Twelve Years Left: The impact of the dominance of neoclassical economics on our ailing planet

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One of the defining raisons d'être of the Student Economic Review is to offer undergraduate students a platform to explore and challenge conventional economic wisdom. Whilst the application of traditional economic theory to new areas is valuable, equally (if not more) valuable is the work which challenges tradition, preventing us from falling into blind faith. Such a challenge is posed in this paper, entitled "Twelve Years Left", by Sarah McGuinness. In it, McGuinness lays down a scathing critique of neoclassical economic theory, vilifying the field of economics for its dogmatism and hiding behind mathematical models and jargon. She laments the domination of neoclassical thought over academic and political discourse, and urges a swift transition into a new mode of thinking which welcomes other schools of economic thought and takes a more multidisciplinary approach. To finish, McGuinness highlights that this transition is direly needed in the face of climate catastrophe, and that, if it is not completed swiftly, there will be serious ramifications for both us and the planet on which we live.

On the 31st of October 1517, an Augustinian monk arrived at the Castle Church in Wittenberg with a piece of paper outlining his grievances about the practices of Catholicism. The flame of the Reformation was ignited, and a schism in the Catholic Church soon followed. Today, the publication of the 95 Theses remains an integral part of world and religious history. Whether Martin Luther did in fact nail his Theses to a church door as opposed to posting them in a letter is disputed (Brecht, 1985), but five centuries on, his act is still considered to be one of symbolic resistance. In October 2017, 500 years after the publication of Luther's Theses, many economists, academics, and concerned citizens believed it was time to reform another dominant and influential set of beliefs: those of neoclassical economics. To that end, the New Weather Institute and the campaign group Rethinking Economics wrote and published the 33 Theses for an Economics Reformation (2017). Dressed in a monk's habit and armed with an inflatable hammer, economist Steve Keen then performatively "nailed" them to the door of the London School of Economics Students' Union (Lloyd, 2018).

The point made by Keen and his colleagues was a straightforward one: modern economics desperately needed to be reformed, just as the Catholic church had 500 years previously. Over the last forty years, neoclassical economics has become a hegemonic force not entirely unlike the medieval Catholic Church. Its evolution has been similar to that of most religious belief systems, with the main theories being derived from a handful of fundamental tenets that are almost untouched in academic and political debate. Indeed, as Nadeau (2003: xii) states most succinctly, the assumptions of neoclassical economics have an appeal that is "profoundly religious in character". Convoluted mathematical theories are now utilized in the same manner that the priests of Luther's era once used Latin; that is, as a means of presenting a veneer of expertise while simultaneously masking anything that the average layperson might deem questionable. Indeed, neoclassical economics has come to dominate academic discourse and public policy, and its patrons claim to speak with empirical authority on many matters. According to Varoufakis (n.d.), it still retains a "hold over the economics mainstream".

Furthermore, the imparting of neoclassical economic knowledge has become more of an indoctrination than an education (Fullbrook, 2004a; Parvin, 1992), and its "insufficiently literate" students are graduating with "an uncritical and unjustified belief that the foundations of economic analysis are sound" (Keen, 2011: 21). It continues to "get in the way of an adequate treatment of policy-making processes" (Killick, 1990: 42) and repeatedly fails to accurately predict financial crises (Krugman, 2009). Furthermore, the concepts within neoclassical economics are "wholly incompatible with" our environment (Nadeau, 2003: x). The import, export, and mass production of products are leading to a relentless rise in carbon dioxide in the atmosphere (International Transport Forum, 2015), and the mathematical foundation upon which neoclassical economics is built does not facilitate the implementation of viable solutions for the problems arising from climate change (Nadeau, 2009).

Like the rest of the social sciences, economics has been built upon a foundation of many different schools of thought (Faccarello & Kurz, 2016). Neoclassicism developed and emerged in the late 19th and early 20th century, with the first recorded usage of the term "neoclassical economics" being in the work of Norwegian-American economist Thorstein Veblen (1900). The discipline grew through the work of notable economists such as John Stuart Mill, Adam Smith, and Alfred Marshall. Marshall was especially influential in that he devised the curves of supply and demand, and as such, is considered to be a founding father of neoclassical economics (Aspers, 1999). Today, the term refers to what one would consider mainstream economics. Indeed, many have suggested that to refer to economics itself in this modern era is to refer to neoclassical economics by default (Hamilton, 1994; Keen, 2011, Weintraub, 2002).

