Causality of Economic Cycles

(Theories)

Freedom of exchange merits constitutional status,
since its prices are the voice of the people

It is very dangerous to defend freedom based on "technomania"

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Buenos Aires, April, 2013

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COMPARING CYCLE THEORIES

The issue that has always interested economists was the behavior of the human economy in society. This interest increased as society discovered indirect exchange — as a result of an increase in the generation of economic goods produced by specialization-division of labor— and currency as a means to make it more efficient, seeking to overcome the high cost of barter.

In turn, the adoption of different varieties of currencies —according to their type (money-credit) and nationalities— generated a renewed interest in the study of the behavior of individual's economy in society. As a consequence, different currency-economic theories were developed to explain the phenomena that have been called economic cycles, considering as such the sharp variations of the behavior of individual's economy in a society, especially concerning production and unemployment shocks.

Thus our concrete goal in this work is to present a comparison the theories the different schools of thought offer when they study the why, the how, the when, the where, the intensity, the duration, etc., of economic shocks.

For an effective comparison, we will recur to primitive concepts or terms considered by the whole of economic science and that are put into play in analysis. Ie, we will give special consideration to stressing the role the different theories assign to the theoretical basis, orientation that we believe has scientific grounding in so far as it allows us to judge the role economic theory has had in this fundamental issue. This is central considering the advent of TET —Theory of Economic Time— at the beginning of the twenty-first century, that questions the record of economic theory developed in the twentieth century.

In this work we consider the following schools of thought:

- *Keynesians*
- *Monetarists-quantitativists*
- *Austrians* that branch out into:
    - *Mises*, in so far as his work can be considered a "compilation" of the foundations of *post* Menger thought in the twentieth century.(1)
    - *TET*, in so far as it is a continuation —*direct and with no intermediate steps*— of Menger's <u>*money*</u> theory. More specifically we refer to TET in the development of the *Theory of Economic Time, Theory of Currency (Currency Theorem and its equality and equivalence axioms)* and *Interest Theory*. (2)

The methodology for comparing the different theories will be referring to specific issues that are considered pertinent to economic cycles, and the stance of each school of thought, *from the perspective of TET,* in so far as:

1) The discovery of the *Theory of Economic Time*, with *interest* as its price, the relativity of both concepts (they have no life by themselves and always materialize in other economic goods), the permanent positivity of interest, the necessary presence as a production factor of all economic goods (and therefore their prices), *necessarily* redesign all aspects of economic theory —a concrete example: its *Currency Theory* and its *equality and equivalence axioms*.
2) It is the less known theory, on account of its brief period of existence (since the beginning of the twenty first-century).

Note: we ask that the persistent "self-references" present in this work be understood, considering that this is so because the issues presented have not been developed yet by other authors, which is understandable because of its "fresh" presentation in scientific society, and its radical change of focus based on *causality* (typical Mengerian framework).

With the stated goal, we present the following table, which summarizes issues and stances:

Table 1

Issues of Economic Cycles
And
Theoretical Stances

Issue	**Keynesians**	**Monetar.**	**Austrians**	
			Mises	**TET**
Say's law	NO		YES	NO
Monetary causality	Supply → Need			Economic
Gresham's law	YES			NO
Wicksell's "virtual" currency	YES			NO
"Special" monetary theory	YES			NO
Emphasis on exchange	Indirect			Types
Monetary Regression Theorem	NO		YES	NO
Quantitative theory	YES		UNDECIDED	NO
Money ≡ Currency	YES			NO
Monetary reductionism	YES			NO
Currency functions	Traditional			New
Exogenous currency	YES			NO

<table>
<tr><td>Currency neutrality</td><td colspan="2">UNDECIDED</td><td colspan="2">NO</td></tr>
<tr><td>Interest as price of</td><td colspan="2">Currency</td><td>Credit</td><td>Time</td></tr>
<tr><td>Types of credit</td><td colspan="3">Unique</td><td>Regular-Irregular</td></tr>
<tr><td>Interest</td><td colspan="3">(+) (-) (0)</td><td>(+)</td></tr>
<tr><td>Insufficient demand</td><td>YES</td><td colspan="3">NO</td></tr>
<tr><td>Interest paradox</td><td colspan="3">YES</td><td>NO</td></tr>
<tr><td>Currency insufficiency</td><td colspan="2">YES</td><td colspan="2">NO</td></tr>
<tr><td>Manipulation i_m</td><td colspan="4">YES</td></tr>
<tr><td>Fractional currency financial causality</td><td colspan="3">State-banking system → Market</td><td>Market → State – banking system</td></tr>
<tr><td>Currency theorem and axioms ($i_m \equiv p_m$; $i_m = p_m$)</td><td colspan="3">NO</td><td>YES</td></tr>
<tr><td>$i_m \neq p_m$</td><td colspan="3">NO</td><td>YES</td></tr>
<tr><td>Currency asymmetry</td><td colspan="3">NO</td><td>YES</td></tr>
<tr><td>Financial asymmetry</td><td colspan="3">NO</td><td>YES</td></tr>
<tr><td>Twin asymmetries</td><td colspan="3">NO</td><td>YES</td></tr>
<tr><td>Control $i_m \equiv / = p_m$</td><td colspan="3">NO</td><td>YES</td></tr>
<tr><td>Locke’s problem</td><td colspan="3">YES</td><td>NO</td></tr>
<tr><td>Gibson’s paradox</td><td colspan="3">YES</td><td>NO</td></tr>
<tr><td>Keynes’ paradox</td><td colspan="3">YES</td><td>NO</td></tr>
<tr><td>Liquidity trap</td><td colspan="2">YES</td><td>UNDECIDED</td><td>NO</td></tr>
<tr><td>Currency demand paradox</td><td colspan="3">YES</td><td>NO</td></tr>
<tr><td>Relative vs absolute prices</td><td colspan="3">YES</td><td>NO</td></tr>
<tr><td>General price level</td><td colspan="3">YES</td><td>NO</td></tr>
<tr><td>Indirect transmission mechanism</td><td colspan="3">YES</td><td>NO</td></tr>
<tr><td>Wealth equation</td><td colspan="3">Partial</td><td>Total</td></tr>
<tr><td>Phillips curve – Slope</td><td>—</td><td>— / +</td><td>+</td><td>NO</td></tr>
<tr><td>IS/LM models and 45° curve</td><td colspan="2">YES</td><td>UNDECIDED</td><td>NO</td></tr>
<tr><td>Sub-consumption theory</td><td>YES</td><td>UNDECIDED</td><td colspan="2">NO</td></tr>
<tr><td>Aggregates</td><td colspan="2">YES</td><td>UNDECIDED</td><td>NO</td></tr>
</table>

Price freedom	Blurry	Essential

Let us analyze now each one of the items

Say's law: in our text *Monetary Causality* we have made ample reference to the stances of the different schools of thought. We simply reaffirm that it does not cover any scientific need since it is included in what we have called the *Law of Exchange* — founding pillar of the Austrian School (AS) — since all exchanges are for the benefit of all parts, derived from the same basis as human action. Ergo, no-one exchanges goods that are not economic goods (that satisfy needs based on scarcity), therefore is unscientific to propose an inverted economic causality, as implied by Say's law, *supply of goods → needs*, instead of the basic economic causality *need → economic good*. Ie, human action, including interpersonal exchange, derives from a state of want that there is a need to overcome, and not the other way around. Keynesians reject economic causality when they reject Say, and Austrians uphold an unnecessary or redundant law, considering it is included in the ***law of exchange*** and what we have called ***fundamental economic causality***.
It is important to point out some curious facts: the same NO of Keynesians and monetarists, with TET —bases on opposite theoretical foundations—, and the discrepancy YES-NO, between Misian Austrians and TET, with similar theoretical arguments.

Currency causality: in the text to which we have assigned this same title, we stressed how the three traditional schools of thought have violated the fundamental economic causality in Say's law. On the contrary, TET proves it is not scientifically correct, and least still necessary, to violate that causality to develop currency theory and explain everything deriving from it (economic cycles, etc.).

Gresham's law: in *Currency Causality* we have expanded on the un-necessity of this law, that arose because the three schools of thought are based on Wicksell's virtual world —and the dichotomies derived from it— and consider that currency merits a special theory, different from all other economic goods. TET discovers that the only special economic good is economic time and its price, interest —indirect materialization, permanent positivity $i > 0$, and its necessary participation as a *dependent* factor of production present in all economic goods.

