(DIS)EQUILIBRIUM, UNCERTAINTY AND MONETARY ANALYSIS: AN ESSENTIAL DISCUSSION IN CONTEMPORARY ECONOMICS

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Introduction

The aim of this paper is to highlight the importance of developing new perspectives in economics by reference to theoretical approaches that have been somewhat neglected in the past. In the aftermath of the financial and economic crisis, insightful ideas need to be developed so to positively affect policy. The discussion centres on one of the pillars in economic theory, namely the concept of equilibrium. With reference to the literature, it is acknowledged that several definitions of this concept are available. Their relevance is considered for both theory and economic policy. Specifically, the paper refers to schools of thought - such as Post Keynesian economics (PK) and the Monetary Circuit Approach (MCA) – which stress the economic significance of money. Their arguments challenge “conventional” views on a competitive equilibrium in free markets as advocated by mainstream economists (also referred to as “orthodox”, “classical” or “neoclassical” economics by the scientific literature).

Post Keynesian economic theory can be seen as an attempt to rebuild economic theory from the point of view of John Maynard Keynes’s ideas. On the other hand, the Monetary Circuit Approach in economics pays attention to monetary payments and financial transactions. Thereby, it investigates how different access to money, financial resources and instruments influences the allocation of employment and income distribution among different economic actors. For simplicity, the above-mentioned schools of thought are consider jointly. Nevertheless, one should recognise that they are characterised by important internal differences: for instance, circuitists tend to reject uncertainty as the source of existence of money, namely one of Keynes’ strongest assertions. In the past decades, these approaches have not been very popular among academic economists. Lately, MCA economists have developed fruitful exchanges with Post Keynesians. Professional economists should be better acquainted with their endeavours. They are being discussed at a

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² PhD student at the University of Ljubljana, Slovenia, and student member of PKSG since 2010. Email: mitja.s@hotmail.it. I wish to dedicate this paper to The Bloody Beetroots and their beloved music: particularly for reminding me that as an economist I shall try to speak and think like contemporary poets do.
rather basic level, so to enable unacquainted readers to follow the discussion and – thereby – increase scholarly attention.

For instance, we investigate whether non-mainstream approaches such as PK and MCA apply the same definition of equilibrium as mainstream economics; or whether they provide an alternative definition of this concept. The inability of economic actors to operate within a solid economic equilibrium calls for an active role for policy-makers and to a reappraisal of the role of democratic states (Fitoussi, 2004). The probability to develop informed policies – essential to tackle the current crisis – increases significantly.

The paper is aimed at scholars interested in methodological issues and philosophical standpoints in economics. It is organised as follows: Sections 1 – 3 discuss the issue of compatibility in economic decisions and its influence on the hypothesis of market equilibrium. Essential improvements in the theory of market (dis)equilibrium are advocated. Section 4 explains the concepts of (dis)equilibrium and uncertainty from the point of view of monetary analysis. Finally, Section 5 concludes by providing an outline of the potential benefits for economic theory, policy, and economic culture.

1. The concept of “market equilibrium” in real analysis and in monetary analysis

How did the economic discipline change in the aftermath of the 2007-2008 financial crisis? According to scholars such as Akerlof & Shiller (2009), the recent financial and economic crisis, which has been triggered by the collapse of the subprime mortgage market, calls into question the principles of mainstream economics. Such principles belong primarily to the domain of real analysis. Several of its theoretical standpoints need to be re-discussed. So far, mainstream economics failed to account for the endemic sources of financial instability. Furthermore, it has been ineffective in providing adequate solutions to problems that became apparent during the crisis. A number of concerns arise from the causes and consequences of the crisis, particularly with respect to:

- the volatility of asset prices and returns on investments;
- the objectives of monetary policy;
- (assumed) welfare benefits of free markets;
- the causes of unemployment and policies aimed at tackling it.

