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New Economics, paradigm shifts and the lack of philosophical foundations in economics or: is the future of economics heterodox?

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Abstract

The article discusses the ongoing debate about a potential paradigm shift in economics. Institutions like the Institute for New Economic Thinking, the New Economics Foundation, and the Forum New Economy have been established to foster new approaches to understanding and transforming economies. While some mainstream economists see this as a significant and positive change, many heterodox economists remain sceptical, recalling past failed revolutions in economic thought, like the 'Keynesian revolution'. The article examines whether purported changes in economic policy indicate a true paradigm shift in a scientific sense or just variations within the existing neoclassical framework. Despite some studies suggesting a paradigm shift is underway, it is argued that these shifts in policy do not necessarily stem from fundamental changes in economic theory. Instead, they represent swings within the dominant paradigm, such as the rise of behavioural or Schumpeterian economics, rather than a complete overhaul of the discipline. The article concludes that while mainstream economics may become more diverse, this should not be mistaken for a revolutionary change. Heterodox economists must continue to advocate for broader acceptance and genuine transformation in the discipline, rather than assuming that time alone will bring about such changes.

Keywords: *New Economics, paradigm shift, Post Keynesianism, heterodox economics*

I. Introduction

In recent times, the call for 'New Economics' has grown louder: prominent mainstream economists have advocated for a paradigm shift in economics[1], and new institutions have been established to foster a new understanding of the economy and help transform it, such as the Institute for New Economic Thinking in the US, the New Economics Foundation in the UK, and the Forum New Economy in Germany. A recent study (Fricke et al., 2023), supported by other works (e.g. Stirling/Laybourn-Langton 2017; Laybourn-Langton/Jacobs 2018; Macfarlane/Laybourn-Langton/Jacobs 2019), suggests that the academic discipline is undergoing a significant paradigmatic change and is likely to present a very different face in the near future.

What may seem like a very promising development for most heterodox economists[2] must be met with scepticism, especially when considering the fate of the 'Keynesian revolution that never was' (see Hutton, 1986) and the resilience

[1] See e.g. Beinhocker (2006), Stiglitz (2002), Stiglitz (2009), Wilson/Snower (2024).

[2] here is, and cannot be, a single, generally accepted definition of 'heterodox' as opposed to 'orthodox' or 'mainstream' economics. This is the case because definitions always follow a given purpose. Sometimes, 'heterodox economics' is defined categorically as rejecting some of the basic axioms of orthodox economics, sometimes it is sociologically defined as being the less prestigious and less influential part of the economic community (see e.g. Dequech 2012: 354f.). The definition used here has a philosophy of science foundation: heterodox economic paradigms must be separated from orthodox or mainstream economics by an incommensurable ontological dimension. And heterodox economists are those economists who apply thus defined heterodox approaches and mainly interact (by citations and using heterodox journals as publication outlets) with the heterodox community.

of the incumbent economic paradigm. Ludwik Fleck (1979) reminded us that the 'thought style compulsion' is a necessary basis for any thought style to become a reliable foundation for a scientific discipline to flourish: 'thought style extensions and supplementations' will be provided, but 'thought style transformations' will be hampered or even disallowed. Moreover, the highly affirmative outlook of some influential mainstream economists contrasts with the more pessimistic view of many heterodox economists[3], even when the goal is downgraded from a paradigm shift (i.e., the replacement of the existing neoclassical mainstream by a heterodox alternative) to merely a pluralisation of the discipline[4].

Are these differing perspectives merely misperceptions by one of these groups of economists, or can they be reconciled? To answer these questions, we first need to establish what is meant by 'paradigm' in the respective context and, moreover, what a paradigm shift entails (Part 2). The next step will be to revisit the 'revolutions' in economics and economic policy-making that we allegedly experienced in economic history and the history of economic thought (Part 3). Based on this historical approach to our topic, we will scrutinise the studies that optimistically predict a changing face of economics (Part 4). This will be followed by a consideration of the importance of distinguishing between paradigm shifts, on the one hand, and swings between variants of the same paradigm, on the other hand (Part 5) — if both can equally authorise policy paradigm shifts, would the insistence on keeping them apart be inane or, at the very least, overly purist? The paper ends with a brief conclusion (Part 6).

