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Abstract

The push to pluralise the economic discipline involves making informed decisions about which paradigm to adopt, requiring a deep understanding of each paradigm's characteristics and affiliations. Once paradigmatic choices are made, different theories can either collaborate effectively or require clear discrimination if they belong to distinct paradigms. Therefore, economic theories and models need to be compared with respect to their paradigmatic localisation.

Based on a hermeneutic comparison, the common assessment that the champions of Post Keynesian economics – John Maynard Keynes, Michal Kalecki and Hyman P. Minsky's share a unified Post Keynesian paradigm must be questioned. Kalecki's economics, with its closed system perspective, differs fundamentally from Keynes's open system approach. This distinction suggests that Kalecki's work is not merely a variant of Keynes's monetary production paradigm but could align more closely with new-Keynesian imperfect competition models based on the traditional real-exchange paradigm. Minsky's dynamic approach, however, shares Keynes's open system ontology, making them compatible. This analysis suggests that the term 'Post Keynesianism' might inaccurately imply a coherence that does not exist.

JEL codes: B 40, B 59, E 12, P 59

Key words: Keynes's economics, Kalecki's economics, Minsky's economics, paradigms, comparison

1. Introduction

The quest for pluralisation of the economic discipline has gained momentum among academic economists, as well as students of economics and economic practitioners. For too long, the Dynamic-Stochastic General Equilibrium (DSGE) model and its numerous variants nearly monistically governed the discipline. However, plurality as a scientific imperative may be interpreted as scientific relativism and certainly poses the question about the choice of paradigm: if there is a multitude of different paradigms, which quite rightly compete for a better explanation of economic reality, we need criteria to make an informed choice (see e.g. Wolff/Resnick 2012: 366ff., Meyenburg 2018). Such criteria could include verisimilitude (the accuracy of predictions), eclecticism (using different approaches for different purposes), progressiveness (in a Lakatosian sense), reductionism (Occam's razor), or even personal interests such as particular political or practical consequences or career perspectives. In any case, as a foundation for such an informed choice, we need to compare the different paradigms (see e.g. Heise 2020).

Comparing paradigms has long been a sub-subject of sociological inquiry. What is a common exercise for a discipline that acknowledges its paradigmatic plurality is a rather new endeavour for a discipline that was (and in many parts of its epistemic community still is) in pain with the admission of paradigmatic pluralism. This not only shows in the small number of comparisons but also in the lack of methodical expertise and awareness about the difference between a scientific comparison and a mere juxtaposition of theories, models, or paradigms[1]. Therefore, the first chapter necessarily delves into methods of comparison (‘how’) but also into its objectives (‘why’) because they can be manifold: foundation of informed choice, paradigmatic assignment, supplements, or alternatives, etc., and determine the appropriate method to be used.

These methodological preliminaries will be followed by a comparison of the economics of John Maynard Keynes, Michal Kalecki, and Hyman P. Minsky. All three are commonly seen as founding fathers or, at least, main theoretical contributors to the Post Keynesian paradigm in a 'broad tent approach'[2]. If that were the case, a paradigmatic comparison would only make sense to manifest their complementarities or commonalities. However, a thorough comparison may also uncover paradigmatic differences, as recently proposed, dividing Kaleckian and Keynesian economics (see Palley 2023, Heise 2024), and thus may question the broad tent approach to Post Keynesianism, as done, for example, by Paul Davidson (2004).

The purpose of this article is, therefore, to explore whether the economics of Keynes, Kalecki, and Minsky can accurately be made compatible to form a coherent alternative to standard economics or whether they must be regarded as incommensurable alternative paradigms.

[1] See e.g. Mattick 1969, Heilbroner 1984, Vercelli 1984, Wolff/Resnick 2012, Hein 2015, all of whom not even account for a particular method of comparison.

[2] Quite often (see, e.g., Lavoie 2014, Arestis 1996), the roots of Post-Keynesianism are seen to be broader, encompassing scholars such as Nicholas Kaldor, Piero Sraffa, and Thorstein Veblen. The only reason they are excluded from this comparison is for practicality. The present work is viewed as merely a first attempt—many more comparisons are surely needed to fully map Post Keynesian and heterodox economics.

2. Why and how to compare economic theories and paradigms

Scientific comparisons must address both differences and similarities and their appropriate relationships. It makes no more sense to compare identical copies of an object than to compare two entirely different objects (the proverbial 'comparing apples and oranges'). Therefore, the objects being compared must share *some* similarities and *some* differences. There are essentially two approaches to distinguish: *'most similar, different outcome'* and *'most different, similar outcome'*.(see e.g. Przeworski/Teune 1970)

The first type of comparison is used *to test different theories* concerning their predictive power. Built on the *same* core axioms but using *different* auxiliary assumptions (e.g., about price or quantity adjustments or market structures), competing theories can be evaluated based on their alignment with empirical evidence. Although there should be a clear 'winner' in any such theory-testing comparison, both theories could still be complementary and form a coherent whole if the explanandum (different outcome) changes, for instance, with respect to the time horizon (e.g., short-term versus long-term outcomes).

The second type of comparison, termed *hermeneutic comparison* (see Anicker 2017, Anicker 2022), should be used *to distinguish different paradigms*. These paradigms, distinguished by core assumptions (in their epistemological dimension) and based on *different* pre-analytic visions (in their ontological dimension), form incommensurable paradigms that are supposed to explain the *same* reality. Hermeneutic comparison is not about establishing 'winning paradigms' but about highlighting differences in paradigmatic dimensions or, equally possible, manifesting paradigmatic similarities and commensurabilities, thereby reducing 'pseudo-pluralism' (see Anicker 2017: 75).

