Departamento de Economía
Facultad de Ciencias Económicas
Universidad Nacional de La Plata

"The challenge of Edmund Phelps: crises and economic models"[1]

Dr. Horacio L. P. Piffano[2]

Abstract

The paper attempts an explanation of the alleged "lack of adequate economic models" to predict and eventually avoid - through certain policy recommendations - the recurrent global or individual economic or financial and fiscal crises. In the author's opinion, in the controversy over the "rational expectation approach" and the design of dynamic and stochastic models, have been neglected some important underlying issues in economic performance, such as the very crucial institutional enforcement basis on which economic agents operate, including particularly government agents. The Public Choice School and modern Institutional Economics can help to understand the limitations and possibilities faced when seeking to improve the economic theory in its status as "science".

Keywords: Economic models, crises, institutions, policies, regulations.

JEL classification: D7 - Analysis of Collective Decision-Making; D8 - Information, Knowledge, and Uncertainty; E - Macroeconomics and Monetary Economics; G2 - Financial Institutions and Services - G38 - Government Policy and Regulation; K2 - Law and Economics - Regulation and Business Law.

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[1] From Spanish version: Piffano (2012b), "El Reto de Edmund Phelps: Las Crisis y los Modelos Económicos", http://www.depeco.econo.unlp.edu.ar/doctrab.php (Documento de Trabajo Nº 94). This document is a summary paper based on previous author's paper: Piffano (2012c) "Las crisis y los modelos económicos: diagnósticos, predicciones y las políticas económicas" (Documento de Trabajo Nº 93) elaborated for the V International Congress of Law and Economics "Innovation and Social Inclusion", in tribute to Nobel Laureate Edmund Phelps, Faculty of Law – UBA (Buenos Aires, 2012). Only available in Spanish from http://www.depeco.econo.unlp.edu.ar/doctrab.php

[2] Department of Economics (Faculty of Economics), National University of La Plata and Faculty of Law, University of Buenos Aires, Argentina. I appreciate comments received from Juan Vicente Sola, Aldo Alonso, Daniel Heymann, Alberto Benegas Lynch (h), Ricardo Bara, Martin Krause, Adolfo Sturzenegger and Ernesto Rezk. However, the views expressed in this article are my responsibility only and do not reflect any official position of the institutions I belong.

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I - The challenge and the collective decisions making

The challenge

In his "Roadblocks to Recovery and Rehabilitation", presented in the Panel on Global Economy: Crisis Without End (New York Review of Books & The Metropolitan Museum of Art, 2012), Professor Phelps challenged the Academy for its failure to explain great crises and at the same time questioned economic policy prescriptions that have been on the agenda of discussion at the political level. He indicated that "our country lacks a moral basis for renewal and reform of the economy because it has failed so far to obtain a consensus on the good life (also known as the "American Dream") and on economic justice", and requiring the need of showing how to clear the way for the American Economy to recover its past prosperity.

Based on Aristotle's sense of "good life", with Hayek and Rawls condiments, Professor Phelps advances the main path to follow to that target, consisting of: "encouraging entrepreneurship development, aimed at innovation as the engine of growth and employment, and training of human resources, particularly the active workers inclusion, thinking of those with lowest incomes".

With this synthesis, Professor Phelps understands the way to achieve a "trade off" between innovations and encourage of private initiative of Hayek (the "market")[3] and "a genuine social justice" of Rawls,[4] which involves some kind of "public regulation", even beyond the occasional existence of a crisis, when regulations arise as necessary.

And here emerges the big question: what kind of regulation and institutions?

The Public Sector ("the State"), the Government and the collective decisions

From now on I will talk about "Government", not about "State", requesting a special waiver from Law colleagues for forgetting the quality of "legal personality" of any State, "independent" or separated from those who operate it. Otherwise, we would not accomplish reasonably to explain the reality of facts, which is essential not only to jurisprudence setting, but also, and especially, to make forecasts and advance economic policy measures.

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[3] Hayek (1943; 1983).
[4] Rawls (1971).

From history literature it is possible to identify two polar stereotypes of governments: the "Leviathan government" of Hobbes (1651) and the Greek "democratic government" of Athens - Pericles (495 a. C. - 429 a.)[5] - and its subsequent developments in Western countries. Our specific concern is, with no doubt, to analyze the case of representative democracies of Western countries.

The universal example of the USA Constitution - establishing a democratic system with its republican form – as is well known – had superlatively impacted the Western world, particularly Europe, where the figure of Marquis de Condorcet was significant.[6] Why Condorcet?

Condorcet – who after the 1789 French revolution tried without success to set a constitution similar to the one in USA – taking benefit of his mathematical knowledge introduced the dilemma of "circularity in social decisions", as possible results of the simple majority voting process, which is the usual mechanism in any representative democracy.[7] All this is well known today. This early warning led later to economics to the conclusion of the difficulty to imagine a unique social welfare function for meeting the characteristic of "rationality" equivalent to "individual rationality". This early warning led later to economists to the conclusion of the difficulty to imagine a unique social welfare function meeting the characteristics of "rationality" equivalent to "individual rationality". I particularly refer to Duncan Black and Kenneth Arrow, and subsequent discussions arising from Arrow's thesis.

Individual and collective rationality also received important contributions from Marcur Olson and Douglass North, who suggested the concept of "rational ignorance" of individuals in collective actions and "transaction costs" in economic agent's decisions. The derivations and implications of these studies were:

- The lack of individual incentives to spend time and money in common society problems;

- Economic agents using "subjective" models – i.e., not necessarily understanding reality "objectively" - to explain their environment;

- Agreements or contracts imperfectly fulfilled ("incomplete markets" or "imperfect enforcement"), in terms of measuring and enforcing property rights exchange as originally agreed among agents; and,

- Emphasizing the possibility of minority to obtain huge profits with their specialization in certain public issues; issues that most people ignore and therefore cannot monitor.

