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ECONOMIC FLUCTUATIONS AND INFORMATION, AUSTRIAN APPROACH

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The information retrieving and processing in economy is an important issue. This paper is an attempt to emphasize the role of information in creation of trade cycles in the framework of Austrian economics. When market interaction (exchange) takes place, one of the information sources is prices. Usually prices reflect the level of compensation for received value by the purchaser and correspond to the seller costs. The idea of prices as an important informational signal is clearly expressed in the definition of different forms of efficiency of security markets. The interaction is an important feature of the human society as a whole, and economic relations in particular. This interaction establishes through information interchange and coordinated actions. The more complex structure of interactions, the more difficult and error prone is the process of decision making concerning the effective resource allocations between different economic actors.

Using informational approach initiated by F. Hayek, the classical mechanism of credit creation has been exposed with emphasizing the shortcomings in the information supply to economic actors. In the recent years a new sophisticated form of credit generation have been created and these issues are one of the causes of new Recession in global economy.

Keywords: Austrian school, Economic Fluctuations, Economic Information, Risks.

INTRODUCTION

Obtaining and processing information in the economy is a large and very actual issue. Uneven distribution of information among economic agents can provide an opportunity for both economic efficiency and the opposite effect. F. Hayek in his works emphasized the importance of the information as substantial component when discussing the role of knowledge in society (see [2]), noting “which of these systems is likely to be more efficient depends mainly on the question under which of them we can expect that fuller use will be made of the existing knowledge”.

Economic problems are connected to human behavior, both individual and social, and therefore the forecast usually does not have a high degree of accuracy. Nevertheless, in practice, in most cases, entrepreneurs satisfactorily solve the problems that arise to them, and the development of the economy goes relatively smoothly for substantial periods of time.

When making economic decisions, there exists always some relevant information, this information is either collected ad hoc, and some efforts are undertaken on its procurement, or the information (obtained earlier) is used and, in the last case, it is used without additional costs for information collection. When planning actions to achieve the desired result, not only the initial information is used, but also the results of the process of information processing.

Scientific analysis, scientific methods and rules, synthesis, analysis, etc., as well as additional information, including, for example, known economic laws, logic, common sense, etc., are used. Such methods make it possible to present the necessary knowledge in a concise and convenient form that facilitates information use.

Planning, as a method of processing and presenting information, involves the use of qualitative and quantitative data, which gives concrete values for comparison and evaluation

of the economic agents' actions. This allows to assess the effectiveness of economic activity, for example, to determine the desired level of profitability and an acceptable level of risk.

1. ECONOMIC INFORMATION AND RISKS

When interacting in markets, i.e. when exchanging goods and services, one of information sources is prices. Usually prices reflect to some extent the level of compensation for the received value by the buyer. Often prices are not difficult to find out, although their sufficiency for making the right economic decision can be questionable. The idea that prices are an important information signal is clearly expressed in the hypothesis of the effectiveness of securities markets, which is formulated as correspondence between the price of an asset and its economic (fundamental) value.

This hypothesis is closely related to the possibility of predicting prices and the level of profitability of assets sold in the market. Predictability makes it possible to extract additional profits from trading securities. The ability to predict future price behavior is associated with obtaining and processing relevant information and the ability to interpret it correctly.

Under normal market conditions, this opportunity is provided to all market participants. If market agents have the same access to information and have the same opportunities to process it, so they can draw the same conclusions.

Sometimes we can see that assets are underestimated and their prices are unusually low. In this case, their purchase can bring a high profit, since there is a sufficient probability of subsequent revaluation of the asset and raising its price. If the information about the undervaluation of an asset is available to the entire market, an increase in its purchases by market participants will push the price up, and the opportunity to obtain additional profits will disappear quickly.

Buying assets for profit in the future, investments, is associated with the uncertainty in the implementation of the expected future conditions. This side of the investment process is difficult to assess by economic agents and might lead to errors and involves a risk. This feature of investment decisions drew attention already by J. M. Keynes [3].