Wicksell's "virtual" currency: also in *Currency Causality, The Theory of Currency* and *The Theory of Interest* we have extended on the unfortunate origin in Bawerkian-Wicksellian dichotomies, of all the currency and interest theory generated in the twentieth century. Thus, the whole theory of cycles of those days turned on "balancing" the virtual-currency-absolute-unreal world with the currency and real world of relative prices. TET establishes there is only one world, that is real, with relative currency and prices, pointing out that it is incorrect to develop theory pretending to reconcile a world that does not exist with another that is real.

"Special" monetary theory: also in *Currency Causality* we have stressed the inconsistency of the development of a special theory to explain the "phenomenon" of currency. TET has clearly shown that this is only pertinent in theories that are based on the supposition that money is a different economic good, or that it is not an economic good, that it is "virtual", a textual and unfortunate term from Wicksell.

Emphasis on exchange: the traditional schools *begin and end* there developments stressing the transcendental importance represented by indirect exchange and the presence of currency, in so far as this overcame the costly state of barter. TET considers indirect exchange with the use of currency as a fact of reality —with no need for a special theory—, the same as would be true for the invention of the wheel. TET centers on the transcendent *taxonomic* study of the different types of currency [money – credit (regular-irregular)] and the consequences that derive from society adopting one or the other. In other words, TET is bases on the common terrain of all schools, the benefits of specialization and exchange. Ie, indirect exchange and its benefits is not subject to debate in science, and so TET builds on that common ground and analyzes the different types of exchanges (cash and credit) and the way one or the other alter exchanges (the market and its prices) and economic calculus, that all schools also uphold. Further, TET says that once the need for liquidity is established, exchanging for currency is like exchanging for bread, in the sense that they are both goods that satisfy a need, not forgetting the differences between the needs and functions each economic good covers. For a better understanding of the logical deductive causality between exchange and prices, we are including a section on the *exchange → prices causality*, where we will present the inverted causality that underlies traditional theoretical developments.

Monetary regression theorem: in reference to this unfortunate development by Mises there is further explanation in the *Theory of Economic Relativity, Currency Theory, and Monetary Causality*, and other TET writings. Though it is essential to consider the section on the Origin of currency, no matter what type, where the distance of TET —in agreement with Menger— and other schools is "very serious".

Quantitative theory: TET rejects it, since it is already contemplated by the financial techniques in their studies of the rotation of assets-stocks, liquidity coefficients (in their different versions), asset profitability calculus, and other aspects of greater theoretical relevance presented by TET.[(3)] We have qualified Misian Austrians an Undecided in so far as they pronounce themselves against said theory (because it does not consider relative prices), but they use it when explaining real events, and it is even used academically by those that consider themselves to be part of that school (Hayek himself used it, and in our times so does George A Selgin,[(4)] and many Austrians that co-exist along with monetarists in the Mont Pelerin Society, as a *second best* "practical solution").

Money ≡ Currency: TET has shown the difficulties of economic theory when developing consistent knowledge, because it considers as money everything that has the function of money. We reiterate our favorite example it is like considering the cart and the automobile to be the same because they are both means of transportation. This is the result of economic theory in the twentieth century not going beyond stressing the importance of currency in exchange, not developing the essential scientific-taxonomic aspect of any science, that in this case refers to *adequately* differentiating cash exchange from credit exchange, and its implications for currency, interest and the cycles —by omission validating the twin asymmetries. Concretely, until the arrival of TET, economic theory did not realize the existence of the currency theorem and its axioms. [(5)]

Monetary reductionism: TET stresses the inevitable reductionism of traditional schools that consider "*money ≡ currency*" —given the erroneous condition of "*special economic good*" assigned to it— turning it into the center of explanations of the economic world, as in the mercantilist stage; in both, the economy is reduced to the study, control, domination, etc., of mercantilist money and currency in the theories of the twentieth century.

Currency functions: TET stresses three functions —added to traditional ones— [(6)] which it considers of transcendental importance when judging the role of currency in the general economic process and in economic cycles in particular

Contractual nominativity + paying power + defining exchange

Its contents can be seen in *Currency Causality*, and we suggest this should be studied in depth, since it points to substantial differences when analyzing the basics that give origin to current currency-financial institutions, and its special influence on the study of cycles.

Exogenous currency: TET does not give theoretical entity to any exogenous currency, in so far as by exogenous there is the intention to refer to an economic entity that is not economic, and therefore the currency is of the same nature.[(7)] Ie, the study of market interventions does not require *ad hoc* exogenous entities.

Monetary neutrality: in so far as an economic good cannot be neutral by definition (it is a scarce good), currency cannot be so either. We qualify Keynesians and monetarists with an *undecided* in so far as on some occasions they are neutral and on others they are not. It is important to point out that if the Austrian School (AS)-Mises and TET agree on the non-neutrality of currency, they do so based on different theoretical grounds, which undoubtedly has implications for all theoretical developments derived from this issue: essentially everything derived from the *Theory of Interest* (price of time *versus* temporal preference) and *Currency Theory*, and its *axioms of equality and equivalence* ($i_c = p_c$ e $i_c \equiv p_c$, *where* p_c *is the price of currency and* i_c *is interest materialized in currency*), form where different developments inevitably arise, even in those cases in which *a superficial view* of the matter can present similar aspects in the explanation (especially when Austrian theory explains cycles based on the alterations in credit markets, which cannot coincide either, because the Austrian School with Mises situates their origin in the State and the banking sector, while TET always sees its origin in the market, and many other differences).
We can close this section saying it is not appropriate to develop theory pretending to explain economic phenomena based on en the entity *neutrality of an economic good*, its use implies there is something wrong with the theoretical development it is part of.

Interest as the price of: currency, credit, or time: this difference speaks for itself. The Mises-AS presents two alternatives for explaining the "phenomenon" of interest: Mises' theoretical route of the *Theory of Time Preference*, and Mises' "positivist" alternative with the introduction of the "rate of interest", deriving in interest as the price of credit. Instead, TET presents interest as the *price of economic time*, that when interpersonally exchanged configures credit, therefore *interest is also* the *price of credit*. Thus TET discovers that: when credit acquires the status of currency the *axiom of equivalence* $i_c \equiv p_c$ is configured.

It is important to stress TET's reflection on Austrian-Misian theory. Specifically, The Pure Time-Preference Theory, considering it the *Austrian causal vicious circle*, in so far as this *develops a capital theory to prove the existence of interest, and develops an interest theory that cannot explain the existence of capital* since, if the present is preferred to the future, there is no room for capital formation. On the other hand, TET, in presenting interest as the price of time not only eliminates all theoretical restrictions to the free manifestation of humane time preference (present and/or future) but also contributes important tools such as: *indirect materialization (dependent variable), the currency theorem and its axioms*, the *category of interest as a price*, the *permanent positivity of interest*, and the presence of *economic time (and therefore interest) as a production factor in all economic goods.*
We know Keynesians and monetarists consider interest to be the price of currency, which leads to assimilating them with the Austrian school when the currency is a credit, in so far as for them interest is the price of credit.
For more on **this subject that is crucial to understand economics** you can consult Carlos A. Bondone, *Currency Theory, Theory of Interest, Monetary Causality, Theory of Economic Relativity,* and *Capitalism and Currency*.

Types of credit: TET especially stresses the taxonomic aspect of economics as a science, and the theory of currency and credit specifically. As a result, when studying currency-financial institutions and their effect on economic life, TET gives primordial importance and special attention to the types of credit: regular or irregular, [(8)] especially when it has the status of currency —if we are referring to regular currency-credit or irregular currency-credit.
Given the huge relevance the issue of credit has for the subject of currency, we wish to *reiterate* that it is more precise to use the expression currency-credit than credit-currency, since what exists first is the entity *economic good credit*, that later acquires the status of currency, which does not deny the possibility of an economic good that appears exclusively to act as currency (Hayek's basket of goods, PC, bitcoin, etc.). It must be observed that this does not imply Mises' regression theorem, on the contrary, we believe Mises wanted to refer to the fact precisely that currency "first" has to be an economic good, as a necessary condition to reach the status of currency, which is what TET's currency causality expresses (*liquidity → currency*), in line with the fundamental economic causality *need → economic good*. As a result of the deductive error of assimilating money and credit currency, Mises derived in the Theorem of Currency Regression.

