"ALEXANDRU IOAN CUZA" UNIVERSITY OF IAŞI
FACULTY OF ECONOMICS AND BUSINESS ADMINISTRATION

SUMMARY OF THE DOCTORAL THESIS

"The impact of the cyclical dualism on the world economy"

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“ALEXANDRU IOAN CUZA” UNIVERSITY OF IAŞI

To Mr/Mrs ____

We hereby inform you that on December 14th, 2012, at 10:00 AM, in the room B 417, Mrs. MUȚ N. Mihaela, married IFRIM will defend, in a public session, the doctoral thesis “The impact of the cyclical dualism on the world economy”, in order to be awarded the scientific title of Doctor of ECONOMICS.

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The doctoral committee has the following members:

Chairman: University Professor Adriana Prodan, PhD., Alexandru Ioan Cuza University of Iaşi;

Scientific Advisor: University Professor Ion Ignat, PhD., Alexndru Ioan Cuza University of Iaşi;

Advisors:

- University Professor Constantin Munteanu-Gurgu, PhD., the Academy of Economic Studies of Bucharest;
- Lecturer Cristian Păun, PhD., the Academy of Economic Studies of Bucharest
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We hereby attach the summary of the doctoral thesis and invite you to participate in the public defence session. The thesis can be consulted at the Library of the Faculty of Economics and Business Administration.

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INTRODUCTION

The paper “The impact of cyclical dualism” is the result of the *explanation* of the common phenomenon called “business cycle”. The action taken for this purpose was a true initiative path of discovery and development of the answers that different schools of economic thinking built in order to answer the various questions arisen from the existence of business cycles themselves.

Without signalling all the stops made on the different economic theories, the aim was to provide, throughout the paper, only those ideas considered essential for shaping an *explanation* as complete as possible of the business cycle. From our perspective, this explanation belongs to the Austrian economic school.

Few things of the paper are of fundamental novelty. The aim was not to create, but rather underline, emphasise the major aspects that must be taken into consideration by any theoretical approach of the business cycle. Eventually, the paper is just a “pure” economic study.

The purposes was not discover “other” theories, but to search, gather and pass on the already existing ideas, because one of the purposes of science is knowledge, under all its shapes and forms. According to the principle “there’s nothing new under the sun”, an excerpt from the introduction made by Hans-Hermann Hope to the edition from 1998 of Murray N. Rothbard’s book, “The Ethics of Liberty” is presented below: “In the fields of ethics and economics in particular, it must be expected that most of our knowledge consists of “old”, long ago discovered insights. Newly discovered non-hypothetical truths, even if not impossible, should be expected to be rare intellectual events, and the newer they are, the more suspect they are. It must be expected that most non-hypothetical *truths* already have been discovered and learned long ago and merely need to be *rediscovered and relearned by every successive generation*…The danger is not that a new generation of intellectuals cannot add anything new or better to the stock of knowledge inherited from the past, but rather that it will not, or only incompletely, relearn whatever knowledge already exists, and will fall into old errors instead” (Hoppe, 1998). It was considered important to underline the meaning of knowing the old truths, considering that the failure of the “new economy” inspired by the J.M.Keynes’ “revolution” has been already experimented and that long ago blamed mistakes are repeated with every economic crisis.

The cognitive approach is based on the simple economic logic, without using correlations or mathematical models, all too often surreal, for the sake of originality. It must always be borne in mind that the entire economic fabric is built on the individual, who acts in order to satisfy his needs with the limited resources available. Therefore, the exaggerate citation of all sorts of mathematical instruments and mechanical, stiff and impersonal statistics is not considered a happy case. Economy is nothing else but a sum of human actions based on the simple logic of maximizing results by minimising the efforts. Economic science turns around the individual, who cannot be classified under any mathematical pattern.

The purpose was not to list the numerous theoretical approaches of the business cycle. It is considered that economic literature offers enough similar papers. The paper limits to an exposure of the cyclical phenomenon from point of view of the breaks between the dual structures of the market – real economy and monetary economy. The economic crisis must be understood from point of view of the gap between the monetary side of the economy and the real one, based on production, considering that both should reflect each other, being the two sides of the coin.

Of course, different crises can be explained based on different triggering factors. During the Civil War, the suspension of the cotton deliveries in America deeply affected the textile industry in England. Recent history of the E.coli bacteria in Europe paralysed the business of the cucumbers’ manufacturers. And the list goes on. However, they are all simple crises, not cyclical boom-bust events. Crises similar to the ones mentioned above are not preceded by boom. They can always be easily identifiable and do not require fervent discussions on their causes. Epidemics, natural disasters or wars cannot explain the modern depressions analysed in order to identify a causal theory of the business cycle.

One of the most complicated aspects of drafting the paper was the clarification of the notion of “cyclical dualism”, a term which could not be found in any paper dealing with the business cycle. Broadly speaking, the dualism is the conception of the existence of two different, opposite, irreducible elements, in the sense of spirit-matter, good-bad. From this perspective, from defining the dualism in the sense of opposite forces, the identification of correlations within the elements making the business cycle could have been reduced to the logic succession boom-bust. However, the meaning of the cyclical dualism, as we understood it, does not refer to the opposable cyclical processes, but to the intimate combination of two elements, complementary constructions. Thus, dualism presupposes the coexistence within the mechanism of cyclical fluctuations of the elements particular to the two economies – real economy, based on the production structure, and the symbol economy, which includes monetary flows. The coexistence of the two types of economies and the difficulties caused by the interventions in the monetary sphere at the level of real economy led to their classification as elements of the cyclical dualism – because the business cycle is not a pure monetary phenomenon at all, as Sir Hawtrey characterised it a century ago. Phenomena from the monetary sphere cause reactions in the field of real economy, in the production structure. The interest rate plays an important part, because it is in a complex relation both to the intertemporal structure of capital, and to the currency offer.

The cyclical dualism refers to the double nature of the business cycle, to its monetary elements and to its real elements at the same time. The cyclical dualism implies the existence of a causality relation between the real economy and the monetary one. It is believed that the triggering impulse of the cyclical fluctuation comes from the monetary sphere, as consequence of the actions of monetary authorities in the direction of expanding the crediting activity. This point of view can, of course, be rejected by a sufficient number of economists for whom the changes in economy are due to the fluctuations of the requests determined by different psychological states of the consumers, by innovations, technical progress, rich agricultural cultures, etc. The monetary expansion generates an illusion of available resources, motivating investments and leaving aside the production processes in economy. The simultaneous increase of consumption and investments, possibly due to the easy access to loans, creates the impression of sustainable growth and economic prosperity. This mirage cannot last forever, as the laws of the resources' scarcity cannot be abolished. The more and more visible effects of the inflation will require the increase of the interest rate and the abandon of numerous investments projects. Production is contracted and generates important capital losses. Real factors require the correction of monetary excess by depression.

The approach of the cyclical dualism was conducted from an apriority perspective, by taking into consideration its logic mechanisms, prior to any empirical study on the functioning of monetary and real economic elements. The economic theory is not a collection of testable hypotheses in relation to economic variables. It is rather a coherent framework for data illustration. Economy "depends more on the reason than on observation, and its main difficulty does not reside in assessing the facts, but in the uses of its principles", said Nassau Senior. The numbers can say anything; the interpretation of the sent message depends only on the economic logic. In this sense, subjectivity, apriority and deduction, as methods of praxeology (economy is a shape of human actions) can be found in the methodological fabric of this paper.

The bibliographical documentation was carried out by accessing several primary and secondary sources, which are presented in detail at the end of the paper. The analysis of the economic expansion from 2003 to 2008 and of the crisis that followed was based both on a statistical description (quantitative analysis) and on the causal explanation (qualitative analysis) of the interaction between monetary and real elements.

The first part of the paper is conceived under the form of a "puzzle" created from separate pieces which, if joined together, can offer the theoretical image of the business cycle. Each piece of the Austrian theory is, in fact, a subject that can be treated at large separately. Therefore, the approach used in this paper could somehow be considered shallow in the attempt to offer a panoramic view of the most important elements of Austrian theory on the business cycle. The complexity[1] of the phenomenon called *business cycle* is, anyway, difficult to cover between the covers of a doctoral research. Therefore, we assume a brief analysis of certain subjects, namely a series of divagations. In the second part of the paper, the focus was placed on the impact of the monetary-real dualism on several national economies, thus attempting to quantify it at large scale. This was more difficult to achieve in the context of the national diversity of monetary premises and real effects. Moreover, we often confronted with the lack of certain data for emerging economies and with separate approaches of the industrial variables.

The theoretical "puzzle" of the business cycle implied assembling the monetary elements of the second chapter to the real elements of the fourth chapter. The connection between them is given by the interest rate, which is thoroughly analysed in the third chapter. In case of monetary forces of the business cycle, we aimed the effects of the expansion of the currency quantity on the relative prices, the issues brought by inflation and its assessment, as well as the position of fractional reserves on monetary expansion. It was insisted on defining the interest rate as an expression of the time preference, on its role in the intertemporal assignment of resources, by highlighting the issues raised by the asymmetry of terms and performance curves.