The hermeneutic comparison proposed and defined above will be used to relate the economics of Keynes, Kalecki, and Minsky. It will not (and cannot) discriminate between paradigms in terms of 'quality,' 'accuracy,' or 'validity' (Anicker 2017: 79). Therefore, its impact on pluralism in economics will not be by reducing the number of contending approaches, but rather by establishing paradigmatic distinctions (*inter-paradigmatic pluralism*) or paradigmatic kinship (*intra-paradigmatic pluralism*).

To achieve this, we must delve into the ontological, epistemological, and methodological dimensions of the economics of these three Post Keynesian figures, and, prior to that, establish the categories that constitute these dimensions.

3. Economic paradigms and their constituents

The term ‘paradigm’ is often associated with Thomas S. Kuhn’s philosophy of science. He popularized the term in his seminal work *The Structure of Scientific Revolutions*, where he identified a scientific revolution with a paradigm shift involving a clear break from a dominant “large-scale statement of principles” (Wray 2011: 383). However, due to the lack of precision in the concept of ‘paradigm,’ Imre Lakatos’s concept of ‘scientific research programmes’ (SRP) appears better suited for identifying the constituent elements of scientific structures that aim to discover and explain the real world. Lakatos's three-dimensional framework not only points to the common methodological foundation that unites an entire discipline (defining ‘quality standards’) but also highlights the methodical, epistemological, and ontological distinctions

that form commensurable variations based on methodical differences on one hand, and incommensurable scientific research programmes on the other.

Table 1: Paradigms and pluralism

	Dimensions of a paradigm		
	Ontological	Epistemological	Methodological
Forming a scientific discipline			• Defining the meta-methodology accepted for knowledge creation
Forming a coherent paradigm	• Providing a pre-analytic vision	• Establishing 'core assumptions'	
Forming a unifying theory		• Establishing 'auxiliary assumptions'	• Defining the scope of truth claims • Defining accepted methods
Radical pluralism			• Methodological openess
Interparadigmatic pluralism	• Different pre-analytic visions	• Different 'core assumptions'	
Intraparadigmatic pluralism (variation)		• Different 'auxiliary assumptions'	• Different scope • Different methods

Ever since the methodological disputes ('Methodenstreite') during the phase of professionalization, differentiation, and specialization of the social sciences in the late 19th century, and the growing hegemony of American economics during the first half of the 20th century, an adherence to objectivism eventually displaced advocacy as the guiding principle of knowledge creation in economics (see, e.g., Fourcade 2009: 78ff., Furner 1975). As a result, positivism in its various forms—critical rationalism, fallibilism, or critical realism—became the methodological standard, avoiding lengthy and unproductive debates about what can be accepted as knowledge ('quality control')[3]. This methodological alignment is constitutive for

[3] Quite often, differences in the methodological dimension between standard and Post Keynesian economics (and heterodox economics in general) are claimed (see, e.g., Lavoie 2014: 10ff.) by arguing that standard economics is based on 'instrumentalism' while Post Keynesian and other heterodox economics are based on

the academic discipline called economics, yet it is not a precondition for scientific work. Radical pluralists, for instance, argue for methodological openness ('anything necessarily goes'; see Samuels 1997: 68), accepting the blurring of disciplinary boundaries under the term 'interdisciplinarity.' It should be noted that methodological alignment does not imply similar accord regarding the scope of truth claims—for example, short-term versus long-term, static versus dynamic, equilibrium-oriented versus disequilibrium-oriented, formal versus narrative—or methods such as quantitative and qualitative. Indeed, differences in methods and scope are a primary source of intra-paradigmatic pluralism.

Variation within a paradigm can, as shown in Table 1, have another source: it may stem from the epistemological dimension and rely on the variation of auxiliary assumptions or 'axioms of the protective belt.' These are often assumptions about the degree of market competition, the speed of price and quantity adjustments, the existence of transaction costs, or the distribution of information among economic actors. Contrary to such auxiliary assumptions, the core assumptions related to the ontological dimension must hold if a paradigmatic affiliation is not to be compromised. While most auxiliary assumptions are explicitly stated, as they constitute the specific variation of a theory, core assumptions often remain implicit and unscrutinised.

The ontological dimension, although much neglected in economic theorizing, is pivotal as it shapes the way the economist perceives and conceptualizes her object of study. As the concept of ontology is ambiguous (see, e.g., Meyenburg 2024: 2, Fleetwood 2005), we need to define its application for the present purpose[4]: ontology informs about the existential being of an entity as expressed in its most important and formative attributions or constituents that drive the (empirically measurable) outcome of the system under investigation. These attributions are not logically and analytically contained in the entity or system and, therefore, follow from what Immanuel Kant called a *synthetic a priori judgment* (Kant 1983/1781: 52ff.) or, in Schumpeter's terminology, a *pre-analytic vision* of the entity or system (Schumpeter 1954: 41). From this definition, it immediately follows that the ontological dimension comprises normative attitudes of the researchers towards their object of study and that a plurality of such pre-analytic visions must be allowed (otherwise, the mere acceptance of a single synthetic a priori judgment must be rated as ideological; see Heise 2023). However, the pre-analytic vision being a synthetic a priori judgment cannot simply be perceived and grasped from observations and, therefore, as Benedetti and Solari (1997: 52; my italics) note, "normally remain hidden and implicit, are not normally assumed consciously and are part of

'realism'. However, the quarrel here is not about the applicability of fallibilistic positivism in general, but rather the relevance and nature of assumptions (realistic versus instrumentalist). In any case, if Post Keynesianism were to reject fallibilistic positivism, it could surely not rely on Keynes for support: "The object of statistical study is not so much to fill in missing variables with a view to prediction, *as to test the relevance and validity of the model*" (Keynes 1938: 296, my italics).