Interest (+) (-) (0): TET, as opposed to traditional theories, presents interest as the price of economic time, therefore: 1) being a price it is always positive ($i > 0$), and 2) being present in all economic goods, that *positivity is permanent*, and 3) indirect materialization in other economic goods makes it a *dependent variable*. Ergo, TET considers theoretical entities with zero or negative interest as derivations from the dichotomic virtual Wicksellian world, of which all theories developed in the twentieth century are impregnated.[(9)] In other words considering the possibility of zero or negative prices can only be the result of conflicts in the theories. The variation prices can have over time is a different matter and it's analysis cannot overlook the fact that a price is unique and unrepeatable in terms of space and time, ie, comparing prices is an excellent tool for economic calculus which is invaluable, but that is all (for more see *exchange → prices causality*).

Insufficient demand, or the theory of sub-consumption (not originated in Keynes), which when explaining economic cycles attributes them to insufficient consumption and investment, the only components that supposedly conform "aggregate demand". TET rejects this theory because it is based on the partial wealth equation (only composed by consumption and investment), and the inverted fundamental economic causality, ie, solving scarcity incentivizing it. Here we should bear in mind the stance of the different schools regarding Say's Law.

Interest paradox: TET denounces [(10)] with this expression the pretension, based on current theories, of solving scarcity generating more scarcity, preferentially related with policies destined to manipulate interest as a price via "monetary supply". In other words, the inconsistent theory of insufficient demand or sub-consumption, that encourages the solution of economic problems stimulating the first term of fundamental economic causality (need); it shows its most visible side when we refer to interest.

Monetary insufficiency: here we place Keynesian-monetarist theories (that explain crisis in terms of currency scarcity) in dissidence with Mises-AS and TET, though these have different theoretical bases (for example, Say's Law and the origin of currency-credit), and the implications derived from those differences (basically currency as a special economic good Mises-AS —in agreement with Keynesians and monetarists— *versus* TET).

Manipulation of $\boldsymbol{i_c}$: it is the only issue in which there is agreement, and all schools are qualified with a YES. And also we observe the *greatest differences in the arguments* with which each theory qualifies with a YES. We can summarize saying that while Keynesians and monetarist consider convenient to manipulate currency interest, Misian Austrians and TET consider it harmful —with very different basis and consequences.
It is important to observe the monetarist stance that purports to be a defense of free markets, but when referring to the monetary question agrees with dictating "rules" (though Friedman considered it as a *second best*, in so far as there are central banks which he considers to be of political origin; TET considers it originates in *all* the currency theories of the twentieth century, including his and the Austrian Misian theory, conforming the Mont Pelerin Society). Austrians also dictated rules (Hayek's rule?)

Fractional currency-financial causality: TET, different from other schools, has proven [(11)] that paper currency and credit derived from fractional banking, they ***ALWAYS*** have their origin in the market, never in the State or the banking system. Therefore TET continues the Mengerian legacy that considers the market to be the origin of money, extending this to currency in general. The strong basis of TET in this matter, having proven it, is that credit (having or not the status of currency) always has its origin in the exchange of a present economic good (for the commitment to deliver a future economic good), which always has its origin in the market in so far as it is the place of exchanges. We reiterate once again: ***currency and credit imply the existence of exchange ≡ market, not the State***.
In other words, *currency-financial causality* goes from the market granting credit to the currency-banking system. As a dear friend, Engineer Manuel Polavieja, says, possibly the best way to see it is from the passive side of currency authorities and banks' statements, not the credit side, "lost" among the assets —which is the reason why in the book on TER we have suggested a new presentation of financial statements, in which

present economic goods should be highlighted on the one hand and on the other future rights and commitments, represented by credits and debts (and credits should include the stock of assets denominated in paper currency).

Currency Theorem and Axioms ($i_c \equiv p_c$; $i_c = p_c$): TET is the only theory that was able to develop the currency theorem and its derive axioms: of equivalence $i_c \equiv p_c$ and equality $i_c = p_c$.
The taxonomy applied by TET allowed it not only to identify the different types of currency, as money and credit (regular and irregular) but also to discover the basis and circumstances in which currency interest (i_c) *and the price of currency* (p_c) are a numerical *equality* of economic calculus, or an ontological *identity*. In both cases it considers i_c and p_c as *non-independent variables*, which demolishes the considerations of theories and economic models that operated in dissidence with such strong evidence. (12)

$i_c \neq p_c$: in accordance with the previous section, the immense difference with traditional theories that consider i_c and p_c as different and independent variables, with the equality and equivalence axioms of TET is evident.

Currency asymmetry: TET includes this concept referring to the legal inconsistency which assigns entity as a cash exchange (present economic goods for present economic goods) to what is a *credit* exchange arising from the presence of currency-credit (present economic goods for future economic goods). In other words, the power of "liberating-payment" that the law gives PC implies assimilating cash and credit exchanges, against what is established by the scientific taxonomy of TET. We must reiterate that the legal violation here denounced, as the origin of the current financial-currency system, is validated by the theoretical error present in the theories developed throughout the twentieth century by other schools of thought, as a consequence of their common origin in the Bawerkian-Wicksellian dichotomies. (13)
It is important to point out that those schools showed neglect when referring to monetary asymmetry; to see this we only need to refer to expressions by Mises in his *Human Action*, when he says:

> *It is also inconsequential that the law recognizes or not the debt settlement power of monetary substitutes.*

Here Mises not only *signs as a "legislator"*, defending current currency systems and corroborating the currency asymmetry (**cash ≡ credit**), but he considers it an issue of secondary importance, including it as a simple clarifying footnote. In other words, economic theory incurs in the sin of considering the taxonomy of currency a trifle.

Financial Asymmetry: TET applies currency asymmetry also to exchanges with instruments derived from the fractional banking system denominated in PC (banking check). Therefore everything said in the paragraph referring to *currency asymmetry* is pertinent.

Twin asymmetries: TET considers as such the combination of the legal-economic currency and financial asymmetries. We reiterate that this does not appear in other schools, which makes them the theoretical basis for current financial-currency institutions. (14)

Control $\boldsymbol{i_c = / \equiv p_c}$: TET clearly establishes that the idea of exercising control, fixing, and/or manipulating a variable necessarily implies doing so with both at the same time, be it because of numerical equality or ontological equivalence. The distance that separates TET from other schools that consider these variables independent, not only from each other but all other economic goods, is evident. TET considers them to be the same variable (equality or identity) and as dependent of all other economic variables, be it by calculus or ontology. (15) See and relate to the contents of the section *exchange → prices causality.*

Locke's problem: that TET extends to the "modern version" of *Locke's problem*,(16) clarifying at the same time that there is no other *problem* between the amount of contractual–temporary commitments denominated in currency and the amount of currency than that which exists between the amount of an economic good and its price. The contracts that involve time are designed to be fulfilled in a specific economic good, therefore the existence of that economic good will have its role as supply at the time it is required for canceling the loan, and as demand when required at the origin of the same. Therefore TET does not recognize the existence of Locke's problem, ancient or modern (with its highest expression in terms such as: currency base *versus* currency supply, broad currency circulation velocity, primary and secondary currency emission, etc.) since there is no need to "deposit" gold if it is to be used as currency, specially in its contractual nominative function —and less still when it is in the state's deposits.

Gibson's paradox*:* (17) Keynes gave it this name, and it refers to the relation between the rate of interest and price levels, considered under a negative correlation, but in fact it was observed in a positive correlation. TET's *Currency Theorem*, and its *equivalence and equality axioms*, prove there is no correlation whatsoever, being a numerical equality or ontological identity; and also highlighting the scientific inadequacy of speaking of general price level instead of the price of currency. We point to this mistaken concept of considering the entity general price level instead of the price of currency because it does not allow the detection of the *Currency Theorem and its axioms*, and based on that error a theory of a *uniform* currency is developed, not defining its type (money or credit).
We reiterate: this paradox has no standing in TET, but it does appear in other schools, which results from not recognizing the *currency theorem and its axioms.*

Keynes' paradox: (18) this is how TET denominates the Keynesian "dilemma", which cannot explain how society can go from a currency that is so costly (gold-money, the "barbarous relic") to one so cheap (PC). Evidently this concept is synonymous and has the same basis as what Keynes called Gibson's paradox.