The real factors of the business cycle are expressed in the production structure or in the inter-temporal structure of the capital. The production structure is the one that reacts to the changes of time preferences, increase of the savings, thus leading to an increase in investments and to the extension of the productive processes. In addition, time is very important in coordinating the process between real forces and the monetary ones. When investments are stimulated in the absence of savings, mutations occur in the production structure, which, sooner or later, will become obvious. Monetary forces boost economic growth, and the real forces will react by eliminating excess and rearranging the economy on the real fundament of individuals' preference and resources' availability.

The last chapter focuses on the way in which monetary elements and real elements complete each other and condition each other during the current business cycle. The expansionist monetary policies of most of the world's countries are responsible for the defective distribution of the productive resources, oversizing some activities to the detriment of others. The lack of real resources, covered by the richness of monetary resources, is the cause of the economic crisis occurred in 2008, the recession that followed being the period of the corrections necessary to eliminate the exceeding of the previous expansion. The governmental intervention, besides expanding budget deficits, interferes with the market's adjustment mechanism by artificially maintaining a non-sustainable business. Therefore, the recovery

[1] In addition, it is adopted the opinion of Eugen von Böhm Bawerk, who stated that any "theory of business cycle that wants to more than a basic patchwork will find its place only it the last or before last chapter of a treaty dealing with the analysis of the entire economic problems", apud Ludwig von Mises, "The Trade Cycle and Credit Expansion: the Economic Consequences of Cheap Money", Institute Ludwig von Mises, Romania, http://mises.ro/266/. In other words, it can be talked about a theory of business cycles only after a treaty dealing with the entire economic subjects is completed.

of the economy was postponed. The paper ends with a pleading in favour of the free market, of the superiority of its adjustment mechanisms, in the absence of governmental intervention.

This paper could not have existed if it had not been for the impressive collection of books and articles owned by "The Ludwig von Mises Institute", which it makes available to those interested in the ideas of the Austrian school.

I am grateful to Mr. Ion Ignat, the scientific advisor of this paper, for his patience and generosity throughout these years. I am deeply indebted to Mr. Vasile Isan for his support and trust, for the first attempts made in the theoretical universe of the Austrian school, and, last but not least, for the title of this paper. I would like to thank Mr Gabriel Mursa for the free exchange of ideas within the "Institutul Friedrich von Hayek Romania", and to Mr.Spiridon Pralea, for his constant encouragement. I owe many thanks to the teachers and my colleagues from the Department of Economics and International Relations for the richness and diversity of the shared ideas.

Chapter 1

THE BUSINESS CYCLE. GENERAL CONSIDERATIONS

This chapter draws some guidelines in relation to the approach of the cyclical phenomenon, by starting from the distinction between the economic fluctuation – cyclical fluctuation, and going on with the main challenges generated by a complete analysis of the business cycle and providing a brief theoretical exposure, which offers, from our point of view, the most complete answers to this regard. Another aspect analysed in this chapter was the duality of the theoretical approaches on the causes of the business cycle – investigations wrongfully oriented because of the monetary expansion, namely the existence of an exceeding production, and thus the need to stimulate the demand.

As it was highlighted in the introductory part of the paper, the cyclical dualism can be approached both in terms of opposite forces (boom-collapse), as well as the terms of an additional force, parts of the same whole. In both situations, it is all about features, characteristics, elements proper to the business cycle. However, the business cycle can also be analysed from the perspective of a dual theoretical approach. The theoretical dualism could be resumed to understanding the business cycle as failure of the free market or as results of the intervention of the monetary authorities in the mechanism of the market economy. Likewise, the duality in approaching the business cycle can be reduced to the opposition of the theories on the sub-consumption and mal-investments or, from the perspective of the triggering factors of the business cycle, to its monetary causes (credit extension) or to its real causes (overproduction). Therefore, several topics of this theoretical duality have been brought into question, integrated in the approach of the monetary expansion as responsible for the occurrence of mal-investments (the Austrian theory), namely the approach of the sub-consumption and of the overproduction as common elements of the business cycle (Keynesian theory).

The Austrian theory of the business cycle, based on which this paper was written, is the economic analysis of the effects of the monetary intervention on the market's functioning. The intervention determines the artificial change of the interest rate, which loses its purpose of measuring the individual time preferences, the report between the real preference for consumption and the one for saving. The wrong signals sent by this low interest rate make the contractors initiate investment projects, which at first seemed unprofitable. The illusion of wealth and of the economic growth becomes real by a total of wrong investments, a result of the manipulation applied by the monetary authorities by means of easy credits. The crisis occurs when the lack of the real resources becomes obvious, and depression is nothing but the elimination process of the errors caused by the artificial boom.

The essence of the Austrian theory of the business cycle can be identified in the statement belonging to Fritza Machlup, according to whom "*monetary* factors *cause* the cycle, but *real* phenomena *constitute* it" (Machlup, 2003:23). The core of the analysis is sooner the assumption "relative prices matter" than the famous "money matters". The changes determined by the monetary policy affects mainly the relative prices, leading to changes in the distribution method of resources in economy. This is the core of the Austrian theory. The monetary injections made in the economy, which are forms of the governmental interventions, affect over time the resource distribution, the intertemporal structure of the capital based on the interest rate. Cyclicity is, therefore, based on a temporary suspension of the market's intertemporal mechanisms. From this point of view, the Austrian theory of the business cycle is exogenetic, considering the perturbations as being determined, and not as features of the market economies. The endogeneity element refers to the price movement during the recession and to the adjustments proper to that period. In other words, an exterior force of the market, the central bank, can initiate an artificial, inflationist boom, which basically contains the seeds of its own collapse, the market's forces being able to generate, via recession, the necessary correction.

In the Austrian vision, the cyclical mechanism is run at the same time with the artificial diminishing of the interest rate. On a free market, the interest rate is the expression of the individuals' time preference. They exchange current goods for future goods, as consequence of the time preferences. Since the current goods are preferred to the future ones, the exchange implies the existence of a discount as compared to the current one or of a premium as compared to the future one. This discount is the interest rate, which varies according to the individuals' time preference. The time preference is also the fundament of the individual's consumption or saving preference. A decreased time preference makes the individuals reduce his current consumption in order to save money and invest more. This way, the diminished time preference relates to the economic growth.

The intervention of the monetary authorities in order to extend the bank credit leads to the artificial reduction of the interest rate, without any change in the individuals' time preference. The short interest rate gives a signal to the entrepreneurs in the direction of expanding the investments, especially of the ones spread over a longer period of time (capital goods, sustainable equipment, industrial raw materials, constructions, etc.). These investments seem to be more profitable under the conditions of a decrease in the interest rate. It must not be forgotten that the signal given to the entrepreneurs by the artificial reduction of the interest rate is wrong, as the initiated investments are not based on the increase of the resources saved within the company. The investments are made based on the credits offered by the banks, without it being necessary to be supported by long-term deposits.

The increase of the investments in the industries that produce capital goods leads to an increase of the incomes of the corresponding employees. These incomes can be mainly used for consumption, because the time preference of the individuals has not changed. Therefore, the income interest will reach to the industries of the consumer goods, the lack of an additional economy making the request for the new goods to be reduced. Individuals have not saved enough to purchase capital equipment, machines or industrial goods resulted from the investments encouraged by the reduced interest rate. This insufficient request for the capital goods leads to a reverse progress in the manufacturing industries, while the additional demand for the consumer goods leads to an increase in their prices. The maintenance of the individuals' time preferences, under the conditions of the failure of the interest rate to pass on correct information on the market, makes main investments in the capital goods be wrong, at the same time with the lack of a sufficient investment in the industries' manufacturing consumer goods. The boom of the investments in capital goods proves to be an erroneous economy distribution, a waste of already limited resources.

Apart from the distortions caused at the level of the production structure, the investments' excess in the industries of capital goods led to distortions at the level of the price systems. The wages of the employees of the industry of the capital goods increased more in comparison to the wages of the employees in the industry of the consumer goods, and this is also valid for raw materials as well, for used machines or machinery. It is all about different intensities of the inflationist boom determined by the monetary boom. Although we are witnessing increased price in all economies, the prices of the factors involved in the industries of the capital goods face an advantage in comparison to the factors of the industries of the consumer goods. This different intensity is also supported in the case of bust. Following the insufficient demand for the products resulted from the investment boom supported by monetary policies, the industries of the capital goods fall under decline. The prices of these goods decrease to a larger extent than the prices of the consumer goods. Overall, the cyclical fluctuations are more and more ample in the industries manufacturing capital goods.

One of the questions to which the theory of business cycles must answer aims the simultaneous occurrence of a high number of entrepreneurial errors, the so-called error clusters. Since one of the main functions of every entrepreneurial activity is prediction, those who anticipate the best the consumers' needs or the overall evolution of the market achieve the highest earnings, whereas those who fail in it record losses. The natural process that functions on the free market implies the availability of the entrepreneurs to consumers in order to meet their needs. When the authorities' action interferes with this process, the adjustment of the production, of the offer to the demand is affected. The result is nothing but a wrongful orientation of the productive processes, which fail in their purpose of meeting the consumers' needs. The economic crisis is the sum of all these pace disorders of the free market's functioning. The market economy means the possibility of winning, but also of losing. Entrepreneurial errors are, therefore, a reality of the market economy's system. Things change and generate questions when these errors seem to be general, when almost all entrepreneurs suffer, all of a sudden, great losses.

