UNCERTAINTY IN NEOCLASSICAL AND KEYNESIAN THEORETICAL APPROACHES: A BEHAVIOURAL PERSPECTIVE

Sinziana BALTATESCU*

Abstract: *The "mainstream" neoclassical assumptions about human economic behavior are currently challenged by both behavioural researches on human behaviour and other theoretical approaches which, in the context of the recent economic and financial crisis find arguments to reinforce their theoretical statements. The neoclassical "perfect rationality" assumption is most criticized and provokes the mainstream theoretical approach to efforts of revisiting the theoretical framework in order to re-state the economic models validity. Uncertainty seems, in this context, to be the concept that allows other theoretical approaches to take into consideration a more realistic individual from the psychological perspective. This paper is trying to present a comparison between the neoclassical and Keynesian approach of the uncertainty, considering the behavioural arguments and challenges addressed to the mainstream theory.*

Keywords: Neoclassical approach; Keynesian approach; uncertainty; bounded rationality; behavioural economics

JEL Classification: B310; D03

Introduction

The economic reality of the recent financial crisis created a prolific theoretical debate space for the traditional economic theoretical approaches, in which both the mainstream, neoclassical approach or the Keynesian and post Keynesian, Austrian or institutionalist approaches restated their doctrinary positions and arguments. The mainstream economic theory confrontation with the particularities of the 2007 economic crisis was highlighted by behavioral voices which questionned the main assumptions of the neoclassical theory (see Angner and Loewenstein, 2012); these challenges determined an effort of theoretical and methodological consolidation of the mainstream theory – an effort that was made from within the mainstream theoretical framework, without endangering the theoretical foundation of the approach.

The major theoretical approaches use, in explaining the economic crisis mechanisms, psychological assumptions on the behaviour of the economic individual. The main positions are focusing on the way in which economic individual agents are basing their economic decisions of consumption, production or investment.

The mainstream, neoclassical theoretical approach excludes uncertainty from the analysis. The theoretical framework and the perfect rationality of the economic individual assumption do not permit

* Lecturer, PhD, Faculty of Economics and Business Administration, Al. I. Cuza University of Iasi, Romania

the neoclassical theoretical approach to formalize uncertainty. Actually, uncertainty, defined as the situation in which nothing is or can be known about the future allows the possibility that the individual cannot choose but irrationally in such a context, in neoclassical terms: without complete and perfect information.

The uncertainty “threatens” the theoretical framework of the neoclassical approach from within and, in the economic crisis of 2007 context, researchers from other economic approaches, especially Keynesian and postkeynesian, but also institutionalists find space for re-affirm their theoretical and doctrinary positions using the argument that these theoretical approaches consider uncertainty as a starting assumption, not as a consequence of the lack of complete information.

The link between economic development results and institutions and individual behaviour is no longer a subject of debate in institutionalist`s view; considering realistic psychological elements in their view of institutions is inherent to this theoretical approach that considers an individual that matches reality as a bearer of economic decision instead of the idealistic individual that should act on economic grounds (see Tiganas *et al*., 2014, p. 94 for factors that link the development results to institutions, institutional results, individual behaviour).

Incorporating uncertainty in Keynesian theory and postkeynesian perspective on economic crisis meant stating intuitive psychological issues on the irrational individual behaviour, based on direct observation. The optimistic or pessimistic expectations of economic agents about an uncertain future which influences or not their investment decisions based on conventions and trust in Keynesian view were the first factors that shaped Minsky’s approach on economic crisis. His view on economic cycle as being inherent to the capitalist system was also founded on psychological insights on individual behavior on markets and on expectations confirmed or supported by the market evolution.

From neoclassical perspective, the economy is a system free of uncertainty; uncertainty; the market and economic evolution can be described by economic laws, always tends toward stable equilibrium and has the potential for continuous growth. Therefore, the economic crisis are not caused by market errors, but by interference of irrational behaviour into the market mechanisms; usually, these interferences are caused but government intervention.

The theoretical effort and analysis of the Keynesian and postkeynesian economists are fundamentally economic but start from the assumption of a more psychologically realistic individual. In the context of the 2007 economic crisis and given the theoretical accumulation of behavioural economics researches, their theories gain new connotations and new arguments which sustain them.