By definition, the dictionary of Merriam-Webster defines the risk as "possibility of loss or injury or peril." Rational behavior assumes that the economic agent will identify such outcomes, assess the extent of possible losses and take the necessary measures to minimize such losses. The possibilities of damage always imply absolute or relative inadequacy of information, which makes appropriate processing of data and obtaining correct conclusions difficult, prone with errors, and leading to the wrong prediction.

Sources of economic risk are associated with the interaction of different economic agents, featured with their diversity. Due to the agents' diversity and their different surroundings, economic agents have different volumes of information, so there is an opportunity to take advantage of this situation. The tendency to extract informational rent during interaction stimulates partners to hide information (an example is the so-called "know-how" or "trade secrets"), and, on the other hand, to make efforts to obtain information about the situation.

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The information used to make decisions is usually very heterogeneous, some of it is more or less objective and stable, other part is changeable and uncertain. Often the latter is associated with the use of the psychological and emotional component of the economic agent behavior.

The decision-making process in the economy consists of several successive steps: identifying information sources, extracting the right subset of data, processing information, obtaining conclusions, and building a forecast.

As F. Hayek argued “it has become more and more obvious that, in the treatment of the more “dynamic” questions of money and industrial fluctuations, the assumptions to be made about foresight and “anticipations” play an equally central role and that in particular the concepts which were taken over into these fields from pure equilibrium analysis, like those of an equilibrium rate of interest, could be properly defined only in terms of assumptions concerning foresight.” [2, p. 34].

This ability to predict future situations is fundamental for economic competition, economic development, and investments. Competitive advantage makes an opportunity to produce goods with distinctive features that satisfy consumers more fully than other producers. This implies the correct identification of needs and the forecast of their evolution.

As already mentioned, one of the mechanisms that transmit information to economic agents for decision-making is the price mechanism. Price signals are indicators expressed in monetary units. In turn, money is a tool that facilitates exchange and provides a basis for comparing the value of goods. As noted by von Mises [5] “the possibility of advantages for exchange makes the individual to change his or her value scale”, thus, money forms a universal basis for comparing goods and their valuation. The development of money, their functions in the economic system in conjunction with the system for preserving property rights and also debt relations, makes it possible to use new forms of fiduciary (in the sense of von Mises) tools.

Absolute knowledge is not available to an individual agent in the economic process. Each entrepreneur has only a limited amount of knowledge and limited ability to use the available information and draw their conclusions. If two of the interacting agents have the same information, preferences and goals, then in this case the interacting parties will begin to compete. In other cases, when there are differences in information, goals, conclusions, economic agents are likely to be able to find a mutually acceptable, compromise solution. An example of the latter situation can serve as associations, chains of suppliers, unions, etc.

Interaction is the most important feature of human society, which is established through the exchange of information and through coordination of actions. And the more complex the structure of interaction, the more difficult the decision-making process of economic agents, the more likely the errors in the allocation of resources.

When the number of interacting units increases and the number of links between them increases, then the risk and possible losses also increase. The complexity of the interaction usually increases exponentially with an increase in the number of interacting agents.

As noted above, an additional source of uncertainty is the inherent desire of entrepreneurs to have special information that gives a competitive advantage. This implies the possession of internal, inaccessible to others, information that is commercially viable and exclusive. Such asymmetry in information is to some extent supported at the legislative

level in the form of laws protecting property rights, patent law, etc., which helps to take a monopoly position and get additional profit, in particular, and to compensate for the costs of innovation [4, p. 27].

From this it can be concluded that information asymmetry can be useful and stimulating economic efficiency.

As already mentioned, information is the basis for forecasting and predicting the future situation. If the forecast is correct, then the errors are absent or minimal, otherwise, when the outcome does not coincide with the prediction, the situation is defined as the error entailing losses.

Possible reasons for such errors are: insufficient data, incorrect data, improper information processing mechanism, in particular, an incorrect way of finding conclusions. The latter can be illustrated by an example, which usually takes place in the stock market. If one investor sells shares and another buys them, we conclude that the first investor assumes that in the future of these assets will not yield (necessary) profit, whereas the second, on the contrary, believes that these assets will be profitable.

