POST-KEYNESIAN INSTITUTIONAL ECONOMIC ANALYSIS:

SPENDING DECISION STRATEGIES AND SYSTEMS

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CONCLUSION: The model of post-keynesian institutional economic analysis allows the identification of spending decision dominant agents, strategies and systems as a base to establish efficient institutional economic policies and innovations from any ideological matrix.

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POST-KEYNESIAN INSTITUTIONAL ECONOMIC ANALYSIS: SPENDING DECISION STRATEGIES AND SYSTEMS.

INTRODUCTION: the one century backwardness of economic science and the sub-performance of national economies.

Until today, in the end of the XX century, the economic science is dominated by classic/neoclassic theories developed in the XIX century. In a parallel to astronomical science, the presuppositions of these theories are equivalent to the presupposition that it is the sun that circles around the earth and not the contrary. Galileu Galilei was considered an heretic by "pseudo-astronomers" or "primitive astronomers" that were really interested in religion and in the religious method of knowledge (they argued that the Bible said the contrary) and not in astronomical science or the scientific method of knowledge.

Sismondi (1819), Malthus (1820), Marx (1867-94), Kalecki (1933-70) and Keynes (1936) disagreed with "Say's Law" (Say, 1803) (Ricardo, 1817) (Mill, 1848) that in a market economy the supply of goods and services creates its own demand (nominal and real supply, income, spending power and demand are equivalent). They were the forerunners of the "principle of effective demand" that it is the aggregate nominal demand that determines the aggregate nominal supply of goods and services and not the contrary. They were/are considered "heretics" (statists, socialists, interventionists, opposers of "capitalism" and "free market", and even of "individual freedom") by "primitive economists" that are really interested in promoting/preserving their ideology/ ethics/ morality/ religion and not in economic science.

Marx (1867-94) followed in the same deviation of analysis and used his economic theories to counter-promote his ideology (socialist system of collective property of the means of production) forecasting the "inevitable/necessary" end of the dysfunctional capitalist system of private property of the means of production (the "under-consumption" caused by the concentration of income in the hands of the capitalist class generates chronic problems of reduction of profit rates, wage reduction, unemployment and eventually an uncontrollable/revolutionary dissatisfaction of the labor class).

Keynes (1936) instead kept his focus in the economic science trying to demonstrate how the capitalist system/market economy really worked and how it could be perfected. For Keynes (1936) real and nominal supply, income, spending power and demand were not necessarily equivalent because money could be used as spending power reserve and this one does not depend necessarily on previous income, and can be increased via credit which in turn does not depend on previous savings. Independent economic agents make spending decisions or of reserve of spending power that are independent of previous supply/income. The future income depends on the uncertain spending decisions of the other independent economic agents. The autonomous decision is the spending decision and is this one that determines the nominal supply of goods and services and not the other way around. And this last one will not necessarily be equivalent or tend to equivalency with the real aggregated supply of goods and services.

The principle of effective demand has the opposition of neoclassical economists, that could even be sincerely interested in the advance of the economic science and not in preserving/advancing their ideology, but they commit theoretical and scientific methodology mistakes accepting mistaken/normative (idealized) implicit or explicit institutional and behavioral presuppositions. Keynesian

economists are also victims of the same theoretical and methodological mistakes as institutional and human behavior innovations are introduced in the economy.

This one century backwardness has tragic consequences in the degree that the sub-performance of national economies affects the majority of the world population still living under precarious life conditions. Economic growth rates (with low inflation) could be substantially higher if the neoclassical economic theory returned to the course of "history of economic thought". The neoclassic/ neoliberal/ conservative and their primitive equilibrium theories (with their religious-ideal of a natural/universal social-economic mathematical logic that explains the “invisible hand” of the market) contributed to take the liberal-capitalist system to the border of the abyss (the great depression of the 30s) and to the development of alternative totalitarian systems (fascism and communism). The keynesian/ structuralists/ institutionalists/ progressive contributed to rescue the liberal-capitalist system of the great depression and of the fascist/communist “totalitarian hell”, and helped take the main industrial nations between 1945-80 to the longest period of growth and income distribution of human kind history.

Taking advantage of political-economic pitfalls (price shocks of the petroleum cartel in the seventies and the excessive political expansion of the monetary base, specially American, that followed specially to pay the first ones with paper and paint: “petrodollars”, that would not be inflationary if they had been hoarded, but they where recycled by the financial system, specially for floating interest rate loans to underdeveloped nations, caught subsequently with high interest rates in the American anti-inflationary counter cycle policy in the beginning of the eighties) the neoclassic/ conservative/ neoliberal once more “joined the winning side” and sold their conservative

"mermaid singing" to politicians/businessmen and to the prosper and "full belly" society. Starting in the eighties, they contributed to sink the world economy again in stagnation and low growth, with special damaging effects on countries that still hadn't achieved a minimum state of prosperity/well being among its citizens. The results only were not more catastrophic because of the eventual use of keynesian/ structuralist/ institutionalist policies, increasing the traditional vegetative average growth (following the population growth) of the neoclassic model from the usual 2% to 3%, when there could be consistent growth between 5% and 10% by the regular use of scientific non-neoclassic fiscal, monetary, exchange, commercial, industrial and income policies.

To sink an economy in stagnation or low economic growth it's enough to give free power to a neoclassic economist in the management of the economy. For his capacity to sink the aggregate demand and destroy growth (specially because of the promotion and permissiveness to privileges and income concentration, what is a counter-sense in democratic societies where in theory the economic interests of the majority should prevail, and a shot on the own foot of the higher income classes because the increase of aggregated profits could decelerate or turn negative) these economists could in theory be used temporarily to contain demand inflation, but they should be discarded immediately once the objective becomes to grow more than 2% a year. There is however, as it will be discussed ahead, other more advanced institutional mechanisms, with income distribution neutrality, to contain or increase the aggregated demand or to administrate the consumption/investment relationship, as the fluctuation of compulsory contributions over income and/or consumption. These resources can be channeled to investment or social security individual funds that in turn can underwrite stocks in the primary market for projects of expansion of the real production capacity, or buy/sell counter-cyclically stocks in the secondary market.

Another fundamental issue for underdeveloped countries is the adequate development of national capital and technology accumulation, ignored by the neoclassic theory which prescribes for example the opening and free mobility of capitals to supply a supposed lack and need for “foreign savings”, taken to the extreme of internationalization of national monetary and financial systems (total or partial dolarization of the national economy for example). These policies have worsen and handicapped the national capital and technology accumulation with disastrous consequences to growth and income distribution. The low performance of the growth of the GDP (Gross domestic product), masks the even worse performance of the GNP/GNP per capita (GDP minus foreign income sent abroad), and what is more important the negative growth of the national income appropriated by nationals or residents (total and per capita) or the national income appropriated by the 95% or 99% of citizens with lowest income.

The first objective is to distinguish different scientific methods, schools of thought, theories and models of analysis to identify the origin of the one century backwardness of the economic science and of the sub-performance/low growth of national economies, and to make it possible to use this scientific field to establish economic policies and institutional innovations of any ideological matrix.

The second objective is to create a model of economic analysis normatively neutral (compatible with the institutional scientific method) with institutional and economic agent behavior variables representative of the temporal (passed/present/future) and geographic (specific national economies) diversity of the object of analysis (economy) serving as an instrument for the diagnosis (identifying dominant institutions and behaviors) of passed

("historical economy") or present ("positive economy") national economies and as a tool for future planning ("normative economy").

The third objective is to create a model compatible with the Keynesian "principle of effective demand" of an entrepreneurial monetary economy (nominal aggregated demand determines the aggregated nominal supply) in opposition to neoclassic "Say's law" (aggregated real supply creates its own aggregated real demand).

The objective is therefore to combine the institutional scientific method with the post-keynesian school of thought in a scientifically correct model, opposing the "pseudo-science" not only of the pure neoclassic school but also of the neoclassic synthesis because these are in fact primitive normative models (have ideological/ ethical/ moral/ religious presuppositions), scientifically incorrect and obsolete. These conservative primitive doctrines dominate the courses of economics and the profession of economist in the present world with disastrous consequences for the majority of the world population that still live in conditions of economic underdevelopment and need high growth rates.

I – THE INSTITUTIONAL SCIENTIFIC METHOD: MODELS OF ANALYSIS WITH INSTITUTIONAL AND ECONOMIC AGENT BEHAVIOR VARIABLES.

1) The primitive neoclassic scientific method and the limitations that contribute to the one century backwardness of economic science: models with absolute, abstract, nonhistoric, primitive institutional and economic agent behavior presuppositions.

A scientist must identify the explicit and implicit presuppositions of a theory as a way of testing/questioning its conclusions. Neoclassical economists adopt institutional or human behavior presuppositions, often not explicit, in their theoretical formulations, that they judge to be unquestionable or absolute. This characteristic is usually attributed to "nature", something that is beyond human control and for that must be accepted as an absolute presupposition (immutable, common to all humanity in all times, independent of culture, personality or state of mind). The presupposition of hedonist/ materialist/ egocentric/ individualist behavior (to seek individual satisfaction/pleasure and to avoid sacrifice/pain, which is usually consequence of fears and desires caused by an authoritarian punishment/reward educational philosophy) is an example. They also adopt non-real or abstract institutional and human behavior presuppositions because they judge that this simplification doesn't influence significantly their conclusions. For the same reason they adopt non-historic or primitive institutional and human behavior presuppositions which existence goes back to the XIX century or even the middle ages. The institutional presupposition that defines the operation of the "market" as if it was a place where producers gather periodically to exchange their merchandise using an auction system is an

example (price fluctuates to adjust to the demand and to zero the supply inventory).

This methodology distorts substantially the object of analysis leading to mistaken theoretical conclusions and economic policies. In social sciences, including economic science, the scientist is part of the object of analysis, so he must use a method of analysis that neutralizes possible distortions caused by this peculiarity, including avoiding that his ideology/morality/ethics/religion/"philosophy of life" (that are part of his individual rights) interfere in the selection of explicit or implicit institutional or human behavior presuppositions. These will be the foundation of a theoretical construction that in turn will be the foundation of economic policies that are on the group of collective rights of the citizens or members of any institution. There can't be presuppositions of a determined behavior/institutional unity or dualism where in fact, of right or potentially there is institutional and behavior plurality. That is there can't be fixed and determined presuppositions of what is variable and mutable in the short, medium and long term. Institutional and behavioral conservatism is the main motivation for the use and development of these wrongful or primitive methodological practices that are a characteristic of social and economic "neoclassicism".

Scientific dogmatism (conservatism or resistance to innovations/progress, specially those that affect current institutions) is caused mainly by the punishment/reward (utilitarian/ materialistic/ religious) authoritarian educational philosophy that develop fears/desires (seeking control) and sets acquisition of knowledge (and its application to work) as a necessary sacrifice to attain satisfaction and as a consequence sees new knowledge as a threat to the secure institutional knowledge and source of income already obtained or "secured". It's perceived that it will require great sacrifice (additional pain/suffering as occurred in the past in these authoritarian educational

systems) to acquire new knowledge and/or "endure" institutional innovation (compromising secure sources of income and privileges/status quo) which will/can be avoided by knowledge and institutional conservatism/dogmatism. However, new generations (not carrying the burden of old ideas) and "free minds" (individuals that acquire knowledge and act by free will, not having a high degree of fears/desires/defenses/secure knowledge attachments) eventually breach these barriers. Art (free/non-attaching method of knowledge) precedes philosophy/religious dogmatism (or attachment to "secure"/ absolute knowledge) which are usually imposed by authoritarian institutional figures seeking control over the object of education. Innovative scientists use art and philosophy/experience (within art its non-attaching tangible knowledge, but influenced by religion and emotions can deteriorate to dogmatic/pragmatic, absolute, attaching and secure knowledge) as a method of knowledge. So called "geniuses" in fact just have a more free/artistic state of mind which is potentially accessible by any human less limited by illusions of fears/desires put on them by figures of authority seeking to control them.

Dogmatic/conservative social scientists (seeking mathematical, natural, biological, secure, absolute knowledge, inheriting the methods of the pioneer scientific fields of physics, biology and chemistry) tend to be stuck to past ideas, while pragmatic scientists tend to be stuck in the present to ideas that have immediate application. Both would be ignoring the future, where innovative/creative/artistic scientists tend to be focused or pushed. Art can be seen as the natural/free/original method of knowledge with a greater potential than any other method of knowledge. Past/present/future ideas can be accessed without attachments, providing more efficiency, satisfaction, freedom, creativity, fairness, happiness or any other criteria of assessment/measure of value. The art of

science/philosophy/experience (search for tangible knowledge with no emotional/religious attachments) will generate better results than the religion of science/philosophy/experience (search for absolute truths with emotional/religious attachments).

Educational systems based on free will, entrepreneurial, democratic and creative environments generate more/better science progress. "Insecure" individuals (with a high degree of fears and desires resulting from exposure to a high degree of punishments/rewards, even though they may defensively project an appearance of security) in position of authority tend to abuse their power to protect what they perceive as a threat to their privileges or status quo (that they believe secures them from their fears and desires) and invade/violate basic individual rights of others to seek control and limit progress/freedom. In most nations the family and enterprise institutions are still a source of "authoritarian education" contrasting with the state institution (at least in constitutional/legal democratic theory) and artistic/ informal/ friendship environments where freedom is “natural”/valued and generate/influence more innovative scientific progress.

2) The Keynesian scientific method and the limitations that avoid the definitive rupture with the neoclassical primitive methodology: models with relative, realistic, historic, modern institutional and economic agent behavior presuppositions.

Keynes (1936, p.3) mentions that "the characteristics of the special case assumed by the classical theory happen not to be those of the economic society in which we actually live, with the result that its teaching is misleading and disastrous if we attempt to apply it to the facts of experience."

Keynes (1936) identifies absolute/abstract/non-historical/ primitive institutional and human behavior presuppositions of classic/neoclassic theory and proposes its substitution for relative/ realistic/ historical/ modern presuppositions. This alteration leads to different theoretical conclusions and proposals of economic policy and institutional innovation. The presupposition of behavior based on the dualism of satisfaction/sacrifice under a predictable future is replaced by the dualism security/risk under an uncertain future. The institutional presupposition of a primitive market of auction exchanges is replaced by a modern monetary retail market.

These presupposition updates lead to different theoretical conclusions: nominal aggregated demand (spending) determines nominal aggregated supply ("principle of effective demand") instead of "supply creates its own demand" ("Say's law"). This conclusion generates different propositions of economic policy and institutional innovation with the goal of an active administration of aggregate demand instead of a passive administration as proposed by neoclassic economists (because the supply will create it's own demand).

Neoclassical economists reacted to this theoretical demolition rescuing their presuppositions with several theoretical "acrobatics": (1) blamed errors to distortions/imperfections caused by the unnatural intervention of the state or union workers in the market (the reversion of this intervention would revalidate their presuppositions and their theories: flexible wages, ending minimum wages for example); (2) non-explainable errors were renamed as “natural errors” (“natural rate of unemployment”, “natural monopoly” for example); (3) introduced the presupposition of "rational expectations" that the agents behave based on the economic models on which they base their decisions; (4) accepted the introduction of new presuppositions only if they did not

affect their equilibrium models and general conclusions (for example the speculative demand of money and not only for the transactional demand because of the expectation of decrease in prices of other assets).

The IS-LM equilibrium model of interest rate determination (Hicks,1937) adds the supply and the demand for money (including speculative demand) to savings and investment for the determination of the interest rate in the capital markets. The temporary administration of the aggregate demand to avoid or correct “disequilibriums” (inflation, recession) with counter cycle monetary policy (expansion/contraction of the supply of money) and fiscal policy (increase/decrease in taxes and public spending) and “anti-trust laws” also were incorporated to the arsenal of economic policies as a “necessary evil” to correct "unnatural" market artificiality (inflexibility of prices and wages caused by trusts and unions). “Say's law” and the neoclassic presuppositions continue valid. This revision is in general defined as “neoclassic synthesis”. Hicks (1976, p.289-90) eventually repudiated his own model recognizing that it reduced the general theory of Keynes (1936) to neoclassic “equilibrium economics”: “I must say that the IS-LM diagram is today less popular with me than it is with a lot of people. This one reduces the General Theory to equilibrium economics".

Other economists rejected the introduction of new presuppositions (such as the speculative demand for money), active monetary policies, active fiscal policies and any type of corrective intervention of the state in the economy since it caused more problems in the medium and long term or are even useless in the short term. They defended the elimination of unions and minimum wages (flexible wages with the remaining unemployment being blamed on a "natural unemployment rate"); although existing oligopolies and monopolies tend to be classified as "natural"; "non natural" state taxes and regulations should be reduced or eliminated. Examples are Friedman (1956)

and other “monetarists” that were faithful to the classic/neoclassic pre-keynesian theory and to the money quantitative theory of Fisher (1911) (model in which money has only a transactional function and not of reserve) defending monetary expansion at a fixed rate proportional to the "natural" growth of the economy.

