

CAPITALISM

AND

CURRENCY

Theory of Economic Time - TET

Proposal to overcome

CURRENCY AND FINANCIAL CRISES

($i \equiv p > 0$)

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Back-cover text

- **Currency as an instrument for general control of prices.**
- **The market is incompatible with current irregular financial systems.**
- **Financial authoritarianism as the origin of currency crises.**
- **Why current financial systems are collectivist, not capitalist.**
- **THEORY IS GUILTY OF THE CURRENCY CRISES.** The market, politicians, speculators, or lack of controls are not to blame.
- **When Central Banks are not necessary.**
- **The reason for the existence of Central Banks is exclusively political.**
- **The impossibility of the existence of Central Banks independent from political power.**
- **Capitalism has proven to be an exceptional tool, notwithstanding totalitarian financial currency systems.**
- **THE STUDY OF REAL CURRENCY- FINANCIAL CRISES: Argentina 2001/2**
 - **The Current World Crisis.**

Front-flap text

Based on laws derived from the Theory of Economic Time (TET), this book presents a new paradigm, in opposition to the dominant ones, which allows us to understand the incompatibility between capitalism and current currency-financial systems.

The author achieves to explain with a simple language, but with scientific rigor, why currency-financial crises, *necessarily* recurrent, occur.

This is a new theoretic-currency proposal with very concrete ideas on how to overcome the current worldwide crisis.

After you have read this book, you will be able to understand why, when speaking of currency and finance, the debates on capitalism/collectivism and democracy/authoritarianism cannot be left aside; and why the authoritarian component of the dominant theoretical currency-financial paradigm is an obstacle to capitalism's virtuous circle.

In other words, the currency-financial theory presented here is about more freedom for man and fewer controls. In our time, the greatest scourges of freedom are the current currency-financial systems.

Back-flap text

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He is the author of *Knowledge Accounting* and *The Theory of Economic Relativity*, among many other works on theoretical and applied economics, a selection of which can be consulted in his web-page, www.carlosbondone.com.

CONTENTS

Forward	4
Introduction	7
Chapter I Theory of Economic Time (TET).....	8
Chapter II Capitalism.....	12
Chapter III Capitalist exchange.....	15
Chapter IV Currency.....	19
Chapter V Financial systems (types).....	25
Chapter VI Recurring currency-financial crises in capitalism.....	34
Chapter VII Plausible conjecture: Towards a regular financial system without a world-fractional reserve?.....	40
Chapter VIII How to overcome currency and financial crises.....	42
Appendix A Brief theoretical framework for diagnosis and treatment (TET).....	45
Analysis of real currency-financial crises.....	45
Argentine currency-financial crisis of 2001/2002.....	46
The current currency and financial world crisis.....	49
Appendix B Basic structure of the Theory of Economic Time (TET).....	55

FORWARD

It is not the first time that I, just a philosopher, have the honor of introducing a work on economics. But when I do it, I do precisely from the perspective – the philosophical one – which gives a especially adequate perspective on that “alternative paradigm” that is the Austrian Economic School.

In this sense, Carlos Bondone’s book shows three aspects that I would like to highlight. The first two have been the object of long conversations with the author, to whom I am most grateful for his trust. One is the theory of Economic Time (already put forward in the author’s first book ¹) that presents two important peculiarities within the Austrian School. The first peculiarity is its simplicity which is something always eye-catching when presenting theoretical modifications, particularly considering T. Kuhn’s analysis of the history of science. Indeed, the author goes back directly to Menger, and as a trip in another time line, he makes us start from there, considering money just as another commodity, subject to supply and demand, as a present good, and differentiating it from there between present and future goods and assigning to future goods the role of credit. When this, in turn, is exchanged in a free market, we are in the presence of regular economic credit. We say “in a free market” because in that case the *quality* and *quantity* of the future economic good with which the liability will be met is clearly defined. When this is not the case, that is, when the contract does not clearly define the quantity and quality of the good the liability will be met with, we are in the presence of irregular economic credit. As we can see, the author’s preference for a 100% cash reserve is obvious with an exception that the reader will eventually find. From there on, the author can establish the basic error of all currency policies which, during the twentieth century, have turned governments into the main authors of irregular economic credit, and thereby, of financial crises, and above all the current one. The author presents his theory of economic time, which is very interesting and will produce much debate, in a much simpler way than any other Austrians.

This leads us to the second point. As a philosopher and epistemologist of the Austrian School, I do not judge the concrete contents of the theoretical differences between members of that school. Considering that this has been my attitude in my last contribution to the epistemology of the Austrian School, ² I must be consistent here. But as an epistemologist I wish to say I see Bondone’s approach as being within the boundaries of the Austrian School’s research program which has never been an homogeneous program in terms of its concrete contents. Therefore, Bondone is an Austrian that, like many of them, presents a singular theoretical approach within the same research program. This is said from Kuhn’s and Lakatos’ views. From the perspective of K. Popper’s ethics of science, this deserves to be and should be debated and discussed because that is the only way to enrich a research program. In this sense, it would be desirable for the Austrian School to have a greater acknowledgement of the diversity and wealth of the different approaches and the need to debate them without mutual “excommunications”. It is *one* research program with obvious and rich differences among its authors.

That is in reference to the Austrian School. Relative to other research programs and other approaches to economic policy, Bondone's book could not have come at a better time. The same happens with all the others that at this time are trying to bring some light to this devastating credit tsunami that is leading the world to a global recession. It is in this sense that the author is firmly within the tradition of all the Austrians who have always denounced state intervention in the economy, and especially in the credit market, as the cause of the expansive and recessive cycles that Keynes, the exact opposite of Mises, considered to be the result of an "uncontrolled" capitalism. That is why current world events are doubly dramatic. It is a mistake to run at full speed towards a granite wall doing everything possible to avoid the collision, but it is a greater mistake to press the accelerator supposing that in that way the wall will disappear as if by magic. That is precisely what is happening in the current world circumstances. Part of what makes Austrian economists come together is their common and clear understanding that currency expansion by central banks produces a phase of artificial expansion, followed by an inevitable recession, with a magnitude proportional to the previous credit expansion. That, of course, is not capitalism or free market but a brutal government intervention in an essential aspect of the economy such as the financial and credit market. And this is not irrelevant – minimizing the problem would be the same as saying that a person is fine except for the fact that his or her circulatory system is ruined. But the current political and theoretical world insists on the opposite, and in a total and complete Keynesian revival (that if this is equal to Keynes' theory, it is not for me to judge) which supposes that public expenditure and "irregular credit" must be even more expanded. The consequences of the insistence in using the credit drug are worthy of a science fiction film which is starting to turn into something else. In his seminal book on currency and credit,³ Mises describes the consequences of the total collapse of the currency and credit system. On a world scale, we could say that we are at its beginning. Thank God, predictions in social sciences are quite fallible...

In this sense, the simplicity and precision of Bondone's diagnosis are an invaluable service to the cause of theoretical and practical clarification. It is, on the one hand, the proposal of a debate among Austrians but, on the other, a warning to the world, where Bondone is united with all Austrians in denouncing the interventionist error that is leading us to a collapse. I hope the Latin American dictators were our only worry. It is the Federal Reserve, the social engineering, the currency and credit socialism of supposedly "serious" nations which are leading us to a collapse. I acknowledge this book by Bondone as a transparent warning of the problem and a clear proposal to currency and financial crises.

Gabriel Zanotti
Buenos Aires, February 2009

¹ Bondone, C.: Teoría de la Relatividad Económica, Distal, Buenos Aires, 2006. English version: Theory of Economic Relativity, Buenos Aires, 2007. An abbreviated Spanish version can be found in: Bondone, C.: "Teoría de la relatividad económica", in Libertas (45), 2006, pp. 187-214.

² In “Los teoremas de la Economía Política”, in Revista de Análisis Institucional (2008), 2, pp. 27-112.

³ Mises, L. von: The Theory of Money and Credit [1912], Liberty Fund, 1981.

INTRODUCTION

1. *What is this book about?* This work is about the close relationship between economic and financial systems, which places us in the field of macro-economics.

With the purpose of an easier understanding only two economic systems will be considered – the free market or capitalist *versus* the intervened or socialist markets.

In reference to currency and financial systems, the different types and their essential characteristics will be described.

All this will be analyzed with the structure and the economic entities defined by the *Theory of Economic Relativity (TER)*.¹

2. *What this book is not about.* This book does not refer to microeconomics or macroeconomics subjects that are not related to currency and financial systems. When it does seem necessary to approach one of them, it will be only to the effect of completing the context. This means that we will not need an in-depth analysis of those subjects. In other words, we will only refer to currency and financial matters.

3. *This book's goal.* If the reader is able to understand the close relation between currency-financial systems and capitalism, their compatibilities and incompatibilities, we will have reached our goal.

To be more precise, we could say our goal is to prove the inconsistency of speaking of capitalism with the current currency and financial systems.

Recurring currency-financial crises should not be attributed to the market (capitalism) or politicians, but to theory.

At the end of this work we will have reached the conclusion that the solution to currency-financial crises cannot be found in greater control of the economy, but simply in applying the current laws that condemn the appropriation of other people's wealth. We shall see that the financial legislation for a capitalist system is very simple.

4. *The terminology used.* In this book you will find the terminology and the concepts defined in TER, but replacing it with the name ***Theory of Economic Time (TET)***, considering it more adequate to its content as we have already paid homage to Einstein in the previous work.

It will not be necessary to have a previous knowledge of this terminology since you will find a general review of its structure, axioms, theorems, principals, and original terms, in the first chapter and the Appendix' including the necessary descriptions for this work.

5. *Acknowledgements.* I want to thank Gabriel Zanotti for his comments and suggestions. Of course all the mistakes are only mine.

CHAPTER I

THEORY OF ECONOMIC TIME (TET)

As we have mentioned more than once, the study of currency has led us to discover a central concept to economics prior to the existence of currency. This is the concept of *economic time* or, more precisely, *its exclusive features of improper or indirect materialization, and its condition of permanent fallibility*. These are characteristics that other economists have not noticed or have assigned in a mixed way to money and/or currency.

We will now see the terms proper and those from other disciplines used by TET that we will need for our exposition.

Fallible man: the central idea expressed in TET referring to the human essence of fallibility is that a man always has needs, that he is not perfect in satisfying them, and that he is always actively seeking to improve his situation.

This simple reference, that on the other hand is not original, has the only purpose of introducing the reader in economic affairs, the central theme of this book.²

The concept of fallible man is further explained in the section dedicated to *permanent fallibility* which is exclusive of economic time.

Economic Good: human fallibility gives birth to the idea that man needs things, which we call goods, and when these are scarce (man needs more than what he has), they become economic goods. The economic goods are the object studied by economics, not goods, which are not a problem for human beings.

In other words, *only economic goods have price*. It is rapidly deduced the importance that the entity called price has in the economy since the economic goods are the center of its attention as regards the fulfillment of the needs that make a man work and the prices are its inseparable and exclusive entity. We can conclude that we do not exaggerate if we say that prices are the center of the study of the economy.³

Present and future economic good: TET defines *present economic goods* as economic goods that exist at the present time of the economic agent, and *future economic goods* as the economic goods that will be present economic goods in the economic agent's future.

Economic time: time, considering the sole fact that it is scarce, is an economic good. Economic time has two exclusive characteristics, indirect materialization and the fact that it never loses the condition of being an economic good.

Indirect or improper materialization: TET tells us *economic time is the only economic good that does not exist by itself, that is always materialized in another economic good*. We call this improper existential feature of an economic good – exclusive of economic time – improper or indirect materialization, to differentiate

it from all other economic goods that exist by themselves. In other words, bread is bread, economic time is bread, milk, cars, etc.

This very special feature of time is not typical of economics, since all the sciences consider time relative to the elements that they study.

Interest (i): is the price of economic time. We see that economic time has a price, no matter if we are speaking of Robinson Crusoe or a society. This definition is central to understanding TET, particularly considering the deductive chain we build: there is a bi-univocal relation between price and economic good (they must coexist), therefore it is essential to determine the price of each one of them.

If you believe that defining interest as the price of economic time is trivial, we emphasize it is not so, since certain theories have considered interest, explicitly or tacitly, as the price of money or of currency. This is a central defect that TET sees in the current currency paradigm, similar in importance to equating money and currency.

As we progress, we shall see how crucial this concept is for currency and credit theory.

Property: as an axiom (such an evident proposition that does not need a demonstration) TET tells us that *there is no economic good without an owner and no owner without an economic good*. From there we also derive the correspondence between present wealth (*the stock* of present economic good) in economic terms, assets in accounting terms, and their balancing entry, liabilities and net worth (the owners of the assets). In two of the following concepts, exchange and credit, we will begin to see the importance of establishing the property of economic goods.

Exchanges: here we will need to refer only to interpersonal exchanges,⁴ that TET defines as exchange of economic goods of different economic agents, which from now on, to simplify our exposition, we will simply call exchanges

The definition of exchange explains why we defined the concepts of economic good and property first. Now we understand that without ownership of an economic good by a human being there can be no exchange. In other words, there cannot be an interpersonal exchange with an only owner of economic goods. This is another apparent triviality. As we progress in this work, we will see how crucial it is to define the owner in the specific case of currency.

Prices (p): *information* that indicates the amount of another economic good that an amount of an economic good will be exchanged for. Here we must clarify the definition of price included in TET; we consider it much more appropriate to define price as *information*, which is the main reason for its existence in economic-social activity.

Positivity of prices: from the definition of economic good, of prices, and the bi-univocal relation between them, we deduce the axiom $p > 0$. Contrary to this, we

would not be speaking of an economic good – which is a severe restriction of the current econometric models.

Credit: continuing with TET, it defines credit as the interpersonal exchange of present economic goods for future economic goods. Applying TET and its indirect or improper materialization of economic time, credit can be defined as interpersonal exchange of economic time, or simply **exchange of economic time**.