On the one hand, complementary insights on competitive markets could be introduced by reference to cognitive psychology. They should help increasing our understanding of market economies and rise our awareness of their complexity. This idea dates back to Herbert Simon’s essay on ‘bounded rationality’, which proved to be influential for subsequent developments in cognitive and experimental economics (Simon, 1955; see also Motterlini and Guala, 2005). On the other hand, even by introducing insights from cognitive psychology or any related fields, the assumptions of mainstream economics – the efficient market hypothesis; assumed benefits from (largely) deregulated markets; the need to (fully) privatise the public sector – remain largely unchanged.
One fruitful way to advance knowledge and thereby upgrade economic policies is by focusing on the role of money. Following from Schumpeter (1954), scholarly investigation of market economies can be approached from a specific methodological perspective: that is, from the point of view of monetary analysis. It can be argued that the methodological approaches in mainstream economics often fail to fully acknowledge the role of money in market economies. In fact, the latter is conceived as a mere ‘good’ among several other goods and commodities. Arguably, such a good is ‘dematerialized’ and often ‘useless’. It is assumed that the key role of money is to prevent the drawbacks from barter (Menger (2005 [1892]). Indeed money makes a barter economy obsolete and ineffective.

The aim of this paper is to show that money is a multifaceted concept. As such, it cannot be defined as a good amongst others. Nor is the socio-economic role of money limited to replacing the system of barter or compensate for the unevenness typical of the latter. A set of arguments need to reappraise such a perspective by reference to the nature of money, its relatedness to economic value, and its role as a credit instrument. Money serves as the basis for the smooth functioning of competitive markets and allows the kind of contracts required by capitalist systems. A number of scholars made an attempt to elaborate alternative accounts on this argument and within the framework of a purely monetary analysis. In principle, their results contrast with mainstream economics. Nonetheless, the outcomes from such an endeavour are only partially successful. Their theoretical standpoints are somewhat similar to those in mainstream economics. Results do not differ significantly either. They tend to assume the basic equality between the supply side and the demand side in markets, which is advocated by real analysis.

1.1 Market equilibrium and the issue of stability

The debate on the efficiency of markets is related to the concept of equilibrium:

1. Advocates of alternative approaches often use the same definition of equilibrium as scholars in mainstream economics (for a discussion, refer to the Appendix). Mainstream economists consider supply as being determined by the maximization of profit together with endowments and technology. By contrast, monetary analysis stresses the idea according to which sales expectations are a crucial factor in economics. As noted by Jespersen (2009), this follows from Keynes’ s principle of “effective demand”.

2. Similarly, the stability of equilibrium is taken for granted. That is, the convergence of market economies towards an equilibrium is hardly ever unquestioned. As in mainstream economics, the above mentioned investigations are based on the idea that such a convergence sooner or later occurs: the possibility to compare different equilibria is assumed with confidence, provided that some changes in the parameters that determine them are accounted for.

However, as noted by Rochon & Rossi (2003, xxi), scholarly investigation on monetary analysis is supposed “not [to] gravitate towards any specific position of equilibrium”. Most importantly, the way in which equilibrium is defined at the outset, influences each subsequent result from scholarly research. On the one hand, mainstream economics tends to highlight the role of price variations with reference to the so-called law of supply and demand: if the (aggregate) demand of a given market exceeds the (aggregate) supply, then market prices tend to decrease. Such a balancing mechanism leads to the equality between demand and supply. On the other hand, advocates of
monetary analysis insist on stressing the importance of quantitative adjustments (ibid.). Generally, the stability of equilibrium is considered as an essential prerequisite in analysis.

In order to improve economic theory and policy, one should start by asking whether the principles of non-mainstream economics and the definition of equilibrium are consistent with the methodology on which real analysis is developed. Otherwise stated, one should investigate whether a monetary analysis approach is successful in providing useful alternative descriptions of equilibrium. What are the resulting economic policies? What are their advantages and how do they translate into economic and social benefits? An attempt should be made to appraise the issue of equilibrium stability with reference to a monetary framework as well as to the structure of market economies: monetary problems and shortcomings in banking often “lie within the institutional structure” (Dowd & Timberlake, 1998, 1).