The peak of the theoretical acrobatics is the theory of "rational expectations" developed among others by Lucas (1972-78) e Sargeant (1978) ("new classics") where the behavior of the agents are in the end attributed to the neoclassic model itself. The explicit presuppositions are that the agents use all the information and economic theory at their disposal and that the prices/wages are flexible. The implicit presuppositions are that the agents behave as the neoclassic theory presuppose, that the institutions work as presupposed by the neoclassic theory and that all the markets are in equilibrium as is concluded by the neoclassic theory (the imbalance in the work market is attributed to the inflexibility of wages or to the "natural" rate of unemployment). "Unnatural" interventions of the state would be neutralized once the agents would anticipate these artificial actions. This version of this presupposition of behavior and the neoclassic economic model supposedly "positive" are in fact "normative" and spread out specially after their authors received the Nobel prize in economics.

As the last resort the economy works this way because the economy used to work this way and should work this way in the future. There's nothing scientific in this or other neoclassical models, these are simply normative models of how the economy should work in accordance with neoclassical ideological/ moral /ethical/religious presuppositions. The definition of what is "rational" is a presupposition of behavior. In fact "conservative" individuals could base their decisions mainly on passed idealized patterns/models, however "progressive"

individuals base their decisions in future idealized patterns/ models. If the object of analysis (economy) don't validate the neoclassical theory and its conclusions, the object of analysis was/should be modified instead of the theory.

The keynesian security/risk dual behavior presupposition under an uncertain future can be considered more general and realistic (more agents could be detected following this pattern of normative behavior to make economic decisions) than the dualism satisfaction/sacrifice under a predictable future of the neoclassic theory (unpredictable phenomenon can be studied and neutralized with probabilities and insurance schemes).

The "pure neoclassic" and "neoclassic synthesis" theories ratifies "Say's Law". The neoclassical presuppositions dominate the courses of economics, and the "neoclassic synthesis" lost is preponderance at the end of the seventies and today divides the space "half and half" with pure neoclassics (monetarists and new classics). The strength of these theories are not scientific but political, because of its conservative/status quo nature. Friedman and Lucas won the Nobel prize of economics with theories scientifically primitive created in the nineteen century. The Nobel prize considers as science the method developed in the exact and biological sciences which are inadequate for social sciences because the scientist is part of the object of analysis, requiring a specific method to neutralize the scientist's ideological bias (he will tend to take for granted his behavior and institutional beliefs as presuppositions instead of variables). These theories are based on ideology and not in economic science. The keynesian presuppositions and the principle of effective demand are minority and diversely represented by a school of thinking denominated post-keynesian.

The "calculated mistake" of Keynes (1936) was to use the neoclassic primitive scientific method of institutional and

human behavior presuppositions and to reduce all the analysis to bidimensional models expressed in mathematical functions and graphics (following the methodology of exact and biologic sciences from where originated/originate many neoclassic economists). The advantage of using the dominant methodology would be to facilitate the spread of the new theory in the academic world. The disadvantage would be for example the easiness of a theoretical counter attack simply by substituting the "positive" (how the economy is) for a normative presupposition (how the economy should be) disguised with the label of "natural". Inflation, recession, inflexibility of prices and wages are attributed to the "non natural" action of the state or unions/cartels/trusts. And when the state can't be blamed the mistake is blamed on nature ("natural unemployment rate").

The neoclassic economists use the deductive method but fail to confirm there presuppositions and conclusions with the inductive method, which Keynes tries to correct by finding empirically verifiable presuppositions and conclusions. But his method is also primitive and does not accurately represent the object of analysis which has as a fundamental characteristic the dynamic change of institutions and human behavior in time and space. When institutional (system) and behavior (strategy) innovations are introduced in the economy the keynesian models also suffer/can suffer similar problems as the neoclassic models. Also changes in space of analysis (national/regional economies) will produce similar problems.

Institutional and human behavior modifications/innovations are the most fundamental presupposition of analysis of an economy and the most fundamental presupposition of analysis of a democratic and free enterprise society that the neoclassic claim to defend. Assuming these are given/fixed in the "short run" is a

fundamental and unjustifiable distortion of the object of analysis. As Keynes said in the "long run" we'll all be dead.

Updating the model of analysis with new, more precise institutional and behavior models is a limited exercise because the model will have a geographical (national economies to which they apply) and time validity unjustifiably limited. Models that incorporate the institutional and human behavior dynamism of the object of analysis is the adequate scientific solution because they don't distort the object of analysis.

3) The institucional-evolucionist scientific method and the limitations that avoid the definitive rupture with the neoclassical primitive methodology: models with economic agent behavior presuppositions and institutional variables.

Marx (1867-94), Veblen (1898-1919) and Schumpeter (1939-42) are examples of economists that sought to incorporate the institutional dynamism in their models of analysis. They sought to define human behavior presuppositions and to explain based on these the institutional evolution of the economy.

The classic/neoclassic models of analysis have an individual interest presupposition of human behavior (under the hedonist dualism of satisfaction/sacrifice) that they concluded would benefit and solidify the current ("natural") institutions of "free market" because they produced benefits for all.

The above economists rejected such a presupposition of individual interest behavior or the conclusion that this one would produce harmony of interest and validation of current institutions. They substituted that one for the presupposition of collective interest of class and that this

one would produce conflict and institutional transformation instead of harmony and institutional conservation.

Marx (1867-94) emphasizes the conflict of interests between workers and capitalists and that the presupposition of search of the collective interest of class would lead to new economic institutions (collective property of the means of production). Veblen (1898-1919) emphasizes that the conflict of classes and the imposition of "thinking habits" of the strongest class (collective interest) molds the current institutions ("leisure class"/non-workers versus workers or financiers versus engineers/workers).

Schumpeter (1939-42) emphasizes the conflict (competition) between established enterprises versus innovative entrepreneurs generating financial/technological innovations that justify and revitalize capitalism (the capitalist class). But this conflict tends to disappear as the established enterprises internalize and bureaucratize the entrepreneurial function (a duty of planners/ strategists specialized in searching for new opportunities). The bureaucratized and university educated society leads to the development of a conflict between the interests of capitalists (owners of big bureaucratized enterprises) and anti-capitalist "intellectuals" (individuals that talk/lecture about social issues without having political or economic power/responsibility) who tend to defend a process of institutional innovation that eliminates capitalism (since the capitalists are no longer necessary for the entrepreneurial function and are only rentists that inherited property) and substitutes it for market socialism (competition between enterprises of collective property).

Galbraith (1967) follows the institutionalist (Veblen,1898-1919), keynesian (Keynes,1936) and shumpeterian (Schumpeter/ 1939-42) line of thinking building a more current economic model in terms of

economic agents behavior and institutional arrangement: oligopolistic enterprises (seeking to increase their share in the market instead of maximizing their profits), under the control of a management bureaucracy (taking away power from entrepreneurs, shareholders, consumers and government), use strategies of vertical and/or horizontal integration; advertising; product differentiation; and political lobby. This is still a static model (subject to getting old temporally and with geographical limitation: national economies and time frame to which it applies) because it establishes a presupposition of active behavior for a class of agents (management bureaucracy) and passive for other classes (consumers, shareholders and government for example). The collective interest of a class molds the behavior of economic agents and the institutions. The fundamental aspect is the highlight of the role of an economic agent (management bureaucracy) in the transformation of the behavior of other agents such as consumers/shareholders (by the way of advertisement), state (by the way of lobbying) and in the institutional transformation/innovation (going beyond the innovation of production processes and products in Schumpeter/1939-42). The behavior of consumers/shareholders/citizens (or representatives) are not considered independent and the behavior of the management bureaucracy is of search of interest of class in detriment of other classes.

Again economic science versus ideology (politics, ethics, morals, religion) or positive economics (how the economy is) versus normative (how it should be) are still consciously or unconsciously mixed in the selection of presuppositions of human behavior. A construction of a static model of the "economic reality" has normative consequences because it can alter/reinforce the behavior of the economic agents and institutional arrangements.

Human behavior is motivated by self or collective interest? Collective interest of a class or of all society

(defined by the way of a democratic process for example)? Or maybe the human behavior is motivated by both. Individual interest is motivated psychologically by the sacrifice/satisfaction dualism (neoclassics) or by security/risk (keynesians)? The economic agents "workers" (with a income distribution conflict of interest with "capitalists") are also "consumers" (maybe preferring the greater consumption alternatives of private enterprise competition than of the state property of the means of production) and "investors" (by the way of pension funds for example). To what degree this could affect the conflict of interest between "workers" and "capitalists" (partition of the enterprise income between wages and profits)?

Building models from explicit or implicit presuppositions of human behavior alters the object of analysis. The definition itself of human behavior affects the object of analysis: if a model defined a presupposition of economic agent behavior and these agents used this model to guide their actions the model would be self fulfilling. It's not a surprise that economists can't separate "positive economics" from "normative economics" because reality itself (or the perception of reality) has normative consequences, since the economic agents can act in a determined manner because they presuppose for example that this is the manner the majority of agents act.

Models of economic analysis that assume a presupposition of human behavior are scientifically equivocated (have a unjustifiable limitation). These are "normative" models (based on ideology, ethics, morals or religion for example) not "positive" models. Models that presuppose the institutional and human behavior dynamism of the object of analysis are the scientifically adequate solution. Economic models with institutional and behavior variables and that also incorporate the possibility of elimination or addition of new alternatives are scientifically

adequate because they don't eliminate the fundamental aspect of the object of analysis.

4) The institutional scientific method: models with institutional and economic agent behavior variables.

Commons (1931) defines “institution” as "collective action in control, liberation and expansion of individual action"; defines institutionalism as the emphasis in the unity of action (transactions with its participants); identifies institutional and behavior variables produced in three types of transactions: bargain transactions (market), managerial transactions (enterprise) and rationing transactions (wealth or buying power distribution to subordinate without bargaining). In this model general variables of behavior (individual interest/collective interest) interact with general variables of institutional arrangement producing several alternative models with diverse possible combinations of institutional and behavior arrangement. This is an economic model scientifically adequate because it incorporates the institutional and behavior dynamism of the object of analysis. Economic agents can use it to identify (diagnose) current dominant behaviors and institutions (how the economy is) and to establish plans of action/strategies within the current institutional arrangement or transforming this institutional arrangement (how the economy should be). The model does not incorporate an ideological/ moral/ ethical/ religious bias determining primitive behavior and institutional presuppositions as the neoclassical model and doesn't try to update those behavior/institutional presuppositions as the keynesian models. Contrary to Veblen (1898-1919) or Marx(1894) that establish the presupposition of behavior that collective interest (of class) is preponderant over individual interest (determining institutional variations) or of the neoclassics that establish individual interest as preponderant over collective interest (determining "natural" institutions), Commons (1931) builds a model that incorporates these two presuppositions

as variables. Different combinations or the dynamic of interaction of collective/individual interests are represented and generate different institutional arrangements: state, corporations, cartels, holdings, cooperatives, workers or employers unions, joint-ventures, stock exchanges etc. "The classic and hedonic economists, with their communistic and anarchistic offshoots, founded their theories on the relation of man to nature, but institutionalism is a relation of man to man (Commons /1931)."

Porter (1980-90) also builds an economic model with institutional and behavioral variables. Unsatisfied with the static nature of the neoclassic paradigm of economic analysis, intends with his model to explain the competitive advantage of enterprises and national economies ("positive" economics) and to allow the economic agents (enterprise/government) to select strategies/policies/institutional arrangements ("normative" economics) that produce competitive advantages over other enterprises/economies. Porter identifies five enterprise "competitive forces" (rivalry between existing competitors; threat of new competitors; threat of substitute products and services; bargain power of buyers; bargain power of suppliers); four determinants of national economies productivity (enterprise rivalry/strategy; conditions of production factors; conditions of demand; related and support industries); four enterprise competitive strategies (broad cost; focused cost; broad differentiation; focused differentiation).

The methods of knowledge from the most to the least general and efficient can be described as follows: Art (free knowledge); Science (tangible knowledge); Experience (practical/empirical tangible knowledge); Philosophy (conceptual/linguistic tangible knowledge); Relative Theory (relative conceptual/linguistic tangible knowledge); Absolute Theory (absolute conceptual/linguistic tangible

knowledge); Religion/Myth (absolute knowledge). Science is a social convention requiring tangibility for communication. In the Art of Science knowledge is free from additional social pre-concepts other than only those required for tangibility and communication.

Institutions are systems/organizations (units of flux of decision power) created/ modified/ ratified/ propagated by law, customs, policies or strategies (behavior) of economic agents and not by "nature". The economic scientist interested in not distorting the object of analysis by the way of his intellectual intervention must include the institutional and behavioral dynamism in their model of analysis.

Scientific economic models ("positive economics": how the economy is) should be ideologically neutral: ideology, ethics, morals, religion shouldn't determine the selection of explicit or implicit institutional and behavior presuppositions). Economic agents (individuals, enterprises, government) should have a scientific model of economic analysis at their hands that doesn't have a normative bias ("normative economics": how the economy should be). Departing from their normative objectives (strategy/policies based on normative models: ideological/ political/ ethical/ moral) these agents can use a scientific economic model ("positive") to analyze the present economy and establish a plan of future action.

The institutional scientific method analyses the economy respecting the fundamental characteristics of the object of analysis: the institutional and human behavior dynamism. Institutions and economic agent behavior are variables of the model. Using this model, agents can determine how the economy is in a specific time and place and how it should be based on an ideological model. Reducing these variables to two dimensions for convenience/habit inherited from other scientific fields or for simplicity of publishing or learning is unjustifiable because it alters significantly the

object of analysis. If a scientist can't or doesn't want to think in more of two dimensions maybe he should abandon this field and enter/return to other non-social/human fields such as "exact" and "natural" sciences where human behavior is not part of the object of analysis. The possibilities of past, present and future human behavior and institutional arrangement were/are/will be multiple/numerous. The variables are infinite, however a minimally satisfying model of economic analysis must include at least variables that represent the majority of observable and potential variations of the object of analysis.

II - THE POST-KEYNESIAN SCHOOL OF ECONOMIC THOUGHT: THE AGGREGATED NOMINAL DEMAND DETERMINES THE AGGREGATED NOMINAL SUPPLY.

1) The post-keynesian school of thought versus the neoclassical school of thought: institutional and economic agent behavior presuppositions.

1.1) Institutional presupposition: entrepreneurial monetary economy versus barter economy.

The model of economic analysis of the neoclassic theory has an institutional presupposition of a "barter economy": homogeneous goods ("commodities", perfect substitutes); perfect competition (supplying and demanding economic agents without bargain power to influence the market price); exchange of goods (or money only as a means of payment, not being used as a reserve of spending power); post-fixed spot contracts ("auction market").

The producers take their homogeneous goods (“commodities”) to a central market where these are exchanged for other goods in an auction process. Prices go up and down in a bargain process (negotiation) to balance supply and demand and zero out the inventory of products.

Money can be incorporated to the model as long as just as a means of payment, that is all the money obtained with the sale of products will be then used to buy other products. This is a system of post-fixed spot contracts ("auction market") where the producer determines how much he wants to produce/sell but doesn't know how much exactly he'll obtain for the production since the price will be fixed after the production decision in an auction process.

This institutional arrangement was common in the middle ages and until the XIX century when the first classic economic theories were elaborated. Neoclassic economists argue that although this type of institutional arrangement for buying and selling real goods and services is not significant nowadays this abstraction/simplification does not affect the "nature" of the object of analysis (on the contrary is the own representation of this "nature") and the conclusions are perfectly valid. In fact this abstraction alters completely the object of analysis. Although the "auction market" is the prevailing arrangement in financial markets/securities with theoretical implications completely ignored by the neoclassic theory because these don't consider the possibility of use of securities as reserve of value and generator of spending power, being only intermediary instruments between savings of previous income and investment.

The presupposition of perfect competition (small producers and buyers incapable of manipulating the "market price") and homogenous goods are in general made explicit by the neoclassical theorists. The presupposition of an exchange "auction market" (or with money only as a means payment) in general is not made explicit, being an implicit presupposition that can pass unnoticed and that has fundamental theoretical consequences.

The model of analysis of the keynesian theory has an institutional presupposition of a "monetary entrepreneurial

economy": heterogeneous goods (differentiated/not perfect substitutes); imperfect competition (supplying and or demanding economic agents determine or have significant influence over prices), money and other securities as means of payment and reserve of spending power; prefixed spot contracts ("retail market").

Keynes (1936) emphasizes the need for updating the primitive neoclassic presuppositions because these are the origin of the wrongful theoretical conclusions and of the absence of adequate governmental economic policies to deal with economic problems.