Agency relations in collective decisions and the information asymmetries between principal and agent, emerge in this analysis. The evolution of these relationships is definitely more important due to the common existence of dominant Stackelberg-Nash

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[5] Details in http://en.wikipedia.org/wiki/Pericles.

[6] In Argentina its influence was crucial through Juan Bautista Alberdi, who designed the Federal Constitution (1853) of our country.

[7] Marie-Jean-Antoine Nicolas de Cariât (Marquis de Condorcet) (1785).

players, which in front of Condorcet dilemma scenario may be privileged to induce collective decisions towards their personal desired result. Therefore those acting as agents in public institutions enjoy a significant “agenda power”, being able to address common decisions according to its own objective function, but not the one based on “principal's function” which in a representative democracy is based on collective interest.[8]

The scenario is complex because in all economies there are multiple agency relationships operating in markets. As is the case of agency contracts on which not only governments act, but also a large number of private institutions representing multiple organizations: trade unions, labor unions, professional colleges, sport institutions, religious and not profitable organizations, etc. Each institution has leader agents with some threatening power to exercise their lobbying activities in collective decisions.

How to regulate, control or coordinate the actions of these agents, particularly those belonging to the public sector? The design of public institutions should answer this question.

The contribution of James Buchanan and Gordon Tullock (1962) and Institutional Economics (Public Choice) literature teach us how to achieve political stability despite the circularity in collective decisions. From this analysis arises the importance of designing stable or permanent rules (constitutional or quasi-constitutional). Such rules – generally identified by the term "governance" in public economic literature – are the ones that should be permanent, not the results arising from its application. “*Thank to the Lord there is not a permanent W function*”, J. Buchanan would probably say, thinking about the possibility that the lack of rotating results could consolidate a dictatorship of the majority on a permanent minority.[9]

The general principle behind every “rule” is to determine “limits” under which political activity should be developed. Its characteristic is to leave open the consequences that rules may have with respect to a possible individually identifiable position. That is Rawls’ “veil of ignorance” "we can determine a principle of justice for society if we imagine ourselves behind a veil of ignorance so that we do not know which will be our position in society in the future, so, probably, in that scenario we will choose a fair principle".

Representative democracies with the trilogy "democracy, republic and federalism" allows setting limits to political action and introduces incentives to benevolent actions of administrative power of the commons, by distributing the power of decision to the agents (Government) horizontally (the three branches of a republic) and vertically (the recognition of local and regional autonomy in a federation).

But the trilogy is not enough. Apart from the trilogy - the fundamental unit of social organization - other ad hoc institutions are also necessary to improve the operating rules and limits on government action. I mean the improvement of more specific procedural rules, some covered explicitly by the Constitution, as the electoral system and the regulation of political institutions – as well as the standards of transparency and

[8] See Piffano (2009) for an application of a simple example of game theory to explain the dilemma in the outcome of the 2003 presidential elections in Argentina.
[9] See Buchanan (2001).

numerical rules (macro-fiscal rules) – to secure a governance scheme that aims to maximize the proclaimed "general interest".

The dilemma we face in this design is how far to go with rules limiting government power or, until what margin or under what circumstances, allow government discretion. The extent of the "trade off" between rules and discretion will be finally identifying the ideological positions of the interpreter.

But the political class - despite their ideological differences - will very likely tip the balance in favor of discretion. Because politicians, due to their human nature, cannot fail to be economic agents and as such will try to take advantage of information asymmetries for personal gains in the political market, which is the more imperfect of markets. To expect a "benevolent attitude"- identified as the "Victorian style behavior" which is often cited as leading the conduct of officials and private executives during period of Keynes, many of whom chose to commit suicide after the crisis of '29 - seems today be extremely naive.

Morality, Institutions and Positive Analysis in Economics

In his lecture Professor Phelps formulated his aspiration for the U.S. to attempt to retrieve the "old morality" of the "American Dream". The "Moral" is that set of rules governing the behavior of a human being, in accordance with society and with himself; the permanence of these standards of conduct permit to establish "an anchor" or "big beacon" to identify people's behavior within the social group, and so, it generates predictability of their actions. This greater predictability means less risk and less uncertainty for each and every one of the members of the social group.

But these principles of greater permanence beyond the purely emotional and circumstantial ones are also influenced by changes in time; they are the result of cultural and educational processes that people experiment and absorb.

The change in people’s "morals" is significantly influenced by the ongoing government actions and the many private associations, who have historically attempted to model human behavior (lobbyists or interest groups).

These influences are not necessarily benevolent or good in many ways, and do not seem to be improved or, in some cases, balanced by the formal education system, as suggested by some authors. Such institutions are also subject to the actions of sector lobbies and naturally of the government, and the problem is finally how to conceptualize those "principles": if as "categorical imperatives" (Kant's version) or as cultural values that are created during the social process. In this case, as the generation of "principles considered good" depends on the system of rewards and punishments that will be faced, this position can be described as a kind of "utilitarianism of rules".

Brennan and Buchanan (1985), suggested that for many years there has been two hopes for the improvement of social life: one of them based “on the moral progress of man” (followed by different types of preachers; particularly religious) and another that relies on the “improvement of institutions" (also recommended by various types of preachers). The progress of human nature offers lesser hopes than institutional improvements.

Government changes, including governments' rotation, are one of the basic institutions to ensure people's freedom and its welfare.

Now, a final warning before going into the subject of crises, and the analysis of "reality" and economic models: the "positive" approach in economic theory addresses the analysis by avoiding the introduction of value judgments, so that the obtainable results may be qualified as containing "scientific rigor" and, therefore universal validity. However, we cannot avoid in economic theory the introduction of certain principles relating to the "motivation of behavior" of economic agents (consumers and producers), derived from what "the analyst observes" from the people actions and what he or she understands from the observation of the moral behavior of agents in the market.