[4] We also need to emphasize that there appears to be a general misunderstanding about what the ontological dimension encompasses. Lavoie (2014: 10ff.), for example, mentions five 'presuppositions' as common metaphysical beliefs of heterodox economics, considering them part of their ontology. These presuppositions are an unintelligible mixture of assumptions, postulates, and ascriptions of the paradigms, rather than the object of investigation. However, the ontological dimension, as we use it here, pertains to the nature of the object (the economy) rather than the subject (economics).

the preconceptual world view. *Despite this, they determine the development and explicative potential of a model or theory*."

Despite the clandestine nature of the pre-analytic vision, scholars who reason about issues within the realm of economic activities have historically taken barter, exchange, or trade—conducted on local, regional, or global markets and facilitated by the use of money as a medium of exchange and store of value—as the fundamental constituent of economic activity[5]. Consequently, economics is perceived as the discipline that delves into the understanding of such exchange activities (microeconomics) and their outcomes at an aggregated level (macroeconomics, political economy).

Most economics textbooks, especially those with an orthodox perspective, do not reassure their readers about the methodological, let alone the ontological, foundations of their paradigmatic approach (see e.g. Samuelson/Nordhaus 2009; Mankiw 2019). Instead, they are structured in a way that reflects the market or exchange paradigm: the microeconomic theory of market exchange in one section, and macroeconomic aspects such as growth, income distribution, inflation, and unemployment in another. Therefore, it seems uncontested to assert that economics, as pursued by the dominant mainstream and applied in 'normal science' in a Kuhnian sense, can be termed the 'market or exchange paradigm.' This paradigm assumes exchange relations to be the core constituents and inflicts a predominantly allocative perspective[6]—Palermo (2007: 540) dubs it a 'what you see is what you get' ontology that fails to delve into the deeper structures of the economic system.

Taking the pre-analytic vision of an exchange or market economy for granted, and further assuming rational economic behaviour along the lines of utility maximization and the availability of all necessary information to make rational choices (including forward-looking choices based on rational expectations), it seems fair to claim that the economic system in this paradigmatic approach is a *closed system* (see e.g. Lawson, 2009: 99). This means that all elements (economic actors and objects such as commodities and services) and their relations are known, the outcome is deterministic, and its complexity (though not necessarily its complicatedness) is low (in fact, it is of the first degree). Here is how a prominent proponent of this paradigm describes it:

> "I abstract heroically. We are all exactly alike. We live forever, we are perfect competitors and all-but-perfect soothsayers. Our inelastic labour supply is fully employed, working with inelastically supplied Ricardian land and (possibly heterogeneous) capital goods. We have built-in Pigou-Bohm rates of subjective time preference, discounting each next-year's independent utility by the constant factor 1/(1 + p), p > 0. We are in long-run equilibrium without technical change or population growth: the stock of capital goods has been depressed to the point where all own-interest-rates yielded by production are equal to r, the market rate of interest; in turn,

[5] Interestingly, the pre-analytic vision of barter, exchange or trade as fundamental constituents has been entertained independent of the societal base – i.e. collective property feudal or tribal societies or private property capitalistic societies – of the economy under scrutiny, thereby neglecting what Herscovici (2024) calls 'historicity'.

[6] Although production and accumulation are, of course, not denied within this paradigm, it is also conceptualised as a matter of intertemporal allocation being governed by time-preference considerations.

r is equal to the subjective interest rate p, this being the condition for our propensity to consume being 100 per cent of income, with zero net capital formation. We equally own land, and such capital goods as machinery and material stocks. We own, but legally cannot sell, our future stream of labour earnings. We hold cash balances, because we are not perfect soothsayers when it comes to the uncertainty of the timing of our in-and-out-payments, which can be assumed to follow certain probability laws in the background; this lack of synchronization of payments plus the indivisible costs of transactions (…) requires us to hold money. (…)

Our system is assumed to come into long-run equilibrium. This equilibrium can be deduced to be unique if we add to our extreme symmetry assumptions the conventional strong convexity assumptions of neoclassical theorizing-constant returns to scale with smooth diminishing returns to proportions, quasi- concave ordinal utility functions that guarantee diminishing marginal rates of substitution, and so on" (Samuelson 1968: 5; italics in the original).

Such a closed system ontology must be translated into and, therefore, conform to the epistemological traits and postulates of the paradigm. Paul Davidson (2009: 26ff.) mentions three core axioms that are fundamental for the real exchange paradigm:

1. The axiom of (gross) substitutability
2. The axiom of ergodicity
3. The axiom of monetary neutrality

Axiom #1 is essential for the allocative orientation of the paradigm, axiom #2 safeguards the closedness and determinacy of the system, and axiom #3 secures the dichotomy between the real side of the (exchange) economy based on what McCloskey (2016) termed 'Max U' and the monetary side, which is merely concerned with explaining nominal prices but quantitatively neutral[7] to the laws governing the real side of an exchange economy.