“Interest”: we will not present a new definition of interest, instead we will give a new application based on the deduction we have developed, and that is the reason for the inverted commas. With the elements we have up to here, interest is the price of economic time, and credit is economic time interpersonally exchanged; therefore, *“interest” is the price of credit*, also.

In other words, interest is the price of credit because credit is economic time (exchanged). This deductive chain will allow us to progress faster in our economic analysis.

Liquidity: is the need for the economic good that allows facilitate to take place. In other words, we can say that barter was a state of extreme illiquidity.

Currency: to solve the economic problem represented by barter, the market (“human action” in the presence of private property) opted for a less costly economic good for exchanges, and called it currency. Thus, *currency is the economic good that satisfies liquidity*, also defined as the *exchange good of common use*.

Carl Menger defines money as the commodity of fast saleability, with no substantial difference in its buying and selling price, which is the reason why it is used for exchanges, as a more advanced phase than barter. We must remember the concept of money defined by Menger is more restricted than our concept of currency. As far as this paragraph goes, his definition is more useful, since we apply this feature to the wider concept of currency.

We wish to stress that the process of reducing prices is the essence of economic effort, since price levels inform us on the state of relative scarcity of an economic good. This is related with the idea of the origin of currency, subject we will not refer to now, since the essential thing for us is to appropriate Carl Menger’s central idea. This is currency as a cheaper means of exchange, which we express as an economic good that satisfies liquidity: a need among many others.

Currency prices (p_c): since we have already included currency in our deductive scheme, we will refer only to currency prices. TET tells us the currency price is the price expressed in currency, and to avoid the circularity of the definition, we add that it previously defines price as *information* of the exchange of quantities between different economic goods. In order, to make the reading of this text easier, it will be indistinct to use p or p_c , since we are speaking of a world with currency, therefore prices are expressed in currency.

Permanent fallibility or positive interest by axiom: *only economic goods have a price, and since time is theoretically the only good that will always be economic, by axiom $i > 0$* . This is one of the central axioms of economics; we could say it is an adequate mathematical definition of fallible man. As long as economic time exists, it will be an economic good. In other words, for those interested in mathematical models, this is an existential restriction.

Economic efficiency and price: if we accept the concept of economic efficiency as the best allocation of scarce means to alternative ends *in a situation of free market access*, we can easily observe the enormous utility of the informative reading of prices. We observe the correlation between price levels and the efficiency with which an economic good satisfies needs (though we know subjective value cannot be measured). We can say prices are the equivalent of a thermometer to measure economic efficiency, if the thermometer is working correctly. This subject is the main concern of this work.

CHAPTER II

CAPITALISM

This chapter will be very brief and it does not pretend to offer a complete definition of the term capitalism, but a simple characterization of the different economic systems considered in general, both in theory and in the political organization that different human societies have chosen throughout the centuries: capitalism and collectivism (authoritarianism).

Capital

We must begin by saying that very often the term capital is interpreted in such an ample sense that we cannot identify it with precision. That is why we include this short paragraph.

In economics, capital is identified as the economic good that is used as a means to produce other economic goods. This concept can be assimilated to what Carl Menger called first order goods and higher order goods, considering the first ones to be consumer goods and the second ones capital goods (the means to produce the first ones).

To the effect of what we are interested here, we only need to stress the central concept of the term capital as we referred to it in the previous paragraph. That is the intermediary or production economic good, or of the higher order as defined by Menger. Therefore we do not understand all assets, nor do we debate here other kinds of classifications of economic goods.⁵

The need for this clarification will be clearer when we now refer to capitalism as an economic system and not as an economic good.

Economic system

We define an *economic system* as an institutional-social order to produce and distribute economic goods simultaneously. Once again we must stress that this type of definition only seeks to highlight the central aspects we want to study, in this case the production and distribution (allocation) of economic goods.

The production and distribution of economic goods are inseparable tasks in time, this means at the same time that they are produced, they are being distributed. By the bi-univocal axiom “economic good – owner”, it is not possible to consider that a task is performed at a different time from the other. It is not possible to assert that first we produce and then we distribute. This axiomatic asseveration is independent of the economic organization system (either capitalism or collectivism); whereas denying it is being unaware of the human property over economic goods.⁶

Capitalism

Capitalism is considered to be the economic system that makes private property prevail over collective property of economic goods. Some authors limit the idea of property to the means of production or capital goods instead of economic goods in general. Following the TET, the correct way to refer to all economic goods is

by considering them either a consumer or a capital good, and vice versa according to its destiny.

For the purposes of this book, we will refer to capitalism as the economic system with preponderance of private property over collective property. We stress the term preponderance in the sense that it is impossible to conceive exclusively private property (collective) in any human society. On the other hand, given the bi-univocal and axiomatic relation of the economic-accounting equation “economic good-owner”, we can say that the causality is the following: human beings are grouped in societies, but there is no human society without human individuals, this means that the owners are always individuals.

Characteristics of capitalism

Once we include private property as the essence of capitalism, it is easy to see its characteristics:

System: capitalism is an economic system.

Private property: preeminence of private property over the public property of economic goods. We consider that the individual is a better producer and distributor of economic goods than the State.

Exchanges: according to the definition in chapter I, the human-owner proceeds to exchange economic goods as it is described in the following chapter.

Freedom: though it seems obvious that the word *private property* goes hand in hand with the exercise of freedom, we should clarify that one of the characteristics of what must be identified as capitalism is not only the property but the free disposal of economic goods. If you derive from this a link between the capitalist system and the democratic system, you will not be wrong. They are linked by a common element: *freedom* of the human being as an *individual*.

Competition: this section is essential since it defines that all human beings have free juridical access to economic goods. It does not mean that everyone can accede, but only those who understand consumers better; and this is just about the human beings who satisfy their own needs and the ones of their fellow men as social beings.

Businessman: with greater or lesser emphasis, with different roles, all economic schools have assigned an important role to the businessman as the maker of economic goods which satisfies human needs.⁷

Market: a set of exchanges. It is good to highlight that economic goods do not exchange themselves; it is human beings who exchange economic goods, the market are the human beings. We are completely in agreement with the theories that define the market as a process; otherwise, we could not speak of exchanges, without which there is no market.

Currency: it can be deduced that capitalism requires currency to make economic exchanges.

Currency prices: we can conclude that currency prices are the essential information which arises from the market; any alteration goes against the essence of capitalism.

Coordination of economic information, simultaneously imperfect, disperse and scarce: it is adequate to believe that the capitalist system arose because the human being considered it apt to manage human economic fallibility in terms of producing and distributing economic goods in the least imperfect possible way. In other words, the human being when managing imperfect, disperse and scarce information needs an economic system that allows him to overcome these fundamental restrictions of the human essence.

To this effect we conclude that economics – as a social science – has as its central goal the management of economic information simultaneously imperfect, disperse and scarce. Prices are the main economic information human beings can manage.

Capitalism's virtuous circle

In short, the human being has found in *capitalism* the most suitable economic system to coexist in society. The human beings need capitalism because it is the system with the lowest cost to obtain the same or better economic goods. Its potential is based on this simple deductive chain: capital goods raise the production of economic goods; the production of those capital goods requires labor; but capital goods free labor; and freed labor is allocated to the production of new capital goods. We can define this simple deductive chain as *capitalism's virtuous circle*.

How are we being informed of the progress of this virtuous circle of capitalism? By means of the information provided by the prices. This is verified in two ways: 1) the downward trend of prices of any economic good as time goes by; and 2) the disappearance of old economic goods and the appearance of new ones, with the exception of time that will always be an economic good ($i > 0$).

The next question is: why is capitalism's virtuous circle interrupted? One of the main reasons is found in the current currency-financial systems, which will be proved in this book.

Intervened capitalism

In general we can express that anything deviating from capitalism's features is not capitalism. But since nothing is perfect, the expression *intervened capitalism* is sometimes used to refer to systems that, starting from the essence of the capitalist system, introduce *interventions* of a collectivist or totalitarian nature.

Here we can say that a high level of intervention is a negation of the capitalist system. Thus, we cannot say that we are in the presence of capitalism or markets in systems with intervened or controlled currency prices, **an asseveration that is relevant in this book.**

The statement in the previous paragraph is of great importance since it involves at least two of the necessary conditions for the existence of capitalism: a) the existence of currency as a stage superior to barter, and b) a system of free currency prices that guarantees optimal *economic information*, which in itself is *simultaneously imperfect, disperse and scarce*.

CHAPTER III

CAPITALIST EXCHANGE

Not only do we reiterate the essential aspects of exchange as the soul of the system of economic and social organization called capitalism – which includes in its scheme the market as a process, but we also offer a brief review of the deductive analysis we propose.

Necessity as the cause of efficiency. – Reintroducing the theoretical-deductive reasoning of economics science adopted here, we said that the consequence of the fallible nature of man was the cause of human action to overcome the state of discomfort and/or necessity immersed in that condition of fallibility. In economic terms, that causality is called *action to lower the prices of economic goods*, which can also be expressed with the word efficiency.

Though the preceding summary seems very trivial, where we stress that the object in the economy is to lower prices, it is not so since it constitutes an excellent summary that gives us an easy understanding of economic phenomena. Not realizing it in this way has led to theoretical developments that advice as economic policy, and in certain circumstances “to raise prices”,⁸ a situation with two flaws: a) it inverts the causality of the price process and, b) as we already mentioned, it goes in the opposite sense of the object of human economic action.

Thus, prices are an excellent media of information to measure efficiency, and it becomes easy to appreciate the importance of preserving the materials of this thermometer.

Efficiency as the cause of specialization. – Once man confronts the need to be efficient, his human actions in society lead him to discover specialization as the road to efficiency.

We consider the law of division of labor as something given, in its development as absolute and relative comparative advantages in Ricardo, as the invisible hand in Adam Smith, and as the law of association in Mises. In the economic world specialization materializes in the company and more concretely in the businessman.

Specialization as the cause of exchange. – Specialization manifests its efficiency in the fact that each individual or group produces – of the economic goods which is socially most apt for – in quantities superior to his or its needs. In other words, the specialized individual or group produces *larger quantities* and *less diversity* of economic goods.

All progress brings solutions and originates new challenges, and specialization cannot escape this circumstance, creating in this case the need to exchange the surplus economic goods for the surplus products of other specialized producers. This brief history is completed by saying that man then turned to the phase of gathering information about the economic goods non-existent in the market so as

to produce and exchange them; then he saw he was immerse in a *competition* with others dedicated to this task of producing economic goods to better satisfy other human beings. This explains the development of capitalism we are dealing with, that is as simple as it is essential, to produce peacefully more and in a better way, with no need to belligerently appropriate what belongs to others, which is a phase characteristic of pre-capitalist society.

Exchange as an economic good. – Considering the definition of economic good, we are convinced that exchange (the interpersonal type we are referring to) is an economic good, and thus it has a price.

Exchange, synonymous with market. – We have already mentioned that market refers to a set of exchanges, which implies that when we are speaking of the market, we are referring to the interpersonal exchange of economic goods by human beings, not to a physical space, and not to a “dehumanized”, merely material, entity.

Types of exchange – cash and credit . – In any market there can be two types of exchange, cash and credit.

Cash: is the interpersonal exchange of present economic goods. In this way, we find two types of cash: barter and the one carried out with money (we do not use the term currency).

Credit: is the interpersonal exchange of present economic goods for future economic goods.

In our opinion, the distinction between direct exchange (barter) and indirect exchange (with currency) is not relevant in economics – it is relevant for finance, as its goal is to solve liquidity at a lower price. And we stress this because the essential difference is that one is less costly (indirect) than the other (barter) for satisfying liquidity. But this aspect is not exclusive of exchange as an economic good – we refer to human actions to lower prices – it is valid for all economic goods.

According to TET, cash and credit are the important economic categories in the exchange, entities that are even more relevant when they are included in currency and financial theory.

Efficient exchange as the cause for currency. – The deductive sequence of reasoning leads us to consider currency as a more efficient economic good than barter. This is due to what currency means – an economic good that satisfies liquidity at a lower price than barter.

The uncomfortable state (inefficiency) of human beings bartering was solved by the appearance of the economic good currency, which allows more and better exchange at a lower price (efficiency).

We have already referred to the origins or the reason for the existence of *currency*, now we can define it as a *means of exchange of common use*. The assignment of this meaning to currency in TET is based on the fact that other theories describe both money and currency in this way. TET establishes, instead,

a difference between currency and money, so the latter becomes a sub-category of the former. In other words, currency is a superior category to money; we will be able to appreciate the theoretical dimension of this aspect further on.⁹

Currency prices as efficient economic information. – We already know of the importance of prices and information in the economy, since currency is the essential element in capitalism for these two objects, or for one of them if we recognize that in economics prices are equivalent to “*the*” *information*.

We learnt of the relevance of currency as an economic good that lowers the price of exchange – and at the same time multiplies and improves it – but it is no less relevant to refer to the informative function it generates through currency prices.

Each exchange of economic good determines, in that sole spatial-temporal act, the price of each economic good in reference to the amounts of the other for which it is exchanged. In other words, if a tomato is exchanged for three potatoes, this implies for this act, unique and impossible to repeat, that the price for 3 potatoes was one tomato and vice versa.

It is easy to see that if we are dealing with an infinite number of exchanges and economic goods, the information from barter (the example given above) is not very useful. We see that if we can refer the prices of all exchanges, and therefore of the economic goods that appear in them, to a common denominator, the task of generating and reading economic information would be much simpler; in truth, it is the only feasible information in an exchange society. This common denominator is equivalent to language.

Currency prices (p_c) have the same function of a common denominator for referring to exchange. That is to say, the infinite prices generated in the market are expressed in relation to the quantities of currency for which each of the other economic goods is exchanged; thus, a potato has the price of 1 currency unit, the tomato 3 units of currency, and so on with each economic good exchanged.

In this way we stress the enormous importance of *currency prices*, that we define as the *prices expressed in currency units*, and at the same time it also allows us to produce very simple theoretical developments.