The present inquiry is multifaceted and can be summarised by the following arguments:

- The definition of equilibrium stems from the very etymological property of the concept of a “market economy” – namely, the decentralisation of decision-making processes by economic actors.
- In principle, equilibrium refers to the situation in which decisions and choices of economic actors are mutually compatible.
- Each theoretical framework provides a specific definition of equilibrium, according to its theoretical assumptions and conceptual frameworks.
- The equality between supply and demand is a generalisation of rather complex economic laws.
- Mainstream economics pertains to the domain of real analysis. The latter is influenced by the assumed properties of “goods” – let them be (a) private goods, (b) public goods, or (c) externalities. Despite being largely driven by empirics, it cannot claim for full objectivity of results.
- By contrast, money and its multifaceted properties serve as the starting point for a monetary analysis. This perspective suggests an insightful definition of equilibrium.

A focus on money is specific to both PK (Post Keynesian economics – not to be mistaken with the New Keynesian economics!) and MCA. However, it is not their sole distinctive feature: other ideas distinguish both schools of thought from other approaches in economics. The second task of this paper is to bring forward a fundamental definition of (dis)equilibrium by reference to the idea of uncertainty in economics. The latter is crucial, for instance, in PK economics. This point helps shedding light on two interesting arguments which refer to the concept of disequilibrium. Namely:

- Disequilibrium – rather than equilibrium – is “normal” to market economies. Because of fundamental uncertainty in markets, firms’ goals and expectations are never completely fulfilled.
- Economic stability cannot be compatible with any type of disequilibrium. A crucial task for economists is to list stable equilibria and separate them from those disequilibria that may impair economic stability.
“Viability” is – in this respect – the concept used to explain economic stability. Viability encourages one to (re)appraise the foundations of economic stability with respect to disequilibrium.

2. Equilibrium as the result of compatibility in decision-making

As noted by Milgate, “equilibrium (…) became the central organising category around which economic theory was to be constructed. It is crucial that the formal introduction of the concept into economics is associated with scholars whose names are closely connected with the foundation of economic science” (Milgate, 1988, 180). There is no single definition of such a concept. Therefore, the issue of (dis)equilibrium can be approached from different methodological standpoints.

An insightful definition of equilibrium stems from the essential property of any market economy – namely, the segmentation of markets and the “individualisation” of economic actors (namely, entrepreneurs, managers, buyers, consumers, and ordinary citizens). Markets result in being increasingly complex. To acknowledge for the heterogeneity of economic actors, economists simply add the adjective “competitive” to the concept of “equilibrium”. In the next section, an attempt is made to show that the equality between the supply and demand curves must be viewed as a distinctive trait in the definition of competitive equilibrium from the point of view of real analysis. By contrast, advocates of monetary analysis should try to elaborate alternative views in order to both achieve theoretical advancement and provide guidelines for effective policies.

The concept of individualisation refers to the fact that economic actors often lack appropriate coordination when deciding on production, services, consumption, and financial transactions (Benetti & Cartelier, 1980; De Vroey, 1987). Within “primitive”, feudal or planned economies, factors such values, social norms and principles of justice shaped the decisions of economic actors. These factors were themselves influenced by the state, religions, customs and traditions. If such factors were able to determine the decisions of economic actors, they had a significant influence on decisions with respect to production, the quantities, the raw materials, exchange and transactions between different firms. Economic actors were ex ante influenced on their decision-making: this can be seen as a significant limit to past economic organisations (Polanyi et al., 1957).

Advanced market economies do not work that way. Economic choices or preferences are being made independently and on an individual basis – that is, they are “disembedded” from the state, religions and traditions (Polanyi, 1944). As argued by Hahn, “[agents] are not guided by the social good, nor is there an overall plan in the unfolding of which they have pre-assigned roles” (1984 [1981], 209). Nonetheless institutions and conventions (including money) act as important stabilisers of individual behaviour. A lack in coordination among economic actors implies a set of shared norms and the ability to fruitfully cooperate. Also, competition and some degree of regulation are assumed to coordinate the endeavours of economic operators in the market.

