# BEHAVIOURAL THEORY OF CONSUMER CHOICE AND ITS MACROECONOMIC SIGNIFICANCE

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**Abstract** - This paper clarifies some concepts connected with the consumer choice theory in the light of behavioural economics. It explains the meaning of behavioural economics (the science of economic behaviour) with reference to the consumer's economic choice and highlights the complementary nature of these two theories and their macroeconomic significance. The purpose of this paper is to underline the complementary nature of the classical consumer choice theory and behavioural economics. It also attempts to provide a theoretical explanation for the influence of the ratchet effect in macroeconomics using tools proposed by behavioural economics (BE). Towards this end use was made of the research results included in the book "Animal Instincts" by George Akerlof and Robert Shiller, which depicts behaviours that derive from the consumer mind and impact the domain of macroeconomics. The considerations presented in the paper indicate that the application of behavioural economics enhances our ability to explain issues that are treated by mainstream economics as being of lesser importance.

**Keywords** - Behavioural Economics, Consumer Choice Theory, Macroeconomics.

## I. INTRODUCTION

The contemporary consumer tends to be presented predominantly as one of the most important participants of economic evolutions. The evolution of civilisation and the increasing value of education translate into consumer behaviours, changing demands, as well the roles ascribed to them in their relations with organisations. The purpose of these considerations is to present the changing behaviours of the consumer in the market starting with an analysis of macroeconomic theories of consumption. The theory of choice considers decisions to buy goods at specific prices where the buyer has a specific income (Czarny, 2006). Decision making by an individual and the associated risks have been of interest to researchers for a long time. An analysis of this can be found in the article "Perception of the Risk of Starting up Business and Personal Attitude to Risk". The decisions people make involve a risk of failure (Bernat et al., 2014) and may be affected by emotions. Behavioural economics is more about analysing the decision making process than interpreting results (Katona, 1980). Decision making links behavioural economics and consumer choice theories – a decision is the final phase of the choice cycle, i.e. the formation of views and analysis of preferences. In this context behavioural economics appears to be associated with consumer choice theory since both describe the same phenomenon, i.e. choice making. In chronological terms choice theory was first, but in terms of methodology behavioural economics is older.

Choice theory appeared later as a comprehensive complement called the behavioural theory of choice (Ashraf, 2005). According to classical choice theory consumer's decisions are subject to many limitations in the form of accepted patterns that shape behaviours and preferences whereas any signs of being different are seen as abnormal behaviour. The goal of this paper is:

- to highlight the complementary nature of classical consumer choice theory relative to behavioural economics
- to outline the approach of behavioural economics to consumer behaviour
- to show how the emotional decisions of consumers influence their macro environment.

## II. BEHAVIOURAL CHOICE THEORY

Behavioural choice theory is based on the detailed measurement of consumer behaviour performed on a reduced number of examined subjects and a detailed analysis of their behaviour. The main purpose of measurements is to obtain information about the behaviours of consumers in the domain of economy, i.e. searching for and buying goods and services. Measurements also include the consideration of views, intentions or preferences (DiClemente, 2003). One of the new branches of economic analysis based on achievements of other sciences that joined the wave of disapproval for the neoclassical model is behavioural economics. This discipline seeks "to extend the standard economics framework to account for relevant features of human behaviour that are absent in the standard economics framework" (Diamond, 2007). For this reason behavioural economics analyses all the elements of behaviour, specifically individual behaviours and their consequences, and tries to include them into a normative analysis (Diamond, 2008). Behavioural economics examines the behaviour of groups as well as seeking a consensus between the conflicting views and discrepant expectations of group members (Morgan, 1980).

It should be added that in behavioural circles behavioural sciences are not considered to be the best

instruments for explaining the meanders of human behaviour, which often practically does not lend itself to quantification or operationalisation. The function of behavioural economics is to complement the mainstream economics and provide an alternative approach to phenomena subject to examination.

The first attempts at disseminating the most important trend in economics date back to as early as the 1940s and 1950s. It was then that Herbert Simon and George Katona wrote their first books in which they examined decision making by consumers, businessmen and employees, taking into account their motivation, demands and behaviour (Katona, 2011). Behavioural economics is based on the concept that the structure of a completely rational human being is not identical with reality. Man is subject to cognitive limitations. Society has only a fragmentary knowledge of economic forms. Cognitive barriers make people use easier reasoning rules (heuristics) which stimulate consumers' behaviour. As Paul De Grauwe wrote, the application of heuristics is not an irrational action but a defence of the reason against a reality dominated by excessive amounts of information. If we extend this process to include group functionalities such activities will be shifted to the macrosphere, e.g. the external shock caused by a bankruptcy of a company listed on a stock exchange (De Grauwe, 2011). Reflexive shock may have a huge impact on the choice of potential service providers. Consumers who are aware of risk and uncertainty will not keep their savings in banks and this lack of trust may result in the stagnation of investments.