Weintraub (2002) describes neoclassical economics as a "metatheory": that is, it is one composed of various fundamental assumptions. The first of these is that humans are rational beings who focus on the maximization of utility. An economic theorist looking through a neoclassical lens sees an economy and society populated by "homoeconomicus"; that is to say, the perfectly rational self-interested economic man described by John Stuart Mill (1992) and Klaus Mathis (2009). One could hypothesize that this may be because said behaviour, i.e. inclination towards the maximization of outcomes, is quite easily captured by empirical observation under the sub-category of data and price markets. In short, humans are motivated to consume an increasing amount of goods and services due to a longing for a supposed level of happiness. The belief in this inherent motivation forms part of the foundation of neoclassical economics.

A second assumption of neoclassical economics is that scarce resources will be allocated most efficiently through the means of the "market". Relying on interpretations of Smith's "invisible hand", proponents of neoclassical economics posit that in the absence of state intervention, supply and demand will redirect capital, goods, labour, and services to where they are most required in society (e.g. Rothschild, 1994). They have what Khan and Aziz (2011: 2) call an "unwavering faith" in the market's ability to provide efficiently. This is accompanied by the belief that government intervention would only serve to interfere with the market's tendency to distribute wealth, and "amount to injecting the sources of instability" (Khan and Aziz 2011: 2). In short, the market should be free of centralised intervention as it cannot easily adjust to this where the efficient production of outcomes is concerned. Additionally, neoclassical economic theory both assumes that is possible to define and measure human behaviour and presupposes the ability of mathematically underpinned models to represent it in a relatively accurate fashion (Hamilton, 1994).

Though it is the most widely adopted school of economic thought, neoclassicism is not without its critics. Klein (2019) writes that it is "failing the majority of people on multiple fronts", while Varoufakis (n.d.) contends that neoclassical economics owes its "hegemonic position in the social sciences" to "theoretical failure". Furthermore, many authors have produced counterarguments to the assumptions mentioned above, with Nell and Errouaki (2011: 30) arguing that "the DNA of neoclassical economics is defective". Firstly, the integrity of rational choice theory has been disputed: theorists such as Kahneman (2013), McKinnon (2012), and Nobel Prize winner Richard Thaler (2016) have all suggested that it has more of an ideological than a scientific basis. Indeed, it is not entirely clear whether the "economic man" is even partially representative of real people (Bowbrick, 1996). Furthermore, to presuppose that all individuals act rationally is to ignore fundamental aspects of humanity and its propensity to act unexpectedly (Blau, 1997). As such, in assuming human behaviour as something eternally rational, neoclassical economics is inherently reductionist (Dupré & O'Neill, 1998).

Secondly, the invisible hand may potentially be misrepresented by neoclassical economists who take it too literally; indeed, they appear to have forgotten that Smith argued for a combination of mathematics and observation (Fleischacker, 2004). Lastly, the convoluted mathematical models that neoclassical economists so heavily rely on “make their theories incomprehensible to anyone without significant training” and are often “utterly detached from reality” (Valdes Viera, 2017: 2). Many neoclassical economists tend to litter their speech with tightly coded jargon, thus preventing the discussion of morality or ethics. Given that up to 60% of adults cannot even accurately define GDP (Inman, 2015), a simplification of economic jargon is clearly necessary. Indeed, author and journalist David Dobbs (2013) is of the emphatic but reasonable belief that in any form of science writing, social or otherwise, modern society should “hunt down jargon, mercilessly like a mercenary possessed, and kill it”. If a society cannot fully grasp the decisions made for and about it by its government, then how can its members possibly react accordingly, and fully exercise their democratic privileges?