Axiom #1 must be supplemented with another axiom, which renders 'Max U' a traceable behaviour:

4. The axiom of rationality[8].

[7] Samuelson (1968) distinguishes between quantitative and qualitative neutrality. Of course, an exchange economy using money as a facilitator should be richer than a pure barter economy because the use of money reduces transaction costs and, thus, resources that can be applied to create real values (and if that were not the case, there would be no reason to use money in the first place!) – it is in this sense that money is qualitatively not neutral. But there is no correlation between the quantity of money and the real-wealth effect of using money – therefore money is quantitatively neutral. Moreover, there are myriad approaches within standard economics that attempt to show that money can have temporary effects on the real side of the economy – investment and consumption spending, output and employment – which, however, will not last once expectations are adjusted or nominal and real rigidities are overcome.

[8] The axiom of rationality, even when considered in its weakest form, has received much criticism for being entirely unrealistic. However, we need to emphasize the instrumental nature of this assumption: it serves as the necessary behavioural link between economic actors and economic objects. We could easily replace it with any other behavioural norm, but to my knowledge, no one (not even behavioural economists) has ever provided a more realistic, yet equally general and comprehensive norm that would be required to maintain the system closed.

Say's law and its neoclassical twin, Walras' law (see Mishan 1963) as the accounting principles of exchange economies (see Heise 2017: 88), serve to establish the well-known

1. Postulate of self-regulation
2. Postulate of general equilibrium.

Adding auxiliary assumptions such as imperfect competition, asymmetric information, adaptive expectations, institutional rigidities, transaction costs, or behavioural norms beyond 'Max U' rationality and focusing on dynamics and disequilibrium will result in paradigmatic variations known as neo-institutional, neo- and new-Keynesian, or evolutionary and behavioural economics applied to labour, financial, or imperfect commodity markets, explaining phenomena such as (temporary) unemployment, rationing, business cycles, and innovations.

To summarize, standard economics is founded on a real-exchange ontology, taking the economic system to be closed[9], relying on rational actors that are able to distinguish between real (core) and nominal (veil above) exchange relations. Such a system is self-stabilizing (validity of Say's and Walras' law) and gravitating towards a general equilibrium. At the epistemological level, axiomatic (referring to auxiliary assumptions) and methodical (referring to scope, methods, and perspectives) variations create an array of theories and models that—although sometimes superficially contradictory with respect to economic policy advice drawn from them, such as New Classical versus New Keynesian Macroeconomics, or with respect to purpose and substance, such as DSGE versus evolutionary modelling—are all commensurable and supplementary. *That is to say, any paradigmatic alternative to the standard exchange or market paradigm must be based on a different pre-analytic vision that, in its epistemological configuration, invalidates Say's and Walras' laws* (see also Hodgson 2019: 126).

4. Paradigmatic approaches to Keynes, Kałecki and Minsky

The three champions of Post Keynesian economics – John Maynard Keynes, Michal Kalecki, and Hyman P. Minsky – are commonly seen as united in opposing the standard economics described above and complementary in their different scopes and methods[10]. While Minsky is regarded as supplementing a business cycle perspective to Keynes's economics, merely foreshadowed in Chap. 22 of the *General Theory* based on financial structures, Kalecki's contribution and relevance are often seen as more substantial. He is not only credited with introducing the relevance of social conflict into Keynesian economics and thus emphasizing the importance of (functional) income distribution for the principle of effective demand – something which Keynes supposedly denied (Palley 2023). For some scholars, Kalecki's economics, based on imperfect markets, are better suited and more realistic to underpin a theoretical approach that puts demand constraints (as opposed to supply constraints in standard economics) at centre stage than Keynes's economics, which is allegedly still too much rooted in Marshallian microeconomics (Kaldor 1983: 15). Kalecki is, therefore, often taken as

[9] It remains unclear whether this characteristic is taken as an analytic a priori judgement by the proponents of the exchange or market paradigm or simply taken instrumentally in the sense that an open system is judged as inaccessible to thorough scientific inquiry (see e.g. Lucas 1981: 224, Samuelson 1969: 184f.).

[10] See e.g. among many others: Roncaglia (2013) for the Keynes-Kalecki-Minsky connection, Lawlor (1990), De Antoni (2010) for the Keynes-Minsky connection, Lavoie (2014: 45ff:9), for the Keynes-Kalecki connection and Minsky (2013) for the Kalecki-Minsky connection.

the 'better Keynes'. Still, others argue that Kalecki completely anticipated Keynes, while Mario Nuti (2004: 3) even insinuates that Keynes plagiarized Kalecki's 1933 paper on the business cycle, of which Keynes knew a German version but allegedly pretended not to be able to read. Kalecki, here, is portrayed as the proper founder of the new economics with which Keynes is inappropriately credited.

In the following, the substance of these claims will be investigated not from a history of thought perspective but from a paradigmatic point of view. The basis of all these claims is surely that Keynes's, Kalecki's, and Minsky's economics are all based on the same pre-analytic vision, probably showing some epistemological and/or methodical variations but still allowing the formation of a coherent whole and an alternative to standard economics. Different variants or strands, therefore, can best be used in a 'horses-for-courses' manner.