Yes, the relevance of currency prices means NOTHING LESS than that they are *the best means of information of economic knowledge that human beings have to calculate their economic-social life with, and they are simultaneously imperfect, disperse, and scarce*.

Today nobody denies the relevance of information in human life, to the point that we call it the information age – someone said that if the knowledge contained in libraries were destroyed, humans would return to the stone age –; in economics, the information age appeared with currency prices, proof of which is the return to an age of barter where currency prices are destroyed (Argentina, as a recurring example).

The reader will find a similar characteristic between the meaning that censorship has for democracy and the meaning that intervention in currency prices has for the economy. Both are an attack on freedom and both concepts are *information*. Possibly, this consideration shows us the necessary condition for the coexistence

of democracy-capitalism. This terminological analogy should help politicians understand the relevance of prices in economics.

Democracy and the economy require, as a necessary condition, freedom of information.

Control of currency prices as inefficient economic information. – Capitalism can be distorted in several ways, but we believe that those who said that if you destroy currency, capitalism is finished, were right.

Though currency obstruction, which is an intervention in the currency market alien to capitalism, results in other evils (appropriation of other people's wealth, etc.), we refer here only to the *tremendous damage generated by distorting the information of currency prices*. The situation can be compared to that of a surgeon operating patient John with patient Peter's diagnosis. No doubt you would not allow that if John is your son, and if it happened, you would react to the damage. Indeed, in the case of alteration of currency prices, the currency-surgeon is operating simultaneously the whole society – you and your loved ones and everybody else – with the wrong diagnosis.

We conclude that any currency price control generates inefficient economic information or less efficient than currency prices without control. There is no debate on this among the different schools of economics. We stress it because it ratifies the simple deductive scheme on which economic knowledge is based. In other words, there is a theoretical consensus – obviously with different shadings – relative to the damage that price controls generate in any market.

We reiterate that it is possible to symbolize the economy efficiently, and that prices are the thermometer.

If things are this way, then why are we talking about it if there is consensus on everything we have said? What is new to go on writing? Could it be that *we are controlling currency prices inadvertently?* And if so, *under what circumstances does currency price control occur?* The following chapters will answer these two questions which are the main purpose of this book.

CHAPTER IV

CURRENCY

Having introduced currency in the theoretical framework of economics, including its origin and definition, it is time to study general currency theory in greater depth and extension.

In this chapter we will answer the first of the two questions posed at the end of the previous chapter: *are we inadvertently controlling currency prices?*

Concept and main function of currency

A summary of what we have already said about currency will suffice.

- a) **Concept of currency:** *a means of common use for interpersonal exchange*, generally accepted as a *means of exchange of common use*. We have already referred to currency theories that link that concept to both money and currency, producing two similar concepts or one concept with two different names. That is very different from our approach.
- b) **Currency functions:** though there are others, here only two are relevant and we have already highlighted them: 1) a means of exchange, that is part of the definition of currency, which solves the illiquidity problem produced by barter, and 2) a means of information, through currency prices, having stressed that this function is equal to or even more important than its function as a means of exchange, in so far as it measures economic efficiency.

Currency types

Now we will determine the different types of currency, which is essential to an adequate monetary theory. We observe there are two types of currencies, which in turn include subdivisions within each type:

Money: it is the present economic good used as currency. In other words when currency is a present economic good we call it money. The world has seen many types of money, according to the *present economic good* used (for example: spice, silver, gold, cattle, etc.).

Credit: when currency is not money, the only alternative is for it to be credit. This allows us to include credit as another type of currency, a concept we have already defined as an *exchange of economic time*. The fact that credit is economic time is not in the least incompatible with the definition of currency (adopted by TET) nor with its functions. Indeed, we can consider credit-currency a higher phase in the development of mankind, since the evolution from money currency to credit currency can be considered as important as the evolution from barter to money.

But, as we know, every step forward can imply new complications, and to see if this is true of credit currency, we must create two subdivisions of credit.

The classification we need appears as a basic tenet of credit's significance: exchange of economic time. From this we deduce that to perfect the act of credit, for it to be *regular*, one part must give the other part a present economic good in exchange for which that part will receive an economic good that will be present in the future. So we see that *credit*, as an interpersonal exchange of economic time, *requires a double indirect or improper materialization, an initial one for its existence and another, a final one, for its extinction.*

Now we can classify credit – according to TET – in a necessary and adequate way:

- a) **Regular credit:** TET defines this way the type of credit that *establishes at its inception the quality and quantity* of the future economic good with which the arising liability will be canceled. This means, that at the time of its inception, the regular credit *specifies* the quality and quantity of the present economic good in which the final indirect materialization will occur.
- b) **Irregular credit:** opposed to the previous type of credit, TET defines this way the type of credit that **does not clearly define** at its inception the **quantity and/or quality** of the future economic good with which the arising liability will be canceled. This means that at the time of its inception irregular credit *does not specify* the quality and quantity of the present economic good in which the final indirect materialization will occur. In other words, the final indirect materialization is **not** specified along with the initial indirect materialization.

If you are wondering if irregular credit can exist, we must say not only that it does exist but also that your own social-economic life has it at its center. The currency note – paper currency (PC) – that you have in your pocket is irregular credit that you gave in exchange for a present economic good (your work, for example). If you have any doubt that PC is irregular credit, we invite you to read closely the text on it and to try to determine the quality and quantity of the future economic good with which the credit you granted will be cancelled with. We have no doubt that the exchange through which the PC came to be in your possession was a credit: you gave a present economic good for that to happen (with the exception of the act of cancelling a debt with PC, which for TET is a novation of the debt, this means replacing one debt for another).

The market is the origin of money currency (Menger)

We do not need to explain again that money is the product of the spontaneous order of the market, as Carl Menger showed.

The market is the origin of credit currency (TET)

What we do really need to explain is the origin of credit currency, be it regular or irregular. This is related to the debates existing among the different schools of thought, especially those that accept Menger's principle, which says that the market gave birth to money (he did not develop the theory of PC), *versus* those which reject that idea by saying that there are historical events that deny that and

confirm that the State created currency, referring to the fact that it issued PC that was used as such.

TET teaches us that *the market is always the origin of currency, be it money or credit (regular or irregular)*. Let us see the case of credit currency, which is in doubt here.

By *reductio ad absurdum* we can deduce that the market also generates credit currency. We know the origin of credit is giving a present economic good – without which there is no credit – in exchange for a future economic good. Therefore if PC is the future economic good – by the simple fact that it is not present – it is obvious that the market granted the present economic good or credit would not have been perfected.

We have shown ¹⁰ that credit currency has its origin in the market, be it regular credit currency or irregular credit currency.

Another way to show that credit is originated by the market, which is the creditor because it granted the present economic good, is to point out that PC that comes from the “print-shop”, the only value of which is in the paper itself, only becomes PC when it is part of the first exchange for a present economic good in the market, the necessary condition for there to be credit.

Another alternative is to think of the State and/or Central Bank that accepts the paper, now as PC because it has already been a part of the first exchange in the market. For that PC the State will have to pay interest (implicit or tacit), and we know interest is paid if there is credit.

So we have several ways of showing and seeing, not only that PC is credit, but that the debtor is the State and the creditor is the market.

The conclusions we have come to will allow us to destroy many incorrect beliefs, sustained by the current paradigm, such as that *Central Banks are lenders of last resort*, instead of seeing they are *debtors of the first instance, and of the market*.

When $i \equiv p > 0$

The deductive-theoretical chain we are developing takes us to the following and important conclusions:

- 1) Interest (i) is the price of economic time.
- 2) Credit is economic time exchanged interpersonally.
- 3) From 1 and 2 we deduce that interest (i) is the price of credit.
- 4) The use of currency defines currency prices (p_c) as a central element of economic information.
- 5) We have established that credit can have the function of currency.
- 6) From 3, 4, and 5, we deduce that when credit is the currency, interest (i) is equivalent to currency prices (p_c).

The preceding simple deductive chain shows us that *in credit-currency systems the interest rate (i) of the market is the same entity as currency prices (p_c)*.

TET explains that there are not two simultaneously existent worlds, one is the currency world and the other a real world (non currency) when currency is used; ¹¹ therefore we only need to eliminate the sub index and we have what was

already mentioned, that is, we are in the presence of credit currency, and the following identity (by axiom) is valid:

$$i \equiv p$$

The best way to express this identity is to say that the highest phase mankind has reached in terms of exchange is the use of economic time as currency.

The identity $i \equiv p$ when referring to credit currency ratifies the great importance of the feature improper materialization, exclusive of economic time.

The feature of *improper materialization* of economic time (TET) shows us the singular importance of the difference between regular and irregular credit. We should remember a credit is regular when in the act that originates it, through the initial materialization (to establish the quality and quantity of the present economic good that originates it), its final materialization is also precisely established (quality and quantity of the economic good that will cancel it).¹²

The feature of *permanent fallibility* of economic time (TET) shows us the axiomatic restriction of $i > 0$ whose importance we will be able to appreciate later.

But we can conclude that the exclusive double characteristic of economic time ($i > 0$ and $i \equiv p$), theoretically refutes the econometric models now in use, including those destined for private projections and those that “guide” authorities in charge of the currency and the economy.

To complete the theoretical deductive process we should only add to the already mentioned identity the general positive condition of prices, and thus we have that when credit is the currency, by axiom:

$$i \equiv p > 0$$

This expression explains when we are in the presence of credit-currency, the great importance of the two features of economic goods: its indirect materialization and its condition of permanent fallibility.

Currency as a tool for *general price control*

We have already mentioned the damage done by interventions in market prices, mainly considering their role as a means of information, which we equated to the lack of freedom of expression in democracy.

We have also considered the aspect, in no way less important, that there is relative agreement on the relevance of market prices or, more precisely, the damage produced by price controls.

The existence of the identity $i \equiv p$ leads us directly and inevitably to the *general control* of prices when credit-currency is irregular. This circumstance is easy to see, in so far as the free act of indirect materialization of economic time (initial and/or final), is altered, and that alteration is inevitable when entities opposed to the principle of the preeminence of private property are present.

We mention the *general* control of prices, considering we are talking of controlling the price of currency, the central reference tool for all the information generated by the price system; this means that the common denominator of all information is altered. It is equivalent to eliminating the language of a society. A tower of Babel.

Here we should highlight that when an entity (we are thinking of the State) is in charge of *printing* “notes” and the market transforms them in PC (irregular credit given to the printer), we are witnessing the initial step of the manipulation of improper materialization. That is to say manipulation not of a particular individual but of the whole society, and not of a particular economic good but of the whole of the economic goods.

And speaking of special characteristics, it is interesting to highlight the different conception of the currency theory that derives from TET in comparison with the current paradigm, which we very summarily define as follows: while all the talk is about an indirect mechanism of currency transmission over prices, TET refers instead to a direct mechanism, if it really is a mechanism. We prefer to see it as a process. In other words, other schools tell us that the variations in the amount of currency offered (by the “printer-debtor” and transformed into PC by the market) alter i , and such alterations will then affect price levels, p . TET shows that the “mechanism” is direct. This theoretical difference arises from the combination of the identity $i \equiv p$ with (irregular) credit currency, all derived from the indirect materialization of economic time, a subject that I am trying to present to other schools of thought.

Currency systems

We include this section only to say that a currency system is something different from a financial system, a subject we will study in the following chapter.

To summarize what has been said here, it is useful to refer to the different types of currency systems that can exist:

- 1) **Regular currency systems**: those that use regular currency.
 - 1-a) Systems with money currency use *money* as currency.
 - 2-a) Systems with regular credit currency use *regular credit* as currency
- 2) **Irregular currency systems**: those that use irregular credit currency as its currency. In the following chapter, once we have explained the concept of “currency reserves”, we will have the opportunity to add the term *indirect-irregular currency system*, which will allow us to understand the current global currency and financial system.

Why do state irregular currency systems exist?

Currently, with few exceptions, what exists is a state irregular currency system, this means that the State is the “printer-debtor”.

In this situation our theoretical deductive progress leads us to an inevitable question: why do state irregular monetary systems exist? We can give the following explanations:

- *Ignorance* of the crucial implications of all these issues.
- *A human culture* that fears freedom.
- *Human incapacity* to free ourselves of authoritarianisms.

No matter what the answer is, it is not our intention to answer it here but to stress that irregular currency systems are exceptional tools to limit freedom. To put it in a different way, if the tyrants of the past had not used weapons for their purposes, they could have used an irregular currency system.

To conclude this section that shows irregular currency as an eminently political instrument, we only want to stress it is no coincidence that there are as many currencies as power factors, one for each nation or block of nations.

CHAPTER V

FINANCIAL SYSTEMS (TYPES)

We call the *currency market* Financial System (FS).

It is essential to understand that a currency system is not the same as a financial system. To see this it will suffice to say that there can be a currency system without a financial system, but not a financial system without a currency one.

The structure of this book derives from this concept, we first referred to currency and we needed nothing else to develop its theory, but to refer to the financial system we need currency theory.

Evidently, considering the different types of currencies we will have different financial systems, and so it is necessary to distinguish between:

- **Regular financial system (RFS):** a financial system with regular currency.
- **Irregular financial system (IFS):** a financial system with irregular currency.

Components of a regular financial system

We define the *Regular* Financial System as a *financial system with regular currency*. It is something like a company or a group of companies that buy and sell currency to satisfy liquidity, in the same way a bakery buys and sells bread to satisfy hunger. The components of a RFS are the following:

- **Currency:** means of exchange of common use in the form of money and/or regular credit.
- **Banks:** entities that act as currency intermediaries, this means that they receive and lend currency from and to third parties.

As we can see, to transform a currency system into a financial system we only need to add a banking institution, with the function of trading currency, as there are people that trade in food, clothes, cars, etc. This simple consideration implies adopting the opposite approach to that of the theories that consider that since currency is of a social nature, it is necessary for the State to regulate, control, orient, provide, produce, exchange, distribute, etc., it, since the social nature of food and clothes is more evident. This ratifies the brief analysis of the reason for the existence of irregular currency systems: they generate political power.

