Is There an Endogenous Tendency towards Equilibrium in Economic Systems? Business Cycles and Crises in the Modern Economic Thought

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Abstract

This paper critically examines the models of economic crises and business cycles devised by leading economists from the nineteenth century to the present day in the light of the current reflections on the limits of the so-called 'mainstream' theory. To this end, the article analyses the point of view of the classical authors (J.B. Say, Ricardo, Malthus and Sismondi) and the first analyses of crises in terms of business cycles (Tooke, Juglar, Jevons). It discusses then Tugan-Baranovsky and Arthur Spiethoff models, Wesley C. Mitchell contribution and the monetary explanations of the cycles during the 1920s (R.G. Hawtrey and Irving Fisher). It then examines the main interpretative models of cycles and crises during the 1930s: L. Mises and F. Hayek models, Irving Fisher's Debt-deflation theory and Keynes contribution. The econometric approach of Frisch and Tinbergen and the 'real business cycles' model are then presented, as well as the 'heterodox' approach of Hyman Minsky.

A main interpretative line of this paper is to maintain that, in spite of its complex taxonomy, modern analysis on business cycles and crises draws inspiration from two distinct methodological approaches that reflect radically different visions of how market economies actually work.

The 'majority' view is the one shared by most marginalist and neoclassical authors and by the 'New Classical Economists'. According to them, economic systems are intrinsically stable and tend to converge towards equilibrium. Fluctuations are caused by exogenous shocks bound to be reabsorbed quickly.

Contrary to this view, two research approaches are identified having in common a marked attention to the institutional context. On the one hand, the contributions of

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Schumpeter and, to some extent, Mitchell who shared the belief that fluctuations should be studied with reference to a specific historical context. On the other hand, the analysis of J.M. Keynes and H. Minsky who believe that economic systems are potentially unstable, full employment cannot be taken for granted and appropriate policy measures are needed.

Keywords: business cycles, crises, Say's Law, Hyman Minsky, Wesley C. Mitchell, New Classical Economics, real business cycles **JEL:** B3, N1, B41

Introduction²

A crucial issue permeating modern economic thought is, without doubt, the analysis of the nature and causes of economic crises and recessions and of the possibility of mitigating their effects by means of economic policy measures.

Starting from the mid-nineteenth century, the reflection on this topic has been carried out mainly within the framework of business cycles models.³ The notion of cycle (which can be identified as a rhetorical device and more precisely as a metaphor)⁴ originates from the natural sciences and evokes the periodical recurrence of fluctuations in economic systems. In several authors, however, it also implies the hypothesis of an endogenous tendency of the economy to converge towards equilibrium once struck by an exogenous shock.

We will focus on this point later. The aim here is certainly not to analyse exhaustively the complex taxonomy of the models on crisis and cycle devised by the economists from the nineteenth century to the present day but rather to outline a few fundamental interpretative lines, in the light of the current reflection on the limits of the so-called 'mainstream' theoretical models to provide an answer to the complex problems posed by the recent 'great recession'.

The Classical and Neoclassical approaches to crises and business cycles

It is a fact that in the writings of the authors of the classical school, the dominant paradigm in the first half of the nineteenth century, the analysis of 'commercial crises' or *gluts*, as the crises to which the production system⁵ was periodically subjected were then defined, was perceived as an issue of minor relevance, or even external to the core

² I wish to thank two anonymous referees for their comments. The usual disclaimer applies.

³ The term "cycle" with reference to economic activity (in this case agriculture) is said to have been used for the first time by William Petty in a work published in 1662 (cf. Schumpeter, 1992: 742).

⁴ On the role of metaphors in economic analysis cf. McCloskey (1983, and 1985).

⁵ For a comprehensive analysis of the terminology adopted from the XVIII century to define fluctuations in economic activity cf. Besomi (2012).

of economic theory⁶. In this context, the theory that constrained the analysis of the most authoritative economists of the time, *in primis* David Ricardo, and which, with minor adjustments, also influenced the marginalist and neoclassical thought up to Keynes, was indeed the 'Say's law'. According to it, supply creates its own demand, since an increase in production originates by definition the income with which the new goods available on the market can be purchased (Say, 1855 [1828-29]: 258)⁷. Not all the income received by the workers and owners of capital is of course consumed: a fraction is saved. According to J.B. Say and the classical authors, however, the latter was bound to become, by definition, productive investment. Overall demand could not therefore be insufficient: phenomena of general overproduction were excluded *a priori* and crises were necessarily partial or sectoral. A crucial aspect to bear in mind on this point is that Say's law is expressed in real terms: contrary to the mercantilists, the classical writers firmly believed that what happened on the financial and money markets was in fact irrelevant. Money was a 'veil', a pure medium of exchange which, as such, was not capable of modifying the driving forces of the economy.