II. Paradigms and paradigm shifts in economic theory and policy

'Paradigm' is a frequently used but rarely well-defined concept, popularised by Thomas S. Kuhn in his seminal study on the structure of scientific revolutions (Kuhn 1962). Colloquially, a revolution implies a far-reaching, drastic change within a domain. In Kuhnian terminology, this 'domain' can be the economic discipline in which the prevailing, dominant paradigm needs to be replaced by a competing paradigm to trigger a scientific revolution[5], or in short, a paradigm shift, resulting in a structural break in how economic reality is understood and explained. To describe something as not merely 'new' or 'different' but genuinely 'revolutionary', the structural break must involve such a fundamental change in the 'large-scale principles' (see Wray 2011: 283) that the different paradigms become incommensurable. Without a clear definition of 'large-scale principles' and the meaning of 'incommensurability' in this context, we have not advanced far in understanding revolutions in science in general and in economic theory and economic policy in particular.

In this paper, I propose using Imre Lakatos's concept of 'scientific research programmes', characterised by methodological, epistemological, and ontological dimensions, to describe paradigms in the realm of economic theory[6]. For the sphere of economic policy, Peter Hall's definition of a policy paradigm as "a framework of ideas and standards that specifies not only the goals of policy and the kind of instruments that can be used to attain them, but also the very nature of the problems they are meant to be addressing" (Hall 1993: 279) is useful. Incommensurability in the context of scientific paradigms, therefore, implies the existence of different, incompatible pre-analytic visions in the ontological dimensions of the competing paradigms. In the context of policy paradigms,

[3]See e.g. Mirowski (2013), Dobusch/Kapeller (2013), Hoang-Ngoc (2013), Hodgson (2019).

[4]Following Larry Laudan's (1977: 138) approach, it can be argued that the transformation of an originally monistic discipline toward the acceptance of paradigmatic pluralism can already be understood as a 'scientific revolution'. For an account of the concept of economic pluralism see e.g. Heise (2017a).

[5]It is widely known that Kuhn was sceptical about the applicability of his theory to the social sciences, including economics. However, this scepticism was largely due to his lack of knowledge about the state of development in the social sciences in general and economics in particular with respect to their formation of paradigms. At least economists do not generally share this scepticism (see e.g. Coats 1969, Peabody 1971, Blaug 1975). In a recent article, Hoyingen/Kincaid (2023: 190) propose the concept of 'orientational paradigms' (OP) – 'a thinner version of Kuhn's paradigms' – as a compromise: unlike natural sciences, they argue, social sciences and economics are not characterised by the unchallenged dominance of a single paradigm but by 'a particularly high number of OPs' (Hoyningen/Kincaid 2023:5). However, according to Laudan (1977: 134) virtually every science in history – including natural sciences – have always been operating with a high number of OPs. Nevertheless, this does not exclude the possibility that a particular OP can achieve (and in most cases would have achieved) such a degree of dominance that it claims the status of 'normal science' establishing something which has been called a 'core-periphery pattern' of a dominant mainstream and a marginalised heterodoxy (see e.g. Davis 2008). To me, this seems like a good description of the economic discipline (see Heise 2016) and will therefore serve as the basis for my further explanations.

[6]See Lakatos (1970). There are other concepts such as the already mentioned approach of Kuhn, Fleck's 'thought styles' or Laudan's 'research traditions' which all have advantages and disadvantages and overlap in many respects. However, for my purpose – to clearly distinguish different economic paradigms and to establish affiliations between theories and paradigms – Lakatos's concept of 'scientific research programmes' appears to be the clearest, less ambiguous one. If I insist on still using the term 'paradigm', it is only because it is more catchy, more prominent and fits better with Hall's terminology. In order not to contribute to any confusion: The analysis is not based on a Kuhnian but a Lakatosian-Fleckian approach.

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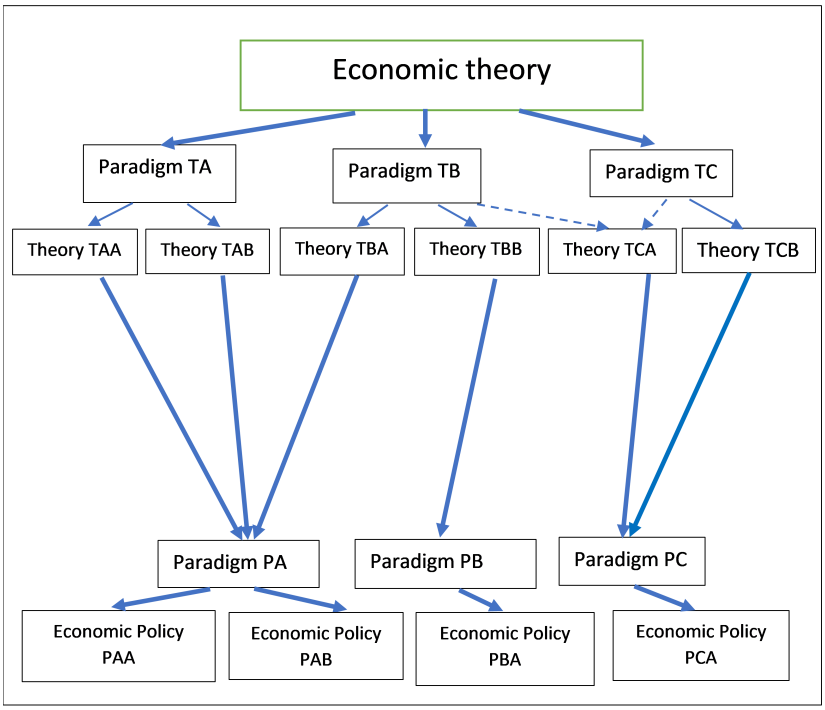
Figure 1: Scientific and policy paradigms