The behavioural method for macroeconomics was presented by George Akerlof in his Nobel lectures in 2002, where he outlined fundamental research areas which in his opinion neoclassical economics failed to explain (Akerlof, 2002):

- the existence of social outcasts whose poverty is connected with alcoholism, drug addiction, criminal behaviour or habitual benefits,
- society saves insufficient funds for retirement in the belief that they will not have enough money for everyday living,
- uncertain influence of monetary policy on employment and production,
- increase of unemployment is not always followed by a drop in inflation (although the Phillips curve assumes such correlation),
- too high variability of stocks and shares prices.

In their book "Animal Instincts" George Akerlof and Robert Shiller presented various views on behavioural macroeconomics. They summarised their own works as well as the publications of other authors in an attempt to create a monolithic concept based on the belief that in business activities or as consumers people are driven not only by economic stimuli and do not always act rationally (Akerlof, 2010). Behaviours shaped by the consumer's mind which influence the macroeconomic sphere reflect the irrational nature of many human actions. This behaviourism can be observed in several areas:

- **The money illusion** is based on economic decisions that do not take into account inflation. The Phillips curve concept dates back to the early 1960s and refers to employees who demand pay rises based on the level of unemployment and not on the inflation rate. When calculating interest consumers do not take into account inflation because they believe it to be a secondary factor although in cases where interest rates are low or nil the inflation rate is of primary importance (Fehr et al., 2001).
- **Fairness** is a notion exceeding the field of rationality. Theory of trust refers to the shaping of processes of satisfaction and loyalty formation (commitment-trust theory) (Morgan, 1994). The consumer who is trustful does not take into account certain information or even affirms inconsistent information. Trust is a necessary factor in economic cycles. Transferring this principle from everyday life to economics produces diverse consumer behaviours. Pursuant to a fair exchange of goods a transaction should be beneficial for both parties. In reality a purchase also involves an exchange of nonmaterial elements such as mutual observance of social status, gratitude or belief that the price of a product or service is fair. The sense of fairness involves seeing business transactions in light of how other people should or should not behave. The sense of fairness often influences economic decision making (Akerlof et al., 2010).
- **Corruption and bad faith –** unlawful behaviour. Injustice influences the state of mind of the consumer and impulsively lowers trust. Economic scandals, protectionist nature of law or the total ignoring of consumer rights may be contributing factors in this context (Akerlof et al., 2010).
- **Stories –** the human mind is built so that it tends to interpret the surrounding environment in the manner of a narrative, integrating experiences and facts into interdependent pragmatic consequences. Message based on storytelling is a very efficient vehicle for depicting the reality that influences the choice of a given product or service (Akerlof et al., 2010).

### 2.1. Consumers' Behaviours and their Emotional Shopping Decisions

At a time of economic growth consumers believe that prosperity is here to stay and that their investments will continue to grow. They do not pay attention to risks. Akerlof and Shiller claim that in macroeconomic terms changes in income result in a change of the level of trust by one unit. An increase in income contributes to a higher trust. Consumer's approach to a specific purchase may be described by

a number of indices, e.g. CCI (Consumer Confidence Index). Some researchers differentiate between the Index of Consumer Sentiment and the Consumer Confidence Index (Hornel et al., 2008). The former is based on a set of answers to five questions: evaluation of one's current financial situation, evaluation of one's financial prospects within the next 12 months, evaluation of the current economic situation and prospects for the whole economy as well as willingness to purchase durable goods. The latter, i.e. the Consumer Confidence Index, is based on consumers' answers to single questions or their combinations. Deterioration of consumer sentiment contributes to a decline of consumption and generates unwelcome effects (Akerlof, 2010). These conceptions are confirmed by research showing direct correlation between an increase of social trust level and a degree of state expansion measured by HDI (Human Development Index) (Özcan, 2011).

Behaviourism plays a major role in macroeconomic conceptions. According to Duesenberry, the relative income hypothesis provides that consumption expenditure is based both on the absolute income level of a household and on the incomes of other households. These premises indicate that consumption expenditure affects consumers' decisions based on an analysis of expenses of e.g. a family, colleagues, friends or neighbours. The level of expenses is strongly linked with the consumption level of the immediate environment, usually the social group which has a similar income. This theory states that people compete for higher living standards or at least for the stability of the past highest income. This phenomenon is called demonstration. Consumers make their shopping and investment decisions based on the behaviour of their immediate environment and thereby create dissatisfaction in their subconsciousness. Due to the constant comparing of themselves to their immediate surroundings consumers do not take a risk to use innovative or unknown services or products. As a result they become disappointed with their own consumption level and tend to compare their income to that of the people with whom they spend most of their time (Duesenberry, 1952). Consumer-consumer rivalry may lead to a situation where despite having lower income consumers want to spend as much as other households. It is worth considering what drives consumers when they choose a specific basket of goods. When answering this question one should consider various behaviours based on restrictive rationality, prospect theory and loss aversion. H. Simon showed in his research that neither people nor organisations are fully capable of being completely rational (Tyszka, 2004). According to G. Katona, irrational behaviour is one that is internally inconsistent or incompatible with consumer's best interest and is perceived as such by the consumer when it is undertaken. It is believed that irrational consumer's choices are driven not by cold calculation, but by imitation, snobbery, impulses and motives deeply rooted in subconsciousness of which the consumer is most often unaware. Through his research G. Katona found that rational consumer behaviour can only be seen in the case of the purchase of very expensive products that are bought rarely, some goods that are bought for the first time, restituted property whose use in the past was associated with negative experience as well as small and cheap items that have a special meaning for the purchaser.Katona believes that well thought and conscious behaviour is characteristic of consumers whose income is at least average, who are better educated, younger or those for whom shopping is a pleasure and not a duty. Consumer decisions are based on conflicts between human nature and the environment in which man exists (Katona, 1980). Due to choice limitations, e.g. where the market is dominated by one company, consumers behave in a different way than in reality and make forced decisions because market domination reduces the number of substitutes (Bernat et al., 2007).