Having said that, Schumpeter wrote in his *History of Economic Analysis*, even the most orthodox economist could not avoid observing that the economies in Europe and North America were periodically hit by crises (it suffices to mention here those that occurred in the years 1815-16, 1836-39 and 1847-48) and that indeed an explanation had to be given for those frequent alterations in productive activity, as a consequence of which the same goods that were contended by traders during the previous quarter or year, the following quarter cluttered unsold docks and warehouses (Schumpeter, 1992: 738).

And indeed, in the 'underworld of heretics', to use Keynes's expression, as well as among members of the classical paradigm, there was no lack of criticism of the Say's law. In his *Principles of Political Economy*, Malthus wrote on this point: "This doctrine [Say's law], to the extent in which it has been applied, appears to me utterly unfounded and completely to contradict the great principles which regulate supply and demand" (Malthus, 1989: 353).

In the same work, however, Malthus, while pointing out that high levels of savings and accumulation could trigger an unsustainable dynamic process and that, in particular, economic systems were characterized by an intrinsic tendency to underconsumption, did not question the identity between savings and investment, i.e. the analytical cornerstone of the Say's law.

⁶ "From Adam Smith to Mill", wrote W.C. Mitchell, "the classical masters have paid but incidental attention to the rhythmical oscillations of trade in their systematic treatises. They have been concerned primarily to elucidate principles which 'hold in the long run' or apply to the 'normal state'. To them crises and depressions have been of secondary interest – proper subjects for special study or occasional reference, but not among the central problems of economic theory" (Mitchell, 1927: 3-4; cf. also Kuznets, 1930: 382-383; Kyun, 1988: 22).

⁷ The starting point of Say's analysis is, as we know, a postulate of non-satisfaction: demand interpreted as the will to consume is considered by definition unlimited. The only constraint can therefore be given by the availability of resources through which the individuals are able to purchase goods. These, in turn, originate from the sale of other goods on the market or from income deriving from individuals' participation to the productive process.

Another tenacious critic of the Say's law was the historian and economist Simonde de Sismondi. In his *Noveaux principes d*'économie *politique* published in 1819, he analysed the problem of technological unemployment created by the introduction of capital intensive production techniques and the consequences that this had on aggregate demand. Furthermore, he stressed the fact that whilst additional production did indeed create new purchasing power, there was no guarantee, *ex-ante*, that the goods produced reflected the tastes of the various classes of income earners. The most likely outcome, on the contrary, was that substantial forecasting errors would occur.

Significant as it was, even Sismondi's hypothesis was not able, in itself, to refute the validity of Say's law. During the nineteenth century the first to point out a crucial weakness of Say's doctrine were John Stuart Mill (*Essays on Some Unsettled Questions of Political Economy*, 1844) and Karl Marx (*For the Critique of Political Economy*, 1859): if we assume that money is used not only as a numeraire or medium of exchange but also as a store of value, a generalized excess supply of goods is indeed possible and has as its counterpart an excess demand for money. In other words, provided that money is the asset characterized by the highest level of liquidity, the decision of individuals to abstain from consumption does not in itself imply an act of investment but may take the form of 'hoarding'. In such a circumstance, usually determined by pessimistic expectations of the future, market economies are characterized by insufficient aggregate demand. The fact that this hypothesis was not taken into account by the classical authors has its origins in the theoretical approach of that school, according to which money is a pure medium of exchange, a 'veil' which does not alter the fundamental equilibrium of the system. In this context, 'hoarding' is dismissed as an irrational attitude.