For that reason, positive theory in economics cannot be strictly assimilated to the study of natural sciences. The "Positive Analysis" in economy must be necessarily based on paradigms that involve some subjectivity of the analyst, who will attempt to describe the facts and eventually predict their implications, in a constant work of "corroborations and refutations". An example is the hypothesis of "*homo economicus*" of neoclassical utility functions. Or the latest consideration of "altruistic utility functions" containing an argument, to which in previous paper I had identified as the "Mother Teresa component" in the utility function of individuals, where other people welfare really matters.[10]

Unfortunately it is not always possible to differentiate that subjectivity from the ideological positions that also influence the minds of researchers, a fact which implies abandoning the positive field to break into the field of normative economics or political economy.

We will return to the methodological problems that are faced in the design of economic models after addressing the issue of crises.

II - The issue of financial crises - or fiscal-financial - facing the world today and Professor Phelps' challenge

Models

The ability of present macroeconomic models and their microeconomic foundations to explain and predict economic trajectories designed apparently have not been successful. The unexpected surprises or, at least unpredicted by the models are interpreted as "exogenous shocks", and many complain about this and ask why economists do not develop models to contain all relevant variables (endogenous variables), once and for all, stressing, therefore, the lack of a suitable design for a more accurate representation of the markets, especially of financial markets.

Many economists have tried to explain crises. Why macroeconomic models fail to prevent crisis? As happened in the 30s and more recently in 2007/2008, with Lehman Brothers fall and the following domino effect.

The 1929 crisis had an academic and professional reference after its outcome: Keynes

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[10] Piffano (2012a).

and his General Theory. In short, his explanation run in term of the imbalance between supply and aggregate demand, due to the differential impact of the level of current income and the interest rate in the economy, the demand function for liquidity, posed by economic actors (consumers and producers), more beyond the needs for money arising from transactions in goods and services, and the presence of abnormal behaviors of actors (such as the "animals spirit") completed with the performance of economic aggregates identifying certain "herd behaviors" in the economy.

The conclusion was to recommend the State to act as a "cycle's stabilizer" in the manner of "compensatory public finance", as Musgrave would say; naturally avoiding any pro-cyclical behavior of governments. These policy recommendations seemed to be useful to get out of recession, although it appeared later to have induced, or give way, to wrong policies which enlarged the size of the states, and provoked growing fiscal deficits. This was accompanied with inflation generated by excessive monetary emission usually linked to the needs of government expenditure, over-bureaucratization, expensive and inefficient work, and excessive taxes - mostly falling on the backs of the middle classes - demanding pay taxes to support the unemployed and support an oversized bureaucracy.

This coupled with widespread welfare policies after the Second World War, including the growth of other expenses, such as defense resulting from the cold war, increased the size of government spending, and generated a level of rigid expenditure, leading to an expansion of committed (public debt) in the boom and implementation of desperate measures strongly pro-cyclical in the appearance of new recessive phases. This was exactly the opposite of Keynesian recommendations. In response to this widespread phenomenon in government's behavior, the positive theory of public choice expanded in the economic literature.

With respect to the 2007-2008 crises and the current situation in the U.S. and the EU, rescuing some ideas of some economists like Stiglitz (2011) and the "Stiglitz-critic" to the "Lucas-critic", I consider the diagnosis as "partially correct" but some policy recommendations are, in my opinion, "wrong".

First, the academic approaches that highlights the error of macroeconomic models by be based on the "ergodic theory" (Davidson, 2012). The economic-political-social world can not be explained by ergodic models, because the world is not ergodic; initial conditions are important; the "path dependence" is important and history "matters", in the same way that institutions "matter". Institutional approaches precisely highlight the passed story, people "learn" during that passed story; how were the rewards and punishments operating in each scenario? The point is that studies incorporating data from the past often neglect, for reasons of incomplete recording of data, aspects of realities or characteristics of the scenarios in which economic decisions of the actors have been taken at each time.

As a result a central concern appears regarding to ergodic theory dealing to the behavior of a dynamic system, when using it to run for a long time. The first result is the "the recurrence Poincaré theorem", which states that almost all points in any subset of the "phase space" eventually converge to the trend of the series.

The term "phase space" is a space in which all possible states of a system are represented, with each possible state of the system corresponding to a single point in the phase space. Therefore models such as the Walrasian do not respond adequately to the forecasts when one or some of the possible states of the system have not been covered and then, when they suddenly appear to exert their influence in reality there is the need to identify it as "exogenous variable" or "exogenous shock".

An important feature of ergodic systems is that the "average time" is the same for almost all initial points observed, but statistically speaking, any system that develops during a long time (very long term model) often "forgets" some initial states. This is an important circumstance limiting the validity of the dynamic model projections related to extended periods of time.

Based on the limitation posed by the ergodic approach, the “chaos theory” has been developed more recently, with applications to diverse disciplines such as physics, engineering, economics, biology and philosophy. This theory studies precisely the behavior of dynamical systems that are highly sensitive to initial conditions, an effect known as the “butterfly effect”. Small differences in initial conditions (such as the ones due to rounding errors in numerical computation) yield widely diverging outcomes for chaotic systems, which makes long term prediction impossible in general. This happens in every system of deterministic behavior, meaning that the future is completely influenced or determined by their initial conditions, and therefore has no random elements involved. Therefore the deterministic nature of standard models, as it was remarked before, does not make them predictable. This behavior is called “deterministic chaos”, or simply “chaos”.[11]

Despite the importance of these chaotic ads, modern dynamic macroeconomic models - accompanied by the “stochastic Bayesian method”, which complements the actual statistic data with experts opinion and data elaborated by the own analyst experience (like Keynes), and through a judicious choice of prior distributions of some parameters to be estimated - may still render very valuable contributions to economic theory.[12] Moreover, in the instrumental field concerning econometrics, also more recently, has been innovated with models using “neural networks” in time series, precisely, especially useful for analysis of financial sector series.[13]

With respect to time series for financial markets, in which behavioral asymmetries, volatilities, etc., are observed, linear regression models or autoregressive models are not suitable and required the use of a non-linear approach to the analysis of such series. This is the case of the “bubbles” in which gentle upward movements in asset prices are later followed by unexpected breakdowns. Thus, in the presence of these accentuated inflection points, the linear models can not capture or predict the future satisfactorily, hence the need for nonlinear prediction models.