Note: own representation; not all possible lineages are shown but only those referred to in the text

Figure 1: *Description of linkages between paradigms and programs.*

it entails a third-order change, encompassing not just an adjustment (first-order) or a change in the instruments used (second-order), but a change in policy objectives and instruments (Hall 1993: 283f).

It now becomes clear that scientific paradigms and policy paradigms, along with their respective shifts, refer to different concepts: scientific paradigms are distinguished by their inputs — pre-analytic visions — and shifts involve incommensurable ontologies, whereas policy paradigms are differentiated by their outputs, specifically the (targeted or realized) objectives, with shifts referring to significant discontinuities in policy-making and policy goals. But how are scientific and policy paradigms and their respective shifts related? Is there a direct connection from a scientific paradigm to a policy paradigm, implying that any shift in the scientific paradigm will result in a corresponding shift in the policy paradigm? Or, conversely, does a policy paradigm shift necessarily rely on a preceding shift in the scientific paradigm?

Most observers who diagnose radical changes in economic theorising and policy-making seem to assume such a direct connection, as they do not clearly distinguish between scientific and policy paradigms in their analyses, but rather, use these terms interchangeably[7].

I believe that the direct connection between scientific and policy paradigms, and their respective shifts, cannot be upheld upon closer examination. Consider Figure 1: Suppose the economic discipline presents three competing paradigms, named TA, TB, and TC. These paradigms consist of different theories (TAA, TAB, TBA, TBB, TCA, and TCB) that share – within the same paradigm – the same pre-analytic vision in the ontological dimension and the same core axioms in the epistemological dimension, while allowing for variations in auxiliary assumptions.

Now, let's assume there are three different economic policy paradigms, PA, PB, and PC, each with its core goals and associated instruments (means-ends systems). One of these, PA, can be further subdivided based on the use of instruments (first- and second-order changes) into PAA and PAB. The arrows in the figure indicate the linkages

[7]As Laybourn-Langton/Jacobs (2019: 113) state: "We shall refer to a dominant group of ideas as a politico-economic paradigm. Such paradigms generally encompass political/economic goals, analytical/theoretical frameworks for understanding the functioning of economies and societies, narratives which describe and justify the goals and analytical framework, as well as economic and social policies, based on the analytical framework, that seek to achieve specific goals." And this approach is backed by Hall (1993: 279) when he declares: "These policy paradigms are rather like the scientific paradigms that Thomas Kuhn has identified, and we can take advantage of this analogy to develop some hypotheses about how the learning process in public policymaking might proceed."

between economic paradigms, theories, economic policy paradigms, and economic policy programs. For clarity, not all possible connections are shown; only those that can be historically substantiated are depicted. It becomes evident that the economic paradigm TB can be associated with all three different policy paradigms—PA, PB, and PC.

In other words, a policy paradigm shift from PB to PA — resulting in a change in economic policy from PBA to PAA or PAB — or from PB to PC — resulting in a change in economic policy from PBA to PCA — does not necessarily require a scientific revolution in economics, such as a paradigm shift from TB to TA or TC. Instead, it could simply involve a theoretical reorientation within the same paradigm TB, such as a shift from TBB to TBA or TCA.

III. Paradigm shifts in historical perspective

To bring the above reflections to life and make them easier to grasp, let's try to apply the variables in Figure 1 to historical contexts. Let's consider paradigm TA as the Keynesian paradigm, TB as the neoclassical General Equilibrium paradigm, and TC as the Evolutionary-Complexity paradigm. Within TA, TAA represents fundamentalist Keynesian theory, and TAB denotes the Kaleckian variant of post-Keynesianism. TBA refers to standard IS-LM Keynesianism, while TBB stands for more radical general equilibrium models such as Monetarism or New Classical Macroeconomics. Finally, TCA includes Schumpeterian models, while TCB represents Veblenian models of economic evolution. It is important to note that TCA is linked to both TB and TC — suggesting that it is unclear whether Schumpeterian evolutionary economics truly belongs to an alternative paradigm incompatible with the neoclassical General Equilibrium paradigm, or if it is simply an 'evolutionary version' of it.