Liquidity trap:(19) a Keynesian concept that refers to the point of ineffectiveness of financial-currency policies if stimulation by currency injection persists (i_c decreases). He recommends "solving" the ineffectiveness of currency policy expanding consumption with an expansion of public expenditure, which theories wrongly consider to be autonomous (non-economic?).
Here we have qualified the stance of monetarists and AS-Misians as undefined, in so far as the theoretical basis for its developments and practical proposals are ambivalent in this respect. On the other hand, since the liquidity trap lies within the same sphere as Gibson's Paradox and Keynes' Paradox, TET's rejection of the liquidity trap is clear,

since it is the result of not seeing there is a substitution of money currency by credit currency.

Currency demand paradox:[20] this is how TET refers to the inconsistency of traditional theories, in so far as they cannot explain *how currency demand falls when it's price decreases*. TET shows us the inexistence of any paradox, since the currency theorem tells us that in such circumstances we are in the presence of currency credit, not money. In other words, the paradox of demand can only derive from theoretical developments that study the behavior of credit currency as if it were money-currency.

Relative versus absolute prices: [21] by definition prices are amounts of one economic good *relative* to another economic good, derived from each interpersonal exchange that is unique and unrepeatable in space and time. Given this state of things, evidently the inclusion of absolute prices is only pertinent in theories that need this concept as an *ad hoc* add-on or crutches; if we take the crutches away the whole theory falls, which does not mean that some of its components cannot be useful (Popperian concept of a theory and its components).
TET does not need any other concept than that of relative prices, unique by definition. On the contrary, it states that it is necessary and sufficient, and that it is scientifically wrong to leave it aside. TET also states that this theoretical mistake of the theories of the twentieth century, is in direct line with the adoption of the concept of general price level (due to the Wicksellian dichotomy) instead of the price of currency (p_c); playing indistinctly considering now to be the general price level, and then the price of currency, as in politics it is dangerous to confuse the concepts of socialism and solidarity.
TET tells us:

> ***If we need to produce economic theory based on prices not being relative, evidently something is wrong ¡VERY WRONG!***

General price level: already contained in *relative versus absolute prices.* We highlight it as an issue by itself given the relevance of the flaw implicit in this unfortunate term widely used. What is pertinent is to refer to p_c as the price of currency.

Indirect transmission mechanism: [22] under this concept traditional schools refer to the study of the relation existing between the currency interest rate —interest materialized in currency (i_c) — and the erroneously called general level of prices (p_c), that TET considers to be the price of currency. We are evidently still within the reaches of Gibson's Paradox, Keynes' Paradox, currency demand Paradox, and others, which could not be otherwise since they are all *ad hoc* add-ons which all theoretical developments in the twentieth century used. We know TET rejects them, because they are inadequate theoretical developments, and all this can be observed in the *Currency Theorem* and its *equality and equivalence axioms*. Those erroneous developments include all the attempts at explaining through the unnecessary and unfounded indirect transmission mechanism $p_c \leftrightarrow i_c$. See and relate with the content of the section on *exchange → prices causality.*

Wealth equation: [23] TET severely questions all developments of the twentieth century that base their explanations of economic activity (cycles, tendencies, etc.) considering it tends towards an equilibrium of savings (S) and investment (I). TET's view is based on the fact that those developments contemplate wealth as only composed of S and I, forgetting that wealth is also composed of other economic goods, and that accounting classifies very well (taxonomy). The mathematical demonstration that the *traditional partial wealth equation* is wrong can be found in Carlos Bondone, *Theory of Economic Relativity, chapter XII,* last section.

Phillips' Curve – Slope: we already know TET's critical stance on the Phillips curve [24], considering:

1) Its original version, that considered wage variations in the ordinates, was no more than a new format for the traditional supply and demand curve —*that proves that the process of generation of prices occurs in the sphere of interpersonal exchanges (market)*—, in this case of the economic good work, with the simple replacement in the abscissa of the amounts supplied and demanded by the amount "unemployed" or in stock.
2) The new version is even worse, since with a magic jump —based on who knows what "Fisherian" add-ons, of which we cannot find any explanation, much less satisfactory ones— it replaces in the ordinate the price of work (the only support of the unnecessary Phillips curve, as we saw in the previous paragraph) by the general level of prices. TET again sees an unfortunate development based on that p_c is considered the general level of prices instead of the price of currency. If what is pretended here in using the add-ons refers to the behavior of stocks of an economic good or a set of goods, according to the variation of the price of currency, the new version of the Phillips curve is not the adequate way to do this. TET presents a development for this that will allow us to treat the question of "aggregates" (macro-economics) with no need for these ad-hoc developments of the twentieth century.

We only need to stress then that TET does not consider important to study the positivity or negativity of the Phillips curve, since it would "arise" from statistical observations with no theory as an adequate basis, with different behaviors according to the short or long term samples. [25] Finally, we stress that the Phillips curve is another point of agreement between monetarists and Misian Austrians in the Mont Pelerin Society — would Mises accept it?

IS/LM Model and 45º curve: [26] since these models, developed in the twentieth century as a mathematical expression of Keynes' thought (and now Misian Austrians?) are based on considering *alternatively* p_c in the ordinate and i_c in the abscissa respectively, as in the partial wealth equation that is the basis for the S = I equilibrium, and other *ad hoc* results according to each particular model, they have no entity in TET and its *currency theorem* and the derived *axioms*.
Here it is important to stress the surprise this represents for an observer of TET, considering the tragic and unnecessary methodological deviation of the Mises-AS with all the manifest attempts, such as the Garrison graphics, since they are directly based on the IS/LM curves, and that is why we qualified graphic 1 as undefined. TET does not reject the idea of funds that can be loaned implicit in IS/LM, in this aspect we agree

with Mises, who would be horrified with these developments, as Menger was with Böhm-Bawerk. [27]

Underconsumption theory (*see insufficiency of demand*): sometimes wrongly assigned to Keynes, it says economic cycles can be caused by deficiency of demand (the "can" is due to the view that cycles can also be due to a high rate of currency interest). In so far as its existence *would* only be pertinent (it isn't anyway) with the partial wealth equation (consumption and investment as the only components of wealth). TET's rejection is evident. Monetarists do not reject it completely in so far as they propose monetary rules, even if, according to Friedman, they are second best.

Aggregates: TET considers as aggregates the simple sum of entities that present a common factor that allows aggregation or addition. IE, as in any science, there is a fundamental taxonomic task previous to aggregating any entity, therefore it is unfortunate there are aggregates that due to an intentionality that is foreign to economics, add "pears and apples". Here we reiterate Mises would be discontent with the erroneous and unnecessary development of aggregates in the framework of Austrian thought, and these deviations lead to the qualification of undefined in the table. Further developments of TET will clearly show that it is unnecessary to deviate from the primitive terms of micro-economics to explain the "macro",[28] considering as such the conduct of individuals that form a society, not a society that is *not* integrated by individuals but by dehumanized "*numbers, matter and objects"* (dialectical materialism?).

Free prices: we have left this issue for the end, because we consider it a key to explaining the economic world of a society of humans, characterized by the generation of wealth based on specialization and then exchange, from where arises the need for a one currency world, that calculates in term of the price of an economic good chosen as unit of measure, the economic good currency.
Relative to prices, subjective value theory not only solved the faults of classical causality, [29] it allowed the development of a primitive concept that is foundational for economic science, as are the laws of marginal utility and decreasing yield, that determine the behavior of the well known curves of supply and demand of economic goods, that explain price formation, which are always relative to each interpersonal unique exchange in space and time of the market.
Once this is accepted, we can see the great importance of price generation in a free market (the world of ***human*** prices) or a market that is intervened. And this is true of the specific market where the price of currency (p_c) is generated and the price of economic time materialized in currency (currency interest i_c). In so far as the first serves as a means of exchange and economic calculus, and the second has a necessary presence in the production of all economic goods (together with the importance of its permanent positivity and its indirect materialization). Thus the *currency theorem* of TET and its *axioms* are "super relevant", because of the transcendence of freedom in generating prices in the case of the economic good that simultaneously has the functions of *currency* and *the price of economic time* —all markets are altered in different times and ways. See and link to the contents of the section on *exchange → prices* causality.

