-like impacts on people, resources, and companies around the globe.

The economic centralisation of Walmart, however, exists in a broader context of competing centralised organisations. The commanding heights of the contemporary capitalist economy, then, are fragmentarily centralised due to the dominance of major corporations. Through fragmentary centralisation, many parallel logistical chains and contractual networks knit together large parts of the global economy and ensure a rough and ready form of co-ordination of economic output. Without the market discourse, it can be seen that instead of price being the primary means of co-ordinating economic behaviour, co-ordination, contracts and organisation play a far greater role.<sup>8</sup> As with market research in the previous point, this observation again accords with real-world economic practices in the form of the tasks that general managers, lawyers, and logistical managers undertake within major corporations.

Third, underpinning corporate autonomy and fragmentary centralisation is economic power. Power is denied in the market discourse due to the assertion of equality between participants and the focus on actions being voluntary. Equally, since the market discourse leaves no space for autonomy of anyone

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<sup>8</sup> This line of thinking led Simon (1991: 42) to write that “the economies of modern industrialized society can more appropriately be labelled organizational economies than market economies.”

but the consumer (who is autonomous to the extent that they get to “choose” to buy a homogenous product at a single price) it consequently renders power meaningless – an actor cannot be powerful if its behaviour is simply determined by wider structural factors.

However, power is an even weightier concept than competition, and economic power is another underdeveloped idea (Skidelsky and Craig, 2016: 2), particularly if we strip out reference to the market. While there is a small literature on the concept of economic power (Boulding, 1990, Dugger, 1980, Galbraith, 1983), it is diverse and draws variously from different elements of the broader power literature and from economic theory. As yet, there are scarce and disparate foundations for studying economic power.

To briefly define the concept, since power refers to the capacity to realise one’s interests (potentially against the interests of others, but not necessarily so), economic power is the capacity to realise one’s interests through the “economic sphere”. Even this brief definition is not without controversy, but the bigger issues lie in the *how* of power. In line with Lukes’ (1974) dominant account, tripartite frameworks of how economic power works are popular. These frameworks offer different ways of understanding the general mechanics of power – is it coercion, authority, persuasion?

Operating below such general guiding frameworks of how power work are specific mechanisms through which corporations, for example, can act powerfully as agents and are structurally empowered. On an agential level the economic power of corporations could include workplace authority, logistical control, tied contracts, financial resources, or protected intellectual property. On a structural level, their power could include things such as bankruptcy laws, tax laws, neoliberal ideas (including ideas about the market), or informational asymmetry. This, again, is only a brief sketch of a concept due to the constraints of space, but is included to offer a suggestion as to how we consider and discuss political economy without the market as the central organising idea.

## **Conclusion**

The market is central to many explanations of the social world. Invoking the market brings up a utopian discourse whereby the world is naturally ordered, everyone is equal, and only fair outcomes result, which masks a highly ordered, unequal and unfair reality; it is an analytical lens that only makes the world fuzzier and serves as an ideological justification of the status quo. It is also an analytical lens that has been used in ever-increasingly inappropriate ways to understand the social world.

When place is restored to the idea of the market, the market becomes a much more marginal part of contemporary capitalism. However, putting the market in its place still requires an explicit rejection of market discourse. The term “market” carries with it such a heavy and distorting analytical and political baggage that in situations where the term offers a reasonable approximation of a phenomena it is necessary to first clear away the market myths so that the phenomena can be understood in its own right rather than distorted.

Rooting out the market discourse leaves fertile ground for the development of ideas that have been choked by it. Competition is the most central of these ideas, and an account of economic competition that is multidimensional, non-binary, and suitable for empirical application needs to be developed. Unlike the market, the concept shouldn’t be developed into an always-applicable master concept that is seen as a straightforward representation of reality. Instead, the concept must always remain contextual and evaluative as economic competition is always subject to the problem of product heterogeneity. Product heterogeneity also means that competition is better understood as occurring at

the level of industries rather than at the level of individual products. Furthermore, alongside competition, business autonomy and strategy, fragmentary centralisation, and economic power are all concepts that could help facilitate an analysis of the contemporary economic and social world that does not rely upon the market concept and does not invoke the market discourse.

The weakness of a wholly abstract concept of the market has been noted for a long time and attempts to strengthen it using different abstract principles haven't succeeded and won't succeed as any non-centralised market is ultimately, as per the argument of product heterogeneity, an analyst's creation. If an abstract non-centralised market definition doesn't work, can't be fixed, and actively inhibits our understanding of the world then it is imperative that the concept and the discourse built upon the concept are rejected on the strongest grounds. As such, fuck the market.

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# The ritual of capitalization

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## Abstract

For more than a century, political economists have sought to understand the nature of capital. The prevailing wisdom is that there must be something ‘real’ – some productive capacity – that underpins capitalized values. This thinking, I argue, is a mistake. Building on Jonathan Nitzan and Shimshon Bichler’s theory of capital as power, I argue that capitalization is an *ideology*. It is a quantitative ritual for converting earnings into present value. Although the ritual is arbitrary, it gives rise to astonishing empirical regularities, reviewed here.

## The enigma of finance

There is something mysterious about finance. The symbols are arcane. The math is complex. The practitioners are impressively educated. And the stakes are high. All of this gives finance the veneer of higher truth – as if quants (quantitative financial analysts) are uncovering a reality not accessible to the rest of us. In a sense they are. But the ‘reality’ is not what you think.

When you look at stock-market numbers, they do point to a truth about the world. But it is a truth not about natural law or human nature. It is a truth about human *ideology*. The reality is that finance is a quantitative belief system. At its center is a universal ritual – the ritual of capitalization. It is this ritual that underlies all stock-market numbers.

In this essay, I explore the regularities that stem from the ritual of capitalization. They are astonishing in scope – a breathtaking consistency to human behavior. They beg the mind to look for some material basis for their existence. But that is a mistake. The reality is that the regularities of capitalization are an artifact of ideas – a manifestation of capitalist ideology itself. A regularity from ritual.

## Giving property a number

The ritual of capitalization starts with the institutional act of exclusion – namely *property*.<sup>1</sup> Property, of course, has a deep history that long predates capitalism. I will not wade into this history here. Instead, I will defer to Jean-Jacques Rousseau’s succinct (but apocryphal) telling of property’s emergence. Property arose when

“[t]he first person who, having enclosed a plot of land, took it into his head to say ‘this is mine’ and found people simple enough to believe him ...” (Rousseau, 1992).

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<sup>1</sup> Here is how Nitzan and Bichler describe the exclusionary act of property: “The most important feature of private ownership is not that it enables those who own, but that it disables those who do not. Technically, anyone can get into someone else’s car and drive away, or give an order to sell all of Warren Buffet’s shares in Berkshire Hathaway. The sole purpose of private ownership is to prevent us from doing so. In this sense, private ownership is wholly and only an institution of exclusion, and institutional exclusion is a matter of organized power” (Nitzan & Bichler, 2009).

Putting a fence around something and calling it “property” is step one of capitalization. But property alone is not enough. Romans had property. So did most feudal kingdoms. But these societies did not have capitalization. To capitalize property, there is a second step. You must mix property with *finance*.

The word “finance” evokes a sense of awe – a sense of other-worldly complexity. But at its heart, finance is simple. It is the act of reducing property to a number – a *price*. Merge property and finance, and you have capitalization. How this merger happened historically is complicated. But let’s again reduce history to an apocryphal story. To paraphrase Rousseau:

Having enclosed a plot of land, the first capitalist took it into his head to put a *number* on his property and found people simple enough to believe him.

This act of giving property a number, Jonathan Nitzan and Shimshon Bichler (2009) observe, is the central ritual of capitalism. It is the ritual of *capitalization* ... and it comes with a problem.

Because “capitalization” is literally just slapping numbers onto property, any number is as good as the next one. My property could be a 23. It could also be a 10<sup>23</sup>. In other words, property can have any conceivable price. But which price is “correct”? Ever since our apocryphal capitalist put a number on his property, capitalists have agonized over this question: “what is the *true* value of my property?”

Like so many human-created enigmas, the scientific answer is that the question has no meaning. Determining the “true” value of property is like discovering the “true” nature of the Holy Trinity. It cannot be done because there is no objective “truth” to uncover – there are only subjective human beliefs. The “true nature” of the Holy Trinity is whatever church clergy define it to be. The same holds for capitalization. The “true value” of property is whatever capitalists define it to be.

This arbitrariness is why capitalists need a *ritual*.

If you are going to answer unanswerable questions, there is no better way than through ritual. Think of a ritual as a mystified habit – a repetitive behavior that you reify with significance. As an example, take the ritual of gesturing the cross. It is a reified habit that Catholics use to symbolize both their faith in the Holy Trinity, and to remind them of how the Trinity has been defined (the Father, Son, and Holy Spirit).

Rituals are surprisingly powerful, especially when ingrained during youth. I will use myself as an example. During my childhood, my family went to a Catholic church, and I attended Catechism (Sunday school) weekly. I learned all the rituals that are part of Mass. After being “confirmed” as a Catholic at age 13, however, I stopped going to church. Today I am an atheist who is skeptical of religion. Yet if I hear the words “in the name of the Father, Son, and Holy Spirit”, I have the near-irresistible urge to gesture a cross. That is the power of ritual.

Capitalists have invented a similar ritual, but it is not physical. It is *mathematical*. Faced with the desire to know the “true value” of their property, capitalists have invented a formula that defines it. A property’s capitalized value is the discounted value of its future income:

$$\text{capitalized value} = \frac{\text{future earnings}}{\text{discount rate}}$$

In textbooks, this equation is put more succinctly as:

$$K = \frac{E}{r}$$

Looking at this equation, Jonathan Nitzan and Shimshon Bichler note something interesting. The formula ostensibly capitalizes property – the *stuff* that capitalists own. And yet the capitalization equation makes no mention of this stuff. There are no symbols for factories, machines, or infrastructure. Instead, there is only *income* ( $E$ ). And that, Nitzan and Bichler observe, is precisely the point. The capitalization ritual tells us how capitalists see the world. Capitalists care not for the things they own. They care about their property *rights* – their right to earn income by putting up an (institutional) fence.

Because it reflects an ideology, the capitalization formula is delightfully circular. It defines one monetary sum in terms of another. Nothing in science says that the equation should hold. It holds only because we have convinced ourselves that it should.

As Nitzan and Bichler see it, the spread of capitalism boils down to the spread of the capitalization ritual. It allows anything and everything to have a capitalized value. Take music. In 2020, Bob Dylan sold his entire song catalogue to Universal for some \$300 million (Sweney, 2020). The truth, though, is that Universal did not buy songs. It bought *income*. The copyright on Dylan's songs ensured a sizable annual income – by some accounts about \$4 million per year (Friedman, 2013). Assuming this sum is accurate, Universal capitalized Dylan's royalties by assuming a discount rate of 1.3%:

$$K = \frac{E}{r} = \frac{\$4 \text{ million}}{0.0133} = \$300 \text{ million}$$

Bob Dylan traded future income (from his property rights) for a lump sum. And Universal traded a lump sum for future income. That is capitalization in action.

### **Regularity from ritual**

Unsurprisingly, rituals give rise to astonishing regularity. Every Sunday, Catholics gesture the cross. Five times a day, Muslims bow towards Mecca. Regularity from ritual. Like these religious rituals, the secular ritual of capitalization gives rise to astonishing regularities. Let's have a look at them.

We will start by noting that capitalization is defined only when property changes hands. Put another way, capitalized value is contested until property is sold. Take the example of Donald Trump. He proclaims constantly that his property is worth billions. Critics counter that Trump's empire is worth far less. Neither side is correct. Capitalized value is undefined until the property is sold. If tomorrow, Trump sold his business for \$1 billion, that would be its capitalized value.

In the past, capitalization was poorly defined because property changed hands rarely. An aristocratic family, for instance, might run a merchant business for many generations without ever knowing its capitalized value. Today, things are different. That is because in modern capitalism, *partial* ownership



has become the norm. Portions of firms are bought and sold every second, which means we know capitalized value with exquisite detail.

Take Amazon as an example. The business is enormous, employing about 1.2 million people. And yet the unit of ownership – the Amazon share – is minuscule. One Amazon share buys you about 2 billionths of the company. Because the unit of ownership is tiny, it is trivial to buy and sell. The result is that unlike aristocratic businesses that changed hands once a century, Amazon shares change hands every second. As such, Amazon’s capitalized value is known exactly. As of August 12, 2021, it was:

$$\begin{aligned}\text{Amazon market cap} &= \text{share price} \times \text{number of shares} \\ &= \$3290 \text{ per share} \times 0.51 \text{ billion shares} \\ &= \$1.68 \text{ trillion}\end{aligned}$$

Why is Amazon capitalized at \$1.68 trillion? The answer is that the company has a massive income stream – its profits in 2020 were \$21 billion. Discount that income at 1.3% and you get Amazon’s capitalized value:

$$K = \frac{E}{r} = \frac{\$21.3 \text{ billion}}{0.0127} = \$1.68 \text{ trillion}$$

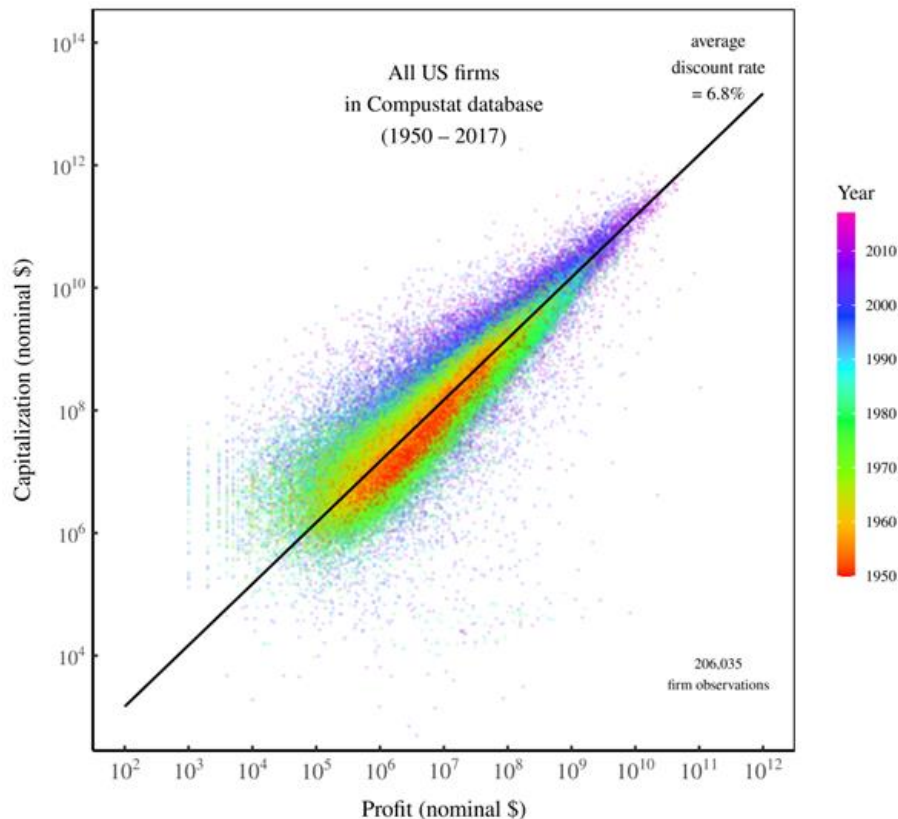
Next question. Where did the discount rate of 1.3% come from? The answer: out of thin air. Like the capitalization ritual itself, the discount rate is whatever we define it to be. Capitalists employ the capitalization ritual by ritualistic choosing a discount rate that they deem “proper”. Ritual within ritual.

Yes, the whole endeavour smacks of arbitrariness. But that is the nature of ritual. What is important is the regularity to which the ritual gives rise. This regularity is not visible when looking at a single firm. It is only by looking at thousands of firms that you can see it. On that front, let’s turn to Figure 1.

I have plotted here data for the profit and capitalization of US public firms dating back to 1950. Each point is a firm in a given year. (There are about 200,000 observations in total.) From this sea of firms, the regularity of capitalization is unmistakable. Capitalization is proportional to profit discounted at a rate of 7%. Regularity from ritual.

**Figure 1.** Profit and capitalization of US firms, 1950 – 2017

Each point represents a US firm. Color indicates the year of observation. The black line shows how capitalization relates to profits for a discount rate of 6.8% – the average found in the data. For data sources, see [Sources and methods](#).



### The discount rate

Is there something special about the discount rate of 7%? The answer is yes and no. That rate is special in the sense that US capitalists have deemed it to be “proper”. But this rate is banal in the sense that it has no deeper meaning. US capitalists discount at 7% because that is the norm they have accepted. Gesture the cross. Discount at 7%. Regularity from ritual.

How does this regularity come to exist? In the past, it was by decree. Much like church clergy decreed the nature of the Holy Trinity, they decreed the “proper” rate of discount:

“Until the emergence of capitalization in the fourteenth century, [the ‘proper’ discount rate was] seen as a matter of state decree, sanctioned by religion and tradition, and modified by necessity. The nobility and clergy set the just lending rates as well as the tolerated zone of private divergence, and they often kept them fixed for very long periods of time” (Nitzan & Bichler, 2009).

Today, the “proper” discount rate still has an element of decree. Governments (via central banks) set the benchmark interest rate, which in turn affects the benchmark discount rate on equity.

If you are a finance outsider, you may be wondering what the interest rate has to do with discounting. The two rates are related because the principle of capitalization is the reverse of the principle of interest.

Here is an example. Suppose you put \$100 in your savings account at 5% interest. In a year, you would have \$105. Now ask yourself – how much would you pay *now* to receive \$105 in a year? The answer, if you are a “rational” capitalist, is \$100. That is the sum that would earn \$5 when put in a savings account for a year. So by thinking about interest, you have capitalized a \$5 future income at \$100.

Although the principle of discounting stems from the principle of interest, the two rates (benchmark discount and interest) are not the same. This we can see from history. But before we get to the data, let’s think a bit more about the discount rate. Here is some simple math. Start with the capitalization equation:

$$K = \frac{E}{r}$$

Now rearrange for the discount rate  $r$ .

$$r = \frac{E}{K}$$

The second equation defines the “effective” discount rate at which investors capitalize income. I call it the “effective” rate because the capitalization ritual is technically about *future* income, which is unknown. In practice, capitalists pin down earnings  $E$  by looking at the recent past (i.e. the last quarterly income report). Assuming this habit, the effective discount rate is the ratio of present income and present capitalization.

For a sample calculation, let’s return to Amazon. Last year, the company raked in \$21 billion in profits. And today, its market cap is about \$1.68 trillion. So Amazon is currently capitalized at an effective discount rate of 1.3%:

$$r = \frac{E}{K} = \frac{\$21.3 \text{ billion}}{\$1680 \text{ billion}} = 0.013$$

This effective discount rate varies between firms. And it varies within firms over time. This variation deserves a closer look.

### **The benchmark discount rate**

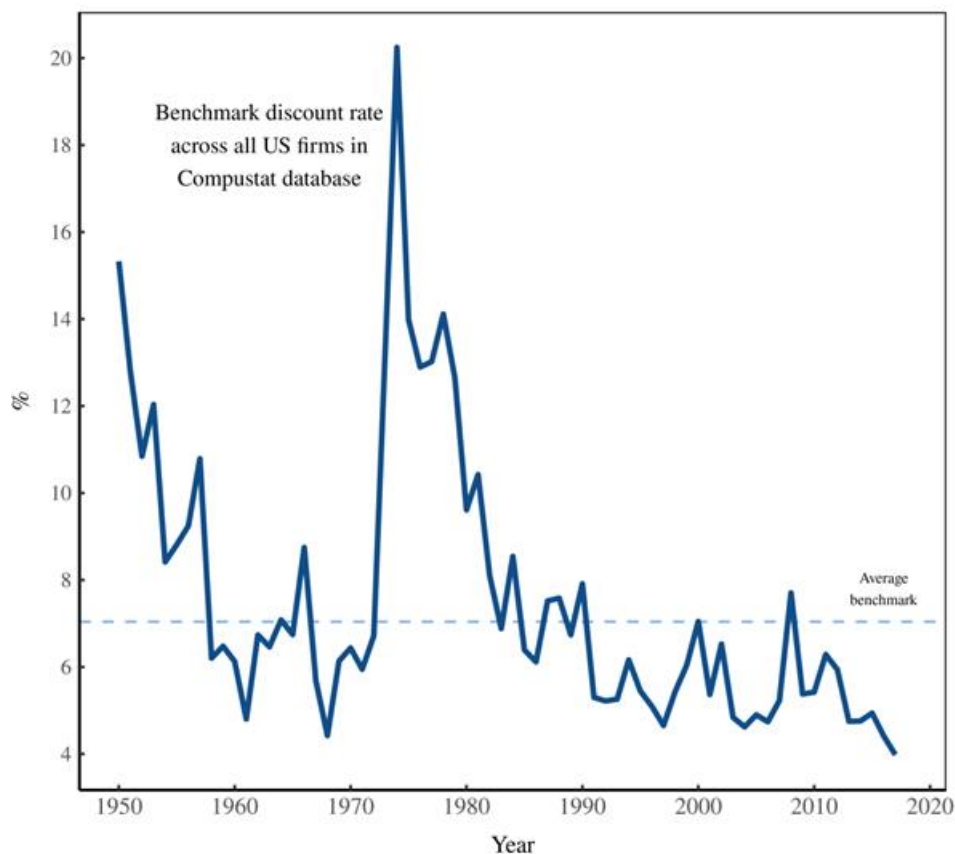
We will start with the *benchmark* discount rate. I define this benchmark as the average of the effective discount rate across all firms.

*The math:* to calculate the benchmark discount rate, we first take every public firm (with available data) and divide income by capitalization. That gives the effective discount rate for each firm in a given year. The benchmark rate is then the average across all firms in that year. (Because we are dealing with growth rates, I calculate the average using the geometric mean.)

Figure 2 shows how the US benchmark discount rate varied over the last 70 years. It oscillated around the average rate of 7%. But there are conspicuous departures from this average. In the mid 1970s, for instance, the benchmark rate soared to a high of 20%. What happened during this period?

**Figure 2.** The US benchmark discount rate

I have plotted here the trend in the average discount rate across all US firms in the Compustat databases. The dashed horizontal line is the average benchmark since 1950 (geometric mean, weighted equally across years). For data sources, see Sources and methods.



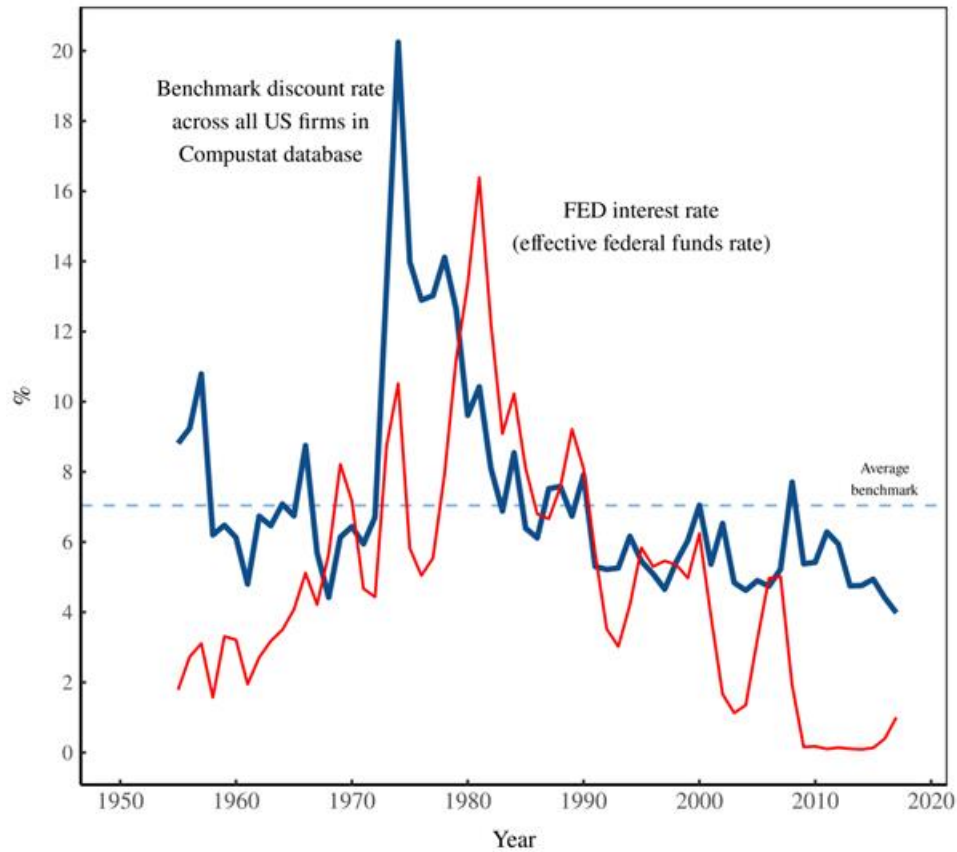
Given that the principle of capitalization works by reversing the principle of interest, one might think that the benchmark discount rate is a simple reflection of the rate of interest. If so, the discount-rate spike in the 1970s should correspond with an interest-rate hike.

While reasonable, it turns out that this expectation is wrong. Figure 3 tells the story. Here I compare the benchmark discount rate to US interest rates. (I have used the US Federal Reserve interest rate – the so-called “effective federal funds rate”. This is the interest rate at which banks trade money with the Federal government. It sets the benchmark for all other interest rates.)

We can see in Figure 3 that interest rates did spike in the past. But the hike came about 7 years *after* the spike in the discount rate. Clearly, then, interest rates are not driving how US capitalists discount income. To understand capitalists’ herd behavior, we must look elsewhere.

**Figure 3.** The US benchmark discount rate vs. the FED interest rate

The blue line shows the trend in the average discount rate across all US firms in the Compustat databases. The red line shows the US FED interest rate. For data sources, see Sources and methods.

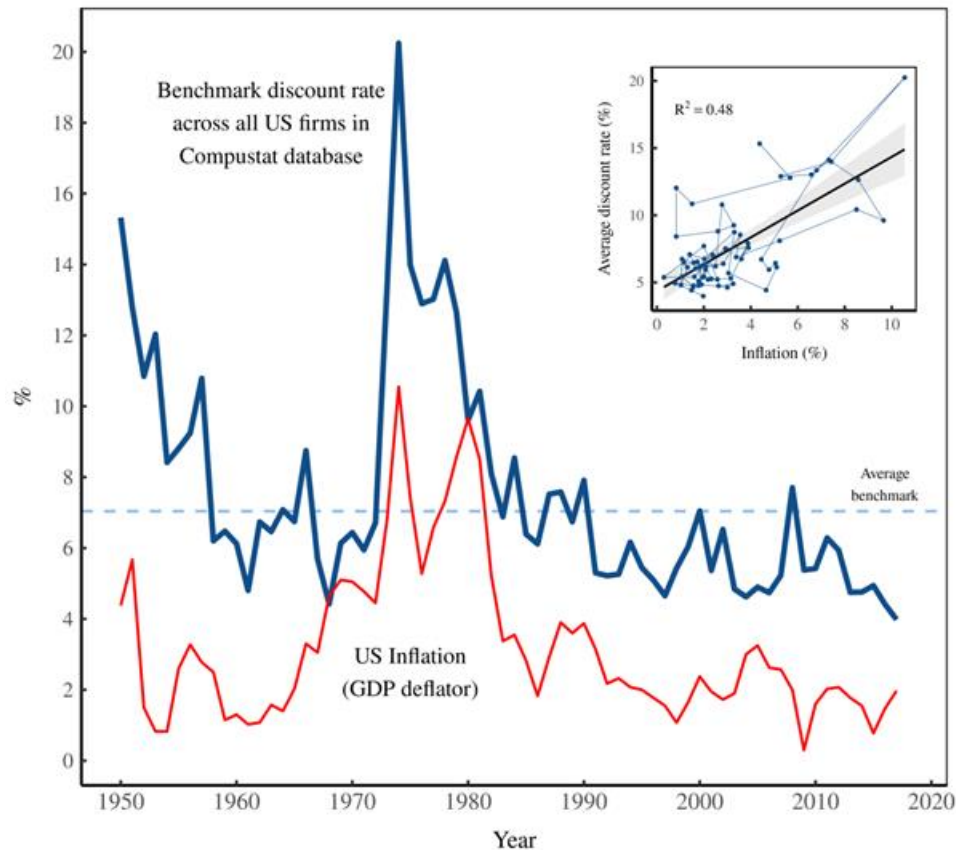


While only loosely related to the rate of interest, it turns out that the benchmark discount rate *is* related to another rate: the rate of inflation (Fig. 4). The inflation rate is a measure of how rapidly prices tend to rise. Because price change varies by commodity, there is no such thing as “*the*” rate of inflation. Instead, think of inflation as similar to discounting: it has an average rate surrounded by a sea of deviation.