From the 1840s onwards, in the works of Thomas Tooke (*A History of Prices*, 1838-57) and Samuel Jones Lloyd (Lord Overstone), we find the first interpretations of the fluctuations of the economic activity in terms of a cycle, i.e. as a phenomenon that repeats itself periodically (which of course does not mean that crises have the same duration). In particular, Tooke, who wrote on the subject in the 1840s, during a major railway boom, associated periods of prosperity with an increase of investments in fixed capital.⁸

It was only in the second half of the XIX century, however, that the thesis became predominant that crises must be considered part of a broader cyclical phenomenon. The contribution of Clément Juglar is crucial here. In his well-known work *Des crises commerciales et de leur retour périodique en France, en Angleterre et aux* États-*Unis,* published in 1862, Juglar analyzed the fluctuations in economic activity that had occurred in France, Great Britain and the United States using the available statistical material taken from official documents such as publications of central banks and government institutions. Juglar's conclusion was that, although the causes of fluctuations were manifold, the alternation between prosperity and depression tended to occur with regularity: no matter how much

⁸ On the contributions of Thomas Tooke and Overstone cf. Schumpeter (1992: 745).

effort could be made to mitigate its effects, crises themselves had to be considered, Juglar wrote, as an ineliminable component of the economic activity.⁹

A few years later, in 1875, at the annual meeting of the British Association, the English economist W.S. Jevons presented what appears to be one of the first examples of an exogenous theory of the cycle (Jevons, 1884 [1875]). In his contribution, which was influenced by the then dominant positivism, Jevons explained cyclical fluctuations on the basis of sunspot patterns, through the influence they apparently had on weather phenomena and consequently on agricultural harvests. This was, of course, a very thin causal chain and it is not surprising that, despite the author's attempts to develop empirical data to support his hypothesis, it did not meet with much favour among scholars¹⁰.

In the late nineteenth and early twentieth centuries, a period characterized by large increases in the stock of capital in the most industrialized countries, several authors tried to explain cyclical crises focusing on the role played by changes in investment in production plants and equipment. In this framework it is worth mentioning in particular the works of Mikhail Tugan-Baranovsky and Arthur Spiethoff. Drawing direct inspiration from Marx's thought, Tugan-Baranovsky emphasized that in capitalist economies, characterized by complex financial institutions, capital accumulation was an autonomous driving factor of the production system (cf. Hagemann, 2000)¹¹. As a consequence, it was highly probable that unbalanced growth processes would occur, characterized by excesses in the production of certain types of goods (usually capital goods) and shortages in other, usually consumption goods. This laid the foundations for generalized overproduction and the crisis, from which it was only possible to emerge once the less efficient productive plants had been dismantled: a process that could last for several years.

Tugan-Baranovsky's analysis was an important source of inspiration for Spiethoff, a German economist whose studies on the subject exerted considerable influence on theoretical debate in the early 20th century.¹² Unlike Tugan-Baranovsky, however, Spiethoff, while identifying overinvestment as a crucial factor, aimed at a synthetic explanation that included a plurality of possible causes for the crises. In particular, anticipating Schumpeterian themes, he stressed the role played by innovation and credit in economic fluctuations and maintained that the basis of recovery had to be found to a large extent in the reduction of prices and nominal interest rates that occurred during periods of depression (Hagemann, 2000: 429-436).

⁹ "Crises, like diseases, seem to be one of the conditions of existence in societies where trade and industry dominate. They can be anticipated, softened to a certain extent, and made easier to resume business; but suppressing them is what, so far, despite the most varied combinations, has not been given to anyone" (Juglar, 1862: vii).

¹⁰ On Jevons' sunspot theory cf. Morgan (1990).

¹¹ On Tugan-Baranovsky's contribution cf. also Barnett (2001).

¹² The best known is undoubtedly the entry 'Krisen', published in 1925 in the *Handwörterbuch der Staatswissenschaften* (Spiethoff, 1925; Gioia, 2001). Spiethoff's connection with Tugan-Baranovsky is also documented by an extensive essay on the work of the Ukrainian economist published by Spiethoff himself in *Jahrbuch für Gesetzgebung* (cf. Spiethoff, 1903).

The 1920s were, as is known, marked by violent fluctuations in prices and output, in a context of instability in monetary and financial markets, exchange rates and the real economy. It is not surprising, therefore, that this same period witnessed a proliferation of empirical and theoretical studies on business cycles. Specialized research institutes were established in most industrialized countries. Suffice it to mention, in the United States, the *National Bureau of Economic Research*, set up in 1920 on the initiative of Wesley C. Mitchell; in Berlin, the *Institut für Konjunkurforschung* directed by Ernst Wagemann; in Vienna, the Österreichisches *Institut für Konjunkturforschung* directed by Friedrich Hayek and, later, by Oskar Morgenstern. Similar centres began to operate in France, Italy, Holland, Poland, Bulgaria and even in Soviet Russia (the *Conjuncture Institute* in Moscow, directed by Nikolai Kondratieff)¹³.