In the Keynesian model prices don't fluctuate necessarily to zero all inventory of heterogeneous products and services (differentiated/ not perfect substitutes) supplied. And even if the prices fluctuated adequately, the products were homogeneous and competition perfect, the uncertainty caused by the discoordination of spending decisions and the presence of money and other securities as reserve of spending power would not guarantee that the supplied production would be sold or that it would be sufficient to satisfy the demand. Previous income (spending power) can be stored in money or other securities that can also generate spending power without necessarily being originated in previous income (securities can be issued to command real resources without intermediation of money: paying workers or suppliers with stock, stock options, promissory notes or simply delaying/credit for a month; or buying a company with stocks for example). Enterprises make decisions of investment and production prefixing their prices in accordance with a marketing strategy. Inventory fluctuates (industry, wholesalers, retailers) to accommodate the demand and inform the enterprises for their next decisions of production and investment. Accumulation of inventories can make them delay/reduce spending decisions (production and/or investment) and "park" the accumulated spending power in money, specially if the price of other securities

(stocks, bonds) are falling. Price reductions can even occur temporarily to eliminate inventory of merchandise, but these may not be renewed if there isn't the expectation of demand because of the delay of spending decisions that can spread cumulatively to all the economy generating a recession and if there isn't an additional mechanism (to the price system) of counter-cyclical coordination (as government fiscal and monetary policy for example) evolving to a depression.

In the neoclassic model this can't occur because money is only a means of trade, the reduction of demand of a merchandise necessarily implies a demand for another merchandise (savings will necessary result in demand for investment goods and services), prices fluctuate to zero all inventory equilibrating supply and demand. All the enterprise spending to supply goods (costs of production/ income of the factors of production) will generate the demand for the purchase of all these products. In the keynesian model this will not occur necessarily. On the contrary it's the autonomous decision of spending (that do not depend necessarily of previous income since an entrepreneur can buy on credit for example issuing promissory notes) that cumulatively will determine how much will be sold by the enterprises including being possible to zero all inventory of produced merchandise leading to rationing or general increase in prices (inflation). Even if the prices are flexible downward and the demand for money is accommodated by the expansion of the supply of money this will not guarantee the realization of the spending decision because the economic agent doesn't have certainty if the other economic agents will also make spending decisions. There is a problem of discoordination of spending decisions between the economic agents and they can be waiting for the other agents to start spending first before they start spending. This impasse could be uncertainly ruptured by entrepreneurs with "animal spirits" (willing to take non-probabilistic risks) that could be

followed by their competitors or certainly by the government by the way of for example fiscal policy (tax reduction and increase in spending).

The neoclassic model significantly alters the object of analysis and its conclusions has disastrous consequences for the economy if the economic agents keep waiting for the "invisible hand" of the market to work. It's concluded that the disequilibriums will be self corrected when in fact they will be cumulative. Even if the economic agents believe in the self-correction because they studied economics by the way of neoclassic models or were advised by neoclassic economists ("rational expectations"), passed experiences (recessions) and prudence/security can make them wait for the retake or expansion of spending decisions of other agents before they retake again or expand theirs (expectations of growth).

Since the other agents follow the same thinking the deadlock remains. Like in a sport stadium, nobody sits down until the others in front sit down. The deadlock is broken by somebody who yells coordinating everyone to sit down together. The thinking is the same during an expansion (or recession), enterprises continue spending (even facing inflation and shortage) if they have the expectation that the other agents (enterprises, consumers) will continue to spend. The intervention of the government by the way of a contractionist fiscal policy (reduce the aggregate demand by the way of the rise of taxes and cutting of spending for example) or the presence of a government committed to a counter-cyclical policy can coordinate the agents to reduce their spending.

The neoclassic and keynesian institutional presuppositions have a normative character (founded in past or present ethical/moral/ideological models). The keynesian presupposition is more inclusive and realist (more

economies can be detected possessing that institutional pattern) than the neoclassic. However, scientifically correct models should incorporate these institutional arrangements as variables. Economies temporally and geographically specific can be diagnosed as possessing a certain institutional arrangement and agents can alter/rectify these institutions with the analysis of the economy by the way of these models.

1.2) Economic agent behavior presupposition: security/risk dualism over an uncertain future versus satisfaction/sacrifice dualism over a predictable future.

Both models have a presupposition of economic agent behavior of individual interest quest. In the neoclassic model this behavior generates collective benefits, in the keynesian model this will not occur necessarily: not only the collective benefits but also the intended individual benefits may not be achieved (as we will see ahead enterprises cutting spending, specially wages, to protect profits could see their profits actually decline because of the fall in their sales that in turn were caused by the fall in aggregate demand resulting of the cutting of spending that were generated by the cutting of spending that generated cutting in wages that generated cutting in consumer spending that in turn generated cutting of enterprise spending, independently of occurring or not price cuts).

The neoclassic model has a human behavior presupposition of satisfaction/sacrifice dualism over a predictable future. Human beings are moved by individual interest of quest for "pleasure/happiness" (to satisfy their desire) and will do sacrifices ("pain" of work or risk taking)

only if they have the perspective of being compensated by "pleasure/happiness" (utilitarian/materialistic behavior). This behavior according to the neoclassic model will generate collective benefits in the form of economic prosperity for all (wages for workers and profits for capitalists).

Until what point human beings are motivated by individual, class or society interest or by a combination of these? The answer has a normative character (ideology/ ethics/ morals/ religion). Even if it could be proven that one of these motivations prevailed by the way of a "scientific research" of opinion or behavior observation, this "scientific truth" has normative consequences of reinforcing or changing behavior (individuals that follow the behavior of the majority or do the opposite of the majority could change or reinforce their behavior). Based on the ideological options of thousands of elections in different countries probably this type of research would result in an inconclusive average equal division: 1/3 motivated by individual interest (right wing parties); 1/3 by collective interest (left wing parties); 1/3 by a combination of both (center/center-left/center-right). Assuming any of this options as a behavior presupposition in a economic model has a normative character. A scientific economic model must insert all these options as behavior variables.

Additionally the neoclassic model presupposes that decisions are taken considering that the future is predictable. Risky decisions can be taken with the use of probabilities. This presupposition again alters significantly the object of analysis. Some phenomenon can be reduced and manipulated by the way of probabilities like all those that the insurance industry is willing to issue an insurance policy for a certain premium (accidents, deaths, natural disasters etc). Other phenomenon, such as business profits and losses, are not subject to probabilistic treatment and in

fact are not subject to coverage by the way of insurance. Losses can be reduced by the way of "hedging" in the financial markets (fall in prices of commodities or stock for example can be reduced with the purchase of a contract/security that generates a premium/income in case of fall of price in a certain commodity or stock). However economic decisions as the production decision, but specially the investment decisions (spending with a horizon of return superior to one year), specially with the presence of enterprise competition, is a phenomenon not subject to probability treatment. Profit and sales estimates involve uncertainty or non-probabilistic risk (some economists prefer to define "uncertainty" as a phenomenon not subject to probability treatment and "risk" as a phenomenon subject to probability treatment, however the use of the term "take risk" is usually used to describe phenomenon that involve uncertainty). Consequently decisions of production and investment are extremely sensible to the "psychological state", confidence and expectations of the economic agents.

The keynesian model rejects the neoclassic human behavior presupposition of motivation by satisfaction (pleasure) / sacrifice (pain) under a predictable future. The future is uncertain and economic agents are because of this motivated mainly by the dualism security/risk (not reducible to probabilities). The fear (specially the fear of death or of not surviving economically) would prevail or include the desire for pleasure (that would become fear of losing the object of desire) as determinants of the behavior of the agents (educated in a punishment/reward system that generate fear and desire allowing authorities to control the object of education with threats/offers).

The economic agents prefer the security of liquidity (easiness to transform spending power in real assets) instead of making compromises/future contracts (iliquidity/future spending power). The expectation of a reward/premium (interest/profit) motivates the agents to give up liquidity and make future compromises.

Galbraith (1998) emphasizes that Keynes rejected the fundamental idea of the utilitarian philosophy of Bentham (1789) and of the neoclassic school of thought which is that the utilitarism or motivation by pleasure/pain are natural in human beings and can be used as a fundamental pillar of an economic theory, rejecting the possibility of separating the individual from the social. The fundamental reason for the flaw of the utilitarian economic calculus is the irreducible "uncertainty" over the future that cannot be translated in degrees of risk or probability or subject to quantitative treatment. The irreducibility of uncertainty over the future makes the utilitarian calculus of pleasure versus pain through time irrelevant. That way the central theorem of the classic/neoclassic theory according to which the interest rate is determined by the marginal productivity of the capital stock in relation to the utilitarian time-preferences of the saving public, falls to the ground. The marginal future productivity of an act of investment is not known as well as the actual value of future as against present consumption. According to Say's Law an increase in savings will cause an increase in private investment. Keynesian theory dictates the reverse: that decisions to raise investment, taken in the hope of future profit, raise spending, incomes, and therefore savings (after the fact).

The presupposition of a predictable future where risk can be administrated by the way of utilitarian probabilistic calculus significantly distorts the object of analysis and leads to wrongful conclusions. The neoclassic and keynesian behavior presupposition of motivation of the economic agents has a normative character (grounded on ethics/morals/ideology/religion). The presupposition that there is a human "natural behavior" (static) is a normative presupposition. The keynesian presupposition is more general, realistic, modern (more economic agents can be detected following this normative pattern of behavior to

make economic decisions) than the neoclassic. However, scientifically correct economic models should incorporate these behaviors as variables. Temporally and geographically specific economies can be diagnosed as having economic agents with a determined type of predominant behavior (strategy/policy) and these agents can alter ratify their behavior facing the analysis of the economy using these models.

1.3) "Principle of effective demand" versus "Say's law": aggregate nominal demand determines aggregate nominal supply versus "the supply creates its own demand".

The supply of goods and services could create its own demand (Say, 1803) if a "market economy" ("capitalism") had an institutional arrangement of a barter economy of goods and services organized in a centralized market with auction type negotiation; if the use of money was only as a means of payment (not as a reserve of spending power); if credit ("savings"/investment) was based only in previous income; if all the prices were flexible; if all the products were homogeneous; if no supplier/buyer of products has power to influence the "market price"; that the future could be predicted by the way of a utilitarian probabilistic calculus of the economic agent spending decisions. Unfortunately these presuppositions are not a valid approximation of any national economy in any period of time, specially in the economy of XX or XXI century. On the contrary they are a significant misrepresentation of the object of analysis. Even as a normative model (with the objective of modifying the object of analysis so that it acquires the properties idealized by the model) is a model of which efficiency would have to be compared in relation to other models (possibility/practicability of its implementation and that the objectives idealized be attained).

The supply of goods and services does not create its own demand because independent economic agents make spending decisions or of reserve of spending power that are independent of supply/previous income and the future income depends on the uncertain spending decision of the other economic agents. Money and other securities function as a means of spending (command over real resources) and reserve of spending power. The issuing of money or other securities does not depend on previous income/savings but on the credibility of the issuer: the confidence that the security can be converted in real resources in the future (the liquidity of securities).

The neoclassic institutional presupposition of money functioning only as a means of payment and not additionally as reserve of value/spending power (resulting in a monetary issuing policy limited by the previous increase in income or by the inflation rate) and securities as intermediaries of savings and investments (issuing of securities limited by previous savings) is a misrepresentation of the object of analysis. The behavior presupposition of agents taking utilitarian decisions under the perspective of a probabilistic predictable future is a misrepresentation of the object of analysis. These two mistakes mainly invalidate "Say's Law". All the other neoclassic presuppositions (homogeneous products, flexible prices/wages, "perfect competition") secondarily also misrepresent the object of analysis and additionally disqualify the conclusions of the neoclassic theory.

The neoclassic counter-attack concentrated mainly in restoring their presuppositions (supposedly a valid approximation of the "reality" of the object of analysis but that in fact are normative presuppositions: how the object should be) and reestablish the "equilibrium" of the models: prices/wages should be flexed and the competition perfected to approximate them to the idealized model (unions and

trusts should be combated); the demand for money as a reserve of value could be accommodated by a active counter-cyclical monetary policy (based on "neoclassic synthesis" theory). Counter-cyclical active fiscal policy also could be used to reestablish the market "equilibrium" caused by institutional imperfections in relation to the idealized model. This was the position of many economists that interpret the keynesian contribution as one of pointing some imperfections/misleading of the current "market economy" in relation to an idealized or passed model. Some of these economists define their thoughts as keynesians, neokeynesians or keynesian-neoclassic synthesis but in fact are only a "neoclassical synthesis" because "Say's Law" and "equilibrium economics" are preserved. Other economists (neoclassic "monetarists") rejected the "keynesian contribution" and amended their "pure neoclassic" models with supposedly "natural" rates and presuppositions (in fact of a normative character): "natural rate of unemployment", "natural monopolies", "rational expectations" (they defend in general a passive non counter cyclical monetary policy; tolerate "natural" trusts/monopolies but are against worker unions; defend a passive non counter cyclical fiscal policy with tax and spending cuts). Disequilibriums are caused by "non natural" intervention of the state or are considered "natural": an economy with unemployment would be in fact in equilibrium, with the unemployment being blamed on a "natural rate of unemployment" (caused for example by deficiencies in the training/retraining of workers). "Say's law" is preserved.

These models don't deal correctly with the fundamental presupposition of the keynesian model that independent economic agents take decisions of spending or reserve of spending power that independent of supply/previous income and that future income depends on the uncertain spending decision of the other independent economic agents. These are the keynesian institutional and behavior presuppositions that determine the "principle of effective demand". Even

with flexibility of prices and wages and perfect competition, the supply of goods and services will not generate necessarily their own demand.

The nominal supply (at current prices) is in fact determined by the spending decisions of the economic agents (effective demand). If prices are flexible and the demand exceeds the current supply of goods and services, prices could go up. The nominal demand (at current prices) continues to determine the nominal supply. If the prices are not flexible (generating rationing/shortage of goods and services) certain spending decisions cannot be fulfilled. The nominal demand (fulfilled spending decisions) continues determining the nominal supply of good and services.

The autonomous spending decision of the economic agents (effective demand, not the idealized demand of the neoclassic model) determines the nominal supply of goods and services. Spending is not limited by previous income/accumulated wealth. The institutional arrangement of a modern market/capitalist economy, allows the issuing of money/securities with significant independence (the government can issue unlimited securities without income/ money or with income possibly causing however inflation if it abuses of money issuing or recession if it abuses of issuing of securities with progressively higher interest, with this issuing being ideally limited by the capacity of expansion of the production capacity and/or expansion of the productivity of the factors of production). The credibility (confidence in the future convertibility in goods and services or liquidity) of the issuing agent determines the capacity of issuing and the premium of the security (interest). The same way money and other securities accumulated will not necessarily be used to command real resources (goods and services). The aggregated nominal demand resulting of spending decisions by the way of money and other securities is what determines the nominal

supply of goods and services. This is the principle of effective demand that knocks down "Say's law" and all the equilibrium theoretical structure of the neoclassic theory.

2) "Neoclassical Synthesis" and the limitations of incorporating and reducing the Keynesian thought to the neoclassical school: inflexibility of prices/wages as the causes of equilibrium in unemployment and the addition of supply/demand for money to savings/investment as the determinants of interest rate.

To blame "equilibrium in unemployment" to the inflexibility of prices/wages (caused by the state, trusts and/or unions for example) or the demand for money for speculation (reserve of spending power) is not the fundamental contribution of the keynesian model of analysis.

Even with monetary policy (of the government or independent institution) that accommodates this demand for money and with the flexibilization of prices/wages (anti-trust, anti-union or anti-state intervention policies); even if part of unemployment is attributed to "nature" and to the need to perfect the industry/enterprise unemployed labor reallocation/retraining; even with fiscal policy (increase/reduction of taxes and government spending) where the government temporarily/sporadically intervenes to equilibrate aggregated supply and demand caused by imperfections in relation to the idealized model (there would still be industry/enterprise/agent allocation disiquilibriums requiring industry, technology and income policies for example), there won't be necessarily any tendency to an equilibrium with full employment or that the supply of goods and services will generate its own demand ("Say's law"). Even if the neoclassic "normative model" (how the economy should be) turns into a "positive model" (how the economy is) the presuppositions of agent behavior/institutional arrangement don't guarantee that there

will be any tendency to an equilibrium of full employment or that the supply will create it's own demand.

Economic agents making independent decisions that have interdependent consequences is the fundamental institutional and behavior presupposition in the keynesian model and that generates the fundamental conclusion of the principle of effective demand that the autonomous aggregated nominal (monetary value) spending decisions determines the aggregated nominal supply of goods and services. The equilibrist neoclassic models lose meaning in this context.

The aggregate nominal demand always determines and is equivalent to the aggregate nominal supply but not necessarily to the real supply of goods and services (production capacity plus inventory). The possibility of equilibrium or tendency to equilibrium between the nominal demand in a determined point in time and the real supply (given by the production capacity plus inventory in a given point in time) has lottery probabilities (one possibility among almost infinite). The production capacity and inventory (real supply) and the nominal demand (spending decisions) are in constant mutation. In this model the government or other independent institution policy could coordinate/compensate the spending decisions of independent economic agents in terms of containing/expanding spending decisions selectively between consumption/investment or between sectors of the economy by the way of industrial, technological, monetary, fiscal and income policy for example. The objective is to maintain the growth of spending decisions (nominal demand) in a rhythm compatible (low inflation/quantitative rationing) with the growth of the production capacity. This institutional arrangement would be fundamental to the maintenance of future confidence (reduction of uncertainty) of the independent economic agents since without the

development of additional coordination/compensatory mechanisms/institutions (to the neoclassic model presuppositions) the decision uncertainty will be volatile (cycles of peaks and valleys with possible inflation, recession, depression and hyperinflation) and consequently the spending decisions will be volatile determining volatile supply and income in a "market economy".

