TWO SIMPLIFIED MODELS TO EXPLAIN MONETARY LONG CYCLES BETWEEN ABOUT 1970 AND 2060

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Abstract: *Money was, until Keynes and Friedman, the great absence in economic literature. After them, relations between money and long economic cycles have been in their turn absent in debate. Perhaps this conform an explanation for logical and chronological relations between business cycles and long cycles been scarcely explored. Notwithstanding, is in those three directions where a new monetary theory should be researched for. This ought to be a more dynamic one. Thus, we can propose as economic models Porter's diamond, applied to money, and Monet value Chain. The aim is to reflect on a "social dimension for money" announcing than of monetary policy, and evoking meanwhile the rhythms followed by that perception and the means for managing it, along the long cycle. Still, it would mean bringing together macro economic model and strategic model, in a second step, in order to practically be more able to forecast and prevent conflicts, accumulate human capital, and allow a social project to emerge behind that sort of new long monetary cycle.*

Keywords: *model of monetary long cycles, institutional nature of money, Kondratieff cycles, diamond applied to money*

JEL Classification: *EO, E1, E6, E32*

1. Introduction

Money has been the big absent of economic literature for a long time. The model of the general equilibrium of WALRAS (1874-1877) doesn't include any currency.

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Practically, the invention of macroeconomics proved to be necessary, in order to discover money into the economic discourse, even though some precursors had existed. Because of the relatively new character of this theory (macroeconomics), and its broad challenging sixty years later, it appears enlightening to study together histories of facts and of ideas, as a shortcut so as to fully understand conscious aspects of science, together with more unconscious aspects during the period of depression. This stands in the core of our subject. Our problematic is to explore social aspects of money within the globalization process. Our proposal will be in fact more modest, risking to be intuitive. We propose a model of managing money today, as a means of asserting our own hypotheses about «social money within globalization», both for the studying facts, and as an argued conceptual frame.

2. Literature: which dynamic meaning for money?

2.1. Some literature about money and the lack

2.1.1. Money was absent of the economic literature for a long time

Money was the big absent of the economic literature, until the beginning of the XXth century. Nevertheless, its vocation had been defined since the very source of our civilization: for ARISTOTE (IVth century B.C.), money is «a creancy on somebody else's work». But its appearance as a merchandise-currency, until the end of last XIXth century, does'nt make money a very interesting subject with regard to the main character that it will take more and more all along during the XXth century: money is an institution, and has a lot to say about social links.

2.1.2. When the economic system is getting monetarized, in a diachronic «real sphere/financial sphere» equilibrium

At the beginning of the XXth century, one began to consider money, when differences, and possibly diachronic links between real and financial sphere were noted. For instance the distinction between monetary interest rate and natural interest rate, made by WICKSELL. Ideas of authors like WICKSELL, CASSEL, LEDERER, are symptomatic of the time of emergence of money as «institution of the whole society», particularly under its fiduciary form (before that period, very few people owned some money). But the society opposed huge resistances to monetarization. For instance, the banknotes were not really accepted in the French countryside before the years 1930. They were imposed during the period 1848-1850, and not for long, and the forced course of money was imposed during the 1914-18 war, which shows the undoubtful links between war and money.

ROBERTSON (1933) – for long a theoretician challenging KEYNES – showed the prodroms of a society getting monetarized. ROBERTSON introduced the State as a pure «predator» of economy: by creating money for itself, it appropriates a part of the production, whereas it is supposed to do nothing at the economic level.

Though, the reasoning can go further and contradict ROBERTSON's argument, by putting together theories of the money nature and of economic cycles. During the depressed periods, the State redeems private, hold by commercial banks, debts, thus nationalizes some title deeds and alters their nature through signs which, from financial become monetary. It buys private debts and transforms them into money with some sovereignty. Thus, crises give birth to the unavoidable monetarization of society, according to GAFFARD (1981).

2.1.3. Money between saying and doing: between macroeconomic law, and neutrality of the principle regarding the open question of the legitimacy of money

It is since KEYNES money has been given particular status. Still, for both Keynesians and monetarists, it indubitebly allows to integrate time in economy, in a century in which life expectancy has increased hugely. Together with the budgetary policy, money acts symetrically to the main financial institutions, so as to manage home and abroad territories, long time and short time.