The need for reliable economic forecasts led to the development of indicators of economic activity (or 'economic barometers') at various levels; suffice it to mention the 'Harvard Barometer' developed by the statistician Warren Persons (1916)¹⁴ and the 'Trade and Money Index' published by the *Index Number Institute* created by Irving Fisher (neither of which, by the way, was able to predict the Wall Street crash of 1929 and the Great Depression).

These institutes carried out a crucial activity of collecting and comparing data at an aggregate or sectoral level, and of processing and analysing time series. The main proponent of this empirical work was the US scholar Wesley Clair Mitchell. Mitchell, an institutional economist, maintained that business cycles analysis had to be based on factual data and on the peculiarities of the economic systems under study. To this end, statistical techniques, while necessary, had to be supported by an analysis of the historical and institutional context.

Economic fluctuations, he wrote in his ground-breaking contribution *Business Cycles: the Problem and Its Setting* published in 1927, were to be considered the result of "exceedingly complex interactions among a considerable number of economic processes". In order to get an overall picture, theoretical analysis and the study of statistical data had to be complemented by the historical framework: "History and theory supplement each other. The theorist who wishes to analyse the workings of current economic institutions needs a vivid, objective view of their characteristics. That view he can obtain most effectively by a study of their evolution. Nor is current history less important to him than history of the past. It is only by historical observations that he can determine what features of business cycles are common and what are occasional [....] And by whatever methods a theorist works, he may –and should –check his explanations by seeing how far they account for the cycles of history" (Mitchell, 1927: 57).

¹³ On Kondratieff work at the *Conjuncture Institute* cf. Barnett (1995).

¹⁴ It is worth remembering that Persons was one of the first statisticians to develop *time series* decomposition techniques aimed at isolating the trend component from the cyclical component and from seasonal fluctuations. See Morgan (1990: 57-63).

Consequently, in Mitchell's view, no unified theory of the cycle was conceivable. Business cycles were peculiar to a specific economic organization and it was only through a careful analysis of its institutions that it was possible to understand the economic fluctuations of that system.

Mitchell's views, however influential, remained relatively isolated in the economics community. His last analytical contribution written with A.F. Burns, a ponderous monograph entitled *Measuring Business Cycles* (1946), was subjected to a harsh critical review by Tjalling Koopmans, a member of the Cowles Commission, who accused the authors of pursuing a research program characterized by "measurement without theory" (Koopmans, 1947). A largely undeserved accusation, which nevertheless contributed to discredit Mitchell's work in the community of scholars.

Going back to the 1920s, it is not surprising that, in a context characterized by substantial monetary instability, several authors identified money fluctuations as the main cause of the cycle.

One of the most influential advocates of this position was Ralph George Hawtrey. According to Hawtey, Haberler writes in his well-known synthesis *Prosperity and Depression*, economic fluctuations had to be interpreted as "a purely monetary phenomenon": in other words, changes in the money supply were the only cause of changes in economic activity (Haberler 1946 [1937]: 15). Non-monetary factors could indeed affect specific sectors of production, but only changes in monetary quantities could induce a generalized depression (Haberler, 1946: 16).

The thesis that business cycles were essentially determined by monetary factors was also shared by Irving Fisher. In *Appreciation and Interest* (1896), one of his first theoretical contributions, and later in *The Rate of Interest* (1907), the US economist observed that, in equilibrium, changes in the rate of inflation should have translated into changes in the same direction of the nominal interest rate, thus leaving the real interest rate unchanged (according the hypothesis known in the literature as the "Fisher effect"); in the short run, however, the adjustment, was never complete and, consequently, changes in the *ex post*. real interest rate occurred. In the same work, Fisher introduced the hypothesis that the forecasting abilities of individuals were differentiated (heterogeneity of agents): on the one hand, *borrowers* (generally entrepreneurs or businessmen), were characterized by a greater ability to predict the future and thus changes in inflation; on the other hand, *lenders*, generally belonging to the class of *rentiers*, had little ability to anticipate economic fluctuations.

During an inflationary process caused by an exogenous monetary shock, entrepreneurs had an incentive to increase their demand for loans (in real terms, the *ex-post* real rate of interest would have been very low or even negative). This triggered an expansionary phase that would come to an end when the lenders, realizing the new inflationary dynamic, revised their expectations. As a result, several entrepreneurs were unable to repay their debts and were bound to fail. This triggered a recession (Fisher, 1896, 1907). In a second model, which incorporates some of Alfred Marshall's insights, the main explanatory factor for the crises was identified by Fisher in the stickiness of nominal wages: for several reasons (connected with nominal rigidities and/or institutional aspects of the labour market) workers were unable to adjust their nominal wages rapidly to changes in inflation. As a result, during an inflationary process the revenues of the firms increased more than their costs. This led to an increase in profits, which in turn stimulated productive activity and led to an expansionary phase, albeit of short duration (Fisher, 1925).