The interpretation of the facts in the U.S. crisis

Paul Davidson - the renowned Post Keynesian economist - has criticized several Nobel Prize winners including Samuelson, Friedman, Lucas and also Stiglitz, by considering

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[11] For an introduction to chaos theory, see Alligood, K. T., Sauer, T., and Yorke, J. A. (1997); and, Anosov, D. V. (2001).
[12] See Escudé (2010).
[13] See Balacco, H. y Maradona, G. (2011).

that they are guided or "contaminated" in their reasoning by condiments of the "rational expectation approach" and the ergodic theory. But I think modestly that he exaggerates with his criticism.

The author rescues the Keynesian approach to highlight the importance of financial contracts through which individuals are covered of an "unmanageable or uncertain future cash flows". The purpose of negotiating the availability of liquid assets, traded in organized financial markets, is aimed precisely to provide a security blanket for an eventual single disability - by disregard the possible future scenario, because past data are lacking or they are no useful for projecting the future - to ensure enforcement of contractual obligations and honor future cash obligations.

Based on his "anti-rational expectation" vision, Davidson[14] does not accept the possibility that financial speculators agents of Wall Street were either "stupid" or perhaps acted so "innocently myopic" toward the future, in a Stiglitz approach, or perhaps that they did it in a corrupt way, possibility not forewarned by Stiglitz and not even mentioned by Davidson, who in his criticism refers specifically to ergodic models and the inability of the models used to predict anything.

In the past decades it happens that in the particular case of the financial market the modality of the famous "financial derivatives" and "structured loans" has developed. With an example let me explain what this means briefly. Suppose that an economic actor (Investor A) is authorized to contract a loan from a bank to buy a property by signing a mortgage, and then has the possibility to recover money by selling the mortgage to an investor B; this gives rise to a new financial asset ("mortgage derivative") called MBS (Mortgage Backed Security), giving birth to a practice that is identified with the concept called "securitization" of assets (asset securitization or title secured by an asset that supports it). Then the investor B can sell its MBS to a third party - Investor C - issuing another financial derivative called CDO (Collectivized Debt Obligation) - and, as if all this were not enough with "financial creativity", each of these "papers" can get insurance and so birth the CDS (Credit Default Swaps) that is, a insurance against a credit default - to cover the risk of each actor to not lose their money ("securitization without risk"?).[15]

Apparently, everyone wins and nobody loses, but the chain has two basic interrelated risks:

- That the original debtor fails to pay bank loan debt

- The actual or original price of the underlying asset (property) falls

The creation of derivatives therefore has a "systemic risk" when the behavior of economic agents operate as "herd" and they will do so if the money leverage opportunities offered by the market forecast so. The ripple effect from the creation of financial papers (derivatives) - where clearly someone receives money and other gives money, so that liquidity would not change except of course the initial impact in the chain that involves secondary expansion of liquidity by banks with the loans of the first

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[14] Davidson (2012), op. cit.

[15] See Navarro, E. P. (2002) for a detailed analysis.

mortgages. The risk arises due to the non-observable removal of the first mortgages and the eventual falling of real asset price underlying due to the increasing of real state sales.

As is known now, the structuring of financial derivatives was "progressing" together with the rise of “toxic loans” (the junior portfolio of derivatives, such as sub-prime); needless to emphasize, the higher risk or the lower titles values, and information hidden of imperfect financial markets, led to the bubble. When the initial mortgages loans failed to be honored and assets auction increased the offer of a wider range of properties, nominal loans values exceeded the assets values, making that the real underlying value chain and values losses became widespread and then bubble burst. The two basic risks outlined above had come true and “generalized”.

Examples of expansionist waves in the economy – cited in Alonso (2012) - should have alerted the possibility of future shocks when, for example, as was already happening for years contracts that have the soy as securitization asset of financial titles, reaching amounts that exceed 50 times the value of the oilseed, or corn on more than 30 times the value of corn. Or when the U.S. mortgage credit in 2000 was estimated at U$S 450 million and reached U$S 3 billion in 2006. Also when an acquaintance report released by Marianne (Attali Report, 2008), collecting data from the financial industry in Europe, alerted that financial sector was growing three times faster than GDP. When in Greece the borrowing that led to the current situation of default exceeded the amount of the annual gross production (approximately 113%), or in Spain when only private debt reached 220% of GDP, or when in Italy it reached a ratio of 120% compared to the same referent annual production, while the Stability and Growth Pact for countries members of the European Union had a ceiling of 60%.

In the Argentine case, the experience of the 90s, the dollar debt of the national government and the provinces, based on the guarantee of future resources from the federal tax-revenue sharing system was exceeded by governments' debt. A situation reported by our academic and professional work at that time and during our management at the Cabinet of Ministers (Jefatura de Gabinete de Ministros) in the negotiation of direct loans from the World Bank and the IDB to provinces, when I suggested unsuccessfully to introduce into agreements the "conditionality to Provinces" (macro-fiscal rules) as "trigger clause" to access to credit. This negotiation occurred without responsible Institutions insuring the collective interest evaluating the opportunity of a judicious intervention fixing limits to avoid the level of expenditures and investments eligible for funding "against nature".[16]

Expansionist policies: the "government sponsored enterprises", the regulation of the interest rate, the Fed and monetary issue

Expansionist policies implemented by the governments of the US (Democrats as well as Republicans) led to the financial bubble that was strongly reinforced through the housing policy.