The most comprehensive measure of the average rate of inflation is called the “GDP deflator”. (It measures the average price change of all the commodities included in the calculation of GDP.) In Figure 4, I compare this inflation rate to the benchmark discount rate. The two rates are clearly connected. When the benchmark discount rate spiked in the 1970s, so did the rate of inflation.

**Figure 4.** The benchmark US discount rate vs. inflation

The blue line shows the trend in the average discount rate across all US firms in the Compustat databases. The red line shows the US GDP deflator, a measure of inflation. The inset plot shows the correlation between the two series. For data sources, see Sources and methods.



Why is the discounting benchmark related to inflation? In a word, *uncertainty*. Remember that capitalization is the ritual of putting a price on (unknown) *future* income. Capitalists make this leap of faith by assuming that *present* income will continue in perpetuity. But that is a risky assumption, especially when the social order is in turmoil.

Back to inflation. Milton Friedman (1994) proclaimed that inflation is “always and everywhere a monetary phenomenon”. His slogan is a nice tautology, since anything to do with prices automatically has to do with money. The actual science lies in what Friedman omitted. The reality is that inflation is always differential – some companies raise prices faster than others. That means inflation is always and everywhere a restructuring of the social order. It is a boon for some firms, but a bust for others. This is the inescapable conclusion reached by Jonathan Nitzan (1992) after an exhaustive look at the US data.

Far more than just a “monetary phenomenon”, then, the inflation rate signals instability in the social order. That instability, it seems, translates into capitalists’ fears about the future. When the price system is more unstable, capitalists discount present income more steeply.

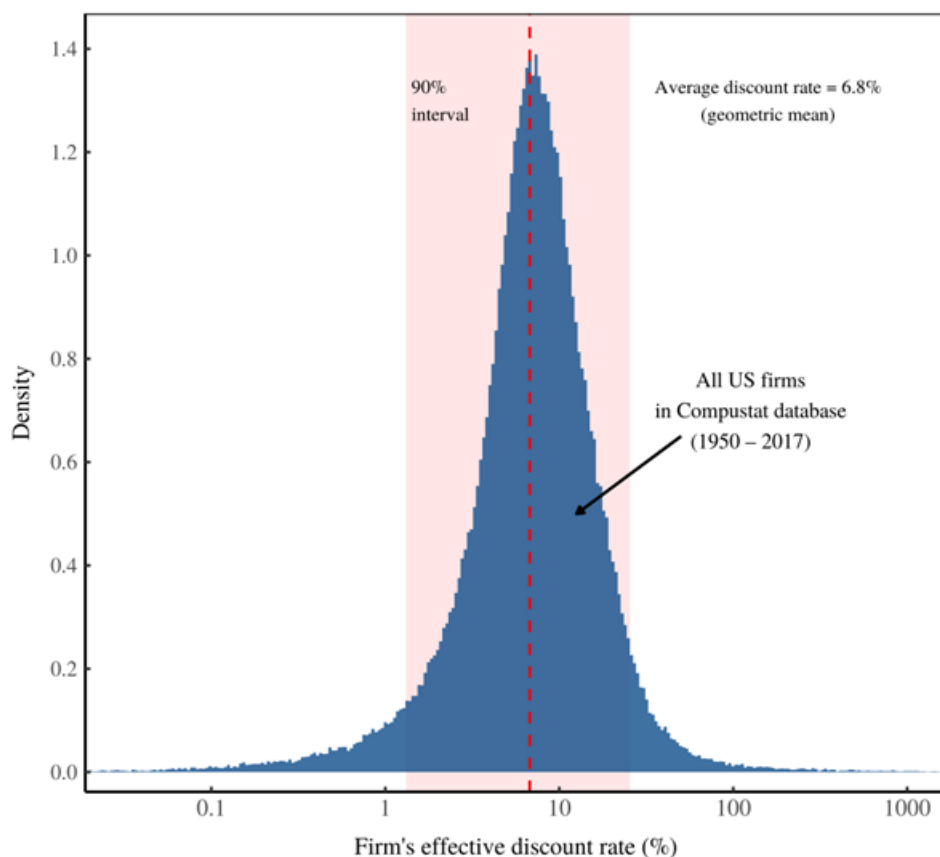
## Discount deviation

Let's back up now and look at the other component to discounting – *deviation* from the benchmark. Over the last 70 years, the average (effective) discount rate for US public firms was about 7%. But although the aggregate data shouts this value to us, few individual firms were capitalized at exactly this rate. This is because like all averages, the benchmark discount rate is a herd behavior that is visible only in aggregate. The effective discount rate for any *single* firm can vary widely. Let's have a look at this variation.

Figure 5 plots the distribution of (effective) discount rates for every firm observation in my US dataset. The benchmark rate of 7% jumps out as a big central lump in the histogram. But do not be misled by the tidy bell curve. The horizontal axis here uses a *logarithmic* scale, which compresses variation. The reality is that some firms are discounted at rates of up to 1000%. And other firms are discounted at rates below 0.1%. That is variation over 4 orders of magnitude. Still, the vast majority of firms (about 90%) are discounted at rates between 1.3% and 25%.

**Figure 5.** The distribution of the effective discount rate among US firms

I have plotted here the distribution of the effective discount rate for every US firm observation in the Compustat database. I calculate the discount rate by dividing annual profit by annual (closing) capitalization. The red line shows the geometric mean. The shaded region represents the 90% interval of the data. For data sources, see Sources and methods.



Whenever we have variation, the next step is to look for its source. Why do some firms have a high (effective) discount rate and others a low one? It is here that things get interesting. Ostensibly, the capitalization ritual has a causal direction that flows from discounted earnings to capitalized value. Investors look at a revenue stream  $E$ , pick a discount rate  $r$ , divide the two, and poof ... get a capitalized value:

$$\frac{E}{r} \rightarrow K$$

There are instances where capitalization works in this simple way – but these instances are the exception, not the norm. The only time capitalization is so simple is when a firm is capitalized for the first time: during its initial public offering (IPO). Before an IPO, the firm opens up its books to let would-be investors see the income stream. Using the capitalization ritual, the firm picks a share price for the launch. From the IPO onward, the stock price floats on the market.

Aside from during an IPO, then, the capitalization ritual has an element of circularity. The ritual is ostensibly about capitalizing an income stream. Yet the most fully known quantity in the ritual is not income, but *capitalized value itself*. You can know a company's market cap down to the second. By contrast, the firm's earnings get reported 4 times a year. So what happens in practice is that investors capitalize income by keeping one eye on capitalization itself. The result is that the discount rate is circularly related to capitalization.

**Figure 6.** The effective discount rate vs. capitalization among US firms

The horizontal axis plots relative capitalization, normalized so that the median of the US Compustat sample in each year is 1. The vertical axis shows the corresponding discount rate, binned by capitalization. (Each point is the center of a bin.) For data sources, see Sources and methods.

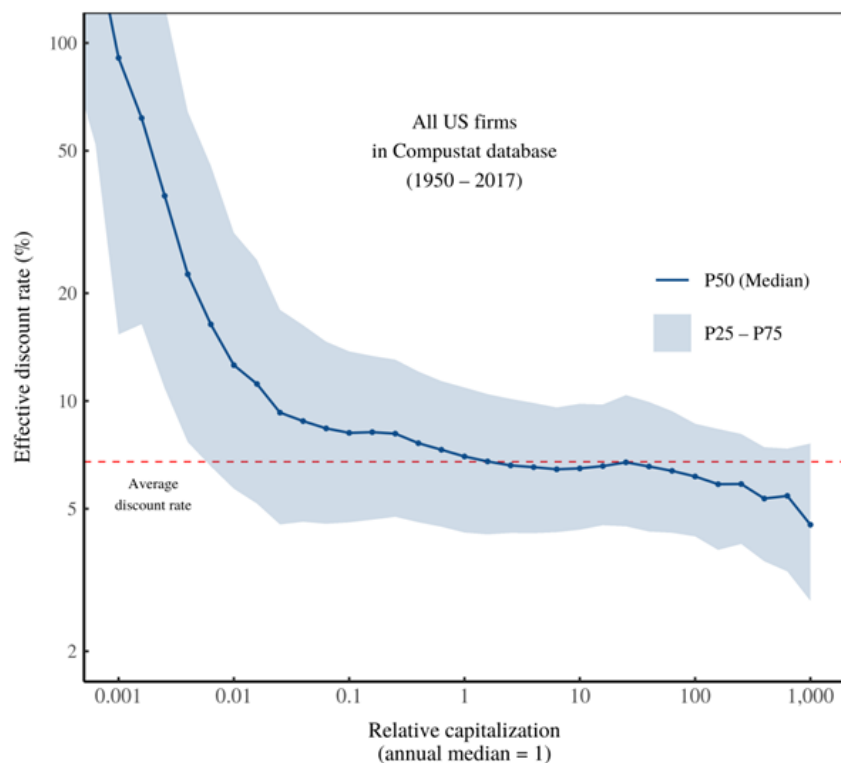




Figure 6 shows the trend. Among US firms, the effective discount rate declines with capitalization. (Note that because I am comparing capitalization across years, I have normalized the data within each year so that the median capitalization in my firm sample is 1.) Around the median market cap, the discount rate is the same as the global benchmark of 7%. But as relative capitalization gets smaller than the median, the discount rate grows. And as relative capitalization gets larger than the median, the discount rate declines. It seems that US capitalists agree that small-cap investments are riskier than large-cap investments. Hence, they discount small-cap firms more heavily.

I have so far portrayed the discount rate as a number that capitalists pull out of thin air. But this portrayal is only partially true. The *absolute* value of the discount rate is arbitrary, just as is the absolute value of capitalization. I can capitalize my property at 23 or 10<sup>23</sup>. In isolation, the difference is meaningless. Capitalization, however, does not happen in isolation. And that, Nitzan and Bichler observe, is the whole point. The only reason to have prices is to compare them to other prices. Hence, capitalization is meaningful only in *relative* terms. The same is true of the discount rate.

The relative value of the discount rate quantifies capitalists' perception of *risk*. The rationale again has to do with the capitalization ritual itself. The ritual is seemingly about quantifying the present value of *future* income. But the way capitalists calculate this value is to assume that *present* income continues indefinitely. That assumption is risky. And so capitalists try to bake future risk into their ritual. The more risk they perceive, the steeper they discount.

How, then, do capitalists assess future risk? Like all elements of the capitalization ritual, capitalists look to the past.<sup>2</sup> They assess future risk by looking at past risk. On that front, we can see that the decline in the discount rate with capitalization is not arbitrary. It is firmly grounded in the variability of past income.

Figure 7 shows the trend. It is a bit complicated to interpret, so let me break down the analysis:

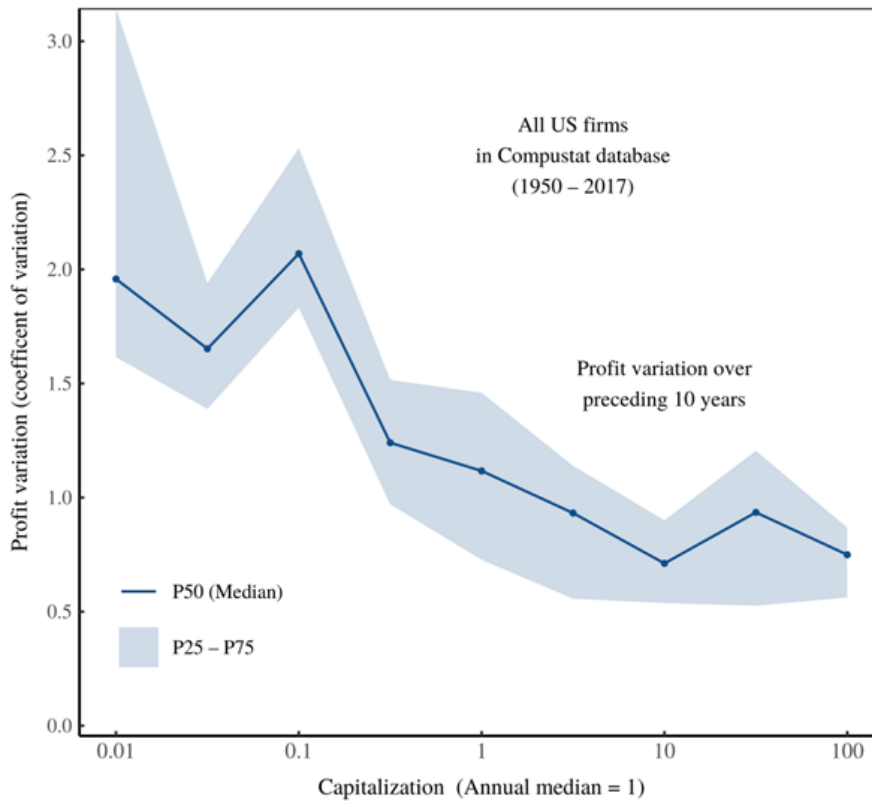
1. I start with a firm – say General Motors. I then pick a year (say 1990) and observe GM's market cap;
2. I look at the preceding decade and measure the variability of GM's profit over that period (1981-1990). I calculate the coefficient of variation of this profit (the standard deviation divided by the mean);
3. I complete the same operation in every year for which there is a preceding decade's worth of data for GM;
4. Repeat steps 1–3 for every firm in the dataset;
5. Analyze the aggregate trend by relative market cap.

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<sup>2</sup> For a detailed discussion of how capitalists' backward-looking behavior relates to capitalization, see Bichler & Nitzan (2016).

**Figure 7.** Profit variability vs. capitalization among US firms

I have analyzed profit variability (using the coefficient of variation) over a trailing 10-year window among firms grouped by capitalization. Each point on the blue line represents a market-cap bin. Note that I have normalized capitalization so that the median in each year is 1. For data sources, see Sources and methods.



The results of this analysis, shown in Figure 7, indicate that the variability of past profit declines with relative capitalization. In other words, small-cap firms have more past risk than large-cap firms. If capitalists know this fact, then it is sensible to discount small firms more heavily than large firms.

It is debatable, however, whether individual capitalists know much about the aggregate trend plotted in Figure 7. Instead, it is more likely that they rely on rules of thumb – something like “venture capital is more risky than blue-chip capital”. This rule then gets baked into the capitalization ritual as a sub-ritual: discount small firms more heavily than large firms.

### Capitalizing markup

Continuing the theme of rituals within rituals, let’s look at another aspect of capitalization: the *markup*. We start with the capitalization formula:

$$K = \frac{E}{r}$$

Here,  $E$  is the firm's profit. To think about how firms earn income, we can break profit down into two components:

$$\begin{aligned} \text{profit} &= \text{sales} \times \frac{\text{profit}}{\text{sales}} \\ &= \text{sales} \times \text{markup} \end{aligned}$$

According to this equation, there are two routes to more profit:

1. increase sales (gross income);
2. increase profit as a portion of sales (the markup).

The two routes to profit are very different. When you increase sales alone, everyone gets more income in the same proportion. Wages and profits increase at the same rate, so their share of the pie remains constant. This is *not* true, however, when you increase profit using the markup. When you fatten the markup, a greater portion of gross income goes to the firm's owners, leaving less for workers (and less for other firms).

Looking at our basic capitalization equation, we can see that it says nothing about how profits are earned. All that matters is their size (net earnings,  $E$ ). But when investors *apply* the capitalization ritual, it turns out that they have a profit preference. Investors prefer to capitalize a high markup.

**Figure 8.** Markup vs. capitalization among US firms

I have analyzed firms' markup among firms grouped by capitalization. Each point on the blue line represents a market-cap bin. The vertical axis shows the markup. Note that I have normalized capitalization so that the median in each year is 1. For data sources, see Sources and methods.

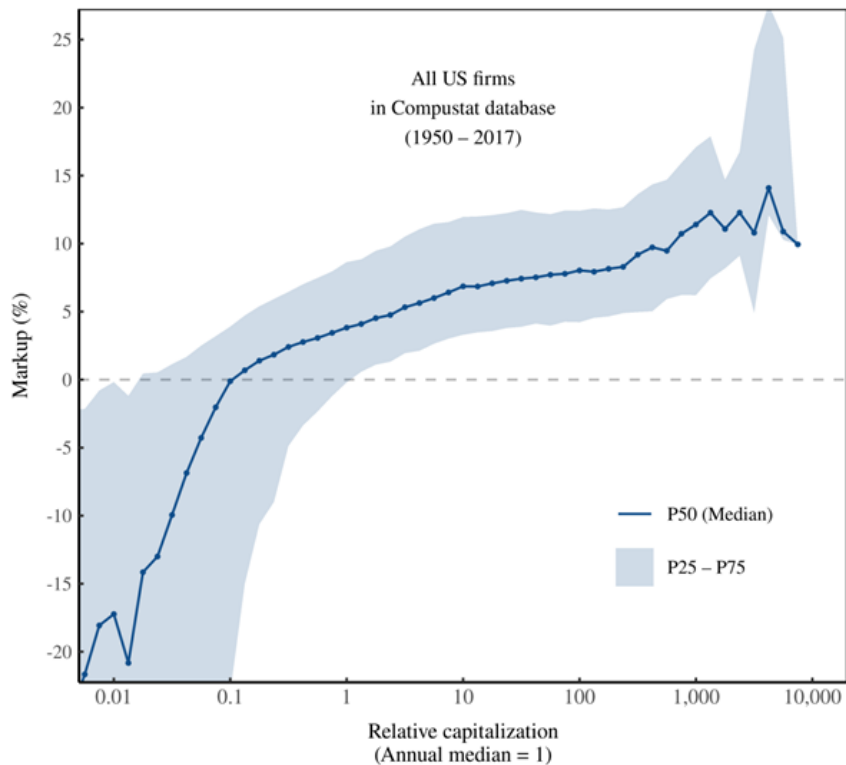


Figure 8 shows the trend. I have plotted here the markup as a function of relative capitalization among all US public firms (since 1950). Each point indicates the median markup when firms are grouped by relative market cap. (I have normalized capitalization so that the median cap in each year is 1). It is easy to spot the trend. The markup grows reliably with capitalization. When US investors capitalize income, it seems they prefer that profit be reaped on a fat margin.

Why do investors award greater capitalization to firms with a higher markup? Perhaps it again comes down to perceptions of risk. Consider two companies with similar-sized profits. One company has mammoth sales but a razor thin markup. The other company has smaller sales, but a fat markup. Which one do investors deem more “risky”, and so discount more steeply?

To make the question concrete, consider the difference between Walmart and Apple, summarized in Table 1. In order-of-magnitude terms, the two firms have similar-sized profits. But they take different routes to this windfall. Walmart has enormous sales and a thin markup. Apple has smaller sales and a fat markup.

**Table 1.** Walmart vs. Apple

	<b>Walmart</b>	<b>Apple</b>
Profit (billions \$)	21	57
Sales (billions \$)	520	275
Markup	4.0%	20.9%
Capitalization (billions \$)	400	2127
Effective discount rate	5.1%	2.7%

Sources: [Walmart 2020 Annual Report](#), [Apple 2020 Annual Report](#).

Investors, it seems, prefer the Apple route to profit. Even though Apple’s profit is of similar size to Walmart’s, investors reward Apple with far more capitalization. The difference? Walmart has a thin markup, Apple a fat one.

Framed in terms of the capitalization ritual, investors discount Walmart more steeply than Apple. They obviously have reasons for doing so, but these reasons need not be objective. That is because we are dealing with an ideological Russian doll – rituals within rituals within rituals.

### **The finance ethos**

A basic principle of the promulgation of ideology is that you should mask your ideology’s arbitrary elements. Faith in your ideology hinges on it having the appearance of higher truth. You must therefore avoid plain discussion at all costs, since it has the unfortunate effect of shedding light on the arbitrariness of your ideas.

And so it is with capitalization. Finance textbooks read like tomes of physics, bombarding the reader with opaque symbols and complex equations. The mathematics give capitalization the appearance of “scientific truth”. Does this mean that finance is a “hard science”?

The answer is a hard no.

Finance does not describe our social world. Finance *defines* it. Finance outlines the rituals whereby capitalists impose order onto society, turning the qualities of ownership into a single quantity. Finance, Jonathan Nitzan and Shimshon Bichler observe, is *the* ideology of our time:

“The ‘science of finance’ is first and foremost a collective ethos. Its real achievement is not objective discovery but ethical articulation. Taken together, the models of finance constitute the architecture of the capitalist *nomos*. In a shifting world of nominal mirrors and pecuniary fiction, this *nomos* provides capitalists with a clear, moral anchor. It fixes the underlying terrain, it shows them the proper path to follow, and it compels them to stay on track. Without this anchor, all capitalists – whether they are small, anonymous day traders, legendary investors such as Warren Buffet, or professional fund managers like Bill Gross – would be utterly lost.

Finance theory establishes the elementary particles of capitalization and the boundaries of accumulation. It gives capitalists the basic building blocks of investment; it tells them how to quantify these entities as numerical ‘variables’; and it provides them with a universal algorithm that reduces these variables into the single magnitude of present value. Although individual capitalists differ in how they interpret and apply these principles, few if any can transcend their logic. And since they all end up obeying the same general rules, the rules themselves seem ‘objective’ and therefore amenable to ‘scientific discovery’” (Nitzan & Bichler, 2009).

Make no mistake, the regularities of corporate finance are majestic in scope. But these regularities stem not from any laws of nature. They are *regularities from ritual*. Gesture the cross. Discount present income.

Perhaps the most important question is where this ritual is headed. Does capitalization have a long-term future? Neoclassical economists like William Nordhaus (2007) think so. He is happy to apply the capitalization ritual to existential crises like climate change. And the net present value of his calculations tells him that we should do essentially nothing. But of course, by applying a heavy discount rate to future income, “doing nothing” is what Nordhaus assumed in the first place. It is ritualized apathy.<sup>3</sup>

Back to the present. The ritual of capitalization is surrounded by a mystique of “higher truth”. Whenever you encounter such a mystique, it is a good bet that you are dealing with ideology. The point of the “mystique” is to stop you from looking under the ideology’s hood. When you do, you see that the whole thing is a house of cards. The “higher truth” of the Holy Trinity is that it is an ideological invention of church clergy. So too with finance. The only difference is that with finance, the clergy are not priests ... they are economists.

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<sup>3</sup> For a debunking of Nordhaus’s climate-change work, see Keen (2020). For a discussion of how Nordhaus uses the capitalization ritual to discount future income, see Bichler & Nitzan (2018).

## Sources and methods

All data and code for the analysis in this paper are available at the Open Science Framework: <https://osf.io/vm4by/>

Financial data for US firms comes from Compustat. Data series are as follows:

- capitalization: number of shares outstanding (series CSHO) × annual closing share price (series PRCC\_C)
- profit (net income): series NI
- sales: series SALE
- markup (profit as a portion of sales): NI / SALE

Interest rates (Fig. 3) are from FRED series [DFF](#). The GDP deflator (Fig. 4) is from FRED series [A191RI1Q225SBEA](#)

## The effective discount rate

For each firm  $f$ , I define the firm's effective discount rate  $r_f$  as

$$r_f = \frac{E_f}{K_f}$$

where  $E_f$  is the firm's profits and  $K_f$  is the firm's capitalization (in a given year). I define the average discount rate for all firms,  $\bar{r}$ , as the geometric mean of  $r_f$  over all firms:

$$\bar{r} = (r_1 r_2 \dots r_n)^{1/n}$$

When calculating the effective discount rate, I exclude firm observations with negative profit.

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# Economic hypocrisies in the pandemic age

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## Introduction

This paper examines some of the most egregious hypocrisies associated with capitalist claims about the state of the economy in the context of the Covid-19 pandemic in the USA. To be clear, there is a difference between the hypocrisies discussed here and the internal contradictions of capitalism already outlined by Karl Marx. For him, unlike the expositions of classical economists from Adam Smith to David Ricardo, the division of labor that reduces the cost of production and promotes economies of scale in turn encourages systemic (monopolistic) over-production. Unlike classical political economy, Marx fleshed out his labor theory of value as a key constituent in an M-C-M system of capital accumulation in which competitive forces tend to lead to over-accumulation and over-production in a self-destructive and unstable system. Over-production depresses profits and wages so that consumption decreases as well, and bankruptcies ensue (with layoffs and market contraction); this logic differs from the ever-expanding growth models of markets whose business cycles are mere short-term inconveniences. All of this is not to say that Marx would not be surprised at the ironic realities of our current economic logics, where some labor unions are completely in cahoots with management or when so-called leftist detractors of Wall Street find themselves invested in the stock market through their pension funds or 401K savings accounts.

My interest here is neither to follow David Harvey's analysis (2014) of the inevitable demise of late capitalism because of its internal contradictions nor to argue against John Cassidy's (2009) inflated sense of capitalism's inevitable rational growth and success despite evidence to the contrary. Rather, my focus is on the deliberate misrepresentation of capitalism's contemporary failures. What is both fascinating and troubling is the manner in which the theoretical (read "scientific," for some) apparatus is invoked when it serves certain interests but ignored for political expediency or even completely inverted to benefit the few at the expense of the many. (e.g., Robert Reich, 2015) By side-stepping the problematic logic of capitalism and offering ingenious explanatory excuses to ward off critiques, contemporary politicians and their servile economic apologists still maintain, falsely, that if approached correctly, (market and financial) capitalism is as sound as it ever was supposed to have been.

Economic hypocrisies in this essay are contextualized within the current American political domain; they are seen as dubious economic policies adopted for purely political ends. My charge of hypocrisy is not concerned with obvious inconsistencies in political circles, but with the deliberate mischaracterization of capitalism as the ultimate platform for the promotion of freedom and equality, fairness, and prosperity for all participants. (Sassower, 2020; see also McCloskey, 2010 and 2019 on liberalism) The appeal to moral standards at times conceals and at others reveals hypocrisy: it is not aspirational but cynically self-serving to capitalist elites and their beneficiaries.



## Examples

All the examples listed here are on some level obvious: once detected, they require minimal critical inspection. What they illustrate, in their own different ways, is a blatant disregard of pious claims about scientific (and therefore rational, consistent, and transparent) frameworks within which capitalism is said to function. When capitalist doxa is conveniently discarded, ingenious arguments pose as alternative explanatory logics.

The first example relates to stock market indices. Former president Trump boasted that during his presidency the economy was doing better than ever before, evidenced by the performance of the stock market.<sup>1</sup> But judging by the economic devastation brought on by business closures caused by the global coronavirus pandemic, it's clear that the stock market does not reflect the health of the economy at all,<sup>2</sup> despite its continued rise in 2020 and early 2021.<sup>3</sup> The justification for using the stock market as a measure of economic prosperity and a strong national economy is twofold: first, the overdetermined ability of the market to raise large funds for new businesses (which we still observe today with Initial Public Offerings) is seen as an indicator of growth. The second, related observation that defenders of the stock market appeal to as a measure of financial health is the liquidity investors enjoy when they wish to exit the market. Regardless of price fluctuations, the argument continues, buyers and sellers on the trading floor largely agree with Efficient Market Theory, which assumes that share prices reflect all the important information associated with listed companies. These two justifications have made it possible to claim that the increased value of shares traded on the stock market reflects (efficiently and wholly) the health of listed corporations as well as the economy as a whole. But the logic deployed here is both outdated and misleading in the current environment of financial capitalism, deploying an argument that parallels commentary made by financialization theorists and post-Keynesians alike.

Three comments may help unveil the hypocrisy perpetuated by politicians who refer to the stock market as the bellwether of economic health and claim credit by pointing to their to their ingenious policies. First, stock ownership is concentrated in the portfolios of the wealthy (despite the fact that many pension funds are heavily invested there).<sup>4</sup> This undermines the claim that the stock market reflects the health of the general economy, given that the vast majority of citizens do not benefit from a strong market. Second, venture capitalists, angel investors, and digital crowdfunding platforms have been every bit as successful as the market for raising funds for corporate expansion. This has been as true for small business initiatives

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<sup>1</sup> According to Ben Levisohn (2020), "The [Dow Jones Industrial Average](#) gained 56% during Trump's presidency, the eighth-best return for any single term of a presidency. It's also well above the 29.9% average of all four-year terms going back to William McKinley's first term, which began in 1897. Among Republican presidents, it was the fourth-best gain, lagging behind only Ronald Reagan's second term—the Dow gained 77% – the 65% gain during Dwight D. Eisenhower's first term, and the 157% surge during Calvin Coolidge's second term. Investors finished Trump's four years a whole lot richer."

<sup>2</sup> See for example, what happened in January of 2021 with speculative short selling of large hedge funds and the pushback by individuals using digital platforms to force "short squeeze" (that raises the price of the shares that speculators anticipated would lose value (Philips and Lorenz, 2021).