EXCHANGE → PRICES CAUSALITY

Now we have come to the moment of referring to the causality that exists between the entities of exchange and prices. To that effect we summarize the economic evolution of human beings in society, accepted by all schools, with the following chain of deductive causality: need → economic good → specialization-division of labor → ***exchange*** **→** ***prices*** → barter → currency →… progress.

What we want to stress is the evolutionary chain starting from economic specialization that led to the division of labor and production of greater quantities than what each person needed of specific economic goods with the object of exchanging for other economic goods.

Economic theory discovered an entity of great relevance derived from the existence of exchange (interpersonal, to which we referred): *prices*. They inform about the amounts of an economic good that were exchanged for certain amounts of another economic good, in a unique and unrepeatable act of spatio-temporal exchange. Based on this simple development, it is convenient NOT TO FORGET that it is wrong to speak of: 1) prices that are not relative; 2) zero or negative prices, and 3) *free prices,* which we refer to here.

Having said this, it is very necessary to rectify another misunderstanding derived from the excess of technicality that forgets the deductive logical causality of scientific primitive terms. We refer to the fact that it is wrong to speak of free prices, in so far as these are information of what happens in exchange, ie, instead it is correct to refer to *freedom of exchange.*

This elementary, simple and forceful reflection is strictly to the point when pretending to orient in economic terms, recommending freedom of prices, when what it should refer to is the ***freedom of exchange***. If we see it this way, we understand very easily that: with a simple *constitutional* disposition preserving ***freedom of exchange***, the same as with ***freedom of expression***, it is impossible to effect the tremendous damage implied by interrupting the chain of economic evolution of a human society. In other words, freedom of exchange generates the *economic human word*, ***prices***. *Prices are the words of human exchange*, pretending to silence them is the same as prevent speech. Thus prices are the English, the Spanish, the Latin, etc., of the different peoples in economic matters.

Seen in this manner we can understand that preventing the use of language *is attacking social communication,* not the language in itself. Ie, if individuals did not have the need to communicate, if human beings were not sociable in their essence, there would be no need for language. If man did not have the need to exchange, also as a result of being sociable —see Carlos A. Bondone in *The Curve of Human Evolution* and its continuation—, there would be no need to exchange and no need for prices. Ergo, there is interference not in language or prices, but in expression and exchange.

In other words, the so called “word controls” do not infringe upon words, but upon the human essence of being sociable. In the same sense, price controls do not infringe on prices, but on the same human essentiality of being a sociable species. *The progress of individuals and society requires freedom of exchange*, it is not a matter subject to the discretionality of a few, it is above circumstantial governments, it is a STATE matter. And this is and we point out once again the enormous importance of theories respecting economic causality: *exchange → prices*. We denounce again the enormous damage caused to science and therefore to humanity by technicalities that do not derive from adequate *logic deductive causality (a priori*), it means regressing to pre-scientific obscurantism (technicalities without an adequate *theoretical-logical, deductive-“a* *priori" causality* is equivalent to fraud, the technicality of sorcerers). *It is dangerous to defend freedom based on technicalities.*

We can conclude by saying that for TET:

> **The freedom to exchange should be included in the constitution, considering its prices are the voice of the people and defending it should be a matter of justice.**

From this we derive that it is unnecessary to study the "intervention of markets", since it is implicit in the inverted causality *prices → exchanges.* Any intervention in a market derives from exogenous factors, monetary financial intervention does not need a special theory, that is why we are demanding a constitutional status for everything implying *exchange*.

ALTERNATIVE EXPLANATIONS OF CYCLES

Very summarily we can present the explanations of the different schools on the origin of economic cycles:

Keynesian: insufficiency of aggregate demand due to: 1) low propensity to consume and/or 2) high interest rate.

Monetarist: monetary contraction by control authorities (rise in interest rate).

Austrian-Misian: alteration of relative prices due to credit expansion, which it considers to be originated in the Sate-Banking system, originating extemporaneous investments.

Austrian-TET: all control of exchanges originates two stages (economic "cycles"):

1º *excess of consumption*, above the parameters of the free market, of the economic good whose market was intervened. Which can be expressed as a *destruction-liquidation* of stock.

2º from those exiguous stocks according to the parameters of the free market derives an increase of the prices of the intervened good.

Therefore we conclude the market establishes the price of the good —without a market there is no exchange, the origin of prices— but the market is not unaware of the intervention that affects it, the same way a river recognizes the presence of a dam. If we suppose a control or an establishment of a maximum price of meat, in this market and those related to it there will be a cycle of low prices and reduction of stocks and later reversion. But it is important to stress it is not coherent to expect homogeneous variations of prices in the different related markets, which is what the quantitative theory on which Keynesians and monetarists (Austrians?) are based supposes. A circumstance that leads us to reject the Misian Austrians' explanations of the cycles by relative prices, since it is not a special event in terms of currency and interest, *except considering that the related markets here are all markets.*

Thus, TET says the same happens with interventions of currency-financial markets. Then, given the equivalence axiom $i_c \equiv p_c$, when we are in the presence of paper currency (PC) and a fractional banking system denominated in PC, we refer to cycles of the economy in general, of all markets related to currency and interest, the same way as when we speak of meat we refer to related markets. In all cases of intervention in a market, the incidence on "prices" of the related markets will not be homogeneous nor simultaneous, they will present alterations of prices in different levels and times according to the degree of integration and specialization relative to the intervened market (meat will present different variations of prices compared to the prices of rural establishments, grazing lands, rural workers, meat packing plants, butcher shops, etc.). The alterations in the currency market need not escape this general causality, and therefore there is no need for a special theory.

By the equivalence axiom it is evident that intervention in the currency-financial market (of p_c and/or i_c), implies simultaneously observing the control of the two variables: currency interest (i_c), the price of economic time expressed-materialized in currency, and the price of currency (p_c), wrongly called currency or absolute prices of goods. But this means that *cycles are generated* in all markets related with these two variables: 1) the ***interest market***, its necessary participation in the formation of all economic goods makes it an actor in all markets, and 2) the ***currency market*** that implies all market exchanges and the valuation used for economic calculus, ie to express the subjective value that humans assign wealth, as a stock and as exchange.

In short, TET tells us intervention in markets (through the un-caused mechanism of pretending to do it through prices-quantities), implies economic cycles of the intervened market and non homogeneous with all the related markets. Intervening the currency and interest markets simultaneously, by the axiom of equivalence implies non homogeneous and non simultaneous cycles in all markets". [30] A TET posture we can summarize as follows:

> ***Prices are established by the market —without a market there are no prices— which considers the institutional obstructions to its free determination, which always derive in the destruction of wealth and an obstacle to its generation. Therefore the un-caused techniques of market control where variables are generated, that appear because of the $i_c \equiv p_c$ axiom, imply economic cycles, that are non homogeneous and non simultaneous in all markets at the same time.***

COMPARATIVE SUMMARY OF CYCLE THEORIES

We can do the following comparison, that is concise but very useful academically:

- Keynesians show theoretical weakness and rejection of *free markets*.
- Monetarist present technique without theory and defend *free markets.*
- Mises-Austrians present defective theory and defend *free markets*.
- TET presents a new theory that denounces the impossibility of *free markets* with totalitarian currency-financial systems, due to the presence of currency-

financial (twin) asymmetries. Therefore cycles and crisis in capitalism are necessarily recurring, due to causes that are unrelated to its foundations

We observe a greater predisposition in Austrians to abandon scientific obscurantism which is implicit in what we call “***techonomania***” (exacerbated technicality without theory to sustain it), which is the reason we have always observed greater scientific rigor in this school, in spite of the substantial differences we have presented from TET’s point of view. *That is why we place TET within the Austrian School.*

As a result of the preceding summary we see links between defenders of monetarism and the Misian Austrian School, since both distance themselves from Keynesians, who they see as a common enemy when referring to *free markets*.