The reader may be surprised by the fact that Central Banks do not appear in the list of elements that conform a RFS. But this is no surprise if we consider that we are talking of *Regular*FS, and that for them to exist and work there is no need for any state entity.

The definition and organization of an RFS is so simple that there is no need for special legislation. In this manner, the simple laws related to the world of business are enough for a RFS, considering both those related to the legality and the illegality of the exercise of economic activity.

Types of regular financial systems

If we analyze the component parts of a RFS we see that there are no distinctions in the bank element. But there are distinctions relative to currency, and these differences allow us to classify RFS in two groups:

- ***RFS with money currency***: RFS that use money as currency.
- ***RFS with credit currency***: RFS that use regular credit as currency.

Fractional reserve

The fractional reserve is the method by which a banker lends to third parties money that has not been lent to him but instead has been left with him in deposit. Let us see a practical example of fractional reserve: it is as if somebody left ten cars exactly alike in your garage, in such a way that the owners will not distinguish theirs from any other – that condition is necessary for the cars to be similar to currency (fungibility) –, and seeing that you always have in your garage at least two cars, you conceive the idea of winning some “extra bucks”, apart from what you receive for parking, and you rent out those two cars. It is a “fantastic” idea, because no one will notice their car is missing. Your “extra earnings” will be fine until one day the statistic breaks down, because the 10 owners appear at the same time (in truth only 9 have to appear simultaneously, since the 10th will come running as soon as he finds out about “9th’s” tragedy). Any similarity of this “run on the garage” with what is known as a “run on the banks” is no coincidence. The fractional reserve is unknown to most people, and so the 9th’s screams will bring the stampede of all the 10.

Though it sounds incredible, you will be penalized for the “run on the garage”, but if you insist on earning extra money with other people’s goods, protected by a “legal” framework, you would have to recur to the financial system of fractional reserve. In short, if you fancy the idea of the cars in the garage, forget it, just get an “official license” and open a bank.

We only need to add a very relevant quantitative aspect to the subject of fractional reserve. While in the example you could only appropriate the rent for 20% of the cars in the garage, in a bank system with a similar level of fractional reserve, the system as a whole will transform 1000 currency units into 5000. There is no need to continue with this, since there is abundant good bibliography. We only want you to have an idea of the social magnitude of the subject.

Regular financial system with fractional reserve

The RFS with fractional reserve do not require additional theoretical analysis. In other words, in the *RFS with fractional reserve*, the crime is simply appropriating other people’s wealth with the law on your side. In an *RFS with fractional reserve* the only “legal crime” committed is the one that gives birth to the fractionary financial system, there is no currency crime in an RFS.

Irregular financial system

When we defined the RFS we said it is: *a financial system with regular currency*.

We defined the *Irregular Financial System* as a *financial system with irregular currency*. We also know that irregular currency is configured with *irregular credit currency*.

We can define the current systems as *irregular financial systems with state monopoly* (IFSS).

It is very important to observe the few but relevant differences between the financial systems we studied:

- 1) Money is currency.
- 2) Credit can be currency.
- 3) When credit is currency, the market contributes the present economic goods, element without which there is no credit.
- 4) We know the enormous difference between a regular and an irregular credit, and among the differences we can point out in irregular credit, what we are interested in is the final indirect materialization, this means that we are referring to the quality and quantity of the present economic good with which it will be cancelled. We reiterate that for paper to become PC, the market must turn it into credit. In other words, PC is always a credit of the market to the financial system. The market effects the double action of converting a simple paper in PC, and at the same time it becomes creditor of the “printer-debtor”. We reiterate it is wrong to consider the Central Bank as a lender of last resort; it is a debtor in the first instance, and this is so when “paper” is exchanged for present economic goods in the market for the first time.

We have concluded that a regular financial system does not need a specific theoretical explanation or any special legislation. But an irregular financial system needs a legal system that “imposes it to that effect”. And this conclusion is very easy to come to, considering it will be very hard to find a society that “voluntarily” will give up its present economic goods in exchange for promises. If this were the case with any society, then it should accept the consequences. We only need to think of the bank runs suffered by so many people to understand that 99% of mankind believes that PC is money and know no better. This situation arises from the fact that most people believe that if those who know (economic theory) have decided it (the legal and political system), it has to be so and it must be right.

Possibly, the theories that deny that the market is the origin of currency pretend to say that the State establishes legislation. But there is no doubt, based on TET, that “legal” paper becomes PC because of the market.

So we see TET is in this aspect an extension of Menger’s money theory, which considers the market is the origin of money, and here we show Paper Currency also has its origin in the market. Indeed we used accounting – the best economic model we have – to corroborate this in the original book on the TER, part III.

Irregular State fractional reserve financial system

Since we already know what IFSS and fractional reserve are, we only need to say that the structure of the current financial systems is the result of the combination of both. Therefore, with an ISFFS we have all the feasible economic crimes in one financial system; the fractional reserve crime is added to the irregular currency crime with multiplying features.

If we analyze the central features of an ISFFS we will see that it has little to do with capitalism:

- *State monopoly* of the function of “printer-debtor” (issuer of paper that the market will turn into PC).
- *Legal powers* to exercise the monopoly, which are essential since it is contrary to the natural condition of free men.
- *Currency appropriation of other people’s wealth*, derived from the difference between the initial and final indirect materialization of irregular credit by the State (PC).
- *Financial appropriation of other people’s wealth*, fractional reserve crime.
- *General price control* (by $i \equiv p$).

It is evident that expressions in italics – *Monopoly, Power, Appropriation of other people’s wealth with currency, Financial appropriation of other people’s wealth, general price controls* –, central features of ISFFS, have nothing to do with capitalism.

We believe that we need to say nothing more to conclude that current financial systems and their recurring crisis are incompatible with capitalism.

We conclude therefore that irregular financial systems (state or otherwise) *necessarily* have their origin in ad hoc legislation. And this is a necessary condition since the crimes derived from these systems are contrary to the human condition and the capitalist system for solving the economic necessities of mankind.

Once the irregular and fractional financial system is “legally” institutionalized, the market generates irregular currency, as is true for all currencies. In other words, the “criminal” characteristics of these systems, be they based on the State or not – we will expand on this theme in the section on free-banking –, do not imply they escape the economic laws of the market, the environment in which they find their origin and their end.

The need for Central Banks

Once the necessary ad hoc legal framework for the ISFFS is installed, another *need* arises: the creation of a state entity in charge of enforcing said legal framework.

It is very important to follow the logical sequence of the origin and development of the ISFFS, and it is presented here intentionally, because here we see with a clearer and more transparent perspective the development of the institutional order that led to the need for the existence of currency authorities (Central Banks), a development that finds its origin in the current scientific paradigm.

Considering all this, the alternative denominations that identify this institution are excellent:

- *Monetary authority*: because it originates in state power, a feature of ISFFS.
- *Central Bank*: because we also saw that in an irregular financial system, based on the state and fractional reserves (ISFFS), banks act as exchangers and distributors for the producer. Thus, in the ISFFS, the Central Bank “produces” the product; we say it is the “printer” that through its distributors, the banks, can have the printed paper transformed into PC. Thus, we have several distributors (banks) and a central producer (Central Bank).

As we can see the function of the Central Bank is very clear, and it is avoiding the destruction of its business. To that effect it must have *plenipotentiary faculties* assigned, because guaranteeing that an event does not occur is against the natural order of things.

If you are thinking that the law assigns the Central Bank other functions, such as controlling the interest rate, the level of inflation, the level of employment, etc., you will realize these are functions that have nothing to do with capitalism or the economy. In this way, the Central Bank’s “extraordinary-economic” functions acquire their real essence, that of political functions. Therefore, based on theory it is totally inappropriate to demand independent Central Banks, a recipe recommended for mitigating currency and financial evils.

To complete the institutions necessary for an ISFFS, PC exchanges must be incorporated as cash entities, as if PC were money. According to TET an exchange where PC is used is a credit operation, not a cash exchange. This is also true for payments with bank checks denominated in PC.

A question we necessarily must ask ourselves is if Central Banks can put “printed paper” in the non-bank market, this means to give “printed paper” to a company that does not belong to the banking industry and who transforms it into PC, exchanging it for a present economic good in the market. Evidently the answer is yes, considering that the intent is to open a new exchange channel, as with companies in any industry.

As we can see, reverting an ISFFS is a very difficult task, but the correction is both feasible and inevitable.

Central Banks are not lenders of last resort

Though we have already proven this, we believe it is convenient to give it a title. Currency is created by markets, no matter what type, money or credit, and be it regular or irregular. We reiterate any financial system has its origin in the market, never in the State.

Finally we reiterate that not only do Central Banks exist as a part of ISFFS but they represent the State as debtors of the first instance, they are never lenders of last resort.

Free-banking

There has been much debate, especially in the Austrian School, about the advantage of free-banking, this means that banks appear in the market in free competition.

What we are interested in discussing here is not so much the idea of bank competition – if we were against it we would be eliminating a central feature of capitalism – but two things that come before free-banking:

- *Irregular currency*: we believe it is essential to consider it foreign to the essence of capitalism and the main cause of the inefficiency in human economic activity for producing and distributing economic goods simultaneously. In other words, before we promote banking freedom it is necessary to denounce irregular currency. If not we would only be eliminating the monopoly aspect that, though important, is not enough.
- *System of fractional reserve*: here we only need to eliminate the ad hoc legislation.

In reference to the members of the Austrian School that favor free-banking, our common response is:

- If any citizen wishes to accept an irregular currency, based on his free will and knowledge, he is responsible for his actions.
- If a citizen accepts the idea that at some time the “depository” of his currency should not hold it to return it, based on his free will and knowledge, he is responsible for his actions.

We alert that the consumer of those services (irregular currency and fractional system) could be easily deceived as to the type of contract he is freely agreeing to. This is one of our objections.

In short, we believe most human beings do not know for sure what irregular currency, IFS, IFSS, and fractional reserves are. To see this we only need to think of the terrible spectacle of not allowing people to withdraw their savings. In Argentina in 2001-02, people did not know who they should appeal to for their savings, and that is why they protested in front of the banks, the Courts, the Congress and the Government. We must remember there was a demand at another level, and it was Hayek’s demand on the state of currency theory. The conclusion is that we must not ask the neophyte to explain what the scholar cannot do.

But the most conclusive argument is to realize that RFS is the best system for generating currency prices, free from crime and interventionism, to manage economic knowledge that is simultaneously imperfect, disperse and scarce, resulting from human fallibility, a circumstance that is well known to the Austrian School. Another answer can be found in the response to the question: why do irregular currencies and fractional reserves exist?

Finally, if prices are the thermometer of efficiency, is an alterable thermometer feasible? Is an alterable measure unit feasible? Currency crises show the consequences.

“Monetary reserves”

It is strictly to the point to state here that there are no Central Banks without currency reserves, which are the assets the creditors of ISFFS will “count on” to effect the final indirect materialization of the credit represented by PC. In other words, currency reserves “are” the assets that the creditors (market) should resort to, to collect their PC. Evidently in regular financial systems there is no need for Central Banks or currency reserves, since if we are in the presence of money, the system only needs to make it circulate or, if certificate deposits are used in its place, a mere depository of the present economic goods. And if we are in the presence of a financial system that uses regular credit as currency, there is no need for legislation other than the laws that establish the punishment for those who do not pay their debts.

Again ISFFS appears as a case that cannot be solved with a mere depository nor with the simple tenets of commercial law. And though this does not surprise us, since we have shown this type of system needs ad hoc legislation, it is very useful to include this section on currency reserves.

We deal separately with the necessary existence of legislation for “currency reserves” in an ISFFS, because of the tragic differences among the different schools on its definition and the consequences derived from the different “options offered”.

In this sense, TET clearly states that PC is a debt incurred by the “printer-debtor”, the State, therefore the debtors have simple debtor rights on their assets, it is not a privileged credit, but it is a credit in the end.

So there can be no doubt that the so called “currency reserves” can be seized, and the State can freely dispose of them, as it does with any asset. The reader will understand this conclusion derives directly from the theoretical-deductive order we are using, which is simply an extract of TET.

In short, RFS do not need Central Banks, nor Currency Reserves, or legislation equating payment with PC to cash, or legislation validating fractional reserves.

“Currency reserves” is just another topic where we show the errors of the current theoretical paradigm. We see this when members of the same school of thought disagree, and those of different schools agree, in determining the legal aspect of currency reserves: if they are or not State assets, if they can be seized, if they are partially freely available (there is even the absurd effort to establish the “fraction of freely available currency reserves”), etc. This degree of legal confusion, derived from the current theoretical confusion, becomes even more complicated in the case of a State in default. TET clears up the legal confusion; we only need to apply the laws that govern economic activities among private citizens, eliminating all the ad hoc elements that support ISFFS.

Summary of irregular state fractional financial systems

For didactical reasons we present here a summary of the irregular state fractionary fractional financial systems like the current ones.

Their features:

- *State monopoly* of PC issue.
- *Legal powers* to exercise the monopoly.
- *Appropriation through currency of other people's wealth* derived from the difference between initial and final indirect materialization of irregular credit by the State (PC).
- *Financial appropriation of other people's wealth*, characteristic of fractional reserve.
- *General control of prices* (by $i \equiv p$).

Their ad hoc legal institutions:

- Irregular currency (PC).
- Fractional reserves.
- Equating PC exchange with cash exchange.
- Central Bank: with distribution system (the banks).
- Currency reserves.

This summary is very useful since it shows the incompatibility of capitalism with an ISFFS and shows very clearly how capitalism can get rid of such a system.

Irregular-indirect currency systems

If there is one thing that defines the global characteristic of current currency-financial systems is the existence of what we will call an irregular-indirect currency system. Considering what we already know about a system with irregular currency, PC being the typical example, it is easy to see there are currencies that have irregular currencies (other countries' PC) as their main backing (currency reserves).

We can easily see the country that uses indirect-PC is granting a credit to the country that issued the PC used to support its indirect-PC, in a sum equivalent to the reserve stock. This shows us the international credit chain generated with the use of irregular-indirect currency.