In the 1920s, Austrian and German economists were significantly influenced by a contribution by Adolf Löwe, published in 1926 in the *Weltwirtschaftliches Archiv*¹⁵. In this article, Löwe called for an explanation of economic fluctuations that referred directly to the *core of* economic theory, the Walrasian model of general economic equilibrium (Löwe, 1926). In his view, theories based on irrational behaviour on the part of individuals or on purely exogenous factors were to be rejected as unsatisfactory: a rigid and indeed dogmatic methodological stance which, as will be seen, was bound to be shared at a conceptual level by the 'New Classical Economists'.

The Great Depression: the interpretative models of Hayek, Keynes and Fisher

During the 1930s Löwe's methodological position was shared by Friedrich Hayek. In his *Geldtheorie und Konjunkturtheorie*, published in 1929, the Austrian economist acknowledged that "the incorporation of cyclical phenomena into the system of economic equilibrium theory, with which they are in apparent contradiction, remains the crucial problem of Trade Cycle theory"¹⁶. In *Prices and Production* (1931), however, Hayek took up only in part Löwe's indications, drawing rather inspiration from an earlier work by Mises (*Theorie des Geldes und der Umlaufsmittel*, 1912; 2nd ed. 1924).

According to Hayek, who in *Prices and Production* elaborated a synthesis of the Austrian position on the subject, the cause of economic fluctuations was to be found primarily in monetary factors: money fluctuations, however, were able to exert an influence on the economic system not through a change in the absolute level of prices, as argued by Fisher and Hawtrey, but through changes in relative prices, which brought an alteration in the structure of the productive system.

The theoretical cornerstones of the Hayekian scheme were, in a context of general economic equilibrium, Wicksell's 'cumulative process' and Böhm Bawerk's theory of capital. Hayek in particular believed that, in a context of equilibrium, it was possible to promote a sustainable increase of the stock of capital and therefore, according to Böhm Bawerk's theory, of growth, if and only if individuals were willing to voluntarily modify their

¹⁵ On the contribution of the German scholar and the debate it provoked see Hagemann (2000: 444-447); Besomi (2006: 56-60).

¹⁶ The passage is taken from the English edition of the work (Hayek, 1933: 33, quoted in Hagemann, 2000: 420).

intertemporal consumption choices diverting part of the resources available in the present from consumption to saving.

This process could be fuelled, at least in principle, through an expansion of the bank credit. In this case, the results were quite different: the channelling of resources towards the production of intermediate goods took place in the context of an inflationary process that forced individuals to revise their consumption plans downwards against their will (so-called 'forced saving').

The propensity to consume of individuals and households, however, remained unchanged. This circumstance, together with the availability of liquidity resulting from nominal wage increases, resulted in an increase of the relative prices of consumption goods in terms of investment goods. This created the conditions for a reversal of the production process (and a crisis in the intermediate goods sector). The crisis could be postponed by new credit injections, but sooner or later credit expansion was bound to be blocked by operational constraints (Hayek, 1931).

In this context, the crisis constituted a painful but unavoidable precondition to a sustainable recovery, during which the less efficient firms were expelled from the market and those that had expanded excessively were induced to review their operational plans.

Hayek's analysis (and that of Mises) does not offer discretionary policy solutions to get out of a recession or a depression; certainly not in the short run. On the contrary, in the Austrian view, any attempt to counteract a negative economic situation by using expansive monetary policies led to a worsening of the situation.

If applied to the Great Depression (interpreted by Hayek as an overinvestment crisis), the Austrian 'therapy', based on the liquidation of the weakest firms and on price reductions, undoubtedly appear unpalatable and risky: if pursued consistently, it would probably have led not to the recovery of the 'patient' (the world economy) but to its death.