In KEYNES's lifetime, HAYEK (1931) – KEYNES heard the juridical arguments of before finalizing his «General Theory» - explained that the main subject of money theories should be studying the conditions of its neutrality.

We wouldn't be totally objective without quoting a few European authors, in particular Austrian and German of liberal obedience, who clearly were the first to mention the social role of money on our activities. If HAYEK spoke about possible forms of competition between private currencies, which clearly - on a continent where money often was viewed through its forced rate and monetization accelerated during war periods – didn't make many people of "that Asiatic peninsula" confident in that institution,…conversely VON MISES straightaway used a pedagogy of economics taking into account "human action", that is a praxeologic approach of political economy. Moreover, several so-called ordo liberal German authors, following in the sociologist SIMMEL's footsteps - who, at the end of the nineteenth century, showed the extent at which human existence in today's societies is linked to teleological series serving as a guide and money, at least in its daily use, enables to manages those series -, coped with that matter and finally gave euro-favouring theories. But never KEYNES mentioned long cycles: on that matter, he was not ahead of FRIEDMAN.

Money is a sign that reveals, because of the forward race, a «third principle» for producers and products, for subjects and objects. Moreover, the more one invests in the long term, the more money can be created, that refinances other money. But money is a sign of indirect property, always standing against credit, a prisoner of the links nation / foreign country, short term / long term. It is possible that at different horizons, the property be altered. Isn't needed to investigate more social relationships? This point is to say that current macroeconomics connect very much money with credit. And that fails to reveal the sovereignty of money. One ought to show the fiscal impact and intelligence of money, which ought to be connected with a social project.

2.1.4. In a radically open world, new questions about the institutional social nature of money. A beginning of internal dynamics

Glimpsing the money internal dynamics, through which it can be an endogenous factor of development, means glimpsing how the «third principle» can be an endogenous factor, and what it assumes about the exogenous / endogenous link and, more broadly, about the link right / economy within the economic system. In order to make this quantian jump in studying money, it must be considered radically as a tool and stake in social relationships. Authors like AGLIETTA (1983), (1986), ORLEAN (1983) and LIPIETZ (1979), offer a prospect of potentially social links, as necessary drive in its nature analysis. It is in the long cycle itesef that money finds one's sovereignty. Because it allows to finance this social project. For instance with the Sterling Pound one century ago, there was an ambiguity between the extension of the moneterized sector the industry, and the extension of the geographical influence. It was a lack of social project, a preference for private property. Then with the dollar they achieved to balance private property and social property through proper negociatons, but at the end it is a money-credit, a confusion between debts and equities and a loss in monetary sovereignty because it triggers social and fiscal competition. Euro should add to this unbalance self property in order to come back to new stability: right to express oneself, to profit all long life education, to enjoy economic security.

LIPIETZ, and also AGLIETTA and ORLEAN (1983) go quite far. "The credit money departure line would be the circulation (fetichism), which may make hard to interpret any possible deflationist phase in crises (….) of capitalist economies, since the evolution of the pseudo validation rate (ante validation) can barely be connected with contradictions born in the productive sphere.» Hence money is only a partial regulation tool, which says legitimate property, but lets contradictions pile up, that will break into pieces this legitimacy through occurrence of crises. AGLIETTA and ORLEAN try then to grasp the links between subjects, so as to understand the money genesis. A «hierarchized system» is formed of two poles: a «homogeneous pole» (central bank pole), and a more related on private, competitive currencies «fractioned pole». The crisis is thought as a rearranging of property rights, of creancies/debts in other words. Private interests may try and contradict the supremacy of the central bank «sovereign money». How to explain that regulation, here always tarnished by conflicts, knows contradictions, such as deflationist or inflationist crises? «In the scope of a fractioned organization, the conflict between debtors and creditors turns fastly at debtors' disadvantage: the former can't go and see the Central Bank in order to get refinanced, it is the deflationist process», which may be fueled by depression: «during a crisis, the monetary organization can get transformed, from a centralizing to a fractioning tendency. The subjects say they are in a state of account unity, then suspect that others are not in the same state. This feature is deeply dialectical, stamped with confrontation and dependency. The dialectic between two types of Keynesian prices, anticipated supply price (ex ante), and effective price (ex post), would reveal assumed "deficits", leading to creditors-debtors confrontations. Then, the homogeneous system (central bank money) can only ratify (inflationary refinancing) or exclude (deflationistic devalorisation) reevaluation processes. Homogeneous money would be inflationistic in essence: it homogenizes agents through acceptance of inflation.