4.1 John Maynard Keynes's monetary production paradigm

It is commonly known that Keynes believed he had realized his ambitious goal of revolutionizing economics with the publication of his *General Theory*. However, it is less well-known whether Keynes was aware of what it meant to revolutionize an academic discipline[11], nor what exactly he believed were the revolutionary aspects of his new economics. By challenging Say's law—or its general equilibrium version as Walras' law[12], which was not established at the time of the publication of the *General Theory*[13] but according to Robert Clower (1965: 278) the refutation to be made if a scientific revolution is to be sparked—we know that he must have had a paradigm shift in mind. Yet, by accepting standard economics to be a special (full employment) case of his more general theory, he blurred paradigmatic boundaries[14].

For unknown reasons[15], Keynes revised the title and structure of his *General Theory* in the course of the years 1933 and 1934 several times. Up until the end of 1933, he planned to start the book, which was first named *The Monetary Theory of Employment* and then *The General Theory of Employment*, with chapters whose purpose was to outline the nature and characteristics of the economy he believed was not a real-exchange economy. When in mid-1934 the final version of the table of contents of *The General Theory of Employment, Interest, and Money* was completed, these chapters—of which drafts survived (Keynes 1973a, Keynes 1973b, 1973c)—were replaced by the chapters on the postulates of (neo-)classical economics and the principle of effective demand. Thus, instead of informing his readers about his ontological understanding of the economy "that we actually live to-day" (Keynes 1933: 78)—

[11] This is, of course, not surprising as the pioneering work on scientific revolutions by Thomas S. Kuhn was not published until 1962 – almost thirty years after Keynes's work on the *General Theory*.

[12] There are different versions of Say's and Walras' law. The relevant core of both laws lies in the fact that a 'general glut' in an economy based on exchange relations is strictly impossible and, therefore, an exchange economy can never be demand-constrained, but only supply-constrained (see Gale 1983: 17ff.).

[13] The first mentioning of ‚Walras law' is attributed to Oskar Lange in 1942; see Lange (1942).

[14] If standard (neoclassical) economics is merely a special case of the more general Keynesian economics, this would imply the commensurability of both approaches – which would be contradictory to a paradigm shift as a core feature of a scientific revolution involving incommensurability between both approaches. We do not know whether Keynes was simply unaware of this dilemma or accepted it for strategic reasons.

[15] However, there has been speculation about the reasons (see Tarshis 1989). Lima (1993) considers the most plausible speculation to be that Keynes changed his plans for strategic reasons, fearing his planned elucidations might be mistaken as a justification for a shift towards communism.

a monetary economy, money-wage or entrepreneur economy as distinct from the barter, real-exchange, or cooperative economy he believed standard economics was presupposing—he focused on the epistemological consequences of his new economics.

It seems fair to say that Keynes underrated the importance of disclosing the true nature—i.e., the ontology—of the economy he analysed in order to fully understand the paradigm shift he intended. However, acknowledging the emphasis Keynes put on fundamental uncertainty, the use of money not as a medium of exchange or store of value, but as the medium of deferred payments in which all contractual obligations are repayable, the liquidity premium on money as the determinant of the interest rate, and the mutability of economic development and progress, it does not seem like a bold claim to assume that he understood his subject of study as an *open system* which must be based, as Davidson repeatedly argued (see Davidson 1984, Davidson 2003/2004, Davidson 2009: 26ff.), on the core axioms of

1. Non-substitutability
2. Non-ergodicity
3. Monetary non-neutrality.

It has also been shown that such paradigmatic footing rejects Say's and Walras's law (see Heise 2017) and thus nullifies the postulates of self-regulation and general equilibrium. Although a position of general equilibrium may be conceivable in this 'monetary production paradigm'—regardless of whether this is a random outcome or was generated through economic policy intervention—this would no more render standard economics a special case of Keynesian economics than a certain coincidental constellation of stars that could be explained in both Ptolemaic and Copernican astronomy, making these two astronomic paradigms commensurable.

Of course, within the confines of a 'monetary production paradigm', many variations with respect to auxiliary assumptions could be generated in order to understand phenomena such as unemployment, inflation, income inequality, business cycles, financial market fragilities, and issues of international trade and capital flows. Is this where Michal Kalecki and Hyman P. Minsky come in?

4.2 **Michal Kałecki's social conflict paradigm**

Michal Kalecki was not a trained economist. It is said that the only economist he studied in the original during his years of economic self-education was Marx (see Turner 1989: 63), and his concentration on conflicting social relations and functional income distribution surely leans towards Marxian foundations. Being less entangled with standard economics than Keynes is sometimes taken as an advantage for Kalecki in breaking free from standard economic theorizing and its fixation on static equilibrium conditions (see e.g., Nuti 2004: 4f.). And despite—or rather, because of—this difference in perspective, Kalecki's demand-driven economics seem to be compatible with Keynes's economics and commensurable with Keynes's refutation of Say's and Walras' law as a cornerstone of a common Post Keynesian paradigm (see Hein 2015: 1).

Accepting that there are no traces in the published work of Kalecki that explicitly reveal the ontological foundations of the capitalist economy he studied, it is barely possible to directly

prove the commonly assumed kinship of Kalecki's and Keynes's economics under the umbrella of a Post Keynesian paradigm. However, acknowledging the irrelevance of fundamental uncertainty and the use of money as a medium of deferred payments and the denial of liquidity preference considerations in determining interest rates and asset prices in his theorizing (see e.g., Kriesler 1987, Kriesler 1997, Dymski 1996, Davidson 2000, Sawyer 2004), it becomes hard to cling to the idea that Kalecki's pre-analytic vision of a capitalist economy is that of an open system comprising the core axioms defining a 'monetary production paradigm'.