<sup>3</sup> David Lynch (2020) reports that "The market is agnostic about politics." According to Marc Chandler, chief market strategist for Bannockburn Global Forex. "We like to think democracy is better. But at the end of the day, investors don't seem to care so much about that."

<sup>4</sup> Patricia Cohen (2018) reports that "A whopping 84 percent of all stocks owned by Americans belong to the wealthiest 10 percent of households. And that includes everyone's stakes in pension plans, 401(k)'s and individual retirement accounts, as well as trust funds, mutual funds and college savings programs like 529 plans."

as for high-tech start-ups:<sup>5</sup> the claim that IPOs are the mainstay of the stock market is empirically false. Third, one of the most significant factors that lifts stock prices (outside of insider trading or the trading by large investment banks that “move” share and commodity prices) is corporate “buybacks” of their own shares to increase their value. Such stock purchases add nothing to overall economic health and may even be detrimental to corporate success when it diverts investment from Research & Development.<sup>6</sup> It is therefore hypocritical not only to view stock market indices as reflecting the economy writ large or to give tax breaks to corporations (more on this below) in the name of “job creation,” when in fact non-taxed profits are used for dividends and buybacks, enriching already wealthy shareholders.

My second example considers pandemic stimulus policies and their effects. Issuing federal checks to individuals and corporations is part of federal fiscal policy that directly intervenes in the economy. (Tax Policy Center, 2020) One standard measure of how this spending affects the economy in general is the “multiplier effect,” which measures how every dollar given to individuals is spent (also called the Marginal Propensity to Consume) and is applied to any injection of spending into the economy.<sup>7</sup> Referring to John Maynard Keynes’s (1964[1935]) theory and its implementation after the Great Depression and, more recently, in the Great Recession of 2008-2011 (Estevez, 2020), fiscal conservatives have criticized such government intervention for two reasons. First, they invoke the threat of inflationary pressures on the economy (when the Federal Government prints money), and second, they sound the alarm over the increase of national debt (more on this below). But where was the outcry by laissez-faire (or so-called Invisible Hand) proponents when taxpayers bailed out large banks during the Great Recession because they were “too big to fail”? (Phillips, 2020)

The stimulus program of 2020, responding to the pandemic and its attendant economic devastation, was meant to help those who were laid off or had to close their businesses (especially those in the hospitality industry and related services), as opposed to what took place with the bailout of large banks in the Great Recession (which did not – nor was it designed to – prevent millions of home foreclosures and personal bankruptcies). Instead, billions of dollars found their way to large, publicly traded corporations that have used portions of the funding for dividends and stock buybacks, already discussed above.<sup>8</sup> Congress enacted the stimulus

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<sup>5</sup> See Rebecca Lake (2019) on angel investors and crowdfunding; see Bob Zider (1998) on venture capitalists.

<sup>6</sup> [William Lazonick](#), [Mustafa Erdem Sakinc](#), and [Matt Hopkins](#) (2020) argue that “Stock buybacks made as open-market repurchases make no contribution to the productive capabilities of the firm. Indeed, these distributions to shareholders, which generally come on top of dividends, disrupt the growth dynamic that links the productivity and pay of the labor force. [The results](#) are increased income inequity, employment instability, and anemic productivity.”

<sup>7</sup> Aine Doris (2020) reports that part of the difficulty in assessing the multiplier effect is that it depends on how much money families have in their bank accounts when the stimulus check reaches them. However, this factor is unknown to researchers: “We wanted to understand the multiplier effect of CARES payments – how when the government gives you a dollar, you spend it and effectively give someone else a dollar, who then goes on to spend it, giving someone else a dollar, and so on,” Yannelis says. “This is how fiscal stimulus works, so you have to look at people’s marginal propensity to consume to assess the multiplier effect.”

<sup>8</sup> See, for example, [Peter Whoriskey](#), [Steven Rich](#), and [Jonathan O’Connell](#) (2020): “Publicly traded companies have received more than \$1 billion in funds meant for small businesses from the federal government’s economic stimulus package, according to data from securities filings compiled by *The Washington Post*. Nearly 300 public companies have reported receiving money from the fund, called the Paycheck Protection Program, according to the data compiled by The Post. Recipients include 43 companies with more than 500 workers, the maximum typically allowed by the program. Several other recipients were prosperous enough to pay executives \$2 million or more. After the first pool of \$349 billion ran dry, leaving more than 80% of applicants without funding, outrage over the millions of dollars that went to larger firms prompted some companies to return the money. As of Thursday, public companies had reported returning more than \$125 million, according to a Post analysis of filings.”

programs with an eye to warding off both leftist and conservative critiques that followed the bailouts of large banks during the Great Recession. Buried in each of the large stimulus packages were sufficient loopholes that benefited large corporations gaming the rules, corporations that were themselves exposed to the downturn because they did not have sufficient reserves.<sup>9</sup> During the recent pandemic downturn, billionaires disproportionately increased their personal wealth by over \$1 trillion (Egan, 2021), and their numbers grew by nearly a third (Denham, 2021).

The third example focuses on the debates over tax relief to the very rich. Reasonable arguments about uniform global taxation pertaining to the global economy hold some sway as nation-states play with different sets of rules and thereby undermine whatever monetary policy any single state attempts to enact so as to affect corporate tax rates (since multinational corporations are quick to “relocate” their headquarters to enjoy the most favorable tax code) (Center for Global Tax Policy, 2020). As Thomas Piketty (2020, Part Four) convincingly argues, without a global approach to taxing wealth, no national remedy can solve gaping inequalities at the personal level. The fact that no such tax has been globally imposed --which would, of course, require buy-in from the U.S.--is evidence of a lack of will by the superpowers, guided, one presumes, by the wealthy donor class that imposes its will on political leaders to look the other way.

More to the point, the Tax Cuts and Jobs Act of 2017 was the most dramatic revision of the tax code since the days of the Reagan Administration.<sup>10</sup> Projected to cost between one and two trillion dollars, the argument in favor of this tax reform (which includes some reduced tax rates for middle-income earners and child credits) harkens back to the “trickle-down” theory (Supply Side Economics) of the 1980s that gave theoretical (if not moral) cover to tax breaks for the rich.<sup>11</sup> This example illustrates not only that politicians whose campaigns are funded by large “megadonors” (Goldmacher, 2021) are fond of scoring political points at the expense of future economic calamities (deficit spending), but that large corporations and the very rich actively lobby to minimize their tax burden. Two sets of arguments commonly accompany these policy positions: first, the moral righteousness of not being taxed for one’s toil or ingenuity, and second, the greater the tax revenue, the greater is the opportunity for government agencies to

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<sup>9</sup> Adam Looney (2020) explains some of the tax breaks tucked into the stimulus package: “Tucked into the bill is a provision to allow businesses to deduct expenses that were paid for by the government’s Paycheck Protection Program (PPP). Normally, a business owner may deduct only expenses they actually paid for. (“[This is basically Tax 101](#),” Treasury Secretary Steven Mnuchin noted in May in defense of IRS guidance that said businesses cannot deduct expenses covered by the forgivable PPP loans.) Passing legislation to allow businesses to pay their expenses with taxpayer-provided PPP funds *and then* to deduct those expenses against their own taxes would be a windfall to high-income business owners – a windfall that would exceed the amounts that Congress is considering in unemployment insurance, rental assistance, food aid, or healthcare.”

<sup>10</sup> According to William Gale (2019), “TCJA will (a) have minimal impact on long-term growth; (b) increase disparities in after-tax income by giving the largest relative and absolute tax cuts to high-income households; (c) make most households worse off after taking into account plausible ways of financing the tax cut; (d) make the government’s troublesome long-term fiscal status even worse; (e) make the tax system more complex and more uncertain; (f) make it harder for policymakers to fight future recessions; (g) reduce health insurance coverage, raise health insurance prices, and (h) reduce charitable giving.”

<sup>11</sup> Matthew Lichtblau (2019) explains the fallacy of the so-called “trickle-down economics” or “Supply-Side Economics” in this way: “To put it bluntly, the theory that undergirds this phenomenon, dubbed “[trickle-down economics](#)” by its myriad critics, is a macroeconomic fallacy. At its core, trickle-down theory invokes [supply-side economics](#) in contending that the imposition of substantial taxes on higher-income individuals is inimical to economic growth. Instead, proponents of this school of thought advocate the implementation of lessened taxes on high earners to incentivize business expansion and investment, with the idea that this growth will trickle down to lower earners in the form of financial and occupational benefits.”

squander budgets and become even more wasteful with their ever-enlarged bureaucracies. One need not look far to find the neoclassical explanatory model that appropriates Adam Smith's "Invisible Hand" as a justification for deregulation regardless of what Smith said or meant (Aspromourgos, 2008).

Under the pretense of unburdening hard-working taxpayers from the unfair intrusion of government agents into their personal affairs and pockets, wealthy and well-connected individuals and corporations reduce their own tax exposure. In doing so, they do not benefit the economy because they do not create enough new jobs that pay sufficiently additional taxes to offset the loss of national revenue or reduce the national debt. As mentioned above, tax breaks are used for corporate buyback of their own shares and distribution of dividends to existing shareholders. Government services suffer a contraction, and the interest payment on the national debt keeps on increasing. The mendacity of this ongoing political ploy backed by dubious economic modeling reminds observers that economic experts of certain ideological persuasions are happy to produce shoddy models to buttress their claims regardless of empirical data.

Piketty (2020, pp. 31-33, 445-450) demonstrates that progressive taxation in the United States during the period of 1950-1980 (when the highest marginal rates were over 80%) not only decreased the inequality gap (more on this below) but also ensured a robust economy, perhaps the most successful tenure of market capitalism in its history. The current hypocritical concern for the fate of the economy and the national debt disguises the self-serving concern by the rich to part with a portion, however little overall, of their income and wealth. The claim that high marginal rates disincentivize creativity and entrepreneurship has been proven demonstrably false by the empirical evidence, which has been collected and documented by Piketty and his co-authors.

The fourth example relates to the importance of the national debt to the health of the economy. As finance capitalism ascended in the late 20<sup>th</sup> century and early 21<sup>st</sup> century, and as the gold standard was relinquished much earlier in the Bretton Woods Agreement (1944), the role of central banks (Federal Reserve in the U.S.) has become increasingly important. The Federal Reserve can decrease interest rates to stimulate investing and increase the supply of money to decrease unemployment (monetary policy). The government can decrease taxes to stimulate the economy or print money for its spending (fiscal policy). Either method intentionally intervenes in economic fluctuations (business cycles). Proponents of the Modern Monetary Theory (MMT) draw on Abba Lerner's (1960) functional finance and Fred Moseley (2016) on the nature of money creation by a sovereign currency issuer (which does not depend on taxation) and suggest that the printing of money only becomes inflationary at the point when all currently available resources are in use. Defenders and detractors of MMT (Edwards and Mohamed, 2020) agree that empirical data from stimulus programs (deficit spending) have proven that there is no danger, so far, of inflationary pressures.

As the 2020–21 pandemic has devastated many sectors of the American economy and the government has tried to intervene in various ways, hypocritical judgments abound. The tax reform of 2017 raised the federal debt while benefiting the wealthy; stimulus programs in 2020 and 2021 have also raised the federal debt, claiming to benefit primarily the unemployed and poor, at least in the short-run and in the absence of structural reform. At the confirmation hearing of the new Treasury Secretary, Janet Yellen (who headed the Federal Reserve under the Obama Administration, and who, after her departure from that post, garnered millions in speaking fees from large banks) (Makortoff, 2021), Senator Toomey (R-PA) raised questions

about the wisdom of deficit spending and the rising national debt, questions that were not raised during President Trump's tax reform of 2017 (Rappeport, 2021). Selectively exercising financial logics is common to politicians and economists who pander to their wealthy donors and look out for their own self-interests.

The fifth example of a hypocritical double standard focuses on health disparities. During the pandemic, those who have historically suffered from social and economic inequalities (including food insecurity and environmental racism) have contracted the coronavirus and died from it in greater proportions and numbers than their wealthier counterparts.<sup>12</sup> Not only do underlying conditions affect one's ability to maintain good health, but as limits are imposed and working conditions change, the least advantaged (especially "essential" workers in health care and other public-facing sectors) once again find themselves disproportionately affected around the world.<sup>13</sup> The pandemic did not affect the poor and rich alike, as some also claim is the case when individuals find themselves in the marketplace, but has increased the disparity between them. As Ian Goldin and Robert Muggah (2020) report,

"The pandemic is a boon for the ultra-rich. The staggering rise in the stock-market is testament to this. In the US, over 44 million people lost their jobs and unemployment surged towards 15% between April and June 2020. Yet the fortunes of the [top five billionaires rose](#) by \$102 billion, increasing their wealth by 26%. In fact, the combined wealth of US billionaires increased by over \$637 billion to a total of \$3.6 trillion, which is considerably more than the entire wealth of the 54 countries on the African continent.... Between 1980 and 2020, billionaires in the US [saw their wealth](#) soar by 1,130%, increasing more than

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<sup>12</sup> Clare Bamba, Ryan Riordan, John Ford, and Fiona Matthews (2020), while comparing the 2020 pandemic with earlier ones (the 1918 Spanish influenza pandemic and the 2009 H1N1 outbreak), conclude the following about the current pandemic: "The prevalence and severity of the COVID-19 pandemic is magnified because of the pre-existing epidemics of chronic disease – which are themselves socially patterned and associated with the social determinants of health... These inequalities in chronic conditions arise as a result of inequalities in exposure to the social determinants of health: the conditions in which people 'live, work, grow and age' including working conditions, unemployment, access to essential goods and services (e.g., water, sanitation and food), housing and access to healthcare." They conclude: "Historically, pandemics have been experienced unequally with higher rates of infection and mortality among the most disadvantaged communities – particularly in more socially unequal countries. Emerging evidence from a variety of countries suggests that these inequalities are being mirrored today in the COVID-19 pandemic."

<sup>13</sup> Ian Goldin and Robert Muggah (2020) explain that:

"There are at least four ways the COVID-19 pandemic is increasing inequality:

- First, higher-paid workers are working from home while lower-paid blue-collar workers typically do not have this option.
- Second, a higher share of low-paid workers [is] in essential services such as nursing, policing, teaching, cleaning, refuse removal, and store attendants where they are more likely to come into contact with people who are infected.
- Third, lower paid workers are more represented in the sectors that have suspended activities such as hotels, restaurants and tourism services.
- Fourth, the pandemic is increasing poverty and inequality between richer countries that can afford to bail out their firms and provide social safety nets, and poorer countries that do not have the capacity to do so.

A recent [survey](#) of 37 countries indicates that 3 in 4 households suffered declining income since the start of the pandemic, with 82% of poorer households affected. The impact on different communities depends entirely on their specific circumstances. In the US, for example, [over 2 million](#) more households claim that they do not have enough to eat since the pandemic. In fact, one in five African American households says they are going hungry."

See, more recently, Robert Gabeloff (2021) on recent detailed data about stock ownership.

200[-fold] faster than median wages. At the same time, the tax obligations of billionaires in the [US declined](#) by 78% between 1980 and 2018 (measured as a percentage of their wealth).”

These numbers speak for themselves. The richest 1% benefit from any calamity, while the 99% bear the brunt (recalling Occupy Wall Street, 2011). The gap between billionaires and the rest of society expresses itself in power relations that not only protect them from taxation but also give them political power to dictate policies that benefit only them and their companies. This is how hypocrisy cloaks cynical exploitation with moments of philanthropic largess.

As Piketty (2020, Part 1) and many others have explained, “Inequality Regimes” have proposed different arguments at different times to justify and morally whitewash any suggestion that inequality (of wealth or income) is unfair. Hypocritical on many levels, any claim for enriching the already wealthy through favorable tax treatment or direct corporate subsidies, which are labeled by some “corporate welfare” (de Rugy and DeHaven, 2020), reeks of post-hoc justification of a phenomenon that on its face cannot and should not be justified (namely, the accumulation of obscene amounts of capital). This is not to say that economic outcomes should be identical for all, but rather to argue that inequalities, when they come about (especially through inheritance, but also at times because of hard work or extraordinary talent), should not forestall opportunities for others, nor should the wealthy have so much financial clout in the political arena. Piketty prefers the idea of the “circulation of capital” to emphasize that it is possible to conceptualize a temporal nature of private property, one that disallows inheritance (Ibid., 972). The moral argument about merit, as Michael Sandel (2020) reminds us, overlooks the economic conditions under which individuals and corporations compete in capitalist environments, over-emphasizing success stories without context (pretending that “equal opportunity” is available to all).

## **Conclusion**

Any examination of contemporary hypocrisies related to political economy exposes some of the underlying contradictions of the logic of late capitalism. Yet this indictment is not enough, since it merely updates Marx’s original critique of classical economics (market capitalism). Perhaps they expose in a newer guise the continued power relations between the very rich and the rest of society. If finance and surveillance capitalism still promise freedom of choice and prosperity for all, the sad realities of the 21<sup>st</sup> century expose their falsehood. The charge of hypocrisy does not ring hollow as long as it reminds us of the dangerous appeal of the neoliberal variant of capitalist ideology, one that appeals to the many but caters to the few. I suppose there would be no hypocrisy if the naked truth of the American variant of capitalism’s foundations were admitted, that is, if we were willing to see that since the inception of the American colonies, wealth inequality was accepted as inevitable and perhaps even warranted according to the ideals and policies of the founding fathers, some of whom were themselves plantation oligarchs who owned, traded, and bred enslaved Africans. Twentieth-century ideologues, such as Ayn Rand and Milton Friedman, nostalgic for claims of freedom and equality that were never supposed to extend to the entire population, may deny their own bad faith, but the America they missed or imagined has always been one in which only the privileged white few had any hope of prospering. Promises of freedom and equality were never supposed to cover the entire population; indeed, they came to fruition for the few at the expense of the many. The so-called American Dream is more of a nightmare when we acknowledge that the United States is one

of the least socially or economically mobile countries among the members of the Organization for Economic Co-operation and Development.

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# The politics of economics: post-structuralist discourse theory as a new theoretical perspective for heterodox economics

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**Keywords:** Post-structuralism, discourse theory, ontology, pluralism, politics of economics.

## Introduction

In this paper, through a critical review of the discourse of heterodox economics, I will argue that a radical reorientation of economics is possible. It is not possible ethically or ontologically, but discursively. In order to understand the possibility of radical reorientation, what heterodox economics should take seriously is not ontology or ethics, but the politics of economics. By highlighting these points, I will introduce post-structuralist discourse theory as a new theoretical perspective for heterodox economics.

The pluralism of economic studies and the dominance of mainstream economics are the primary concerns of heterodox economics. A basic premise of heterodox economics is that contemporary economic studies are so dominated by orthodox economics that the very methodology of heterodox economics causes it to be marginalized. In short, the possibilities of economic study are distorted and confined by orthodox economics. Therefore, regarding this unfavourable situation, heterodox economists commonly claim that radical reorientation of economics is necessary. But this begs a question: what kind of radical reorientation is needed? While the call for reorientation is a common emphasis among heterodox economists, the type of reorientation suggested diverges. More precisely, if reorientation means to overcome the dominance of orthodox economics and achieve pluralism, there are two types of reorientations. First is the reorientation proposed by Tony Lawson based on critical realist theory of ontology; another is proposed by Sheila Dow based on Kuhnian paradigm theory. The first section of this essay introduces these two scholars' theories. Through critical comparison, I will demonstrate that while Dow's claim ends up with idealism, Lawson's account results in determinism. Then, taking the theoretical limits of each theory seriously, in the second section of this essay I will introduce post-structuralist discourse theory (PSDT) as an alternative theory. In doing this, I will mainly refer to the theory and concepts of the Essex school of discourse theory which developed with the rise of the linguistic turn and draws on post-structuralist philosophy such as that of Ferdinand de Saussure, Ludwig Wittgenstein, Michel Foucault, Slavoj Zizek and Ernesto Laclau.

## **1. The dilemma between determinism and idealism**

### **1.1. Lawson's theory of ontology**

One of the popular claims made by heterodox economists is that while orthodox economic studies are unrealistic they are dominant and thereby exclude more realistic and useful studies. This type of claim can be easily found in heterodox economists' arguments (e.g., Fullbrook 2007b, Fleetwood 2007, Guerrien 2007). While this type of discussion tends to be somewhat emotional and lacks serious thought, Tony Lawson has provided an extensive review of the nature of mainstream economics and proposed a radical reorientation of economics. Lawson claims that orthodox economics ("mainstream economics", in his words) is flawed due to its method of mathematical-deductivist modelling (i.e., mathematical formalism). By applying mathematical methods without any critical thought, orthodox economics falls into anti-realism. In order to "reorient" economics from anti-realism to realism, Lawson argues that economics needs ontology (Lawson, 1997, 2003 & 2010).

Lawson's claim for ontology is based on the theory of critical realism. Critical realism is a philosophical approach originally proposed by Roy Bhasker, a scholar of the philosophy of science, and is currently being developed by his colleagues and students as a school of thought. While Bhasker's theory of critical realism is highly complex and will not be described fully here, the basic point is a critique of "epistemic fallacy." According to Bhasker, Western philosophy has long been trapped by the belief that "the statements about being can always be transposed into statements about our knowledge of being" (Bhasker, 2008, p. 5). Bhasker criticizes such a belief as "epistemic fallacy". The critique of "epistemic fallacy" leads Bhasker to discern the difference between the ontology of being and the epistemology of being. According to Bhasker, the former is intransitive whereas the latter is transitive. This means that, although knowledge of an object only exists by an observer's observation of the object (transitive), the object itself *does* exist independently from the observer's observation (intransitive). The distinctions between these terms (ontology / epistemology, intransitive / transitive) are crucial; otherwise, an epistemic fallacy will result in an anthropocentric understanding of reality that is different from the true nature of reality (Bhasker, 2008, p. 24). Following this critique of epistemic fallacy by Bhasker, Lawson argues that this is the case in contemporary economics.

According to Lawson, one of the general trends of contemporary economic studies is the application of mathematical formalism. Through mathematical formalism, an attempt is made to explore universalizable causal laws or strict event regularities. Such math-based methods are encouraged, advocated, and imposed everywhere as if they are the only way to do economic studies (Lawson, 2003, p. xvii). However, Lawson claims the application of mathematical formalism is the origin of disarray in contemporary economics. This is because the worldview presupposed by these methods and the ontology of social reality are different (Lawson, 2003, pp. xvii-xviii). So, modern economics is trapped in the fallacy of epistemology. Consequently, according to Lawson, economists rarely make accurate predictions and rarely provide any intelligible understandings of real economic issues. Regarding this, Lawson claims that for economic studies to become more realistic, economists should take the ontology of social reality seriously.

Lawson's theory of ontology is one of the most intelligible theories clarifying cardinal problems of orthodox economics. While his theory is highly complex and not easily readable, his final message is rather simple: the application of mathematical formalistic modelling is wrong and must be replaced with a real(istic) alternative (Lawson, 1997, p. 283; Lawson, 2003, p. 75). This

proposal to reorient economics, however, triggers a contentious question: Could the theory of ontology, especially with its denial of mathematical formalism, result in the monism that heterodox economics commonly stands against?

## **1.2. Pluralism and monism**

Heterodox economists commonly argue for pluralism in economic studies – namely, more open and democratic research environments. However, on the other hand, some claim that this pluralist demand exaggerates the status of contemporary economic studies. For example, economic historian John Davis (2008) argues that, if pluralism in economics means the acceptance of differences and “heterogeneities” within economic studies, then contemporary economic studies have achieved this since circa 1980.

Davis claims, since around 1980s, “a number of new research programs began... to be recognized in the mainstream. These include game theory, behavioural economics, experimental economics, evolutionary economics, neuroeconomics, and complexity economics” (Davis, 2008, p. 86). Regarding this wide variety, Davis insists that contemporary economic studies achieved pluralism some time ago.

Davis’ account correctly points out the pluralist nature of contemporary economic studies. However, his claim is somewhat misleading and distorts what most heterodox economists presume. The pluralism that Davis points out is so-called “internal pluralism” or the “continuity-pluralism thesis”, which is different from the pluralism that heterodox economists commonly envisage (Lee, 2009, pp. 1-3; see also Stilwell, 2016, p. 17). As Lawson emphasizes, for mainstream economists, what makes economic studies *economic* is the application of math. However, for heterodox economists, pluralism means recognizing that there are other possible methods for economic studies. Thus, pluralism for heterodox economists does not just mean heterogeneities and multiple varieties of economic studies, but also challenging orthodox economists’ monist view that mathematical formalism is the only way to explain and describe an economy. This is why pluralism is commonly proclaimed by heterodox economists to be their normative orientation. In this sense, the issue of “pluralism and monism” becomes vital in the discourse of heterodox economics.

Lawson’s theory of ontology can also be understood as responding to the issue of pluralism. Indeed, he argues *for* pluralism. However, on the other hand, some critiques of Lawson question whether his theory is truly pluralist. Here, some heterodox economists are rather careful about differing conceptions of pluralism. Indeed, in reviewing heterodox economists’ claims for pluralism, they can be divided into two types: one excluding/denying mainstream economics and the other including/accepting mainstream economics (basically “anything goes”). Hereafter, I shall call the former “exclusive pluralism” and the latter “inclusive pluralism”. With this difference of pluralism in mind, a Dutch economist, Esther-Mirijam Sent (2007), contends that if heterodox economists were to presume the achievement of exclusive pluralism, it would result in a new type of monism. In such a monism, the relationship between the heterodox and the orthodox is merely subverted so that any methods that may be challenging to the new orthodoxy are excluded. If so, this would just be a repeat of what contemporary orthodox economists have explicitly/implicitly done. Thus, if heterodox economists head into exclusive pluralism, they would end up with monism. Critics of Lawson point out that this is indeed the case with his ontological approach.

### **1.3. Ontological pluralism**

Lawson's theory of ontology is often called into question due to its thorough rejection of mainstream economic studies (see Caldwell, 2008; Ruccio, 2008). Concerning the issue of pluralism, for example, a Belgium scholar of the philosophy of science, Jeroen Van Bouwel (2005), claims Lawson's rejection to be "the new monist standard." However, while Lawson's uncompromising attitude toward mainstream economics indeed looks too limited, Van Bouwel's critique is also harsh and is likely to dismiss Lawson's crucial concerns regarding pluralism. While critics like Van Bouwel misapprehend Lawson's antagonism as being directed towards mainstream economic studies only, he also challenges other heterodox economics from an ontological perspective.<sup>1</sup> Here, in order to understand Lawson's theory of "ontological pluralism" precisely, Bhasker's critical realism is revisited.

Concerning the difference between intransitivity of being and transitivity of being, Bhasker advances his theory further via so-called "depth ontology" (Bhasker, 2008). In his theory of depth ontology, Bhasker accounts for the stratification of reality into three domains: the real, the actual, and the experience. The real is reality that exists independent of its recognition. The actual is an event that is actually happening. The experience is what human beings can experience, and thus, know. This stratification or "depth" of reality is important; otherwise, Bhasker claims, non-recognition of depth results in epistemic fallacy. An epistemic fallacy is an identification of the real and the experience that does not presume a difference between the transitivity and intransitivity of being. Such non-recognition of ontological depth would eventually lead to the judgmental relativism that any knowledge is equally correct as a true picture of reality (i.e., "anything goes"). The theory of depth ontology is thus vital for not accepting epistemic fallacy and judgmental relativism.

Nevertheless, in denying epistemic fallacy and judgmental relativism, it should be noted that Bhasker does not deny the "epistemological relativism" that knowledge of being can exist as much as observers exist. Keeping epistemological relativism but denying judgmental relativism, Bhasker proposes a "judgmental rationality" that, as long as intransitive reality ontologically exists, human beings can know which knowledge is better and more accurate. Rather, judgmental rationality becomes possible, with judgmental relativism denied, when epistemological relativism is "conjoined to" ontological realism (Lawson, 1997, p.243). Namely, the difference between the transitivity and intransitivity of being is not just vital for refuting an unrealistic epistemology (judgmental relativism) but also for accepting a realistic epistemology (judgmental rationality) that makes the advancement of scientific studies possible. The difference between the transitivity and intransitivity of being thus legitimates the mere possibility of a reality check.

Understanding the legitimacy of the reality check (judgmental rationality), however, it should be noted that Bhasker also claims that what is tested through experiments should not be understood as real possibilities of the world. Here, Bhasker rejects the empiricist (Humean) actualism that does not discriminate between "the real" and "the actual." Namely, to see reality only as what is actually happening eliminates real possibilities of the world and denies the openness of the future. This denial of actualism is important as a critique of positivism. While positivism denies mere conceptions of reality and argues instead for a monistic/deterministic

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<sup>1</sup> The most famous case is the intensive exchange with feminist economists, whose arguments are often based on post-modern philosophy or the constructivist approach. For example, see Lawson (1999) and Harding (1999) in *Feminist Economics*.

understanding of reality, Bhasker accepts a pluralistic/anti-deterministic understanding of reality. Clarifying critical realists' depth ontology theory, it can be said that critical realism attempts to understand what is possible/impossible and what should be involved/excluded for realist(istic) studies. This point must also be highlighted for Lawson's pluralism.