Following Benetti & Cartelier, one may argue that “in its more general meaning, market serves as a “means of coordination between individual [decisions]. The peculiarity is that (…) individuals do not know the state of the economy in which they are acting” (2001, 204). Also, let us remark that Keynes' principle of effective demand is a straightforward example of such an increasing individualisation (Keynes, 1936): entrepreneurs have to forecast market demand and plan their sales (the D curve) independently and under competition. They cannot assume that each potential customer will purchase their final products or services. Although advancements in marketing
techniques help in making more-or-less reliable forecasts, entrepreneurs in principle lack coordination with customers, not to say with competitors.

Since economic actors in advanced economies act independently and within institutional settings, they cannot observe, to a large extent, what the others’ decisions are. They are unable to assess whether their forecasts are sensible. Consequently, one cannot predict whether decisions, market strategies and policies of different actors (firms, financial intermediaries, customers) will be mutually compatible and, thus, beneficial. Ex ante coordination means that economic actors plan their policies in advance, so to ensure the mutual compatibility of their decisions and preferences. Trust among economic actors, institutions and conventions at the social level are thus essential.

An example can help to support such a conclusion. Let us focus on a given firm – firm \( F_1 \), which produces a given product \( P \) in quantity \( Q \). Its development policy can be either compatible or incompatible with the policies and business strategies of other firms \( [F_2, F_3, \ldots, F_n] \) and/or the actual needs of households. Problems arise when customers either lack purchasing power or do not need to consume all the amount of the goods sold on the market. As a result:

- Firm \( F_1 \) faces the problem of unsold stocks, and may run into deficit due to a lack of market demand for product \( P \).
- This may eventually force banks to restrict loans granted to firm \( F_1 \), as its credit worthiness is being (more-or-less) gradually eroded.
- Eventually, bankruptcy of firm \( F_1 \) ends up with the dismissal of workers and employees. Thus, there is a subsequent rise of unemployment.
- In the worst-case scenario, bankruptcy of firm \( F_1 \) can have negative spillovers on the market.

To sum up, if decision by a given firm – say, \( F_1 \) – in terms of production are incompatible with customer expectations and market trends, poor results from business may lead to credit restriction, reduction of production, a rise in unemployment, and – most likely – to an uneven distribution of wealth. When such problems apply to a large number of firms or are widespread within a specific market segment, it means that the level of credit restriction, the reduction of production, and the subsequent rise of unemployment occur at the point at which the normal functioning of market is eventually impaired (De Vroey, 1987).

Generally, mainstream economic theory assumes that market forces ensure the coordination of decentralised decisions by economic actors. Free markets tend towards equilibrium through the price mechanism and similar balancing forces. For example, Adam Smith’s (1776) well known “invisible hand” - lately replaced by the “invisible hand of management” (Chandler, 1977)” - is such a coordinating mechanism: decisions are compatible, provided that economic actors substantiate their decisions according to their self-interests. Arguably, equilibrium in the market is set up naturally (for a critical discussion, refer to Roncaglia, 2005).

Since James Steuart at least, equilibrium is viewed as the formal expression of some process, more or less regular in its operation, which ensures the compatibility of decisions (Milgate, 1988). Whether market efficiency is achieved in the short- or long-run is of secondary importance. Interestingly enough, such a view seems to support the idea that state involvement in the economy may decrease market efficiency: markets and business have to be left unregulated by the state and public authorities. The absence of regulation paves the way to the situation where a “balance
of [market] forces” leads to a “peaceful coexistence” and the efficiency in markets (Machlup, 1970; Cartelier, 1991; see also: Konzelmann et al., 2010). Does such an argument hold in the aftermath of the financial crisis?

3. The ongoing debate on equilibrium: the equality between supply and demand in mainstream economics

In this section, an attempt is made to evaluate the principal definition of equilibrium in mainstream economics, which is influenced by a set of theoretical assumptions. For instance, the equality between supply and demand is nothing but a generalisation of complex economic processes and dynamics that develop in time. As such, it should be questioned by alternative approaches such as PK and MCA. Any “third way” between mainstream and non-mainstream approaches in economics could also prove to be insightful and valuable for policy-making.