This means that having practically the same accessible information, the participants of the transaction may come to opposite conclusions. In this example, the possibility of correct prediction is the most important ability on which effectiveness depends.

In the event that the information is insufficient or incorrect, errors are almost inevitable and the risk of losses is high.

The growth of globalization, together with the positive effects of mutually beneficial ties, leads to an increase in the complexity of interaction, which in turn depends on the number of interacting entities, the identity of the market environment, and the political conditions that characterize a particular market. In addition, the complexity and, therefore, the risks are affected by changes in technology, the development of new instruments in financial markets, the opportunities of new markets, the changing tastes of consumers. All this leads to limitations on the accuracy of economic decisions, making them inaccurate, reducing the predictive power and value of forecasts.

It implies that during a boom, a business can over evaluate the positive aspects and underestimate the risks associated with the future. For example, the president of Bear Stearns, the global investment bank, argued that the bank does not do anything wrong and does not assume risks which it does not understand. Despite this statement, Bear Stearns was on the road to bankruptcy.

2. FINANCIAL MARKETS

In the modern economy, financial and investment activity is concentrated not only in the banking sector, but also in other financial markets where securities are sold: stocks, bonds, derivatives, CDOs and other forks of financial instruments. At present, financial markets have significant volumes and play an important role in economic life. Entrepreneurs can receive funds not only in the form of bank loans, but also in public financial markets, using various instruments and schemes of interaction with investors.

In recent decades, there has been a significant increase in financial markets. According to the Association of Financial Markets [10], the increase in the initial public offering of

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shares in world markets increased from \$ 4.5 billion in 1991 to \$ 58.7 billion in 2013, a similar picture was in the debt markets. The issuance of bonds in the US in 1996 amounted to 343.7 billion dollars, and in 2013 already 1 365.9 billion dollars. These instruments, i.e., stocks and bonds are traditional methods of attracting investment in business.

Modern markets work with both traditional and new financial instruments, including CDO (Collateralized Debt Obligations), ABCP (Asset-Backed Commercial Paper, ABS (Asset Based Securities), etc. Innovations in the financial sector increase the complexity of interaction and reduce information transparency, making relations in financial markets less predictable and more risky, generating uncertainty and information asymmetry.

Newly created financial instruments are based on the idea of issuing debt obligations, where securities' basis is not real assets, but other debts, that is, debts are secured by debts. Such a design hides the intrinsic value of assets and increases the risks [6]. Warren Buffet once called such tools "weapons of mass destruction."

The general algorithm for making an investment decision can be exposed as follows. First, the entrepreneur finds the opportunity to get profit at the level he needs. In the language of J. M. Keynes, the entrepreneur determines the marginal efficiency of capital and, if it finds it acceptable, then, taking into account all available information, proceeds to implement the investment project. To do this, he looks for the necessary resources. Most often, the required resources are expressed in monetary form therefore, it applies either to banks or to other sources of financing, in particular, to financial markets.

Because of the specifics of financial markets, their role in the emergence of fluctuations in business activity in a market economy is very significant. This is what the representatives of the Austrian economic school say, which emphasize the role of credit money and the change in interest rates by banks. These factors change the perception of business prospects by entrepreneurs and the propensity to save by households.

Note that the current theory of the efficiency of asset markets argues that asset prices reflect all market information, so economic fluctuations in the short term are random, and in the long run there are no conditions for long downturns in the economy. But, as historical experience shows, in many cases, information transmitted by prices is insufficient or distorted. The financial crisis of 2008 confirms that the main reasons were the problems in the financial markets and these problems that gave impetus to the global recession.

Consider in more detail the approach of the Austrian school, describing the causes of cyclical changes in the economy.

3. ECONOMIC FLUCTUATIONS (AUSTRIAN APPROACH)

The Austrian theory of trade cycles largely belongs to the monetary theories of cycles [7; 8; 9].