As a matter of fact, the Great Depression, an unprecedented event in contemporary economic history, marked a turning point in the theoretical reflection of economists. Keynes' *General Theory* was a powerful 'work in persuasion' addressed to the community of economists with the aim of interpreting at a theoretical level and counteracting with adequate policy measures the generalized collapse of production and employment; an event that, in Keynes' view, was jeopardizing the foundations of the society in countries not yet dominated by totalitarian regimes.¹⁷

To this end, the theoretical issue from which to start was once more the criticism of the Say's law, the cornerstone that characterizes the classical and the marginalist paradigms (both labelled by Keynes 'classical' economic thought): the postulate, as mentioned before, according to which economic systems, provided there is a competitive framework in which market forces are free to act and there is no arbitrary intervention by governments, are

¹⁷ "It is certain that the world will not much longer tolerate the unemployment which [...] is associated – and, in my opinion, inevitably associated – with present-day capitalistic individualism. But it may be possible by a right analysis of the problem to cure the disease whilst preserving efficiency and freedom" (Keynes, 1973 [1936]: 381).

always able to achieve a full and efficient use of productive factors. According to Keynes, on the contrary, in the context of pessimistic business expectations in the 1930s, the most likely outcome would have been a persistent recession and an equilibrium of underemployment.

Even a neoclassical author such as Irving Fisher was induced by the Great Depression to radically change his theoretical stance on crises and to convince himself that, in a context dominated by high initial indebtedness, recession and deflation, a perverse spiral could be triggered, bound to lead to a progressive departure from equilibrium and to an 'almost universal bankruptcy'.

This is indeed the main thesis of the *debt-deflation theory*, set out by Fisher in a volume published in 1932 (*Booms and Depressions*) and in a well-known article in *Econometrica* (1933)¹⁸. The debt-deflation model assumed an economic system characterized by an initial situation of *over-indebtedness*, but nevertheless in equilibrium. In this context, even a minor shock (as a result of bad news or a negative stock market performance) would result in a first wave of liquidations. The reduction in share prices and the ensuing contraction of bank deposits would in turn trigger a deflationary process as a result of which, in real terms, the debt burden would progressively increase. The strategy of debt reduction by individuals was thus at the origin of a perverse spiral resulting in a worsening of their debt position and in a wave of liquidations. In this context, generalized bankruptcy and the collapse of the system could only have been avoided by resolute policy measures, in particular by expansionary monetary policies implemented by the central banks.

In the interwar years, one of the most original contributions on economic fluctuations, albeit from a theoretical perspective very different from that of Keynes and Fisher, was undoubtedly that of Schumpeter. For the Austrian economist, author of Theory of Economic Development (1912) and of Business cycles (1939), economic fluctuations were to be considered the very essence of capitalism, the direct consequence of a process of "creative destruction" resulting from the introduction of new techniques and new types of products, without which the economy would be condemned to the *routine of* the stationary state. For Schumpeter, economic growth implied discontinuous changes in the traditional way of producing and selling, carried out by innovative entrepreneurs. The new techniques and new combinations of factors implemented by the latter did not derive directly from the old ones "nor did they directly take their place, but appeared alongside them and in competition with them" (Schumpeter, 1977: 268)¹⁹. Moreover, the new techniques were implemented discontinuously, in groups or in 'droves', as a result of imitation or simply because the presence in a given period or sector of an already active entrepreneurial class made it easier for others to enter the market. The new entrepreneurial demand, thus concentrated over time, led to a considerable increase in overall demand, creating the general prosperity that accompanies expansive phases.

¹⁸ On *debt-deflation theory* and Fisher's analysis of the Great Depression cf. Dimand (1994); Pavanelli (2003).

¹⁹ The literature on the Schumpeterian model is very extensive. I only mention here Egidi (1981) and Frisch (1982).

The econometric approach to business cycles and the 'New Classical Economists'

In addition to these contributions, the 1930s saw the emergence of a further line of research on economic fluctuations that was bound to mark a discontinuity with the analysis between the two wars and to have a great influence on contemporary analysis of the cycle: this was the econometric approach, pioneered by Ragnar Frisch and Jan Tinbergen and characterized, on the one hand, by the use of advanced statistical techniques and models and, on the other, by a substantial lack of interest in the institutional aspects of the economies.

Frisch's contribution, in particular, is universally known for its distinction between "impulses" and "propagation mechanism": impulses are the exogenous shocks that trigger cyclical fluctuations in the system, while the propagation mechanism has to do with the structural properties of the system itself. It is easy to see that at the basis of the Norwegian scholar's analytical scheme there is the hypothesis of an intrinsic tendency of economies to converge towards equilibrium. No matter how destabilizing is the impulse that strikes the system, the resulting oscillations tend to be absorbed and to reduce in intensity, unless they resume as a consequence of a further impulse (Frisch, 1933). The metaphor used by Frisch to illustrate his model is that of the 'rocking horse theory'²⁰.