In order to be beneficial, novelty needs to develop from a solid basis. To this purpose, it is useful to recall the starting point of any analysis in mainstream economics, namely, goods and commodities (where services can be defined as “immaterial goods”):

- Consumers maximise their utility by choosing between different goods for consumption as well as a variety of services.
- Producers maximise their profit with respect to production functions.
- Goods figure as the main parameters for analysis in economics.
- Labour itself is defined as a “good”, and is appraised within the production function.
- Transactions always involve the exchange of goods (say, good D [designer shoes] for good M [money]).
- Indeed, in mainstream economics money is referred to as a good; arguably, it helps to make exchange less cumbersome.

Also, in mainstream economics, decision-making reflects primarily available goods and marketable commodities. As observed by Debreu, any decision is “a specification for each commodity of the quantity that [any agent] will make available or that he [she] will be made available to him [her]” (1959, 32). Supply and demand curves must match for decisions to be mutually compatible. Conversely, when suppliers provide more outputs than what is actually required for consumption, the supply of a good is higher than its demand; the amount of unsold stock shows that – under such circumstances – supply does not match demand. On the other hand, when suppliers provide less products or services than what is demanded by the consumers, the supply is lower than the demand. Unsatisfied needs stand as an example of the fact that supply decisions do not (always) match demand.

These examples can be somewhat generalised: in fact, by observing the multifaceted economic reality, one may note that true equilibrium is hardly ever reached in practice. For equilibrium to occur, the supply function must be neither higher nor lower with respect to the demand function: supply and demand must be precisely equal. Here, one can refer to Arrow & Hahn: “market equilibrium is concerned with the compatibility of the decisions of the different firms and households, and therefore we are interested in the difference between the demand for a good and its total supply” (1971, 19).
Schools of thought such as PK and MCA should aim at providing a different explanation in order to bring forward a more substantial understanding of equilibrium. Instead of focusing simply on goods, their analysis pays particular attention to money. Money – from the Latin word “moneta” – is often referred to as a symbol. It is considered as an endogenous variable for analytical purposes. It can be suggested that within the framework of monetary analysis, the following definition of equilibrium is particularly fruitful:

Equilibrium is the fulfilment of firms’ expectations with respect to monetary circulation.

4. Equilibrium as the fulfilment of firms’ expectations with respect to monetary circulation

Lately, several economists have proved unable to recognise the multifaceted relatedness of the real economy to financial markets, financial assets, and rather complex processes of decision-making. Is monetary analysis essential to fill such a gap and prevent ineffective policy-making? Schumpeter (1996, 49) argued that monetary analysis “spells denial of the proposition that (...) the element of money is of secondary importance in the explanation of the economic process of reality” (1983 [1954], 390). As Davidson puts it, “money matters in the long and short run, i.e. money is not neutral, it affects real decision-making”.

PK and MCA focus on monetary economy rather than on the “real” side of the economy – that is, on commodities. This does not mean that goods are excluded from PK and MCA. Nonetheless, it is impossible to properly account for goods and services without acknowledging the specifics of money, for example its relatedness to the fluctuations of prices.

In other words, money cannot be defined as a mere good. Nor it can be correctly evaluated by reference to ordinary goods. PK and MCA deal with money in different ways (Rochon, 2003). Properties specific to money are highlighted – more or less implicitly – by most approaches developed by PK and MCA. Other properties are added to the basic ones and just help to provide further theoretical insights. Money stands as mobilising property as collateral for debt and as a store of value in a world of uncertainties. In addition to that money can be defined both as a unit of account and a means of payment. Or, to refer to Keynes’s insightful Treatise of Money, as “money of account” and “money proper” (Keynes, 1971 [1930]; see also Graziani, 1996):

- **As a unit of account** – euro, peso, dollar, and so on – money allows economic magnitudes such as prices, wages, and taxes to be calculated. No “real” magnitudes are expressed in terms of utility or calculated only in terms of labour costs. There only exist monetary magnitudes (Parguez, 1996).