3) Improving the post-keynesian school of thought with the institutional scientific method: models with institutional and economic agent behavior variables.

The keynesian model of analysis has more realistic/modern institutional and behavior presuppositions than the neoclassic model of analysis and as a consequence its conclusions are more precise and the derivative economic policies are more efficient. However in the same way that the neoclassic model these presuppositions are subject to temporal and geographic (different national economies) mutations and have a normative character.

Defining "reality" influences the behavior of economic agents in terms of reinforcement or divergence of the supposedly dominant/majority behavior. A model of economic analysis that presupposes to be representing the "reality" has normative consequences of conserving/reinforcing its presuppositions. It doesn't fit for a model of economic analysis to define institutional and behavior presuppositions. This must be done by ideological/ethical/moral/religious or political/strategic models. It fits for a model of economic analysis to define institutional and behavior variables from which economists can diagnose a determined economy geographically and temporally specific creating a current positive model. From this diagnosis economic agents can equally define plans of action (policies/strategies) in accordance with the objectives of their normative models. These strategies/policies can modify the "positive economy" (how the economy is) in the

direction of a "normative economy" (how the economy should be).

The keynesian institutional ("entrepreneurial monetary economy") and behavioral (security/risk dualism over an uncertain future) presuppositions are more accurate although they don't significantly
cover all current/potential possibilities of institutional and behavioral arrangement. These variations must be included in a model of economic analysis scientifically correct. Prefixed spot contract systems ("retail market") can be predominant, but postfixed spot contract systems ("auction market") and other variations must be included. The presupposition of search of individual interest by the way of the reduction of uncertainties (increase in security) can even be the dominant behavior of a modern market economy, however other behaviors currently less significant must be included in the model.

4) Improving the post-keynesian school of thought with models of institutional economic analysis: the need to substitute the limited bidimensional/static mathematical analysis with functions and graphs for multidimensional/dynamic models of institutional analysis of the flow of economic agent spending decisions.

The neoclassic, keynesian and institutional-evolutionist models of analysis have originated in methods of other scientific fields (exact and natural sciences). Economic science is part of another group of scientific fields (social or human sciences) where the scientist is part of the object of analysis. In social/human sciences it's difficult to separate ideology and the scientist's intellectual intervention can affect/distort the object of analysis.

In social or human sciences the scientist has difficulty in separating the "positive" (how the object of analysis is, or the "reality" or perception of reality of the object of

analysis) from the "normative" (how the object of analysis should be or an idealization of a potential future reality) specially in relation to their own norms or of their idealization of reality based in their ideology/ ethics/ morals/ religion/ philosophy. The own definition of reality (defining presuppositions of majority/dominant/current behavior of the economic agents for example) has normative impact because the behavior of the object of analysis can be reinforced/modified by this "scientific" definition of reality. Models that incorporate normative presuppositions are scientifically wrong because they distort the object of analysis. The scientist has to incorporate all the institutional/behavioral/normative variables possible in his model (all the significant variables or a significant majority of potential/observable variations of the object of analysis). This way the theoretical model can be used (supported by empirical methods) to determine which variables are predominant in determined point of time and space (country/region) and a plan of action to modify or ratify these dominant variables.

The model of economic analysis has to identify behavior and institutional variables that represent the dynamics of past, present and future mutations of the object of analysis. The static/bidimensional models of mathematical analysis (using functions and graphs) completely limit/distort this representation of the object of analysis. Even more complex mathematical models can't represent the institutional and behavior dynamics in an economy.

The institutional analysis of the flux of spending decisions of the economic agents makes it possible to emphasize the fundamental aspect of the post-keynesian model that tries to rescue, expand and perfect the essence of Keynes (1936) thought: the principle of effective demand that essentially originates from the fact that in an economic system economic agents make independent spending decisions that have interdependent effects.

For the economic system to work (achieve objectives) and to improve it's necessary for the independent economic agents to coordinate, cooperate, subordinate or innovate their spending decisions. It's necessary to identify all the institutional (systems of coordination, cooperation, subordination and innovation of spending decisions) and behavioral (strategies/policies of the economic agents) significant variables of the object of analysis.

From this model it will be possible to diagnose temporal and geographically specific economies (past and present dominant systems/strategies) and to establish future action plans (future dominant systems/strategies). The scientist must create a normative neutral model (without ideological/ moral/ ethical/ philosophical preferences). Any past/present/ future economic model can be represented by the way of this general model.

III – THE POST-KEYNESIAN INSTITUTIONAL ECONOMIC MODEL OF ANALYSIS: STRATEGIES AND SYSTEMS OF COORDINATION, COOPERATION, SUBORDINATION AND INNOVATION OF SPENDING DECISIONS OF ECONOMIC AGENTS.

The first objective is to create a model of economic analysis normatively neutral (compatible with the institutional scientific method) with institutional and economic agent behavior variables representative of the temporal (passed/present/future) and geographic (specific national economies) diversity of the object of analysis (economy) serving as an instrument for the diagnosis (identifying dominant institutions and behaviors) of passed ("historical economics") or present ("positive economics") national economies and as a tool for future planning ("normative economics").

The second objective is to create a model compatible with the keynesian "principle of effective demand" of an entrepreneurial monetary economy (nominal aggregated demand determines the aggregated nominal supply) in opposition to neoclassic "Say's law" (aggregated real supply creates its own aggregated real demand).

The objective is therefore to combine the institutional scientific method with the post-keynesian school of thought in a scientifically correct model, opposing the "pseudo-science" not only of the pure neoclassic school but also of the neoclassic synthesis because these are in fact primitive normative models (have ideological/ ethical/ moral/ religious presuppositions), scientifically incorrect and obsolete. These conservative primitive doctrines dominate the courses of economics and the profession of economist in the present world with disastrous consequences for the majority of the world population that still live in conditions of economic underdevelopment and need high growth rates.

The pragmatism of politicians, businessmen and economists (making decisions without basis on dominant neoclassic orthodox economics) allowed to several national economies post-1945 a superior performance, with a higher growth of the economy or of the most advanced technology sectors for example. However the ascension of the neoclassic school (because of its conservative/ reactionary character, against "state intervention" or against institutional reforms/development, specially those related to improving income distribution equality and reversing income concentration that eventually reduce/limit aggregate demand) over the neoclassic synthesis (the less defective model between the two, with less unrealistic presuppositions) and of its status of "science" starting in the end of the seventies ("granted" by several "Nobel prizes" in economics) has contributed to the reduction of economic pragmatism (increase of neoclassic dogmatism) of politicians/ businessmen/ economists and the ascension of

an orthodox economic technocracy (state and big business bureaucracy) that make decisions based on primitive orthodox economic theories (neoclassic) with disastrous results (low, null or negative growth rates) specially for underdeveloped national economies where great part of the population still lives under the poverty line (level of income that allows for minimum survival conditions).

The post-keynesian institutional model of analysis allows for a correct diagnosis of the dominant institutions (systems) and behaviors (strategies) in a national economy ("positive economy") and its comparison with an idealized model ("normative economy"). A plan of action (strategies/ policies and institutional reforms/innovations) can be created starting from these. The neoclassic model also can be represented and used as an ideal model. However this is an extremely primitive model very limited in relation to the institutional possibilities of the modern world, not existing any reason for its use.

1) Spending decisions of economic agents: commanding real resources and securities with securities.

Economic agents can be identified by spending decision functions. Spending can be defined as command of real resources and securities with securities (money and other securities with fixed or variable income). The economic agents create/reserve spending power to command real resources by the way of the process of issuing, accumulation and exchange of securities between the economic agents. The spending decisions are independent but the effects are interdependent, that way the uncertainty or confidence of the spending decisions are influenced by the future spending expectations.

1.1) Enterprise: intermediary spending unit of decision with the objective of producing private goods and services.

The enterprise uses its spending power to command real resources (capital and intermediary goods and services: labor, machinery, installations and maintenance) with the objective of producing private goods and services (can be sold to specific individuals, enterprises or governments). The enterprise makes spending decisions of production (spending in intermediary goods and services/ "variable capital"); investment (goods and services of capital and maintenance/ "fixed capital") and financing (issuing, accumulation and trade of securities).

1.1.1) Production decisions: spending decisions in intermediary goods and services.

The enterprise makes production decisions spending in intermediary goods and services as material inputs (raw materials/components: contracts with suppliers) and labor (wages: contracts with workers). This spending varies with the level of production (variable costs), can be directly associated with the product (direct costs) and has a short term (less than a year) expectation of return (recovery of the spending by the way of the sale of the product).

The production decisions have less uncertainty than investment decisions (spending in fix capital), because of the horizon of return with better estimation on the spending of other agents and because they can be better synchronized with the level of product sales. Long run supplier and work contracts (more than one year) can transform variable costs (production decisions) in fixed costs (investment decisions).

1.1.2) Investment decisions: spending decisions in capital goods and services.

The enterprise makes spending decisions in capital goods and services such as machinery, installations and maintenance. These spending don't vary with the level of

production (fixed costs), can't be directly associated with the product (indirect costs) and have a long term (more than a year) expectation of return (recovery of the spending by the way of the sale of the products).

The investment decisions have a greater uncertainty than the production decisions (spending in variable capital) because of the horizon of return and because they can't be synchronized with the level of sales of the product. For example, leasing short term contracts of standard machinery/equipment (less than a year) can transform fixed costs (investment decisions) in variable costs (production decisions).

1.1.3) Financing decisions: spending decisions for the exchange of securities.

The enterprise makes spending decisions by the way of issuing, accumulating and exchanging securities (securities with no income/premium as money, with fixed income as bonds or with variable income as stocks). Spending power doesn't depend only of previous income, can be increased by the way of issuing securities that don't depend necessarily on the existence of previous savings. Although initially this process of creation of credit (spending power) can be conceived in the neoclassic tradition as a "line of credit" that originates in previous savings and is loaned by the creditor instead of securities that are "issued" by the debtor and accepted by the creditor. The creditor however can securitisize the debt (subdivide the total amount in negotiable securities) and sell it in the primary and secondary market of securities. Securitization increases the liquidity and allows the creditor to manage the risk of his "loan portfolio" (diversify his portfolio and increase its liquidity or power of immediate command over real resources and securities).

The issuing of securities doesn't need necessarily to be intermediated by money which is a security without income issued by the government. Many agents (supplying enterprises, workers or government) can accept the command of real resources or securities directly by the way of the issuing of private securities (promissory notes, bonds, stocks, stock options etc.) as payment for real resources (work, intermediary and capital goods and services) or securities of other agents (swapping stocks for example).

The accumulation of securities (spending power) by the way of previous income doesn't mean that these will be used to command real resources in any specific point in time. These can be maintained as reserve of spending power indefinitely.

The financing decisions have less uncertainty than the decisions of production and investment because the liquidity of securities allows for wide diversification and reconfiguration of security portfolios in any point in time.

1.2) Individual: final spending unit of decision with the objective of consuming private and public goods and services.

The individual uses its spending power to command real resources (command of intermediary and capital goods and services by the way of work, citizenship and entrepreneurial decisions) with the objective of consuming private and public goods and services. The individual makes consumption (spending in consumer goods and services); work (goods and services of education, training and means of search for work); entrepreneurial (pre-operational enterprise goods and services); citizenship (electoral party and government taxing contributions) and financing (issuing, accumulation and trade of securities) spending decisions.

1.2.1) Consumption decisions: spending decisions in final consumer goods and services.

The consumer makes final spending decisions in goods and services of consumption. The spending power of the consumer is not limited by previous income or accumulated wealth, and can be incremented via "issuing of securities", usually described as "lines of credit" given by the creditor (these usually are not securitisized but could be) that don't depend necessarily of transfer of previous savings but of the expectations of consumers' future spending power.

1.2.2) Work decisions: spending decisions in goods and services of education, training and means of searching for work.

The worker makes spending decisions in goods and services of education, training and means of searching for work under the expectation that it can increase their future spending power. This spending can be indirectly paid by their parents, government or enterprises.

1.2.3) Entrepreneurial decisions: spending decisions in enterprise pre-operational capital goods and services.

The entrepreneur makes spending decisions in enterprise pre-operational capital goods and services (indirect/fixed cost) to establish enterprises. Part of this spending is not accounted for (work and spending in other goods and services during the development of an entrepreneurial idea for example) and when it is in general they are depreciated in the long term (more than a year).

1.2.4) Citizenship decisions: spending decisions in electoral party contributions and government taxes.

The citizen makes spending decisions in electoral party contributions to establish governments and government

contributions (taxes) although they can be perceived as involuntary, in theory they are ratified by a democratic process of government choice.

1.2.5) Financing decisions: spending decisions for the exchange of securities.

Individual spending does not depend necessarily of previous income, being possible for an individual to "issue securities" to command real resources, proportionally to their credibility, by the way of checks, credit cards, promissory notes, "IOUs" (etc.) or credit instruments that could be in theory securitisized, renegotiated and being part of a diversified portfolio of lesser risk.

1.3) Government: intermediary spending unit of decision with the objective of producing public goods and services.

The government uses its spending power to command real resources (intermediary and capital goods and services) with the objective of producing public goods and services (goods and services of collective use that can't be sold or is difficult to sell and charge to specific individuals or enterprises). The government makes spending decisions of production (spending in intermediary goods and services/ "variable capital"); investment (goods and services of capital and maintenance/ "fixed capital") and financing (issuing, accumulation and trade of securities).

1.3.1) Production decisions: spending decisions in intermediary goods and services with the objective of producing public goods and services.

The government makes production decisions spending in intermediary goods and services as material inputs (raw materials/components: contracts with suppliers) and labor (wages: contracts with workers). This spending varies with the level of production (variable costs), can be directly

associated with the product (direct costs) and has a short term (less than a year) expectation of return (recovery of the spending by the way of the sale of the product). The production decisions have less uncertainty than investment decisions (spending in fix capital), because of the horizon of return with better estimation on the spending of other agents and because they can be better synchronized with the level of product sales. Long run supplier and work contracts (more than one year) can transform variable costs (production decisions) in fixed costs (investment decisions).

The difference of the governmental producer in relation to the enterprise producer is that does not exist necessarily a direct/exact correlation between the level of consumption of public goods and services of a citizen and the payment of taxes by this citizen, which can be proportional, regressive or progressive in relation to his level of income. Indirect taxes (falling over enterprises) tend to penalize lower income citizens that consume a greater part of their income (regressive brackets) since these taxes are in general passed on to consumers. Direct taxes over individuals can be proportional to their income or have progressive brackets, having a redistribution effect, reversing the tendency to income concentration of competitive independent institutional systems ("market"). Essentially the governmental producer agent does not face the uncertainty of the enterprise producer because it has access to compulsory income (taxes) or can issue securities with low premiums (interest) or without income (money) because of its greater credibility because of this access to compulsory income and legal enforcement of money circulation.

1.3.2) Investment decisions: spending decisions in capital goods and services.

The government makes spending decisions in capital goods and services such as infra-structure, installations and

maintenance. This spending does not vary with the level of production of public goods and services (fixed costs), can't be directly associated with the product (indirect costs) and have a long term (more than a year) expectation of return (recovery of the spending by the way of the sale of the products). The investment decisions have a greater uncertainty than the production decisions (spending in variable capital) because of the horizon of return and because they can't be synchronized with the level of consumption of the product.

The governmental investor differently from the enterprise investor doesn't face the same high level of uncertainty for long term spending because the governmental investor can use its higher credibility reinforced by law to make use of taxes and/or public securities with low income (premium/interest) or no income (money) to finance the expansion of the supply of public goods and services.

1.3.3) Financing decisions: spending decisions for the exchange of securities.

The enterprise makes spending decisions by the way of the issuing, accumulation and exchange of securities (securities with no income/premium as money, with fixed income as bonds or with variable income as stocks). Spending power does not depend only of previous income (taxes), can be increased by the way of the issuing of securities that do not depend necessarily of the existence of previous savings. The governmental credibility (because of its compulsory access to taxes) is superior to the one of the private agents allowing for the issuing of securities in a higher volume, smaller premium and higher liquidity.

The accumulation of securities (national/foreign money or bonds) doesn't mean that these will be used to command real resources in any specific point in time. These can be maintained as reserve of spending power indefinitely. The financing decisions have less uncertainty than the decisions of production and investment because the liquidity of securities allows for wide diversification and reconfiguration of security portfolios in any point in time.

2) Spending power of economic agents: issuing, accumulation and exchange of securities.

Economic agents issue securities to command real resources; accumulate securities received in exchange to the command over real resources and trade securities, reserving power of command over real resources. Money is a security without income issued by the government (inflation/deflation can decrease or increase its power of command over real resources) which as the other economic agents can also issue securities with fixed or variable income.

Securities can be defined as "monetary resources" in opposition to "real resources": money with different degrees of liquidity (easiness of exchange for real resources or other monetary resources which are a function mainly of the credibility of the issuer) and categorized usually as M1 ("paper-money" issued by the government and "electronic money" as checking account deposits issued by commercial banks with a certain guarantee by the government, insurance and/or central bank); M2 (M1 plus fixed income governmental securities); M3 (M2 plus private fixed income securities); M4 (M3 plus securities of variable income). Higher risk, less credible and less liquid securities are included sequentially.