So, one can go further into the analysis of the money nature as a tool of management of property rights, as for the double link right/economy and future / present. With the money endogeneity hypothesis and by deepening the analysis of credit and its validation, at the heart of social relationships, we have a better knowledge about what money is and what it might become, either we speak of its legal forms, civil or commercial, or of its authority wrap, of its attributes for governing people's life.

2.2. Literature about long cycles and the lack

2.2.1. A difficult link between business cycles and KONDRATIEFF cycles

A number of elements that concern KONDRATIEFF cycles are still considered as pure "beliefs" by orthodox economists, even fictitious (SAMUELSON). This doesn't invalidate at all the very existence of long cycles, discovered by KONDRATIEFF.

Generally speaking, besides SCHUMPETER's approach, the KONDRATIEFF cycles seem hard to connect with shorter cycles, like JUGLAR's or KUZNETS' ones. They obey to radically other considerations: they are structural, and connected with aspects relying on the proper evolutionist man psychology, not only on purely speculative moves, as one can note it about the JUGLAR cycles, with their six years climbing period and five years falling one in investors' speculative behaviour. KONDRATIEFF cycles (1926) give certainly the opportunity, particularly during depressive periods, to anticipate a tendencial evolution of the system, through a whole range of innovative processes, whether social, educative, or related to health, politics, also national or international, monetary, not only technological as with SCHUMPETER.

That is why, since twenty or thirty years, theories of political long cycles have emerged.

2.2.2. A difficult link between long cycles and money

Actually, synthesizing new approaches developed since thirty years about the KONDRATIEFF cycle, could lead to a monetary theory of KONDRATIEFF cycles. What are they?

- ✓ **Political approaches**

MODELSKI (1987) (2005) and GOLDSTEIN (1988) introduce the notion of political long cycles, lasting hundred and twenty years for MODELSKI, one hundred and fifty years after GOLDSTEIN, i.e two KONDRATIEFF cycles. One political cycle lasts two economical cycles. Their aim is to provide an evolutionary approach, whereas SCHUMPETER, regarding evolution, held on "creative destruction", without adding much more social democratization plusvalue.

- ✓ **Biological and psychological approaches**

DEVEZAS (2001) defends, with CORREDINE (2001), the idea that the length of the KONDRATIEFF long cycles, around fifty-four years, is equivalent to the man's inner clock. It is the time length during which a well-qualified and adult person, can have some political and economical influence on his social relations.

- ✓ **Some beginnings of monetary approaches**

And then the theory of monetary cycles, which would last about seventy-five to ninety years. DUPRIEZ (1966), after MARJOLIN (1937), had already developed a theory of long cycles. But, contrary to MARJOLIN (1937) who only had dealt with long cycles related to phenomenons of discoveries and exploitation of precious metals, DUPRIEZ has elaborated a method for studying also monetary long cycles connected with credit, i.e fiduciary or scriptural money. DUPRIEZ thought that KONDRATIEFF long cycle was a monetary phenomenon, as it enables to finance and insure secular progress. Political heads of the society must take into account this fact, and it's needed to manage both business cycles and the KONDRATIEFF cycle, without forgetting any transcendental thought. As a matter of fact, in social disturbances triggered by the long economical moves, DUPRIEZ considered that social, monetary and psychological aspects were closely related. From which that advice regarding the Central Bank role in order to prevent untimely political sudden changes of direction to face situations which have turned badly.