- **As a means of payment**, money consists in bank debts transferred to economic actors in order to execute financial transactions. To provide an example, when the price of a good G amounts to £x, the sale (and related purchase) is executed by a bank transfer from the customer to the supplier. Similarly, when a wage amounts to £y, the cost of labour is executed by the transfer of a £y bank debt from – say – firm F to household H. Finally, when a tax amounts to £z, the taxpayer must transfer a £z bank debt to the state. These transactions – payments, and bank debts – provide essential means for markets to operate efficiently (Parguez & Seccareccia, 2000).

From such a point of view, money influences market choices, business policies, and the general framework for economic decision-making. Money essentially determines the framework within
which the economy operates. What happens to the *decentralised* decisions of economic actors? This question is particularly insightful. Within a monetary economy, any decision to consume, invest, or produce is made effective by a payment (which necessarily involves a unit of account). The idea that decisions involve payments contrasts with mainstream views in economics, which are based on the assumption that decisions refer to goods rather than to payment mechanisms.

Firms are central to any advanced entrepreneurial activity (Schumpeter, 1991a [1946]; Graziani, 1990). In order to be able to acknowledge the fact that financial decisions are planned and mutually compatible, one can focus on a given firm – say, firm F – and how it operates. The latter either produces or provides services in order to earn profit. In competitive markets, profit is a prerequisite for firms to operate in the long-run. While planning its production, firm F cannot predict whether its products will be sold entirely or only partially. Production involves intermediary goods, as well as capital, investments and the labour force with related costs. When assessing the profitability of investments, firm F assumes from the very beginning the ability to sell its products/services through different marketing channels:

- to households and individual customers in case of consumption goods;
- to firms in case of intermediary goods and financial services.

The difference between the expected income and planned costs sums up to the expected profit:

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(\text{expected})\ income - (\text{planned})\ costs = (\text{expected})\ profit
\]

Therefore, for decisions to be effectively sensible, households and private firms have to plan their payments so to match profitability requirements. Decisions are mutually compatible when an adjustment occurs between the expected monetary flows and the effective ones (Barrère, 1990).

At this point, it is useful to discuss the concept of *disequilibrium*. This concept suggests that planned financial and economic goals are not achieved by each single firm in the market. Firms may be more or less successful in competing in the market. For instance, some firms make wrong forecasts or unrealistic expectations with respect to monetary circulation. The resulting definition of equilibrium – or disequilibrium, if you prefer – contrasts with some of the arguments in mainstream economics: equilibrium can no longer be defined as the straightforward equality between supply and demand. One could argue that the fulfilment of firms’ expectations with respect to monetary circulation implies that firms sell their output up to the extent “demanded” by customers (Dutt, 1991-2). However, this conclusion is potentially misleading.

A new definition of equilibrium cannot be advocated unless the importance of the banking system and – more generally – of financial markets, is fully recognised. These markets provide essential means of payment and grant credit as well as investment opportunities to economic actors (first of all firms). For instance, the credit policy of banks is an important tool for securing equilibrium. Furthermore, the credit policy of single banks cannot be appraised unless the monetary policy of Central banks is taken into account; the amount of credit granted by banks to the market depends on whether the latter is more or less restrictive (Parguez, 1985; Ülgen, 1995; Deleplace, 1996).

5. Uncertainty and lack of equilibrium: foundations of disequilibrium economics
In the previous section, equilibrium has been defined as the fulfilment of firms’ goals with respect to monetary circulation. One can safely assume that several benefits result from an in-depth appraisal of the role of money. The emphasis on money and financial transactions is not the sole feature that distinguishes PK and MCA from other theoretical approaches in economics and financial theory. Another concept, crucial for PK economics, deserves particular attention. Namely, the concept of uncertainty, which is useful in demonstrating that the economy often operates under disequilibrium.

Uncertainty refers to a situation in which “we largely ignore the prospect of future changes about the actual character of which we know nothing” (Keynes, 1937, 214). Whereas mainstream economics describes the future by means of a finite number of mutually exclusive states with related probabilities – or individual perceptions of these probabilities –, uncertainty entails that “there is no scientific basis on which to form any calculable probability whatsoever. We simply do not know” (ibid., 214). Uncertainty can be thought of as the rejection of the ergodicity hypothesis, namely, “to presume a universe of discoverable regularities which can be expected to continue into the future” (Davidson, 1991, 142; see also Davidson, 2009).