The issuing of fixed income securities (bonds for example) or variable (stocks for example) to command real resources can be intermediated (intermediate trade) by money or used directly to command real resources (payment to a supplier with a promissory note or workers with stock or stock options for example).

2.1) Credit: present power of command of real resources and securities in exchange for future power of command of real resources and securities.

Credit allows economic agents present power of command over real resources in exchange for the promise of future power of command of real resources to the economic agents that currently control these real resources. Although initially this process of credit creation (spending power) may not be securitisized and may be interpreted in the neoclassic tradition as a "line of credit" that has origin in previous savings that are loaned by the creditor instead of securities "issued" by the debtor and accepted by the creditor. Economic agents command real resources using securities (without income, fixed income or variable income) issued by the agents themselves and accepted by the economic agents holding the control over money (no income security issued by the government, but with great liquidity or capacity of exchange for real resources) or over real resources. Once primarily issued ("primary market") these securities can be secondarily exchanged ("secondary market").

Money is a security issued by the government giving the economic agent, that accepts it in exchange for the transfer of control over real resources, the promise of commanding real resources in the future.
Because of its high acceptance (liquidity or confidence in the promise of future command over resources, also assured/enforced by law) this security can be issued without compensation of a premium (future income), although there

could be a negative premium (inflation) or a positive premium (deflation) caused by the elevation or reduction of the general level of prices of real goods and services (the higher the inflation the less the economic agent is willing to accept or withhold money as a reserve of value and in a deflation the opposite would happen). The government and other economic agents can also issue securities with fixed or variable income as a stimulation for its acceptance by the creditor/taker.

Money and other securities can serve as a means of payment, reserve of value (spending power) and accounting unit. Mainly by law enforcement local/national money is preponderantly used as a means of payment and accounting unit.

2.2) Credit securitization: decomposing credit contracts in negotiable securities allows increase of liquidity and portfolio diversification.

A commercial bank can open a "line of credit" (loan) for an enterprise simply by creating "electronic money" ("security deposit in checking account") in counterpart/exchange for the "security loan" issued by the "taker" (enterprise, individual or government). The creditor (bank)/debtor however can securitisize this loan (subdivide the total amount in negotiable fixed income securities) and keep it in its portfolio or sell them in the security primary and secondary markets. Securitization increases liquidity and allows the creditor to better manage the risk of its "portfolio of loans" (diversify its portfolio and increase its liquidity or command power over real resources and securities). This operation consists simply in an exchange of securities between the creditor and the taker of the "loans" (security "deposit in checking account" for a fixed income security). Deposit in checking accounts can be easily converted in real resources because there exists a system of

reserve for this security (central bank) that works as a supplier of liquidity of last resource and that has in general some kind of governmental guarantee (socialization of enterprise risk). The carrier of the "security deposit in checking account" can easily convert it into money or real resources.

An investment bank could make a similar operation by the way of a "monetary fund" (fund of money and enterprise and government short term fixed income securities). The bank can exchange fund shares (a security) for a fixed income security of an enterprise. The enterprise could issue checks (or other means of payment as a debit card or credit card colaterized/guaranteed by shares of the fund) to acquire real resources. However since investment banks don't have a system of reserve of securities ("central bank" as exists for securities issued by commercial banks and government) the liquidity is more limited (monetary funds in general have a limit of number of checks, if any, that can be issued in a month for example).

Securitization of credit allows at first reduction of risks of creditors by the way of the increase of liquidity and diversification of portfolios of securities. However an absence of a securities system of reserve for certain securities (stocks and corporation bonds for example) can increase the risk because of its vulnerability to "following or emotional speculation" (volatility) where agents buy/sell under emotion (optimism, pessimism, euphoria or panic) or try to guess the emotional state and decisions of the other agents. Government securities and commercial banks checking deposits have such a system (central bank and national treasury) and are less volatile, more liquid or easily accepted by other agents.

2.3) Issuing of securities ("primary market"): issuing of securities without income, securities with fixed income and

securities with variable income for commanding real resources and securities.

Economic agents can issue securities without income (money for example, which has an implicit negative or positive expectation of income depending if there is expectation of inflation or deflation), of fixed income ("bonds" for example) and variable income (stocks for example) to command real resources and securities.

The issuing of securities doesn't need to be necessarily intermediated by money (security without income issued by the government). Many agents (supplying enterprises, workers, government) can accept total or partially the command of real resources or securities directly by the way of private securities (promissory notes, bonds, stocks, options) as payment of real resources (work, intermediary goods and services or securities of other enterprises, trade of stocks for example).

The primary issuing of securities can happen simultaneously with the primary issuing money or other securities of high liquidity: the central bank trades government fixed income securities for money or checking deposits/electronic money; commercial bank trades loans (fixed income security) for checking deposits; investment bank can trade fixed income securities for shares of a monetary fund.

Finally the primary emission of securities to command real resources or securities can be intermediated by money previously issued by the government ("secondary market" of money). That way the agent would trade their securities for money and then would use this one to command real resources or other securities (buying stocks, bonds or other national money).

2.4) Liquidity of securities ("secondary market"): capacity to exchange future power of command over real resources for present power of command over real resources without a significant loss of spending power above the expectation of premium of the securities.

After the primary issuing of securities (when the issuing agent exchanges them for real resources or other securities), the receiving agent can trade them again in the "secondary markets" ("stock exchange" and other "open markets") for more liquid securities (money) that in turn can be exchanged for real resources in markets of goods and services. The easiness of conversion of the security in money (which by the force of law is the security more easily convertible in real resources) without significant loss of spending power above the expectation of premium of the security represents its liquidity.

The security can also be used as spending power reserve (future command over real resources). The easiness of trade of this future command over real resources for present command over real resources without loss of spending power above the premium expectation of the security represents the liquidity of the security. If occurs a discount of spending power superior to the premium of the security (expectation of future income) it's a sign that the secondary market for this security is little developed (low trade volume) or that exists a deterioration of confidence in relation to the expectation of future income internalized in that security.

Money has a high degree of liquidity (enforced by law) because it can be easily converted in goods and services (real resources). Other fixed or variable income securities (stocks, bonds) in general have to be traded first for money to after be used to command real resources. The liquidity of securities allows ample diversification and reconfiguration

of security portfolios of economic agents in any point in time.

2.5) Premium of securities ("interest", "profit" and "royalty"): addition to the future power of command over real resources relative to present power of command over real resources compensating the agent for abdicating of liquidity.

The premium of securities is the addition to the future power of command over real resources in relation to the present power of command over real resources proportional to the liquidity of the security. The higher the liquidity the lower the premium. The premium compensates the economic agent for parting from liquidity, for parting from present command of real resources. The premium is the future income of the security (expectation of increment to the current price of the security: interest, profit, dividend, royalty or capital gain by the increment of the current price of the security in the secondary market) used as an induction to the creditor to accept the security.

Securities without income (without premium) as money have high liquidity and can be easily traded for real resources or other securities. Inflation or deflation (elevation or reduction in the general level of real resource prices) can create a negative or positive real premium for money.

Fixed income securities as government and enterprise bonds promise the creditor a premium/ income/ interest/ capital gain in addition to the present value/price of the security. These securities have in general a "face value" and a due time when the creditor will be able to receive this value (including the premium or interest). Although the creditor can negotiate this security in the secondary markets for a price that takes into consideration the expectation of receiving this premium.

Variable income securities as stocks promise the creditor (holder of the security) a premium/ income/ profit/ capital gain (valuing of current price) in addition to the current value/price of the security. These securities in general don't have a face value, due time or defined premium having because of that a greater uncertainty in relation to the expectation of future income. Although in general it gives the creditors (stockholders) rights over the control of the issuer (enterprise). The creditor can negotiate this security in a secondary market where the price of this security tends to fluctuate in accordance with the expectation of future income (capital gains or dividends) that in turn depends in general of the growth expectation of profits, revenues, assets, equity etc.

The higher the liquidity of the security, the lower the premium. The higher the credibility of the issuer (confidence in relation to the expectation of receiving future power of command over real resources) the lower the premium necessary to convince the economic agents to accept this security and the higher the liquidity.

2.6) Accumulation of securities ("portfolio"): reserve of spending power for the future command of real resources and securities.

The accumulation of securities (spending power) by the way of previous income coming from the concession of command over real resources or securities (wages, interest, profits, capital gains, rent etc.) doesn't mean that these will be used to command real resources in any specific point in time. These can be maintained as spending power reserve indefinitely in the securities portfolio of the economic agent or exchanged for money or real resources.

The portfolio selection of securities of an economic agent will reflect different levels of liquidity (capacity to

exchange for money or real resources) and different premium expectations on these securities that depend of the tolerance of the economic agent in relation to future uncertainty.

3) Spending decision strategies of economic agents: criteria for the selection of alternative spending and systems of spending decisions.

The spending power of economic agents is used according with criteria for the selection of spending decisions and alternative systems of spending decisions. These criteria are the strategy of the economic agent or the plan of action to deal with uncertain future circumstances. The decisions of the agents may be independent but the results of these decisions depend of the decisions and strategies of the other agents.

Enterprise investment/production decisions generating a supply of goods and services will not generate necessarily its own demand because this will depend of the spending decisions of the other economic agents (enterprises, individuals, government) that will generate the aggregate demand that will determine the aggregate supply that will in fact be acquired (commanded by the agents).

The strategy will determine which real (alternative goods and services) and monetary (alternative securities) resources will be commanded (acquired) and which processes of transmission of spending decisions between economic agents will be used (coordination, cooperation, subordination and innovation systems of spending decisions of economic agents) because these can also influence in the target results (future spending power).

By the way of their institutional strategy the independent agents create competitive advantages for buyers, suppliers, workers, entrepreneurs, financiers and government.

The development of an enterprise depends on the coordination, cooperation, subordination and/or innovation between independent economic agents. The founder-entrepreneurs must attract buyers, suppliers, workers, other entrepreneurs (autonomous workers, partners or workers with partial or total risk payment), financiers (willing to exchange securities of lesser risk, as of governmental issuing, for higher risk securities of private issuing) and/or government (theoretically interested in benefits and external economies of collective appropriation), preferably creating sustainable competitive advantages, in relation to other founder-entrepreneurs, to attain the objective of the enterprise.

The higher the advantages (above the “market” or average offered by the other entrepreneurs), and the credibility in its realization/sustainability, the higher the capacity of the founder-entrepreneur of issuing securities to command these agents and the real or monetary resources of their property. In theory a founder-entrepreneur could organize an enterprise without governmental money, only issuing securities (promissory notes, participation shares, stocks, stock options for example).

The traditional enterprise strategy (based on neoclassic microeconomics) is institutionally static (with limited institutional and agent behavior presuppositions) and it turns in general only to the quest of competitive advantages for consumers in relation to the other agents (spending decisions strategies/systems), accepting dominant institutional conditions or of “market”, with limiting consequences for the development of the enterprise and even of the competitive advantages to consumers.

3.1) Cost reduction: increasing the power of command over real resources and securities per unit of spending power.

Economic agents can increase the power of command over real and monetary (securities) resources per unit of spending power reducing costs: commanding real resources and securities conceded at lower prices by the agents holding the control over these resources; or giving command over real resources and securities at lower prices to agents seeking control over these resources.

3.1.1) Economies of scale: cost reduction from aggregating spending in activities with similar variable costs.

Economic agents can reduce costs by the way of spending aggregation in activities with similar variable costs. The aggregation of variable production spending (labor and materials) in a same production enterprise/factory/installation for example makes it possible to acquire specialized equipment of mass production resulting in an increase of productivity or in last instance that a spending power monetary unit will result in the command of a superior quantity of real resources (higher production).

3.1.2) Economies of scope: cost reduction from aggregating spending in activities with similar fixed costs.

Economic agents can reduce costs by the way of aggregating spending in activities with similar fixed costs. An installation (office, factory, store) can be used for example for two different products, economizing fixed costs. Product or service diversification/differentiation can generate economies of scope by diluting fixed costs per unit sold.

3.1.3) Economies of transaction: cost reduction from the execution of spending between dependent agents instead of independent agents.

Economic agents can reduce costs by the way of the execution of spending between dependent agents instead of independent agents. The transaction costs between two independent enterprises (contracting, information, search, control of contract execution costs etc.) that are eliminated when these enterprises pass to the same command (merger, acquisition) or the activity/production/service is internalized by one of them.

3.1.4) Economies of bargaining: cost reduction from comparing costs of alternative independent agent suppliers/ buyers or from increasing bargaining power in relation to independent agent suppliers/buyers .

Economic agents can reduce costs by the way of comparing costs between alternative independent agents suppliers or buyers. Two integrated enterprises (dependent in terms of the supply of intermediary goods and services for example) that are separated (become independent by the way of a “spin-off” for example) can now search for alternative suppliers/buyers (lower prices). Or two enterprises with the same supplier that merger can now bargain for lower prices.

3.1.5) Economies of externalities: cost reduction from spending of other economic agents.

Economic agents can reduce costs by the way of spending of other economic agents as for example private or government spending in infra-structure (roads, energy etc.) specially if combined with tax exemptions.

3.1.6) Economies of confidence: cost reduction from decreasing risks from spending susceptible to probability calculus.

Economic agents can reduce costs by the way of decreasing risks from spending susceptible to probability calculus as spending where it is possible to be insured (acquisition of an insurance policy from insurance enterprises: insurance for accidents, litigation etc.); reduction of premiums of securities (interest) by the way of a collateral (guarantees in case of non payment) or positive credit history (positive history of payments of debts allows for interest reduction).

3.2) Increasing differentiation: spending in specialized products and services.

Economic agents can increase differentiation by the way of spending in specialized products and services (individualized or peculiar to the specific characteristics/objectives of the economic agents). This strategy contrasts with spending in standard mass products in services (susceptible to economies of scale) that in general are offered at lower prices but with the disadvantage of not attending to specific/differentiated characteristics of the economic agents. Economic agents can be interested in paying a premium-price for this differentiation.

3.3) Increasing spending power: spending in accordance with credibility or conditions of credit.

Economic agents can increase their spending power directing their spending to economic agents controlling real or monetary (securities) resources that are willing to accept a smaller amount of securities (value in money), longer due dates and smaller premiums (interest) for the issued securities in exchange for real or monetary resources, or

what is the same, give a larger amount of real or monetary resources per unit of the issued securities. An enterprise, consumer or government would use their spending power to acquire real resources for example from a supplier willing to accept as payment securities with longer due dates, smaller interest, smaller amount of securities or to give a larger amount of these real resources.

3.4) Spending power distribution: future spending power distribution with the objective of controlling real resources and securities in the present.

With the objective of controlling real resources and securities in the present, economic agents can distribute future spending power by the way of prices paid to the economic agents controlling real or monetary (securities) resources or by the way of prices/premiums set to their products, services and securities. Enterprises distribute wages, interest and profits as they pay for the control of real or monetary (securities) resources. The reduction of prices for products and services increases the income (spending power) of buyers/consumers. The payment of higher premiums for issued securities (dividends, interest) increases the income (spending power) of the receptor agents (creditors).

3.5) Reduction of uncertainty: subjective reduction of risks not susceptible to probability calculus.

Economic agents can reduce subjectively risks not susceptible to probability calculus by the way for example of selection of spending decision systems (spending decision transmission processes) that increase the general level of confidence in the spending future expectations. Spending coordination, cooperation or subordination between economic agents can increase the general level of confidence in spending future expectations reducing uncertainty caused by the independent decisions of agents.

The spending decision coordination between buyer and supplier ("Just-in-time" system for example) reduces inventory, capital risks and uncertainty.

3.6) Institutional and technological adaptation: adopt dominant technologies, strategies and systems of spending decisions.

Economic agents adopt dominant technologies, strategies and systems of spending decisions, acting along with the majority of the other agents. The custom, familiarity, efficiency or confidence of the agents operating by the way of these technologies, systems and strategies makes it easy in the short run to execute their plans of action.

3.7) Institutional and technological innovation: adopt non-dominant technologies, strategies and systems of spending decisions or create new ones.

Economic agents adopt non-dominant technologies, strategies and systems of spending decisions or create new ones to establish advantages to themselves and/or to other agents, acting not along with the majority of other agents. In the short run this strategy makes it difficult to execute their plans of action (because of initial lack of custom, familiarity, efficiency or confidence) but at medium/long run can generate advantages (cost reduction, differentiation) to themselves and/or to the other agents.

4) Economic agent spending decision systems: processes of transmission of spending decisions between economic agents.

Economic agents use processes of transmission of spending decisions between each other as contractual (independent agents) or administrative (dependent agents) systems, coordinating (maintain decision independence),

cooperating (partial loss of decision independence), subordinating (total loss of decision independence) or innovating (increase of decision independence) their spending decisions. The description of the spending decision systems will be made assuming the point of view of an enterprise producing goods.

4.1) Spending decision coordination systems: economic agents maintain decision independence ("market").