For Lawson, the inclusive pluralism of "anything goes" would violate his ontological theory. This is why the *reality* (correctness corresponding to the real world) of economic knowledge and economic theories needs to be checked – namely, whether the knowledge and theories fit into reality (the real world), rather than just into their models. Also, regarding the reality check, following Bhasker's critique of actualism Lawson denies deterministic methods such as falsificationism. Therefore, Lawson indeed acknowledges the fallibility of his arguments and has argued for the fallibility of human knowledge ever since he proposed his theory of ontology (Lawson, 1997, p. 242; Lawson, 2008, p. 193). Indeed, this point corresponds to Bhasker's critical realism. Bhasker argues for fallibility in relation to judgmental rationality as human knowledge often fails. While the emphasis on fallibility may sound like fatal inconsistencies in their theories it actually works to maintain the consistency of their theories. Indeed, for them, fallibility indicates the denial of anthropocentricity and the denial of the actualism that refutes the openness of the future and the differentiation of the world. Some findings may be false in other contexts and new findings may refute orthodox beliefs. For Lawson and Bhasker, this fallibility of human knowledge also corresponds to the advancement of scientific studies and ontological pluralism. Thus, the concept of fallibility is vital and consistent with their critical realism. However, taking Lawson's arguments for fallibility, Sheila Dow questions "if any knowledge can be fallible, why is there still a need to exclude the mainstream?".

#### **1.4. Structured pluralism**

Regarding the fallibility of knowledge, Dow argues that if our knowledge is always uncertain then there is no way to identify the best epistemology and thus no reason to deny mainstream economics. In this regard, Dow argues for inclusive pluralism based on Thomas Kuhn's "paradigm theory." While the application of paradigm theory to argue for pluralism is somewhat popular, paradigm theory often provokes intensive criticisms that its pluralism leads to a relativism that any scientific practice is possible – namely, "anything goes." However, Dow claims this is not the case and instead proposes the theory of "structured pluralism".

According to Kuhn (1970a), a paradigm means a community in which a specific set of meanings of reality (i.e., ontology and epistemology) are shared. Through such shared meanings, scientists communicate with each other in a paradigm. In this sense, Dow claims that each paradigm has a different language (e.g., mainstream economists use math as their language) (Dow, 2001, 2004, 2018). However, while a common language in a paradigm makes scientific practices possible, it also excludes other languages and practices and ultimately causes incommensurabilities with them. This can clearly be seen in the case of orthodox economists' application of math – the precision of which excludes other methods (i.e., languages) (Dow 2108, p. 41). Of course, such an exclusive nature is not peculiar to orthodox economists. Dow sees this exclusive nature as the boundaries of a paradigm whereby scientific knowledge can be sedimented. In a nutshell, knowledge production is structured by paradigms (Dow, 2004, pp. 284-285).

However, clarifying Dow's theorization of the structure of knowledge production, it should be noted that Dow's theorization does not refute the criticism of relativism. This is because, while

the structure of knowledge production indicates that scientific practices are confined within a paradigm, any practice is still possible within a paradigm so that there remains a sense of relativism. This is indeed the case supported by Lawson. Even though math is a common language for the orthodox, it is ontologically wrong (or trivial and of no use). Nevertheless, Dow challenges Lawson's conception of ontology from the perspective of "performativity". Dow claims that while Lawson and critical realists presume the existence of ontology independent from epistemology, such a presumption is unrealistic because ontology is affected by epistemology and methodology (Dow, 2018, p.40). As the scientific community is constructed through a paradigm, social reality is also constructed in the same way. In a society, a particular language(s) is shared to make effective communication possible. Social systems then develop on the sedimentation of knowledge. Thus, the constructions of social realities are based on specific languages and knowledge, which are specific methodologies and epistemologies. For this reason, Dow concludes that "there is a practical limit to the number of paradigms... so that the pluralism represented by schools of thought is structured" (Dow, 2004, p. 285). This is the theory of structured pluralism. In sum, the pure relativism of "anything goes" is impossible *per se*, because there is an extant structure of reality that confines the "anything goes".

Now, to clarify Dow's structured pluralism, it seems that Lawson overlooks orthodox economists' influence on social reality because he views their studies as ontologically unrealistic. Meanwhile, Dow takes their social influence more seriously seeing how they are deeply embedded in social reality and contribute to the construction of social life. Indeed, for Lawson, what matters is whether a theory presumes a closed or an open system in its theorizing of economy. Conversely, for Dow, what matters is how the openness of the social reality (i.e., economic reality) is confined and structured. Thus, in contrast to Lawson's claim, Dow claims that mainstream economics is neither useless nor unrealistic; rather, it contributes to the structure of the contemporary economic system.

Regarding the fact that the openness of social reality is confined by certain economic ideas, Dow finally addresses the possibility of reorienting a closed society. Here, she insists that the closure of the structure is "provisional and mutable", making this point based on Kuhn's concept of the "vagueness of language" (Dow, 2004, pp. 284-285; Dow, 2018, p. 42). This means that, while scientific practices are maintained through communications and are based on common meanings, the meanings can change from time to time. Even the meanings of rigid and precise terminologies have changed in the history of science. Once the meanings change, communications can also change, so that the ontology of scientific practices or social realities can also change. Taking Kuhn's concept of "vagueness of language," Dow argues for the transformability of society (openness of society) through active communication among economists. While there are some partial incommensurabilities that are not translatable from one to another, Dow claims that we can still learn other languages for communication so that we can go beyond the incommensurabilities and achieve a pluralist environment in which economists can respect each other (Dow, 2004, 2018; Kuhn, 1970b). Therefore, Dow emphasizes active communication among economists for a reorientation of economics that will restructure the boundaries of research environments.

In sum, for Lawson, the application of mathematical formalism is wrong; thus, it needs to be reoriented by ontological therapy. However, for Dow, mainstream economics is not wrong *per se*; rather, it contributes to the maintenance of extant research environments that exclude other research possibilities. Thus, pluralist communication needs to be promoted.

### **1.5. Determinism and idealism**

Taking Lawson's concern with fallibility, Dow's argument effectively provides a counterargument against Lawson's ontological and exclusive pluralism. Also, her theory of structured pluralism can explain why mainstream economics currently holds the dominant position in contemporary economic studies, something that is relatively unclear in Lawson's theory of ontology. Lawson (2003), however, accounts for the dominance of contemporary economics by introducing social evolutionary theory. Interestingly, on the construction of dominance, Lawson and Dow share some common views.

According to Lawson, what causes the dominance of mathematical formalism is the environment surrounding economics. He accounts for this by introducing social evolutionary theory (Darwinian metaphor and PVRS model). While acknowledging the difficulty of pinpointing the origin of the mathematisation project within economics, Lawson recognises the importance of the success of math-based study in Enlightenment. With many scientific disciplines, such as physics, developed by mathematical methods, a trend emerges which encourages understanding social realities through mathematics. Indeed, corresponding with this trend, some remarkable scholars provided several formalistic studies that contributed to the rise of mathematical formalism in economics (Lawson, 2003, pp. 259-263). Nevertheless, the mathematisation projects since the Enlightenment are not a sufficient factor in bringing about the contemporary dominance of mathematical formalism in economics. Rather, Lawson insists that while academic environments are an important factor in impacting economics, other environmental factors such as the political environment are also crucial. For example, Lawson points out the post-World War II context. With the rise of McCarthyism in the US during the Cold War, economic studies, especially neoclassical economics based on mathematical formalism were politically favoured. During this period, the faculties of economics were radically revised and neoclassical economics with its mathematical formalism became the mainstream. Regarding this historical development, therefore, Lawson concludes that the environments surrounding economic studies constructed the dominance of mainstream economics and that environmental constraints evolved economic studies.

Interestingly, Lawson's account shares some commonalities with Dow's structured pluralism. Both recognise the role of structure as significantly impacting the trend of economic studies. However, Lawson's account highlights the importance of structure more than Dow's so that he keeps theoretical consistency with his theory of ontology. The difference between them becomes even clearer in their accounts of the possibility of reorientation and its limits.

After accounting for how the dominance of mainstream economics was constructed by the environment, Lawson argues that its dominance is eventually doomed to fail because it is ontologically wrong. After the end of the dominance of the wrong studies, the pluralism of ontologically correct studies will come true. While this focus on the ontological test is vital to maintain theoretical consistency with his theory of ontology, the limit of this account is that it is not clear how the end of mathematical formalism will lead to the pluralisation of economic studies. Lawson points out some factors such as the rise of the young resistance to mainstream economics (i.e. the origin of Real-World Economics) or the changing faculty at business and management departments as impetus of the radical reorientation (Lawson, 2003, pp. 279-281). Nevertheless, on the other hand, he also claims that the success of those academic activities is subject to their environments. Lawson argues that the environment at some points is good for some economists and bad for others, but that is subject to luck (i.e. ontological conditions)



(Lawson 2003, p. 252). Thus, his account ends up maintaining the typical structural determinism that structure eventually determines the course of the future.

Regarding the criticism of determinism, Lawson is conscious of it and clearly refuses it. He claims that extant environments do not limit the variety of economic studies so that possibilities of the future are necessarily open (Lawson, 2003, p. 277). Rather, according to Lawson, those environments do not determine the outcome but serve to make what would happen “more likely” (Lawson, 2003, p. 277). This mere likeliness indicates the openness of the future and possibilities for heterodox economics to “reverse the fortune” (Lawson, 2003, p. 280). Nevertheless, remember, the success of fortune is subject to structures. Here, the point is not the variety of possibilities, but that Lawson recognises structure as an exclusive factor determining possibility even if that is contingent on contingency also being an ontological factor. Thus, his account for radical reorientation eventually ends up being structural determinism.

In contrast to Lawson’s account, Dow highlights the role of subjects more. For Dow, following structured pluralism, the structure indeed confines the possibilities of economic studies. However, even if this is so, Dow claims economists can change this situation through active communication. Drawing on Kuhn, according to Dow, like with learning different languages, mainstream economists and heterodox economists can understand each other so that the incommensurability can be overcome and the discourse of the economics can be reorientated. However, the crucial limitation of this argument is that, even if this is so, there is no clear incentive for orthodox economists to communicate with heterodox economists. This is simply because they are in a dominant position while heterodox economists are in an inferior position. In other words, there is a clear power imbalance between them. However, despite such power imbalance, Dow claims that orthodox economists should learn the languages of other methodologies as pluralism is ethically desirable. This type of argument can also be frequently found in heterodox economists’ discourse. For example, Edward Fullbrook made a rather strong claim that pluralism (democracy) is one of the qualities of a science and must hence be achieved (Fullbrook, 2007b, p. 24; see also Courvisanos et al., 2016b, p. 1). Nevertheless, these pro-pluralist claims eventually culminate with a normative claim about what is (ideally) supposed to be – namely, what pro-pluralists want. Put simply, what Dow undermines is the role of the structure, such as the power imbalance between orthodox economics and heterodox economics. In other words, it is the structure that constructs and maintains the dominance of mainstream economics which Lawson highlights, but Dow eventually undermines. Thus, compared to Lawson, Dow avoids the danger of determinism, but at the expense of idealism.

In sum, comparing the differences between Lawson and Dow regarding the possibility of reorientating economic discourse, it can be said that there is a tension between determinism and idealism: determinism that highlights the role of structure but undermines the role of subjects; idealism that highlights the role of subjects but undermines the role of structure. So, taking one side seriously leads to the limits of the other. Regarding this dilemma, PSDT provides an alternative account.

## 2. The politics of economics

### 2.1. *Post-structuralist discourse theory*

In order to understand PSDT, introducing the concept of discourse is a good start.<sup>2</sup> Discourse, at least in PSDT, is not simply language or the linguistic. Often, a similar concept, “narrative”, is mixed up as an analogous term. Nonetheless, they are indeed different and the concept of “discourse” for PSDT goes beyond a “narrative”.

PSDT’s concept of “discourse” is based on several linguistic theories and developed in the linguistic turn of contemporary social science. Therefore, it begins with the basic idea of Saussurean theory of linguistics that language is structured based on a combination of signifieds and signifiers (Saussure, 2011). A tree is in English called by a noun “tree” or /*ti:/*; in spoken English that is the signifier of the tree, but this is different from the object itself, the so-called “tree”. The object itself is the signified. Hence, combining these different entities (signifieds and signifiers), a linguistic system is structured. Drawing on this, differences among languages can be understood in terms of different combinations of signifieds and signifiers. Indeed, the object so-called “tree” in English is not necessarily called so in another language. For example, the same object is called /*ki/* in Japanese. Thus, the same object can be signified differently. Therefore, the different combinations of signifieds and signifiers indicate different linguistic (semiotic) systems, namely, different languages. PSDT takes these basics of Saussurean theory. In fact, PSDT’s concept of discourse can be understood like a language that is structured by specific combinations of signifieds and signifiers. Also, PSDT claims that there are different discourses as there are different languages. However, PSDT’s concept of discourse is not sufficiently explained with Saussurean theory. While Saussurean theory details the structure of language, it does not account for how it is structured. To answer this, PSDT employs Wittgensteinian linguistic theories of meaning making and social acts.

Probably the best-known concept and theory proposed by Wittgenstein is the concept of family resemblance (Wittgenstein 1998). It has been widely applied to social science studies since the linguistic turn. It is a handy concept to account for why some social science concepts such as freedom or democracy are “essentially contestable” (Gallie, 1956; MacCallum, 1967). Wittgenstein accounts for it with the well-known example of a *trompe l’oeil* which looks like a duck from one side but like a rabbit from another side. With this example of *trompe l’oeil*, Wittgenstein argues that one can make a meaning of an object by making a certain combination of elements in a certain manner. Namely, by taking the round shape as a head and the opposite side as a beak, there appears a duck; taking the round shape as a face and the opposite side as ears, there appears a rabbit. Here, some elements may be overlapping in both meanings; yet, some elements are excluded in another. Thus, while some commonalities remain, different meanings are constructed. This is what Wittgenstein calls family resemblance. With this concept, Wittgenstein eventually theorised the meaning making process in terms of a language game. Like playing a game, meaning is made by catching elements in a certain manner while excluding other elements. So, once the game changes, one has to re-combine elements differently to make a meaning in the new game.

Technically speaking, Wittgenstein’s linguistic theory indicates linguistic anti-essentialism. This means it presumes that there is no absolute meaning of any object. Thus, all meaning needs to be constructed. Taking this Wittgensteinian position, PSDT calls the meaning making

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<sup>2</sup> For extensive introductions for ‘discourse’, David Howarth *Discourse* (2000) and Teun A Van Dijk *Discourse as Social Interaction* (1997).

process an “articulatory process”, a process where one element is articulated to another element in order to make a meaning. In other words, one signifier as an element is combined with one signified as an element. However, once more, applying this Wittgensteinian theory of meaning making, PSDT does not just deal with the linguistic alone. This point is developed by another Wittgensteinian theory, the speech act.

Speech act theory has been developed by some Wittgensteinian theorists rather than Wittgenstein himself (e.g., Austin, 1975). According to these theorists, the speech act is not simply a linguistic activity but something more. For example, when making mistakes or feeling sympathy, one may say “oh, sorry” to someone. This articulation of the word “sorry” is not simply to articulate a word “s-o-r-r-y” aloud but makes an expression such as apology or sympathy that is not simply linguistic. “Sorry” is articulated with a specific meaning in a specific game-like context. By saying it, the orator performs an action in a specific context. This performance through the speech act is called performativity and is currently widely applied and developed by later scholars. While linguistic researchers analyse it in a linguistic context, socio-linguistic researchers apply it to understand social activities. PSDT does the latter. Social activities are based on performativity. For example, in many countries, a hand is raised to stop a taxi/bus. Here, hand raising becomes a sign with the meaning of “stop/I take”. This example indicates that the meaning making process is not merely linguistic but also performs social activities. In other words, social activities also presume some linguistic aspects made through the articulatory process. In this sense, social activities also presume social contexts in which specific activities become meaningful. The contextual fields that make activities meaningful are what PSDT call “discourse”.

In sum, as discourse means the fields in which certain combinations of elements are made, the articulatory process that makes the combinations constructs the discourse itself. In other words, a discourse is constructed through articulation and the articulation is made in a discourse. In a structure, agents speak and perform social actions so that they construct and reproduce their social structure. This is the interdependent relationship between structure and agency that PSDT presumes in the construction of a discourse. Drawing on this basic theory of discourse, PSDT provides a unique account for social transformability and its structural constraints.

## **2.2. Discourse as structure**

In looking at the basics of PSDT, it may be clear that PSDT shares some commonalities with Dow’s paradigm theories. Indeed, like Dow and Kuhn, PSDT understands that one becomes a scientist through a specific scientific discourse/paradigm. Nevertheless, in contrast to Dow and Kuhn, PSDT highlights the role of structure much more. In other words, PSDT views the dominance of a discourse to constrain social transformability, or the possibility of reorientation as much stronger than Dow and Kuhn presume. Technically, for PSDT, the dominance of discourse means two things: First, the domination of subjects within a discourse and, second, the structural dominance of a hegemonic discourse.

In order to account for the domination of the subjects, it is vital to demonstrate how PSDT understands subjectivity. Regarding subjectivity, while PSDT shares some commonalities with Dow’s understanding of subjects, PSDT takes the concept of performativity more seriously. Technically speaking, PSDT’s theory of the subject is largely drawn on Michel Foucault’s theories on discourse and subjects (Foucault, 1972, 1989 & 2008). For PSDT and Foucault, agents are not subjects with free will. They are subjectified through a discourse and forced to

take certain actions. In a discourse, one is supposed to take right actions and avoid wrong actions. This means one will select certain elements in a certain manner with others excluded. One has to do this firstly because they are taught and trained that those activities are right actions in the discourse they belong to but secondly because not doing so results in the denial of the discourse and the subjects' own identities. That is why economists in the discourse of orthodox economics pursue truth based on mathematics. Mathematics is the criteria that enables them to perform scientific activities but also that makes them economists. For these economists, those who do not use math are not economists at all. Rather, the claim against mathematical formalism made by heterodox economics is a menace that threatens their scientific activities and their *raison d'être*. Here, Frederick Lee rightly describes the nature of the heterodox economics challenge to orthodox economics in terms of "blasphemy" that "entails the total rejection of a body of ideas and their replacement with ideas that are completely different... In short blasphemy is treason against God" (Lee, 2009, p. 5), "that is treason against mainstream economics" (Lee, 2009, p.,8). Hence, it is impossible for orthodox economists to accept heterodox economics. Heterodox economists are not simply those who speak different languages, but they are negativities that must be denied in order to ensure scientific legitimacy and the totality and consistency of the discourse that ensures their identities. Thus, for PSDT, the performativity of a discourse does not simply mean positive actions that make economists into economists, but also negativities that do not merely close the openness of economic studies but also force them to deny other possibilities in order to ensure their identities and discourse. For PSDT, this discursive domination of subjects is also vital to consider the structural dominance of a particular discourse.

On structural dominance, according to Dow and Lawson, what makes mainstream economics dominant is extant structures or environments surrounding economics. PSDT also takes this view and accounts for it based on the concept of hegemonic discourse (Laclau and Mouffe 1985). Hegemonic discourse is a discourse that becomes dominant among other possibilities and becomes ordinary and orthodox. As the mainstream economics dominates contemporary economic studies and is regarded as orthodox economics, it can be thought of as a hegemonic discourse. However, at this point, in order to understand the dominance of mainstream economics, it is important to understand the concept of hegemonic discourse further.

The concept of a hegemonic discourse can also be applied to understand the discourse of social reality. This means contemporary social reality based on a specific economic system can be understood in terms of a hegemonic discourse. Of course, it is debatable what name one should call this reality: capitalism, neoliberalism, or another. However, the point is that mainstream economics is also articulated as an element through the hegemonic discourse of social reality. For example, this can be seen in the application of economic policies. Contemporary economic policies were planned, made, and issued based on the discourse of mainstream economics, which is based on mathematical formalism. Indeed, the reports of central banks are full of mathematical models or maths-based graphs. In order to maintain this policy discourse, mainstream economics is institutionalised as an academic faculty. On the other hand, alternative discourses such as Marxist, which could threaten the extant economic system, are clearly excluded from policy discourse (Lee, 2009). Hence, through being articulated into the hegemonic discourse of social reality, mainstream economics holds its dominant position over others and becomes a hegemonic discourse in contemporary economics (Shimizu, 2020). Here, it should be noted that, while Lawson claims that economic studies survived due to the environment surrounding it, economics itself also contributed to the maintenance of this environment. The latter statement is vital because the subjects of mainstream economics are not simply the subjects of mainstream economics; they are also the

subjects of the social reality through which mainstream economics is articulated. Therefore, introducing the concept of hegemonic discourse and taking the notion of performativity more seriously, PSDT uniquely depicts how the dominance of mainstream economics is maintained and reproduced.

Now, accounting for how discourse works as a structure that constrains social transformability and maintains/reproduces the dominance of a specific discourse, two different types of concerns arise. The first is whether PSDT falls into idealism or determinism. Indeed, PSDT is often criticised for its idealism (e.g., Fairclough and Coulialaki, 1990). This is because, according to its critics, PSDT exclusively views discourse as structure without dealing with the extra-discursive (or the material). Hence, PSDT fails to recognise the structural constraints of the extra-discursive and therefore falls into the anthropocentric epistemic fallacy as Lawson claims. On the other hand, PSDT can be criticised in terms of determinism. If there is an interdependent relationship between subjects and structure and subjects are dominated by a discourse, there would be no way out of the discourse so that there is neither a possibility of social transformation nor a possibility of reorientating economic discourse. Indeed, both criticisms underline crucial problems of PSDT, but they are vital, rather than fatal, to understand PSDT's theory of social transformability and to consider the possibility of reorientating economic discourse from the PSDT perspective.

### **2.3. Incompleteness and discursive battle**

Regarding the issue of determinism and idealism, PSDT's focus on the role of structure is reminiscent of Lawson's account. According to Lawson, the dominance of mainstream economics will end because it is ontologically wrong. In other words, for Lawson, taking the notion of epistemic fallacy, any mismatch between ontology and epistemology is doomed to fail. Interestingly, regarding social transformability, PSDT makes a similar, but more radical, claim. For PSDT, any discourse is doomed to end because there is always a radical gap between signified and signifier. Taking this gap in terms of incompleteness, PSDT proposes the theory of social transformability.

According to PSDT, although a discourse is indeed constructed by articulating several elements in a certain manner, such an articulation process is always incomplete so that the totality of a discourse necessarily remains incomplete. The reason for this incompleteness is because the combination of signified and signifier is never seamless. This means, while a particular signifier is articulated to a signified, the signifier itself cannot be the signified itself. In a nutshell, there is always a radical gap between signified and signifier (Laclau and Mouffe, 1985; Žižek, 1989). However, this radical gap does not merely mean the difference between signified and signifier. For PSDT, this gap also indicates the possibility of articulating different discourses. This is because any articulatory process proceeds by excluding otherwise-articulated elements, and those excluded elements indicate the possibility of articulating other discourses. This point may make one recall Wittgenstein's *trompe l'oeil*. Seeing the picture as a rabbit marginalises the possibility of seeing it as a duck. As either way of seeing the picture is a mere possibility, it is a matter of contingency. Both possibilities can never provide a full understanding of the picture. Rather, each way indicates the limits of the other. This is also the case in economics; to look at an economy based on orthodox economics indicates the marginalization of heterodox economics. However, the view of the economy provided by orthodox economics is necessarily incomplete. Thus, the possibility of articulating heterodox economics remains. For PSDT, the incompleteness of discourse indicates the impossibility of overcoming the radical gap and the

impossibility of eliminating all other possibilities. Highlighting this gap and marginalised possibilities, PSDT demonstrates social transformability, namely, the possibility of discourse change.

According to the PSDT, the theory of incompleteness can also be applied to hegemonic discourse. Indeed, though the limits may ordinarily be hidden (Glynos 2001), once the limits of a hegemonic discourse are exposed, possibilities appear for articulating new elements and new discourses. Technically speaking, PSDT calls this moment a “dislocatory moment” (Laclau 1990 & 1996). This refers to the moment in which the totality of one discourse is in crisis. In a dislocatory moment, the discourse that is dislocated is reconstructed or transformed through articulating new elements. Nevertheless, here, what one should remember is that even though the dislocatory moment opens up possibilities for the-then excluded elements and the-then marginalised discourses, they cannot be articulated altogether. Here, PSDT points out how the dislocatory moment sparks a “discursive battle” in which the dominance of the hegemonic discourse becomes contestable. More technically, PSDT understands this in terms of a hegemonic struggle that determines what to articulate and what to marginalise and what to involve and what to exclude. In this discursive battle, the roles of subjects become vital as they make articulations.

The subjectivities of subjects are also dislocated during a dislocatory moment. More precisely speaking, the subjectivities given in a discourse are always necessarily incomplete, thus, dislocatable. However, even a dislocation is also always incomplete so that the discursive domination of subjects is partly dislocated in a dislocatory moment. PSDT calls these partly dislocated subjects “political agents” (Howarth, 2000, pp. 121-122; Howarth, 2013, pp. 244-253). According to PSDT, in order to understand and cope with the crisis and remedy an extant discourse and its identities, subjects are “forced” to articulate new elements or discourses. While this is a chaotic situation for those who are dominant, it provides a great opportunity for those who are in an inferior position. Here a discursive battle rises. In this battle, subjects of the then-marginalised discourses attempt to expose the limits of the-then dominant discourse and claim the practical legitimacy of their own discourse. On the other hand, subjects of the then-dominant discourse try to keep its totality and try to articulate new elements or other discourses that would be compatible with their discourse. Some may defect from one side to another. At the end of the battle, the hegemonic discourse may maintain its dominance, or a new hegemonic discourse may arise.

PSDT’s theory of social transformation and discursive battle may sound too abstract, but it can be clearly exemplified by the dynamics of the discourse on economic crises. The financial crisis of 2007/8 provides an example. As can be seen in Alan Greenspan’s speech, the limits of anti-interventionist discourse were exposed, so that interventionist discourse, like that underlying then-marginalised Keynesian economics, could become dominant. The dominance of interventionist discourse based on Keynesian economics is technically called Keynesian resurgence (Skidelsky, 2009). Of course, for most heterodox economists, such an articulation of Keynesian economics is not a challenge to the dominance of mainstream economics. However, the point is that because Keynesian economics was compatible with the-then dominant discourse of economics, it could be articulated. Indeed, both Classical economics and Keynesian economics presume mathematical formalism. Technically speaking, both New Classical and New Keynesian presume neo-classical synthesis (Mirowsky, 2013). Also, Keynesian economics does not challenge the hegemonic discourse of political economy (neoliberalism or capitalism) (Crouch, 2008; Harvey, 2005; Klein, 2008). Rather, its interventionist discourse was to save the hegemonic discourse from the crisis. Thus, looking at

the discursive battles that took place during the financial crisis, the dominance of contemporary economics survived by re-articulating Keynesian economics (Shimizu, 2016; Shimizu, 2017, pp. 199-207). On the other hand, the crisis indeed opened up a possibility for heterodox economics. Through the crisis, it became more popular than ever before. For example, *The Financial Times*, the quality newspaper for true believers of capitalism provided a special appendix on Marxism a few weeks after the bankruptcy of Lehman brothers. This would show how the articulation of the marginalised becomes possible in impossible fields during a time of crisis. Also, some Post-Keynesian ideas, such as Hyman Minsky's financial instability hypothesis (Minsky, 1982), were frequently articulated among several economists amid the crisis. However, its articulation and the scale of dislocation were not sufficient to challenge the dominance of mainstream economics and the hegemonic discourse of contemporary political economy.

In sum, any discourse has radical limits. These limits are rooted in the incompleteness of the totality of discourse and the radical gap between signifieds and signifiers. Regarding this incompleteness and the radical gap, PSDT refuses the possibility of any ontological criteria as Lawson proposes. More precisely, while Lawson says the ontology of being means the materiality of the being, PSDT claims that it is impossible to grasp the true picture of materiality. Such existential understanding of the being without discourse itself is idealistic (Laclau and Bhasker, 1998). Nevertheless, the denial of ontological criteria does not indicate a denial of the existence of the material. All PSDT means is that we cannot know the essential nature of it. Due to this incompleteness of discourse, there always remains the possibility of social transformability. Regarding the social transformability of PSDT, it should be noted that the course of a social transformation or the course of the reorientation of economics is not determined by any decisive factor. For PSDT, it is determined neither ontologically nor ethically but discursively. In other words, what is involved and excluded, what becomes dominant and marginalised, and the condition of the plurality of economic studies and the course of reorientation are determined through discursive battles. Here lies the politics of economics (Foucault, 2008, p. 313).