We observe that monetarists and Misian Austrians are part of the Mont Pelerin Society, [31] in a kind of combination motivated by the following circumstances: both embrace free markets but since the monetarists have no theory, it does not bother them to be beside people who do, which they do not see as defective; and Misian Austrians do not see anything wrong in being with those who defend *free markets* and have a technique that they do not (Hayek’s rule?). This is the reason why we see Misian Austrians carry out academic tasks based on the quantitative theory, that through *reductio ad absurdum* can be presented as follows: if Hayek’s rule is “corroborated” by a “false” theory, this implies it is “false” —***the Austrian rejection of the quantitative theory implies rejection of “Hayek’s rule”***.[32] No matter what the point the view is, it surely would provoke rejection from Mises. TET presents a new point of view (free from “technical” rules and quantitative theory) in line with presenting a theoretical framework when proving the convenience of free markets and does not need anything other than the *double entry accounting technique*, in line with the genius of Mises and Goethe.

In this manner, TET can be considered as an economic theory that, rectifying theoretical mistakes allows the adoption of adequate institutions and techniques to stop treating for the fever, and eradicating the infection, which is nothing more and nothing less than eliminating from capitalism totalitarian currency-financial systems (twin asymmetries based on currency-financial theories developed in the twentieth century).

Now we present a very summarized table on how the different theories explain economic shocks that affect all markets simultaneously, known as economic cycles:

Table 2

Causality of economic cycles (theories)

<table>
<tr><th rowspan="2">Subject</th><th rowspan="2">Keynesians</th><th rowspan="2">Monetar.</th><th colspan="2">Austrians</th></tr>
<tr><th>Mises</th><th>TET</th></tr>
<tr><td>In the first phase, monetary expansion produces:</td><td colspan="3">Increase in the level of prices of goods (assets-titles in markets) [a]</td><td>Simultaneous decrease of $i_c \equiv p_c$ [b]</td></tr>
<tr><td>In the second phase, monetary expansion produces:</td><td colspan="3">Decrease of the level of prices (assets-titles in market) [a]</td><td>Simultaneous increase of $i_c \equiv p_c$ [b]</td></tr>
<tr><td colspan="5">IMPORTANT NOTE: we refer to the case of an intervened market that is later liberated, not the typical currency financial markets in crisis, in so far as everything remains within the</td></tr>
</table>

framework of the twin asymmetries.

[a] We must stress the difference in Austrians, that refer to the alteration of relative price levels and not the general level. Nevertheless what we wish to stress is that there is an increase of what is called the general level of prices (p_c), instead of considering that the price of currency decreases, as we show in the TET column.
[b] We know that according to TET it is not the increase-decrease of prices in general but that as a consequence of intervention in exchanges in currency interest and currency markets the twin asymmetries appear, because of the presence of the equivalence axiom.

This simple table clearly shows the way in which TET explains, with the same arguments that it refers to alterations of exchange in any market —with no special economic theory of general economic cycles due to their currency-financial origin—, the sequence of economic cycles of *all markets at the same time*, given that currency and interest markets affect the economy as a whole. Possibly it is not an exaggeration to say that in this table we can appreciate in its true dimension the significance of the use of the unfortunate technicality that treats the price of currency (p_c) as the general level of prices, not understanding the equivalence axiom. This is so since it is pertinent to consider that the simultaneous variations observed in the price of currency and currency interest —through interventions in the markets where these are established— are not homogeneous nor simultaneous in all markets (prices it affects). In other words, here we observe that it is unnecessary to speak of relative prices *versus* absolute prices, which deteriorates the explanatory power of the cycles based on the alteration of relative prices.

In short, TET denounces these shortcomings in traditional schools when explaining the economic cycles: *technical error* (they do not have theories) of monetarists and Keynesians when they explain the cycles based on the general price level —implicit in the quantitative theory of currency—, and an *inappropriate theory* (they do not have technique) of Austrians when they pretend to explain economic cycles in terms of alterations of relative prices, they do not reject the quantitative theory, which implies accepting the concept of the general level of prices.

CONCLUSION

From TET's perspective Keynesians and monetarists err by commission, when they attribute economic functions to currency authorities, and together with Misian Austrians they err by omission in not recognizing the currency theorem and its axioms, that reveal the twin asymmetries, that cause the infection capitalism suffers.

We must also consider the inconsistencies of the Austrian proposals of a free banking system, (33) not considering first the twin asymmetries —the twin asymmetries are *necessary causes* of the origin of interventions in "all markets". Which, expressed in other terms, led TET to denounce the theoretical impossibility of the independence of the State Central Bank, since current legislation, that ratifies the *twin asymmetries*, makes it a necessary institution. It is inadmissible for traditional theories to pretend to posit the independence of institutions validated by their theory. In TET Friedman's consideration of a monetary rule is not admissible, because he considered impossible the political decision of eliminating the Central Bank (*second best*) since the foundations of all theory in the twentieth century (including his) uphold its existence. (34) We reiterate the example: *once tariffs are created customs are necessary*, with its currency-financial equivalent, once the rules are created (with a theoretical basis) the central bank is necessary, ie, Friedman inverted the causality *science → politics*. Realizing the existence of technicalities without a theory and theories that inverted the *exchange → price causality* helps understand the current state of economic science *vis-à-vis* crisis.

TET also alerts of the *inevitable loss of control of the simultaneous markets (prices) of* i_c and p_c because of the presence of the equality axiom ($i_c = p_c$), or the equivalence axiom ($i_c \equiv p_c$). Simultaneous control of the markets, no less, the currency market and economic time, which avoids the unnecessary and incorrect proposal of any *indirect transmission mechanism,* that was considered in the twentieth century, to explain the economic cycles relative to the link between interest and the price of currency. Intervention in currency and financial markets implies cycles in all markets, the economic cycles as they are called.

Thus TET places the study of cycles within the boundaries of what economics considers the pernicious effect of intervention in the markets, with the un-caused technicality of "establishing" a price below the market level, that always originates an excess of consumption of said good (here all credit-debt) which always ends in an increase of the price for lack of stock, originated by the preceding excess consumption (cycle). Thus there is no need for a special theory of the cycles to explain the consequences of the un-caused control of $i_c \equiv p_c$, o $i_c = p_c$. Ie, ***TET considers there is no need for an exclusive currency theory of cycles to explain the origin and consequences of economic cycles with a currency origin***. We reiterate the sentence presented in a box: *Prices are always established by the market…, which includes "everything", and that is why we consider the defense of exchange must be included in the Constitution, since it is the word of the people.*

In the comparison of the stances of the different schools it seems the Misian AS centered all its theoretical development on the "battles" with Keynesians (and monetarists), forgetting that the "war" is economic science, which is the reason why TET observes so many lapses in the use of primitive terms in theoretical developments. With all humbleness, we say TET can well be the starting point for the unification of economics. We wish this will be so, the *"personal dialogues"* we have sustained with Menger, Mises, Hayek, Keynes, etc., show the way. Let us continue to build based on the classics, subjective value, marginalism, decreasing yields, exchange law, human action, economic time, and interest as its price, currency theory and its axioms, the addition of homogeneous micro elements, the "a priori" economic causalities…!!!

We wish to state that TET recognizes as its predecessors: Carl Menger (subjective value, theory that demolished the classical erroneous causal explanation of prices, the origin of money and his taxonomic point of view which included capital goods with their prices derived from the consumer products they generate); marginalism; decreasing yields; the Austrian law of exchange; Mises and his developments on the basis of human action and his defense of the free market system that generates prices (his masterful development of the impossibility of calculus in socialism, though with theoretical objections by TET), and the spontaneous order by Hayek and Smith's invisible hand, that TET replaces with the basis expressed in the development of curve of human evolution,[(35)] and others. In terms of epistemology, the influence of Heraclitus and Karl Popper on TET are clearly visible. [(36)]

We refer to the expressions of doctor Adrián Ravier, *refuting or disrupting the Phillips curve implies refuting or disrupting all current macroeconomics.* A reflection we share if we consider that it is in direct line with the objective of currency authorities in current regimes with twin asymmetries: price stability (in truth the price of currency, considering what p_c represents in TET) and achieving full employment. Therefore there is no doubt that *TET disrupts current macroeconomics*. We reiterate TET's stance regarding the Phillips curve: if we consider the original version, with variations of real wages in the ordinate (the real price of wages), and unemployment in the abscissa, we are in the presence of the curve of supply and demand of the labor market, with the simple replacement in the abscissa of the labor units employed (stock soled), with the units not employed (stock not sold). And if we consider the new version, where the real wage in the ordinate is replaced by variations of the "general level of prices", TET observes the "magic jump" from the micro-market of labor represented by the original curve, to the mix of the micro market of labor with the macro market of "general prices", another unnecessary *ad hoc* resource that mixes pears with apples, which would justify Mises crying to the skies.