Economic agents can coordinate their spending decisions through contractual systems (“market”) that are a process of transmission of spending decisions between economic agents where these economic agents maintain their decision independence.

Spending decision coordination systems can be defined as systems of induction, signaling or information where the agents make voluntary and independent decisions. However the results of these decisions are interdependent (principle of effective demand): realization of future income expectations from investment and production decisions of an enterprise for example, will depend on the spending decisions of the other agents, that will determine the aggregate nominal demand, that in turn will determine the aggregate nominal supply (sold production). Coordinate means to signal/induce independent decisions for the collective benefit, however depending on the efficiency of the coordination system this collective benefit might not be achieved, not even the individual benefit sought by the agent.

4.1.1) Spot contract system: instantaneous command over real resources.

Economic agents can take instantaneous command over real resources by the way of spot contracts where securities are exchanged immediately for real resources using

different alternative processes: prefixed, post-fixed or synchronized spot contracts.

A) Prefixed spot contracts ("wholesale/retail"): enterprise spending decisions based on estimates of consumer/enterprise spending decisions with adjustment by the way of the posterior fluctuation of inventory (prefixed prices; prefixed production quantities; inventory fluctuates).

Enterprise spending decisions are based on estimates of consumer/enterprise spending decisions with adjustment by the way of the posterior fluctuation of inventory. Product prices are prefixed, the quantities of production are prefixed and the inventory of manufacturers/ wholesalers/ retailers fluctuate to adjust the supply to the demand.

B) Postfixed spot contracts ("auction"): enterprise spending decisions based on estimates of consumer/enterprise spending decisions with adjustment by the way of the posterior fluctuation of prices (postfixed prices; prefixed production quantities; price fluctuates to clear inventories).

Enterprise spending decisions are based on estimates of consumer/enterprise spending decisions with adjustment by the way of the posterior fluctuation of prices. The prices are postfixed, the production quantities are prefixed and the prices fluctuate to clear inventories adjusting the supply to the demand.

C) Synchronized spot contracts ("just-in-time"): enterprise spending decisions synchronized with consumer/ enterprise spending decisions (prefixed prices; production quantities synchronized with sold quantities; minimum inventories).

Enterprise spending decisions are synchronized with consumer/enterprise spending decisions. The prices are prefixed, the production quantities are synchronized with sold quantities and the inventories are minimum. When the minimum inventory (equivalent to the time of transportation from the seller to the buyer with a security margin depending on the reliability of the supplier/transporter) is being used/consumed the information is sent retroactively in the production chain. The production decisions are synchronized with the consumption decisions and the minimum inventory is always restored on time.

4.1.2) Future contract system: future command over real resources.

Economic agents can take future control over real resources by the way of future contracts where securities are exchanged for real resources delivered in the future using different alternative processes:
prefixed, postfixed or synchronized future contracts.

A) Prefixed future contracts (“made to order”): enterprise spending decisions based on previous spending decisions of consumers/enterprises (prefixed prices and quantities; minimum inventory).

Enterprise spending decisions are based on previous spending decisions of consumers/enterprises. Prices and produced/sold quantities are prefixed (made to order) and the inventory is minimum.

B) Postfixed future contracts ("indexed made to order"): enterprise spending decisions based on previous quantitative spending decisions of consumers/enterprises and indexed prices (postfixed prices; prefixed quantities; minimum inventory).

Enterprise spending decisions are based on previous quantitative spending decisions of consumers/enterprises and indexed prices. The prices are postfixed (indexed to reflect cost change or cost really incurred); the produced/sold quantities are prefixed (made to order with an open price clause to reflect real costs instead or estimated costs) and the inventories are minimum.

C) Synchronized future contracts ("prepaid future consumption"): enterprise spending decisions based on previous spending decisions of consumers/enterprises with advanced payment (prefixed prices; prefixed quantities; minimum inventory; spending synchronized with income).

Enterprise spending decisions are based on previous spending decisions of consumers/enterprises with advanced payment. Prices are prefixed; produced/sold quantities are prefixed; the inventories are minimum and the production spending (costs) are synchronized with income (advanced payment).

4.1.3) Coordination State: signaling/inducing decisions of independent economic agents by the way of spot, future and synchronized contract systems.

The system of contracts involving decisions of independent economic agents is susceptible to inflationary/deflationary speculative movements (euphoria/ panic) where the agents try to anticipate the decisions of the other agents creating a self-realizing spending movement (contraction/expansion) that will not generate necessarily the individual or collective benefits sought.

The coordination state (or a non-profit independent institution) uses instruments of counter-cyclical action (monetary and fiscal policy for example) and signals parameters of action to the independent agents from which

the counter-cyclical action can be activated (minimum growth rates or maximum inflation rates). The speculative movements turn self-reversible in the proportion of confidence of the agents in the counter cycle action of the coordinator state, where this can as a last resort have to act to induce/reinforce the confidence and action of the agents, preserving individual and collective interests.

4.2) Spending decision cooperation systems: independent economic agents lose partially their decision independence.

Economic agents can make spending decisions cooperatively by the way of administrative systems where they have partial loss of decision independence making together certain interdependent spending decisions.

4.2.1) Joint-ventures: independent enterprises cooperate in spending decisions on a common entrepreneurial project.

Independent enterprises cooperate in spending decisions on a common entrepreneurial project with a partial loss of decision independence of the participating enterprises that make administrative spending decisions together in relation to a specific project.

4.2.2) Merger: independent enterprises unite with a proportional division of decision power and make certain spending decisions together.

Independent enterprises unite with a proportional division of decision power and make certain spending decisions together with the independent enterprises becoming divisions of a same enterprise for example, resulting in partial loss of its decision independence.

4.2.3) Cartels: independent enterprises from the same industry cooperate with specific strategies of spending decisions.

Independent enterprises from the same industry cooperate with specific strategies of spending decisions with partial loss of decision independence. Common strategies (involving decisions of production, investment, price and/or distribution for example) can be made formally or informally. This strategic collusion is in general illegal in the majority of national economies (for example by reducing spending power of consumers by the way of increasing prices) although in can in fact occur with a certain frequency.

4.2.4) Cooperatives: independent enterprises from the same industry cooperate with specific spending decisions.

Independent enterprises from the same industry cooperate with specific spending decisions dividing, for example, fixed costs of a larger scale (installations, equipment). Very common among small agriculture enterprises which divide fixed costs associated with spending in production equipment or industrial/commercial installations.

4.2.5) Subcontracting: independent enterprises cooperate with suppliers with specific spending decisions.

Independent enterprises cooperate with suppliers with specific spending decisions. A line or stage of production can be entirely transferred to an independent supplier enterprise; spending in technological development can be made together for example.

4.2.6) Franchising: independent model-enterprise cooperates with independent clone-enterprise in broad spending decisions.

Independent model-enterprise (“franchiser”) cooperates with independent clone-enterprise (“franchisee”) in broad

spending decisions. The franchisee has identical products and administrative techniques as the franchiser. They cooperate in investment and production spending decisions. The franchisee preserves however decision independence in relation to certain production decisions, for example decisions of hiring of workers and purchase from suppliers, although these may have to be made following criteria specified by the franchiser.

4.2.7) Cooperation State: state cooperates with independent economic agents.

The state cooperates with independent economic agents or organizes the cooperation of independent economic agents. Executive committees for example can gather representatives of different state departments, representatives of private enterprises and workers to supervise the execution of projects/policies of common interest, making together certain spending decisions or strategies of spending decisions (state or private investment decisions, production decisions as spending with wages for example).

4.3) Spending decision subordination systems: independent economic agents lose totally their decision independence.

Economic agents subordinate spending decisions of other agents by the way of administrative systems where the subordinated agents have total loss of decision independence and start to make spending decisions under the command of the subordinator agent.

4.3.1) Horizontal trusts: enterprises subordinate other enterprises in the same sector of activity.

Enterprises subordinate other enterprises in the same industry or sector of activity, gaining the control over the

spending decisions by the way of acquisition of the majority of the capital of the enterprise.

4.3.2) Vertical trusts: enterprises subordinate other enterprises in the sectors above or below in the productive chain.

Enterprises subordinate other enterprises in sectors above (buyers) or below (suppliers) in the chain of production taking control over the spending decisions by the way of acquisition of the majority of the capital of the enterprise.

4.3.3) Subordinator state: governments subordinate the spending decisions of other agents.

Government subordinate the spending decisions of other agents by the way of regulation (laws); taxation; administrative controls; acquisition of decision/capital control of enterprises.

4.4) Spending decision innovation systems: agents create or substitute dominant spending decision strategies, spending decision systems, products and production processes for new or non-dominant alternative options.

Agents create or substitute dominant spending decision strategies, spending decision systems, products and production processes for new or non-dominant alternative options. This is a process that increases decision independence, with non existing or low degree coordination, cooperation or subordination of spending decision between economic agents. There's a high degree of uncertainty (non probabilistic risk) connected with these decisions.

4.4.1) Innovative ventures: individuals form enterprises to develop innovative projects.

Individuals form enterprises to develop innovative projects creating or substituting dominant strategies of spending decisions, systems of spending decisions, products or processes of production for non-dominant or new alternative options.

4.4.2) Innovative intra-ventures: enterprises develop innovative projects.

Enterprises develop innovative projects creating or substituting dominant strategies of spending decisions, systems of spending decisions, products or processes of production for non-dominant or new alternative options.

4.4.3) Incubation of innovative ventures: enterprises/government/universities form independent enterprises to develop innovative projects.

Enterprises ("venture capital"), government or universities form independent enterprises to develop innovative projects creating or substituting dominant strategies of spending decisions, systems of spending decisions, products or processes of production for non-dominant or new alternative options, but provide partial coordination, cooperation, subordination to increase new enterprise success rate or decrease mortality rate.

IV - POST-KEYNESIAN INSTITUTIONAL ECONOMIC POLICY: REDUCING UNCERTAINTY BY THE WAY OF COORDINATION OF ECONOMIC AGENTS SPENDING DECISIONS.

The objective of the post-keynesian institutional economic policy developed here is to perfect the decision coordination of independent agents because this would be a neutral (centrist) economic policy accepted/tolerated by ideologies to the left and right. The opposition to the "market system" or "capitalism" has origin in the lack of coordination of spending decisions caused by the decision independence of the economic agents, in the inequity of power of these agents and in the inequity of income and wealth distribution generating excess/lack of aggregate demand (inflation/recession).

The search for self-interest by the way of independent decisions of economic agents (by the way of a system of auction or retail spot contracts) will not generate necessarily collective benefit and will not generate necessarily individual benefit as neoclassic economists claim. A businessman that cuts spending to protect his profits will end up seeing his profits decline in the degree that his sales decline because other businessmen are doing the same, which reduces the aggregate nominal demand that in turn reduces the aggregate nominal supply and profits.

Keynes (1936) advocates the need for a certain degree of "centralization" of spending decisions (rejecting the need for the state to own all the means of production) by the way of the state (fiscal/monetary policy elevating/restricting consumption/investment and the aggregate nominal demand) as a form of correcting the lack of coordination of

independent agent spending decisions, not necessarily corrected by the "market". Keynes (1936) was skeptic about the participation of non-entrepreneurs (low tolerance for risk) and of the securitization of the process of capital accumulation (in the context of the speculative crises of 1929) preferring to use the system state/central bank/commercial banks to finance the investment and production decisions (keeping the interest rates low by the way of monetary expansion).

This institutional arrangement however favors the concentration of wealth (property of enterprise capital), income (profit) and power in the hands of the entrepreneurs and their heirs (and in consequence an eventual insufficiency of aggregate demand). This process can be counterbalanced by an income and property progressive taxation system (including taxation over inheritance); state regulation of monopolic/oligopolic enterprises (anti-trust legislation; price controls) and worker unions. This institutional arrangement of trying to counterbalance powers is inferior to an institutional arrangement that tries to eliminate the origin of the problem, that is the non-participation of all the economic agents in the process of capital accumulation or the homogenization of the sources of income reducing or eliminating distributive conflicts. This can be better resolved by the democratization and securitization of the process of accumulation of capital and development of mechanisms of coordination (fiscal, monetary and exchange policy for example) to reduce the speculative movements. This alternative faces less political resistance.

A hybrid institutional structure (collective/individual decisions) using and perfecting spending decision cooperation or subordination systems (state or other independent non-profit institutions) together with traditional spending coordination systems (auction/retail "market") is preferable to non-hybrid traditional structures ("state

socialism" , "private capitalism"), however the development of decision coordination systems (maintaining the highest degree possible of power decentralization, inducing/signaling independent decisions that preserve the collective interest and not only self-interest) has a higher potential because it faces less ideological opposition.

The fundamental objective of the post-keynesian institutional policy defined here is to reduce uncertainty caused by the decision discoordination of independent agents using/creating mechanisms of last resort to counter-cyclical decision coordination of the aggregate demand (aggregate spending decisions of independent economic agents). The existence of these mechanisms doesn't have a decision centralization character but of signaling/inducing independent decisions of the agents for collective benefit. Functions as a collective insurance mechanism. Ideally these will tend not to be used in the degree that the independent agents, having knowledge and confidence in its presence, anticipate its counter cyclical action: reducing spending when faced with inflation and increasing spending when faced with recession, anticipating the action of the counter-cyclical mechanisms of aggregate demand coordination. These will be activated only as a last resort.

1) Institutional diagnosis: identifying dominant agents, strategies and systems of spending decisions in a national economy as a basis to establish efficient economic policies.

Initially it's necessary to identify dominant agents, strategies and systems of spending decisions in a national economy as a basis to establish efficient economic policies. Although there exists similarities between several national economies, the differences are significant to demand a model of economic analysis that does not ignore such differences.

2) Institutional policy: democratization of financing decisions and development of national synchronized spot and future contract spending decision coordination systems.

Although the "institutional diagnosis" and the institutional policy can vary in different national economies, as a consequence of the set up of normative objectives of different ideologies to the right or to the left of the ideological spectrum, there are certain institutional policies that have a centrist character and therefore are tolerable by both sides of the ideological spectrum.

The left tends to emphasize systems of cooperation (unions/cooperatives of workers) and subordination (state) as a solution to the decision discoordinations of independent economic agents (that result in recession, inflation and bad income distribution) caused by basic systems of decision coordination ("Market": auction and/or retail spot contracts). They are on the other hand against systems of enterprise subordination or cooperation (enterprise trusts or cartels) supported or tolerated by the right that in turn reject the elimination/reduction of independent decisions by the way of unions and state intervention.

The perfection of coordination systems of independent economic agents seeking the collective interest (economic growth, with low inflation and improvement of income distribution) without loss of decision independence (to seek self-interest) is an objective that does not harm or can be tolerated by both sides of the ideological spectrum.

The democratization of financing decisions (capital democratization or participation of workers/majority of citizens in the process of accumulation) is a fundamental institutional policy to improve income distribution and interest harmonization (increasing income and capital of low income citizens, sustaining the aggregate demand). It can be developed specially by the way of social security

funds and reforms of the financial system that facilitate the direct non-bureaucratic access to the process of capital accumulation.

Counter-cyclical economic policy allows the perfection of the coordination of independent agents (coordination between nominal aggregate demand and real aggregate supply), reduction of uncertainties (caused by decision independence) and maintenance of high growth rates with low inflation.

Another element of institutional policy is the development of spending coordination systems of spot and future synchronized contracts (coordination of investment and production spending decisions with consumption decisions) because these can reduce uncertainty without eliminating decision independence. The creation of a national spending decision information system, communicating consumption decisions retroactively in the production chain at the moment of the spending in goods and services ("Just In Time" system of production and inventory), by the way of payment terminals connected to systems of communication as the Internet, can substantially reduce inventory and uncertainty of production and investment spending decisions.

3) Monetary policy: diversifying security reserve systems and open market operations buying/selling securities against/favoring the cycles of national economy and primary/secondary markets of securities.

The traditional monetary policy is done by the central bank (under control of the state or with some degree of independence) by the way of commercial banks (rate of reserve of the "checking account deposits security", rediscount rate, reserve loans etc.) and/or "open market" operations (buying and selling fixed income securities

issued by the government or by commercial banks as the "money" security that has circulation/acceptance enforced by law). This favors the capacity of these agents (government and commercial banks) to issue securities with lower premiums because of the higher degree of liquidity made available by the central bank that acts as a provider of liquidity of last resort and a counter-cyclical operator (purchase on the low / sell on the high).

Other agents (investment banks, productive enterprises, regional/ state/ municipal governments) don't have this institutional privilege and in consequence have a lower capacity to issue securities (providing lesser command over real resources and securities) and need to pay a higher premium because of the lower liquidity. Under the perspective of the "left wing" (defense of collective interests) giving such privileges to a specific segment of private enterprises (commercial banks) is something to be condemned (generating an official trust or cartel of oligopoly profits). Under the perspective of the "right wing" (defense of individual interests) giving such privileges to a central government (federal/national government) is something to be condemned (taking spending power or the power to generate spending power away from individuals and giving it to a centralized bureaucracy).