BERRY (2005) takes up this KUZNETS-SCHUMPETER's pattern, too, to shape a political-economical theory of long cycles, which looks like a monetary theory. Although it is limited to the American System.The KONDRATIEFF cycle is described as containing three KUZNETS cycles, illustrating three different ways to manage money. During the first KUZNETS, the policy is governed by Conservatives, economy surfs on a technological revolution, the monetary policy is rather deflationary. Values are traditional, and America is turned inward enough, but social inequalities grow up: as a result, the second KUZNETS is shaped by more moderate a policy. America has to face wars (war Mexico vs USA), which casts doubts about it borders. It is an era of political reforms. The monetary policy is normal. The third KUZNETS is a period of growth, but also a period of reflation, things are getting out of order. America thinks it has a messianic role, but faces wars that put it into question in the very core of its national project: Civil War, First World War, Cold War. Dollars are created plentifully, bringing back a more conservative policy.

Money can not be completely put out of the concerns about long cycles. GUTTMAN (1990) had well studied the structural evolutions of the dollar. There's a need to distinguish the monetarization free period, in the nineteenth century, with sequentially regulation through price competition, and the nineteen thirties posterior period, which opened the way to more graduate and moderate a form of structural crises, the stagflations, with still rising prices, along with credit, so that it is tried to lengthen the cycles, even to rub them.

Indeed, the monetary dimension existed in KONDRATIEFF's theory. The variation in gold markets, and its impact on production, is one of the four poles and the most "super structural" of BOCCARA's presentation (1993) of the long cycles theory, whereas the most "infrastructural" one is related to demographic moves, with social moves and innovation in the middle. But the matter was gold only, and this dimension is completely outdated, and must be extended to credit money, particularly, and beyond, to new models of the sovereignty of money to insure an economy, no longer based on private capital and products, but more on human capital (referring to social property and self property).

Two current approaches should be pointed out.

RUMYANTSEVA (2005), of St Petersbourg's University, shows that evolutions of the monetary mass are parallel to those of fuel production. This approach emphasizes the link between demand (represented by money) and supply (represented by the energy extraction technology, which would change with each KONDRATIEFF cycle, according to AYRES (2005) and others). It is of interest for us, because it insists on the dichotomy between two sectors. But also doesn't money identity have to "mark" reciprocal and diachronic property links between two sectors, whose opposition and power relationships inform on the degree of "economic evolution" SCHUMPETER was the first to mention importance of? With an agricultural sector (non monetarized for a long time), and an industrial sector (the first to be monetarized), the energetical technology change marked the moment of KONDRATIEFF changing. Now that the dialectic is extended to services, to communication (all monetarized sectors), it's no longer energy management, but that of information, which would fall over a new KONDRATIEFF. And the process, being less material-based on, might be less conflictual, going together with the increased monetarization of socio-economical forms. This process is brand new at the world level. Managing human capital means preventing and managing conflicts.

CHISTILIN (2005), of Dnenopetrovs'k University, introduces a data table, linking KONDRATIEFF cycles, the evolution of international relations, and the evolution of monetary regimes. He notes seventy years long cycles (one KONDRATIEFF and a half), divided into one phase of long fork (called the "bifurcation phase") in the monetary regime (fifty years: from 1825 up to 1875 for the Gold Standard System, from 1895 up to 1945 for the Bretton Woods System, from 1965 up to 2015 for the System stemming from Jamaica agreements) and a twenty years long phase, called the "adaptation phase".

2.3. Some management literature, in order to study the internal and dynamic aspect in a more intuitive way – Summary of the contest

All in all, what is the matter?

We are working on a field standing at the border of economics, politics, social matters.

We want to develop an inter sectorial and international, dynamics catching approach, considering money as this ambiguous tool, bearing both tensions and means to alleviate them, in a pure logic of social link building, useful in this - monetary and financial - globalization context.

Beyond the issue of the very monetary cycles, we are working on how to introduce that monetary tool for it to reveal its whole potential. We are borrowing models of authors in management and adapting them to money. Their knowing is very valuable, first because one determining set of problems in today's world is not so much to develop well balanced macro economical models – like that of the inflation–unemployment dilemma which is the problem of developed, autonomous and independant countries – but often rather to copy, to fill one's temporal gap, to become integrated into a value chain. Answering such a question of world managing could well lie in marketing and logistics, as well as in classic macroeconomics. That is why we use the works of PORTER (1990), which enables to consider, in this article's scope, money as a sort of meta company, an enterprise based on language and reckoning, justifying our choice to introduce the idea of a value chain of money.