To the contrary, there is analytical evidence that Kalecki's pre-analytical vision must be incommensurable with Keynes's 'monetary production paradigm': firstly, his principle of effective demand—commonly seen as the one theoretical item that most surely brings the two Post Keynesian heroes together—is not rooted in *monetary analysis* but rests on his assumption of *imperfectly competitive markets*. Income and employment are demand-determined, but the lack of effective demand comprising consumption demand (primarily out of wage income) and investment spending (primarily out of profits) in order to explain unemployment is not rooted in the entrepreneurs' unwillingness to incur debt in the face of a liquidity preference among wealth-owners, which does not permit investment activity to reach full employment levels (as in Keynes's monetary production paradigm), but in the functional distribution of income determined by the *degree of monopolistic competition* on commodity and labour markets. Under conditions of imperfect commodity and labour markets, price-setting enterprises will reap extra profits, i.e., distort functional income distribution in capitalists' favour, which can be realised only when income (and employment) falls sufficiently:

> "the gross income (…) is pushed up to a point at which profits out of it, as determined by the 'distribution factors,' correspond to the level of investment (…). The role of the 'distribution factors' is thus to determine income or product on the basis of profits which are in turn determined by investment. (…) It follows directly that changes in the distribution of income occur not by way of a change in profits (…) but through a change in gross income or product (…). Imagine, for instance, that as a result of the increase in the degree of monopoly the relative share of profits in the gross income rises. Profits will remain unchanged because they continue to be determined by investment which depends on past investment decisions, but the real wages and salaries and the gross income or product will fall. The level of income or product will decline to the point at which the higher relative share of profits yields the same absolute level of profits" (Kalecki 1954: 61).

The argument is entirely made up in real terms (real wages, real profits[16]) and conforms to the results of standard monopoly theory predicting lower production (and output and income) and higher prices (and profits) as compared to a situation of perfect competition. Similarities to new-Keynesian models of imperfect competition are obvious (see e.g., Benassy 1995, Dixon/Rankin 1994, Chilosi 2004), nourishing the impression that Kalecki's economics share a

[16] Dalziel/Lavoie (2002: 334) believe this to be a major advantage over Keynes's monetary approach which argues in nominal terms.

common paradigmatic base with new-Keynesian economics (a variant of the mainstream exchange paradigm) rather than with Keynes's economics[17].

Secondly, Kalecki's emphasis on (functional) income distribution as a determinant of (lacking) effective demand rests on the assumption that (functional) income distribution is a matter of social conflict, i.e., that the relative power of the classes of owners of factors of production determines income distribution, income generation, employment, and, in fact, the laws of motion of a capitalist economy. Attributing, thus, social conflict a prominent role — 'deep cause' as Palley (2023) dubbed it, or a basic constituent of Kalecki's pre-analytic version in my terminology — certainly is not in line with Keynes's understanding of the role of social conflict and is incommensurable with a 'monetary production paradigm' (see Heise 2024): For Keynes, distributional conflict determines *personal* but not *functional* income distribution[18]. Only in an exchange or cooperative economy, he argues, can factor owners mutually negotiate (social conflict) their real remuneration and, thus, their share in real output, but not so in a monetary production economy[19]. The existing degree of freedom of the distributional system in a monetary production economy is closed by setting the interest rate as a liquidity premium on the most liquid asset—money—and the real wage will endogenously fall in line. The social (conflict) partners have no control over the *real wage rate*[20]. Any attempt to change functional income distribution by altering the nominal wage rate will change the price level (inflation rate) only. Thus, arguing for a social conflict theory of income distribution cannot be reconciled with a monetary production paradigm.

If Kalecki's economics is not to be rated as part of the mainstream exchange paradigm, social conflict as a basic constituent must have consequences at the ontological and epistemological levels that would clearly distinguish it from the exchange paradigm where social conflict is conceptualized as market-based competition. Palley (2023) argues that Kalecki's notion of social conflict is that of *'antagonistic conflict'*, which needs to be distinguished from *'non-antagonistic conflict'*. The real exchange paradigm—and for that matter, Keynes's monetary production paradigm—presupposes non-antagonistic conflicts of interest between capitalists and workers which can be mutually resolved within existing (capitalist or market economy) structures, while Kalecki's social conflict paradigm assumes—according to Palley—

[17] In personal communication, Alain Herscovici reminded me that Kalecki, much like Keynes, refutes the loanable funds theory, which sets him apart from the new-Keynesian approach. Although merely refuting a theoretical building block does not necessarily imply analytical incompatibility, the point I am trying to make here is not that I claim Kalecki to be new-Keynesian, but that his theorizing is paradigmatically closer to new-Keynesianism than to Keynes's economics.

[18] "Though the struggle over money-wages between individuals and groups is often believed to determine the general level of real wages, it is, in fact, concerned with a different object. (…) In other words, the struggle about money-wages primarily affects the distribution of the aggregate real wage between different labour-groups, and not its average amount per unit of employment, …" (Keynes 1936: 14)

[19] "I define a *barter economy* as one in which the factors of production are rewarded by dividing up in agreed proportions the actual output of their co-operative efforts" (Keynes 1979a: 66; italics in the original)."The third type, …, in which the entrepreneurs hire the factors for money without such a mechanism as the above, we will call a *money-wage* or *entrepreneur economy*" (Keynes 1979b: 78; italics in the original).