At the policy level, PA stands for Keynesian demand-oriented, market-correcting intervention policies. This includes a PAA variant that centres on cooperative behaviour among macroeconomic actors, guided by fiscal, monetary, and wage policy rules, and a broader global demand management variant, PAB, which relies on deficit spending and expansionary monetary and wage policy assignments. Policy paradigm PB refers to market-making supply-side policies, which, in the PBA policy program, include microeconomic measures such as deregulation, liberalization, and privatization, combined with a macroeconomic orientation of restraint. Finally, the Schumpeterian policy paradigm PC, and its policy program PCA, primarily focus on industrial policy aimed at fostering innovation and business adaptation within a competitive market environment.

The literature generally identifies two paradigm shifts in the history of economic thought: the 'Keynesian Revolution,' which occurred after the Great Depression of the early 1930s and became particularly prominent after World War II, and the 'Monetarist or Neoliberal (Counter-)Revolution', which followed the end of the 'golden age of capitalism'. The latter began when the post-WWII reconstruction period ended, and the two oil-price crises of the mid-1970s and early 1980s exposed the vulnerability of Western capitalist economies. For nearly three decades, Keynesian economic demand management had appeared to overcome business cycles and stagnation.

In both cases, the narrative is that the policy paradigm shift is accompanied by a preceding scientific revolution, i.e. a shift in the dominant economic paradigm. In the terms of Fig. 1, the story would be that the period after World War II experienced an economic policy paradigm shift from the classical 'laissez-faire' doctrine PB to Keynesian demand management PA. This shift involved a drastic change in policy implementation from externally oriented monetary policy (maintaining gold standard parity) and balanced public budgets PBA to domestically oriented fiscal ('deficit spending') and monetary policies ('easy money') PAB, with the aim of stabilizing output and employment. This is often described as the development of the 'National Keynesian Welfare State', replacing the classical economic night-watchman state. The policy paradigm shift drew its legitimacy from the 'Keynesian Revolution' after the publication of the *General Theory of Employment, Interest and Money* in 1936, which led to a departure from the neoclassical General Equilibrium model TB and a re-orientation towards the 'New Economics' (TA) championed by John Maynard Keynes.

The 'Monetarist or (Neo-)Classical Counter-Revolution' occurred when these 'New Economics' TA appeared to struggle with incorporating the economic phenomenon of 'stagflation' into their models TAB. Keynesian demand management PAB was increasingly seen as part of the problem—contributing to inflation—rather than part of the solution (addressing stagnation). As a result, supply-side policies shifted focus, micro-economically towards market-making and macro-economically towards price stability and budget consolidation: PBA replaced PAB. Moreover, this policy shift was legitimised by a re-orientation of the economic discipline towards General Equilibrium modelling TB in the form of Monetarism and New Classical Macroeconomics based on rational expectations theory TBB.

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The above narratives can be challenged on the grounds that the policy paradigm shifts that occurred were not based on scientific revolutions but rather changes in the dominant variation within the existing paradigm. In the case of the 'Keynesian Revolution,' this implies that there was never a paradigm shift from TB to TA that would justify the use of the term (and concept) of a revolution. Instead, there was a shift from one variation of TB — TBB — to another variation, TBA. More concretely, neoclassical General Equilibrium theorising in the Marshallian and Walrasian traditions was replaced by the standard Keynesian IS-LM analysis. This shift was termed the 'neoclassical synthesis' by those who sought to emphasize continuity with the old paradigm, and 'bastard Keynesianism' by those who lamented the misconception of what Keynes had intended when he published his *General Theory*.

> *"This book is chiefly addressed to my fellow economists.... its main purpose is to deal with difficult questions of theory, and only in the second place with the applications of this theory to practice. For if orthodox economics is at fault, the error is to be found not in the superstructure, ..., but in a lack of clearness and of generality in the premises.... Those, who are strongly wedded to what I shall call 'the classical theory', will fluctuate, I expect, between a belief that I am quite wrong and a belief that I am saying nothing new" (Keynes 1936: XXI).*

During the first phase of the perception of the *General Theory*, the reaction was to absorb the Keynesian conceptions into the old paradigm as a special case (short-term disequilibrium). Even close allies of Keynes such as Roy Harrod denied a revolutionary content of the *General Theory*:

> *"In my judgement Mr. Keynes has not affected a revolution in fundamental economic theory but a re-adjustment and a shift of emphasis" (Harrod 1937: 85).*