1. Uncertainty and risk in Keynesian theoretical approach

Uncertainty is a key element of the Keynesian and postkeynesian theoretical approach; it represents the starting assumption on which the theoretical foundation of the approach is built. Because of the certainty of uncertainty, individuals create expectations on which they decide investing or not; in the empty space left by uncertainty, individuals place expectations based on subjective psychological judgements.

In Keynesian view, money is not neutral and there is a strong connexion between uncertainty and money. They have special characteristics among other goods: their role of exchange mean and store of wealth cover the gap left by uncertainty. In uncertainty conditions, money provide security and this form of psychologically based certainty of economic individual agents determines specific behaviour which modifies the market dynamics. Thus, in an environment dominated by uncertainty, the certainty of safety investment of money leads to increases in individual liquidity preference instead of leading towards demanding and buying more labour intensive goods. Retaining the money or the highly liquid goods leads to diminishes in the effective demand, which results in unemployment. In other words, economic crisis are inevitable and caused by the store of wealth role of money.

In Keynesian view uncertainty is different from risk. When the probability of some event to appear is known, the act of economic decision is called upon in risk conditions. In this situation, knowing the different probability distributions of possible options, the economic decision can be the subject of a mathematical optimization process like the one developped by the mainstream theory. Uncertainty is, yet, the situation in which the probability distribution is not known (Ferrari-Filho and Conceicao, 2005, p. 582). The information necessary in order to build an optimal investment decisions simply does not exist, so that scenario cannot have a probability distribution, therefore the decisions can be neither modelled or subject for a process dominated by rationality (Crotty, 1993, p. 4).

Thus, in the process of taking an economic decision a gap appears, empty of rationality, but dominated by uncertainty. In this gap mathematical modelling is not possible anymore because of the lack of knowledge and measurable facts on which realistic predictions can be made. The mainstream neoclassical approach disregards this gap; the theoretical framework does not permit the existence of this gap. In this area the irrational heuristics appear and represent the common place between economics and psychology. The existence of uncertainty as described by the Keynesian view, permitted the behavioural economists to state their ideas, eroding the neoclassical assumptions and offering grounds for other theoretical approaches to consolidate their hypothesis.

In this space, void of rationality as the neoclassical approach understands it, Keynes places the feeling of trust in the public opinion an institutions, the intuition, the confidence (”the animal spirits”). Taking an economic decision, in these circumstances, is not anymore an act based on deductions from facts and dates, but on conventions which become a partial solution to the uncertainty that dominates the decision making process.

In neoclassical view, deciding to invest in uncertainty conditions is an irrational act. Yet, economic reality proves that economic agents make that decision and the Keynesian theory of investment leads toward the idea that only providing enough information for the uncertainty to transform into quantified certainty may not be enough to make the decision rational and to provide predictable results. There are circumstances in which there are no ways to transform uncertainty into certainty and the individuals must make decisions in a priori uncertainty conditions. In the rational decision making process, the decision is based on past experiences and theoretical knowledge; they represent knowledge about the past that allow us to make predictions about the future. Yet, knowledge is not enough to guide the economic action of individuals faced with an uncertain future and the mainstream theoretical approach methods do not have the necessary instruments to explain why a set of expectations transforms the market euphoria into market fear, modifying economic agents behaviour (Dow, 2012, p. 85).

One convention as extrapolating future from the past provides confidence in the optimistic scenarios that the economic agents are creating and on which they base their expectations about the future; on their turn, the expectations about the future create economic action into the present, modifying the market situation and generating dynamic changes in future expectations of individuals. Conventions create, thus, the feeling of confidence that the formed expectations have a high level of meaning and relevance.

Positive expectations about the continuous increase in prices and the permanence of financial stability were identified as factors that sustained the economic and financial crisis of 2007. From within the mainstream theoretical approach, these expectations are irrational and can be explained by the lack of perfect information or conditions that should allow the perfect competition to manifest. Yet, efforts of providing conditions for the perfect competition did not result into avoiding the economic crisis and did not eliminate the uncertainty from the markets. In this context, many researchers, especially those in the field of behavioural economics consider that the neoclassical theory cannot provide a satisfactory answer about what triggers the rational behaviour which should avoid the economic crisis.

The market evolution from euphoria to fear and the consequent change in behaviour is not thoroughly explained in neoclassical theory. On the other hand, Keynes psychological insights on which the investment theory are based like uncertainty permanence, conventions and ”animal spirits” seem to be capable of explaining the recent economic crisis and to offer ground for a better understanding of economic mechanisms in general.