[20] "In assuming that the wage bargain determines the real wage the classical school have slipt in an illicit assumption. For there may be *no* method available to labour as a whole whereby it can bring the wage-goods equivalent of the general level of money-wages into conformity with the marginal disutility of the current volume of employment. There may exist no expedient by which labour as a whole can reduce its *real* wage to a given figure by making revised *money* bargains with the entrepreneurs" (Keynes 1936: 13).

antagonistic conflict which can only be overcome through structural changes of the system. Although Palley leaves the interested reader in the dark about what this distinction substantially means, we may refer to Jiri Kolaja (1968) who interprets non-antagonistic conflict game-theoretically as a *positive-sum engagement*, while antagonistic conflict refers to a *zero-sum game*[21]. On this ground, the pre-analytic vision of Kalecki's social conflict paradigm could be that of a *closed, zero-sum game system*. Whether and how this translates into an epistemological structure that analytically refutes Say's and Walras' law—a necessary condition to make the social conflict (as a zero-sum axiom) a truly 'deep cause' as distinct from being merely a 'surface cause' as in the mainstream real exchange paradigm and Keynes's monetary production paradigm—still waits to be demonstrated.

4.3 Hyman P. Minsky's 'Wall Street Paradigm'

Hyman P. Minsky's first major publication bore the title *John Maynard Keynes* (Minsky 1975) and was an attempt to re-emphasize Keynes's mission to revolutionise the economic discipline. He explicitly rejected the standard interpretation of the *General Theory* as presented by the ISLM model because it was not based on an open system ontology comprising the core axioms of non-substitutability, non-ergodicity, and non-neutrality of money. Moreover, he clearly rejected the two main postulates of mainstream economics of self-regulation and general equilibrium. In fact, Minsky's *financial instability hypothesis* can be seen as the counterpart to these postulates, being based on what he called the *'Wall Street paradigm'*, which he believed was what Keynes had in mind when he wrote the *General Theory*.

Therefore, there is little doubt that Minsky himself took his 'Wall Street paradigm' as the completion of Keynes's 'monetary production paradigm'[22], which he saw as still too much entangled with the mainstream exchange paradigm. Yet, can 'completion' be taken as 'extension' or 'supplementation', or must it rather be seen as another 'transformation' when the conclusion is sometimes drawn "that Minsky's differences with Keynes' are distinct and real" (Lawlor 1990: 448). Moreover, King (2002: 113) even brings Minsky in theoretical proximity to the new-Keynesians, which would include a paradigmatic renaissance of the exchange paradigm.

Although there are certainly differences in Keynes's monetary theory of investment and Minsky's financial theory of investment, particularly in their different emphasis on core determining factors (the interest rate in Keynes's perspective and the financial structure in Minsky's case), there is no doubt that both accepted nominal obligations as the main constituent of the economic relations that make up the capitalist economy they investigated (Minsky 2013: 99). However, as has repeatedly been pointed out, Keynes was most interested in "long term – and not cyclical – unemployment problems such as observed in the Great

[21] Palley added the distinction as a footnote to a later version of his paper referring to Professor James Devine without further source. Although, the source and a deeper meaning could not be verified, James Devine as in Reich/Devine (1981) surely dismisses the idea of social conflict being a zero-sum game even from a Marxian perspective (which most certainly was Kalecki's source).

[22] This is in stark contrast to Davidson's position that Minsky "was, and always wanted to be, a mainstream Keynesian who used the Modigliani variant of the IS-LM system and whose major distinction from other mainstream Keynesians was that he possessed knowledge of actual real-world financial markets" (Davidson 2003/2004: 252). Davidson's assessment surely does not rest on facts (see Lavoie 2020: 97).

Depressions over a decade in the 1930s, the lost decade of Japan in the 1990s, and the Great Recession beginning in 2007 that threatens perhaps a decade of worldwide unemployment" (Davidson 2015: 5), while Minsky's focus was on "the cyclical character of the capitalist process, and financial relations of an advanced capitalist economy" (Minsky 1975: ix). In other words, they differed in scope but not in their ontological approach[23].

The more dynamic outlook seems to connect Minsky's and Kalecki's economics: both centre around dynamic processes, not static positions. Moreover, Minsky himself appraised Kalecki's economics in a way as if his (and Keynes's) economics were compatible and supplementary to Kalecki's economics (Minsky 2013)—an appraisal that has been shared by many and led to a number of Kaleckian models comprising Minskian features of financial instability (see e.g., Charles 2008, Nishi 2012, Ryoo 2013, Stockhammer 2019). Unfortunately, none of these authors felt obliged to cope with the ontological and epistemological distinctions between Minsky's Wall Street paradigm, based on fundamental uncertainty and money as a medium of deferred payments bestowed with a liquidity premium, which any cash-flow from investment outlays must pay, and Kalecki's exchange or social conflict paradigm, ignoring such core characteristics. On the other hand, Palley (2010) stresses the lack of social conflict as a basic constituent in Minsky's Wall Street paradigm.