Moreover, the spread of Keynesian ideas in the US — the emerging scientific hegemon after World War II that played a crucial role in shaping economics as 'normal science' — by figures such as Alvin Hansen, Paul Samuelson, and Franco Modigliani, largely followed the IS-LM standard-Keynesian approach. This contributed to the further reduction of the 'Keynesian Revolution' to merely an extension of existing thought style. However, due to a shift in the focus of economic governance from long-term structural policies to short-term business cycle management, the variant of the neoclassical General Equilibrium paradigm TB that could better explain short-term business fluctuations, TBA, became dominant. This shift laid the foundation for a policy paradigm change without the need for a scientific revolution. The quest for a true scientific revolution from TB to TA, as envisioned in Keynes's *General Theory*, was only pursued by post-Keynesians after the neoclassical General Equilibrium theory suffered a significant blow to its internal deductive (logical) structure during the so-called 'Cambridge Capital Controversy' of the 1960s and 1970s.

However, this second phase of the interpretation of the *General Theory* was not focused on a better or more revolutionary understanding of 'what Keynes really meant', but was instead shaped by those opponents of Keynesian economics who believed that Keynes 'was quite wrong'. These opponents—including the Monetarists, New Classical economists, and Austrians, who upheld the liberal orthodoxy in economic policy and general equilibrium in economic theory—modernised General Equilibrium Theory by introducing concepts such as forward-looking behaviour (rational expectations), the notion of 'natural' unemployment, and the recognition of real business cycles as equilibrium phenomena. By rehabilitating the ideas of economic self-regulation, monetary neutrality, and the general ineffectiveness of (fiscal) policy within General Equilibrium theorising, they initiated a shift from standard Keynesian TBA to New Classical Macroeconomics TBB within the neoclassical General Equilibrium paradigm TB. Thus, the term 'counter-revolution' is a clear misnomer for what actually occurred in the economic discipline.

IV. A revolution in the making?

Although there might have been economic policy changes of the third degree, i.e., changes not only in the instruments used but in the primary goals targeted, which could be called 'policy paradigm shifts', they were not based on and legitimised by underlying scientific revolutions but by mere swings of dominance from one variant of the ruling paradigm to another variant of the same paradigm. These historical experiences should make us sceptical when upcoming revolutions in economics are predicted: firstly, any dominant paradigm shows immense resilience, and secondly, the notion of 'revolution' is often not used in a traceable, scientifically founded way, but simply carries the colloquial meaning of 'new' or 'different from the old'. Such new approaches, rather, seem to absorb a general feeling of discontentment with the answers the economic discipline provides for the multiple

crises that our economies and societies are going through. However, this lack of rigour may not only stem from a deficit in methodological training or awareness on the part of economists but may also be used to prevent a more radical — truly revolutionary — paradigmatic shift from happening. Therefore, let's take a look at the proposals offered for the upcoming revolution.

As previously argued — and dismissed as unjustified — policy paradigm shifts and scientific paradigm shifts are often either treated interchangeably or, at the very least, directly linked to one another. Consequently, a clear genealogy and association between these two distinct occurrences are rarely provided. Instead, historical circumstances such as the World Financial Crisis after 2007, the ongoing Global Climate Crisis, and the extraordinary period of zero-interest rates during the 2010s are taken as signifiers (anomalies, in the terms of Thomas Kuhn) of an imminent end to the dominant policy paradigm PB, which has shaped the neoliberal age with its supply-side agenda PBB. New market-correcting policy approaches are emerging and are being interpreted as precursors to a revolution in both policy-making and economics — without recognising or identifying them, for instance, as PAA, PAB, or PCA, or associating them with an alternative economic paradigm like TA or TC.

The economic discipline is a complex adaptive system undergoing continuous change. Some of these changes can be seen as cumulative advancements in the application of a given set of methods and epistemological structures to ever more aspects of social life — 'normal science' in Kuhnian terminology and 'thought style extension' in Fleck's terms. Other changes may be based on improvements or modifications in methods and epistemological structures, adding to existing knowledge or 'repairing' the basic model where anomalies challenge its predictive and explanatory power. This epistemological repair work mainly concerns auxiliary assumptions within the protective belt of the paradigm. When core assumptions are affected, it becomes a matter of ontological loyalty whether such changes are accepted as 'thought style supplementation' (Fleck) within the paradigm. As long as the ontological 'pre-analytic vision' of a paradigm is not questioned, dissenting approaches are not only accepted but welcomed, as they are seen as the 'cutting edge' of the discipline. However, changes that challenge some or even all core assumptions of the dominant paradigm — doing so based on a different pre-analytic vision — result in 'thought style transformations' in Fleck's terms or paradigm shifts in Kuhn's sense. Such changes are opposed by proponents of the dominant paradigm, as they might undermine their authority, while 'dissenters' are typically courted not only as 'cutting-edge' scholars but also because their approaches are considered sufficiently novel to satisfy demands for a change in perspective without requiring a true revolution or submission to a heterodox paradigm.