We conclude saying reality is the best witness and proof that current institutions (currency-financial authorities) recognize that they base themselves on the failed theories denounced by TET (the Phillips Curve among them). It is all a clear demonstration of why *economic science is in a state of defenselessness vis-à-vis the necessary and recurring crisis of capitalism* denounced by TET.

We consider it is correct to conclude with this final reflection: while the *classics* recognized no role whatsoever to economic time (?), Keynesians and monetarists tie themselves to techniques without theories and Austrians do so to unsatisfactory theories, TET assigns it the concrete economic role of having *interest* as its *price*, with its *permanent positivity* ($i > 0$), *a necessary production factor* in all economic goods (it is present in all input), being a *dependent variable* considering its special characteristic of *indirect materialization* in other economic goods.

ACADEMIC REFLECTION

It will be a surprise that this text does not end with its conclusion, and this is so considering that my dear friend doctor Adrián Ravier asked me the following: *Carlos, what would you say to monetarists that consider having contributed so much to eliminate and overcome currency-financial crisis, based on the critical and strong position of TET?* This extraordinary and concise question motivated me to extend and end this work with the answer that derives from TET. Let us see:

The deliberate behavior that inspires human action leads it to search for solutions to overcome the sate of dissatisfaction. This action leads humans to use means to reach goals, these means are constantly perfected. In its development history shows that means used in the past appear as very unfortunate in the present, precisely due to the evolution of human knowledge. Seen from today, it is evident that if we had not traversed the errors of the past we would not have the correct answers of today, which will be the errors of the future. When we analyze things this way everything is great, the problem is when somebody with a name, a flesh and blood person, belongs to the "paradigm" of the answer that was correct yesterday and is the error we discover today, and "is not willing" to accept the new correct answer. In other words, change is perfect as long as it resides in a depersonalized world. In short, the progress of science cannot be limited to questions of a personal nature, of somebody that has no humility and does see that he has to learn new things, that what he knew was what was correct yesterday and today is wrong, and should make the effort of assimilating new and more adequate theories, that explain things better. Acting differently means perpetuating the remedy, at the cost of extending illnesses that could be eradicated. That is why we are not surprised by the quick acceptance of TET by young economists, who know that what exists does not satisfy their needs and that progress is the result of criticism.

Having made this general reflection, now we concentrate on the worries of a monetarist (Keynesian and Austrian?) relative to TET: when we do not know the origin of a malady it is logical for humans to seek the "remedies" that practice shows are effective for "treating a fever". In this manner it is evident that establishing a "rule" of monetary expansion of 3% or 5% is much better than an expansion of 40% to ∞ (Argentina). But we should agree that it is much better to eradicate the illness and not have to use a treatment once it appears.
Thus, to monetarists TET says they should not feel bad about collaborating with the most adequate technique given the knowledge there was of the decease. It would be reprehensible if, having perceived the discovery of a theory that allows us to eradicate the decease, they do not include it in their portfolio, saying that while the institutions that appeared under current theories are in existence, this medicine must be used, but if the adequate theories are adopted, those institutions should cease to exist. As Max Planck said: "science progresses from one funeral to the next". From the Austrian perspective we can say: "*science progresses form one birth to the next*". Under this "mantle of Austrian optimism" TET could well be considered the summary of theoretical and technical attempts present in the Mont Pelerin Society, united by the faithful legacy of *freedom of exchange.*
As to the method for the transition from a currency-financial system based on the twin asymmetries to one without those asymmetries, it is an issue to which we will dedicate special attention in a specific work that will appear soon, extending what we have presented in *Capitalism and Currency*. From the point of view of TET the transition appears very simple, while from the point of view of other schools it is very complex and traumatic, a situation we understand since mainstream theories cannot see this otherwise.

We can summarize in this manner:

Thank you Misian Austrians, thank you Keynesians, and thank you monetarists, for what you have contributed, and ***thank you with capital letters*** if you facilitate the acceptance of a new theory, that unifies previous contributions in three aspects:

1) It liberates economics from technomania.
2) It eliminates noxious theories that contaminated all theories, and
3) Upholds the foundational theoretical causalities of economics, that all theories agree upon.

May humanity detect the personal meanness' that obstruct the progress of knowledge.

It is very dangerous to defend freedom based on "technomania".

NOTES:

Since texts by Carlos A. Bondone are available at www.carlosbondone.com, and that format allows the search of terms and/or concepts with only writing them in, references will only mention these, not specifying pages, considering they can be referred to on more than one occasion.

(1) Here we refer to the theoretical foundations accepted by all Austrians of the twentieth century: Bawerkian-Wicksellian dichotomies; currency regression theorem; interest theory vs interest rate; relative vs absolute prices; currency demand paradox; currency as a special good, etc. We do not deny the instrumental differences among Austians: relative to fractional banking, free banking, etc. (Rotbhard, Hayek, etc.). Clarification we consider necessary based on an alert from doctor Adrián Ravier.
(2) See Carlos A. Bondone, *Currency Theory and Interest Theory*
(3) See Carlos A. Bondone in *The Theory of Economic Relativity*.
(4) See George A. Selgin, *La libertad de emisión del dinero bancario*, Ediciones AOSTA-Unión Editorial-ElCato.org, 2011.
(5) Here it is pertinent to summarize the theoretical stance in relation to differentiating money and currency, in so far as the TET's *currency theorem* considers currency as a superior entity, which can have the form of Money or Credit (regular or irregular). The mainstream view can be summarized paraphrasing José Antonio de Aguirre in his *Introducción a la edición española* del libro de George A. Selgin, *La libertad de emisión del dinero bancario – Crítica del monopolio del Banco Emisor Central* – Ediciones Aosta – Unión Editorial, Madrid 2011, pp. Xxvii, where he says:

> "II. THE NATURE OF MONEY. It can seem unnecessary but the author of this work re-states the problem of the nature of money and its distinction from credit. The reader should pay attention… to the point that the Austrian economist Carl Menger… was forced to remind us all that *money* is not legal creation but a social institution derived exclusively from the functioning of the market itself…"

Once again José Antonio de Aguirre, with his fine capacity for summarizing mainstream thought (to which he belongs as a Misian Austrian) allows us to quote him in a brief paragraph which obviates an extensive text.
TET has clearly shown that current theories do not differentiate money and credit, to which Aguirre refers, on the contrary, under the concept that everything that has the function of money is money, the whole *mainstream* theorized on currency from the theory of money. Ie, there is no discussion that money and credit are not differentiated, but that not having differentiated it in currency theory, in that context, as TET does, the case of credit-currency was not understood in the "unified" theory of money.
Precisely it is within that unified theory of currency in the sphere of money that all the theoretical mistakes that TET points out appear: *currency demand paradox; twin asymmetries; not accepting the axioms of equality and equivalence (validating all the developments that are considered different variables from interest and the price of currency); not realizing that interest is a variable that depends on all other economic goods (which also invalidates all developments that did not consider it); reducing Austrian developments to the useless task of confronting Keynesians; not realizing the Austrian vicious circle of interest ↔ capital theories; accepting the currency regression theorem; Gibson's paradox; indirect transmission mechanism of prices and interest; not considering the Bawerkian-Wicksellian dichotomies; not considering the*

difficulties of economic calculus in capitalism with current currency systems (in line with the Misian alert to the impossibility of calculus in socialism); not realizing that cycles are explainable based on the simple treatment of price controls; realizing the inconsistency of fighting Keynesians based on the defense of the unnecessary Say's Law; defending the unnecessary Gresham's Law; not realizing the inverted currency causality; not considering the new and relevant function of currency stressed by TET; not solving Locke's problem (in the ancient and modern version); developing theory based on the inexistent entity "absolute prices"; not realizing the incompleteness of the partial wealth equation all theories uphold; etc…etc.

The fact that Aguirre involves Carl Menger in the theoretical maze is very serious, in so far as the Austrian genius only referred to the origin of money, and his intellectual honesty led him not to write on subjects he did not feel sure about (credit-currency) due to his respect for science. And worse still, Aguirre pretends to give theoretical entity to Menger's historical story on the origin of money, based on two aspects that are very dear to economic science: 1) validating Mises when he pretends to develop a theory of "currency regression" based on a historical fact, breaking with the aprioristic Austrian methodology, and 2) involving Menger in the twentieth century error of not considering the currency theorem and its axioms, central tools of the Austrian methodology these axioms are primitive terms.