Now, if we shift from the 1930s to a period closer to us, it is evident that most contemporary studies of fluctuations are not based on Mitchell's or Schumpeter's approach but on the one developed by Frisch and, before him, by the classics.

Let us consider in this regard the so-called 'New Classical Economists', an influential group of US economists who advocates, among other things, the use of rational expectations in a framework of Walrasian general equilibrium models in macroeconomics and whose most influential representatives are Robert Lucas and Thomas Sargent. Now, the starting hypothesis of these authors, in analogy with Milton Friedman's vision, is that economic systems are inherently stable. Fluctuations are structurally similar, regardless of the historical and institutional context, and are essentially determined by exogenous shocks that randomly hit the system. Lucas writes in this regard: "With respect to the qualitative behaviour of co-movements among series, *business cycles are all alike*. To theoretical inclined economists this conclusion should be attractive and challenging, for it suggests the possibility of a unified explanation of business cycles, grounded in the *general* laws governing market economies, rather than in political or institutional characteristics specific to particular countries or period" (Lucas, 1981: 218).

In the analytical model elaborated by Lucas, the shocks at the origin of the cycles are mainly of a monetary nature: in short, they can be identified as changes in the money supply that take agents by surprise. As a consequence, they may wrongly interpret the increase in the price of the good they produce as an increase in its relative price and therefore

²⁰ On Frisch's model cf. Morgan (1990: 90-100); Louça (2001).

can be induced to increase both the supply of labour and production. All this takes place in a context where there is no room for preference heterogeneity (representative agent hypothesis).²¹

Lucas analysis opened the ground to the 'Real Business Cycles' approach, now a dominating model in business cycles literature.²² As a matter of fact, the degree of abstractness of these theoretical schemes is, if possible, even more pronounced than that of those based on monetary shocks. The starting point of 'real business cycles' is, in a nutshell, the neoclassical model of capital accumulation developed in the 1950s by Robert Solow, to which highly restrictive assumptions are added: the economy is populated by agents characterized by *perfect foresight*, infinite lifespan and identical utility functions including both consumption and leisure. Each individual is a producer of the only consumption good in the economic system, obtained through his own labour and a stock of capital. His aim is to maximize his own utility, which is a function of the only good produced and the leisure available (Plosser, 1989). Each agent faces two types of choices: i) an intertemporal allocation of her/his income between consumption and saving. Provided there is an identity between saving and investment, agents do not consume the entire income in the present but decide to save (and invest) a fraction of that income, therefore increasing her/his capital stock and future consumption; ii) an allocation choice between work (and therefore income available for consumption) and leisure.

In this rarefied and clearly unrealistic context, the economy is always in equilibrium: individuals maximize their utility given the constraints of available resources. The only factors for change are exogenous shocks of a real nature (*productivity shocks*). In the case of a positive shock, the individual is likely to be willing to work more, since the remuneration of labour (the opportunity cost of leisure) has increased. In the case of a negative shock, the opposite happens: faced with a reduction in wages, the individual reduces saving and investment and also reduces his labour supply, preferring in the short run to increase the availability of leisure, a good whose opportunity cost has meanwhile fallen.

Any hypothesis of unemployment due to insufficient demand (involuntary unemployment)²³ is therefore excluded by definition. If applied to the Great Depression, this scheme leads to the paradoxical result that the dramatic increase in the US unemployment rate at the beginning of the 1930s was due to the fact that US workers preferred to move to leisure following a substantial reduction in real wages (which, however, did not actually happen, as a consequence of a severe fall of the level of prices). From a historical perspective, the 'real business cycle' model thus marks a return to a rigid pre-Keynesian theoretical framework, dominated as it is by Say's identity (savings translate by definition into investment) and by the 'second fundamental postulate' of the classical theory.²⁴

²¹ For an analysis of the logical and conceptual limitations related to the introduction of the representative agent hypothesis in macroeconomic models see Kirman, 1992.

²² Among the earliest theoretical works on the subject cf. Kydland-Prescott, 1982.

²³ For a critical appraisal of this theoretical approach see, among others, Summers (1986).

²⁴ On the 'second fundamental postulate' cf. Keynes (1973 [1936]: 5).