This concept we add is of great importance for the diagnosis and treatment of currency-financial crises, in both irregular currencies and irregular-indirect currencies cases.

Irregular-indirect-state-fractional financial systems

We do not need to expand too much on the definition of these systems, since we only need to add to the preceding summary of an ISFFS their *indirect* nature, and thus we have the current IISFFS.

CHAPTER VI

RECURRING CURRENCY-FINANCIAL CRISES IN CAPITALISM

It is well known that capitalism has recurring states of currency and financial crisis.

What we see now is at the same time a crisis of the current currency policy paradigms. Hayek showed he understood this very well – after his last incursion on the subject – when he expressed something like this: evidently we cannot be satisfied with the state of currency theory; I can only suggest what path I think we should take.

According to the conclusions we have reached in the preceding pages, with TET we now have a currency theory derived from its central concept of economic time, which will allow us to approach in a much more concrete and solid fashion the issue of avoiding and correcting currency crises. And this is so because we now have a *currency* theory that is both simpler and more far-reaching.

The developments in this section are completed by those we present further on, under the title: *Currency-financial crises that are alien to capitalism*.

Economic calculus in Socialism (Mises)

The Austrian School of economics is noted for the fact that it stresses, correctly, the huge importance of the price system as information from the market. We can find a synthesis of its ideas in Mises' reflection which highlights that *economic calculus is impossible in socialism*.

In TER we have been able to expand on our theoretical observations in reference to this assertion, and to express our complete agreement with the spirit of this statement.

As a consequence of our theoretical deductive development, we must also analyze the possibility of economic calculus in an irregular financial system. In other words, we will now apply Mises' excellent theoretical development to the importance of the price system, with a spirit that is present in all that we have written here.

Economic calculus in an irregular financial system (TET)

In short, following Mises' ideas, the expression with which we agree with is that the currency price system is the most efficient information method to approach *economic knowledge that is simultaneously imperfect, disperse, and scarce*.

This conclusion has a double implication: 1) what Mises stresses when referring to the fact that socialism cannot generate market prices, considering also our own theoretical observation, and 2) what TET tells us is that the same damage causes an irregular financial system, worsened by fractional reserves and a monopolist character exercised by the State in the facts.

We could possibly combine both considerations in one, pointing out that *the lack of free markets prevents us from obtaining efficient economic knowledge, which we know is simultaneously imperfect, disperse, and scarce*, because of the distortion of the information generated by prices.

Mises' idea, that economic calculus is impossible in socialism because it cannot generate the basic source of information (currency prices), leads us to say that economic calculus is impossible in an ISFFS. Our theory is a bit simpler than Mises', and at the same time it is true to the spirit of his ideas and to Hayek's.

Currency-financial crises alien to capitalism

When we are speaking of the elements of a set, it is decisive to define that there is something that makes them a part of the set. In human beings it is the "affecto societatis", this means the natural need for mankind to live in the set called society. And in terms of the economy, we have seen why man opted for capitalism, a social system that allowed him to evolve wherever it was present.

In previous pages we pointed to the characteristics of capitalism, and we said it allows man to combine individual specialization for his own benefit and for others. In other words, capitalism not only allows human beings to interact, but it is also in their best interest to act in this manner, which means they should prefer to live in society and not isolated. This only corroborates the social nature of man; otherwise he would not have searched for a system that would allow him to live in society and to be better off that way. In other words, we need not ask capitalism to be socialist or humane, etc., since those features are its essence.

But we know capitalism presents recurring currency-financial crises, which are every time more frequent, and which now are becoming global in nature ("disengagement is impossible", any crisis is superior to a butterfly moving its wings).

The theoretical development we have produced up to now is excellent for studying capitalist currency-financial crises, because we have been able to understand how the currency-financial system with its crises works.

- a) Diagnosis of the patient: it is a case of ISFFS.
- b) The symptoms are:
 - 1) Credit as currency: it implies that $i \equiv p$ and that the market grants the present economic goods and is the creditor of the "debtor issuer".
 - 2) That credit is irregular: it implies an illegal alteration of credit, this means that it alters the debtor-creditor relation.
 - 3) The issuer is monopolist: it alters the way the price system (market) works, and it needs ad hoc legislation that legitimizes the monopoly.
 - 4) The State is the monopolist. It implies: a) creating institutions to apply the necessary ad hoc legislation, and b) the impossibility for those institutions to be independent of political power.

It is easy to conclude that the state of the patient, a society with a currency crisis derived from the use of an ISFFS, tells us that no indicator of the state of capitalism's health can show adequate levels. In other words, capitalism is in intensive care, a state we identify as a "currency crisis".

In order to jump from a currency crisis state to a financial crisis state, we only need to add to the previously indicated symptoms a 5), which is the appropriation

of other people's economic time that originates, with a multiplying effect, the fractional reserve.

It is no surprise that, TET in hand, we can produce such a simple analysis of the origins, the diagnosis, and treatment for currency-financial crises, but we need to take a further step and say: ***it is impossible to avoid capitalism's currency-financial crises with an ISFFS.***

We believe it is now perfectly clear why we gave this section the title: ***Currency-financial crises alien to capitalism.***

To understand that currency-financial crises belong to a mix of capitalism with a collectivist currency financial system (ISFFS), we only need to observe that fully, non-mixed, collectivist systems do not present currency-financial crises. And this is so because in collectivism there is no private property, and therefore there is no credit (which we conclude from our observation of theoretical feasibility).

In short, currency-financial crises do not correspond to capitalism; they correspond to ISFFS, which are not in essence capitalist.

When do currency and financial crises appear in capitalism?

It is important to stress that one of the immediate consequences of the essence of capitalism – the human beings and the subsequent private property – is the dispersion of property among the multitude of human beings that compose the capitalist society. And this statement, that seems trivial, is essential to capitalism insofar as it allows the individual interests of men and those of the society they compose to be in harmony, since this dilutes the effect of the economic crises that individuals or groups could suffer. In other words, it is highly improbable for many individuals or groups to suffer the same crisis at any given time, in this case due to illiquidity. We immediately deduce that ISFFS constitute a state of counterproductive situation to that convenient dispersion of the risk related to accidents or economic crises.

It is easy to see that if the greatest debtor in a certain society defaults, the damage caused to that society will be proportional to its relative dimension. Thus, we can have a true notion of what ISFFS mean in terms of the highest risk of destabilizing the very foundations of capitalism.

Now we only need to analyze the sequence of currency and financial crises that ISFFS inexorably lead to. Therefore, we will review the composition of state debt and then establish the moment when it defaults.

1) *Composition of State debt and its characteristics.* It is composed of the following:

1-a) PC: is the debt the State has with the market composed of the stock of PC. We already know the characteristics of PC; here we are only interested in highlighting that it has no maturity date, it is on sight – this means that it expires when the market decides it does.

1-b) State debt: is the “documented” debt generated when the State “officially” asks for a loan, just like any citizen. This debt has a maturity date,

with a short, medium or long term. And it can be denominated in local or foreign PC.

- 2) *Composition of fractional bank debt*: it is the amount of debt of the financial system (through banks) with the market; it is the part of debt originated by the multiplying effect of the fractional system. We know that debt is several times the amount of PC in stock.

Let us analyze the *moment the State defaults on its debt*. Once we have defined the composition of an ISFFS debt as a whole, we can determine what causes crises and estimate quite precisely their result.

The proof that 1-a) is critical comes from observing the fall of stock relation of currency reserves (CR) related to the stock of PC (CR/PC). This tells the creditors of PC (market) that the State will not be able to cancel PC or that there will be a very important reduction (wrongly called devaluation) of the debt.

We observe that 1-b) becomes complicated when we compare the State's income relative with the interests it must pay together with the difficulties for rolling over its debt.

Generally 1-a) and 1-b) are combined, since currency reserves – related to 1-a) are used alternatively to cancel 1-b), as a result of the confusion in which current paradigms are immerse, and because they are the inevitable reference for currency-financial legislation today.

When the market realizes that the State has seriously deteriorated the ratio CR/PC, and that it becomes every time more difficult for it to honor interest payments and roll-over 1-b) debts, in the facts it is the moment of default. And as we already know, an economic agent in default is the last to realize about its situation, reason why the process is unnecessarily protracted and agonizing.

Let us now see the *moment in which the fractional-bank system defaults*. It is evident that the structure of any ISFFS, denounced by TET and seen in these pages, clearly tells us that the moment of default for the financial system is the same as for the State. It cannot be otherwise, considering the collectivist essence of the system, with the State as direct debtor (PC) and accomplice (fractional reserve). Nevertheless, PC liability is not the same as liability originated by the banking system, though both are based on ad hoc legislation. And this consideration has decisive importance for treating a real crisis, as we shall see later.

We can clearly see the risk components in an ISFFS, which are existential and therefore inevitable: concentration of *social debt*; dimension of the *social debt*; handling of *social debt* by the State, whose capabilities and the reason for its existence are related to politics; the crimes implicit in that *social debt* – remember it needs ad hoc legislation and institutions; and the uncertainty produced by the irregularity of *social debt*, originated by the nature of its final indirect materialization and the lack of precise maturity. These are all factors that make the future even more uncertain.

In short, TET already showed us that financial crises are inevitable in an ISFFS, now it tells us when they happen. And we conclude – and this is surprising – that we have learnt nothing new: there is a crisis when a debtor cannot honor its debts. Therefore, we perceive the ISFFS is the debtor of first instance, with the Central Bank at its head, opposite to the idea that it is the lender of last resort.

Popular suspicion in currency-financial crises

We now understand why people say the problem is trust. But this is nothing new, since credit is based on trust. And in the case of ISFFS, the only ingredient added is *popularity*, and this is so because the essence of the creditor is being popular (the market) and the essence of the debtor is related to politics (State).

In other words, financial crises are just another expression of the *cry for freedom* of men – that make up what is known as the market – when they perceive it is being limited. In situations of currency-financial crises, people suspect there are shady deals between the sphere of power and the financial sphere. TET shows us the current currency paradigm, which is the origin of ISFFS, is basically responsible for popular suspicion.

In the original book of TET, we highlighted the situation we are describing here with the name “*unknown debtor syndrome*”, as an original way of describing a state of popular suspicion. Of course, for us there is no doubt as to who the “*great debtor*” really is.

We trust readers once again will understand the importance of prices as information to understand economic knowledge, simultaneously imperfect, disperse, and scarce. In this case they are seen as popular and general information, referring not only to the price of bread, but to all prices. Suspicion of currency prices implies suspicion of a popular nature.

Once again prices prove to be an essential element for economic considerations. If there was any doubt of their importance, here we see it reflected in an extreme case, precisely at the time the price system is destroyed, when society is immersed in a deep state of suspicion of the information it receives. But what we have to solve are not prices, they only inform us of the problem. Not seeing it this way implies blaming the messenger.

Capitalism, Keynes, and Austrians

Given how popular Keynes’ theories are, we have dedicated an article, on the 60th anniversary of his General Theory, under the title *Keynes, his legacy*, which can be found in our website. We consider it is necessary to say here that his work only seeks to give theoretical support to ISFFS. This means we are contrary to the popular idea that Keynes came to save capitalism.

The only merit we recognize in Keynes is that he *popularized* the central error of the current currency-theory paradigm that in some way helped us to inspire our quest to discover the error and it is also useful as a comparative reference. In other words, his historical intervention as “popular mentor” of the scientific error in current theory helped us present our own theory more clearly.

It is not wrong to say that while Austrians expressed their rejection of current theory, Keynesians want to build on its error, considering – on the contrary – that it is not only a mistake but a virtue.

CHAPTER VII

PLAUSIBLE CONJECTURE

Towards a worldwide regular financial system without fractional reserves?

Let us see where this “question-prophecy” that represents this section in a certain sense comes from. Let us summarily analyze the reason for this statement, which, of course, is not an attempt to prophesize:

Regular financial system

If we consider individual freedom is a very precious good for mankind, as it has been shown throughout history with humanity’s constant struggle against the powers that tried to limit it, it is evident that humanity will finally adopt a regular financial system. In other words, if freedom is a condition humans cannot renounce, if it is in their nature, evidently irregular financial systems are a bastion that must be destroyed. There is no exaggeration in saying that in this phase of civilization it is the “*totalitarian bastion that must be destroyed*”, especially considering it is a global phenomenon.

Financial system without fractional reserves

In the light of the illegality that represents the appropriation of other people’s wealth – via misappropriating economic time – it is clear that if the human being wants to live within the legal framework, which is essential in any society, ad hoc legislation that supports ISFFS should be eliminated.

Regular financial system without fractional reserves

Here we only present the two statements together to highlight a common feature: negation of the concept of solidarity in humans, considering they are the only animal that takes care of the destitute of its species.

The simple addition of appropriations of people’s wealth in irregular currency systems (direct appropriation) and fractional reserves (indirect appropriation) shows that both illegalities are impediments for an efficient allocation of economic goods.

World financial system

We are not very original in saying currency is a result of the existence of society, which is the origin of exchange. We also know there have been different societies due to multiple factors, and they came to be what we know as nations. Then each one of these countries built its currency-financial system, considered essential in the power structure of each “independent” State.

We have many countries with different currency-financial systems, but since exchange between the inhabitants of different countries is becoming ever more fluid, the “euro” effect has appeared: several countries decided to unite their currencies.

It is simple to conclude that the constant growth of international exchange, globalization, will end in a single currency-financial system for all countries that want to be a part of the globalized world.

World regular financial system without fractional reserves

We only need to combine all the “predictions” to understand there “will be” a single regular financial system, without fractional reserves.

We only need to add the condition for this to happen, and according to what we have read so far, the answer is very simple: this world with a single currency-financial system must also have only one economic system – capitalism – which in turn requires the existence of a political system that shares its essence, individual freedom, and that system is democracy.