One may very well question how neoclassical economics has become such a hegemonic power despite its faults; how, indeed, has it become the sine qua non? A position of dominance over academic discourse is one likely factor. Indeed, only a cursory glance at the labour market is necessary to see the extent to which neoclassical economics has dominated academia. As Weintraub (2002) stated most succinctly: “the status of non-neoclassical economists in the economics departments in English-speaking universities is similar to that of flat-earthers in geography departments”. In short, it is a status considered essentially non-existent. In academia, adherents to modern neoclassical economics often consider themselves to be at the “top of the hierarchy”, as it were. As a discipline, it remains exclusionary; Lee (2009: 4) wrote that neoclassical economists are unperturbed by the academic lynching of economists from other schools, and “eliminate them from institutions of higher education and from the economics profession”. In terms of teaching, Kaufmann (1962) also found that neoclassical economics often failed to explore the issue of ethics. Furthermore, one need only to consider the example of journals to see the extent of the insular power neoclassical economics holds over academic discourse. It does not tend to adapt an interdisciplinary approach as the other social sciences do. Jacobs (2013) found that 81 percent of citations in economics were from within the field. The figures were considerably lower for political science, anthropology and sociology (at 59, 53, and 52 percent respectively).

Indeed, this domination over discourse is not just seen in the labour market or academic publications: economics is also the only social science in which it is possible for one to win a Nobel Prize, with said prize existing solely because of a sizeable donation from Sweden's central bank Sveriges Riksbank (The Nobel Foundation, n.d.). Proponents have also been said to erect barriers to the employment of non-neoclassical economists, thus narrowing the curriculum on offer to students (Fullbrook, 2004a). Students have long been hemmed in by the walls of neoclassical theory: in their study on the teaching of economics, Klamer & Colander (1990) reported feelings of powerlessness among students, who disapproved of what they saw as the "over-mathematization" of their courses and worried they were being "brainwashed". The dissatisfaction of economics students with the dominance of neoclassicism has been so great that many have begun to take matters into their own hands.

In late 2011, as Earle, Moran and Ward-Perkins were sitting in lecture halls at the beginning of their undergraduate career, the Eurozone was ablaze. It appeared to them that there was a clear discrepancy between the neoclassical economics they were being taught, and the reality of the financial crises faced by the world at the time; crises that had inspired many of them to study economics in the first place. Upon analysing their module content, they found that "only 11 out of 48 [topics] even mentioned the words 'critical', 'evaluate' or 'compare'" (Ward-Perkins and Earle, 2013). Their "education" was merely one continuous lesson on memorization and regurgitation of neoclassical tenets, and to that end, the three students of economics at Manchester University formed the Post-Crash Economics Society, with the intent that it would serve as an educational haven from the dominance of neoclassicism, and broaden student perspectives on other schools of economic thought. It inspired many "copy-cat" societies in other universities such as Cambridge, UCL, and LSE (Ward-Perkins & Earle, 2013), and they went on to write a book called The Econocracy, wherein they explained further their reasons for founding the PCES; namely that the global financial crisis did not feature in their lectures, and what they were learning did not appear to be of any use (Earle et al., 2016). In short, many modern curricula and indeed, academics, appear to be ignoring the fact that neoclassicism simply does not make up the whole of economics, something that is contributing greatly to its domination of discourse.

Of course, this domination is not just limited to academic course; neoclassical economics has also had many implications for public policy. Neo-classicists believe in low tax rates and limited government spending, which they posit will allow the private sector, and thus the economy as a whole, to flourish (Dotsey & Mao, 1994). However, there is a sizeable amount of evidence that challenges this strongly held belief. World economic history continues to repeat itself, and we see a recurring cycle of financial crises where countries lend, borrow, crash and then recover. Experts proclaim that “this time is different”, that old rules no longer apply, and that the newest crisis bears no similarity at all to past ones; yet “bubbles” continuously evolve without widespread detection. Economists at LSE were even questioned by the Queen of England as to why they and their neoclassical counterparts had failed so dramatically in predicting the 2008 crash and the ensuing Global Financial Crisis (Beattie, 2008). Indeed, as Reinhart and Rogoff (2009) outline, it does not appear that neoclassical economics has the capacity to accurately or easily predict crises, and its passive approach to fiscal policy remains largely inept in that regard.