Economic dynamics are not subject to some mechanistic determinism or to some persistent natural laws, but rather to an “evolutionary process” (Schumpeter, 1991b [1947]), a “transformational growth”. Indeed, growth permanently alters consumption patterns, the organisation of production, technology and institutions (Nell, 1998). For this reason, “no expenditure of current resources on analysing past data or current market signals can provide reliable statistical or intuitive clues regarding future prospects” (Davidson, 1991, 130). A theoretical framework accounting for uncertainty provides scholars with essential tools to study disequilibrium as the “normal” state of the economy.

Disequilibrium is endemic to market economies: since “there is no prior coordination, failures are commonplace” (De Vroey, 1987, 788). By reference to the idea of “market forces”, past experience of market failures is assumed to lead economic actors to adjust their decisions and to revise the level of expected profit, so that firms’ expectations with respect to monetary circulation can be fulfilled (at least in the long-run). As a result, improvements seem to take place. It appears as if, from an unstable situation, the economy finally moves to equilibrium.

However, to properly acknowledge for uncertainty means to recognise the fact that full equilibrium is only temporary. It is rather exceptional, not to say often impossible in practice. Monetary circulation does not follow a uniform pattern through time when the economy is subject to changes with respect to a “transformational growth”. Instead, due to the evolutionary nature of the economic process, monetary circulation is subject to constant “structural breaks”. Although firms can rely on past experience from their participation to monetary circulation, such knowledge is of little help when it comes to achieving financial-economic goals and matching expectations. The economy essentially moves from a disequilibrium situation to another disequilibrium situation, without necessarily reaching proper equilibrium.

Disequilibrium cannot be conceived in terms of a transitory situation which gradually develops into equilibrium. PK and MCA can be therefore defined as theoretical approaches which centre on disequilibrium dynamics in competitive markets. Any model developed by scholars in PK or MCA based on the conventional idea of equilibrium is thus potentially misleading. From the perspective of monetary analysis, the economy cannot be properly understood unless disequilibrium dynamics are taken into account. As Deleplace & Nell put it, “neither equilibrium nor conventional stability concepts are very helpful for understanding how the economy works” (1996, 16-17; see also Nell, 1998).
Furthermore, monetary circulation heavily relies upon the banking system: banks secure means of payments and grant credit and loans to firms, households and individuals. The fact that a bank provides means of payment to a firm implies that the former endorses the validity of the expectations made by the latter (Parguez, 1985). If expectations are not fulfilled, then the firm benefits from less payments than expected. Such source of disequilibrium may entail the inability of the firm to reimburse its loans. Incentives for the bank to provide the firm with the means of payment lower significantly as the creditworthiness of the firm is being eroded. If such problems apply to a large number of firms, the economy necessarily faces the problem of a crisis.

It is important to distinguish between different disequilibria and find out which conditions allow disequilibrium to be compatible with financial and economic stability. This field of research remains largely unexplored. The disequilibrium dynamics of the economy remain unexplored likewise. Since PK and MCA can be thought of as disequilibrium economics, they are useful for clearly defining the foundations of economic stability with respect to disequilibrium. For this reason, we argue that a sound framework for discussing the foundations of disequilibrium economics is essential and needs to be further improved.

6. Conclusion: insights for theory and policy

One of the main goals of economists is to provide guidance on policies for increasing profit, create jobs, and thereby promote well-being and pave the way to a prosperous society. If we managed to stimulate some modest scholarly debate, the goals of this paper have been successfully achieved. If we managed to provide some insightful and useful ideas for affecting policy, we achieved more than what we hoped.

At the beginning of the paper, we posed the following question: do Post Keynesian economics (PK) and the Monetary Circuit Approach (MCA) apply the same definition of equilibrium as mainstream economics, namely, the equality between supply and demand? We defined equilibrium as the compatibility of economic decisions being made individually and independently. The aim was to stimulate the reader in challenging the assumed equality between market demand and supply, which is often taken for granted. As PK and MCA both focus on money, a number of useful definitions of equilibrium can be developed by reference to the fulfilment of firms’ expectations and with respect to monetary circulation.