In other words, it serves no purpose to distinguish money from credit-currency, if that was the case, as Aguirre says (?) Menger surely did NOT, and Mises questionably. In truth Mises' doubtful stance was a rotund NO, from the moment he continued —in tune with all other developments in the twentieth century— producing currency theory in the framework of money theory, which concretely shows that he made no such distinction, possibly a simple "mumble" as we have pointed out from TET in Mises and Keynes, for example.

On the other hand the theoretical haze is clearly visible when economists (including Austrians) say paper currency is not credit, that it is a present economic good, the same as academicians that say that for Austrian economics interest is not the price of credit, and expressions of the like that were extensively referred to in developments by TET.

It is very meritorious that José Antonio Aguirre in this text, in agreement with TET, celebrates Carl Menger in many paragraphs, and adds as a appendix III the excellent work by the Austrian titled "*On the origin of money*" relegating Mises and Hayek. We also say that this change of attitude is visible in several academics —a situation we pointed out since the appearance of TET. We humbly express our satisfaction for the "rediscovery of the genius of Menger", as TET did, specially coming from doctoral academics.

Once again we thank José Antonio Aguirre because he has served us as inspiration, in so far as we have benefited from the clarity with which he summarizes *what we have considered errors* of the mainstream, be they Keynesians, monetarists or Misian Austrians. A situation Hayek summarized in a quote by Aguirre (p. xlix). "*Today we have few reasons to feel proud, as a profession we have created an enormous confusion*" and that is why I reiterate: *in the dialogs "I have had with Hayek" in my investigation I consider him to be very satisfied with developments by TET.*

(6) See Carlos Bondone, *Currency Causality*, section *Currency functions*.

(7) See Carlos Bondone, *Currency Causality*, section *Endogenous currency (exogenous?)*.

(8) For more precision on these concepts consult Carlos A. Bondone in *Currency Theory and Interest Theory or Currency Causality*.

(9) See Carlos Bondone, *Currency Theory and Interest Theory*.

[10] See Carlos Bondone, *Interest Theory, Currency Theory, Theory of Economic Relativity*

[11] See demonstration through the use of double entry accounting in its versions for physical and currency units in Carlos Bondone, *Theory of Economic Relativity,* Spanish edition, Editorial Distal, Buenos Aires 2006, *Third part*.

[12] See Carlos Bondone, *Currency Theory and Interest Theory*.

[13] See Carlos Bondone, *Currency Theory and Theory of Economic Relativity*

[14] See Carlos Bondone, *Currency Theory*.

[15] See Carlos Bondone, *Currency Theory* and *Interest Theory*.

[16] Concisely, *Locke's* "original" problem can be summarized as the impossibility to determine the metal composition of currency if you do not know the amount of metal available. TET presents the *"modern"* version of *Locke's problem* in reference to the inconsistent pretense of establishing a linear relation between the amount of gold-currency and bills emitted payable in gold. The only relation that exists is the demand for commitments in gold when they mature. In other words, TET simply establishes that it is not necessary to establish any relation for credit exchange to be denominated in gold, independently of the amount of gold there could be in existence, be it in the form of currency or not. The parties that agree to cancel commitments in gold only establish that they be paid in gold, apart from the speculations of those parties on the price of gold at maturity.

For more, see Carlos A. Bondone, in *Currency Causality, Locke's problem.*

[17] For more see Carlos Bondone: *Theory of Economic Relativity* and/or *Currency Causality*, under Gibson's Paradox

[18] For more, see Carlos A. Bondone, *Theory of Economic Relativity*, under Keynes' Paradox

[19] For more, see Carlos A. Bondone, *Theory of Economic Relativity*, under *Liquidity trap*.

[20] For more, see Carlos A. Bondone, *Theory of Economic Relativity,* under *Currency demand paradox*.

[21] For more, see Carlos A. Bondone, *Theory of Economic Relativity*, *Currency Theory, Interest Theory, and/or Currency Causality*

[22] For more, see Carlos A. Bondone, *Theory of Economic Relativity*, *Currency Theory, Interest Theory, and/or Currency Causality*

[23] For more, see Carlos A. Bondone, *Theory of Economic Relativity*, *Currency Theory, Interest Theory, and/or Currency Causality*

[24] Though in the present text we refer to the Phillips Curve from the point of view of the positivity or negativity of its slope, the reasons why TET rejects it are presented in Carlos Bondone: *Theory of Economic Relativity*.

[25] For a complete and very sturdy study of the compared versions of the Philips Curve, see Adrián Ravier, *En busca del pleno empleo*, Unión Editorial, Madrid, 2010.

[26] For more, see Carlos Bondone: *Theory of Economic Relativity, chapter XVI.*

[27] He quoted from Joseph Schumpeter in his cruelly derogatory commentary on Menger referring to the theoretical developments in Böhm-Bawerk, in Carlos Bondone, *Interest Theory, Currency Theory* and *Economic Causality.*

[28] For serious study of Austrian aggregates, specifically those present in Garrison's chart, together with those in his own text, Roger W. Garrison, *Time and Money*, in Spanish edition, Unión Editorial, Madrid 2005, we especially recommend Adrián Ravier, *En busca del pleno empleo, Unión Editorial, Madrid, 2010,* that present an exquisite and profound comparative analysis, in best agreement with this work.

(29) We refer to the classic impossibility of explaining prices as a function of costs, if these in turn determine prices (the fatal error of causality). The theory of subjective value, in defining prices in the market, solved the problem considering "costs" as part of the theory of inputs.

(30) It is important to stress that the relation intervention-cycle is not homogeneous, nor identical, nor simultaneous in all related markets, given that interventions can be of different types, in the context of different currency-financial systems (see Carlos A. Bondone, *Currency Causality*, *Locke's problem*, where risk levels are ranked according to the adopted currency-financial system), and there are sections of the economy where there can be "parallel markets", etc.

(31) See Mark Skousen, Vienna and Chicago: Friends or Foes? (Capital Press, 2005).

(32) As can be seen in Marius Gustavson's works -2010 – The Hayek Rule: A New Monetary Policy Framework for the 21st Century, Policy Study 389, Reason Foundation, and Adrián Ravier and Peter Lewin - The Subprime Crisis, *The Quarterly Journal of Austrian Economics*, Vol. 15, Num 1, Spring 2012, pp. 45-74. Well elaborated works where they develop what they consider Hayek's proposal, based on statistical data, and the use of the quantitative equation highlighting the aspect of circulation speed as a kind of looseness variable to keep *VM* constant. We have presented TET's stance in this respect, to which we add that supposing a constant *VM* would lead Mises to suppose his famous model of uniform circulation, so he would reject this posture, since it implies supposing "no change" of the multiple *VM* and *Py* (price *P* by *q* amounts). We do not believe Hayek realized that his proposal meant rejecting the whole of Austrian economics, since it implies: 1) supposing there is no change in *P* or *Q*, or what is worse, 2) that changing *P* and *q*, there could be some Lamarquian genius that could find the way in which two variables in constant change could imply that their product would remain a constant.

(33) Proposals analyzed by Lawrence H. White, Peter Selgin and others, that try to explain how the system of free banking would work with no intervention in the markets. For TET intervention in currency markets and banking does not demand a special explanation, since it has all the aspects of interventions in any market, altering said market and all those related to it. It would be like pretending to analyze the workings of any free market based on the reality of an intervened market, and to reach the conclusion that the only explanation is that "exogenous forces intervene", *which does not require any "special" development, since the study of any market would be the same. All this corroborates once again the wrong approach of considering a currency as a "special" good that needs a different theory, what in other words we have referred to in the preceding section: Economic reductionism.*

(34) In reference to the origin of current theories by state currency authorities and banks in connivance with them, see Carlos Bondone, *Currency Causality*, section on the *Causality of central banks*, and other texts referring to currency and interest in TET, where we state the impossibility of the independence of central banks from political power.

(35) See Carlos A. Bondone, *The Curve of Human Evolution* and *The Curve of Human evolution* (Continued).

(36) For a more complete view of the precedents and basis recognized by TET, in the epistemological and economic spheres, see Carlos A. Bondone, *Theory of Economic Relativity, First Part and Second Part.*