Analyzing the euro, it is easy to see the problems arising from the existence of a single currency system with different political and economic systems, which, when confronting financial emergencies, must unify criteria (urgent and messy, as in all emergencies) to mitigate their effects. In other words, agreements such as the one of Maastricht are not necessary (determining factors of economic politics in the countries belonging to the euro system), but a currently in force capitalist system with regular currency-financial systems without fractional reserve. In the original book of TER we highlight “the conflicts” that the euro will undoubtedly imply, given the incompatibility underlined here.

CHAPTER VIII

HOW TO OVERCOME CURRENCY AND FINANCIAL CRISES

After reading the preceding pages, we have an answer to the question presented here, and this is because we know – with scientific precision – that the problem are not the currency and financial crises but the systems which *inevitably* lead to them.

With the theoretical-deductive reasoning we have developed here, we not only know the origin of currency-financial crises, we also know what a healthy state would be for the patient. In other words, we must transform an irregular-state financial system with fractional reserves, into a regular financial system.

As in every treatment of a crisis, it is necessary to establish the seriousness of the patient's condition and inform him and his loved ones in order to get their approval for the treatment.

So, in currency and financial crises we must proceed the same way: we only need to identify the patient, his loved ones, and the diagnosis. There is no difficulty in identifying the three elements: the patient and his loved ones are the society (nation), and luckily we already know the diagnosis, it is an irregular, monopoly, state, financial system, with fractional reserves, which must be transformed into a regular financial system.

Let us see the steps to cure an ISFFS in a crisis:

- 1) Obtain the consent of the patient and his legal representatives to start the treatment. In the crises we are seeing here, it is the equivalent to saying it is a political decision.
- 2) To define the action plan to transform an ISFFS into a RFS, we must act according to an established intervention sequence:
 - a) First, plan the solution to the currency crisis: this simply means defining the present economic good that will have the function of regular currency, be it money or the economic good used as reference for the final indirect materialization of regular credit. So as not to produce sacrifices in the whole of society, this means to minimize collateral damage as much as possible, it is convenient for the State to use the market value of said present economic good. This should not be done as in England, when it returned to a gold standard with the price of gold at the time it was previously abandoned. Nor as in Argentina in 2002, a historical event of economic prostration we will analyze in appendix A.
Observe that the only thing to be done in the first stage, regularize currency, simply means regularizing PC, and this is achieved by “writing” on it the quality and quantity of the present economic good it will be cancelled with.
In this first stage it is essential to have a complete analysis of the financial and economic patrimony of the State, which will be an adequate diagnosis to implement the best combinations to reach the

following goals: 1) establish a capitalist system that promotes earnings and taxes consumer spending, to obtain the necessary resources for the State to accomplish the tasks delegated to it by the society, 2) add the greatest possible amount of present economic goods to “currency reserves”, which can be done selling state assets or buying them with long-term debt or with surplus, 3) roll over all other state debts, 4) develop budgets with five or ten year margins, according to the final treatment, and 5) the whole plan should be legislated and executed on a currency-financial “D” day, a name we believe is congruent with liberation from a totalitarian regime.

The main goal is to execute a feasible plan with the least possible sacrifice for the people (appropriation of people’s wealth, known as “devaluation”), which can be achieved by making the difference between the coefficient CR/PC of the present economic good used as currency reference, and its market price as small as possible. That is why we mention a mix of alternatives to increment CR, including purchases of the present economic good used as currency reference with long term debt, since this decision must be shared by future generations.

- b) Once the plan to solve the currency crisis has been defined, the solution to the *financial crisis*, this means the bank crisis, must be planned. Here again we have the advantage of knowing where we have to go and when we will have solved the problem: the road should take us to a point where we no longer have a Central Bank and fractionary reserves. Once we have established the present economic good used as reference for the financial system, making our currency regular, we need to eliminate all the ad hoc legislation of the ISFFS and simply use the commercial laws that protect the market.

We must establish a process that favors fluid negotiations between each institution and its clients to reach voluntary agreements of all parts, for refinancing extemporaneous liabilities generated by the fractionary system.

It is easy to realize that with a little amount of currency most part of the cases will be solved (80-20 law: the 20% of the amount represents the 80% of the cases).

The task of eliminating the Central Bank will be of an administrative nature, and banks will have to reconsider their activities integrally.

Evidently the diagnosis of each case will lead to an evaluation of each particular situation, in some cases there will be a need for prolonged intensive care, in others there will be less need for it, and in some cases only intermediate care will be necessary.

If it is so easy, then why the decision is not taken. This takes us back to the beginning: the fundamental thing is the patient’s decision. If they are not

convinced and do not wish to have a better life, their future will be the result of that decision.

All this, that seems so complicated is, in fact, simply the decision to opt for capitalism or collectivism. In political terms it is the equivalent of democracy or authoritarianism.

Before we begin any treatment of a currency-financial crisis, the capitalist system must be restored. If this is not so, currency will be used to do things that are not what capitalism wants it for, such as using it to solve “unemployment”.¹³

As we can see, in order to overcome currency and financial crises we cannot avoid debates on capitalism/collectivism and democracy/totalitarianism.

APPENDIX A

ANALYSIS OF REAL CURRENCY- FINANCIAL CRISES

Brief theoretical framework for diagnosis and treatment (TET)

We will approach here the analysis of real cases for diagnosis and treatment of currency-financial crises in the framework of TET.

In the business world it is a well established fact that a company with greater access to credit has a considerable competitive edge. The panorama of a currency-financial crisis shows that the financial system was the competitor that obtained an edge, by means of “two” entities created ad hoc, the State (Paper Currency) and the banking system (fractional reserves). In other words, the State and its subsidiary banking system won the dispute for credit generated by the community. It is not hard to see why credit will be very dear, considering the debtor has scarce economic aptitude. And it will become dearer as we near the inevitable recurring crisis denounced by TET.

To study the real cases we present here in a simple manner, let us refresh the few concrete goals we have.

Goals:

- 1) Create a *capitalist system*. It has been proven the most efficient economic and social system to simultaneously manage imperfect, disperse, and scarce economic knowledge, which leads us to the following goals.
- 2) Generate efficient economic information through freely generated currency prices obtained with a regular non-fractionary financial system.
- 3) Establish the foundations which will allow a fluid exchange of economic time (credit), to generate what we have described as capitalism’s virtuous circle.

The damage that must be minimized in the treatment:

Any crisis treatment implies direct and collateral damage. The best intervention is the one that reaches its goal with the least amount and intensity of damage. Now we will specify the damages that should be avoided. They are few but extremely important:

- 1) “Devaluation”, a word with which the appropriation of wealth is legitimized, and that implies diluting “currency reserves” that “back” PC. This means impoverishing the people in the same proportion the currency is devalued. Damage will be reduced in the same proportion currency reserves are expanded by selling state assets or buying them with credit that will be cancelled with future surpluses. It is very important for diagnosticians to bear in mind that the currency stock at the time of the crisis is distorted by the disproportionate amount of credit the State and the ISFFS need. This in turn distorts the amount of currency the private sector needs, with quantities that do not correspond to the nature of its business.

2) *Nationalization* of the financial system's fractional debt originated in fractional bank reserves; this implies making people pay for the debt generated by a few actors, the amounts being equivalent to several times the PC stock.

3) This clearly shows the worst and deepest damage resulting from combining devaluation with nationalization. This will produce a combination of a poorer and more indebted people. It is hard to imagine a worse combination. But let us see some real cases.

As a result of the currency financial crisis generated by the ISFFS, the private sector also suffers the crisis. This is a result of what we already said in the book: when a big player suffers a crisis, the whole system suffers proportionately to the size of that player. How does the State's economic and financial crisis influence the rest of the economy? Very simply: the main debtor absorbs all currency resources in the market, and so becomes the reference for interest rate levels. Thus, in its double role as main debtor and bankrupt debtor, it generates very high interest rates, creating a general illiquidity in the economy that is not the result of business activity.

Now we will analyze the currency-financial crisis in Argentina 2001/2002, and the current global crisis. We need to remember here the methodology we must use (TET), considering the simple structure of any currency-financial crisis:

- 1) A *capitalist system* must be created. This seems obvious, but it is not so, since there are capitalist economies with market interventions that completely disfigure it.
- 2) Then a *regular financial system* must be created, this means eliminating the current irregular indirect state fractional financial system. Here we divide the treatment into two essential parts, considering IISFFS have a currency and a financial component:
 - a) *Solution to the currency crisis*: a regular currency system must be created, this means that the currency must be money or regular credit.
 - b) *Solution to the financial crisis*: it consists simply of eliminating the fractional reserve system.

We will only refer to "2)", creating the plan for overcoming the currency crisis first, and then the financial crisis. We must not forget that, though they are different plans, they must be assembled and instrumented simultaneously in a one and only D day (liberation from currency-financial collectivism).

We will not mention now the legal framework because, as we said, it is beyond the scope of this work. But we reiterate that its reformulation means reducing the issue to the general norms of commercial law.

ARGENTINA'S CURRENCY- FINANCIAL CRISIS OF 2001/2002

Argentina in 2001 had an irregular indirect state fractional financial system, with the American-dollar-PC as reference for the indirect irregularity of its peso-PC. The two PCs were operating pegged 1-1. If you wonder why the dollar-PC was not directly adopted as official currency, our answer is the authorities were

victims of the confusion generated by the current paradigm, as we have already denounced.

We can simply describe the Argentine situation in 2001 saying the Argentine State was in default even before 2001, but the situation became untenable due to cumulative mistakes made during that year. The debate was if the 1 dollar = 1 peso rate was still adequate after so many years.

We must add to that the State debt, which was increasingly untenable because of its volume, the maturity sequence, interest charges, and the fiscal deficit.

In short, the financial situation (capacity to service the debt) and the economic situation (the deficit) of the Argentine State were in a deep crisis, with the consequences we already know for the fractional financial system and the rest of the economy.

As you could expect, the exaggerated level of interest rates (due to the role of the great debtor), prevented the development of a capitalist virtuous circle. But the “national-business” sector demanded a solution in the form of devaluation, trying to hide the fact that this would allow them to dilute their debts and work in a captive market with no competition. In other words, they pretended to benefit from inefficiency, which is the opposite of what economic and social activity needs. It is easy to see who pays for the “lucre of inefficiency”. This paragraph can be considered a sample of the political essence of ISFFS.

With this framework, we will now describe what was done compared to what should have been done (guided by TET).

2- a) Solution to the currency crisis.

*What was done with the **currency***

The 1 dollar - 1 peso rate was abandoned, adopting 1 dollar - 4 pesos, and then it was fixed for a long time at more or less 1 dollar - 3 pesos. The ISFFS was maintained, only the fixed convertibility rate was changed, so the central bank could recover its “important” functions and attain “sovereignty”. This goal is positive in so far as it means reestablishing sovereign control of the currency system.

Obviously the people perceived their wealth and wages *were reduced to a third of what they previously represented*. It was the first act of “sovereignty”.

What this meant in currency terms was changing from a fixed indirect irregular currency to a variable indirect irregular currency, since the greater part of currency reserves are PC.

*What should have been done with the **currency***

It should have been transformed into a regular currency, avoiding as much as possible the “devaluation” process. What was done was the opposite of what should have been done.

*What was done with the **state debt***

Denominated in dollars and pesos it was refinanced, with a previous deduction, with different credit alternatives: in pesos and/or dollars, with interest rates established with different indexes (GNP growth, inflation, interest rates, etc.).

*What should have been done with the **state debt***

Obtain a deduction and refinance the rest in dollars. This was essential for the country to benefit from the inexorable devaluation of any PC and the dollar was the best PC, considering the economic and financial situation of the USA.

*What should **never** have been done with the **state debt***

- 1) Issue new debt in pesos, because being regular (what we propose here) it would revalue relative to the PC in which the debt was refinanced.
- 2) Adjust the new debt according to growth of GNP. Since the new plan generates a very fast recovery (erroneously considered growth) and strong development thereafter (untenable with the ISFFS that continued to exist).

In short, continuing with an ISFFS, combined with refinancing the debt in that same PC, meant condemning the Argentine people to a new and abrupt adjustment, generating more poverty (*adjusting by two inevitable added events*: inflation with the national PC and economic recovery of the GNP, which should not be confused with growth).

2-b) Solution to the financial crisis

*What was done with the **financial crisis***

In the case of Argentina the debt stock of the financial system with the market was composed of PC in pesos and dollars.

A simple but terrible anecdote offers a sample of what happened in 2001: 1) before the “official” default, a law of “intangibility of bank deposits” was passed, which was unnecessary because it simply meant recognizing people’s private property of their savings. Evidently, this meant telling the market it shouldn’t worry about its assets, moment in which people realize that the State should be in charge of everything. 2) At the end of 2001, when a run on the banks was imminent, the “corralito” (or small corral) was implemented. This meant the refinancing of on sight deposits with characteristics of being compulsively, unilaterally and of small relevance as regards the crisis as a whole, but with terrible consequences. It is important to point out here that both events are perfectly feasible in an ISFFS, since TET showed us its collectivist-authoritarian essence. It is under current theories that this could be a surprise, as it was for the Argentine people.

At the beginning of 2002, with several presidents in a few days, “pesification” took place. This was a process by which debts in dollars were automatically converted to pesos, at a parity that was progressively altered according to the influence of powerful sectors in connivance with the successive governments. What is “interesting” about this procedure is that the State paid the difference in price (devaluation) resulting from the “original” operation. This means the

Argentine people made a few individuals very rich at an enormous social cost for several years.

We can see this meant multiplying the damage resulting from Nationalizing the fractional debt. Let us say that first, the debt in dollars was “asymmetrically pesified” (the asymmetry meaning that the people, through the State, paid for the devaluation at a rate of 1 - 3, benefiting a minority group of debtors) and second, once all the debt was transformed into pesos, new damage was caused by *Nationalizing the fractional debt*, through the intervention of the currency authorities (devaluation by the State, rediscounts by the banks, etc.)