When Colander, Holt, and Rosser (2004) identified 'a changing face of mainstream economics', they seemed to anticipate the developments under scrutiny here and reinforced the notion that a policy paradigm shift requires a preceding economic paradigm shift, which they primarily saw in the then-emerging field of Evolutionary-Complexity economics. In the context of Fig. 1, Colander, Holt, and Rosser did not predict a paradigm shift towards the post-Keynesian paradigm TA — despite its long struggle for recognition and its likely status as the largest component of heterodox economics. Instead, they foresaw the rise of a new alternative, where it remains unclear whether this would involve a paradigm shift towards the Evolutionary-Complexity paradigm TC or merely another variation, TCA, within the dominant neoclassical General Equilibrium paradigm TB.

Unfortunately, more recent studies attempting to map the 'state of a shifting paradigm' have not built upon the arguments laid out by Colander, Holt, and Rosser, but instead start from policy areas where they predict major discontinuities that could lead to a policy paradigm shift. Therefore, what is needed is a comprehensive survey of the policy areas and the 'new policy' proposals, connecting them to their paradigmatic foundations in order to assess their revolutionary potential.

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Comparison of old and new economic policy paradigms.

Table 1: Shifting economic policy paradigms

Policy paradigm	Policy area	Source	Economic Paradigm
Market-liberal	**Macro-economic** • *Monetary policy*: restrictive policy stance to maintain price-stability (only) • *Fiscal policy:* rule-based, restrictive policy stance (balanced structural budgets) • *Wage policy*: productivity-oriented policy stance **Meso-economic** • Laissez-faire orientation **Micro-economic** • *Deregulation* (particularly labour and financial markets) • *Privatisation*		Mainstream: New Keynesian; New Classical Macroeconomics
Interventionist	**Macro-economic** • *Monetary policy*: more balance policy stance to maintain price and output stability; extending policy goals to environmental and distributional issues; subordinating monetary policy to fiscal policy goals • *Fiscal policy*: Re-thinking fiscal policy rules and orientation; re-orientation from 'sound finance' to 'functional finance' • *Income inequality:* reducing growing income and wealth inequality through taxation **Meso-economic** • *New industrial policy* **Micro-economic** • *Re-regulation* of financial markets • *Taming* financialisation	De Grauwe (2013), Schularick (2022) Tooze (2022), Turner (2013) Mosler (2010) Blanchard et. al (2021), Sigl-Glöckner et. al (2021) Kelton (2020) Piketty (2014), Piketty/Saez (2014) Mazzucato (2011, 2021) Schularick (2022), Turner (2013) Gabor (2020), Stiglitz (1989)	Mainstream: New Keynesian No clear theoretical base Heterodox: MMT Mainstream: New Keynesian or no clear theoretical base Heterodox: MMT Mainstream Maintsream dissenter: Schumpeterian economics Mainstream: New Keynesian Mainstream, mainstream dissenters: New Keynesian, behavioural economics Heterodox: Minskian Economics

Source: own presentation based on Fricke et al. (2023), Macfarlane/Laybourn-Langton/Jacobs (2019)

In Table 1, the economic policy paradigm shift from the old 'market-liberal' to the new 'interventionist' or 'active state' policy paradigm is depicted, which has supposedly been taking place in policy-making not only in several major countries but also in key international organizations. The various macro-, meso-, and micro-economic policy shifts, all characterised by attributing both the potential (at the polity level) and the necessity (at the policy level) of government intervention, are based on work published by authors from a wide range of scientific paradigmatic backgrounds. Stephanie Kelton, Daniela Gabor, and Warren Mosler are undoubtedly categorised as 'heterodox', while Paul de Grauwe, Moritz Schularick, Olivier Blanchard, and Thomas Piketty are prominent members of the economic mainstream. Others, such as Mariana Mazzucato and Joseph Stiglitz, might be seen as 'mainstream dissenters,' while figures like Philippa Sigl-Glöckner, Adam Tooze, and Adair Turner are more difficult to categorise, as their published work does not clearly indicate a specific affiliation.

These categorisations are backward-looking and are relevant to our investigation mainly because the likelihood of a significant impact on the development of a discipline — such as a revolution — is likely to be greater when the

proponents are endowed with social and symbolic capital. The assumption here is that mainstream economists in general, and prominent, renowned ones in particular, are more abundantly endowed with these types of capital than heterodox economists.