As a means of further analysing the dominance of neoclassical economics on public policy, the Washington Consensus as outlined by Williamson (1990) is most useful. The term refers to a list of policy recommendations for developing countries (Latin America in particular) experiencing debt crises that became popular during the late 1980s. The economists behind it were neoclassically trained and had considerable influence over the decision-making processes in those countries. Indeed, the Washington Consensus could be said to be perhaps the most studied event of the pitfalls of neoclassical economics in a real-world scenario. It was based on the belief that “unfettered free markets provided the formula to make rich countries out of poor” and was spearheaded by the U.S. Department of the Treasury, the IMF, and the World Bank (Broad & Cavanagh, 1999: 79). The consensus represents a most illustrative example of the ways in which neoclassical economic policies can produce results that are far from optimal. Firstly, the economic liberalization contained within the Washington Consensus’ neoclassical policies led to growing inequality and by 1999, the wealth of the world’s top three billionaires constituted “more than the combined GNP of all least developed countries and their 600 million people” (UN Development Programme, 1999: 3). Furthermore, the increase in factory openings due to low tax and other incentives resulted in workers who were "underpaid, overworked, and denied fundamental rights, including the right to. . . a safe working environment" (Broad & Cavanagh, 1999: 81). It also caused widespread environmental damage with the focus on export and growth leading to extensive deforestation (Horning, 2018) and an expansion of cattle production to meet growing demands for beef (Broad & Cavanagh, 2009).

Indeed, it is not just the Washington Consensus but neoclassical economics as a whole that has created many challenges for climate change and our planet. The discipline both continues to have a disregard for and fails to consider the importance of the Earth's physical limits. The aforementioned economic liberalization and free trade that accompanies neoclassicism leads to an increased production of goods, with many of these goods then being transported vast distances by cargo ship. In 2018 alone, 139 million tonnes of carbon dioxide were released into the atmosphere through the shipping sector, a number which equals the amount emitted by a quarter of all of the 68 million passenger cars in Europe (Abbasov et al., 2019).

Furthermore, work such as Broad and Cavanagh's (1999) indicates that the system of neoclassical economics could very well be deemed dysfunctional at its core; that is to say, its processes are destroying the natural world and ecosystem through the relentless consumption of non-renewable resources. We are exhausting our planet: the current economic system does not appear to be congruous with healthy maintenance of our ecosphere, and as Klein (2014) outlines, it is warring with many lifeforms on Earth, including human life. In order to avoid total collapse, she says, humanity must seriously contract its use of the planet's resources. Furthermore, it is not just our planet we should worry about, but also society as a whole. It has long been predicted that global warming is inherently linked to inequality (Diffenbaugh & Burke, 2019; Worland, 2019), an issue which serves to present yet another problem that neoclassical economics may struggle to adequately address. Diffenbaugh and Burke (2019) do not argue that global warming created inequality itself, rather that higher temperatures lead to a decreased economic output.

Indeed, climate change may have come into wider societal consciousness as early as the 1960s (Baines & Folland, 2007; Metzner, n.d.) but experts have been slow to incorporate it into the mainstream thinking of neoclassical economics. If we are to limit climate change catastrophe, something which the UN believes we may only have twelve years to do (Watts, 2018), it is imperative that neoclassical economists venture outside of their discipline's bubble and begin enacting real, effective strategies to save our planet. As stated by Klein (2019: 70):

"*There is simply no way to square a belief system that vilifies collective action and venerates total market freedom with a problem that demands collective action on an unprecedented scale and a dramatic reining in of market forces that created and are deepening the crisis.*"

In conclusion, true economics is not about approximating reality using mathematical models as much as it is about explaining human phenomena in an accurate, quantifiable way, even without the full support of mathematical models. The paradigms and core tenets contained within neoclassical economics may indeed be incredibly useful, but as the preceding essay has shown, they can also come to have incredibly detrimental effects on the integrity of academic discourse and feasibility of public policy. Not only that, the processes of neoclassical economics continue to have negative ramifications for climate change and the planet upon which we live, which facilitates the livelihoods and the health of our global citizens. If we truly do only have twelve years to avert mass catastrophe, then it is humanity's best interests to begin embracing other schools of economic thought and adopt a multi-disciplinary approach.

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