Additionally the commercial banks non security form (non negotiable) of "issuing securities" (exchange between "checking account securities" for money or "loan securities" issued/deposited by the clients or central bank) increases the risk/uncertainty because of the limitation of the diversification of the loan portfolios, elevating the risk of insolvency and the need for central bank intervention ("socializing" losses of the commercial bank breakdowns that with little diversified and high risk/ low credibility loan portfolios face withdraws from illiquid checking accounts).

Keynes (1936), having as a background the New York Stock Exchange crash (1929), tended to oppose the securitization of the financial system (because it favored euphoria and panic speculative movements) and favor the commercial bank structure of non-negotiable contracts (loans at a fixed term). The advantages of securitization (portfolio diversification and liquidity that reduce the premiums of the securities) must be compared with the disadvantages (increase in volatility caused by speculative movements). However, institutional innovations can significantly reduce the disadvantages: central bank exercising a counter-cyclical monetary policy in a wider market of securities (including private stocks and bonds) for example.

Speculator agents (using price technical/graphic analysis for example) buy/sell real goods or securities because they think that the other agents will buy/sell, creating a self-realizing prediction. The presence of a counter-cyclical agent (and high confidence on its efficiency) however, alters this phenomenon making so that the agents abandon the speculative tendency from a certain inflationary or deflationary level (elevation/reduction in the level of prices of real goods and services and/or securities above of a level that can detonate an euphoria or panic speculative run) because they know that the counter-cyclical agent will induce the reversal of direction. With this, speculative cycles (peaks and valleys) tend to be flattened and the state/ central intervention of last resort tend to decrease and not to increase (what occurs in neoclassic institutional models because of the constant cyclical crisis of aggregate nominal demand insufficient to buy the real aggregate supply).

Private commercial banks are economically obsolete (less liquidity/ higher risk) and politically obsolete (private official trust/cartel of oligopoly profits unjustifiable by any ideology) in relation to investment banks. State commercial

banks/state central bank (that increases the spending power of the state because of the access to money issuing or automatic trade of fixed income securities for money) are questionable in the point of view of one side of the ideological spectrum (that would prefer the coordination of independent agent decisions instead of centralized/dependent decision mechanisms that increase the power of the state).

Investment banks/brokers (that buy/sell securities and administer security funds) and a central bank of investment banks are a more economically adequate institutional structure (more ideologically neutral and more economically efficient in terms of uncertainty reduction with the preservation of decision independence). The central bank must buy/sell security indexes (portfolio of securities of all economic agents: money, private and governmental fixed and variable income securities) against the national economy and the security "secondary market" cycles. And must buy index-portfolios of securities in the primary market favoring the economic cycle.

Monetary funds of investment banks can/should substitute checking accounts of commercial banks. The investment bank would exchange fixed income securities of a company for shares of the monetary fund (that can be moved with checks or as a collateral for a credit card) depositing part of these securities with the central bank. This system of securities reserve represent an amplification of the already existing system for checking accounts of commercial banks and fixed income securities of the government. The monetary policy must be directed to "open market" operations with the higher diversification of securities.

4) Fiscal policy: progressive direct tax system with increasing/decreasing public spending, selective tax deductions and rates against/favoring the national economic cycle.

Fiscal policy is not an ideologically neutral instrument of economic policy because it involves the transfer of spending between the individual/enterprise and collective (governmental) sphere. Ideologies to the left ("collectivists") usually look for the increment of public spending (specially for education and health) and taxes (with income progressive rates). Ideologies to right ("individualists") usually look for reduction of public spending (although they seek the increase in security spending) and taxes (preferring the financing of public spending through debt or low one rate tax over income or consumption).

Using fiscal policy in an economically efficient manner is therefore difficult because of the aspect of the break of the confidence in a counter-cyclical action because of the rotation of governments, specially when a right wing government against this type of policy takes power. However if used, public spending and/or tax deductions must be increased/decreased against the national economic cycle. Tax deductions for specific spending (home owning, private social security contributions as health insurance or pension funds) are the more adequate alternative for right wing ideologies because it maintains the spending at the individual level. Also, tax rates should be increased/decreased favoring the economic cycle: increase of rates during the expansion and reduction during retraction. That is, the government has a surplus during the expansion and a deficit during the economic retraction. The objective is to manage the aggregate demand avoiding the "overheating" of the economy (inflation caused by the excess of aggregate demand in relation to the installed production capacity) or economic "cooling" (recession caused by the insufficient aggregate demand generating idle productive capacity).

The taxation system must be direct and progressive on income and property of individuals (taxes over institutions are just passed on to individuals and just like taxation on consumption are regressive because they penalize disproportionally the lower income groups that have a larger part of their income spent). The rates must be increased/reduced favoring the national economic cycle (increase in the expansion and reduction on the contraction of the aggregate demand) and of the secondary market of securities. Increase in tax deductions (spending deducted of taxable income or of taxes) in the recession are a preferable instrument instead of the change in rates in the degree that the expansion in spending is guaranteed while a cut in taxes does not assure necessarily that these will be spent.

Institutions should not be taxed because it will only pass on the taxes to consumers (preferably if there is market power), workers or individual/physical person investors. This indirect taxation only distorts the progressivity of the tax system that in addition to usually be considered more fair (what is refuted by ideologies more to the right, usually centered on the notion of justice by the equality or sufficiency of opportunities), is economically more efficient in terms of sustaining the aggregate demand.

A competitive income distribution system inevitably results in income concentration and problems of sector or aggregate “insufficiency of demand”/ “excessive supply”: as the income increases the percentile spending in consumption decreases, turning necessary the increase and maintenance of investment decisions to generate the aggregate/sector demand for the growing expansion of the aggregate/sector supply. Historically there isn’t efficient coordination of this process generating economic cycles and a tendency to economic stagnation, that can be avoided/reduced by progressive taxation, although this mechanism is not distributively neutral among citizens generating ideological/political controversy.

5) Foreign exchange and tariffs policy: global currency-portfolio with counter cycle buying/selling of foreign securities portfolio-index.

The balance of trade tends to vary against the economic cycle (deficit during the expansion and surplus during recession) and the capital balance tends to vary in favor of the economic cycle (surplus during expansion and deficit during recession). The foreign exchange reserves must be maintained in a diversified portfolio (index) of foreign securities (specially currency and short term government fixed income securities of economies with low inflation). The foreign exchange policy must be of buying/selling index-portfolio of foreign securities against the national economy and secondary security market cycles: sale of securities/currency in the expansion and purchase in the retraction.

The portfolio of foreign securities must be the most diversified possible, preferably following an international convention of composition in accordance with some criteria as the size of the GDP/GNP/national income or participation in the world trade of the issuing country. That way the fund share price could in theory serve as global currency. Alternatively this composition can take place by bilateral counterpart agreement between countries. A security/national currency is accepted in transactions and maintained in the composition of international reserves in the degree that the issuing country does the same in relation to national securities/currency.

The trade tariff policy must be of elimination of all tariffs and substitution for quantitative controls inside of a bilateral reciprocity policy between national economies. Taxes or tariffs over the production or commerce have a regressive character, penalizing proportionally the citizens of lower income (because they consume a greater portion of their income). In addition they avoid competition, favoring the inefficiency and/or monopoly/oligopoly profits. The sector quantitative reciprocal importation allows for a better administration of the commercial balance and of inflation/recession, increasing competition by the increment of exports/imports and relieving eventual pressures of "excessive" sector/aggregate demand or supply.

6) Capital and income policy: increasing/decreasing individual account social security/investment contribution rates over income and sector consumption favoring the national economic cycle.

The concentration of income and capital has political (distributive conflict), social (inadequate life conditions of low income individuals) and economic (aggregate demand deficiencies) consequences. These inequities can be corrected afterwards by the way of progressive taxation over the income and property (specially inheritance). These afterward corrections face however greater political resistance specially from the individuals of higher income/wealth. Policies directed to correct these inequities at its origin (inadequate institutional structure) can be much more efficient. The participation of the majority of individuals (not only entrepreneurs/administrators but fundamentally workers) in the process of capital accumulation by the way of enterprise stock participation in social security funds is an example.

The compulsory contribution rates of social security (public or private health, retirement and unemployment insurance for example) or investment (collective fund or

preferably individual fund under the administration of an institution of free choice), over income or consumption (separated/discriminated from prices and deposited in individual accounts) must be increased/reduced favoring the national economic cycle and secondary market of securities (increase in the expansion and reduction in the contraction of the aggregate demand). The social security funds must be channeled to the primary market and counter-cyclically to the secondary market of securities.

The minimum wage must be raised independently of the national economic cycle since the constant increase in the minimum standard of living (consumption minimum spending decisions) is an anchor (security) to the investment decisions and the tendency of the economic cycle, turning the aggregate demand less uncertain. Without the firm compromise of society (government) of elevating the minimum consumption spending, there is an increase of the uncertainty of the investment decisions (spending with return above one year as machinery, equipment and installations).

There must be laws or tax incentives for partial remuneration of workers in the form of enterprise variable income securities (stocks and stock options) with limited renegotiation (incorporated for example to social security individual funds for example), diversifying workers source of income (reducing the uncertainty of consumption decisions facing the threat of unemployment), reducing the distributive conflict between capital and labor.

A securities reserve system under the control of the central bank must be created, expanding the current reserve system of securities issued by commercial banks and the government. Without such a system, specially in relation to variable income securities (stocks), the democratization of capital (participation of the majority of citizens, specially

workers, in capital accumulation) becomes vulnerable to speculative movements of euphoria and panic that can compromise the efficiency of this process and will affect also the aggregate demand. A substantial retraction/increment in the value of the securities, reducing the nominal wealth of its proprietors can reduce/increase their demand for real resources generating inflation/deflation (recession) in the market of real resources.

7) Technology and industrial policy: choosing index-portfolios of securities which determine the composition of social security, government and central bank funds.

The selection of securities to form the portfolio of the central bank (monetary authority), governmental and social security funds must follow pre-defined indexes of formation. The management of these funds must be passive since the objective here is not to subordinate (centralize) the independent (decentralized) spending decisions of the agents but to coordinate them (is not to choose which specific enterprises must be financed but to signal/induce microeconomic sector independent decisions to produce macroeconomic collective benefit). Independent consumers, investors, financiers and workers continue influencing which enterprises will have success obtaining revenues, profit, asset and/or equity growth.

The choice of index-portfolios should favor sectors with high present and future income potential. There must be a representative index of the largest enterprises in terms of revenues, profits, capitalization (market value), equity and/or sector market participation. Theoretically the first ones are sector enterprise leaders (“blue chips”) and the second ones are the innovative enterprises (“techs”), seeking to obtain a balance between what the market signals for the present and for the future. The indexes would be

representative of fixed income securities (bonds) and variable income securities (stocks).

Alternatively an index representing the whole market can be used (the industrial and technology policy sanctions the market tendency) or a temporary active index, more appropriate to countries in development with sector and capital accumulation deficiencies of difficult surpassing by the way of the “free market” (financial and commercial) because of the disparity of market power (commercial and financial power) between national infant enterprises and dominant multinational enterprises.

V - **POST-KEYNESIAN INSTITUTIONAL ECONOMIC INNOVATION:** DEVELOPING COORDINATION SYSTEMS AND STRATEGIES OF SPENDING DECISIONS FOR INDEPENDENT AGENTS.

The development of institutions for the coordination of independent economic agent spending decisions allows for individual decisions to generate individual and collective benefits simultaneously.
Keynes (1936) and world economic history demonstrate that independent individual decisions will not benefit necessarily the individual and collective interest as alleged by neoclassics/neoliberals ("ideological right wing"). Collective decisions will not benefit necessarily the individual or collective interest as alleged by marxists/socialists ("ideological left wing"). Keynes (1936, chap. 24) supports a hybrid institutional model combining individual and collective decisions with the addition of cooperation and subordination decision systems (state) to the coordination decision systems ("market").

The development of coordination systems (maintaining decision independence) are a preferable alternative, more efficient and ideologically neutral, since it advances collective economic interests (the way the ideological left wing wants) without restricting individual economic freedom (the way the ideological right wing wants), with the development of subordination or cooperation systems

being used only as a complement to the failures of the first one.

Keynes (1936, p. 377-8) emphasizes that although there is "vital importance of establishing certain central controls in matters which are now left in the main to individual initiative, there are wide fields of activity that are unaffected. The State will have to exercise a guiding influence on the propensity to consume partly through its scheme of taxation, and partly, perhaps, in other ways. Furthermore, it seems unlikely that the influence of banking policy on the rate of interest will be sufficient by itself to determine an optimum rate of investment. I conceive, therefore, that a somewhat comprehensive socialization of investment will prove the only means of securing an approximation to full employment; though this need not exclude all manner of compromises and of devices by which public authority will co-operate with private initiative. But beyond this no obvious case is made out for a system of State Socialism which would embrace most of the economic life of the community. It is not the ownership of the instruments of production which it is important for the state to assume. If the State is able to determine the aggregate amount of resources devoted to augmenting the instruments and the basic rate of reward to those who own them, it will have accomplished all that is necessary. Moreover, the necessary measures of socialization can be introduced gradually and without a break in the general traditions of society."

The keynesian financial system model is centered in the state, commercial banks (non-security system) and in a state central bank that "ignores" long term uncertainties (to which the private agents are vulnerable), financing state or private productive investments (infra-structure, machines, equipment, installations). In this process the interest rate and the "marginal efficiency of capital" (discount rate that

makes the present value of expected annual returns of a capital asset in its life time equal its supply price) would tend to decline. The “rentist” private economic agent (recipient of capital income) would tend to lose importance or disappear.

Keynes seems skeptic in relation to a process of capital democratization and securitization of the financial system because of its vulnerability to speculative euphoria/panic specially when the property of the securities is in the hands of individuals with low tolerance to uncertainty instead of entrepreneurs with “animal spirits”. This analysis is done in the context of the New York stock exchange crash (1929) and the economic depression that followed.

Institutional innovations, as the property of securities by the way of social security funds, mutual funds, reduction in the transaction costs of securities and increase in the liquidity of securities by the way of electronic bourses, change this context. However they do not allow, specially in the market of variable securities (stocks), a sufficient uncertainty reduction to solidify an ample process of democratization of the property of securities. This can be achieved with the amplification/expansion of the reserve system and central bank counter-cyclical policy for securities of higher risk (private stocks and bonds for example).

The financial system model centered in commercial banks/central bank/state face however opposition to the right and to the left of the ideological spectrum. In the point of view to the left because favors the concentration of the property of the means of production (“capital”) in the hands of a minority (entrepreneurs) under the “protection” of the state that would be “socializing” substantial part of the enterprise risk (an efficient monetary and fiscal policy reduces risks, costs and idle productive capacity). In the point of view to the right this model centralizes excessively

power in the hands of the state, making it also possible for the state to exercise a role in the choice of the sectors/enterprises to be financed (by the way of industrial policy/selective credit). Keynes (1936, p.380) however emphasizes that "the advantage to efficiency of the decentralization of decisions and of individual responsibility is even greater, perhaps, than the nineteenth century supposed"; (...) (p.379) and "it is determining the volume, not the direction, of the actual employment that the existing system has broken down."

A post-keynesian model must preferably reduce uncertainties by the way of development of independent economic agent spending decision coordination institutions (systems), allowing higher levels of spending. At the same time the capacity to issue and the property (reception) of securities must be democratized, giving power to determine the direction of the economy to the majority of the citizens. This objective has a higher neutrality in relation to traditional ideologies ("liberal-individualist" / "socialist-collectivist") permitting to preserve individual and collective interests simultaneously. Decision intervention mechanisms (centralization) of last instance can be used in the degree that the lack of decision coordination (inflationary/deflationary euphoria/panic) harm individual and collective interests.

The objective is to reduce uncertainties by the way of increasing the decision coordination by the way of increasing liquidity, diversifying portfolios, reducing price volatility, increasing the confidence in the counter-cyclical coordination of the monetary authority and the democratization of the issuing and property of securities.

Technological (telecommunication/information technology) and Institutional innovations (fiscal/monetary counter-cyclical policy with government securities; electronic bourses; development of social security funds and

other financial products) led to the advancement of the process of democratization/securitization of credit. The current financial system is a hybrid system in terms of the presence or not of an institution of liquidity counter-cyclical coordination.

Commercial banks (issuers of "checking deposits" and fixed income securities) and the government (issuer of securities with no income/money and of fixed income/bonds) have an institution of counter-cyclical coordination: a state central bank, or with a certain degree of independence (non-profit institution), that increases liquidity and consequentially the attractiveness/acceptability/confidence of the securities issued by the commercial banks and the government that in turn pay lower or no premiums (money, that in fact has the negative premium of inflation) to the agents that accept these securities.

Enterprises, Investment banks and brokers issue/buy/sell securities (stocks, bonds, fund shares etc.) of which liquidity is increased by bourses and private "market-makers" (brokers that specialize in one/some securities and theoretically determine/honor a certain buying and selling price). These do not have a non-profit institution of counter-cyclical coordination as the central bank. The result is a greater volatility and smaller liquidity in comparison to securities issued by the government and commercial banks, and the need for the expectation of higher premiums (dividends, interest, or capital gains from the valuation of the security price in the secondary market/bourse).