## **Conclusion**

In this essay, through a critical review of the discourse of heterodox economics, I introduced PSDT as a new theoretical perspective for heterodox economics. In doing so, I critically introduced two iconic scholar's theories and debates, Tony Lawson's and Sheila Dow's, that represent basic issues and concerns for heterodox economics. In critically reviewing them, I pointed out that, while Lawson's theory of ontology and argument for exclusive pluralism will lead to determinism, Dow's Kuhnian-inspired theory of paradigm and argument for inclusive pluralism will end up being idealism. Recognizing these limits and comparing these theories, I introduced PSDT as a new theoretical perspective. Finally, drawing on PSDT, I claimed that what makes the orthodox and the heterodox, and what to involve and exclude are determined neither ontologically nor ethically but discursively. In short, PSDT can provide a new research perspective for heterodox economics to understand the politics of economics.

The introduction of the politics of economics provides several new analytical paths for heterodox economics. For example, in taking Foucault's concept of micro-politics we can reveal the politics of economists' everyday life. Those analyses involve, for example, how the faculty of economics is managed by putting mainstream economics at its centre, how the research granting system is structured in favour of maths-based studies, and how mainstream economic ideas are utilised

to understand and manage contemporary economic issues. Perhaps, socio-economic studies have already partly provided such studies. However, heterodox economists who have professional knowledge of mainstream economics can provide more thorough analyses. Then, through those analyses, it would be possible to demonstrate how contemporary economic studies have contributed to the maintenance and reproduction of the hegemonic discourse of contemporary political economy. So, analysing the politics of economics is to take economics not simply as a pure science, but as an object to analyse. It is to understand not only how academic subjects are positioned and embedded into reality but also how they are politically contrived into the management of the reality.

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# Putting Minsky into Space: The Geography of Asset Price Bubbles in the United States, 1994–2018

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## Introduction

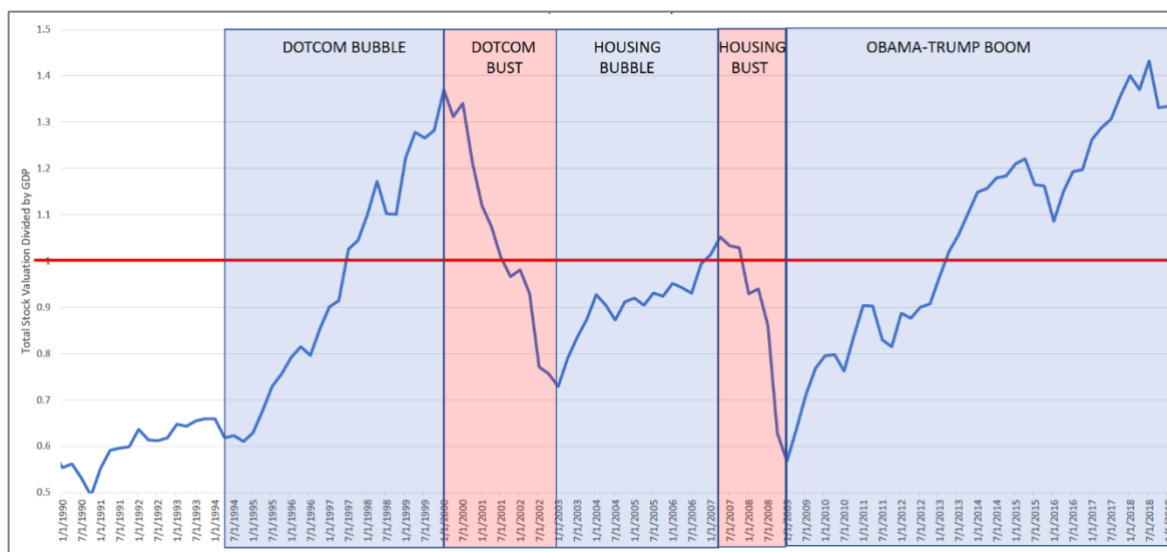
There is a long and rich tradition of scholarship devoted to the topic of differences in income growth among countries or regions, with several well-developed approaches. However, all of the prior approaches remain rooted in a Fordist world in which per capita income is driven by wages derived from producing goods for sale in markets. None of the research traditions on the topic of regional income growth has yet come to reckon with the fact that asset price bubbles have come to dominate wealth accumulation in this financialized era of money manager capitalism.

There is, of course, an important research tradition devoted to understanding the effects of financialization. Most notably, before his death in 1996, Hyman Minsky detailed the dynamics that made speculation on asset prices the driving feature of the modern American economy. In subsequent years, Minsky's followers, most notably L. Randall Wray, have applied Minskyan insights to understand the major episodes of asset price appreciation over the last quarter century. To date, there has been little analysis of how asset price bubbles have played out spatially. This article aims to apply Minskyan understandings of asset price bubbles to explore geographic redistributions of income in the United States over the last quarter century.

Between 1994 and 2018, there were three periods of rapid asset price appreciation, punctuated by two episodes of asset price deflation (see Figure 1). The dotcom bubble of the late 1990s burst in 2000, leading to a two year period of sluggish growth. This was then followed by the housing bubble of 2002-2007, the bursting of which led to the Great Recession of 2007-2009. Since 2009, the Federal Reserve has pursued low interest rates through massive purchases of financial assets, a policy known as quantitative easing. This policy has been credited with contributing to the rush of money into equities, which has fueled the dramatic rise of prices in the stock market in recent years.

This paper examines the geographic redistribution of income that occurred in each of these periods of asset price appreciation. A decomposition is used to determine the relative contributions of earned income, transfer income, and financial income to differences in income growth. In almost every case, most of the difference in income growth between the fastest growing states and the rest of the country can be attributed to dividends, interest, rent or capital gains. This shows that research on regional income growth needs to engage more fully with scholarship related to the distribution of financial income.

**Figure 1.** Business Cycles, 1994–2018: Wilshire 5000 Full Price Cap Index Divided by GDP.



**Source.** Wilshire Associates, Wilshire 5000 Full Cap Price Index [WILL5000PRFC], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/WILL5000PRFC>, June 16, 2021.

The following section gives a brief overview of prior approaches to regional income growth, as well as a brief description of insights from literature on money manager capitalism. This is followed by a data and methods section that explains the decomposition described above. This leads to a series of graphs showing which states prospered most during the asset price booms of the last quarter century, and decompositions showing the relative contribution of financial income to differences in income growth rates. A concluding section reiterates the case for devoting more attention to the geography of asset price bubbles.

## Literature review

### *Regional income growth*

Regional income growth has been an important topic in social theory at least since the 1740s, when David Hume debated the matter with Josiah Tucker (Elmslie, 1995; Schumacher, 2016). Hume articulated the classical position that the movement of firms from high-wage to low-wage areas, would eventually result in a convergence of income levels between rich and poor regions. Tucker argued that rich areas would use their resources to preserve their advantage, resulting in income divergence.

In recent years, the neoclassical theory articulated by Robert Solow (1956) has dominated most economic research on the topic (see Romer, 1996, for a textbook exposition). The Solow model rests on several assumptions. First, the model assumes a “loanable funds” theory of credit, i.e., that funds available for loans in one time period represent foregone consumption in a previous time period. Second, wages are determined by productivity, which is determined by capital per worker. Third, there is a declining marginal product of capital; if 10 additional units of capital cause production to increase by  $x$  units in this time period, then another 10 units will increase output by something less than  $x$  in the next time period. Finally, machinery depreciates and has to be replaced at a constant rate. Given the declining marginal product of capital and the constant rate of depreciation, there will be some point at which all the savings from the previous time period must go to replacing existing equipment. At this point, a “steady state” exists, in

which increases in productivity can only occur if technology changes, or if there is an increase in the savings rate. A major prediction of the neoclassical model is that income growth will slow as an economy approaches its steady state. This implies that income growth rates should be higher in poor areas than in rich ones, a phenomenon referred to as beta convergence.

The Solow growth model has been criticized on both empirical and theoretical grounds. Empirically, convergence apparently did occur between rich and poor areas in the United States over much of the nation's history, although it is unclear whether this happened because of classical mechanisms, neoclassical mechanisms, or other mechanisms. In any event, it has widely been noted that convergence largely halted around 1980 (Magrini et al., 2015; Manduca, 2019; Storper, 1997).

Moreover, the theoretical assumptions of the model have been challenged on several grounds (Wray, 2004; Lindner, 2013). First, critics contend that the availability of credit does not depend on foregone consumption. If you produce something and I buy it from you, the money goes from my bank account to yours. It does not simply disappear. More fundamentally, the banking system as a whole is not constrained by savings, because a bank creates new money every time it makes a loan (Jakab and Kumhof, 2015). Thus, at least in the modern American context, it is difficult to base a theory of income growth on the concept of loanable funds.

Beyond the neoclassical growth model, some economic researchers have sought to understand the effect of monetary policies on regions. Three approaches are reviewed in Rodriguez-Fuentes and Dow (2003). The "orthodox" view is that monetary policies have different effects on regions because of differences in industry mix. Thus, regions with a large concentration of industries that are sensitive to interest rates, such as manufacturing, are hypothesized to suffer more than other regions when a central bank increases interest rates. A Keynesian perspective examines the role of banks, arguing that regions with smaller or weaker banks will experience disproportionate effects of interest rate hikes. The post-Keynesian view considers money supply as an endogenous variable in economic models. In this perspective, an increase in liquidity in a given region will be determined more by liquidity preferences on the part of firms and banks than by central bank policy. Despite differences regarding specific transmission mechanisms, each of these approaches shares the assumption that loans to firms for the purpose of buying equipment determines economic activity and prosperity in regions. While there is much to learn from each of these approaches, it is fair to say that none has grappled with the geographic implications of Minskyan asset price bubbles.

While the foregoing approaches to regional income growth treat regions as essentially passive in the wake of broader macroeconomic forces, an alternative style of explanation considers income growth as a function of regional policies or other regional differences in culture or political structure. Several of these approaches are reviewed by Posey (2019 and 2021). While efforts have been made to correlate regional growth with differences in tax rates, education spending, infrastructure spending, or political fragmentation, meta-analyses of each of these approaches find evidence to be mixed at best. Bristow (2005) surveys literature on regional competitiveness, finding that despite decades of effort, this body of work has not demonstrated that the profitability of firms is determined by attributes of regions in which they happen to be located.

## ***Money Manager Capitalism***

Hyman Minsky was among the first to recognize that a fundamental shift occurred around 1980, with the economy shifting from Keynesian-paternalism to money manager capitalism (Minsky, 1988; Minsky and Whalen, 1996). In the latter, money managers are rewarded primarily for increasing the price of equities (or for successfully speculating on asset prices), rather than for building underlying revenue streams through competition for market share. In such an environment, great incentives exist for a corporate executive to use massive debt to finance stock buybacks, or to finance mergers and acquisitions.

Minsky saw that this form of economic activity was inherently unstable. Kindleberger and Aliber (2011) attribute to Minsky a five-step heuristic model of the stages of an asset price cycle. The first step is disruption, in which a new technology or a new policy generates enthusiasm among investors regarding potential opportunities for profit. The second stage is the boom, in which media hype and fear of missing out drive more speculators into the market, further increasing asset prices. The third stage is euphoria, in which massive leverage propels asset prices far beyond any connection to underlying revenues; this stage inevitably produces experts who assure the public that a new paradigm means that tried-and-true methods of valuation are now outdated. In the fourth stage, profit taking, smart or cautious money begins to sell their assets to reap capital gains. This inevitably leads to panic, with massive devaluation. But a devaluation episode never wipes out all of the assets, and a bursting bubble only sets the stage to allow another innovation to capture investors' imaginations.

Minsky's theories have been used to describe and explain the three major episodes of asset price appreciation over the last 25 years. It is no criticism of this body of work to observe that the geographic implications of asset price bubbles have not been explored. It is, however, a mild criticism of literature on regional income growth to note that Minsky's insights have not been applied to this important question in social theory. The aim of this paper is to introduce Minskyan thought into discussions of regional income growth to show how Minskyan dynamics have played out spatially, or, more succinctly, to put Minsky into space.

## **Data and Methods**

This paper analyzes changes in per capita income at the state level over three episodes of asset price appreciation: The DotCom bubble of the late 1990s, the housing bubble of 2002–2007, and the rapid appreciation of stock prices from 2009 to 2018. For want of a better name, the latter episode is referred to as the Obama-Trump Boom.

For each episode, vector diagrams are used to show which states enjoyed the most rapid income growth during the boom. Then, to demonstrate that financial income rather than wages accounts for most of the difference in income growth rates over the last 25 years, a decomposition breaks down differences in per capita income growth between the fastest-growing states and the rest of the country. The decomposition shows the relative contribution of financial income, defined as the sum of dividends, interest, rent, and realized capital gains, to differences in income growth.

Data from the Bureau of Economic Analysis (BEA), Regional Data Table SAINC30, is used to measure earned income, transfer income, and income from dividends, interest and rent. Unfortunately, BEA data does not include realized capital gains, which accounts for an

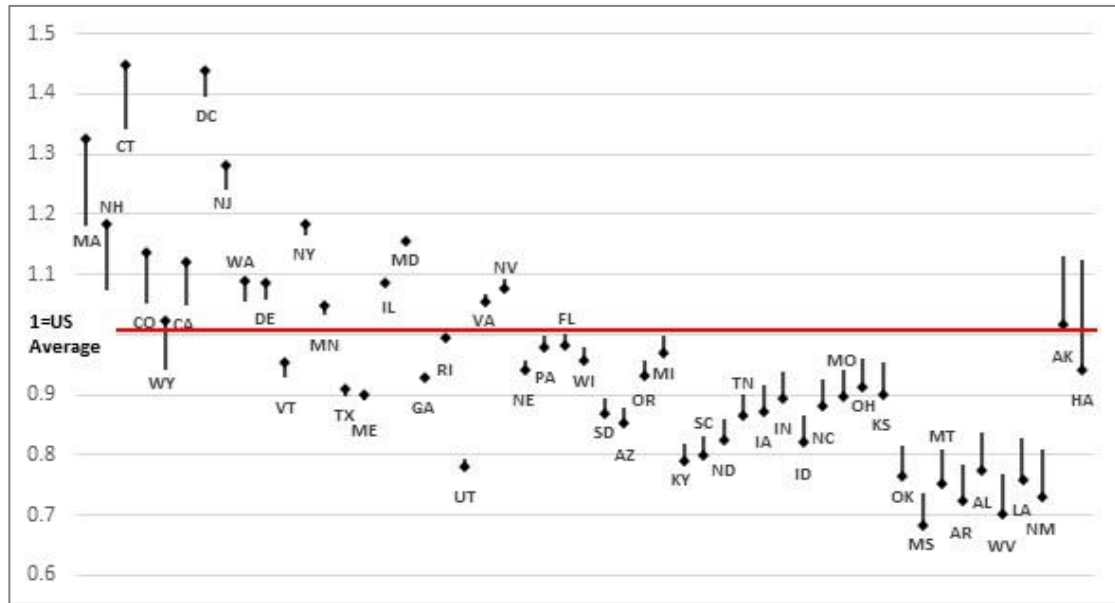
increasing proportion of total income. The Statistics of Income (SOI) data set from the Internal Revenue Service (IRS), the federal tax collecting agency for the United States, does have a time series data set showing aggregate capital gains at the state level (SOI State Data Historic Table 2). To estimate total income at the state level, IRS state-level capital gains totals are added to BEA income totals. To estimate per capita income, total state income is divided by state population, according to U.S. Census population estimates.

Although many studies of regional inequality are conducted at the state level, the state is not an ideal geographic scale for this analysis. Several commentators have argued that the metropolitan level is the most appropriate scale at which to analyze per capita income (Amin, 1999; Posey, 2021). Measuring per capita income at the state level dilutes, for example, the massive influx of capital seen in Silicon Valley during the DotCom bubble by spreading total income over the entire state of California. Similarly, income flowing into Wall Street is aggregated with income from Buffalo and Binghamton in New York. However, the IRS does not publish county-level capital gains data going back to the mid-1990s, making it impossible to incorporate this income component at the MSA level. Although the state is an imperfect scale at which to analyze per capita income, a state-level analysis nevertheless reveals much about the geographic redistribution of income over the last 25 years. Analyses of income redistributions during more recent asset price bubbles at the MSA level would be a valuable future contribution to literature on regional income growth.

In order to compare income levels across space and time, both total income and all components of income at time  $t$  are divided by U.S per capita income at time  $t$ . For example, between 1994 and 2000, Massachusetts had the fastest income growth relative to the United States. In 1994, U.S. per capita income was \$23,016. Massachusetts' per capita income was \$27,184. Thus, the ratio of Massachusetts PCI to US PCI was 1.18. In 2000, the U.S. PCI was \$32,719. In Massachusetts, it was \$43,325, a full 32.4 percent higher than the nation as a whole. Thus, on Figure 2, the vector for Massachusetts shows an arrow going from 1.18 to 1.32.

The point of the decompositions is to break down the vectors in Figure 2 into component parts. Following Posey (2021) the following simple equations can be used to determine how much of Massachusetts' PCI growth relative to the U.S. can be attributed to earned income, how much to transfer income, and how much to financial income.

**Figure 2.** State Per Capita Income Divided by U.S. Per Capita Income, 1994–2000.



For state  $M$  at time  $t$ ,  $Y_M^t$ , or state PCI divided by U.S. PCI, can be expressed as follows:

$$Y_M^t = E_M^t + R_M^t + F_M^t \quad (1)$$

where  $E_M^t$  is state earned income per capita divided by U.S. PCI,  $R_M^t$  is state transfer income per capita divided by U.S. PCI, and  $F_M^t$  is state financial income per capita divided by U.S. PCI.

At time  $t$ , the difference ( $D$ ) between state per capita income and U.S. per capita income can then be expressed as follows:

$$D^t = (E_M^t - E_U^t) + (R_M^t - R_U^t) + (F_M^t - F_U^t) \quad (2)$$

The term in the first set of parentheses represents the difference in state PCI and U.S. PCI that can be attributed to earned income, the term in the second set of parentheses shows the amount that can be attributed to transfer income, and the final set of parentheses represents the amount attributable to financial income.

The change in the ratio of state to U.S. PCI from time  $t$  to time  $t+1$  is thus represented as follows:

$$D^{t+1} - D^t = [(E_M^{t+1} - E_U^{t+1}) - (E_M^t - E_U^t)] + [(R_M^{t+1} - R_U^{t+1}) - (R_M^t - R_U^t)] + [(F_M^{t+1} - F_U^{t+1}) - (F_M^t - F_U^t)] \quad (3)$$

In this equation, the term in the first set of brackets represents the portion of the vector in Figure 2 that can be attributed to earned income, the second set of brackets represents the portion attributable to transfer income, and the third set of brackets represents the portion attributable to financial income.



## Results

### *The DotCom Bubble*

According to Griffin et al. (2011), “the stock market run-up in the mid to late 1990s was the greatest in the last 140 years of U.S. history in terms of both price appreciation and market-wide valuation multiples.” A variety of factors caused the influx of cash into equities markets. First, Griffin et al. (2011) report that institutional investors were the biggest buyers of technology stocks; hedge funds were the biggest purchasers, followed by mutual funds. Massive increases in business debt fueled stock buybacks, as well as mergers and acquisitions. Domestic businesses, who collectively were net creditors in 1994, went on a borrowing binge as the 1990s progressed (Wray, 2003). By 2000, businesses were net debtors to the tune of \$489 billion. Figure 3 shows that spending on mergers and acquisitions totaled \$5.9 trillion from 1998 to 2000, while expenditures on buybacks exceeded \$600 billion in the same time period. The largest U.S. merger of all time occurred in January, 2000, when AOL bought Time-Warner for \$165 billion.

**Figure 3.** Mergers & Acquisitions and Stock Buybacks (\$Billion)



**Sources.** Zeng and Luk, 2020; International Mergers and Acquisitions Institute, 2020.

The Clinton Administration’s international monetary policy also contributed (Brenner, 2002). The administration quietly abandoned the Plaza Accord, negotiated in 1985 by the Reagan Administration. The accord had propped up U.S. manufacturing by strengthening the currencies of Germany and Japan. Allowing the dollar to rise brought in foreign investors, eager to hold dollar-denominated assets. Second, Asian governments made massive purchases of U.S. securities to maintain low exchange rates vis-a-vis the dollar. Third, the Japanese central bank reduced interest rates to nearly zero. This created a “carry trade” in which investors could borrow cheap Yen for the purpose of purchasing American assets.

The convergence of these factors led to a huge influx of funds into the stock market. Following the explosion of share prices in Netscape’s initial public offering, many of these investments were used to buy stocks related to computer technology, and particularly to the Internet. Ofek and Richardson (2001) report that in several sectors related to Internet technology, the price of stocks exceeded earnings by factors of more than 1000. Concern over ludicrous p-e values led

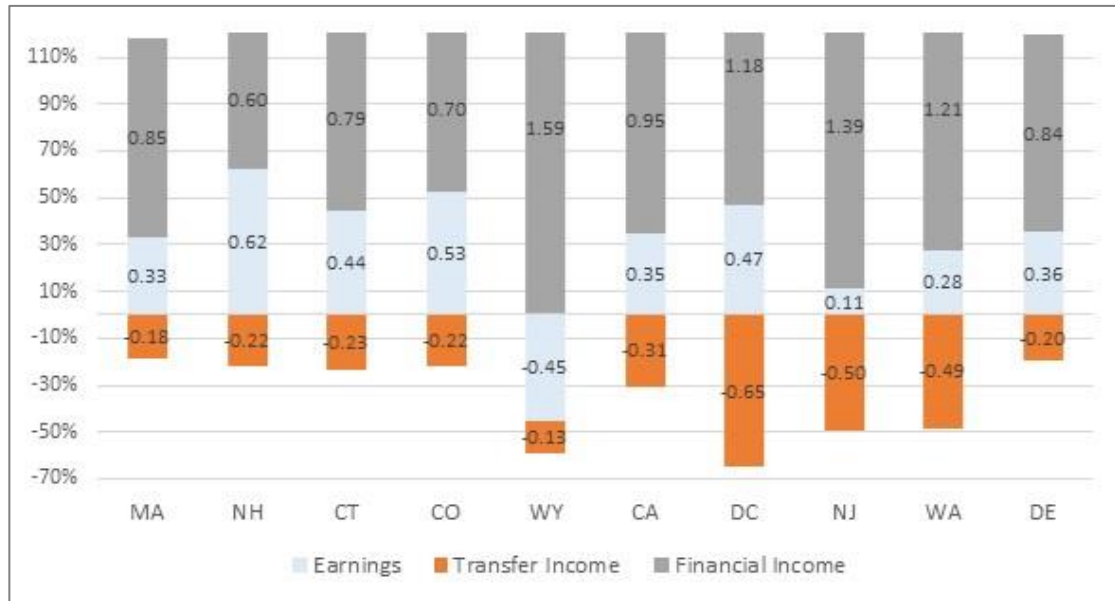
Federal Reserve chair Alan Greenspan to caution against “irrational exuberance,” a warning that the market promptly ignored. Clinton Administration officials attempted to explain the gap between stock prices and earnings by theorizing about a “new economy” brought on by information technology.

High stock prices created paper wealth, allowing an increase in consumer spending, which stimulated both the American and the world economies. Paul Volcker drily observed in 1999 that “the fate of the world economy is now totally dependent on the growth of the U.S. economy, which in turn is dependent on the stock market, whose growth is dependent upon about 50 stocks, half of which have never reported any earnings” (Elliott and Atkinson, 2010).

From 1994 to 2000, Massachusetts had the fastest PCI growth in the country, going from 18 percent higher than the national average to 32 percent higher. Two other New England states ranked 2<sup>nd</sup> and 3<sup>rd</sup>: New Hampshire, and Connecticut. Four Western states, Colorado, Wyoming, California and Washington, experienced rapid income growth. Finally, three regions in the Mid-Atlantic made the top 10: Washington, D.C., New Jersey, and Delaware. All but one of the top-performing states were already above the national average. Their success was an example of income divergence. Among the ten fastest-growing states, the only one that began the period with PCI below the national average was Wyoming. Farrell (2020) explains how the Equality State rose so rapidly. The 1990s were a period in which a small number of extremely wealthy families established homes in the sparsely populated state. These included Wal-Mart heiress Christy Walton and movie star Harrison Ford. The influx of the super-wealthy increased Wyoming’s average income level considerably.

Figure 4 shows a decomposition of the vectors from the Figure 2 for the ten states with the fastest income growth. Each bar shows a decomposition of the difference in PCI growth between a state and the United States as a whole. Gray represents the portion of the difference in income growth that is attributable to financial income. In nine of the ten states, the growth of financial income played a greater role than did earned income. In the sole exception, New Hampshire, earned income and financial income were about tied. In Wyoming, all of the difference in income growth was attributable to financial income, a testament to the effect of migration on the part of the most economically elite households in the nation. Earned income and transfer income in Wyoming actually grew more slowly than in the rest of the country, offsetting a portion of the gains from financial income.

**Figure 4.** Decomposition of Differences in Income Growth, 1994–2000



Thus, the story of the first asset bubble under consideration refutes the Fordist tale of wages driving differences in income growth between regions.

**Figure 5.** State Per Capita Income Divided by U.S. Per Capita Income, 2000–2002

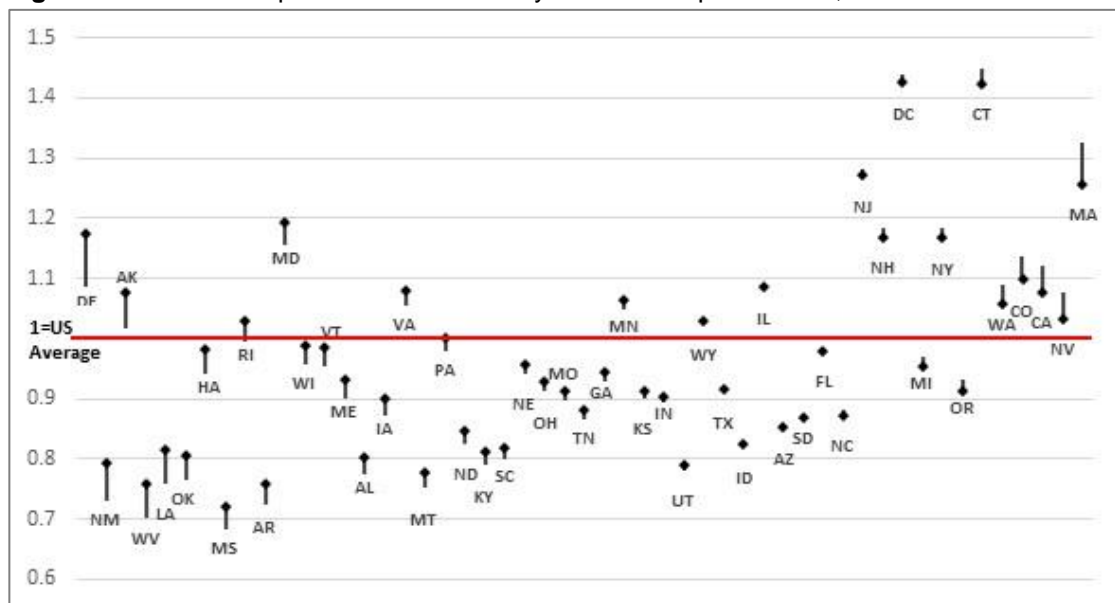


Figure 5 shows what happened when the bubble burst. Between 2000 and 2002, some of the states that benefitted the most from the DotCom Bubble gave back a portion of their income advantage. But only a portion. Massachusetts, which in 1994 was 18 percent above the national average grew to 32 percent above the national average in 2000. By 2002, Massachusetts had declined to just 25 percent above the national average, still ahead of where it stood 8 years earlier. Other wealthy states maintained an advantage over the rest of the country. Wyoming maintained its position just above the national average. Many of the states that grew relative to the rest of the country during the post-DotCom recession were those that were largely bypassed

by the euphoria of the previous decade. These included states such as New Mexico, West Virginia, Louisiana, Oklahoma, Mississippi and Arkansas, that remained among the poorest in the nation.

### ***The Housing Bubble***

The DotCom crash brought a decisive response from the Federal Reserve, which cut the federal funds rate from 6.5 percent in late 2000 to just one percent in 2004. Long term rates were also pushed down by institutional investors seeking safe haven from the declining stock market.