Depression occurs as the necessary period for eliminating erroneous investments of the economic boom period and for re-establishing the proportions between the real preferences of the individuals for consumption and savings. Although it is in fact a painful process, depression allows the market to resign to the excess encouraged by monetary interventions during the period of economic boom, replacing the economy on the natural bases of consumers' preferences. The reason for which the depression does not manage to fulfil its purpose must be searched in the process of monetary expansion, which is not a "one shot" activity, but a process spread over several years. The expansion of the crediting offers on behalf of the banks in order to maintain an investment for which there is no market demand, is made at the cost of the postponement of the natural processes of the market, reason for which the depression, in fact inevitable, will be more painful. This process is similar to the repeated doping of a horse that needs higher and higher doses in order to continue the race. Similarly, the boom is kept due to an increasing quantity of credits. The economy's recovery can be achieved only after the monetary injections ended, and the elimination of their effect is an unpleasant process, similar to a detoxification following the doping. As long as the monetary expansion is kept for a longer period of time, the erroneous investments, which must be eliminated, are more important, and the readjustment processes are more difficult.

In the absence of the interventions of the monetary authorities, the economy would function in its own pace. The economic increase would always be based on the existence of a prior accumulation process. Investments would be based on saving, and the entrepreneurs' decision to invest would consider the natural interest rate, the expression of the time preference of the consumers. The economic crisis, which would end the expansion superficially supported by credit, is the signal of the insufficiency of the resources gathered and of the real ratio between the time preferences of the individuals. The economic bust is the corrective measure of the correct reallocation of these time preferences. The extension of the monetary intervention does nothing but postpone the inevitable. The market commands, in the end, its own rules.

The Austrian remedy for the cyclic movements aims to avoid the inflationist measures, even if this speeds up the end of the boom and rushes the recession. Recession is, in fact, the only method of eliminating economy distortions and returning to health growth. Governments should, at the same time, refrain from saving the business affected by the crisis; its support does nothing but extend the agony. Refuting recession by a forced credit expansion is similar to eliminating evil by means of the methods that created it. Since the economy suffers from a wrong orientation of the production, by continuing the expansionist monetary practices it is only encouraged the movement towards this wrong direction, which will only lead to a more severe crisis.

This vision is not shared by the supporters of the policies of consumption stimulation in order to exit recession. To them, consumption seems short in relation to an exceeding production. In fact, the impossibility of an overproduction in relation to the continuous existence of a satisfied need is not noticed. As long as there are needs, the production cannot be oversized, only wrongfully oriented, by covering some (limited) resources that may be oriented towards other productive processes. Therefore, by following the line (challenge) of the theoretical dualism, the theory of the overproduction under conditions of a short consumption opposes to the wrongfully oriented production as consequence of the malinvestments created by monetary expansion.

Keynesian supporters indicate the demand's insufficiency as reason of the economy's collapse, the offered solutions that come from stimulating the consumption. In addition, the problem of the aggregated demand is reduced to the equation C+I+G, where consumption is the stable element, the investments are the unstable factors, and governmental expenses represent the stabilizing element. Therefore, the insufficient investments can be, without problem, replaced by governmental expenses. The problem of resources and of their misappropriation from the market to the state does not seem to matter in the interventionist model of Keynesian supporters. The demand must be supported at any cost and all the efforts must be directed towards this direction. Therefore, the crediting expansion seems to be one of the available solutions for stimulating, in a miraculous manner, consumption and investments at the same time. Saving seems to be a troubling factor of economic growth, captive of the "paradox" of saving. The demand must keep the pace with a so-called overproduction, reason for which no effort must be spared in the direction of consumption's stimulation. The Austrian theory opposes to these interventionist and consumerist visions for which monetary excess, in the lack of a real saving, is responsible for the distortions in the production structure of an economy. Recession determines the demand's decrease and not the other way round. Moreover, it must be borne in mind that recession follows the economic expansion, when both production and consumption increased constantly. The occurrence of the discrepancies between demand and offer are not due to the incapacity of the demand to keep pace with the increase pace of the production, but to the unfortunate orientation of the production towards goods that consumers don't really need. Therefore, an economy in recession does not need the consumption's stimulation, but the readjustment of the productive apparatus, its reorientation towards meeting the actual needs of the market.

Beyond the amplitude of the ideas involved in the theoretical dualism on the business cycle, the lack of a consensus on the causes of the cyclical phenomena is responsible for the persistence of the inflationist monetary policies. The orientation of consumption towards stimulation and the neglect of the saving as source of a healthy economic development are the results of a narrow vision on the economy in the short term. The poor understanding of the functioning method of the market and of the interdependence between monetary and real factors, materialized in governmental policies and measures is responsible of the difficult evolution of the economy, of expansion and collapse.

Throughout the following chapters the aims is to offer the image of the monetary and real forces that create the market's functioning mechanism. Their knowledge conditions the understanding of the business cycle. The monetary expansion determines distortions of the production structure and creates the illusion of availability for numerous resources. However, economy depends on the *real* saved resources, the numerous investment processes could not be ended in their absence. The business cycle is the expression of all these monetary and real movements, a set of actions and reactions.

THE MONETARY FACTORS OF BUSINESS CYCLE

Chapter 2

THE MONETARY BOOM – THE PREMISE OF THE BUSINESS CYCLE

It is difficult to find a coherent explanation of business cycles that would not focus on the currency. However, the currency, the most important element of an economy is, by far, the most confusing economic topic. The confusing character of the topic "currency" is related to the large number of questions generated by it and, also, by the diversity of the possible answers. Murray Rothbard (2005) speaks about a Babylonian vision on the currency, considering the heterogeneousness of the approaches of this economic topic and the various questions it arises: who should decide on the currency used in transactions, who should be responsible for the currency issue, which should be the limits of the monetary authorisation in relation to changing the currency quantity, what are the long-term effects of the policies of monetary expansion, etc.?

On top of all these preoccupations, it must be added that currency, from historical point of view, represents the first field controlled by the state. Moreover, to a large extent, the monetary field is, by excellence, included in the governmental regulations. Thus, it is almost inconceivable to promote the principles of the free market in the monetary system. The topic is, to a certain extent, taboo. Only the state can establish the currency used by its citizens and trace the lines of the monetary policy implemented via central banks, decide the functioning rules of the banking system, interfere on the exchange rate of the currency or change the level of the monetary offer on behalf of the so-called stability.

Setting a stability maintenance aim of the prices represent a disastrous approach of the system on which the market economy is based. It is unlikely to produce certainty to people, similar to stability or security, any attempt in this direction being bound to fail. Uncertainty is a constant of human existence, and guaranteeing stability and certainty are only a utopia. The interventions on the monetary system cannot offer the guarantee of the individual security, but it offers guarantees to just some of them.

Without aiming to perform an analysis on the organisational structure of the monetary system based on the principles of the free market, we limited to highlighting certain aspects related to the relation between the currency offer and the production structure of an economy, via relative prices. There were made references to topics such as the effects of changing the currency quantity effects, expanding the crediting and inflation.

The increase of the currency quantity does not offer an increase of the living standard within an economy, as it happens in the case of consumption and capital goods. If it were on the market a quantity of higher quantity of goods, the entire society, would overall be richer. Individuals would have easier access to the desired goods, and at lower prices. The increase of the available quantity of natural resources and of capital goods is a premise of the future increase of production and of the improvement of the individuals' living standard. However, the same thing cannot be said about the increase of the currency quantity. The existence of a higher money supply does not lead to more richness, in terms of goods that can be obtained from the market. In fact, real economy does not produce anything more. The possession of a large currency quantity by an individual will certainly mean increased possibilities for him to enter in the possession of the desired goods, but the same thing is not verified at the level of a company. An additional currency quantity on the market will only benefit some and disadvantage others.

Doubling the currency quantity in the economy does not mean doubling the quantity of available goods. If this is valid at individual level, at company level earnings are cancelled. Changing the currency quantity affects only the level of prices, goods and services available to the company by remaining the same. This is the main difference between currency and the other goods of the economy. People do not want to own large quantities of currency, but to obtain an increased quantity of goods and services in exchange. If real economy does not offer this production interest, the increase of the currency quantity in the economy uniform to the diminishing of the purchase power. More simply said a currency excess will lead to prices' increase. However, it must be highlighted a matter of substance related to the prices' increase, namely the need to shift the emphasis from an analysis focused on the *overall level of prices* to an analysis focused on *relative prices.*

Changing the monetary offer does not equally affect the prices within an economy. As a consequence of an increase of the quantity held by the currency, each individual will act based on a consumption preference schedule. The result will be a change of the structure of the demand, of the production and of the relative prices. The image offered by such an imaginary is obvious: the change of the currency method does not affect the economy prices in a similar manner, and, therefore, the preoccupation for the overall level of prices within the economic analysis should be accompanied by the preoccupation for the level of relative prices. In addition, individuals who prefer the quick consumption (have a higher time preference) of the goods they can obtain via the additional currency quantity will benefit from prices that have not yet started to rise, while individuals who will postpone consumption will have to pay more for the purchased goods. If a consistent increase of the quantities held by the currency lead to changes at the level of the demand's structure and of the relative prices, especially since such distortions occur in the case of monetary injections aiming certain economic sectors.

The emphasis placed on the relative price change as consequence of the monetary expansion will become relevant throughout the paper, when there will be highlighted the distinct behaviour of the capital goods' price and of the consumer goods along the business cycle.