5. By way of conclusion: Keynes, Kalecki and Minsky – Post Keynesian bedfellow or paradigmatic antagonists?

The movement to pluralise the economic discipline faces the challenge of making informed decisions about which paradigm to adopt. Such decisions may be driven by various objectives, but they require a clear understanding of the core characteristics of each paradigm and the paradigmatic affiliation of different approaches, theories, or models. Once a paradigmatic choice has been made and a kinship between different theories or strands has been established, an approach that matches the right tool to the task at hand ('horses for courses') seems reasonable, allowing theories or strands to collaborate effectively ('joining forces'). However, if different theories belong to distinct paradigms, researchers must find a way to discriminate between them, and the subject matter alone cannot serve as the sole basis for such discrimination.

Commonly, the economics of John Maynard Keynes, Michal Kalecki, and Hyman P. Minsky are considered to belong to a unifying Post Keynesian paradigm, forming different strands that emphasise different scopes and methods. As Marc Lavoie (2014: 44) writes in his textbook on Post Keynesian economics: "One of the objectives (...) is to show that a synthesis of the various streams of post-Keynesian economics is possible." This would clearly imply that the different strands are commensurable and represent *extensions and supplementations of thought styles* in Ludwik Fleck's terminology, but also *though style transformations* with respect to

[23] Many of Minsky's broad ideas, most notably his financial instability hypothesis, took shape in the 1950s without much reference to Keynes's *General Theory* (see e.g., Lawlor 1990: 446). Lavoie (2020: 90ff.) claims that Minsky's perspective changed over the years, and some of his more mainstream analytical pieces still influence his later, more Keynesian work. However, regardless of these considerations, I am referring to the Minsky after his *John Maynard Keynes*, and I am not discussing potential flaws in his reasoning here.

mainstream (neoclassical) economics and its variants such as neo- or new Keynesianism and New Classical Macroeconomics.

Table 2: Economic paradigms and their features

	Minsky's economics	*Keynes's economics*	*Kalecki's economics*
Core constitutent(s) *(deep causes)*	Nominal obligations / Financial relations	Nominal obligations / Creditor-debtor relationships	Social conflict / Power relations
Further features *(surface causes)*	Exchange relations: temporal allocation	Exchange relations: temporal allocation	Exchange relations: Temporal allocation; market-based exploitation
	Social conflict: Impact on income distribution and financial structures	Social conflict: personal income distribution and industrial relations	Obligations: intertemporal exchange
Characteristic/ outcome	Open, positive-sum system • Unstable • Financially fragile • Re-inforcing	Open, positive-sum system • Sub-optimal (permanent unemployment); • Unstable • Stagnating • Rejection of Says's and Walras' law	Closed, zero-sum system • Exploitation (functional income distribution) • Unstable • Stagnating/ self-destructive
	Orientation: business cycles; financial relations; dynamic	Orientation: Social provisioning; unemployment; static	Orientation: Business cycle; Functional income distribution; dynamic
Paradigm	Wall Street paradigm	Monetary production paradigm	Social conflict paradigm

However, based on a hermeneutic comparison of the economics of Keynes, Kalecki, and Minsky, this very common assessment must be called into doubt: Although the ontological foundations of the economics of the three proponents are not explicitly spelled out and can therefore only be implicitly established, there is analytical evidence that allows us to paradigmatically separate Keynes's and Kalecki's economics (see Table 2): Kalecki not only takes a more dynamic perspective than Keynes, but his ontological foundation presupposes a closed system, which is incommensurable with Keynes's open system approach. Surely,

Kalecki is no ‘better Keynes’, and he is certainly not the more appropriate founder of the ‘Keynesian revolution’. Whether social conflict defines a ‘deep cause’ that really separates Kalecki’s economics from mainstream economics by refuting Say’s and Walras’ laws – and thus triggers a paradigm shift – is an open question. If answered negatively, Kalecki’s economics could merely be rated as a variant of the standard economic real exchange paradigm and would closely align with the new-Keynesian strand of imperfect competition. On the other hand, Minsky’s economics also takes as much a dynamic perspective as Kalecki’s economics, yet Minsky shares the open system ontology with Keynes, and thus his Wall Street paradigm is commensurable with Keynes’s monetary production paradigm. Hence, Keynes and Minsky make good bedfellows, whereas Keynes and Minsky on the one hand and Kalecki on the other hand surely do not form “a positive approach characterized by internal coherence” as Arestis (1996: 30) claimed.

As a result, attempts to produce models of the Kalecki-Minsky type are in vain because they are as incommensurable as Ptolemaic and Copernican astronomy. Indeed, the models that bear both Kalecki and Minsky in their names usually are derived from Kalecki’s economics, into which financial markets, debt structures, and asset prices are incorporated. The rationale for doing so is given by the assertion that “Minsky did not provide a baseline model for these mechanisms” and because “there is as yet no canonical Minsky model for the analysis of the interaction of demand and finance” (Stockhammer 2019: 181 and 182). However, the result cannot be a consistent model based on different pre-analytic visions, and referring to both Kalecki and Minsky would be highly misleading. Conversely, pairing Keynes and Minsky may indeed be plausible and constructive (see e.g. Heise 2023b) as they rest on commensurable paradigms, yet have different but complementary perspectives.

Claiming that Keynes’s and Minsky’s economics on the one hand and Kalecki’s economics on the other do not share a common paradigm does not provide any information about the superiority of one paradigm over the other; it rather suggests that unification under the portmanteau term ‘Post Keynesianism’ may be inaccurate.

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