In 1938 Roosevelt created the famous Fanny Mae (Federal National Mortgage Association, FNMA), which bought mortgages from banks and other secured titles. This

[16] See Piffano y Fernández (1998) and Piffano (2005), Nota 4 (Cap. 4).

allowed banks to grant more mortgages at lower rates. In 1970, the Freddie Mac (Federal Home Loan Mortgage Corporation, FHLMC) was created in order to grant loans and give guarantees. Freddie Mac packaged those mortgages and sold them as bonds in the markets. Fannie was privatized in 1968 but retained the guarantee of US Government support.

The mortgages and securities that bought these companies had to meet the “standard requirements”, but after 1992 they were allowed to buy mortgages “accessible” to the banks, which did not meet the strict controls required before. The Ministry of Housing and Urban Development - regulator of these two companies – “was required” to buy more of these mortgages. This pressure from the Clinton and Bush governments helped to create the “sub-prime market”.

As the sub-prime loans (junior) grew, caused increases in the interest rate (lowering the value of securities described above as representing the underlying real asset), and this, according to the government's political vision, threatened with a reduced level of economic activity, then the Fed decides to lower interest rates by purchasing assets and issue money, i.e. increasing liquidity.

But when the Fed expands money, to lower the interest rate by printing their own "little papers" that are supposed to represent an underlying real wealth (GDP), and thus ensure not missing payment means that the banks multiply (via secondary money creation), and also because it would help to create more consumption and investment, and that companies do the same in the form of future payment obligations (bonds) or expectations of future earnings (shares), etc., etc., creates a scenario of illusion or a "perfect party" (I don't know why this expression reminds me that movie the "perfect storm", ...but it's not the same, no?..., or is it?).

At the end, this "party scenario" or "festival scenario" generally induces and finally ends with the issuance of unbaked pieces of papers, that is secondary to uncontrolled money creation, along with the proliferation of "financial derivatives", which cause in all cases to relax income restriction, by effect of the "accumulated wealth" and the expectation of higher future income by leverage, both in individuals as well as in companies or in the Government. There are several ways then to create a "magical ability" to have funds at present that has no ties to a previous saving effort (deferred consumption or physical inputs required), facility that promotes abuses assuming risks while not acting in a disciplined and prudent behavior.

When Bernanke realizes the inflationary issue after the expansion of liquidity - money and credit - and the growth of financial derivatives structured with credits intensive in junior loans (sub-prime), decides to raise the interest rate to send a signal to the market. Mortgage rates also rose. Higher mortgage rates combined with lower values of properties due to general credit defaults, accelerated the crisis.

Conclusion: when the economy rides waves of euphoria in the markets by increasing alleged profits that provides future financial market, the leverage effect of the results generated by the use of credit seems to justify additional debts while transiting this scenario. Thus appeared the "herd behavior", which means a party at which no operator has to renounce to assist just to eat at least some cookies, unless he or she were silly. But just as all chains are finally cut, the poor "hapless" with little or no information when recklessly entering to the party, can finally be a strong headache and starve because the cookies will be over when he or she tries to take only one from the dish.

The due diligence and information asymmetries

The technical characteristics and the complexity faced in this analysis are considerable. And they are especially vast when measuring the gap between the academic and professional of operators' knowledge, those who are driving the financial business and offer financial contracts; and savers, who demand financial services and entrust their deposits or money and investments to banks and financial institutions. The reference is to frame the decisions within the larger issue of "due diligence", i.e. in the research (with due diligence or care) that a company or person should address prior to the signing of a contract as the ones described before.

In the now famous speech of Andrew Haldane, official of the Bank of England, cited by the financial analyst Ryan Chittum (2009), mentioned the dilemma of an investor to deal with "due diligence" its decision on a set of financial assets. How many pages of documentation a diligent investor needs to read to understand these products? For simpler products, for example, for an asset securitization fund (RMBS) the understanding is only possible by reading about 200 pages on average. But an investor in CDO^2 would have to read more than a billion pages to understand fully its ingredients.

In private contracts where the prevailing situation is the asymmetric information between economic agents, government regulation is necessary for the avoidance of fraud. In many activities where this asymmetry leaves open a possible immoral attitude of an agent and that attitude may cause damage to the life or property of others - such as the medical or pharmacological professions - the State must provide regulation to avoiding that behavior, with chords penalties on violators; beyond the activity of professional advice institutions controlling the moral behavior of its partners. Something similar must be set for the financial activity of banks and entities that manage citizens' saving.

But here comes up the dilemma of regulation: It should be instrumented by setting permanent limits to certain number of key variables of financial equilibriums, affecting macro variables of the economy (fundamentals). Not to be left open to the full discretion of occasional governments.