The expansion of the crediting is an increase of the number of borrowed monetary units over the voluntarily saved monetary units, which are available for loan. Without denying the positive effects of the crediting operations on the economy, it is important to underline the difference between the credits based on the amounts saved and on the credits created out of nothing. Any increase of the debtor's purchasing power, which is not compensated for by a reduction of the purchase power of the one that's performing the saving, is a credit extension. When commercial banks offer credits without attracting long-term deposits of equal value, they facilitate monetary expansion. The money available in the economy is more numerous, but the offer of produced goods does not reach the same extent. Therefore, it will be a higher demand for an unchanged goods and services offer. The monetary expansion triggers an exchange of "nothing form something" or a misappropriation of real resources from the activities supported by the real preferences of consumers towards projects that are bound to fail once with the crisis.

At an interest rate established freely on the market, in the absence of the governmental expansion, the business for which there are the necessary production factors in the economy will seem attractive and profitable to the investors. When there is a low interest rate, as a consequence of the crediting expansion policies, apart from this business, other businesses may also seem profitable and tempting. The increase of the number of investments within an economy will definitely mean placing it on an ascending trend. Nonetheless, the issues start to occur when it is proven that in economy there are not enough resources to support all initiated investments. Therefore, a process of misappropriation of the productive resources from other types of businesses will take place. If this issue of the lack of the resources necessary to start new investments were not real, then a credit expansion would not be necessary. Investments would be based entirely on the resources available as consequence of a natural saving process.

The main issue created by the process of crediting expansion resides in the fact that it cannot determine the increase of the offer of real goods in an economy, but its rearrangement at most. As consequence of the crediting expansion, the investments are misappropriated from their natural level and direction, dictated by the requirements of the market, by the available needs and resources. Artificially increased credits created the incorrect impression of prosperity, but the economic growth resulted is not based on solid grounds. Prosperity is not real, but illusive, because it is not based on resources' interest, but on the illusion of such situation. As Mises anticipated, sooner or later, it will become obvious that such economic situation as an extremely unstable foundation.

The increase of the currency quantity places economy in a mirage of growth and release from the despotism of limited resources. This mirage can be maintained just as long as the economy benefits from monetary injections. The reduction of the currency's purchase power will require, sooner or later, the acknowledgement of the harmful effects of inflationist practices. In other words, the mirage of growth and wealth offered by inflationist measures is a short-term one. In the long-run, the erosion of the currency's value and of the distortions created by the prices in the production structure will not weigh in favour of an economic bust. The short-term effects of the monetary expansion are similar to the results obtained on the sport field of a doped athlete. He manages to achieve performances easier, the same as an inflationist economy has rates of growth and development higher than in the lack of monetary injections. The major risk of doping and of the inflationist practices is, however, addiction.

The credit expansion, which we consider responsible for the existence of the business cycle, is closely related to the practice of fractional reserves. The fractional reserves allow the occurrence of the economic boost, which is not supported by saving and the real resources of the company. Therefore, the use of fractional reserves allows the occurrence of a break between the real economy and the monetary one. The use of fractional reserves is a highly important link of the Austrian theory of business cycle, due to the major position it plays in the credit expansion and in the increase of the currency offer.

A healthy banking system implies offering credits based on the saved resources only. If the financing need occurs in a more elevated economy, the interest rate must increase because the saved currency is exposed to the rarity rule. A higher interest rate could stimulate more individuals to save. However, saving can only be limited due to the relentless need of current consumption. Once more, the rarity topic is reached, based on which the economy is functioning. Any undertaking to force the rarity limits is bound, from the beginning, to fail. Considering this predictable ending, the following question arises: why is the system of fractional reserves so spread and even popular? A possible answer is related to the mirage of the growth imprinted by the first part of the monetary expansion on the economy. The higher and higher wages and the easy access to sources for financing of consumption and investment seem to last forever each and every time. Although individuals might be aware that the expansion will end at a certain point, they will still be tempted to take advantage of it.

The expansion of the crediting in the system of fractional reserves cannot ensure the real growth of the economy, which is directly related to the available production factors; in other words, to the real resources of the economy and to the monetary ones. Although by the system of fractional reserves it is possible to ensure monetary feeding of a large number of economic agents, the extension of their activity is not a synonym for the overall economic growth. The additional resources requested by the beneficiaries of the monetary surplus will, inevitably, be misappropriated from other activity fields. The rarity law has the final word.

The appetite for the expansion of the money supply can be a constant of all the states and communities, as a verdict that forces the repetition of history. The reason is very simple: the confusion created between having an additional money quantity and increasing the state of wealth. Money should not be mistaken for wealth, this "verbal ambiguity" (Hazlitt, 1952) being mostly responsible for the easiness to adapt inflationist measures. "If it were really possible to substitute credit expansion (cheap money) for the accumulation of capital goods by saving, there would not be any poverty in the world." (Mises, 1965). The increase of the available currency quantity in an economy is not translated by an increase of the purchased goods and services. The resources available in society are limited, and the real richness is not transposed in the currency quantity, but in the quantity of goods produced and consumed.

The economic boom based on the credit expansion is the period during which the constraint required by the rarity of resources seems to be contradicted by the monetary networks of growth. The illusion created by the monetary expansion consists of the possibility to initiate and complete investment-based projects, for which the economy is not rich enough.

The most important problem of the humankind, the insufficiency of resources, cannot be solved by monetary expansion in its effort to stimulate production. In the short-term, the monetary expansion creates a mirage of growth and wealth, but it can only continue at the cost of the steps' continuation, at a more and more alert pace, on the road of inflation. The increase of the prices and the loss of purchasing power of the currency will prove that prosperity was nothing but an illusion. When there are contracted monetary resources that are more and more necessary to the expansion of the productive activities, entrepreneurs have to deal with the available resources. Those who don't succeed in doing so, as consequence of an insufficient demand for the offered products, have to step out of the market. Instead of the expected growth, the economy enters the decline – high prices, currency depreciation, abandoned productive activities, increasing unemployment rate, etc. – are just a few of the effects produced by monetary expansion. Moreover, if it is considered the exaggerated consumption of capital created during the economic boom, it can be concluded that the credit expansion not only did not increase the richness of an economy, but it also wasted an important part of it. Covering the losses will only be possible at the cost of a higher level of saving, unless monetary authorities initiated a new illusive round of monetary growth.

Monetary expansion can only be beneficial if it reflects the real behaviour of individuals. If they decide to give up a part of their current consumption, by saving and gathering resources, the increase of the credit quantity in the economy is a welcomed process. The investors can benefit from the purchasing power to which those that are currently undergoing saving give up. This property transfer is natural, and the "magic of a banking trick" is no longer necessary. The monetary intervention is supported in this mechanism by the market, which produces inflation, the loss of the money's purchasing power, and distortions on the real economy. Apart from the fact that it does not create wealth, the monetary expansion generates, via prices, mutations on the economy's productive structure. Therefore, "an understanding of the underlying real forces is even more important than an understanding of the monetary surface, just because this surface does not merely hide but often also disrupts the underlying mechanism in the most unexpected fashion." (Hayek, 2009). Consequently, the purpose was to go beyond the monetary surface of the business cycle, to the core of its real mechanisms, but not before analysing the binding element between the two – the interest rate.

The major importance of the interest in the theory on which this paper was drafted required the distribution of a distinct chapter in order to discuss several major aspects related to this topic. The time preference and inter-temporal resource distribution, facilitate by the interest rate are approached together with topics such as the performance curve, the deadline asymmetry and the fractional reserves.

Chapter 3

THE INTEREST RATE AND THE TIME PREFERENCE

The time preference is tightly related to the limited character of the resources; for this reason, individuals must choose between satisfactions nearer or more distant in time, but in neither case the satisfaction will be complete. This action is preferable to the future action because the latter involves a cost related to the depletion of a rare resource – time. This way, the time preference does not represent just a condition of human action, but it also implies a positive value. The Misesian theory of the interest rate is based on the connection between the time preference and human action, the same way the Kelvin's scale is based on the relation between temperature and the molecular movement. The existence of the human action is the proof of a positive time preference.

Interest is not a price, but a rate, which resulted from a developed exchange process. The interest rate is the key element of the inter-temporal coordination of the capital, it is the relation between present and future, between future earnings and current prices. The preferences for the current goods make them be changed for the future goods at an exchange rate identified for an inter-temporal price of the present in relation to future. This exchange rate, the interest, is given by the relation:

$$\text{Interest} = \frac{\textbf{Value of future goods} - \textbf{Value of present goods}}{\textbf{Value of present goods}}$$

The time preference is based on the existence of an individual scale of needs, expectations and options, being the subjective expression of the value.

The interest rate theory led to numerous disputes in terms of ideas due to the overlap of two approaches whose issue and answer range should be treated distinctly. The first problem is related to the origin of the interest rate and it is considered essentialist, as long as the formation of the interest rates o the market has a strictly functionalist character. Without going into detail on the theoretical disputes of Austrian economists, the purpose is to highlight the observation made by Israel Kirzner in 1993: "for almost a century a particular theory of interest has been again and again discusses, refuted, defended, ignored, forgotten, and rediscovered; somehow it has managed to survive." The survival over time of the Austrian theory of interest, based on the individuals' time preference confirms its solid grounds and its ability to support the fabric of another theory, the theory of business cycle.