Wray (2009) singles out several Clinton-era regulatory changes that helped to pave the way for the housing bubble. First, the Financial Modernization Act of 1999 eliminated the separation of commercial banking from investment banking that had been in place since the Great Depression. Second, the Commodities Futures Modernization Act of 2000, signed by a lame duck president, exempted from regulation the financial instruments that caused the Great Recession, most notably credit default swaps. Finally, the Employee Retirement Income Security Act of 2000 allowed pension funds to tinker with more speculative ventures. Wray writes, “these changes allowed for greater leverage ratios, riskier practices, greater opacity, less oversight and regulation, consolidation of power in ‘too big to fail’ financial institutions...and greater risk.”

In this environment, low long-term interest rates encouraged first time home buyers to enter the market, and also encouraged existing homeowners to refinance. For households that refinanced their mortgages, some of the decrease in monthly payments fueled increased consumption, providing a further economic stimulus. Financial companies relaxed lending standards to offer loans to households that would not qualify for prime mortgages. Rocchio et al. (2015) write that “these risky loans, in turn, were underwritten thanks to a baroque system of mortgage-backed securities sold to pension funds and other institutional investors seeking high rates of return....lax regulatory supervision contributed to the proliferation of risky mortgages, as did a failure of credit rating agencies.”

As shown in Figure 6, the states that prospered most during the housing bubble fall into several categories. First there were states such as Florida and Arizona that saw construction booms accompany the promiscuous housing finance. Second, the super-wealthy in Wyoming enjoyed high rates of returns on their financial assets during the bubble. Third, wealthy states such as New York, Connecticut, Massachusetts and Washington, as well as the District of Columbia, expanded their income advantage over the rest of the country. Louisiana and Oklahoma benefitted from higher energy prices, and South Dakota, which established a specialization in financial services in the 1970s due to its lax usury laws, benefitted as well.

**Figure 6.** State Per Capita Income Divided by U.S. Per Capita Income, 2002–2007

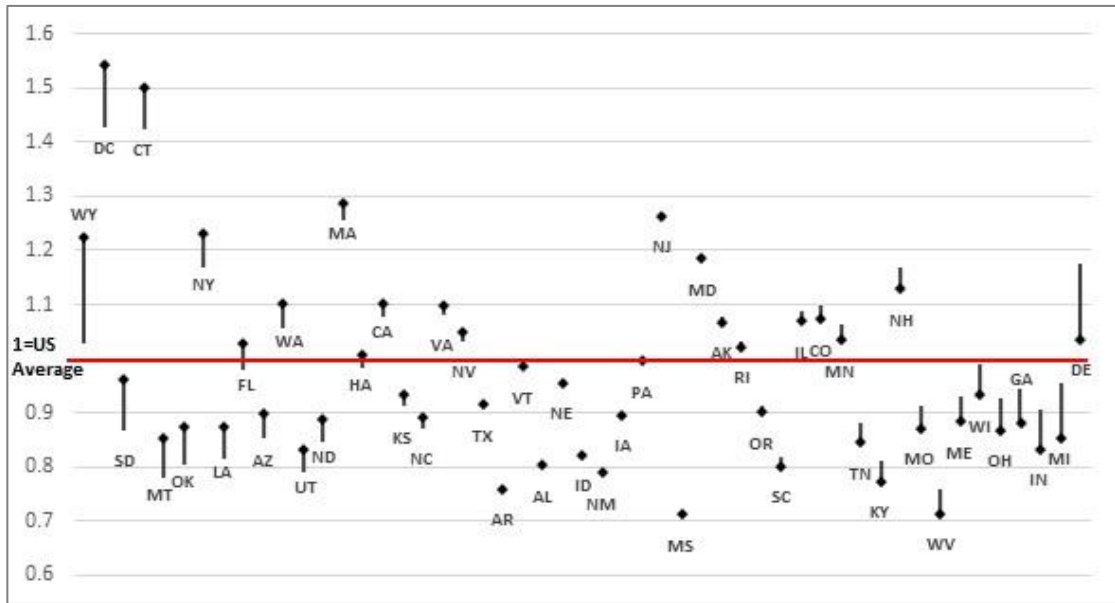
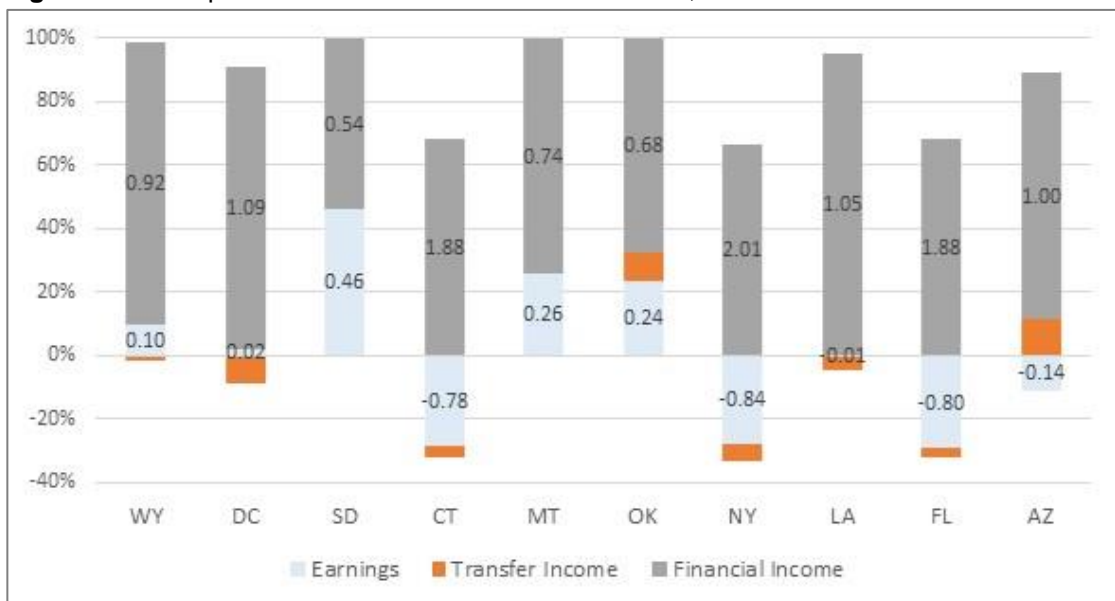


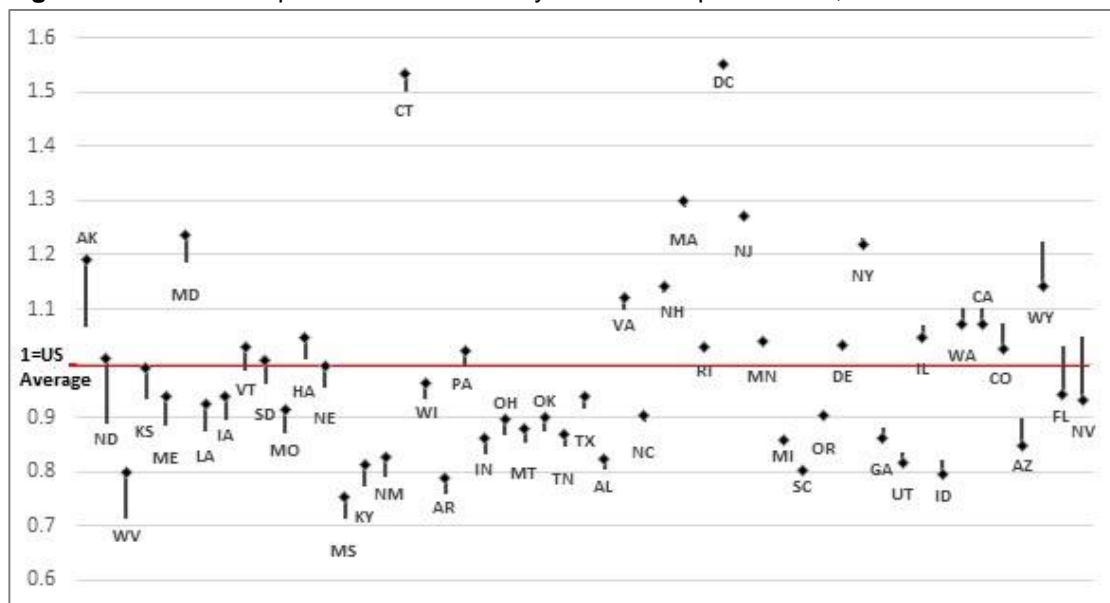
Figure 7 demonstrates that in each of the ten fastest-growing states, financial income played the dominant role. In four states, New York, Connecticut, Florida and Arizona, earned income actually played a negative role, offsetting a portion of the relative increase in income derived from financial sources. In two other states, DC and Louisiana, earned income played a trivial role. In each of the other states, financial income played a greater role than did earned income. Again, this demonstrates that in this era of money manager capitalism, theories of regional income growth that focus exclusively on wages are inadequate for explaining differences in income growth.

**Figure 7.** Decomposition of Differences in Income Growth, 2002–2007



The bursting of the bubble caused the greatest economic upheaval since the Great Depression (at least, up until that time). In Figure 8, the states with the greatest relative losses of income included Florida and Arizona, the states that had become boom towns during the mania. Wyoming dropped significantly as well, but remained 14 percent above the national average, better than its position at the beginning of the housing bubble. Several wealthy states increased their income advantages over the rest of the nation: Connecticut, Massachusetts, New Jersey, and DC. New York saw only a minor decline in its income level compared to the rest of the country. Once again, then, high-income states that diverged from the rest of the country during boom times yielded back only a portion of their gains from the previous period.

**Figure 8.** State Per Capita Income Divided by U.S. Per Capita Income, 2007–2009



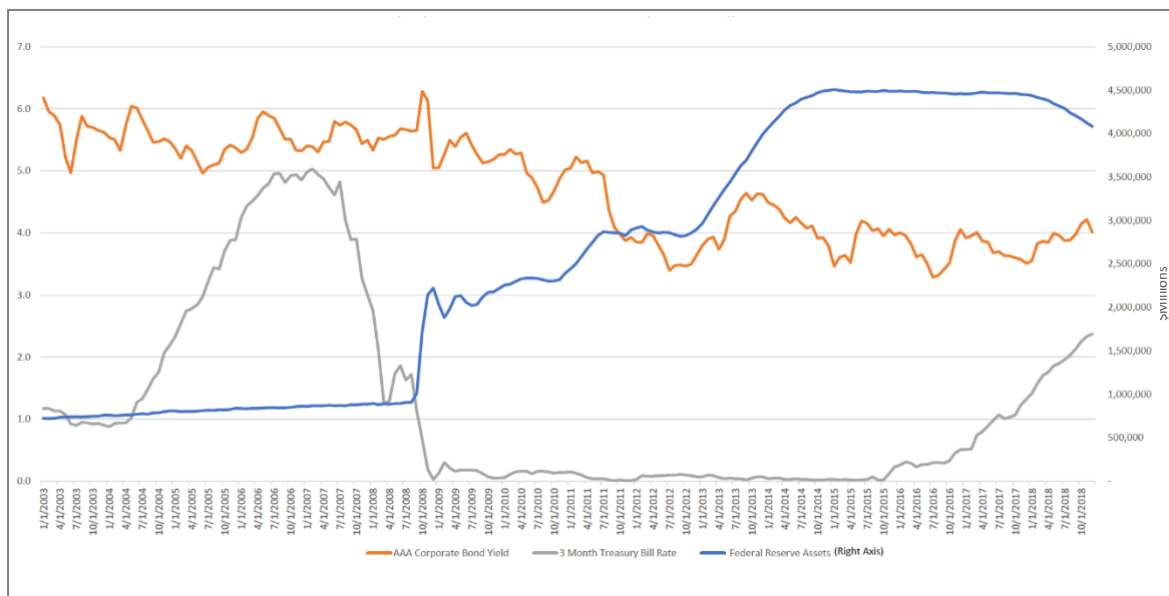
### ***The Obama-Trump Boom***

The Great Recession lasted officially from December, 2007 to June, 2009, with employment bottoming out in February 2010. Between 2008 and 2011, the Federal Reserve Board undertook two rounds of large scale purchases of financial assets, a policy known as “quantitative easing.” Total purchases in QE1 amounted to about \$1.7 trillion and ended in March, 2010. The second round of quantitative easing, QE2, consisted entirely of purchases of long term treasury securities and ran from November, 2010 to June, 2011 (Frazscher et al., 2013). By 2012, the economy had stabilized, with consistent employment and GDP growth. Even so, the economy still had not regained employment levels seen five years earlier, and GDP growth remained sluggish by historic standards.

The third and most ambitious round of quantitative easing (QE3) began in 2012 with a commitment to purchase \$40 billion in agency mortgage-backed securities each month. In December, 2012, the commitment was raised to an additional \$45 billion per month in longer-term Treasury securities, a total of \$85 billion per month (Rodnyansky and Darmouni, 2017). By the time QE3 was curtailed in 2014, the monetary base had quadrupled relative to 2008 levels.

Figure 9 shows the effect of monetary policy during the 2010s. The solid blue line, which is referenced by the vertical axis on the right, shows assets owned by the Federal Reserve System. From late 2012 through late 2014, assets rose by more than \$1.5 trillion, and remained at these levels through late 2017. At the same time, for most of the period 2013-2017, short term treasury rates, represented by the gray line, remained near zero. Corporate bond rates (orange), already low by historical standards, also remained on a downward trajectory.

**Figure 9.** Federal Reserve Assets, Corporate Bond Rates, T-Bill Rates



**Sources.** Board of Governors of the Federal Reserve System (US), Assets: Total Assets: Total Assets (Less Eliminations from Consolidation): Wednesday Level [WALCL], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/WALCL>, June 15, 2021.

Moody's, Moody's Seasoned Aaa Corporate Bond Yield [DAAA], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/DAAA>, June 15, 2021.

Board of Governors of the Federal Reserve System (US), 3-Month Treasury Bill: Secondary Market Rate [TB3MS], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/TB3MS>, June 15, 2021.

A primary goal of QE was to reduce long-term interest rates to promote corporate borrowing (Guidolin et al., 2017). There is evidence that the program worked. Separate studies by Joseph Gagnon of the Peterson Institute for International Economics and Edison Yu of the Federal Reserve Bank of Philadelphia report that bonds purchased under the various QE programs amounted to 23% of GDP in 2014, and that evidence indicates that QE reduced long-term bond yields by more than a full percentage point (Gagnon, 2016; Yu, 2016). Nonfinancial corporations responded to the lower rates by borrowing nearly \$2 trillion over a four year period.

Since at least 1997, net issuance of equities has been negative, meaning that corporations have been retiring equity through stock buybacks. (Total valuation continued rising because of increasing stock prices.) After the recession, however, buybacks increased considerably compared to pre-recessionary years. From 2011 through 2018, corporations retired a total of \$3.5 trillion in equity (Federal Reserve, 2019), compared to \$2.0 trillion from 2001 to 2008. This includes the record year of 2007, when net retirement reached \$700 billion. Net retirement of equity was driven by stock buybacks. From 2012 through 2018, corporations in the S&P 500

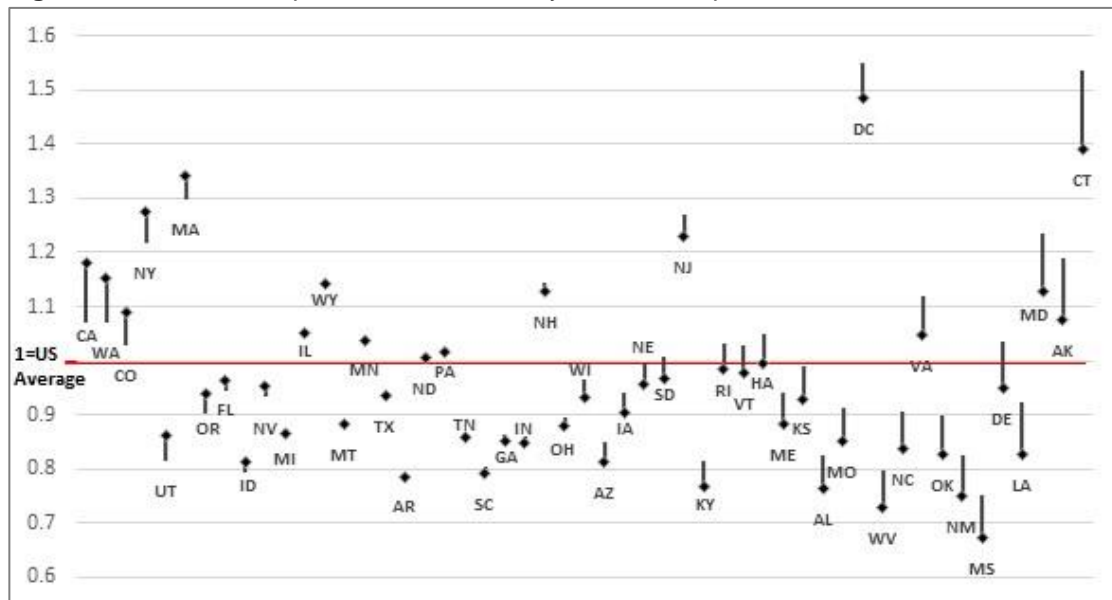
bought back \$3.9 trillion in their own stocks (S&P, 2017 and 2018). Erturk (2020) draws a causal connection between monetary policy and corporate behavior, asserting that corporations took advantage of low interest rates by borrowing money for the purpose of buying back stocks.

Merger and acquisition (M&A) activity also increased in the years following the recession. M&A deals totaled \$9.3 trillion from 2013 to 2017, compared to \$7.3 trillion from 2004-2008 (International Mergers and Acquisitions Institute, 2020). Rodziewicz and Sly (2019) report that low interest rates were a cause, as “approximately 20 percent of the credit extended to the corporate sector – \$2 trillion over the last decade – financed acquisitions.”

Stock buybacks are undertaken to increase both stock prices and dividends. Mergers and acquisitions increase the price of equities for the target firm, resulting in capital gains for shareholders. As a result, financial income, in the form of dividends and capital gains, increased its share of total household income at the expense of earnings. In 2013, dividends and capital gains together accounted for 9.0 percent of total household income. By 2017, this share had increased to 11.8 percent (IRS, 2019).

Figure 10 shows changes in relative income among states from 2009 to 2018. The five states with the highest income growth relative to the rest of the nation were all high-income states to begin with: California, Washington, Colorado, New York, and Massachusetts. California saw the most rapid growth, going from seven percent above the national average to 18 percent above. Washington experienced a similar rise. New York and Massachusetts saw their income levels rise to 27 percent and 34 percent, respectively, above the national average. Interestingly, the next five states all began the decade below the national average: Utah, Oregon, Florida, Idaho, and Nevada.

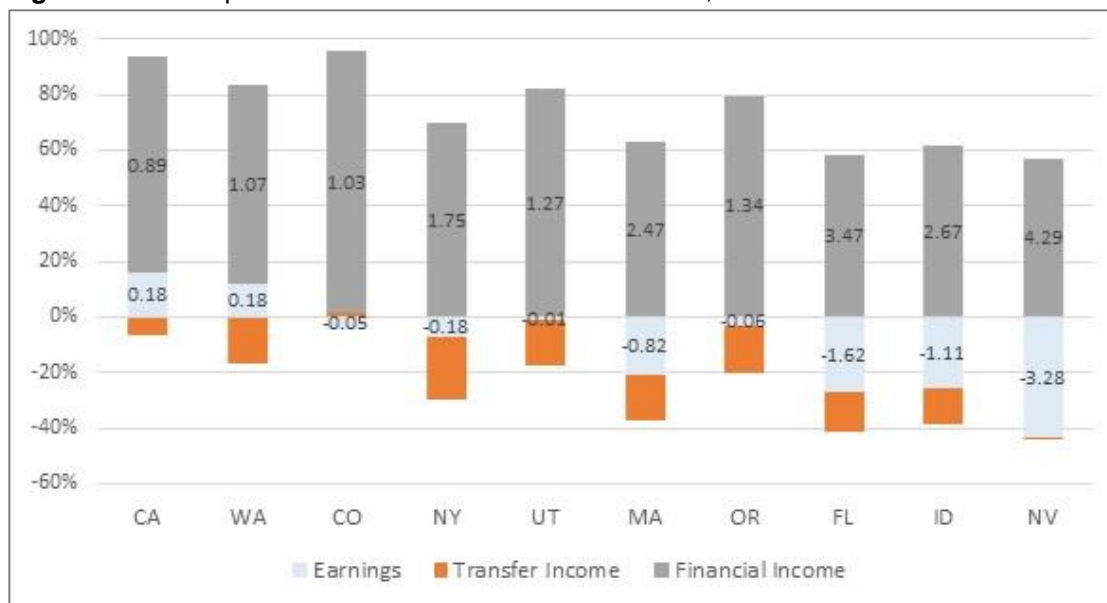
**Figure 10.** State Per Capita Income Divided by U.S. Per Capita Income, 2009–2018





As with the previous booms discussed, financial income was by far the most important factor in separating the states with the fastest income growth from the rest of the country. Figure 11 shows that in eight of the top-ten states, the effect of earned income was either negative or negligible, meaning that financial income accounted for all or virtually all of the difference in income growth rates between these states and the rest of the country. In the other two states, California and Washington, financial income was more significant than earned income by a factor of about five.

**Figure 11.** Decomposition of Differences in Income Growth, 2009–2018



An interesting fact that should be noted is that Connecticut and DC both dropped relative to the rest of the country during this time period. However, Connecticut remained the highest-income state in the nation, and DC remained richer still.

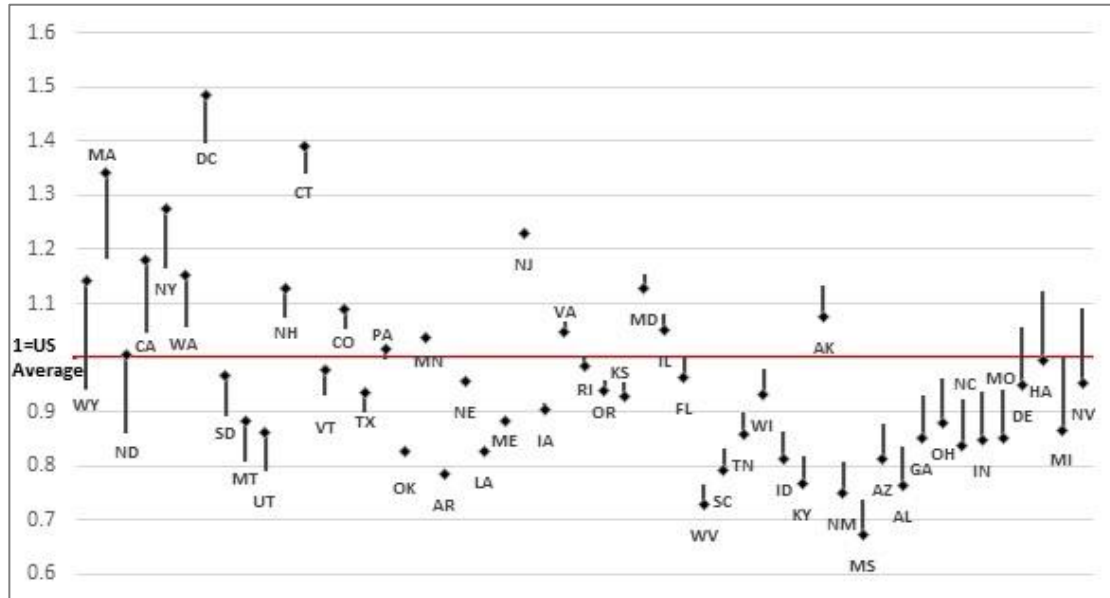
At the risk of repetitiveness, this boom, like the previous ones, shows that theories of income growth that focus exclusively on wages simply do not explain reality in the era of financialized capitalism.

### ***The Last Quarter Century***

Surveying the entire period from 1994–2018, a handful of states emerge as the big winners (Figure 12). Wyoming, as noted, has become a playground for the super-wealthy, who benefit greatly under conditions of asset price appreciation. In 2018, Massachusetts, California, New York, Washington, and DC, ranked in the top seven states with respect to percentage of households reporting more than \$500,000 in adjusted gross income. Connecticut and New Hampshire, though not in the top ten for the time period, are wealthy states that expanded their income advantage significantly across three episodes of asset price appreciation.

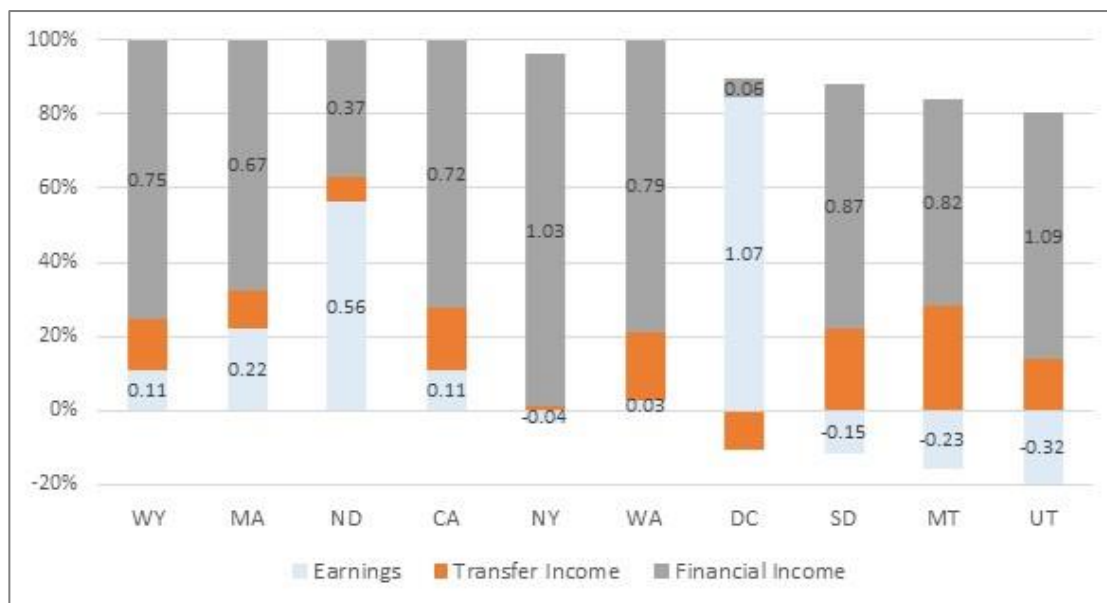
North Dakota is something of a unique case. Posey (2021) shows that most of its growth in income, relative to the rest of the country, is attributable to fracking. South Dakota, as mentioned, maintains a high location quotient in financial services. Montana and Utah are both states with below average income levels, but each has a population of very wealthy households that benefit from asset price appreciation as they enjoy the mountain air.

**Figure 12.** State Per Capita Income Divided by U.S. Per Capita Income, 1994–2018



Decompositions in Figure 13 support the thesis of this paper that financial income accounts for most of the difference in income growth between high-growth states and other states. North Dakota and DC, as noted earlier, each for different reasons, has a high concentration of high-wage labor, accounting for their high income growth rates over 25 years. In every other state, financial income dominates. In South Dakota, Montana and Utah, earned income actually offsets some of the advantage derived from the growth in financial income, an indication that a wealthy elite accounts for most of the difference in income growth rates between these states and the nation as a whole. In New York, one of the world’s great financial capitols, the wage effect is also negative, meaning that financial income accounts for all of the Empire State’s advantage in income growth. Again, the totality of the last 25 years supports the contention that financial income, not earned income, accounts for the most significant differences in income growth among regions.

**Figure 13.** Decomposition of Differences in Income Growth, 2009–2018



## Conclusion

Prior literature on regional income growth has focused almost exclusively on earned income. This may have been a reasonable approach in earlier economic eras. However, by the 1990s, as Minsky and others observed, the economy changed. The main route to wealth accumulation became speculation on asset prices, as opposed to producing goods to sell in the market. This shift had profound implications, in many ways. One of these ways is that previous theories of regional income growth that failed to reckon with dividends and capital gains, were inadequate for the task of explaining differences in income growth among regions.

This paper has documented the geographic redistribution of income among states in the United States over a 25 year period, 1994-2018. This period saw three episodes of rapid appreciation in the prices of financial assets. In each period, financial income – dividends, interest, rent, and capital gains – accounted for almost all of the difference in income growth between states with the greatest increases in per capita income and the rest of the country. Hopefully, this will demonstrate the necessity to grapple with non-wage income in future research on regional income growth.

There are many things that this study has not done. First, it has not dealt with income inequality within regions. This topic is at least as important as the issues dealt with here, but is beyond the scope of this article. Second, it has used only a fairly coarse resolution, that of the state-level, to analyze differences in income growth. Additional studies conducted at the MSA level would build upon this work in a valuable way.