Similarly, in such a theoretical framework, money and financial markets play no effective role, as a consequence of the assumptions of perfect knowledge and instantaneous equilibrium. In the rarefied world of real business cycles, monetary policy is either not contemplated at all or is in any case ineffective.²⁵

"Can It Happen Again?" Hyman Minsky's point of view

In the real business cycle model, and more generally in new classical paradigm, there is no room for financial instability, bank runs or speculative bubbles, and indeed for most of the phenomena that have played a crucial role in the crises that have characterized the industrialized countries during the last two centuries. In order to find them, we have to turn to the 'periphery' of economic research and/or to heterodox authors: among these, the most important being Hyman Minsky.

In several articles and essays published from the second half of the 1950s onwards, Minsky forcefully drew attention to the problem of the intrinsic fragility of financial systems at a time when this issue was virtually ignored by the theoretical debate, also as a consequence of the fact that industrialized economies appeared to be on a path of robust and stable growth. According to Minsky, however, this stability was only apparent: in times of prosperity, he wrote, financial markets tend to implement innovations that have the effect of greatly reducing liquidity, creating the conditions for serious disruptions (Minsky, 1957). In general, maintained Minsky, modern economies, in which financial institutions play a crucial role, are characterised by intrinsic instability: crises are therefore endogenous to the system and, to some extent, inevitable²⁶. In this context a return to equilibrium is by no means guaranteed: in the absence of adequate policy measures the most likely outcome is a continuous worsening of the situation, on the basis of a dynamic process that echoes Fisher's *debt-deflation theory*.

Although financial institutions were intrinsically fragile, the return of the depression (evoked in the title of Minsky's best-known publication, *Can "It" Happen Again*? (1982) was not inevitable: decisive actions taken by central banks as *lenders of last resort*, together with expansionary fiscal policies, were able, in most cases, to avoid the worst. These policies, however, brought about also negative side effects: they led to inflationary pressures and encouraged risky behaviour by operators²⁷. Therefore, they had to be accompanied by structural measures aimed at regulating the credit sector.

²⁵ Nevertheless, no matter how surprising this can be, a recent critical article reminds us that "variants of this [RBC] model have become the workhorse model in research departments of central banks" (Caballero, 2010: 88; cf. also on this point Sergi, 2020).

²⁶ "The processes which make for financial instability are an inescapable part of any decentralized capitalist economy, i.e., capitalism is inherently flawed" (Minsky, 1982, p. vii). For an overview of financial crises in historical perspective cf. Kindleberger and Aliber (2005).

²⁷ "We need to construct a system of institutions and interventions", wrote Minsky, "that can contain the thrust to financial collapse and deep depressions without inducing chronic inflation" (Minsky, 1982, p. viii).

It is not surprising that Minsky was very critical of the neoclassical theoretical framework, which failed to give an adequate role to financial institutions. His source of inspiration was undoubtedly Keynes' *General Theory*, in particular Chapter 12, in which the Cambridge economist addressed the issues of the uncertainty surrounding entrepreneurial choices and the instability of financial markets.

Concluding remarks

In spite of its complex taxonomy and increasing formal complexity, therefore, contemporary analysis on business cycles and crises appear to draw inspiration from two distinct methodological approaches that reflect deeply different visions of how market economies actually work.

First, there is the view of those who believe that economic systems are essentially stable, populated by rational and optimising individuals and characterized by a full utilization of productive factors. In this context, fluctuations are due to exogenous shocks (changes in the quantity of money, technological changes, wars) and anyway are bound to be reabsorbed quickly, thanks to rapid changes in the vector of prices. This is the frame of reference of many marginalist and neoclassical authors and, recently, of the so-called 'New Classical Economists'.

In contrast to this approach, it is possible to identify two research programs, characterized by several theoretical differences but having in common a marked attention to the institutional context and to the effective working of the mechanisms underlying the dynamics of economic systems. On the one hand, this is the case of the contribution of those authors who, like Schumpeter and, to some extent, Mitchell, believe that fluctuations are an intrinsic and ineradicable feature of advanced economies and that they must be studied with reference to a specific historical context. On the other hand, we find the analysis of leading but also to some extent 'heterodox' economists, such as J.M. Keynes and Hyman Minsky. In their view, economic systems are potentially unstable and the full employment of resources and growth cannot be taken for granted. On the contrary, crises and recessions tend to persist and, if unchecked, to worsen. Re-equilibrating mechanisms tend to be slow and may not work at all.

The recent crisis of the financial markets since 2007 and the economic disruptions caused by the Covid pandemic since 2020 warns us that it is probably appropriate to focus on these latter types of analysis if we want to provide an explanation of the complex dynamics of modern economic systems and try to implement policies aimed at counteracting its negative effects.

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