The interest rate plays a vital part in the production system of a monetary economy. In the absence of the intervention of the monetary authority, the (pure) interest rate is established on the market as a consequence of the exchange relation between current and future goods. This current/future exchange market, or better said, the "time market", finds its value in the monetary terms. Currency is, by excellence a current good, a constant of all economic transactions. Currency is the exchange instrument of the present for the future on the time market. Currency, the current goods, is offered in exchange for future goods. The later are the goods that will become current at a certain time in the future.

The importance of the interest rate derives from the position it has in distributing resources within the productive structure of an economy. It is also the interest rate that is responsible for the faulty distribution of these resources, when it is no longer left to fulfil its purpose.

The interest rate, as inter-temporal resource distribution mechanism, is disrupted in its functioning by two current practices on the monetary market – the banking activity based on fractional reserves and on the terms' asymmetry (maturity mismatching). By means of the crediting operations, the banks offer a current asset in exchange for a future one. By the mere reduction of the interest rate, the banks involved in the crediting expansion create current goods out of nothing. Similarly, the practice of the short-term loan for a long-term credit (borrowing short and lending long) create time out of nothing.

This "created time" will put a descending pressure on the interest rate, contributing to the faulty distribution of the resources within the economy, based on the theory supported by the Austrian theory of the business cycle. From this perspective, the deadlines' asymmetry can be considered an extension of the Austrian cyclical theory.

Avoiding the discrepancies of the loans' maturity is a premise of the limitation of the insolvency risk of financial intermediaries. The use of short-term loans in order to support long-term crediting was, in fact, a constant of the last banking crises.

The expansion of the crediting leads to a lack of coordination between the behaviour of different market participants. Entrepreneurs want to expand investments in intensive capital productive processes, while the preference for consumption of the other economic agents is unfavourable to the saving's increase. The lack of coordination is obvious, the saving not being able to support generous investments. This discrepancy between saving and investments is cleverly concealed by the practices of commercial banks. The intermediary process between the economies' possessors and the investors becomes a sort of walking on the tightrope of deadlines' asymmetry, the raising of short-term liquid assets being used to offer long-term credits. The risk derives from the fact that banking passives with zero maturity must be permanently renewed in order to support long-term placements.

As long as the economic agents continue to direct their economies towards bank deposits, the supporting process of the long-term credits is not threatened. The things get complicated when the time preference increases, and the relation between the consumption preference and the saving one weighs in favour of consumption. In such a situation, the asymmetry of the short-term raisings/long-term loans becomes a risky adventure, based on the circulation of more and more precarious economy funds. The decrease of the trust in relation to the banks' solvability can generate real phenomena of panic, the massive collections and the lack of resources putting an increasing pressure on their ability to honour their obligations.

The asymmetry or the discrepancy of real-saving investments offers erroneous information in relation to the real resources of an economy. Thus the image of malinvestments, suggestively defined by Ludwig Lachman (1976) as the "waste of capital resources in projects based on misleading information". The problems generated by the asymmetry economies-investments in the real economy cannot be solved by a simple liquidity injection, performed by the central bank in a system based on fiduciary currency. It is important to highlight the fact that the banking system can create credits but cannot create economies. If individuals prefer to consumer more and save less, the prices of the consumer goods will increase in relation to the prices of the capital goods, which can be translated into a reduction of the production structure. The investments in elongated productive structures cannot be achieved in the absence of real resources of saving. The need of a real coordination between economies and investments is underlined by Friedrich von Hayek, as follows: "Although in the short-term, monetary influences can delay the inherent trends of real factors and may, even temporarily, switch them, in the end, the rarity of real resources…is the one to decide to what extent and how many investments are profitable" (Hayek, 2009)

THE REAL FACTORS OF BUSINESS CYCLE

Chapter 4

THE REAL FORCES – PROPAGATION OF CYCLICAL WAVES

Cyclical dualism or the dichotomy financial cycle/real cycles is an acknowledgement of the fact that the elements of the iconic economy intertwines with the elements of the real economy, making a unitary whole, namely the economic assembly. Any friction produced at the level of one the two sides of the economic system produces effects on the other one. Monetary fluctuations are transferred by means of the interest rate in the real economy, and in the production structures. The interdependency and the interaction between monetary economies and the real ones require the analysis of how this transmission is produced. Considering the monetary-real complementariness, the movements of the parties can only be correlated, even if the reactions of one to the other may require going through a certain time interval. Moreover, time is a very important element of the theory on which the cognitive process is based. Therefore, Huerta de Soto (2010) speaks about a "time market" made of a general sector of the production structure and a specific sector of the credit's market, which functions based on principle of communicating vessels. The same idea can be found in Rothbard and, according to her opinion, the current/future (time) market can be divided into two subdivisions – the production structure and the market of the consumer credit.

Time is a central element, which relates to each aspect of the economic life. From the perspective of the Austrian economic life, the time element is mostly found in the temporal production structure. The distortions created at the level of the production structure of an economy, as consequence of the changes in the money supply, make the temporal relation between currency and capital become highly thistly. The time issue in the economic theory is rightly identified by Robert Solow (1997), as follows: "one major weakness in the core of macroeconomics is the lack of real coupling between the short-run picture and the long-run picture". Indeed, the short-term vision of Keynes ("we are all dead in the long-run"), based on demand, is opposed to the classics' approached, with highlights on the offer's topic. The Austrian school also deals with this decoupling between the short-run approach and he long-run one, and the "real coupling" (Garrison, 2001) takes the shape of the capital theory. Briefly, the theory of capital uses as starting point the stage production structure of Carl Menger and the theory distribution of the resources between the production factors of Eugen von Böhm-Bawerk. The monetary part of Ludwig von Mises and Friedrich Hayek is added, who show that the credit expansion causes distortions in terms of inter-temporal resource distribution, which results into the main cause of business cycles. It cannot be talked about capital without making several references to the time factor, because capital can only be achieved *only* after a gathering process spread over time.

All individual actions are carried out in a temporal framework. The interaction of different economic processes implies going through a certain period of time. In the words of Roger Garrison (1984), "time is a mean of action, and money is a mean of exchange". The market's forces adjust the production according to consumers' needs. However, the productive activities also require crossing a certain period of time, until consumers can access the goods they want. For this particular reason, the purpose of time cannot be neglected when the productive structures of an economy are being analysed. The temporal factor is expressed by using the interest rate, its purpose being to distribute resources over time. For this reason, the interest rate has a key position in the expansion and depression process of the economy. When the interest rate expresses the real relation between the consumption preference and the saving one (in other words, the time preference), the processes of the market function normally. However, when this intertemporal mechanism is disrupted (as consequence of the authorities' *decision* to *propel* the economy, let's say), he market cannot function normally, and the artificial growth will be suppressed as soon as the limited character of resources becomes obvious, a correction in the shape of depression being necessary.

The changes made in the structure and in the levels of the money supply are not, by far, indifferent to the real economy. An additional monetary flow will be used in the first stage in order to purchase certain products and services, which will, subsequently, spread throughout the entire productive structure. However, the fact that certain prices will increase before other, will affect the entrepreneurs' method to use their resources, which will translate into changes at the level of the productive structure. The intertemporal manifestation of the forces present in a market economy finds its most coherent expression in the production structure.

The concept of "structure of production" is one of the pillars of the Austrian theory of the business cycle. The production structure refers to the double dimension of the capital, both monetary and temporal. The monetary (value) dimension refers to expressing the capital in monetary terms, and the temporal dimension indicates the time elapsed between using the production factors and obtaining the consumer goods associated to them. The production structure, in its double value and temporal dimension, was first represented in a chart in the '30s. This diagram is also known as the Hayek's triangle and involves a high generalization degree of the production processes. The triangle drawn by Hayek offers, via its sides, the image of a bi-dimensional macroeconomic picture, showing both its value and its time component. The productive processes described by Hayek highlight the temporal dimension of the transformation of the production means into consumer goods. Different capital goods (machines, tools, equipment, etc.) are used in various production stages. This way, the structure of production can be defined in terms of "temporal arrangement of heterogeneous capital goods".

The use of Hayek's triangle to show the relation between the production processes and the consumption ones within an economy, despite numerous accepted omissions, are a constant of the Austrian macroeconomics. Although it is considered simpler, this diagram has the advantage of having included the time element in the production structure, continuing the line drawn by Menger and Böhm-Bawerk. A major part in supporting the Hayekian vision was played by Roger Garrison, who suggested a "twist" of the triangle, its fundament being the production time.

The reduction of the time preference means the decrease of the individuals' appetite for the current consumption in favour a future consumption, ensured by the initiation of different entrepreneurial projects. Due to the limited character of the resources available in society, the initiation of new productive processes (investments) implies the existence of a gathering, saving process. New investments imply using resources (productive means) in a time consuming production process, which leads to the expansion of the temporal dimension of the existing production structure. Additional investments involve restraining the current consumption and, by means of the market's mechanisms, an increase of the demand for superior goods occurs, namely for goods placed in the initial stages of the production. Overall, as consequence of changing the individuals' time preference, an absolute demand decrease does not occur, instead occurs a change of the consumption pattern.