The principle is to generate a "genuine enforcement" of permanent regulations during the alleged "normal developments" of the economy, i.e. to avoid the crisis as "fait accompli", that will then require dramatic and unfortunately unavoidable rescues. That is, the institutional design is to prevent crises as accomplished facts, not just think about how to solve them once they have occurred. The recommended recipe - usually supported by government officials right away - we already know it. Indeed the political class is always alerted and prepared to apply the remedy very quickly, the premise is: "the *State must cure the disaster that markets generate, so let us go ahead with the bailout and increase public spending to recover the level of activity and employment!*"

Regarding the needed regulation, a list of questions

Having made the review of literature and describing the concerns at hand, let me make a set of questions and doubts emerging from the issue of regulation, with the hope that prestigious economists such as Professor Phelps - to whom we certainly respect - can help us to find the right answers.

a. Are we sure that the government will always have access to relevant information? Or should we “assume the risk” - like rational expectation approach does with self-regulating markets - that government have it, and so, place in the hands of government officials ample discretionary regulatory powers? Nowadays Argentina after the last reform of the Central Bank Charter goes by that way by expanding its discretionary powers, on monetary emission, the use of reserves for fiscal necessities, and having broad powers for financial market regulation.

b. Assuming that government have access to relevant information through sophisticated "and appropriate” stochastic dynamic models: what guarantees that facing the results of those models, the public official will behave according with the "Victorian morality" of Keynes’ time (benevolent government)? What guarantees that the cure is not worse than the disease?

c. More specifically, even for short and medium term forecasts: on which basis, or how, the Central Bank will interpret information observing the evolution of the “marginal risk” in loan placement?

d. How to define a standard interest rate evolution corresponding to a need for liquidity induced by normal growth in activity and/or, simply, due to a higher need for hedging of liquidity in people's pockets, and not due to growth of marginal risk of loans (measurement of a reasonable estimate of the expected recovery of loans)? Would it be consistent and prudent to reduce the interest rate by Central Bank regulation, encouraging the expansion of the economy after a prior increase in the market rate due to greater exposure to risk in loans? How to qualify daring to encourage saving with this type of risk and a low interest rate?

e. How to articulate a system of restrictions and controls, effectively and efficiently? If the shareholders of the banks - facing the risk of losing their capital - would not do it so effectively and efficiently by information asymmetries, could the State do it? How would operate in this case the agency relationship and the incentives scheme that encourage public officials? Moreover, given that interpersonal utility comparisons ("subjective") of profits in the economy are not possible, and the consequent limitations of criteria Kaldor/Hicks for a calculation "target" of any policy measure "Pareto-efficient", would not be useful to recall the suggestion of Buchanan (1983)? "If there are no objective criteria for the allocation of resources to be applied to certain purposes, a means of indirectly test for the efficacy of the exchange process - when exchange remains open and both coercion and fraud are not observed - is that the agreement reached under these assumptions, by definition can be described as efficient."

f. Regulating the financial and real estate business aiming economic and employment growth by the way of what happened in the U.S., with a policy of low interest rates and government sponsored enterprises (such as Fannie Mae and Freddie Mac), which were the original cause of the bubble? Would not have been better to explore the idea that the market was showing signs of alarm at the threat of capital loss by excessive exposure to risk, if the financial system had not "guessed" the "security" of a future bailout? Lending money to the State, by purchasing government bonds to be destined to such housing schemes, leaving open the possibility of slippage of equivalent amount of Government resources to other destinations, given the fungibility of money?

g. Creating a “global reserve system” as Stiglitz suggested? Should we think about a super-global Leviathan? Or of several regional little Leviathans? For example, in the EU, the Bundesbank as Central Bank with a wide financial (“and fiscal”) regulatory power? Is it not true that Stiglitz is confident that the regulation and control of national governments could prevent new collapses or crisis? If so, why to create a new bureaucracy for futures global bailouts? That cost would be less if all countries were required to have their own reserves; anticipating or ensuring ex ante a generalized bailout would be the best policy to encourage new high-risk behaviors. Has Stiglitz forgotten the basic theme of the insurance company with the “moral hazard” of the insured after achieving coverage? In this sense, moral behavior would not be the same by establishing a rule requiring each country to create a “reserve for contingent events” or a “anti-cyclical fund”, through precautionary reserves of National Treasures (not central banks), thus anticipating the possibility to governments of borrowing without limits (or setting limits, but not guarantee their enforcement); instead ensuring the bailout “of last resort” funded with money provided by third countries for conducts that can reasonably be described as no adhering to the principle of “due diligence”?

Finally, on this proposal, the ability to centralize monitoring and eventual rescue in a supranational organization, involves serious risks for the development of national democracies, because this organizations are controlled by national governments but not by voting citizens. The supranational body is composed of elected officials appointed by successive governments; citizens do not vote directly, although the leaders of each country are elected by democratic vote.

The agency relationship weakens by an additional step of the principal-agent system, which means increasing the distance between the social decisions and voters' mandate. Clear proof of this was provided by the two referendums of 2005 in France and Holland that had a very strong political impact in Europe that lost the attempt to enact a Constitution; however, this defeat was largely circumvented by agreements between Member States (Lisbon Treaty). In fact, two years after the political adversity, referendums became ancient history. The Lisbon Treaty (initially known as the Reform Treaty) of December 13, 2007, amended the two treaties that formed the constitutional basis of the European Union. The Treaty said that the goal was an “institutional improvement” to address issues such as globalization, climate change, demographic change, and energy security, and that with the Lisbon Treaty, EU's democracy would strengthened and improved their ability to defend everyday interests of its citizens. Questions:

- Does the crisis that crosses EU today can perhaps be awarded to the "global warming" or "sunspots"?

- The macroeconomic festive mismatches generated by state treasuries and financial markets are minor details?

- How should we understand the "institutional improvement" with this strong evidence?

  Europeans should review the virtues of federalism and the principle of accountability, particularly their advantages for the Leviathan control of central governments, beyond the harmonization of rules within the EU or global agreements to which they can arrive.

  h. About the Krugman/Stiglitz utopia of strengthening the financial system by providing credit to small and medium enterprises for development and industrial diversification, thereby offsetting the bad news of the "structural changes" today clearly concentrated in services in many countries. Additionally: "do not exaggerate and do not worry about a higher monetary expansion", Krugman would insist, minimizing the dangerous of inflation. Questions:

- Recreating a State Development Bank that despite the possibility to be co-opted can avoid concentration of economic power based on crony capitalism?