*What should have been done with the **financial crisis***

Once the plan for overcoming the currency crisis is in place, the solution for the financial system is that each entity should refinance the debt with the market originated by the fractional reserve system. Said refinancing should have been carried out by each entity negotiating with its creditors, including maturity and the currency in which the debt would be cancelled.

In the Argentine case, the market had the enormous advantage that international banks operated in the country obtaining deposits backed by their mother companies (their marketing strategy consisted of hiding this fact, this means an illicit intentional omission of the truth), which would have allowed the courts to solve the problem easily.

Corollary

The virtue of declaring default was lost in the political crisis. What is worse, not only were the mistakes of current paradigms multiplied explosively, but the dark road towards the future got even darker, because Argentina strayed farther from capitalism and continued having an irregular indirect state fractional system.

If you never heard of the economic and social crisis that derived from what we have succinctly described, we should tell you it was similar to the effects of a neutronic bomb: buildings were left standing but all living beings were destroyed. TET allows us to see that history presented a case of extreme political and economic incapacity that exponentially multiplied the errors of the current theoretical paradigm.

THE CURRENT CURRENCY AND FINANCIAL WORLD CRISIS

Now we have an international currency and financial crisis. It is very important to stress the international nature of this real case we are analyzing, because of the following reasons:

- 1) We are in the presence of ISFFS in the central countries and IISFFS in all the rest. But considering the central countries already seem to be also adopting irregular-indirect currencies, and that the rest of the countries have an increased incidence in the economy, we can say we are in the presence of an IISFFWS (worldwide).

- 2) We must remember that the main feature of an IISFFWS is that it is a credit chain with increased risk because the debtors are States, which implies credit concentration.
- 3) The dangerous credit chain in an IISFFWS leads us immediately to analyze the composition of the total credit mass, relative to the incidence of each State and its economic, financial and patrimonial situation. It is wrong to blame only the USA, all countries have IISFFS. If the problem were only the USA, to solve the crisis we would only need to normalize the dollar and refinance the country as a whole (State and fractional system).
- 4) If what we have is an IISFFWS, there is no possibility of “disengagement”, this means that supposing parts of the system will not be affected (both, by the ups and downs).
- 5) The sole mention of the existence of an IISFFWS brings us back to the “predictions” in chapter VII, under the title: *Plausible conjecture. Towards a world regular financial system without fractional reserves?*

In short, the IISFFWS has a diversity of PC of the irregular indirect currency variety, and a fractional reserve system, which varies according to the variety of PC.

This determines that considering the “property bubble” in the USA as the origin of the current crisis is misguided. We shall only dwell on this analysis to say that the existence of one or a few “bubbles” does not generate currency and financial crises. The correct reading (with TET) is that the “bubbles” should be considered information that helps us diagnose the presence of a currency and financial crisis. In other words, “bubbles” inform us, they are not the problem (we should not blame the messenger).

Thus, with the tools provided by TET, we have a clear view of the scenario of the current global currency and financial crisis.

In June 2007 newspaper headlines read: *“The world is awash in an ocean of extreme liquidity”*; but thirty days later they changed their tune: *“The world is suffering from extreme problems of illiquidity”*, and a few months later: *“We are confronted by a unique situation of extreme illiquidity, possibly similar or worse than 1929”*. With this simple description we can ratify the crisis of the current currency paradigm, considering that the current currency and financial system recognizes it as its scientific foundation.

It is clearer now that we have to consider two problems, a currency problem and a financial one. That is why we have considered currency and money as two different things, which leads us to consider that credit can be currency, and that credit can be regular or irregular, etc.

What has been done up to now

Crises allow us to see the essence of things. In this case the collective-authoritarian nature of current currency-financial systems has been clarified. Let us see why we are saying this:

- 1) Currency and economic authorities intensified (they did not begin) their combined actions. A simple “detail” that ratifies the state nature of current currency-financial systems.
- 2) The State (through currency authorities) decided to help the banks with the amount of PC they need. This decision is in tune with the essence of an ISFFS, where the State produces and the banks distribute the paper that will be converted into PC in the first exchange for present economic goods in the market.
- 3) The State gives capital to troubled banks. This is a formal element added to an ISFFS.
- 4) The State guarantees bank deposits. Another formal element added to the essence of an ISFFS.
- 5) Interest rates are lowered to zero or near zero. To understand the importance of this action, we only need to remember we are speaking of the *price of economic time*, which is a kind of indicator of prices of all economic goods – because of its special feature of indirect or improper materialization. Considering that only economic goods have prices (positive), the fact that time has no price would indicate human beings are no longer fallible, that they no longer have economic problems, the equivalent of saying the earth has become heaven. In other words, this action is contrary to the axiom which we have called *permanent fallibility* ($i > 0$). But didn't we say that this is an economic crisis?, and a very serious one?
- 6) The currency authority is studying the possibility of helping big companies with PC. This is what we mentioned when we said the currency authority could consider this, because it is the simple action of opening new commercial channels. If you are wondering *why?* We must tell you that the correct question to ask in current currency-financial systems is *why not?*
- 7) The price of banks' assets is increased so that they do not present negative equity – instead of creating a RFS to do the job – and a banking entity is created to be in charge of “toxic assets”, instead of every actor being responsible for their past decisions.
- 8) Measures to promote consumer spending are being considered. This obeys a kind of inverse law of gravity, because consumer spending on economic goods is “promoted” in the midst of an economic crisis. But this is one of the main recipes of the theories that speak of under-consumption, low aggregate demand, etc. which are erroneously attributed to Keynes, and that seek to alleviate unemployment.¹⁴ In the original book on TER we refer extensively to this. Here we can only reiterate that the problem for human beings is producing economic goods that, as such, are scarce. And they are scarce because there are fewer goods than the ones humans need. From this we derive that the economic situation is made worse if consumer spending is promoted when there is less supply of economic goods (which is what happens in a crisis). In other words, *hunger is promoted when bread is in short supply*. Finally we

must stress that governments do not only seek to promote consumption and reduce unemployment with fiscal measures (tax cuts, etc.), ISFFS as a whole have the same goal.¹⁵

We can see that all measures (based on current theory) seek to prop up the level of economic activity, which is deteriorated by the lack of credit, but fail to see that the origin of credit is based on trust and that currency is its touchstone. Ergo, if the first step is not adopting a regular currency, there will be growing distrust. That is why a treatment based on TET begins by trying to overcome the currency crisis. **Trying to overcome the financial crisis without overcoming the currency crisis, results in an enormous and unproductive social effort.**

TET shows us that ***the market's debtor is the ISFFS***, which in a crisis is illiquid and bankrupt. Nevertheless, the measures adopted seek to get the failed debtor not only to take on more debt, but also to have it pay a lower interest rate. If you have not understood it yet, we must tell you the intention is for the failed debtor to receive free credit. But it is erroneous to think that this way society avoids paying high bankruptcy interest rates; they are reflected in the collapse of the whole economy. This is not understood because the axiom $i \equiv p > 0$ of IFS is ignored. In other words, what people do not understand is that the economic variables analyzed here reflect imperfectly the bankruptcy interest rate that authorities wish to bring down to zero.

Evidently, currency and economic authorities concentrate on managing the inadequate rates current theories point to. We insist once more that if this were not like this, how is it possible to overcome a currency credit crisis with $i = 0$.

How will the *creditor-market* react to the measures that are being adopted? The only way it can is by endorsing the credit to another economic actor. But the situation the whole of society is condemned to suffer is similar to the every-man-for-himself scenario of pre-capitalism. This is not only another way to see the incompatibility of a capitalist system with an ISFFS; it also shows how a process of economic involution, a return to pre-capitalism, can be induced.

The state of currency and financial instability will persist, with greater or lesser virulence, as long as a society shows more or less resistance to propping up the great failed debtor. The diagnosis and treatment are simple. It is what we indicated in chapter VIII, under the title: *How to overcome currency and financial crises*. We only have to consider that the patient is the world, which implies that perhaps soon or very soon we will possibly have to consider what we indicated in the chapter under the title: *Plausible conjecture. Towards a worldwide regular financial system without fractional reserves?* Possibly, chapter nine was included in this book because we are not far away from the historic moment when the path of "prediction" will start to come true.

We should not conclude our study of real cases without reiterating that governments are acting according to the confused state of the current theoretical currency paradigm, which does not see the incompatibility of capitalism with irregular financial systems. Therefore, it is not impossible to conclude that said theories have a very important subjective component (they cannot validate their results vis-à-vis other members of the scientific community), because they

pretend to “socialize” capitalism (which is unnecessary because that is its essence), or because their “science” is weighed down by the fact that they are trying to discredit socialism. Our theory shows such incompatibility through the use of accounting precisely to avoid conditioning models.

Concerning the attempt to “restore” the value of banks’ assets, we must bear in mind that we only need to have a regular currency circulating for assets to be restored immediately, according to what the market establishes. This shows current efforts are misguided. In other words, what we need to understand is that the problem is not the value of assets, but the quality of the currency, since any attempt of “recovery” will very soon become unstable again, as long as the currency is irregular.

Concerning the proposal to create a bank that would be in charge of “toxic assets”, we remember the inadequacy of “nationalizing” the financial system’s debts, both those originated in the fractional reserve and those generated by private business.

In short, the theoretical arguments that are being applied in the diagnosis and treatment of the current currency-financial crisis are the following:

- 1) The failed debtor (IISFFS) is given more credit. Evidently this is opposed to the simple criterion of trust that guides the world of credit.
- 2) The bankrupt party is the greatest debtor of the world market (all the IISFFS).
- 3) Though its condition of failed debtor, the intention is to lower the interest rate. It is evident that we are violating the principle of market prices formation. In this case nothing less than the price of economic time: interest. Thus, the so-called “liquidity trap” is a simple subsidy to the failed debtor; the “trap” is in the theory.
- 4) Consumption is promoted in the midst of an economic crisis. In other words, in a situation of increased scarcity (if this were not so there would be no economic crisis) consumer spending is promoted, one of the ways to increase scarcity.

Therefore, what we see as a drop in the general level of prices (called “deflation”) is one of many forms in which the market reflects the irrecoverable part of the bankrupt party’s debt (IISFFS). Later, this will turn into a rise in general price levels (what we call “inflation”), but that is a false perception; in fact, it really is a drop in the price of the economic good state debt, represented by PC. Simultaneously with the price variations mentioned before, and as another expression of the irrecoverable part of the bankrupt party’s debt, there will be a drop in the level of interpersonal exchange, which is imperfectly measured as a drop in GNP (recession). This does not consider the size increase implemented by the producer, who cannot raise currency prices.

As we can observe, these are all different forms of the same phenomenon, the inevitable destruction of the irregular-indirect-credit-currency, multiplied by the fractional reserve system.

We conclude that the theoretical hypotheses that support the current diagnosis and treatment of the international currency-financial crisis are opposed to what we see as the basics of economics as a science, the equivalent of working with an inversion of gravitational law. There is no difficulty in predicting the course of future events, though it is impossible to specify exactly what will happen.

In short, with different formalisms – due to the fact that the problem does not appear in a single peripheral country, as would be the case for Argentina – ***the world is seeing the worst possible scenario, the combination of two evils that should be avoided, devaluation and nationalization of fractional debt.*** This would be the case in which the “printed paper” factory (Central Bank), takes responsibility for the final product’s defect (the paper converted into PC by the market), absorbing at the same time the commercial errors of the distribution chain, mainly generated by the fractional reserve system.

Finally, confronted by this world crisis and on the road to our “prediction”, the countries that adopt a regular financial system, capitalist and democratic, will be amply rewarded for this political decision, no matter what road others take. If you see this as the road to success, you are not mistaken. And this is as simple as it seems, because as we know the country that has more credit will expand its economy. Therefore, the first country to inspire trust will receive the desired credit. But we alert the readers that the expansion must be based on regular credit. TET has already shown us that systems that operate with irregular credit have illicit foundations (pretending to show as credit expansion what really is expropriation of economic time of a third party)

APPENDIX B

BASIC STRUCTURE OF THE THEORY OF ECONOMIC TIME (TET)

This appendix has new elements and others taken from chapter XIII of the original book on TER, including the chart below.

This appendix presents a summary of the theoretical–deductive ideas of TET, including three fundamental and closely associated subjects: economic time, interpersonal exchanges, and currency.

Economic time

- *Economic time*: time is an economic good, both necessary and scarce. It is the only economic good that presents improper or indirect materialization and permanent fallibility.
- *Improper or indirect materialization*: economic time has the feature – exclusive among economic goods – of “indirect or improper” materialization, meaning it has no existence or life of its own; it always materializes in another present economic good. Current economic-currency theories have not perceived the existence of indirect materialization, and that is why inadvertently they attribute it to money, which they erroneously assimilate to currency (because they share functions).
- *Price* (p) is information that indicates the amount of one economic good that is exchanged for a different one. By axiom always $p > 0$.
- *Interest* (i) is the price of economic time.
- *Permanent fallibility* is an exclusive feature of economic time that expresses its permanent condition as an economic good. Then, by definition $i > 0$, the advanced reader in economic theory will understand the transcendence of this axiom presented by TET, and its impact on current econometric models.
- *Biunivocal relation economic good-owner* is equivalent to the accounting equation debit and credit that is always present. There is no such thing as an economic good without an owner or an owner without an economic good.
- *Interpersonal exchanges* do not exist if the people involved are not owners. In other words, without private property there can be no interpersonal exchanges.
- *Credit* is the interpersonal exchange of present economic goods for future economic goods. If we relate this definition with the concept of economic time, we deduce that *credit is interpersonally exchanged economic time*.
- *Types of credit*: there are regular and irregular credits. The latter does not define the final improper materialization, an exclusive feature of economic time.
- *Credit and economic time*: since credit is economic time, we immediately deduce that it is subject to indirect materialization. The only thing we need

to see is that it has *initial and final materialization*. If there is no present economic good involved there is no credit. And it can only be cancelled with a present economic good.

- *Credit and interest*: from the previous paragraphs we deduce that if interest is the price of economic time, *interest is the price of credit*.