Since the 1970s, retrenchment at the federal level has pushed responsibilities onto state and local governments (Wray, 2019). This devolution, which was not accompanied by additional funding, created fiscal stress for state and local governments. This paper has shown that over the last quarter century, state economies have been buffeted about by national asset price bubbles over which they had no control. Posey (2019) showed that much of the divergence between rich states and poor states over the last 50 years has been due to an increasing

concentration of very high income households – those in the top half of one percent – in a handful of states. These are the states that see influxes of money during asset price booms. Theories of regional income that place the onus of economic development exclusively on state and local actors reflect the ideology of devolution, essentially telling sub-national jurisdictions that they need to pull themselves up by their bootstraps. In doing so, these theories divert attention away from national policies that cause vast amounts of money to flow toward some states, and away from others. Similarly, theories that assure poor states that their income levels will converge in the long run overlook the political choices that have siphoned money away from poor regions. Needed are national policies to address the needs of places left behind in the financialized economy. While a detailed policy agenda to address the geographic redistribution of income is beyond the scope of this paper, Wray (2019) outlines a few options.

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# How financial bubbles are fueled by money creation a.k.a. bank lending: An explanation for public education

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## Introduction

It is widely acknowledged that the build-up of a financial bubble coincides with and may even be caused by excessive bank credit or lending (e.g., Reinhart and Rogoff, 2009; Kindleberger and Aliber, 2011; Jordà, Schularick and Taylor, 2015). Equally well understood, at least to the readers of this journal, is the fact that commercial bank lending involves money creation (Werner, 1997, 2014a, b; Ryan-Collins et al., 2011; McLeay et al., 2014; Jakab and Kumhoff, 2019).

Somewhat less frequently discussed is the possible causality implied by the conjunction of these two facts: If bank lending really is a process of money creation, and bank lending precedes the bursting of financial bubbles, then money creation by banks may be hypothesized to be a main driver underlying the rise and bursting of financial bubbles (e.g., Werner, 2005; Turner, 2015; Keen, 2017; Huber, 2017a).

In this paper I shall proceed from the assumption that future research will bear out this proposed connection between “bank lending (that is, money creation)” and “financial bubbles inflating and bursting”. Instead of showing this link to be the case I will set an historical and conceptual context for it that may help the expert readers of this journal explain it to their students and lay audiences. The inability of most neoclassical economics to embrace this link between money creation and financial bubbles suggests that an alternative, non-neoclassical interpretation of the monetary and banking context is required. Once supplied, such an explanatory context will render the link readily meaningful, even to beginners, and, thus, I hope, contribute to public education (cf. Ravn, 2015).

The context to be proposed is that of money being continually created, by such agents as pre-Renaissance merchants and then by banks and, especially, banks interconnected through clearing systems. This contrasts with the neoclassical narrative that starts with the myth of original creation, the barter story, and then largely forgets about money creation (the “fractional reserve banking” model is a fig leaf that flutters about around page 700 in most American textbooks on economics; it is accorded no theoretical centrality).

In what follows, the reader will be reminded of the more plausible genesis of money: Money arose out of informal debt obligations that were gradually formalized and recorded on paper (commercial paper and ledger books). Early keepers of people’s accounts discovered that they could extend credit by adding figures to these accounts, thus effectively expanding the money supply and reaping the associated benefits (seigniorage and interest). Next, banks invented means whereby the credit extended to their customers could be used out-of-bank: clearing arrangements at medieval fairs (for bills of exchange), clearing houses in the 19<sup>th</sup> century (for

checks) and, today, computerized payments systems in central banks (for bank money transfers).

In this context of permanent money creation, or money supply expansion, events like runs on individual banks or bursting financial bubbles in clearing systems are simply an expression of “credit booms gone bust” (Schularick and Taylor, 2012). This is equal to an overshooting in the supply of new money (Huber, 2017b, p. 78-79) occasioned by a system sorely lacking in negative feedback controls. In a financialized, capitalist economy bursting bubbles are the norm, as Minsky (1992) suggested. They are not inexplicable anomalies as implied by the British economists’ response to the Queen’s question: “Why did no one see it coming?” Well, because of “...a failure of the collective imagination of many bright people” (reported by Stewart, 2009).

A few remarks about the exposition to follow are in order. Needless to say, in a brief and popular account like this, I have taken a multitude of liberties. If some readers spot disturbing shortcuts in my narrative, especially the brief historical introduction, they will, of course, substitute their own preferred version of events when retelling the story to their students or lay audience. Also, notice that I entirely ignore the obsolete intermediation theory of modern banking, as well as the misleading fractional reserve theory, and settle for the credit creation theory of banking (Werner, 2014a, b, 2016. See Ravn, 2019, for a brief account of these three theories). On the whole, this is the approach taken by McLeay et al. (2014) as well, and described by Goodhart (2017, p. 33) as “now taking over as the consensus approach”. In popularizing I follow Furey (2013, p. 39): Why explain things from the wrong (conventional) point of view first and then make up for it by using the better theory afterwards?

By “bubble” I shall mean an episode “when asset prices deviate from their fundamental value in an asymmetric and explosive way” (Jordà, Schularick and Taylor, 2015, p. S5). As to other terminology, I will often use simple terms like “adding numbers to an account”, eschewing the proper technical terms of bookkeeping and accounting. This is to remind the reader to keep the story simple in the retelling, so as to forestall the intellectual alienation often experienced by laypeople exposed to economics, but also to demonstrate that seemingly complex monetary issues really can be explained so that practically everyone can understand them. A straightforward exposition should serve democracy and popular enlightenment, in sharp contrast to the “veil of deception” (Håring, 2013) that persistently hovers over money and banking, protecting vested interests from critique.

### **Money creation by banks**

Money evolved as a means of payment, whether as coin to replace interpersonal relations of indebtedness (Graeber, 2011) or as money-of-account to record taxes, debts and arrears owed to the temple (Hudson, 2018). As a means of payment, money is a claim on resources traded in a market. The power to create money has always been a major privilege, in that the new money gave access to resources that were already claimed by *existing* money.

Typically, money creation by the minting of coin was a royal prerogative. Other types of money were handled and created by other agents, like palace administrators, temple bookkeepers, merchants, trading houses, goldsmiths and banks. As these agents offered accounts to their subjects or customers, they discovered they could extend credit by “creating a deposit for a borrower without any corresponding coin actually having been deposited. Since such a



'fictitious deposit' was indistinguishable from the real thing, the borrower could nonetheless use it to make payment" (Kohn, 2020, pp. 227-228). In other words, bookkeepers could add the requisite amounts to the borrower's account without mobilizing any real resources. Money was created.

For example, if a late-medieval winegrower asked his Florence merchant for a loan, the merchant would typically lend "on his own account". That is, he would write the requisite amount into the winegrower's account, without subtracting it from anyone else's. The winegrower could now purchase goods from the merchant's other customers "by book", that is, by asking the merchant to subtract the appropriate amount from the winegrower's account and adding it to the seller's account.

In like manner, if a gentleman in London in 1670 wanted to borrow gold specie, the goldsmith asked him to accept a (freshly written) deposit slip instead. Many borrowers accepted this alternative, since the slip, as a precursor of bank notes, would circulate as money as easily as would gold. If a citizen of Philadelphia desired a bank loan in 1810, the local bank simply printed the bills in its basement and issued the money. In all cases, the newly created purchasing power (credit, money) expanded the local money supply, which, if debts were repaid in kind, contracted again later.

In other words: As banks and other private agents keeping accounts on behalf of their customers wrote fictitious amounts on commercial paper and in ledger books, only constrained by their estimation of the creditworthiness of their borrowers, what emerged was that peculiar money-creation-through-lending that defines modern banking (Withers, 1914). Evidently, in this institutionalized construction of purchasing power *ab nihilo* – and its obverse, the creation of debt – lies the root cause of financial bubbles: the departure of money from fundamentals.

The creation of paper money and money-of-account was lucrative. Amounts or, essentially, digits supplied to the borrower were often paid off with real resources: 10 actual barrels of olive oil for the handful of digits and letters contained in the two words "10 florins". Such easy access to scarce resources accrued to early banks as they increased the money supply by writing numbers on paper – in so far as debts were not repaid by corresponding "transfers" of numbers from other accounts.

Presumably, early credit creators did this under cover of ignorance, in an age that, so far, seems to have left no written record of the concept of money supply nor seemed capable of entertaining the idea that these ephemeral credit digits were actually money.

### **A run on the bank**

A bank could issue as much money as it deemed prudent. The bank could keep doing this until some account holders suspected foul play and triggered a run on the bank. Worried customers would attempt to withdraw the real money (specie, coin) that banks claimed the figures in their accounts represented. In the period when banks expanded the money supply rapidly, financing colonialism and industrialization, this was plainly the cause of the bank run: The bank created too many digits-on-paper ("representative money") on the back of too few real resources ("commodity money").

In the context of the goldsmith bankers the notion arose that they kept too little gold in reserve relative to the paper money they created. This was formalized in the fractional reserve theory, common today, but obsolete, as gold reserves gave way to central bank money used for clearing during the 20<sup>th</sup> century. The early 20<sup>th</sup> century desire to maintain prudence in banking led Fisher (1935) and Soddy (1933) to propose full reserve banking (a concept that barely makes sense anymore, now that reserves are infinitely expandable, e.g., through Quantitative Easing).

To repeat: The fact that banks are allowed to and do create money through lending, out of sync with the availability of real resources, is the structural or deeper cause of bank runs. The run itself (Gorton, 2012), the attendant euphoria, irrational exuberance, etc., are either triggering factors, symptoms or effects of money-creation-induced financial bubbles.

Many observers point out that periods of massive credit (bank lending) co-occur with bubbles or precede their bursting (in the vein of Kindleberger & Aliber, 2011; Reinhart and Rogoff, 2009; Schularick & Taylor, 2012). However, only when credit involves money creation does a bubble appear. Were loans really merely other people's funds, as the intermediation hypothesis has it, the scarcity of these funds would constrain any bubble expansion. But as bank credit/bank money is created through bookkeeping, its magnitude is mostly constrained by the banks' own evaluation of their loan applicants. When the economy is humming along, banks are optimistic and they expand credit dramatically, pushing up the money supply correspondingly, for example, by an annual 40%, as happened in Iceland during the period 2003 to 2008 (Sigurjónsson, 2015, p. 45). Recipe for disaster.

While *runs* happen to *individual* banks, *financial bubbles* involve the larger economy. Bubbles arise where banks are connected through clearing systems or, minimally, a network of bilateral correspondent accounts. Why do banks clear with each other? So that the credit they extend to their *own* customers can be used in payment for goods and services produced by customers in *other* banks. Let's take a closer look.

### **Credit travels by commercial paper and is cleared at fairs**

A merchant or an early bank (in, e.g., Italian city states in the 1200's or Holland and England in the 1600's) could extend credit to his own customers by writing numbers into the customer's account, for the latter's use for payment in-house to sellers of goods. The merchant did this on his own risk, meaning that if the borrower could not repay his debts and the seller wanted the amounts "transferred" to his account redeemed in cash, the merchant would have to supply the cash out of his own pocket. So, even though extending credit earned the merchant (or bank) the interest charged, his profits suffered from the losses he regularly incurred from defaulting borrowers.

Merchants wanted to expand this lucrative business by enabling their customers to trade with customers of *other* merchants/bankers. How could the merchant get his freshly invented monetary amounts and inscribed account digits to travel out of his ledger book? By writing the digits on paper not bound in a book: deposit slips, bills of exchange, letters of credit, checks, that is, commercial paper. Loose pieces of paper with numbers written on them helped digits otherwise confined to the bank's books travel more widely.

An example: A weaver in late-medieval Venice obtains credit from his merchant, who enters the digits into the weaver's account. The weaver wants to buy wool in London and so purchases a bill of exchange from his merchant. He sends the bill by courier to London, where a wool trader receives it in payment (and ships off his wool to Italy). The wool trader deposits the bill with his merchant, who enters the amount into the wool trader's account. The London merchant now has a claim (in the amount stated on the bill) on the Venetian merchant. Similar traffic takes place in the opposite and many other directions, and scores of merchants in many cities soon have thousands of claims on each other (Kohn, 2020).

Every three months or so, merchants from Western European cities met at the fairs in Lyons, Champagne and Bruges. In an elaborate clearing process they matched their claims on each other and tore them up: "I owe you a hundred, you owe William a hundred, William owes me a hundred [rip!]." Unmatched amounts were summarized on new bills and carried over till the next fair, where they were cleared.

What this means is that the merchants extended credit to their customers at no cost to themselves, in so far as merchants managed to clear (tear up) all their claims on each other. The clearing at the fairs between merchants was what allowed their customers to spend the credit obtained from their *own* merchant on purchases from customers with *other* merchants. This expanded trade beyond the town, stimulating production and consumption at home and abroad.

Even though the bills were torn to bits and the claims they represented were cleared and extinguished, the digits or credits or money in the wool trader's and other sellers' accounts stayed. Less the debts repaid, these slowly expanding account balances held with merchants (later: banks) increased the supply of money-of-account available for production, trade and consumption. This increasing money supply obviously fueled the Renaissance, European imperialism and Western capitalism.

The enormous success of credit and money creation in mobilizing manpower and resources in the recent history of Western civilization serves to underscore the welfare function of money and its creation: To improve access to resources required to satisfy people's needs. This was the universe of Adam Smith's baker and butcher, before overconsumption and financialization set in. When credit and money creation occurs at a safe pace, that is, in concord with the expansion of the economy, things are fine. When money creation occurs too fast, beyond the typically slow growth of fundamentals, we see bank runs and financial bubbles. And, of course, when money creation expands beyond the carrying capacity of the planet, never envisioned by the classical economists, or even those of yesteryear, we have the current climate catastrophe.

### **Clearing systems connect banks**

During the 1700's, London banks allowed their customers to use preprinted checks for payment. "Walk clerks" brought deposited checks back to the issuing bank for payment. By 1770 the clerks were meeting in a room adjacent to The Five Bells pub in Lombard Street for clearing purposes. In this clearinghouse, all outgoing and ingoing claims for each bank were netted (added and subtracted) and one amount in cash per bank was paid to or received from the clearinghouse inspector (Matthews, 1921).

At the suggestion of Charles Babbage, in 1850 each bank opened a dedicated “settlement account” with the Bank of England and deposited a suitable amount there (Campbell-Kelly, 2010). Instead of transacting the netted amount in cash, the inspector adjusted each bank’s settlement account accordingly. Clearing was now performed wholly by book, a huge gain in efficiency.

Clearinghouses were opened in many countries, independent houses in large US cities or systems operated by central banks in other countries. As the clearing system now emerged as the guarantor of safe payments (Timberlake, 1984), banks gradually sold their gold reserves to central banks and were compensated by credits added to their settlement accounts. Deposits in these settlement accounts now took on the additional function of reserves, acquiring a double identity that persists today (e.g., Bank of England, 2019, p. 6). Today, reserves are but account digits, also known as liquidity, maintained by the central bank, which may add to them in times of crisis as it sees fit: the lender-of-last-resort function.

Very little liquidity (money-of-account) is required in the settlement accounts to clear the millions of transactions on an ordinary business day; in the order of one percent of the amount transacted (Huber, 2017b, p. 72). All that the clearing system requires for its smooth functioning is that every participating bank’s settlement account balance exceeds its (netted) outgoing payments of the day.

The historical semi-truth, that a bank’s reserves of gold backed the paper money it issued, has now been replaced by the very efficient mechanics of clearing operations, largely unbeknownst to the public. In a sense, clearing systems have made reserves redundant (Norman, Shaw and Speight, 2011). As long as banks maintain a pittance in their settlement accounts, “... there is no limit to the amount of bank money which the banks can safely create *provided that they move forward in step*” (Keynes, 1930, p. 23, italics in original).

The money creation of banks is now carried, camouflaged and made inconspicuous by the clearing system (today called a payments and settlement system, cf. Manning, Nier and Schanz, 2009). The desire of medieval merchants to have the credit they extended to their customers be usable out of town has been fulfilled beyond anyone’s wildest dreams, transforming bankers, 800 years later, into the “Masters of the Universe”, as per their own pre-2007-08 crash folklore.

### **Financial bubbles appear in the clearing system**

If, on an otherwise ordinary business day, a bank’s outgoing minus incoming payments exceed its reserve balance (liquidity), it can borrow from other banks. (This is often referred to as seeking “funding”, reinforcing the fallacious belief that banks must “fund” their loans 1:1.) If one bank is short on liquidity, another bank holds a corresponding excess amount. Banks happily provide each other this service, charging a small fee. Such overnight loans, or repurchase agreements, repos, are part of the so-called interbank market. “Intraday liquidity” may also be provided by the central bank hosting the clearing system.

With a clearing system as sweet as this, how can financial bubbles arise? As in the case of a run on a *single* bank, in this system of *many* interconnected banks the causality is in the process of money creation inherent in bank lending. How? Like all other capitalist firms, banks compete for market shares. In large part, they do this by increasing lending to willing borrowers. Once

they have exhausted their stock of solid and creditworthy customers, they move on to the less creditworthy ones, loan applicants with fanciful projects and poor collateral. Banks increase their risk or exposure, as the banker's euphemism goes (= they make stupid loans).

When banks lend and create more money than is needed for realistic production and trade, a bubble is being inflated. (What is "realistic" is often self-evident in hindsight, but rarely in foresight.) This excessive lending often occurs in markets like shares and real estate, especially housing, because fixed assets are their own collateral and hence highly desirable from the banker's point of view. The imaginative business ideas of the average entrepreneur are much harder for the bank to seize and auction off. When there is a decreasing ratio of bank lending for productive, GDP-contributing purposes to bank lending for speculative, non-GDP purposes (fixed assets), a bubble is being inflated (Werner, 2012).

At some point, a bank may discover that some of its riskier loans are not being repaid. If the borrowers are large (like real estate developers) or plentiful (like homeowners), large amounts will remain unpaid to the bank's settlement account in the clearing system (or in the accounts that the bank holds with other banks bilaterally). The bank will experience liquidity problems, being unable to complete its payments during a particular business day. The bank will borrow on the interbank market or obtain liquidity from the central bank. However, the other banks may judge the bank to be so exposed as to be hours away from failing, in which case other banks would lose money if they lend and so don't.

Also, the central bank may refuse to act as a lender of last resort, letting the bank go bust, perhaps to set an example. One bank's liquidity problems may spread to other banks to whom it owes money, leading to a general distrust and unwillingness to lend at all, as no one bank knows which one is the next in line to fail. This causes the interbank market to freeze.

When liquidity problems cause payments not to be completed on a given business day, the next risk anticipated is a shortage of cash for cash machines. As consumers cannot make payments, so the scenario goes, whether by cash or credit or debit cards, this raises the specter of food riots. In this age of just-in-time production and delivery, a few days without a functioning payments system would mean a complete stop of food deliveries to supermarkets in large cities (Ricks, 2016). No responsible central bank would want this, and the banks know it. Effectively, this enables the banks to hold the payments system hostage and they can exact emergency aid from the central bank or the government.

Of course, financial bubbles may occur in other systems of interlocking accounts, payment systems or markets, where banks or near-banks lend, create money and clear amongst themselves, especially in shadow markets.

If extraordinary liquidity problems and the interbank market freeze are handled successfully by central bank intervention or government bail-outs to banks, the bubble may be deflated gracefully and stability, implying interbank market trust, be restored. Alternatively, the bubble bursts, in varying degrees of severity. Banks that cannot meet their obligations may close shop and file for bankruptcy. The bank creditors and depositors bear their share, according to national rules. Debts are called, credit lines are not renewed, new loans are not extended, businesses close and employees are laid off, and a recession or a depression ensues.

## Money creation by banks drives financial bubbles

I have emphasized the role of money creation in its guise of bank lending as a major structural factor driving financial bubbles. So, to reiterate: Apart from specie and coin, most other forms of money have always been issued (created) by banks. By lending or extending credit, that is, entering digits on designated paper (whether circulating or book), banks have sent money into circulation, in amounts ever increasing over the centuries. When money creation expands rapidly, faster than the fundamentals, whether they are gold dug out of the ground or the production of goods and services, a financial bubble is inflated.

An *individual* bank so engaged may suffer a run. Banks *connected* in a clearing system have foregone reliance on their own reserves and embraced the powers of netting and clearing, placing their eggs in that collective and much more efficient basket. But risks persist. While a clearing bank is less exposed to runs mounted by its customers, it still requires the faith of the other participants in the clearing system, the central bank and the government. Absent such trust, a bank will suffer for its excessive money creation (lending) and go down as the bubble bursts.

Despite its risks, we must bear in mind that money creation in moderate amounts is a blessing, driving innovation and economic development, taking whole populations out of poverty. In excess, however, it becomes the curse known as financial bubbles. As Minsky pointed out, in capitalism, a system with banks in competition for market share and profits, the system is inherently unstable and will cycle between boom and bust, regularly and predictably inflating and puncturing financial bubbles. To Minsky's theory we have added the fact that this rollercoaster is driven by banks' money creation *as absorbed and camouflaged by clearing systems* that are wonderfully efficient – until, one day, they're not.

## Rethinking classically identified contributing factors

Observers have identified a number of factors that seem to contribute to financial bubbles. They include the lending of loanable funds, private debt, greed, irrational exuberance and shocks. Let us take a brief look at each in turn. I will conclude that these factors may act as triggers, which, at one particular point in time, release the tensions built up by gradual and excessive money creation. Causes they are not.

**Lending**, a commonly identified precursor of bubbles (Schularick and Taylor, 2012; Reinhart and Rogoff, 2009; Kindleberger and Aliber, 2011; Vague, 2019), is highly relevant, but only because of the money creation that bank lending entails. Were lending actually the on-lending or intermediation of other people's (scarce) money, it would act as a negative feedback, a brake on the inflating bubble. As Nobel Prize winner Eugene Fama, apparently ignorant of banks' money creation, argued, off-handedly, in an interview published in *The New Yorker*: "People who get credit have to get it from somewhere. Does a credit bubble mean that people save too much during that period? I don't know what a credit bubble means" (quoted in Cassidy, 2010).

**Debt** is another often-mentioned factor. However, the well-known emphasis on (private or public) debt and its proportion of BNP (e.g., Reinhart and Rogoff, 2011) seems to miss the mark. Debt that derives from bank loans is merely the passive result of money creation, just as footprints in the snow are traces of the primary action: people walking. No one ever takes out a loan to acquire debt. Although terms like "purchasing debt" are fashionable among

economists, no one ever goes to the bank and says, “I want to buy a house. Can I purchase some debt?” Money creation is what blows up bubbles; debt, certainly, is what bursts them when banks have lent foolishly to debtors who cannot repay. To see and predict a bubble one must be mindful of bank lending/money creation and notice where it goes: for productive or speculative purposes (Werner, 1997). The amount of debt outstanding is primarily interesting in so far as it was spent for non-productive purposes.

**Greed.** Certainly, avarice is a motivator when easy money is beckoning. But this is true everywhere. The scientific question is: what general opportunities for greed does a particular economic system encourage that trigger specific instances of greed? We have focused on the fact that the monetary system impels banks to expand money creation or face extinction. “Financial innovation” is the euphemism of choice for new and more complex ways to create money, beyond conventional analysis and comprehension. Agents better able to navigate these waters we call greedy.

**Irrational exuberance** (Greenspan, 1996; Shiller, 2000) is a variation of the greed explanation. Who is irrationally exuberant? Fans at the Super Bowl or music aficionados at a classical concert? No, of course not: investors or speculators, people in pursuit of outsized profits. When it becomes evident that there is easy money to be made in a particular market, exuberant fools rush in while experienced market operators exit quietly, just before the crash. Soon after they return to buy back the assets for cents on the dollar.

**Shock** is a catch-all term for events that destabilize an economy, possibly leading to boom and bust, like power-downs, technological dislocations, climate change, natural or man-made disasters, coups d'état, wars, etc. Obviously, such events may impact any system in a multitude of unforeseeable ways. However, they should not distract from a causal analysis of the system at hand. Where do babies come from? Well, individual parenthood as well as national birth rates are influenced by many factors, including the shocks of unemployment, marriage break-up and military conscription, but these factors only moderate the central casual mechanism of sexual reproduction. This is what makes babies. Likewise, the explanation forwarded here is that financial bubbles trace their roots to the created nature of money and to the institutions currently responsible for money creation.

### **In summary: Money created by bank lending fuels financial bubbles**

Money is a claim on resources. To create money is to expand one's claim on the resources in a community. Only rulers with overt power over their subjects can create money (cash) and demand its acceptance (through taxation). Historically, merchants, goldsmiths and banks found ways to create money covertly, not for themselves, but disguised as lending, that is, the process of making money available to others (for a modest fee). This increased their covert power over the economy immensely.

Such credit, issued in proper measure for investment in productive capacities, became a great engine of economic development. When, however, banks expand the money supply far in excess of extant resources, things have to go sour. Holders of existing money will experience their claims on resources infringed upon and lose faith in the issuers of money, whether *individual* customers in the case of a run on *one* bank, or all the *other banks* in the case of a bank loaded with bad debts in a *clearing system*.

In an economy with competition between banks, their quest for profits and market share will lead them to lend still more, at first to creditworthy borrowers, and then to still more dubious clients with risky projects. Sooner or later, some of these clients will fail to repay their debts and the bank will experience liquidity problems. In a modern economy, other banks, the central bank or the government will step in and provide liquidity or guarantees, perhaps postponing or preventing a crisis.

If the bubble does burst and a crisis sets in, financial regulators will be blamed for having slept on their watch and more stringent regulation will be proposed: “If only limits to lending were tighter, bubbles would never inflate nor crises occur. There is nothing wrong with the system, but it has to be regulated more.”

The causal factor made explicit in this paper, however, has been the structural and systemic nature of bank lending *qua* money creation, and its facilitation by clearing systems. This causal structure may be beyond the type of regulation known today, in which superficial parameters are tweaked while the underlying engine is left intact. This structure or mechanism was not designed or planned in its totality, but rather emerged as a result of banker’s and other agents’ pursuit of their own interests. The periodic production of bubbles from banks’ money creation may be seen as an unintended side effect, a serious design error or, rather, an error arising from non-design.

A rational redesign of the monetary system would render the process of money creation transparent and comprehensible. Money creation would be appropriately constrained, rendering the formation of financial bubbles much less likely, thus stabilizing the economy. In a reformed money and banking system, money creation would serve the interests of society, rather than banks. This prospect, however, is beyond the scope of the present paper (but see proposals by Huber and Robertson, 2000; Jackson and Dyson, 2012; Huber, 2017a).

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BOOK REVIEW:

## **China, the exception that proves the growthist rule? Richard Smith on China's contribution to climate emergency**

Smith, R. (2020) *China's Engine of Environmental Collapse*. London: Pluto Press, 286pp. (ppk)  
ISBN-13: 978-0-7453-4157-6. \$24.

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### **Introduction**

From “woke” to “green”, capitalism’s easy route is to consume its critics – fund and flatter, sponsor and soothe. In the lowest common denominator of corporate heartfelt concern, marketing readily makes exploitable opportunity out of dissenting voices. It is always good business to suggest you care about more than power and profit and this is an easy route to acquiring more of both. Real change is harder than rhetoric. It brings substance to semiotics, it is systemic or structural. Nowhere is this clearer than in the case of the relationship between economies and the planet that sustains them. As ecological economists, Earth system scientists and numerous NGOs and activist groups have argued for decades, one cannot expand economies without limit in a finite world. If a handful of corporations and countries had worked as hard to avert the obvious as they have to dissimulate, deflect and delay change, then we would not be in a period of climate emergency and ecological breakdown.<sup>2</sup> And yet here we are, unable now to evade the cumulative consequences delivered with each news cycle: record temperature variations, forest fires, droughts, floods, wild winds and melting ice sheets.

As any Earth system scientist will tell you, reducing carbon emissions is insufficient to tackle the multi-faceted problems of biophysical or ecological breakdown – we have transgressed or are in imminent danger of transgressing the “safe operating space” of 6 of 9 key components of the Earth system.<sup>3</sup> Resource use for throughput or metabolic flow far exceeds the regenerative capacity of the Earth across numerous parameters. Extraction and waste creation continue to poison the planet. Nonetheless rapid reduction in anthropogenic greenhouse gas (“carbon”) emissions is essential to stabilisation of climate systems. The UNFCCC “Paris agreement” negotiated at COP21 2015 provides the institutional platform for the global response to this global challenge and the IPCC *Global warming of 1.5°C* special report of 2018 provides the context in which targets have been augmented – a reduction of emissions by 45%

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<sup>2</sup> See, for example, Oreskes and Conway (2010) and Lamb et al. (2020); for the contributing role of economics see Keen (2020) and the interview Keen and Morgan (2021), O'Neill (2007), Gills and Morgan (2020a, 2020b, 2020c).

<sup>3</sup> See, for example, Lenton et al. (2019), Steffen et al. (2015, 2018), and the interview Steffen and Morgan (2021).

on 2017 levels by 2030 with a longer term goal of achieving “net zero” by mid-century (against the underlying goal of limiting temperature rises over the century to less than 2°C and ideally 1.5°C). The recent IPCC report from Working Group 1 as part of its sixth cycle only serves to underscore we have entered a period of “climate emergency”.<sup>4</sup> As readers are likely aware China is now the largest carbon emitter and thus its response will play a pivotal role in any solution.