To assess whether the purported economic policy shift is truly aligned with a scientific paradigm shift, we must examine the paradigmatic foundations underlying the policy changes in various areas. In the case of monetary policy, the 'new policies proposition' to rebalance the objectives of monetary policy can be derived from or integrated into extended New Keynesian models. The call to broaden the objectives of monetary policy to include environmental and distributional goals is normative and therefore does not stem from any particular paradigmatic foundation. However, the demand to subordinate monetary policy to fiscal policy objectives, as advocated by Modern Monetary Theory (MMT), is often claimed to be 'heterodox'.

Regarding fiscal policy, the new proposals for rethinking fiscal policy rules and orientations to better stabilise economic development do not necessarily require a heterodox foundation but can be easily derived from mainstream economic models, particularly of the New Keynesian type. Moreover, the primary focus of the fiscal policy shift lies in softening the rule-based framework (allowing for more discretion) rather than altering the content of the rules (such as the structural balanced budget or 'zero deficit'). However, the 'rules versus discretion' debate is largely independent of the paradigmatic foundation of fiscal policy. The new fiscal policy proposals take on a heterodox character only when a reorientation from 'sound finance' to 'functional finance' is advocated, and the 'functional finance' perspective is derived from post-Keynesian or MMT foundations.

The issue of income distribution re-emerged as inequality began to rise again during the neoliberal era from the 1980s onwards. Although income distribution has long been a core topic in heterodox post-Keynesian theorising — particularly in the Kaleckian tradition — it only re-entered the policy debate after Thomas Piketty's widely discussed publication *Capital in the Twenty-First Century*, which framed inequality as a mounting problem to be addressed through income, wealth, and inheritance taxation. Despite the extensive Kaleckian literature on distributional regimes — perhaps the most prominent heterodox research in recent times — Piketty himself and the authors of studies mapping the 'changing field of economics' largely ignore this body of work.

At the meso-economic level, the new industrial policy, particularly advocated by Mariana Mazzucato, re-emphasises the role of the state in incentivising and financing inventions and turning them into profitable innovations through supportive market regulations and direct public demand. This approach not only corrects market failures in a static sense, as seen in the (Dynamic-Stochastic) General Equilibrium paradigm, but also creates markets from a dynamic perspective. While it is clear that the economic dynamics of inventions and innovations require a theoretical foundation beyond static general equilibrium, it remains unclear whether evolutionary economics, as such a foundation, truly belongs to an alternative, 'heterodox' paradigm. Schumpeterian economics — the variant of evolutionary economics that Mazzucato refers to — is commonly viewed as a mainstream dissenter within a 'pluralist mainstream', supplementing rather than challenging the micro- and macro-orientation of mainstream economics by adding a dynamic meso-level perspective.

Finally, the World Financial Crisis after 2007 was indeed a major challenge for mainstream economics in general and for mainstream financial market microeconomics, particularly as represented by Eugene Fama's famous 'efficient market hypothesis'. However, the period of self-critique was as brief as the renaissance of alternative, heterodox theorizing based on Hyman P. Minsky's 'financial instability hypothesis'. It is therefore not surprising that new policy proposals regarding the re-regulation of financial markets and the management of international financial markets and financialization, put forward by scholars such as Moritz Schularick, Adair Turner, and Joseph Stiglitz, make no reference to Minsky's work. Instead, they rely predominantly on core mainstream ideas or, at most, dissenting mainstream concepts like imperfect information or behavioural (financial) economics insights, such as herd behaviour. Only Daniela Gabor explicitly draws on Keynes, Minsky, and other heterodox authors, though her focus is more on exposing vested interests and explaining state-driven policy adaptations ('de-risking state') rather than proposing alternative policy measures that might contribute to a new policy paradigm.

To summarise, among all the works considered as potentially igniting an economic policy shift, only Modern Monetary Theory (MMT) provides a scientific paradigmatic basis that can be classified as heterodox and thus might genuinely spark a scientific revolution. However, the visibility and appeal of MMT in political and academic spheres derive not from its rigorous theorising but from specific economic circumstances (such as low inflation, low interest rates, and a negative interest rate-growth differential) and the endorsement by influential figures like former US presidential candidate Bernie Sanders, which has driven academic and political discussion that may not be fully supported by substance. Moreover, MMT and the related reorientation of monetary and fiscal policy have not been adopted by any government or international organization, raising questions about why MMT and some of

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its proponents have been included in the 'new economics map' instead of more rigorous heterodox approaches such as post-Keynesian economics. The perceived economic policy paradigm shift is certainly not rooted in a scientific paradigm shift but is rather the result of variations within the reigning (Dynamic-Stochastic) General Equilibrium paradigm, possibly pushing formerly mainstream dissenters towards the core and reinforcing the ongoing shift from New Classical to New Keynesian economics. This conclusion is supported by the fact that the key figures involved show no clear affiliation with heterodox economics.