The securitization of credit issuing (spending power) allows a larger diversification of the security portfolios. This reduces the risks/uncertainties, reduces security premiums and increases the confidence/acceptability of these securities. A commercial bank has a more limited lending portfolio, while an investment bank has a security

portfolio of hundreds or thousands of different securities issued by different economic agents. Additionally the credibility of the security issuer is constantly adjusted by the secondary market of securities, while the commercial bank can accumulate loans of debtors with low or deteriorating credibility with no reflection in the banks balance sheets. The securitization and diversification allows the democratization of the property of securities and of income coming from premiums and capital gains of these securities.

The limitation/counterpart of the expansion/restriction of central bank money issuing by the way of a diversified index buying/selling in the "open market" (pre-defined portfolios of securities representing the totality of the secondary market of securities issued by different agents with different maturities, types of risk and fixed or variable income) and counter-cyclical monetary policy would allow for a higher confidence in the money issued. This would be limited by the credibility (confidence in the exchange of money for other securities) and the production capacity of the economy (confidence in the exchange of money for real resources), that is in the broad liquidity of the economy.

Keynes (1936, p. 205) emphasizes that "if the monetary authority were prepared to deal both ways on specified terms in debts of all maturities, and even more so if it were prepared to deal in debts of varying degrees of risk, the relationship between the complex of rates of interest and the quantity of money would be direct. The complex of rates of interest would simply be an expression of the terms on which the banking system is prepared to acquire or part from debts; and the quantity of money would be the amount which can find a home in the possession of individuals who, after taking account of all relevant circumstances, prefer the control of liquid cash to parting with it in exchange for a debt on the terms indicated by the market rate of interest.

Perhaps a complex offer by the central bank to buy and sell at stated prices giltedged bonds of all maturities, in place of the single bank rate for short-term bills, is the most important practical improvement which can be made in the technique of monetary management. (...) (p.207) after the rate of interest has fallen to a certain level, liquidity-preference may become virtually absolute in the sense that almost everyone prefers cash to holding a debt which yields so low a rate of interest. In this event the monetary authority would have lost effective control over the rate of interest. But whilst this limiting case might be important in the future, I know of no example of it hitherto."

The mentioning of securities of high credibility must be understood in the context that the absence of action of the monetary authority (central bank) in relation to securities of lower credibility is one of the fundamental reasons of their low credibility. Additionally the diversification of portfolios reduce the risk of the securities of less credibility.

The amplification of the security reserve system, expanding the central bank portfolio (that contains in general government and commercial banks securities) to include different types of securities with different maturities and risk conditions (stocks and long term bonds) can increase the efficiency of the monetary policy.

Additionally the central bank should act primarily in the "secondary market" (open market/bourses/exchanges) but if necessary (when the premiums of the securities reduce to a level where it starts to prevail a preference for liquidity: short term/low risk/high liquidity securities as money) in the primary market (security underwriting locked with spending in real resources).

The counter-cyclical action of the central bank by the way of this amplified security reserve system can have limited efficiency because of the presence of private "market makers" or for-profit institutions that have substantial

control (property or custody) and privileged information about certain securities (about the buying/selling volume/price in real time). Increase/reduction of the reserves with the central bank can minimize this aspect. Democratization (reduction of concentration) of the property of securities can also minimize this aspect. However the lower the confidence in the efficiency of the counter-cyclical coordination of the central bank, the higher will be the need for action of last instance from the central bank (buying/selling securities). The higher the confidence of the agents in the counter-cyclical action of the central bank the lower will be the need for last instance action of the central bank. The agents will anticipate the central bank's action and voluntarily act in the direction of the collective objectives set by the central bank that will also generate individual benefits for themselves: premiums of the different security segments; general level of prices (maximum inflation); level of consumption; level of investment (fixed capital gross formation); level of aggregate demand; minimum aggregate spending growth determining the growth of the production and of income.

1) Central bank of reserve and custody of electronic securities: increasing liquidity, diversifying and democratizing the property of securities.

The central bank must expand the reserve system of securities issued by economic agents diversifying its portfolio (maturity and level of risk), expanding the current system involving securities of commercial banks and government to include enterprise fixed and variable income securities (stocks and bonds). These reserves would not be accessible to free buying/selling by the owners of the securities. The administration of the level of these reserves (rate of reserve) and access conditions (discount rate) would be part of the monetary policy (and of aggregate demand administration).

Additionally the central bank must have custody of all securities issued in the economy, giving maximum degree of confidence to the economic agents in the efficiency of the central bank counter-cyclical action (reducing the need for intervention, by the action of the agents anticipating the central bank). Technological advances in information/telecommunication technology facilitate this aspect, with the securities assuming an electronic accounting form, that can be easily and directly traded by the economic agents by the way of a direct national electronic exchange.

This institutional arrangement results in lesser instead of higher need for central bank intervention of last instance to limit speculative movements of euphoria or panic (inflation or deflation), either in the security market or of real resources, because of the higher confidence (lower level of uncertainty) of the agents in the economic system. Additionally, because there will be no more a segment of the market of securities that is protected by the central bank counter-cyclical action (government and commercial bank securities) and another where this protection does not exist (stocks for example), the strong speculative movements between these two segments would not occur. There would occur an advancement in the coordination of the independent economic agents, allowing for a higher convergence of individual and collective interests.

The issuing of money or expansion of the monetary base by the central bank would be made by the way of acquisition of securities from the independent economic agents. The portfolio of securities acquired by the central bank could be distributed equally and incorporated to the reserve of securities of all citizens or of the economically active citizens (workers). The conditions of access to these reserves would depend on the level of aggregate demand for real resources and securities, in the secondary (exchanges)

and primary (security underwriting connected with the purchase of real resources) markets.

In addition to the reserve rate over inventories of securities, discount rate (conditions of access to these reserves), custody of all securities, buying/selling securities in the primary (underwriting of securities connected to spending in real resources) and secondary market (exchanges), the central bank can determine a rate of reserve over the flux of income and consumption (investment contribution). These reserves would be incorporated to the individual reserves of the economically active citizens. Finally the central bank could manage/influence the transaction cost of securities ("commissions" in the current system) in a national direct electronic exchange (stimulating liquidity and disistimulating speculation). The current system of exchanges with brokers/"market makers"/specialists with information access privileges or with transaction privileges are an economic obsolescence of arguable legality (competition/anti-trust laws). "Investors" (financing decisions) can transact directly without intermediaries under the protection of last instance of the central bank.

The security portfolio of the central bank, under conditions of sustained growth (without substantial inflation/deflation of asset prices), can have a mix of money/short-term government fixed income securities (1/4); long term government fixed income securities (1/4); enterprise fixed income securities (1/4) and enterprise variable income securities (1/4). Half of the enterprise fixed (bonds) and variable (stocks) income securities would be selected in terms of the current participation of the enterprise and economy sector in the economy (GDP) and half would be selected in terms of the enterprise and economy sector rate of growth (revenues, profits and real assets). There would be a balance between leading

enterprises (“blue chips”) and entrant/ innovative/ dynamic enterprises (“techs”). Alternatively this portfolio could be formed based on an index representative of the total market of securities, in case there won’t be industrial policy (less important for developed economies) by the way of the central bank, only monetary policy, with a consequential reduction in the income growth rate.

There should be a Global Central Bank (managing a Global Fund with a global security index-portfolio), a National Central Bank (managing a National Fund with a national security index-portfolio), a State Central Bank (managing a State Fund with a state security index-portfolio) and a Municipal Central Bank (managing a Municipal Fund with a municipal security index-portfolio). This would allow for a regionally balanced growth.

The main central bank coordination functions would be the signaling of parameters to the economic agents (minimum growth rates, maximum inflation and securities premiums) and counter-cyclical induction of last instance to the primary/secondary markets of securities and of the market of real resources following these parameters. This arrangement would lead to less instead of more “state intervention” because the agents, with the confidence in this institutional arrangement, act in coordination with individual and collective interests (cutting spending when faced with inflation and increasing when faced with deflation instead of the other way around that in fact occurs when there isn’t confidence in an institutional effective macroeconomic counter-cycle action over the aggregate demand that in fact does not occur as theorized in the primitive neoclassic macroeconomic model that claims self-correcting equilibrium will occur).

2) National direct electronic exchange: direct trade of securities between economic agents.

The economic agents can buy or sell securities directly by the way of an electronic national exchange using personal computers or public terminals. The current system of financial mediation involves legal/administrative privileges given/protected by the state or cartel/association of private enterprises (commercial banks with special privileges of operation with the central bank and brokers with special privileges of operation in the security exchanges), are economically and technologically obsolete, and of arguable legality (facing anti-trust and equal information to all investors legislation).

Economic agents that do not wish to actively manage their security portfolios can buy shares of fixed and/or variable security funds negotiated in a national direct electronic exchange. The transaction costs are extremely low and the price of a buying/selling transaction can be used as an instrument of monetary or fiscal policy.

3) Financial card: means of payment, buying power reserve and spending decision information.

The financial card can be an electronic means of payment, buying power reserve and spending decision information that allows for a better cash flow administration of the economic agents and reduction of economic uncertainties by the way of a better economic coordination between the independent economic agents. The national or international "money" would be used only as an account unit.

The financial card would be a combination of a credit card (the line of credit would be proportional to the number of shares in investment funds and monthly purchases of new shares, with these serving as collateral/guarantee to the line of credit), future card (the owner of the card makes advance payments and receives the product or service in the future, receiving interest and discounts; the credit buyers are

financed by the “future buyers” with an interest rate being uses to balance the two groups) and debit card (deducting the value of the purchases from the balances in the investment funds).

The financial card could have four balanced securities funds: Global Fund (mirroring the portfolio of the global central bank if it exists), National Fund (mirroring the portfolio of the national central bank that already exists), State Fund (mirroring the portfolio of the state central bank if it exists) and Municipal Fund (mirroring the portfolio of the municipal central bank if it exists).

The individual resources would be distributed by one fourth for each fund or entirely for the national central bank fund if only this one exists. These funds would be formed by money/short term government fixed income securities (1/4); long term government fixed income securities (1/4); enterprise fixed income securities (1/4); enterprise variable income securities (1/4), according with the geographic origin of the issuer of the securities (in the case of the existence of global and regional central banks). Alternatively the funds could reflect a portfolio-index representing the entire market of securities.

The global, state and municipal central bank could have a portfolio of securities formed by a pre- defined index (similar to the national central bank) according to the geographic location of the issuer. Half of the fixed and variable income securities would be selected in terms of the current participation of the economy sector and of the enterprise in the economy (GDP), and half would be selected in terms of the growth rate of the economy sector and enterprise (revenues, assets and profits). Alternatively the funds could reflect a portfolio-index representing the global/state/municipal market of securities. Buying/selling of securities in the primary or secondary markets must be in accordance with the goals of the monetary policy

(maximum inflation rate) which in turn is based in real economic goals (minimum growth of the production capacity).

The financial card would stimulate sustained and regionally balanced economic growth with a more efficient coordination of the aggregate demand with the aggregate supply. The card offers, specially to low income citizens, a simple and efficient personal finance administration instrument that increases their participation in capital and capital derivative income (interest and profits). The national central bank and/or any financial institution could offer a financial card using a global, national, state and municipal portfolio-index of securities created by the central banks. This portfolio-index should permit the financing of private and public projects; of the leading economic sectors and enterprises ("blue chips") and of higher growth ("techs", enterprises of innovative technology); or represent the totality of the securities market.

The present or future spending decisions executed with the card would be fed electronically retroactively in the production chain allowing a better coordination of the consumption decision with the production and investment decisions. The spending decision can be to debit (cash: present payment and present command over real resources); to credit (future installment payment and present command over real resources); or to future (present installment payment and future command over real resources). A general interest rate and a specific interest rate for each good or service (for credit and future buying) would permit administrating the aggregate demand between debit, credit and future spending (a higher interest would stimulate future consumption/investment instead of reducing it). Economic agents could issue securities in exchange for shares in the securities funds that in turn could serve as

collateral for the credit using the card, reducing risks and the interest rate.

4) Incubator universities: Educational-entrepreneurial institution to strengthen national/regional capital and technology accumulation.

Enterprise project incubator universities can reduce entrepreneurial uncertainties by the way of reducing fixed costs and barriers of entry, promote institutional-scientific-technological progress and generate democratization of knowledge, technology, opportunities, income, capital and power at international and intranational level, avoiding/reversing institutional-scientific-technological concentration, dogmatization, passivity, stagnation and conservatism. Incubator universities should have the following objectives and characteristics:

1) Institutional-scientific-technological development with plurality of ideas, equal opportunities and institutional scientific methodology that does not make institutional and human behavior presuppositions but considers them as variables that can be maintained or changed by human action. Selection and evaluation processes must be impersonal and plural to avoid personal/ideological favoring/discrimination.

2) Development of knowledge, research and incubation of institutional, entrepreneurial and technological projects using individual and collective workshops ("round table" with a professor/coordinator and/or one to six students/entrepreneurs) via Internet and/or live in a permanent or temporary local where participants develop individual projects and participate in collective projects. Barriers of entry and fixed cost of projects must be reduced with a real and virtual infra-structure for the incubation and marketing of projects that go from a workshop to an Incubator and then to a sector market (post-incubator).

Science must combine art/ philosophy/ experience, theoretical/ deductive/ analytical/ philosophical development with empirical/ inductive/ practical/ entrepreneurial/ artistic development.

3) Global social-economic development with democratization of knowledge, technology, opportunities, income, capital and power at international and intranational level by the way of creation of incubator community workshops, schools, faculties and universities with integrated basic, intermediate and advanced teaching for local students, in areas of low social-economic development, avoiding and reversing the concentration of knowledge, technology, income, capital and power.

4) Development of degrees in theoretical-practical courses with "Knowledge and Opportunities Monthly Temporary Contribution" (during the time of getting the course degree in accordance with income of student and parents: minimum of 10% of income) and of lifetime participation, opportunities and learning with payment of "Knowledge and Opportunities Recycling Monthly Contribution" (minimum of 1% of income) for receiving lifetime financial and institutional-scientific-technological development reports/journals update of their university/faculty/school and in their areas of interest; direct democratic participation in the administration of the university such as the approval of simplified annual budgets and incentive to eventual participation in new workshops.

5) Development of incentives to invention, innovation and entrepreneurship (additional/ complementary to patents and copyright) by the way of "University Royalty" paid in cash and/or stock, which consist in a participation (5% of gross receipts) of the university/faculty/school and of the founder-entrepreneurs in the receipts of projects incubated as a counterpart for the entrepreneurial participation and for the use of the knowledge and infra-structure of the institution.

6) Development of infra-structure and administration by the way of selling and/or distributing "University Shares" to suppliers, sponsors, institutions, professors, parents, students, graduates and professionals in accordance with their participation/work; tasks of operational administration and maintenance of the university divided between professors, students and graduates; direct democratic strategic/budgeting/statute administration through alternative proposition direct computerized plebiscite consultation to associates/shareholders.

CONCLUSION:

The model of post-keynesian institutional economic analysis allows the identification of spending decision dominant agents, strategies and systems as a base to establish efficient institutional economic policies and innovations from any ideological matrix.

The combination of the institutional scientific method with the post-keynesian school of thought, generating the post-keynesian institutional economic analysis model, enables the attack on the consequences of the secular backwardness of economic science and its tragic character. The consequent sub-performance of national economies affects the majority of the world population still living in precarious life conditions. Rates of economic growth (with low inflation) will be substantially higher with the neoclassic economic theory returning to the course of “history of economic thought.”

The principle that supply creates its own demand ("Say's law") (Say, 1803) is an idea that can even be embraced by businessmen and politicians at an electoral ideological-political speech level or in moments of defending specific individual interests (defense of their participation in income, property and power), but in the businessmen and politicians day to day practice it has the value of a fairytale. Parents tell their children the Santa Claus story, for costume, moral or entertainment reasons, but don't count on him to get presents for their children on Christmas day. Pragmatic businessman and politicians count on the government and the central bank (or other coordination institutional mechanisms) to manage the aggregate demand, following the principle that the nominal aggregate demand will determine the aggregate nominal supply ("principle of effective demand") (Keynes, 1936), specially in moments of recession or inflation, and not in the invisible hand of the abstract/unreal market theorized by the neoclassics.

The post-keynesian institutional economic model of analysis allows identification of dominant agents, strategies and systems of spending decision as a base to establish institutional policies and innovations of any ideological matrix. However, hybrid ideology, with the combination of coordination, cooperation, subordination and innovation systems of spending decision, has been the solution developed by democratic and free initiative societies. Cooperation and subordination systems are/can be used complementarily to coordination/innovation systems in the proportion of the failure of these in producing collective and individual benefits simultaneously. The development of coordination systems through institutional and technological innovation can however gradually reduce these failures leading to a lesser need of the use of cooperation or subordination systems.

The institutional policies and innovations described seek essentially the strengthening of the national/regional technology and capital accumulation, allowing the growth of the national income appropriated by 99% of nationals or residents (total and per capita) with lower income, improving the income distribution and sustaining the aggregate demand growth, which are fundamental indicators of progress in the social-economic situation of the majority of citizens.

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