Not taking into consideration the time element is partially responsible for the lack of obvious evidence on the relation between the credit expansion (with its beneficial effects on the economy in the short-run) and the economic crisis. The production time, inherently when a multi-stage structure is analysed, causes a dissipation of the causality relation between the monetary intervention on the credit market and the effects of this intervention. Each this is subject to the law cause-effect, and the credit expansion affects the intertemporal distribution of the production structure within an economy. The created issue is related to the resources' distribution within the intermediate production stages, in the lack of a change in terms of individuals' time preference. The crediting expansion is translated into a decrease of the interest rate, which, in turn, makes the entrepreneurial actions more future-oriented, and the consumption oriented especially towards current goods. The change of the interest rate results in the capital's restructuring, which, from point of view of the diagram, leads to the change of the shape of the triangle suggested by Hayek.

Sustainable growth is based on the resources necessary to increase long-term investments. Unsustainable growth is based on the illusion of the existence of such resources. In other words, if innovation is excluded, the difference is a real, long-term growth, and an artificial, short-term one is given by the saving, resource gathering process. Saving ensures the support necessary to extend investments, generating an expansion of the production possibilities within an economy. Monetary expansion, in turn, by reducing the interest rate, sends a wrong signal to investors in relation to resources' availability. The elongation of the productive processes cannot be supported forever by crediting, and the reproduction of monetary resources cannot replace the shortage of real resources.

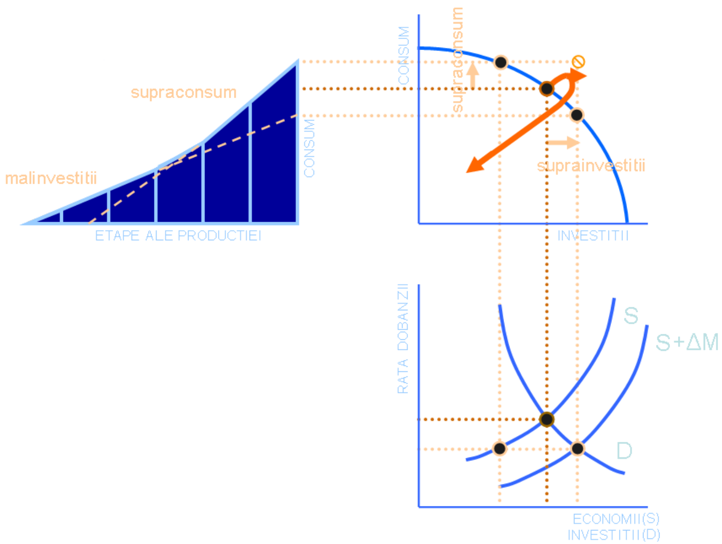
The expansion of the money supply by stimulation policies of the crediting operations lead to an increase of the borrowable funds' offer. This way, the monetary expansion is easily mistaken for the saving's increase. As consequence of the policies to create monetary resources, the interest's market rate falls below the level of the natural one. In this case it can be talked about a cheapening of the intensive production means in the capital. Economy receives a wrong signal on the availability of the resources that can be used for investments. Moreover, due to the monetary expansion, the interest rate decreases, and the individuals can save less and consume more. It is a paradox, which cannot be supported on a free market in the absence of the intervention of monetary authorities. Individuals consume more and invest more, considering that no one is saving. This paradox is concealed by the offer of monetary resources created by the banks.

The reduction of the interest rate in the absence of the time preference change leads to saving's decrease and investments' increase, as it can be seen in figure 29. Investments are no longer supported by savings, by real resources, but by the monetary ones, resulted from credit expansion. The economic increase resulted is not sustainable, it is a short-term one. Economy functions only for a period of time outside its production possibilities. The investments' expansion leads to a clockwise movement along the curve of production possibilities, but the saving's decrease leads to a counter clockwise movement along the same curve, in favour of consumption. The break created by monetary expansion (also represented in the figure by ΔM) between saving and investments turned into a competition between consumption and investments. Considering that the resources of an economy can be distributed to alternative uses only, the simultaneous expansion of consumption and investments places the economy outside its production area. Of course, this also involves capital erosion.

A low interest rate stimulates the elongation of the production structure, by adding new processes in the initial productive stages, removed by final consumption. This would lead to better satisfaction of future consumers' needs if investments were to benefit from the resources necessary to complete them. Or, the simultaneous increase of consumption and investments will lead to a simultaneously increase demand for resources, both in the final production stages, and in the initial ones. The resources' availability involves their release form other activities. If this does not happen, the competition for resources will, inevitably, cause the prices' increase.

The result of the real forces under conditions of monetary expansion will materialize in over-investments (the expansion of the economy beyond the edge of its production possibilities) and in mal-investments (elongation of the Hayek's triangle in the absence of the resources necessary to support these production stages). These problems related to the investments' orientation are accompanied by over-consumption highlighted both by an expansion of the right-hand side of the triangle, and by an upward movement along the curve of production possibilities.

Fig. 29 *The change of the production structure of monetary policy (business cycle)*



Source: Roger Garrison, „Capital-Based Macroeconomics”, slide 47 and „Time and Money”, fig. 4.4, page 69

Monetary expansion is responsible for the conflict process of capital restructuring. The low interest rate leads to the elongation of the production structure, while the increased consumption as consequence of the saving's decrease, causes an uplift of the Hayek's triangle. On oversize of the production structure's extremities can be identified, considering that resources have not increased and the consumption preferences have not changed. It is, in fact, the image of the unsustainable growth, allowed by the money supply interest. In the absence of real resources, the economic growth occurs in the short-term, and the capital's restructuring process cannot be completed.

THE MONETARY-REAL DUALISM

Chapter V

THE ECONOMIC CRISIS OF 2008 – CONFIRMATION OF THE CYCLICAL DUALISM

If by now the purpose was to provide a theoretical image of the cyclical dualism, the following pages will deal with the method of this economic reality's support. As Ludwig von Mises would say, “the end science is the knowledge of the reality.”

The ability of the Austrian theory on the economic cycle to be supported by the economic reality is also proved by the financial crisis that started in 2008. In addition, numerous signals were indicating the imminence of an economic crisis that would follow the Austrian theoretical pattern. In 2002, Hans Sennholz pointed out the risks generated by an interest rate maintained by the Federal Reserves at a level much lower than that of the market. This artificially lowered interest rate makes George Reisman consider the beginning of the economic crisis the result of the years of credit expansion sponsored by Fed. The reduction of the interest rate to 1% and keeping it at this level for almost a year (2003-3004) allowed an increase of the credit offer, which, under the conditions of the relaxation of the real-estate market's conditions, expanded real-estate investments, creating distortions in the resource distribution.

The increase of the indebtness degree under the conditions of the collapse of the saving rate could not have occurred on a market of borrowable funds, on which monetary authorities would not interfere. The additional resources meant for consumption, without an increase of the saved real resources can only come from an interest of the monetary offer. The monetary expansion and the oversize of the real estate market, as well as of the capital market led to an (artificial) increase of the assets' value, reason for which the relation between debts and assets was maintained at a relative constant level. Therefore, the paradox of the over-indebtness of the population under the conditions of saving reduction (of the available resources) can be explained by the credit expansion. The result of maintaining a low interest rate materialized in a flood of the financial markets with cheap and easily accessible monetary resources, which supplied the economic expansion.

The possession of over-evaluated assets, due to the fake wealth that it generated, led to an increase of the individuals' indebtness degree. In the absence of higher incomes, individuals have not oversized consumption due to the owned oversized assets. This oversize has been supported by the monetary interest and by the extremely low interest rates. The prosperity of the stock's soaring was dependent, conditioned by monetary expansion. As long as large quantities requested by consumers are produced within an economy, it cannot be talked about an increase of the real wealth. The "monetary" wealth offered by securities was short, and disappeared once with the moderation of the credit's growth pace.

Economic growth, measured by the increase of the quantity of final goods produced is possible only to the extent in which more capital goods (vehicles, equipment) are available. The existence of such capital goods is conditions by a prior gathering process, by resource saving. Therefore, the consumption's increase can be insured by an increase in production, which depends, in turn, on the quantity of available real resources. The productive structures cannot function in the absence of resources, they cannot create goods out of nothing. Since stones cannot turn miraculously intro bread, the same the expansion of the offer of monetary resources could not cover the stock of real resources. The artificial currency creation attempted to implement a "nothing for something" exchange. Free trade means that the involved parties must achieve more value after the transactions performed. The more the currency quantity in an economy is higher, the more its value (purchasing power) is reduced, the "nothing for something" exchange becoming more and more visible.

Without offering real resources, the increase of the money supply between 203-2008 has not generated prosperity, because the credit expansion "could not increase the supply of real goods, it merely brings around a rearrangement. It diverts capital investment away from the course prescribed by the state of economic wealth and market conditions. It causes production to pursue paths which it would not follow unless the economy were to acquire an increase in material goods. As a result, the upswing lacks a solid base. It is not a *real* prosperity. It is *illusory* prosperity. It did not develop from an increase in economic wealth. Rather, it arose because the credit expansion created the illusion of such an increase. Sooner or later, it must become apparent that this economic situation is built on sand." (Mises, 2002). Once with the moderation of the increase of the monetary supply, the lack of real resources became obvious, and the economy faced the first great crisis after 1929.