It is very important to remember the conclusions of this section, since they are the spinal column of the currency theory of TET, with all its implications.

Once we have understood the indirect or improper materialization of economic time, that interest is its price and also the price of credit, and the eternal condition $i > 0$, we can proceed to the other components of TET we wish to highlight.

Interpersonal exchanges

It is convenient to introduce a graphic synthesis of the central theme of TET. To do this, we summarize the theoretical aspects derived from the existence of the economic entity “interpersonal exchange”. Again we must warn the reader that it must be considered only a synthetic guide.

Table of interpersonal exchanges

INTERPERSONAL EXCHANGE			
CASH “Present economic goods”		CREDIT “interpersonally exchanged economic time” The Theory of Economic Time applies (indirect materialization)	
Direct BARTER	Indirect MONEY	Regular	Irregular
ILLIQUID (Does not satisfy liquidity)	CURRENCY (Satisfies liquidity)		
There is no materialization because they are present economic goods (TER does not apply) In cash transactions (barter and Money)	RIGID Materialization (SPECIFIES quality and quantity of economic good committed).	FLEXIBLE Materialization (DOES NOT SPECIFY the quality and quantity of the economic good committed).	RIGID Materialization (SPECIFIES quality and quantity of economic good committed).

time does not intervene; in this type of exchange, economic goods do not need to materialize in present economic goods because that is what they are	Maturity of the liability is established	Maturity of the liability is undetermined (generally on sight)	Maturity of the liability is established	Maturity of the liability is undetermined (generally on sight)
“Non currency” economic cycles	“Non currency” economic cycles.	Instability chain of “Irregular Credits” (“currency” economic cycles)		Possibility of “currency” cycles due to fractional reserve.
The direct or indirect appropriation of wealth is not possible.		Implies the direct and indirect appropriation of wealth (when there is fractional reserve)		Indirect appropriation of wealth is possible due to fractional reserve.

This simple graphic has the following central characteristics:

- 1) That as a condition of the biunivocal axiomatic relation “economic good-owner”, there can be no interpersonal exchanges without private property, as in the case of socialism (theoretical observations).
- 2) That interpersonal exchanges can be cash or credit.
- 3) That cash transactions can be direct or indirect. In indirect transactions money is used, which is different from barter. This is the traditional classification, which we expand, adding that indirect exchanges use currency.
- 4) That credit and money satisfy liquidity.
- 5) That currency is a superior category to money that includes it.
- 6) That credit can be regular and irregular.
- 7) That in the case where currency is a credit, $i \equiv p$.
- 8) That irregular credit originates direct and indirect redistribution of wealth in fractional systems.

Currency

Now we will highlight the main aspects related to currency, derived from the preceding ideas.

- *Currency* is the exchange good of common use, which appears as a consequence of interpersonal exchange.

- *There is no dichotomy between a real economy and a currency economy, with currency there is currency economy. The opposite conclusion means not recognize the economic existence of currency. In other words, the concept of balance has no meaning since there are not two worlds that must be balanced, there is no need to equate real interest rates with currency interest rates or equate savings and investment, etc.*
- *Interpersonal exchanges can be **cash or credit**.*
- *Currency can be **money or credit**.*
- *Currency always derives from present economic goods. There is no such thing as a virtual currency, be it in the form of money or credit.*
- *Currency always appears in the market, the State is never the origin of currency. Menger proved it with money-currency, and TET proved it with credit-currency (using accounting in part III of the original TER book), since the “paper” printed by the State becomes paper currency (PC) when it is first exchanged for a present economic good belonging to the market.*
- *Credit and money compete for liquidity, which shows the use of one or the other economic good is representative of the economic stage of humanity.*
- *Economic time is a more comprehensive concept than liquidity; liquidity is a partial aspect of economic time.*
- *Considering this, if currency adopts the form of credit, we have the axiomatic identity $i \equiv p$, where p is the statistical measure of the general level of currency prices.*
- ***Irregular currency**: we know credit needs indirect materialization, since it is economic time. If it is not correctly specified in credit contracts, it will be an irregular credit. From this we deduce that current currency (Paper Currency) is an irregular credit.*
- *Because the origin and the end of a credit is a present economic good (indirect initial and final materialization because it is economic time) its price (interest), evidently will be: a) in direct relation to the *stock* of present economic goods at the time of its origin and cancellation, b) the amount of the debt relative to the stock of the economic good, and c) the relative degree of concentration of the debt, considering both its maturity and the identity of the debtor. In richer societies the price of economic time (interest) is lower. And the inverse relation is also valid: poorer societies must use more economic time than rich ones to obtain the same economic goods. Evidently the secret in economics is to promote the development of the economic good capital, not consumption, and therefore it is better to apply taxes to consumption rather than wealth.*
- *The downward trend of i as societies become richer does not alter the condition of *permanent fallibility of economic time* (axiom $i > 0$). But evidently the relative level of interest rates in each society is a good indicator of the also relative level of economic development. Of course this does not exclude temporary exceptions, as would be the case of a society “endorsed” by another society’s credit.*
- *Currency, in its different expressions (money or credit), is never devalued or revalued, it can only have an inter-temporal change of price. But this is*

true of all economic goods, not only currency. In other words, what is described as devaluation is a “direct appropriation” of peoples’ wealth, through “flexible indirect materialization”, which occurs in irregular financial systems.

Other important concepts of TET

Currency crisis with credit is a crisis resulting from the adoption of irregular credits as currency, deriving in undue appropriation of wealth. Credit-currency crises are typical of irregular currencies due to infringement of the temporal characteristics of credit.

Currency crisis with money is a crisis resulting from a rise in the price of money because of an increase in interpersonal exchanges. It is what led Keynes to produce his famous expression “barbarous relic”. We can clearly see it has no characteristics different from those of other present economic goods. Current theories do not understand this and so they ascribe special characteristics to money, not seeing that those characteristics belong to economic time (indirect materialization), that are transferred to currency when it adopts the form of credit.

Garrison’s Graphs is another expression of the differences between the currency theories of TET and the Austrian School. These are the graphs developed by George Garrison, an economist of the Austrian School, attempting to compare the Keynesian model with Hayek’s “triangles”. TET does not agree with those graphics, because they place i and p in different coordinates, as all the current econometric models do. We include this observation because it has to do with the current paradigm, opposed to TET (identity axiom $i \equiv p$).

Economies without money refer to the loss of relative weight of money compared with credit in the composition of currency in developed economies. As economies progress, credit replaces money as the means of exchange.

The dangerous credit chain is the result of the combination of two illicit: 1) considering credits can be cancelled with irregular credits – the typical case is to consider a credit cancelled with paper currency or the equivalent – and 2) the fractional reserve system.

The balance solution is a scheme that pretends to balance the real and the currency or virtual worlds, individually and together, not realizing there is only one world, the world of currency. In the attempt to solve what needs no solution, Central Banks are given the task of making i and p coincide, not realizing that when currency is a credit, by definition $i \equiv p$.

Gibson’s paradox is the theory that cannot explain the correlation between prices and interest rate, based on the theoretical error of assimilating money and credit, a concept related to *Keynes’ asymmetry* and *Keynes paradox*. According to TET this correlation does not exist when the currency is credit, since $i \equiv p$.

Keynes’ paradox is the theory that pretends to solve a problem that does not exist. How can money, that is increasingly scarce in relative terms, be increasingly cheap? We are in the same sphere as the concept of *Keynes’ asymmetry* and *Gibson’s paradox* (that Keynes pretended to solve). All this is due to the underlying confusion resulting from assimilating money to credit.

Inverted Keynes paradox is the pretense of solving *Keynes' paradox* replacing interest with prices in the Keynesian economic model. This results from dissatisfaction with the use of the variable i , and so there is the attempt to use p . This situation does not arise in TET, because $i \equiv p$.

Keynes' asymmetry is the concept with which Keynes explained how money went from an extremely high price (his "barbarous relic") to zero or even a "negative" value ("liquidity trap").

Interest paradox is the theory that proposes to increase the price of a good to make it scarcer. The "paradox" is in the incongruence of pretending to solve the economic problem of scarcity with more scarcity. We call this the "Interest paradox" because the most common practical expression is applying it to interest. Deriving directly from $i \equiv p$ is the notion that currency authorities have a *sterile function*.

Price is the information of the amounts exchanged of different economic goods.

Interpersonal price is the price generated by interpersonal exchanges.

Currency price is the price expressed in currency.

Relative prices is an unnecessary term because it is synonymous with price.

Purchasing power of money (currency) is the singularity granted to currency (money) by the current currency theories that assimilates the price of currency to its purchasing power. This singularity is not considered in the TET since it is related to all the economic goods that can be exchanged, and can be a concept synonymous with the price.

Devaluation is, according to the current paradigm, the loss of price/value of a currency. In the TET this concept does not have entity as regards the appropriation of people's wealth (through PC).

Prices dichotomy is the concept of the current paradigm which refers to the existence of "conflict" between real and currency prices. According to the TET this dichotomy does not exist since there is only one currency world that at the same time is real.

Endogenous and exogenous money (currency), are concepts of the current paradigm that aim to classify a type of money that arises from the economy (endogenous) and another incorporated externally (exogenous). The TET does not consider these categories since currency (a broader concept for money) as an economic good cannot be neuter in economy. It would be like accepting an economic good with price zero, that is to say, it is contrary to the permanent positive axiom of prices ($p > 0$).

Liquidity trap is the situation described by the current paradigm as the state in which the amount of currency does not affect any more the level of interest rate, that is to say, the State cannot lower i although it "injects" more PC. It is evident that in the TET there is no room for this trap since the interest is the price of economic time and not of currency. And if interest is the price of currency when this acquires the form of credit, the only thing that tell us about its price close to zero, is simply that PC has lost "credit". In short, the trap is not in "the facts", but in the theories that find room to its existence.

Unknown debtor syndrome is a situation arising from the existence of a credit that is irregular because the economic agent responsible for cancelling the obligation is not specified. It is the typical situation of irregular financial systems with fractional reserves.

Future expectations that condition present actions, correctly conceptualized by the Austrian School (Mises first and foremost), should not be confused with TET. In other words, the present value of future earnings used to estimate the current value of assets belongs to the sphere of economic calculus, while TET refers to the entity “economic goods in time”.

Axiom of economic time when credit is the currency: $i \equiv p > 0$.

Negative interest rate is the category considered in the current theoretical paradigm, it is inexistent in the TET since it does not contemplate the axiom of permanent fallibility $i > 0$.

Neutrality of money is the category – discussed in the current theoretical paradigm – that even lacks theoretical entity in the TET, since in economy any economic good can be neutral. It would be like considering the possibility that an economic good has price zero ($p = 0$).

Mises’ regression theorem is – according to Hayek – the epicenter of Mises’ monetary theory, since it is the theoretical tool that assigned the character of economic good to money. It is evident that in the TET such theorem is not necessary, since currency is an economic good because of the same characteristics that all economic goods have. We can very well say that this difference, between the TET and Menger’s Austrian disciples, can be considered as a symbol as far as the *currency* theory arisen from the TET goes back to Menger’s theoretical development. This way, a broader and simpler theory according to the spirit of the Austrian School is achieved in its whole.

Gresham Law is a very popular law adopted by the current paradigm (Hayek with the exception of forced course) according to which bad currency pushes the circulation of good money away. This law is considered dispensable in TET as it is applicable to all economic goods exchanged, since nobody will get rid of a good with a greater value if one with a lower value can be obtained. At the same time and according to the TET, this law is also included in the law of offer and supply.

Footnotes

(1) Explained in the book *Theory of Economic Relativity – The solution to MONETARY CRISIS – A critique of current economic theories: Austrian, Keynesian and Quantitativist* by Carlos A. Bondone, English edition, Buenos Aires, May 2007. (TER).

(2) Those who wish to have an in depth view of this can read all the material available and I can recommend Carl Menger's *Principles of Economy, and Human Action* by Ludwig von Mises.

(3) In the book *Theory of Economic Relativity* you will find the following concepts: price, intrapersonal price, interpersonal price, currency price, absolute prices, future prices, past prices, present prices and relative prices.

(4) If you wish to have an extensive view of exchange theory, you can resort to the explanations in TER.

(5) For more on this, see chapter IV of TER.

(6) For more on this see "*The unknown debtor and family syndrome*" in TER.

(7) Schumpeter and the representatives of the Austrian School from our point of view offer the best definition of the function of the businessman. They are the ones that best understand the idea that human beings have needs (demand) and that at the same time they are the ones that can best satisfy them (supply). Since both schools have different analysis and there are different views of the role of businessmen among the representatives of the Austrian School, we recommend the excellent book by Israel Kirzner, "*Competencia y Empresarialidad*", where he not only refers to businessmen, but also helps to define competition, the market, and capitalism, which we are humbly trying to characterize.

(8) An example of this would be the *Interest Paradox* in TER.

(9) On the need and consequences of differentiating currency from money we can say it is an essential part of the definition of economic time in TET. It is no exaggeration to say that in these concepts we find the central difference between TET and all other economic theories.

(10) A demonstration through accounting and an expanded theoretical explanation can be found in TER. This is another essential aspect of TET.

(11) On the inconsistencies of referring to a currency *versus* a real world, the price dichotomy, economic balance, etc., there is a complete explanation in TER.

(12) In terms of TET we can say a credit is regular when the initial and final materialization of the exchanged economic time is defined.

(13) More on the inconsistency of the term "unemployment" in economics can be found in the original TER. The inconsistency arises from the central idea of an economic good being or not being an economic good. An unemployed economic good cannot be conceived as an economic good. It would be the same as supposing an economic good has a zero or negative price. This contradicts the axiom $p > 0$. In other words it would mean validating $p \leq 0$ which is impossible by definition.

(14) An expression of popular ignorance of economic theories is that most people that are against consumerism and of an extremely materialistic consumerist society, support Keynesian theories.

(15) The subjects analyzed in this paragraph, the conceptual incongruence of referring to sub-consumption, insufficient demand, unemployment... are explained more extensively in TER.