2. Uncertainty vs rationality in the neoclassical theoretical approach

The reproach addressed to the mainstream theoretical approach is that it is limited in defining the concept of rationality and that it excessively uses the deductive method and the mathematical apparatus in order to model an economic reality in which feelings and emotions are excluded from the decision making process (see Camerer and Loewenstein, 2004, p. 2). The behavioural economics challenges that questioned the perfect rationality assumption and stressed that economic decision is mostly made with imperfect information lead to attempts of reconsolidating the neoclassical assumptions from within the same theoretical framework, with the same instruments and methods.

These attempts had as an effect the effort of conceptualising from the psychology through behavioural contributions. Sheila Dow suggests that, in an effort of incorporating psychological elements into the formal existing framework of rational choice theory, this conceptualization process was constrained by the formal theoretical framework to categorize irrational behaviour as cognitive limitations or unconventional preferences (Dow, 2012, p. 83). On a normative level, the focus remained on reducing the impact of such cognitive limitations by ensuring the market transparency.

Such a transformation involves modelling the reality in order to match the theoretical approach instead of viceversa. Although the basic assumptions were modified, the mainstream approach remains firm in excluding the uncertainty as a starting hypothesis. The Keynesian and postkeynesian approach of economic crisis is leaning on the uncertainty assumption in building its arguments.

The neoclassical theoretical approach has the advantage of clarity and also of a normative level that naturally results from the theoretical infrastructure. The Keynesian approach, on the other hand, seems to explain better the economic mechanisms and the decision processes, but the uncertainty as a starting assumption leaves the economic policy with fewer instruments.

As Keynes himself suggests, “… some coordinated act of intelligent judgment is required as to the scale on which it is desirable that the community as a whole should save, the scale on which these savings should go abroad in the form of foreign investments, and whether the present organization of the investment market distributes savings along the most nationally productive channels. I do not think that these matters should be left entirely to the chances of private judgment and private profits, as they are at present" (Keynes, 1926). What guarantees that the state, as an agent that acts on the market and in the market has the capacity of rationing in uncertainty conditions is not, yet, clear enough.

After all, with uncertainty as a starting assumption, the government economic decision would be as based on conventions and emotions as the individual one; influencing the interest rate or the marginal propensity to consume would be decisions still made on optimistic or pessimistic expectations of the government on the future. What would, then, guarantee the rationality of the government decision?

Of course, the keynesian theoretical approach was built in the first half of the XXth century. To reconsider the theoretical foundations in the context of the recent economic and financial crisis by taking into consideration the behavioral economics contributions (see Szyszka, 2010) could result into a more coherent normative level for the keynesian theory. Considering market sentiments could lead to building mechanisms and institutions that could monitor these sentiments; this could result into monetary policies that could weight the market sentiments if they would not be correlated with the reality (Dow, 2012, p. 86).

The theory of rational choice, based on the neoclassical theory is, so, limited by the narrow definition of rationality, as an act that implies only cognitive processes and no emotions. Sheila Dow states that thinkers like Keynes, Adam Smith, David Hume etc. do not exclude the link between cognition and emotion, on the contrary, they consider it as a psychological reality of economic decision making (Dow, 2012, p. 84).

Conclusions

Leaving the normative debates aside, the keynesian theory integrates psychological elements of the individual that acts as an economic agent that the mainstream theory does not consider. Uncertainty is the general case, not the exception, the economic decision is made in markets with assymetric information, institutions are invested with trust in order to function, confidence determines fluctuations of the liquidity preference: these are just few elements that stress the role of the psychological insights of keynesian theory, also common to the institutionalist approach.

In either keynesian or institutionalist theoretical approaches, uncertainty exists and matters and this places these approaches in a different position as opposed to the mainstream theory. Considering the factors that determine the economic decision in uncertainty conditions created a niche where the behavioral economists found space to manifest theories and ideas by inserting psychological elements into economic theories.

Acknowledgements: This work was supported by the European Social Fund through Sectoral Operational Programme Human Resources Development 2007 – 2013, project number POSDRU/159/1.5/S/142115, project title "Performance and Excellence in Doctoral and Postdoctoral Research in Economic Sciences Domain in Romania".

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