V. Why it is important to distinguish between a 'revolution' and 'something new'

Having established that the 'new economic policy' identified by some observers is not, in fact, based on 'new economic thinking' in the sense of a shift in the scientific paradigmatic foundations of the economic discipline — i.e., a veritable scientific revolution — indicates that history is repeating itself. Real-world economic circumstances challenge the dominant economic paradigm, yet the discipline manages not only to extend the existing mainstream paradigm — which underscores its resilience — but also to present this extension as the 'emergence of a new paradigm'. But why is it relevant to distinguish between the emergence of new variants within the mainstream, to which the pendulum of dominance may eventually swing, and the emergence of a new paradigm involving a scientific revolution once the paradigm becomes accepted and dominant, if both developments equally support a policy paradigm shift? Isn't the insistence on this difference overly pedantic, stubborn, and merely a matter for the academic ivory tower?

Clearly, even if the primary goal of science is to produce effective policy proposals and determine the correct instruments to be applied, it remains important not to do the right things (some policy prescription) for the wrong reasons (on unviable theoretical grounds). Science not only aspires to accurately understand its object of inquiry but also needs to gain legitimacy for its policy prescriptions. Furthermore, ignoring the paradigmatic foundations of a desired policy paradigm shift can be seen as a strategy to reinforce the old paradigm, setting the stage for another policy paradigm shift when economic and political circumstances change. As history has shown, a back-swing from one variant of a paradigm to another — mistakenly called a 'counter-revolution' — is much more likely than a return to a previous scientific paradigm.

These considerations are particularly relevant given that there is no shortage of truly heterodox paradigms (e.g., various schools of post-Keynesianism or the heterodox branch of Complexity-evolutionary economics) from which new economic policies at the macro, meso, and micro levels could be consistently derived. Yet, these paradigms are often mentioned only in passing or unaccounted.

VI. Conclusion

The trajectory of the economic discipline is a subject of open debate: some argue that the reigning mainstream shows strong resilience despite economic circumstances that could be considered a 'crisis' in a Kuhnian sense, while others detect significant changes and foresee the 'death of neoclassical economics' as a useful category. Recent studies claiming to 'map the state of a shifting paradigm' appear to support the latter view, describing a paradigm shift in the making. Although this paradigm shift is linked to a policy paradigm shift, it is supposedly accompanied by and based on a scientific paradigm shift.

The quest for such a scientific paradigm shift — i.e., a scientific revolution in Kuhnian terms or a thought style transformation in Ludwik Fleck's terminology — has long been pursued by heterodox economists from various paradigmatic backgrounds. However, the studies mentioned do not disclose the method used to select their sample and almost exclusively rely on mainstream economists, largely ignoring heterodox economists with significant contributions to alternative economic theory and policy. The few heterodox economists included seem to be chosen arbitrarily. Favouring mainstream economists, especially those who are prominent, may be a promising strategy due to their greater social and symbolic capital, which could amplify their impact on the discipline. Conversely, mainstream economists might find it more challenging to break away from the paradigm on which their status is built.

We have attempted to demonstrate that there is no direct link between a policy and a scientific paradigm shift. Rather, the policy paradigm shifts observed in the past were not grounded in scientific paradigm shifts — i.e., scientific revolutions or thought style transformations — but were instead derived from swings among different variants within the same paradigm or from thought style extensions and supplementations. After scrutinising the studies in question, it can be concluded that the purported economic policy paradigm shifts detected in some

countries and international organizations were not based on scientific paradigm shifts but were merely swings in variants within the same paradigm.

Even if the future reveals that the first two decades of the 21st century have seen the end of neoliberalism and its market-oriented policy paradigm in favour of a more state-interventionist policy paradigm, this will not necessarily contribute to a revolutionary renewal of the economic discipline or, at the very least, its pluralisation. What can be expected with some degree of certainty is that some of the mainstream dissenting variants, which have thus far been on the cutting edge of research—such as behavioural or Schumpeterian evolutionary economics—will become more prominent as 'normal science' in a Kuhnian sense, and the mainstream will become more diverse in general. This diversity will likely be mistakenly celebrated as a fundamental change and the discipline's ability to adapt to new economic challenges.

Furthermore, we have tried to show that distinguishing between a scientific revolution and a shift in dominance within the mainstream paradigm is crucial, and ignoring this distinction can help reinforce the incumbent paradigm. Heterodox economists cannot simply wait for change to occur; they must continue to actively strive for acceptance and a different direction for the economic discipline.

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