- Regulating and demanding to private banks credit lines with negative real interest rates (e.g. in Argentina with nominal annual rates of 14% or 15% in a scenario of inflation rates of 25% or 30%) and setting priorities for certain sectors or companies? Does it mean Central Bank losses or pass to private banks bear the loss? Or other agencies, such as ANSeS[17] in Argentina, that could fund the losses?

- "Assuming" once again in the manner of the rational expectation approach with markets, that the State have a system of audit decisions about the placement of such loans on the basis of serious calculations of profitability, based on social values or shadow prices, as should be, not only at market prices (with due diligence)? Officials in charge would be motivated by "Victorian tradition" (benevolence)?

  i. The industrial policy recommendations to facilitate the restructuring of economies (Diamand-Ferrer), suggested in past decades, arguing about the "unbalanced production structure", or what Krugman during the 90s pointed out, about the "greater dynamic external economies of some sectors". Questions:

- Does this mean removing unavoidable advantages in average returns between sectors that any economy has, where taxes and subsidies can hardly try to achieve a "balanced sectoral economy", i.e. with a vigorous "industrial economy" internationally competitive similar to that achieved by the agricultural sector in Argentina? What would be the welfare cost of such mismatches compared to international prices in the long run? These policies do not have been experimented for decades in countries like Argentina? How many decades these policies had been in force before Washington Consensus?

[17] Argentine National Social Security Administration of pension funds.

- How could one imagine a protectionist system for each country individually without implying the breakdown of the multilateral trade in goods and factors (including China and India of course), which were generated by the expansion of global capitalism with its impact on world growth no registered before, specially in emerging economies? Do we may think naively that countries around the world will not adopt compensation policies of protectionism, "at lower social costs" given its relative advantages in these sectors? Is there no way to compensating unwanted redistributive effects of globalization while minimizing the financial need of governments - as the Rawls suggestion, or better yet, as the Phelps suggestion, for example - without hampering trade and crippling growth?

  j. Maintain high public spending as is suggested by "welfare state approach" but even when the economy is in the expansion stage of economic cycle betraying the genuine Keynesian principle of "compensatory public finances"? Or even increasing government expenditure to revive the economy in recession, while leading to greater government financial need (public debt) with an initial delicate balance in its finances? Questions about this:

- The presence of deficit at the starting of this policy, does not imply avoid serious doubts in investors about of an unexpected breakdown in public finance? An investor do not need to make very sophisticated calculations - despite possible errors due to lack of perfect information - to distrust that fiscal policy will not be sustainable in the short term and, therefore, generate distrust of the long-term solvency of finance government.

Is it really true that in all cases the data from past years do not help, like Davidson suggests (based on his critic to ergodic theory)? Analyzing the economic history of Argentina one finds repeated evidence from passed years of mismanagement, or reckless driving of fiscal and monetary-financial policies and of the final crisis, which are reasonably predictable by the principles ("fundamentals") of rational expectations approach; Samuelson book is sufficient in this case for their comprehension. Recent crises in Argentina, like the "*rodrigazo"* (1975), the "*the planchette*" (1978), the "*hyperinflation*" (1989/1990), the "*Bonex plan*" (1990), the sequence of: the "*playard*" ("corralito"), the "*corralon*" ("corralón") and "*default"*; the "*pesification*" and the "*asymmetric devaluation*" (2001/2002); and now (2012) once again: inflation, pesification and the "*exchange trap*", with an open door for Treasury to obtain funds through issuing dollar bonds that banks can buy at official exchange rate and sell them in the capital market (if investors are willing to buy them, of course) like in Venezuela, and the measures that will come afterwards, that surely will confirm the fulfillment of negative outcomes of past experiences..

It should not call attention why the Argentine private sector prefers to save in dollars and foreign assets, and preferably without the intermediation of local institutions, whether public or private. Again, a single and similar explanation: the weakness and failure of the institutions, particularly the Central Banking for safeguarding the currency value, basic instrument of liquidity, creating by that way a security framework and signs of no overstep the line of recklessness.

k. A final question linking the first question (point **a**) with the previous one (point **j**).

Let's explore the possibility of a "new effect" that I have decided to call: "crowding out of second generation"?

Let's explain. Agreeing with Stiglitz, i.e. accepting that credit policy, in the new scenario, is as much or even more important than monetary policy, Governments may cause a "crowding out" effect of private investment not only necessarily through increasing public expenditure. Through the regulation of bank reserve requirements, interest rates and directing credit policy may encourage private spending of low productivity activities, i.e. directed toward nonproductive sectors of the private economy. That policy may cause, instead, the impossibility of access credit of many productive private marginal investments, either due to an increase in the interest rate or simply facing a capital-rationing scenario, despite discretionary regulations of interest rate by central banks. We would be facing a new form of crowding out, which may be qualify as belonging to a "second generation", though it has historical antecedents already experienced in the world (and in Argentina of course), in the same way that scholars on "fiscal federalism" discovered a new "second generation theory" (Oates, 2005; Zodrow, 2005); actually attributable to developments of the "public choice approach" in that field.

III - Final remarks

The questions and challenges in the present world scenario

The general principle for the functioning of a capitalist economy is "rules and enforcement" (rules and mandatory compliance of rules). And that means "rewards and punishments". In fact, it is not in the essence of the capitalist system provide bailouts for the errors.

There will be no genuine capitalist system if property rights and private appropriation of profits - resulting of an intelligent and honest financial management of that property - are not insured. But on the other side, if losses or penalties for errors or corrupt actions, are not imputable to the capitalist's action.

But what happens when a sudden and deep drop of economic activity occurs? As indicated at the beginning, even in most conservative ideologies seeking for a "little-State", must be accepted that, after any crisis, the State must do something. The scenario of an inevitable bailout arises.