On the one hand such situation pushes for a higher level of competition, while on the other hand it affects the behaviour of consumers and their shopping decisions.

## III. RESULTS AND DISCUSSION

### 3.1. Ratchet Effects from the Macroeconomic Perspective

Depicting prospect theory seen as a choice pattern, D. Kahneman and A. Tversky observed that people perceive emotional changes more intensely when they experience loss than profit (Kahneman, 1979). This means that loss is more strongly experienced than a profit of the same weight (Brooks, 2005). This tendency translates into consumer's aversion to limit his/her spending when his/her income drops as in the ratchet effect. The ratchet effect means that despite a fall in income the consumer does not reduce his/her consumption which becomes fixed at a permanent level. This is caused by increased liabilities, debts and credits (Pałach, 2007). Therefore, the essence of the ratchet effect is the delay in consumer's response (expressed as a resolution to save more) to a drop in his/her income. The consumer grows accustomed to a level of consumption and despite a drop in his/her income wishes to continue to spend his/her income as before. Basic questions and doubtsconcerning the ratchet effect refer to motives that drive every consumer. The effects of framing in analyses of the ratchet effect refer mainly to the existence of "mind accounts" (Kahneman et al., 1981). Generally speaking, a framework is the manner in which the decision problem is described (Shefrin, 2007). People arrange their expenses and put them in "mind accounts" designated for specific goals.

In the event of income drop the loss may be recorded as a debit to one of expense accounts or to the overall

expense pool (Frank 2007). In case of the ratchet effect the consumer may respond in various ways depending on how he/she visualises his/her problem. When the consumer becomes aware of the negative consequences of his/her situation, he/she will develop a saving-oriented attitude faster than someone who is tardy and ignores the loss of a part of his/her income. "Framing works because people tend to be somewhat mindless, passive decision makers. Their Reflective System does not do the work that would be required to check and see whether reframing the questions would produce a different answer." (Thaler, 2012). The ratchet effect seen in the light of the overall achievements of microeconomics may be treated as a scientific nuance, but in the macrosphere "the endeavour of households to maintain their consumption levels is a factor that stabilises economy" (Begg, 2014).

As H. Shefrin observed, supporters of traditional finance theory assume that image cropping is transparent. However, in reality many frames are "non-transparent". Therefore, as they cannot be "seen through" decisions made by individuals are significantly affected by the frame used. In this way a difference in form also becomes a difference in content (Shefrin, 2007). Different presentations of the same problem may change a decision-maker's preferences. The results of experiments conducted by D. Kahneman and A. Tversky are a perfect illustration of this point. They noticed that the preferences of individuals change depending on whether a problem is described in terms of profit or loss. Respondents showed an aversion to risk when questions referred to profits whereas in response to references to losses they exhibited preferences to risky behaviour (Kahneman et al., 1984).

## CONCLUSIONS

There does not seem to be any doubt that the way the consumer perceives reality and processes information affects his/her shopping decisions. It is increasingly pointed out that the choice made is dependent on its context (e.g. whether the problem is presented in terms of profit or loss), and therefore it also depends on the assumed point of reference. There is a growing number of studies that prove the instability of preferences and undermine the assumption about rationality of decision-makers. In this area "framing" appears to be an important notion of behavioural finance. In most general terms framing can be defined as the way the decision problem is described.

Households that seek to maintain a fixed consumption level have a strong influence on the domain of macroeconomics, because they contribute to economic stability. Consumers who experience a drop in income spend as much as before which may result from imitation, comparison of expenditure with other households or a psychological discomfort caused by a loss. Decision-maker's emotional drive to maintain ownership of goods at the same level is so strong that despite a decrease in income consumers will borrow money and buy products on instalments only to satisfy their ownership need. When unemployment rises the main course of action to stabilise the economy is ensuring full employment. The economy may be at risk of a fall in consumption, but consumer behaviours help to fill this gap for some time, because consumers tend to buy as much as before they lost their jobs. Classical consumer choice theory unquestionably includes a number of uncertainties, which are becoming possible to be explained with the use of other disciplines, in particular psychology and modern currents in heterodox economics.

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