Hayek F. (1933) and von Mises (1953) described in details the role of banks in the economy and their impact on business cycles. According to these authors, the activity of banks and their ability to create additional money is one of the main reasons for the deviations of the economy from the equilibrium position (see, for example, [1]).

The bank as a part of the banking system can create additional monetary resources. For example, let the bank A receives a deposit, i.e., a loan from a bank customer, the bank

retains some of this loan in the form of a reserve to compensate for unforeseen expenses. The rest of the funds the bank can transfer to another client in the form of a loan. A customer who opens a deposit with a bank does not know that his money has already been issued in the form of a loan, although the bank claims that upon initial demand the deposit will be returned, as confirmed by the deposit agreement. The position of the bank is not absolutely reliable, the bank itself can only partially compensate the deposit.

Such asymmetry of information enables the bank to transfer part of the money through a loan to another bank, and the latter in turn, in a similar way, issues a loan using the money received from bank A, that is, an additional amount of credit money is generated. In addition to the described impact on the money supply, banks can directly affect the interest rate level, rather than its deviation from the equilibrium value [1].

Thus, there are the following reasons for the emergence of fluctuations in business activity: new fiduciary and new loan money, distorted interest rates, incorrect price signals in financial and commodity markets. In this regard, Hayek [1] notes: “The main reason for cyclical fluctuations should be in the changes in the amount of money that no doubt return and which, when they return, always bring falsification into the price process”. This forces enterprises, households and intermediaries to adapt their activities and investment preferences to changes in the market of money and goods. These changes are not the same in different sectors of the economy and under different circumstances. Such an arrangement destroys the market equilibrium and generates fluctuations in business activity in the form of ups and downs.

In the modern economy, under the influence of changing tastes of consumers and manufacturing technologies, adaptive processes are constantly taking place. Adaptation to new conditions occurs through financial mechanisms. The constant generation of surplus money, the possibility of assistance from the state to banks in case of a stressful situation, all this in aggregate changes the entrepreneurial assessment of future economic events and the risks associated with them. Distorted information, excessive optimism and the desire of banks to make a profit without adequate consideration of possible losses, partial reservation, guarantees to an individual depositor of a refund make it possible for banks to create additional money and hide their own risks from creditor clients giving money to deposits [11].

In this situation, excess monetary resources together with the chain convey of distorted information to entrepreneurs who believe that it is possible to invest in projects that are more risky in the case of limited financial opportunities. Such projects, with the wrong forecast, become unprofitable, and their significant volume in the economy leads to deeper adaptive reductions, which may cause a recession or depression.

As it can be seen from the above exposition of the Austrian approach to describe the causes of economic fluctuations, and taking into account the main elements of the recession of the world economy in 2007–2009, it can be concluded that the main cause of economic downturns is in the information component and financial markets (see also [12]). Insufficiency of information, unjustified optimism, inaccurate assessment of the future market conditions, supported by excessive generation of money and monetary instruments in their various forms — all this leads to a distortion of entrepreneurs' perception of the prospects of investment projects, and, as a consequence, to improper investments of funds,

which subsequently leads to liquidation of a large number of unprofitable projects and the beginning of a decline in production.

Note that new financial instruments related to new forms of credit generation, such as CDO, ABS, etc., creates additional information distortions, and plays a significant role in the development of the recent global recession.

CONCLUSION

The Austrian interpretation of the causes of the emergence of business cycles offers a fairly general explanation for the appearance of these phenomena. It basically relies on the role of various types of money and the banking system in the modern economy of capitalism. New phenomena that have emerged in modern financial practice allow us to generalize the provisions of this approach in the direction of expanding the role of information and conclusions based on such information.

This remark gives basis for a more general approach, which makes it possible to take into account not only the financial side of economic interaction leading to fluctuations in the conjuncture, but also other types of information and their role in economic behavior. In particular, in this aspect, new instruments of financial markets are considered to play a role in the emergence of the latter crisis. Such information-oriented approach includes elements of other cycle theories taking into account the demand change, change in technology and the financial issues.

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