Anyhow, the bailout should be aimed "only" to compensate those affected by serious errors committed by other economic agents, causing negative pecuniary externalities resulting from major flaws in the moral or ethical behavior thereof, of the type that usually monitor the Professional Councils and also Government agencies must done, in the subject under analysis the agency in charge of the supervision of the financial and banking system, usually the Central Bank. But, on the contrary, a bailout and the criminal forgiveness of the economic agents who committed the harmful error will condemn humanity to a destructive moral hazard.

But if there is no possibility of bankruptcy - because it is a Government or a significant player in the economy ("to big to fall") - must be a "substitute discipliner", because otherwise there will not be an "institution" to put "online" the individual rationality with the general interest (social rationality). How to find that substitute discipliner? This is the big question, difficult to answer especially for non-experts in finance and, particularly, non-financial entrepreneurs.

It is however conceivable to find experts in finance able to do it. For example, establishing "quality parameters and numerical rules" dealing with credit expansion and the issuance of "financial derivatives" and "structured packages" relative to the evolution of the number and size of loans relative to GDP growth; the equity of private capital and the "public debt" respect to growth and the evolution of the real resources of the Government, etc.. The history of the EU would be different today if they had complied with the limits set by the Maastricht Treaty, so the "agreement enforcement" failed. Effective sanctions on violators (with fines, losses of invested capital, contracts with "trigger clauses" for eventual subsequent restriction of new financial domestic or foreign support, etc.) were absent.

General information and data on financial markets in particular, are public goods that all governments should provide, as well as rules providing for sanctions against public officials for violation of this basic right of citizenship. The institutional challenge is superlative; in Argentina the fiscal responsibility rules, for example, were violated immediately after being sanctioned But that is not surprising, in the EU were also ignored.

Legislators and especially courts have a huge role in this story. New rules are needed, but also a "*manipuliti*" of new generation to enforce them. Whether due to improper behavior, or damages due to reckless or deliberate errors (corruption) of private or public sector actors, the penalty should be: confiscate all their impure accumulation of wealth, and assuring them a "consolation prize", consisting in a long vacation in jail.

Can be accepted that managers of U.S. banks and financial institutions, the Fed and government officials were not aware about the bubble, even when many economists alerted about this situation, but with no echo in public offices and risk rating institutions? Now, the financial system at present, what can we learn from recent new events? As the "fool error" recognized by the JP Morgan CEO (losses in the second quarter of 2012) - thus contradicting to Davidson -; HUD scandals, or the discredit of LIBOR case when Barclays recognized that officials tried to manipulate the rate? Are such activities audited with due diligence? Finally, will it serve as a remedy the "Volcker rule", limiting banks to invest only their own money?[18]

Must be take note that I have not been referring only to countries like Argentina and its shameful "sovereign rating note", with a peak (July 2012) of 1,400 bp, an Institutional Quality Index of order 122, over 183 countries (Krause, Report ICI 2012) and a BICRA (Banking Industry Country Risk Assessment), the risk indicator banking of Standard & Poor's, with an scale of 1-10, with 10 being the highest risk, which allocated 8 to Argentine financial system in August 1º, Brazil 4, Mexico and Peru 5, and Chile 3.[19]

A final answer to Professor Phelps' challenge

As academics or professionals - economists and lawyers gathered under the common

[18] This paragraph was written before the Standard & Poor's episode.
[19] Standard and Poor's (2012).

umbrella of Law & Economics - perhaps may not predict all the changing attitudes of the players (from both private and/or public agents), despite being in presence of "repeated games", behaviors that especially in the Argentine case seem to defy the Nash equilibriums,[20] but at least we will be able to contribute data, information, and ideas about discussions on economic forecasts; but community should not expect that economic models remove all risk and thus contribute to eternal happiness, and Professor Phelps knows about science's limits.

Unfortunately these science's constraints has given rise to unfortunate expressions, and a demonstration of a serious lack of knowledge in social sciences and economics particularly, like: "*If economists were right all time, all them would be rich*". Humbly, let's accept that hypothesis. And now let's suppose to turn that empirical verification of a cross-section of a panel data, corroborates internationally the hypothesis and reports the existence of "outliers", i.e., economists' not so poor or, exceptionally, rich, as usually happens. We may now anticipate the hypothesis that this small number of "outliers" will be strongly correlated with academic economists and professionals that give pro-nonsense-speech that uses the dominant political class (public and private) in many circumstances and countries. This result should be more correlated also with countries with Institutions of low (or weak) quality.

Economic theory will continue to provide models and overcoming methodologies, but always limited by the characteristics of all social sciences and the modest recognition that, as professionals, we can not eliminate "risk". In my humble opinion, along with that of many other economists, unfortunately there is no - and very possibly will not exist - a dynamic economic model sustainable forever, diagnosing and forecasting the future outcome of the economic behavior "without risks", but instead, a high probability that "new exogenous factors" frustrate once again the intent of endogenize or make all kind of variables or parameters endogenous.

However, despite the above criticisms and suggestions, as the one coming from Davidson, there are parameters of certain fundamentals that can not be violated and models based on the assumption of rational behavior are enough to identify high-risk situations, and possible results of public policies, alerting on vices of inconsistency of many private behavior and public policies.

Thus, institutional rules should limit the actions of public and private actors, very specifically because we are talking about universes with a non-negligible amount of imperfect markets. Unfortunately the political market is the most imperfect of all markets, and, now, let us remember that "the State" turns out to be the monopoly of greater weight in the economy, hence the controversy over "market vs. regulation", both ultimately subject to the actions of the Governments, faces a dilemma of difficult resolution.

Beyond the assistance requested from Professor Phelps for his challenge, let's ask the Lord to cover us with a robe of wisdom - academic - professional - and moral - in this world crusade.

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[20]Fontevecchia, J. (2012).

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