3. Proposal: to build a very schematic repraisal of the value chain that money constitutes

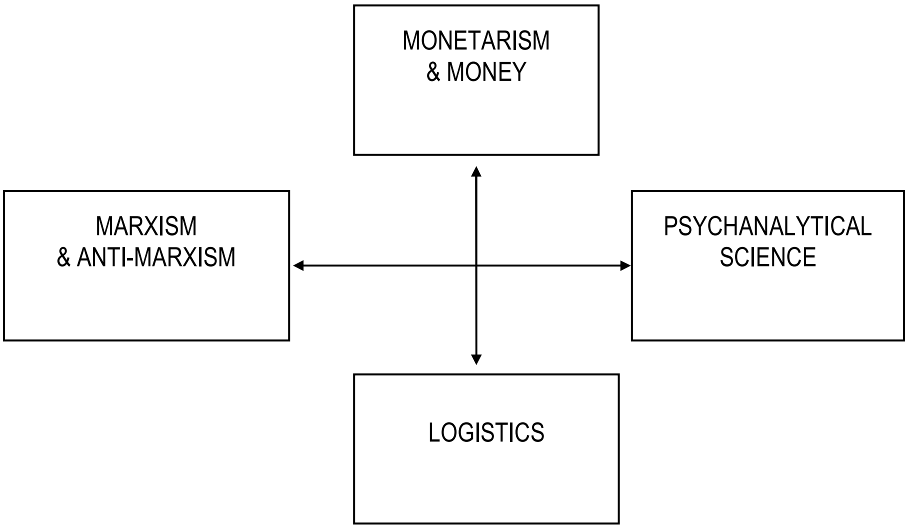
3.1. The Diamond Applied to Money (D.A.M.)

We conceived the D.A.M. (Diamond Applied to Money), inspired by the Diamond of PORTER (1980), showing that companies are placed in a field of forces. The matter is to prove that this field of forces exists and enables to study the history direction, by considering that money is the main tool to build a history, that of conflicts to be solved (and not actually solved).

We are about to explain the kind of "language" linked to this model of the world and of the monetary phenomenon. Beyond any semantic quarrel, "static" though necessary, we must explain the dynamic meaning of our conception. Money includes an "including the opposite" principle, which means that the monetarized sector restructures the unmonetarized one.

Which means that money tries and integrates logistics, about the story of conflicts and crises. And laterally, there are two symbolic kinds of frameworks of thinking to control this evolution by understanding it: Marxism, which has much to say about material conflicts, so when the apprehension of time constraints proves to be urgent. And psycho analysis, and its eternal time perspective in our psychology.

Diamond Applied to Money:

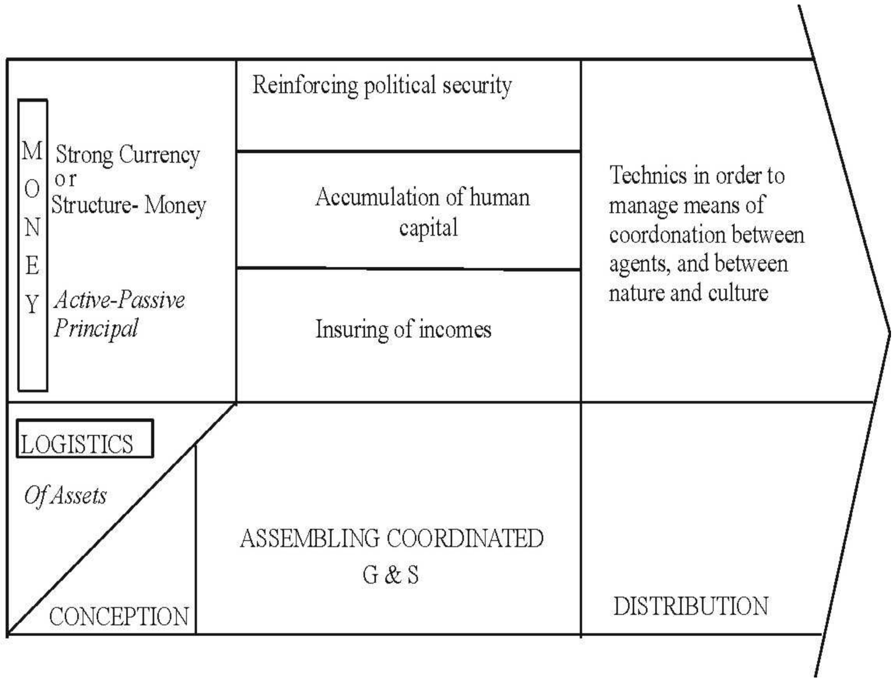


So we see a dynamic tension, and a dynamic relationship between infrastructure and superstructure…

3.2. Logistics or putting at disposal goods and services

And at the end, what can we say about logistics?

Money and logistics, in the field of management, are antagonistic. Money is a public outcome of exploitation, an abstract ratio of force, under many aspects, becoming concrete only through the "transfers" it allows, which enables a permanent move, which always deepens a security link, while it enlarges the space for an economic conquest: one pace back, two paces ahead. Logistics is the field of concrete things, defined as a science "making goods – and services – available". Thus, borrowing another model of PORTER (1980), and speak of the "value chain of money", in a symetric relationship with its logistic activities is relevant.



The similarity with the PORTER model is important: the difference is that instead of having the general services of a company in the infrastructures, it's the currency which is an implicit management and coordination system of assets or activities. Money "covers" these activities, helping them get realized. The value chain could be subdivided in three, each one standing for one phases of the KONDRATIEFF. Obviously values and assets of money will differ depending on the phase: collecting and making monetary reserves (phase B), with monetary credit going on (phase A), or in a squandering phase of the strong currency, and its replacement by another strong currency (what we call the phase C, in fact another phase B). This model illustrates the links between the monetary sphere (money) and the real sphere (logistics, broadly speaking).

We place ourself in the scope of the coming new KONDRATIEFF cycle which could be a monetary cycle referring to euro constitution, expansion, decline. That is why we can speak about accumulation of human capital, political security and ensuring peoples's revenues, because we said that the new economy would also be about preventing conflicts more than we were able to do. There is some competition about monetary competition the so-called "strong currency": so there is this phase of constituting reserves. Then a phase for coordinating for actively preventing oonflict and allow the personal development of every body. After 2015, the euro economy will need to have a model of risks arising in the world and to be able to prevent them. So self property against private property. And more and more, with third phase, distribution of sort of fiscal and social positive effects: back to social property probably.

3.3. Reproduction in complexity

The economic system is complex. Adjusting the stocks / fluxes, goes through taking, on one side, stocks of human capital, and on the other side money fluxes. Also, reproducing the system is done by conveying unbalances. On one side the production, on the other side the conception, the third element being money. So many models to show that a model of the sense is needed, indicating what meta language the economic system conveys. It can't be perceived at first glance, but is detectable paying attention to it. That transforms all parameters: security, expenses, communication, personal enrichment, patrimony and organizations management…

4. Conclusion, limits, and inputs

All in all, we can conceive money as a matrix of the permanent restructuring of credit links between agents, regions, and sectors, on one side, and incorporating its opposite, on the other side, leaning on a few great logics pertaining to diverse human sciences (marxism, psycho analysis, but also links between money and logistics). And on the other side, this can be projected in time, in order to measure its effectiveness (ability to actually "incorporate its contrary"), and to manage it effectively.

But a social theory of money still widely contradicts an international or globalized theory of money. Our model is heuristic and will be mainly interesting only if one day the "monetarized sector" of the world economy can effectively dominate, quantitatively, the "non monetarized sector", which, as yet is far from being so ; and if, in addition, at the world level, a form of "harmonized social rights" takes place, what is not so, either. Some indices tell us that is a possible exit for the current System Crisis. Because more than half of the countries in the World are currently monetarized, the "integrate its opposite" principle should get realized in the coming decades. Now we would need to use the complementarity between strategic and macroeconomic models to forecast, prevent, manage the accumulation of human capital and solve conflicts during the next long cycle.

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