Afterwards, we discussed the concept of uncertainty in economics. We argued that it may be useful to think of disequilibrium as the normal framework under which the economy operates. By acknowledging for the complexity of contemporary markets, we investigated the foundations of economic stability, particularly with reference to the concept of disequilibrium. This field of research needs to be investigated further, and shall be included in academic curricula: economists should be encouraged to develop new insights on economic dynamics which are currently left unaccounted for. Advancement in economic theory could possibly translate into successful economic policies. It is precisely by reference to policy-making that we wish to end this paper.

During the three decades before the 2007-2008 financial crisis, mainstream economists, policymakers and their advisors have insisted that: (1) both government regulations of markets and large public spending policies cause economic problems; and (2) limiting large governments and freeing markets provides the best solution to economic problems (Davidson, 2009). These ideas need to be assessed critically. Arguably, some of the assumptions on market efficiency and on
competitive markets shall be re-discussed: far more attention needs to be given to the causes of market failures, therefore to the disequilibrium dynamics that appear to be endemic to competitive markets. Implications from a better recognition of disequilibrium dynamics and the influence of uncertainty on economic decisions are far-reaching. They are relevant to economic theory, economic policy, and a sophisticated economic culture:

- Disequilibrium dynamics in market economies call for a sound regulation of the market. Such debate should centre on the quality of regulation rather than on the number of (new) rules to put in place. Specific supervision of different market segments is essential to prevent market failures which may result from market disequilibrium and endogenous instability.

- The concept of disequilibrium stresses the importance of cooperation among economic actors. It is important to stress cooperative principles to promote a sound cooperative culture. It can be safely assumed that market competition can be replaced by cooperation whenever the latter secures higher benefits – that is, whenever economic and social gains from cooperation are higher or equal to those from competition.

- It is essential to appraise the role of money in competitive markets and of the institutions that are involved in money supply and financial transactions, such as banks and financial intermediaries. The importance of banks stems from their role in the “creation, circulation and credibility-maintenance of money as a capitalist institution” (Ramskogler, 2011, 73)

- The argument that the market may effectively operate unregulated or under a policy of self-regulation, is questioned. It is useful to provide an in-depth analysis of how democracy, the state, and the market may positively influence each other (Fitoussi, 2004).

- The relationship between the market and the state shall be re-discussed. The role of the democratic state and of enlightened policy-makers for the development of economic policies shall not be underestimated.

- Policies informed by “non-mainstream” approaches may be particularly useful for addressing problems resulting from the recent financial crisis and for replacing ineffective policies from the past. In policy-making, they shall be approached pragmatically in order to provide real benefits.

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APPENDIX: Selected studies in non-mainstream economics influenced by the mainstream definition of equilibrium

Such influence is apparent in some studies in economic modelling. For instance, within the “benchmark” of stock-flow consistent models elaborated by Dos Santos & Zezza (2007), there is a “short period” equality between supply and demand on the commodity market, as well as on the financial market. Likewise, Lavoie & Godley (2001-02) as well as Van Treeck (2009) refer to both equalities. The same applies to Bossone (2003) who puts forward an “illustrative model” for a specific monetary analysis, namely, the monetary circuit approach (see Graziani, 2003). The equality between supply and demand is implicit in a study by Dutt which focuses on the relationship between technological change and growth (Dutt, 2005), and between income distribution, consumer debt and growth (Dutt, 2006). The increasing ability of shareholders to influence management decisions and its effect on investment and profit are discussed by Stockhammer (2005-6) within a model which takes the above equality into account. Similarly, Hein investigates the integration of debt and interest payments within a Kaleckian distribution and growth model (Hein, 2006); and the macroeconomic effects of the increasing role of financial markets within the economy (Hein, 2009). A similar investigation is undertaken by Skott & Ryoo (2008): the equality between supply and demand serves as the standpoint for their model. Finally, the same applies to Godley & Lavoie (2007), wherein the equality in the long run is again taken for granted.

References


Dowd and Timberlake (1998)