The apparent wealth supported by the availability of monetary resources between 2003-2008 led to an increase of investments in different production departments. Among these, a privileged position was occupied by the sectors related to the real-estate and to the industry of capital goods. As it was highlighted in the chapters three and four, the decrease of the interest rate stimulates the investments in sectors remote to the final consumption, for which the time necessary for the production process is higher. The superiority of the goods obtained after long production processes make them preferred by economies where the capital gathering process is solid. Of course, the low interest rate indicates the existence of the necessary gathered resources…or should be related to the saving process. It has already been pointed out that things are different in reality. The interest rate is a tool of monetary politics, at the discretion of those that decide and plan the quantity of economic resources. The issue is that these monetary resources cannot replace real resources, and their discretionary use will have serious consequences over the economy. Resources are limited, and monetary expansion will interfere with the natural mechanism of their distributions by using the market.

In order to provide an image on the resources' distribution method between different industries or production processes, the investments' flow on activity fields was used, namely the covering degree of the industrial capacity. It could not be achieved an overall image of the production structures from different economies due to the different measurement national units. Most of the countries calculate the overall covering degree of the industrial capacity without distinguishing between sectors or production stages. For the purposes of this research, the overall industrial capacity is not important, as long as it does not include the separate evolution of the capacities used along the production stages. The purpose was to overcome the lack of information about the productive stages via a comparison to the capital goods and to the prices of the consumer goods.

The economic boom created by expansionist monetary policies imprinted an alert and distorted pace of real economy. The change of the production structures by an increase of the number of industries of capital goods is the result of the easy access to monetary resources. The decrease of the interest rate offered fake signals to economic agents on the availability of real resources. Their insufficiency made industries with an intensive capital be more affected by the credit bust. The less abrupt restrain of the activity in the industries of consumer goods confirm the fact that the temporal preference of the consumers supported the demand of final goods.

The attempt to force the economy to produce beyond the limits required by the existing resources and of the consumers' preferences was an error. Real economy functions according to the demand and to the offer, at the pace required by individuals' actions. There is no easier way to achieve prosperity. Each boom based on "new growth networks" pertaining to a "new economy" has been defeated by the old economic laws. "Economic theory teaches us that, unfortunately, artificial credit expansion and (fiduciary) inflation of exchange methods does not provide any shortcut to stable economic and sustainable development, [it does not provide] a method to avoid necessary sacrifice and discipline from the back of the voluntary saving processes" (Huerta de Soto, 2008). The great issue of world economy has been and will be the dependence on the cheap monetary resources which provide, in the short-term, the illusion of compensation of insufficient real resources.

The credit expansion caused the incapacity of the interest rate of sending information related to the size of saved resources. The prices created based on such artificial interests sent distorted signals to economic agents, which led to a disastrous distribution of production factors (work and capital) in the productive structures of the economy. Prices failed in their purpose of distributing rare resources towards the industries that could have best meet consumers' needs. This happened because the change of the interest rate stopped providing proper information on the consumers' time preferences. The low interest rate could no longer be connected to the low individuals' time preference, who choose to save their resources for future consumption. By providing increasing quantities of currency in the economy, the investments in long-term, intensive investments have been supported in the capital. This applies to the real-estate industry, which has been supported by various governmental programmes and managed to be one of the beneficiaries of the monetary interest.

Important real resources have been embezzled from other industries to constructions, real estate, equipment and construction materials, mortgage loans and other related fields. The oversize of the real-estate involved an embezzlement of the production factors from other fields of the economy, because there were no additional resources necessary for expansion. In other words, the demand was artificially stimulated, without its bearers being able to have saved the resources necessary for its real support. This artificial demand could be supported as long as monetary resources have been easily offered, due to the crediting policies. The offer was not based, in turn, on the erroneous interpretation of his "supported demand" and on the distorted signals of the low interest rates. The 2008 crisis revealed exactly this discrepancy between the real resources of economy and the offer of goods and services.

Global economy and national economies do not have any problem related to the insufficient demand, but to the discrepancy between demand and offer. Consequently, the governmental stimulation measures for consumption aim an apparent problem. The increase unemployment rate is a clear signal that the adjustment forces of the market are functional, trying to redistribute the resources wrongfully directed during the boom years. The interventions of the authorities to save different financial and banking institutions (the created moral hazard is another discussion) postpones the adjustment and elimination process of malinvestments. The market has its own tools to solve solvability problems – purchases, mergers, restructuring or bankruptcy. In all cases, there is an economic activity after the corrections required by the market.

The inability of the world economy to exist the current depression is caused by the stubborn authorities, which continue to feed the markets with currency. Due to the governmental policies to revive the economy, the corrective, adjustment processes cannot manifest. The risk is the painful extension of the economy's recovery, by artificially maintaining certain investments for which there are no resources and no demand. If these resources had existed, the credit expansion would not have been necessary by initiating the investments. This could have occurred as a natural consequence to the need of meeting consumers' demands.

Although the crisis of 2008 revealed serious dysfunctions in the resource distribution method, the authorities' answer came against the adjustments required by the market. The massive decreases of the interest rates, the safeguarding packages of financial institutions and the monetary incentive packages are just a few constituents of the arsenal of governmental interventions. However, neither of them can generate more real resources in economy. Moreover, the monetary and fiscal intervention of the state's authorities embezzles the existing resources from the activities supported by demand to politically supported projects. The cuts of the available resources result in the decrease of the economy's capacity to generate wealth. In fact, the economy's "saving" measures only contribute to the erosion of the existing capital and to the increase of the governmental debt, both being harsh to the economic growth. By continuing to stimulate consumption, under the conditions that global economy needs to save its resources in order to support the capital gathering process, the odds of a real economic growth are reduced. The consumerist process, supported by authorities, and the generated risks are described by Frank Shostak (2009): "Instead of planting the seeds in order to reap a crop in the future these policies cause people to consume the seeds. Obviously one shouldn't be surprised that no future crop could emerge as a result. Yet policy makers are trying to convince us that one can eat the seeds and also have a crop."

The market's reaction seems not to take into consideration the "American Recovery and Reinvestment Act" and contradicts the power of economic revival of Keynesian multipliers. The European Union deals with a "tragedy of common goods" (Bagus, 2011), the member states are more fiscally responsible and have to support the states with high governmental expenses. The acceptance of the governmental liability as collateral warranty for the loans given by the European Central Bank led to a tight connection between the increase of sovereign debt and the increase of the money supply in the Eurozone. The result is a huge wealth redistribution process towards the states with the greatest budget deficits. Of course, the price paid is measured by inflation and by loss of purchasing power of the euro currency, not to mention the important tensions created between the states and the risk of disintegration of the European monetary project.

After five years since the beginning of the financial crisis and after five years of governmental measures, western economies seem to be sentenced to follow the Japanese stagnation pattern. As it an article of *The Wall Street Journal* would point out, "recessions do not last forever, but bad policies can extend the suffering". From Austrian perspective, the packages of measures taken to stimulate economy, apart from the fact that they will never manage to reposition the economy on an ascending sustainable trend, will make the credit crisis of 2008 a predecessor of "The Great Inflation" (Polleit, 2008).

In the introduction to his fourth edition of the book "America's Great Depression", Murray Rothbard makes the following observations, whose validity also applies to the current economic situation: "The only way out of the current mess is to "slam on the brakes", to stop the monetary inflation in its tracks. Then, the inevitable recession will be sharp but short and swift, and the free market, allowed its head, will return to a sound recovery in a remarkably brief time."

Nowadays, economists and authorities have to choose between depression and inflationist depression. The choice of depression implies that the market economy must be left to adjust productive structures that were distorted during the boom years. For this, authorities must stop the stimulation measures of the economy and reorient towards healthy monetary policies. The market has its own tools to eliminate malinvestments, for redistributing resources and reviving the economy: bankruptcy, purchases and mergers. In the absence of distorted information by monetary interventions, the actors trained in the market's processes will be able to take the most efficient economic measures.

The continuation of the authorities' intervention would sentence world economy to an inflationist depression, the monetary excess distorting the adjustment processes and extending the economic slough. Saving packages and the "too big to fail" policies are types of maintenance of moral hazard and of negation of the economy's adjustment capacity. Acknowledging the fact that adjustment and interference with the market's mechanisms have led to the financial crisis that started in 2008 would be the first step taken towards rendering the free market its central position.

The monetary expansion of the world's countries created the illusion of wealth, of the possibility of the world economy to consume and invest a lot at the same time. In the absence of increasing real resources, the monetary excess cannot support the expansion of the production processes. The current economic situation is the results of the detachment of the monetary economy from the real economy, from the saved resources and from the consumers' preferences. The impact of the monetary and real factors on the world economy reflects in the current crisis and depression.

CONCLUSIONS

In the Introduction to this paper it was highlighted the knowledge of ancient truths in order not to repeat the mistakes of the past. This seems to be even more necessary as the acknowledgement overlays a period of social, economic, political and individual fluctuations, such as depression. The current economic downfall of the world's states is the reaction of the market's mechanism to a series of abuses on its functioning laws. The economy, by its millipede relations between consumer individuals and producers, organisations, institutions and authorities, searches for a solid base to stop its balance and retake on the growth on solid grounds.

The fundament of a society is made, firs of all, of its system of values, long-term constructions and common denominator for millions of different individuals. Although it is a binder of human interactions, the system of values is rather neglected when it comes to relating to the economic reality. It is shared the belief that most of the current economic slough is due to a constraint of the system of values, as consequence of a difficult understanding. Of course, this will be attempted to be motivated:

In the Orwelian world of "1984", the reduction of the number of words in the "Newspeak" dictionary sentenced individuals to common thinking and to daily manipulation by language. Extrapolating, the decrease of the economic knowledge allows the manipulation of the individuals towards accepting a measure that disregards its system of values. First of all, currency. Being an expression of value by its function of exchange method, the currency is a method to relate to economic reality. When, due to the inflationist policies, currency is devalued, individuals restrict their sense of reality. Possessors of an increased quantity of currency, in real terms, they have less. By interfering with the currency, it is actually interfered with the system of values of the individuals and of the society in general. The reduction of the monetary determines the restriction of the system of values of society.