For those unaware of the details of the history, politics and political economy of China over the last forty years, China’s main role is probably framed by globalization, its gradual transition to controlled exploitation of its massive low cost labour force under Deng Xiaoping and his successors and subsequent entry into the World Trade Organization (WTO) in 2001.<sup>5</sup> From this point of view China’s rise or “economic miracle” has been built round access to markets in the wealthy world, joint ventures, offshoring, technology transfer (legal and clandestine), special economic zones and a cumulative drive to become the world’s major manufacturer, workshop, and assembly point for export. As such, the part it has played in inducing climate emergency is significant yet secondary – the place to which the US, EU and the rest of the world have transferred some of their production of emissions, emissions which still mainly belong to those other countries based on consumption based accounting (real “carbon footprints”) – albeit this is a story modified by a turn to domestic infrastructure investment in the wake of the Global Financial Crisis (a massive stimulus policy) and increasingly by the rise of an urban middle class in China leading to a growing cohort of domestic consumers. Richard Smith’s *China’s Engine of Environmental Collapse* is a timely reminder that there is more to this story.

Smith’s central thesis is simple, while it may well be industrial-consumer capitalism – whatever its benefits and technological marvels – that has delivered us into this new world of post-Holocene crisis, unadulterated capitalism is not the *only* reason. It is, rather, important to understand the full range of drivers of “growthism” in order to realistically develop alternatives. Clearly, there are “varieties of capitalism” and communism (or historic repressive totalitarian regimes, if one prefers to dispute the difference between ideology and actuality) has had its own ecological horror stories (from Chernobyl to the Aral sea). But Smith’s point is that China has its own domestic “hypergrowth” drivers built around a “state-bureaucratic mode of production” and the “maximand” or imperative to maintain the security, wealth and power of the Communist Party. It is only by understanding the motives, processes and tensions that have emerged around this maximand that one can make sense of the scope the current leadership has and is likely to exercise in regard of climate change (and the many other ecological harms). In what follows I briefly provide a flavour of this important book but would recommend anyone with an interest in the future of the planet read the original – and that of course is everyone.<sup>6</sup>

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<sup>4</sup> See IPCC (2018, 2021), Ripple et al. (2021a, 2021b).

<sup>5</sup> The People’s Republic was accepted as the sole legitimate representative of China by the UN in 1971 and then became a permanent security council member. China joined the IMF and World Bank in 1980, and gained GATT observer status in 1984, beginning the formal process of application in 1986. China also joined the Asian Development Bank in 1986 and APEC in 1991. There was considerable resistance to China’s membership of the WTO and it joined with an exception which categorised it as a “non-market economy” for the following 15 years – this has affected disputes over “dumping” and pricing.

<sup>6</sup>For other reviews see, for example, <https://lausan.hk/2020/grabbing-the-emergency-brake/>

## A story of relentless statistics

In eight chapters, augmented by an introduction, preface and short statistical appendix Smith makes the case that China's current central leadership (the Politburo Standing Committee and its significant figures etc.) is less in control than one might think is the case for an authoritarian regime – at least insofar as one imagines its leadership have scope to radically alter its current system dynamics. While the popular foreign press may convey the impression China's leadership wield awesome power to direct the economy and shape society at a moment's notice (a characteristic that has led to debates regarding the "death of democracy" and whether such regimes are in some sense more efficient or effective, as well as inviting envy from demagogues of Trump's ilk) in reality its leadership is highly constrained by the interest groups which have emerged over the last thirty years. Its leadership is powerful according to momentum and the system is fragile because of the brittle characteristics of that system and its consequences – a matter we will return to.

However, before addressing in detail the "drivers" of China's political economy, Smith first creates context with a focus on the environmental collateral damage created by China's development.<sup>7</sup> Over the preface, introduction and Chapters 1-4 Smith sets out the scale of China's carbon emissions and diversity and extent of the ecological and human health damage done. Smith marshals a vast array of sources, facts and figures in order to impress upon his readers just how significant the situation of pollution and resource depletion is (and the endnotes of the book amount to 75 pages of detail and further supporting reading and references). For most readers the core concern is likely to be China's contribution to carbon emissions since this has the most obvious global consequence. This is nicely summarised early on:

"For more than a century the US was the world's largest CO<sub>2</sub> emitter by far. But its emissions declined from their peak of 7,370 million Mt CO<sub>2e</sub> (metric tons of CO<sub>2</sub> equivalent) in 2007 to 6,457 million Mt CO<sub>2e</sub> in 2017, reflecting the ongoing replacement of coal-fired power plants with solar, wind and lower-emissions natural gas energy sources. The emissions of the European Union countries have also trended downward over the past three decades, from 5,654 million Mt CO<sub>2e</sub> in 1990 to 4,206 million Mt CO<sub>2e</sub> in 2017. To be sure, these declines are far from sufficient to reverse global warming – they aren't even enough to meet their commitments to the 2015 Paris Agreement on climate change – but at least they were declines. By contrast, China's carbon emissions have relentlessly grown, quadrupling from 3,265 million Mt CO<sub>2e</sub> in 1990 to 13,442 Mt CO<sub>2e</sub> in 2018... [Though China is the world's biggest investor in and producer of renewable technologies across economic sectors it continues to build coal power production facilities and capacity] China isn't replacing fossil fuels with renewables so much as building more capacity of *both*" (Smith 2020: xiv).

In 2018 China's emissions were almost the same as the next five largest emitters combined (if one decomposes the EU this is: US, India, Russia, Japan and Germany). Moreover, China's emissions have grown faster than its proportion of the global economy, China's emissions overtook the US in 2005 then:

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<sup>7</sup> Note: Smith does set out the theory parts of his case in these sections but goes on in Chapters 5-8 to explore the politics in more detail in order to flesh out his basic theoretical argument.

“in just twelve years from 2005 to 2017 China’s CO<sub>2</sub> emissions nearly double again to more than twice those of the US. Yet China’s GDP was only 63% as large as the US GDP in 2017... [While] Per capita CO<sub>2</sub> emissions surged past those of the EU six years ago and are now half those of the US (7.45 Mt CO<sub>2e</sub> vs. 15.56 Mt CO<sub>2e</sub> in 2018). Yet China’s per capita GDP was just 15 percent of that of the US in 2018 (\$9,627 vs. \$62,904) [and its population was just 68% of the five other top emitters]” (Smith 2020: xiii & vii).

So. China is not only now the major contributor to emissions in the world, its share of emissions is disproportionate (based on the size of its population, its GDP and GDP per capita) and its emissions continue to grow (a situation that has continued after Smith finished the book and both in accordance with and despite China’s new commitments in the context of the UN Climate Ambition Alliance and “race to net-zero” campaigns).<sup>8</sup> In a time of “climate emergency” this matters. The planet does not care whether countries have historic emissions that are greater than China’s and it will not matter who is most responsible in production versus consumption accounting for emissions *if* emission do not fall drastically everywhere soon (and especially in places with the highest emissions). Clearly, climate justice matters and just transitions and related issues are of central importance insofar as any kind of reasonable future is to be expected for our species in total. But this is not Smith’s subject in the first part of the book – though he is clearly arguing towards the point that much of the form of China’s growth is ill-advised, unnecessary and counterproductive.<sup>9</sup> His first aim is, as noted, to create context – to highlight the scale of the problem and its direction of travel. In any case, Smith’s argument is that China’s “drivers” are not reducible only to feeding global consumption demand – though clearly this is a major issue. Moreover, in addition to carbon emissions China’s growth has had other impacts that are no less important and are manifestly not to the long term benefit of China’s population (raising deep question marks against the nature of “development”), despite progress on extreme poverty and some other MDG and SDG criteria in the country.

For example, in Chapter Two, titled “Blind Growth”, Smith notes how China is contributing to resource use and depletion (many of which such as cement and steel production are major causes of global carbon emissions while others reduce the capacity of the Earth to absorb emissions):

“[China became] the world’s largest oil importer by 2013... With 18.5% of the world population, China is by far the largest consumer of primary raw materials (cement, metal ores, industrial minerals, fossil fuels, and biomass). As of 2008 China was consuming 32% of global output of these resources, nearly four times as much as the US, the second largest consumer. China consumes just over half of global coal output and one-third of oil output each year” (Smith 2020: 19).

Coal is a continual problem. China has large coal reserves near its Northern industrial centres, and mining is a major employer. Moreover, the local nature of power production has encouraged provinces to develop numerous small inefficient coal-powered electricity generation facilities and there is a lock-in problem between employment, dependable power

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<sup>8</sup> For Smith’s other work over the years that develops his themes see, for example, Smith (1993, 1997, 2016, 2011, 2015, 2016a, 2016b, 2017, 2019, 2020). For a bibliography go to: <https://www.richardanthonymsmith.org/articles-1>

<sup>9</sup> On just transitions see Newell and Simms (2020) and energy transitions, see Newell (2021).

sources, local government and coal use. Moreover, China's industrial sector, its status as furniture maker to the world and its building program have meant, China is:<sup>10</sup>

“the leading producer and consumer of steel (45.7 percent of global output), China now depends on imports for 77 percent of its iron ore... China has become the world's largest consumer of lumber and forest products... By 2006 it was importing half of all tropical trees globally... China poured more cement (5.5 GT) in just the three years between 2009 and 2011 than builders in the United States poured during the entire twentieth century (about 4.65 Gt) [and China's carbon emissions from cement production exceeded those of the next 19 largest producing countries combined in 2018]” (Smith 2020: 19 & 22).

Furthermore, while China's impact on global poverty statistics may be impressive in some ways (subject to issues like inequality and real versus relative changes etc.),<sup>11</sup> from a planetary point of view simply increasing consumption is a road to nowhere:

“In 2011 the Earth Policy Institute at Columbia University calculated that if the Chinese economy were to keep growing by around 8 percent a year, average per capita consumption would reach US current levels by around 2035. But to provide the natural resources for China's 1.4 billion people to consume on a per capita basis like 330 million Americans consume today, the Chinese – currently 18.5% of the world's population – would consume as much oil as the entire world consumes today. It would also consume more than 60 percent of other critical resources” (Smith 2020: 47).

While these statistics are from 2011, the trend has, if anything, accelerated since – implying that any minor offsetting effect from technology and efficiency gains is countered by the spread of consumption (and thus by more people using those technologies that did not do so before – see “automobilization” below) and intensification of consumption.

One of Smith's main points then, across the first four chapters is to highlight that, from a resource use point of view, there is a conjoint problem of industrialisation and consumption. This has a rationale within global economic development – the network of supply chains and locations which provide the world with products – but is built around China's political economy (historically beginning with the role of the army in creating the grounds for mass migration and organized cheap labour) and Smith refers to China's labour system in Chapter One where he discusses “The China Price”.<sup>12</sup>

To illustrate his point, Smith draws on well-known examples like China's role in the production of hi-tech goods such as the i-phone (and the role of Foxconn) and the chemicals industry (with its notorious problems of reckless dumping of toxic wastes into landfill, local fields and rivers) to explore the combination of labour practices and environmental harm. This leads to exploration of China's role in sustaining consumerism (bearing in mind that consumerism is not the act of consumption – mere use of goods and services – it is the system which promotes

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<sup>10</sup> Smith makes much of the way China has strategically pursued access to resources around the world through the “Belt and Road” initiative (resource access is something, of course, various states have engaged in over the centuries).

<sup>11</sup> See Hickel (2017), Hickel et al. (2021).

<sup>12</sup> For informed discussion of China's labour issues see the work of Andreas Bieler and colleagues. For example, Bieler and Lee (2017a, 2017b).

continual consumption) around the world – cheap products designed to be unrepairable, or rapidly obsolete, or replaced according to trends. He notes, for example, how seasonal clothes shopping has given way to continuous consumption and “fast fashion”:

“Take clothing. In 1960 the average American household spent over 10 percent of its income on clothing and shoes – the equivalent of roughly \$4,000 today – but the average person purchased fewer than 25 garments per year. Today the average American household spends less than 3.5 percent of its budget on clothing and shoes – under \$1,800 – yet it buys nearly three times as many garments, an average of 70 per person per year, more than one per week” (Smith 2020: 11).

The consequences of this are significant yet mainly invisible to the consumer:

“Between pesticides, chemical dyes, synthetic fibres and water consumption, garments consume enormous quantities of natural and industrial resources. Apparel is one of the world’s most polluting industries. The \$2.5trillion global clothing and footwear industry is also said to be responsible for 8 percent of global greenhouse gas emissions, nearly as much as the EU... The cotton needed to produce one shirt requires 2,700 litres of water – what one person drinks in two and a half years... The US cotton crop requires the application of 22 billion pounds of toxic pesticides every year... [while synthetic material such as a] polyester shirt is responsible for more than twice the carbon emissions of a cotton shirt” (Smith 2020: 12).

China is not the only location for fast fashion, nor is it directly responsible for cotton production in the US, rather Smith is intent on placing China as part of processes – highlighting its links around the world but also its internal dynamics. China, of course, now has its own consumers and its own system of consumerism (to get a sense of this Google Ali Baba’s “singles day”). This is not just a system of markets and preferences that has emerged spontaneously, growing consumption is a state strategy (a subtly different idea than giving people what they want – more along the lines of “bread and circuses” for a “performance regime”, though Smith doesn’t quite put it like this). One of Smith’s more affecting examples of environmental profligacy in this regard is the transition to private car ownership (“automobilization”, Smith 2020: 25-27). As Smith notes, China had a functioning transport system built around rail, buses and bicycles – a system that many advanced capitalist countries are now (with due technological modification) attempting to emulate, even as they try to manage the profound emissions problems created by societies built around the car (and this extends to the embodied emissions intrinsic to transition to electric cars if this is mere substitution and to the problem of emissions from powering millions of such vehicles).<sup>13</sup> China, however, had the opportunity to simply avoid all of the problems of creating a car owning society: congestion, air pollution, resource use, dense road building networks that need continual maintenance due to heavy use, the huge use of resources to mine materials for parts, to manufacture the vehicles and to produce power to run them (repeated endlessly as the latest model is replaced).

Yet despite these issues, China chose to build a car manufacturing sector (one of its “pillar industries”) and to transition to car ownership (even as it also ramped up public transport investment). This makes no sense environmentally, but has clear attractions of other kinds

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<sup>13</sup> See also Mattioli et al. (2020), Haas (2021) and Morgan (2020a).



(even if it does now take far longer to get around Beijing). The car industry is a major employer and cars, of course, are aspirational goods, a source of status and identity and have been a key aspect of consumer societies.

The examples provided above convey something of the flavour of Smith's argument and as the subtitle suggests the marshalling of statistics is relentless, and the substance at times shocking or harrowing (the wanton, often callous, sometimes ruthless, poisoning and destruction of land and people – and only reading the book can adequately convey this – landgrabs, cancers, poisonings etc. – see especially Chapter Three, “The Damage Done”). The various threads do, however, combine to an overall argument. Underlying Smith's case is a familiar theme of ecological economics – growthism.<sup>14</sup>

“Xi [Jinping] can radically suppress China's emissions, or he can build a rich and powerful Chinese superpower for another decade or more until collapse. He can't do both” (Smith 2020: 165)

As I suggested in the introduction, Smith's central thesis is that while industrial-consumer capitalism may be a primary reason for our situation of climate emergency and ecological breakdown, it is not the *only* reason. A growth imperative can have a variety of sources. According to Smith:

“the marriage of capitalism and Stalinist-Maoist bureaucratic collectivism has created a ruinous hybrid economic system that is ravaging China's environment, destroying the health of its people, driving the country to ecological collapse, and threatening the whole planet” (Smith 2020: 17).

### **China's underlying “maximand” and drivers**

At various points in the book Smith emphasizes that the Chinese government (some combination of Party and State at national, provincial and local level) has officially recognized and oriented policy on matters of climate and ecological concern. For example, the 12<sup>th</sup> 5-Year Plan (2010-2015) included various directives to develop green technologies, as part of an overall industrial strategy to gain leadership in 21<sup>st</sup> century technologies (notably 1,5 and 7 including: energy efficient technologies, solar, wind and energy systems, and electric vehicles, Smith 2020: 24), while in 2017 Xi Jinping announced China would pursue “ecological civilization”, committing the government to controlling pollution and improving quality of life (Smith 2020: 87), and:

“To give force to his policy initiatives, Xi elevated the State Environmental Protection Agency (SEPA) to ministerial rank, becoming the Ministry of Environmental Protection (MEP), with powers equal in theory to the big industrial ministries. He further pledged that his government would ‘complete work on drawing redlines for protecting the ecosystems, designating permanent basic cropland and delineating boundaries for urban development... promote afforestation, take comprehensive steps to control

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<sup>14</sup> It should also be noted that Smith takes issue with Herman Daly over whether growthism is intrinsic to capitalism – though Daly suggests Smith has misunderstood his claim about the steady-state economy i.e. whether in fact it would be capitalist as we understand or know it. See Smith (2010a, 2010b), Blauwhof (2012), and Daly (2015); for Daly on his own work see the interview Daly and Morgan (2019).

desertification... soil erosion, strengthen wetland conservation and restoration... improve the system for protecting natural forests... [and] rigorously protect farmland” (Smith 2020: 88).

Of these policies and others, such as carbon emissions commitments Smith states:

“Given the scale and depth of the problems, we’ve surveyed, it’s obvious these efforts are too little, too late, and don’t really address the causes and sources of toxic pollution, waste and soaring CO<sub>2</sub> emissions” (Smith 2020: 89).

Smith does not spend much time in the book discussing the degree of sincerity involved (a complex issue when discussing a secretive regime whose hermeneutics are opaque) in regard of pronouncements and commitments, rather he explores the motives, conflicts of interest and short term foci that subvert or undermine policy. He suggests:

“One need not doubt Xi’s sincerity... regardless of his intentions, he can’t lead the fight against global warming and suppress pollution beyond narrow limits because he runs a politico-economic system characterized by systemic growth drivers, which are, if anything, more powerful and more eco-suicidal than those of ‘normal’ capitalism in the West, but which he is powerless to alter. These drivers are responsible for China’s blind ‘investment’, ‘blind growth’, out-of-control resource consumption, and wanton pollution – what Xi himself describes as ‘meaningless development at the cost of the environment’” (Smith 2020: 89).

Within the overall maximand of “Maintaining the security, power, and wealth of the Party bureaucracy” or “ruling class reproduction” (Smith 2020: 91), Smith identifies three main “hyper-growth” drivers, each with sub-category processes (Smith 2020: 92):

Driver 1: Maximizing economic growth and self-sufficient industrialization.

Driver 2: Maximizing employment generation.

Driver 3: Maximizing consumption and consumerism.

The implicit link between these drivers and the overall maximand is implicitly population appeasement, though clearly this has not led to a system absent of oppression or harm (quite the opposite). Smith elaborates on these three drivers in Chapter Five and then develops some of the themes and issues in Chapters Six and Seven. He explores the state’s “top-down” development, strategy pronouncements directives and plans, all of which mobilise massive resources and focus on maintaining economic growth with a whole slew of associated target metrics and with an in-built tendency to encourage large high visibility projects (bridges, dams, highway networks, high-speed rail systems, whole industries and cities) and accelerated timelines for achievement (enabling, for example, favourable comparison with what other countries have previously done). This is matched by “local drivers” as provincial, city and county officials compete to outperform targets, since this is an important aspect of security of position, patronage and promotion within the Party-State apparatus (leading to “GDP tournaments”, corner cutting, localism as a form of control over resources and thus also duplication and inefficiencies as well as competition to create status infrastructure projects irrespective of need, producing a system of central command without “control” – at the extreme leading to “Blingfracture” and “gigantism”). Since, a great deal of activity is still structured around State

Owned Enterprises this leads to whole set of associated interest formulations and inertias that maintain the position of SOEs that control key resource output (irrespective of harms created) or in the case of state banking, serves to finance that activity (and continually bailout otherwise bankrupt SOEs). And, of course, since any bureaucratic system is built around control of resources and permissions, the scope for opportunistic corruption is great and this has spread across the system and through the generations creating a division of labour as families straddle the public and quasi-private sector (leading to huge hidden fortunes and creating “graft-driven growth” that is reckless of rights and standards).

Chapters Five through Seven then, build on arguments made and evidence provided in the first part of the book, accumulating to a litany of shocking statistics and cases: dams in earthquake zones, highways and rail networks to nowhere, huge airports, stations and cities for no one – over-production and over-consumption on an unprecedented scale in one of the largest countries on Earth and with around a fifth of its population. The book is full of sharp insight regarding fundamental tensions and problems. For example, the constraints created by the Party’s informal networks and ruthless system of patronage which creates numerous opportunities but also struggle for political survival (a *Guanxi* “game of thrones”, in which high profile crackdowns are more about some combination of factional struggle and symbolic outcomes for public purposes than really combatting corruption):

“In the absence of rule of law, with no security of person or private property, without elections to choose government representatives, without constitutional procedures to regularize succession to office, and without an independent judiciary, attorneys general, and police, arbitrary state power and generalized insecurity condition every aspect of life in China – *especially* within the Party itself. Life in the Party is not so different from life in the mafia. There is no lasting security. At the highest levels, life is a constant, treacherous and highly dangerous war between crime families over top offices and treasure, while the claim of the paramount leader *du jour* to the red throne in Zhongnanhai is never completely secure. All the way down, ministerial, provincial, municipal and local officials find themselves locked in perpetual competition over central appropriations, subsidies, and profits, often in the context of broader familial and factional conflict” (Smith 2020: 127).

This division of labour, moreover, has a transnational dynamic that feeds into financialisation processes insofar as relatives of key Party personnel are useful to networks who want to do business in China and are also useful conduits for siphoning wealth out of China. And as for values:

“The third generation, growing up in the conspicuously capitalist China of the 1980s and 1990s, are even further removed from the ‘revolutionary values’ of their grandparents. Most of these, now in their 30s and 40s, were sent abroad to fancy boarding schools and then to elite colleges in Europe and the US... The princelings often took jobs with Wall Street banks before returning to China. ‘Their lifestyle’, *Bloomberg* notes, ‘tracks that of the global affluent class – people who were their classmates in Swiss, British and US boarding schools.’ After such upbringings, it’s hardly surprising that these descendants share the same values as the Wall Street bankers that so many of them worked with” (Smith 2020: 144).

In any case, informality writ large is one of the key features that distinguishes what we think of as basic features of a capitalist system from China's hybrid of capitalism and Stalinist-Maoist bureaucratic collectivism:

“In capitalist economies like the US, the distribution of wealth and the security of property is completely formalized and regularized: Private property, in the form of land, means of production, housing, cash, stocks and bonds and so on, are all secured by the rule of law, with independent courts, judiciary, and police to back it up. Contracts can be enforced in courts.... This is all so normal, accepted, and unquestioned as to be unremarkable. China has none of this” (Smith 2020: 129).

Smith's point is not that greed and corruption are not issues in the US and elsewhere or that other systems are fair or just, rather it is that China is different. Much is effectively owned by the state, supposedly on behalf of the people and the rest is never secure insofar as nothing is really bound by convention or law (even if control of institutions that control these can bring great wealth). One might also note this has curious consequences for how one thinks about surplus and distribution (from a classical political economy or Marxist point of view) – where does it belong and how is it apportioned when strictly speaking Party-State officials cannot own or display the majority of what they accrue?

Moreover, from a climate and ecological point of view there is also another difference. No government in what we think of as capitalist countries has found an effective way to address the general direction of travel (continual climate and ecological harms) because:

“no one has yet found a way to suppress emissions without suppressing economic growth. Yet in capitalism there is one built-in, if temporary, limit to growth – profits. If companies can't make a profit they will cease production and lay-off workers” (Smith 2020: 90).

While capitalist economies have public goods and state owned industries (of one kind or another) and many corporations (not least oil) benefit from subsidies, this is different than the systemic pervasiveness of profit insulation in China's state-bureaucratic hybrid. China is in what Minxin Pei terms “trapped transition” and is neither capitalist nor command economy and faces even fewer constraints on “hyper-growth” and all of its momentum (its maximand and drivers) speak to continual growth despite the obvious ultimate consequences. As Chapter Seven makes clear, Xi or any other paramount leader in the system as is, does not seem to have the power to “grab the emergency brake” (and all policies so far indicate this). For example:

“He can't be too hard on his state-owned companies [that continually ignore or flout climate and ecological directives] because this will slow economic growth, increase unemployment, dash his hopes for a domestic consumer driven economy, and undermine his drive to build up industrial self-sufficiency” (Smith 2020: 158).

And given China is committed to maintaining economic growth at 6.5% or more:<sup>15</sup>

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<sup>15</sup> See also Hickel and Kallis (2020), Parrique et al. (2019).

“There is no way to magically dematerialize production such that we can grow our economies forever without growing resource consumption and pollution. There’s no way to green them beyond narrow limits. The only way to suppress their pollution is to suppress those industries” (Smith 2020: 163).

Hence, *China’s Engine of Environmental Collapse*. The book then, has an important theory argument at its heart regarding an idiosyncratic or exceptional mode of production (a totalising system built around maximands and drivers) and this is easy to miss if one focuses only on the relentless statistics and deployment of evidence.

### **Conclusion: Braking systems that break the world?**

Though somewhat different in tone and focus, Smith’s *China’s Engine* is an important contribution to the degrowth, postgrowth and social ecological economics literature.<sup>16</sup> Based on decades of research, it provides clear insight into what might be expected in China. For Smith, its argument leads clearly to a set of claims regarding the most reasonable way forward:

“The only way we can make the sort of deep emissions cuts that are needed is for the governments of industrialized nations to declare states of emergency and organize rationally planned, democratically managed industrial drawdowns, shutdowns and retrenchments” (Smith 2020: 172).

In China’s case he identifies key changes in energy generation, vehicle production and use, aviation, shipping and rail, chemicals, construction, urbanization and environmental remediation (Smith 2020: 172-175). For those unfamiliar with degrowth and related work this will seem like a utopic set of requirements that will catastrophically affect quality of life and deny development to the poor. This, however, would be a misunderstanding of the basic premises of degrowth etc. Moreover, it presupposes that the systems we live in are conducive to human flourishing and that it makes more sense to continue with some version of how things are (a technofix future without addressing fundamental issues) i.e. that we have choices we likely don’t really have.<sup>17</sup> And while the obvious conclusion is that little of what Smith suggests is likely in China without major change (and not just in China) Smith is, as one might expect from a founding member of “System Change Not Climate Change”, less downbeat than it might seem.<sup>18</sup> Chapter Eight makes a whole set of points regarding the fragility of the Chinese system and the appetite in China for something different.

As Smith notes, the idea that China “as is” will dominate the next century presupposes the robustness of its political economy – something which is highly debatable. Commentators that note Xi Jinping has consolidated his position at the top of the Party and dispensed with many rivals (while elevating himself and those who support him) miss the point that he has also made himself responsible for and a symbol of any profound structural failings – and there are many sources of these (and a surprising level of dissent across China, despite the potentially extreme

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<sup>16</sup> See, for example, Spash and Guisan (2021), Kallis et al. (2020), Kallis (2018a, 2018b), Hickel (2020), Liegey and Nelson (2020), the edited collection, Fullbrook and Morgan (2019) and the review, Morgan (2020b).

<sup>17</sup> Degrowth is an argument for redirection of human socio-economic activity according to a different system of provisioning that meets needs through (using Max-Neef’s distinction) different “satisfisers” (see Max-Neef, 2009 [1992]).

<sup>18</sup> Visit: <https://systemchangenotclimatechange.org>

consequences – there were 1,700 strikes in 2018 alone, Smith 2020: 179). In any case, the architects of confident, robust systems do not work to jump ship, illicitly transferring assets abroad while gradually moving as many of their relatives to other countries as they can (which according to Smith is a widespread tendency among the powerful and influential in China's Party-State system). Nor do they need to make examples of prominent members of society (from publishers to actors to tech entrepreneurs) and impose digital surveillance and social scoring or maintain a great firewall to ward off dangerous ideas. Nor do they tell other countries not to fear China's rise while giving them numerous reasons to do so (irrespective of what one thinks of the foreign policy and racialized approaches of other powerful countries). For Smith, apart from survival, the Party has no guiding ideology no ideas to offer its population that are not treated as simply self-serving or vacuous and simple nationalism has limited long term appeal if a system is corrupt, arbitrary and unjust. As such, for Smith, in the context of its hypergrowth drivers, "The CCP is locked in a death spiral... The Party leadership presents itself as all-powerful, unassailable, monolithic, confident and self-assured. It's anything but" (Smith 2020: 176). Smith sees parallel problems in both China and the US. Time will tell if he is correct, in the meantime read this book.

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