The system of values also includes sacrifice, materialized in giving up to the alternative that would bring a small benefit to its selector. For society, the sacrifice resides in choosing between the alternative methods to reuse resources. Individuals know that resources are limited and they must select the method to use them. Due to the measures to stimulate crediting, individuals are no longer constrained to select. They can consume more and invest more. For the monetary interest, the society is misled towards wealth and lack of virtue of resignation, of saving. Individuals are caught in the mirage of consumption and in the promise of continuous prosperity, threatened that what may be useful to an individual could harm the society (the so-called saving "paradox").

Time is another important element of the individual system of values. Time relation determines the individual consumption behaviour, oriented mainly towards present or future. This expression of value is also distorted when the interest rate fails in reflecting the individuals' time preference, due to the monetary intervention.

In their actions on the market, individuals must face uncertainty. Entrepreneurs act and take risks, and the results can turn into earnings or losses. The threat of losses determines the maintenance of a considerate behaviour, by complying with the market's regulations. When the excessive assuming of the risks and failure are not sanctioned, when losses are socialised and the people responsible for these risky behaviours are "too big to fail", the reality of moral hazard contradicts the values presumed by consideration and error's penalty.

Last but not least, the system of values refers to individuals' freedom. The short understanding of freedom makes more and more individuals resign it, by means of transfer towards a paternalist state. The latter is called to solve the problems raised by the income distribution and by the resource distribution within society. The need of intervention seems to become a constant of economic reality. However, as Friedrich von Hayek notified, any intervention can lead to another intervention and the road to hell is paved with good intentions. As such, starting from the premise of the existence of a good intention on behalf of the state, its immixture in the mechanisms of the functioning of the free market makes the results more inauspicious.

Individuals seem not to understand that healthy currency, and the alleged sacrifice of selection or time are part of a system of values threatened to fall apart by the invasive action of the state and by resigning to virtues of the free market. From this point of view, the knowledge and understanding of the real functioning method of economy is an important stake. This paper focuses on this knowledge, in an effort to shape the functioning method of the economy by relating to its most important elements – currency, interest rate and capital. Understanding the intertwining of these elements to the real ones allows the understanding of the economic cycle.

Without succeeding in including the complexity of the cyclical phenomenon, the purpose was to catch a glimpse of the duality of the forces that constitute it. In this sense, this paper clearly distinguishes between processes generator of real, long-term growth and the processes that push the limits of the economy and create phenomena of economic boom.

The real economic growth is conditions by the improvement of the "investment infrastructure" of productive processes, as Frank Shostak claimed. Investments are also conditioned by the existence of real resources. Saving resources underlies the gathering of capital goods by means of which goods of better quality can be obtained. The temporal preferences are the ones that determine the relation between saved and consumed resources on a free market, shaping the production structure that would best meet individual's needs. On a market where individuals' needs matter, the investments' infrastructure complies with the real saved resources. As a consequence, the productive processes are supported by economies' flow.

Monetary intervention, by the illusion of the available resources, puts pressure towards the expansion of the investments' infrastructure. Or, the created productive processes are not supported by real resources (economies). As a result, the competition for production factors becomes fierce, which will determine both an increase of the prices, and the embezzlement of the resources from the productive processes supported by market's preferences towards artificial production processes. The decrease of the interest rate in the absence of an increase of the saved resources cannot support the expansion of the production structure and the economic growth. Moreover, distortions created at the level of production structures seriously waste the gathered capital, limiting the economy's capacity to generate wealth. The capital is a complicated, sensitive structure, interdependent of the capital goods, used to say Murray Rothbard. It is important that the fragile elements of this structure fit together, otherwise malinvestments will occur. The synchronising of parts of the structure of production is achieved by the pricing system coordinated by the market, and criteria such as profit and loss allow adjusting the large number of productive elements, preventing their misalignment.

When governmental authorities decide to substitute the mechanism of the free market, by forcing investments that would otherwise not be initiated, the alignment and harmonization mechanism of the productive structures is oppressed. In the absence of a functional mechanism, based on undistorted price signals and of clear rules on risk-taking, the state's authorities can do nothing by "blind" investments, and are not capable of selecting the proper sectors, products and places. The result will be the creation of a super fast train, without engines strong enough to run it, the creation of large-capacity stadiums, without the facilities necessary to carry out sports activities, etc. At the same time, the excess and shortcoming result from malinvestments coordinate by authorities. The erroneous investments are, of course, performed on an undistorted market mechanism. In this situation, the errors' amplitude is more restricted, and losses are limited. The clusters of entrepreneurial errors occur only when prices fail in their purpose of sending signals to the market participants.

The credit expansion, the stimulation of investments in the absence of saving, malinvestments and distortions within the resource distribution process in the production structures are expressions tightly related to the economic cycle and also results of the immixture in the natural process of market functioning. Consequently, the economic cycle is denied outside the intervention over the currency. The market is not a perfect mechanism, but it can superiorly distribute resources depending on the consumers' needs and preferences. The market manages to do so because it represents millions of interconnected decision-makers that aim fulfilling their own interest. The same thing cannot be said for the policies of the governmental authorities, which lack the knowledge obtained from the market's actors.

The business cycle represents the duality between the expansionist monetary forces and the corresponding real forces, between intervention and the rules of the market. It reflects how the limits required by the resources' availability eliminates the excess encouraged by expanding monetary resources. How the individual relates to the economic reality and to the authorities' intervention depends on the correct understanding of the cyclical mechanism. If the functioning principles are not understood and the economic elements are conditioned, then probably miraculously solutions are expected from the same authorities responsible for monetary excess. Therefore, the market would have the possibility to eliminate such excess and adjusts its productive structure according to the existing resources and to the consumers' preferences.

The crisis of 2007-2008 and the depression that followed are topics largely treated by economic literature and the academic world. It was not aimed to create a timeline of the stages of the economic cycle and of the main bank bankruptcies or governmental measures. The interest was to identify the elements belonging to the monetary and real economy of the current economic cycle. The economic cycle began at the end of 2001 by monetary expansion, and it highlights its ascending trend once with the decrease of the interest rates between 2003-2004. At the same time, the capital market, the real-estate sector and the industries of the primary processing branches register a significant increase. Without attracting significant real resources from other fields of activity, the expansion of the above-mentioned sectors was possible due to the monetary resources offered by the banks in abundance. The increasing prices and the more serious threat of inflation led to a moderation of the crediting process after 2006, when the investments wrongfully concealed by the monetary excess become visible. The value losses of the overrated assets, under the conditions of high indebtness degree, caused chain reactions.

The world crisis revealed a huge gap between resources and debt, between the real dimension and the monetary one of economic entities. To that extent, the market's forces could have eliminated the excess supported by the relaxed monetary policy. Things were not different, the purpose of the market being substituted by governments, trained in the most ambitious project of world's economy support. The aimed effects are far from turning into reality, the extended depression implying huge costs. The worsening of the economic situation of the world's states and of the excess of governmental debt shows that the massive injection of currency is far from being the long-awaited miraculous solution.

The economic cycle keeps developing its dual forces, monetary incentives attempting to support distorted production structures. Without aiming to make any forecast, the road chosen by the developed economies leads either to a long-term hold-up or to a severe monetary crisis.

At such time, one should ask themselves how much should they go back in time in order to start all over again? The answer comes from Roger Garrison, who gives the year 1912 as starting point for the correct understanding of how monetary intervention threatens economy's stability. Although a century has passed from the publication of the book "The Theory of Money and Credit" of Ludwig von Mises, *understanding* the causes of the economic cycle continues to remain in the shadow of the preoccupations on the *management* of its consequences. By comparison to this reality, the cognitive approach is considered both a personal gain, and a signal to draw attention on the importance on knowing the functioning method of the economy and of the interaction between monetary and real forces.

The insufficient knowledge of the interaction between monetary and real factors will perpetuate the monetary excess of the authorities and their public support, at the cost of the capital erosion and of endangering the production and future consumption. The sinuous evolution of the economy by expansion and depression can be avoided by going back to the simple set of values assumed by the market's game. In the absence of such values, monetary actions and reactions of the real economy will continue to express themselves along the business cycles. Their impact on the economy will be, each time, painful.

Few doctoral theses dare to analyse the problems of the economic cycle and even less approach this topic from the perspective of the Austrian economy school. The complexity of the cyclical phenomenon involves a proper approach. Moreover, the relation to the economic cycle from point of view of the monetary and real dualism led to less "walked" paths of the economic theory. Despite the numerous imperfections, this paper managed to highlight the monetary and real dimensions of the economic cycle and underline the importance of the solid fundament ensured to the economy by the healthy currency and the real resources, the capital. In the absence of the implied sacrifice of gathering real resources, the artificial growth of the monetary resources causes serious imbalances in economy, in the shape of expansion, crisis and depression. The only way to avoid he cyclical evolution of the economy is going back to the simple values of the market.

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